

THE DEVELOPMENT OF SMALL TOWN WATERFRONTS

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B.S., Kansas State University, 2001

A THESIS

Submitted in partial fulfillment of the
Requirements for the degree

MASTER OF LANDSCAPE ARCHITECTURE

Department of Landscape Architecture/Regional and Community Planning
Department of Architecture

KANSAS STATE UNIVERSITY
Manhattan, Kansas

2006

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ABSTRACT

This study focuses on the waterfront redevelopment process associated with small town redevelopment projects. The goal of this study will be to identify common and/or unique factors limiting and/or creating opportunities in the creation of small scale waterfronts.

Many waterfronts of today have evolved from the unfriendly working waterfronts of the past, to a post-industrial environment sensitive to users needs. With the inception of these user friendly waterfronts, many communities have experienced positive results influencing economics, community image, increased socialization in addition to many other positive attributes. Unfortunately, smaller communities looking to take advantage of these desirable features often lack the resources needed to incorporate a waterfront redevelopment. Many professionals involved in these unique projects are often challenged by the constraints associated with small scale riverfronts. The goal of this research topic will be to gain a better understanding, from a professional perspective, what issues challenge the redevelopment process and why these challenges often curtail small scale waterfront projects.

In an effort to better understand waterfront redevelopment, research involved background studies highlighting historical aspects, design, and implementation. In addition to background studies, case studies of the successful Owensboro and Atchison Riverfront projects were developed enabling the identification of key factors essential to small scale redevelopment. Furthermore, an annotated outline was developed as a guide for future communities to utilize as a foundation necessary in the successful implementation of a small scale waterfront redevelopment

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ACKNOWLEDGEMENTS

I would like to thank all of those who were a part of the guidance necessary in receiving my graduate education. Without the persistent support and leadership of those involved in my studies, my major accomplishments and desires in terms of education might not have been possible. I would specially like to thank my thesis committee team Rick Forsyth, Bob Page, and Ray Weisenburger for the time, guidance, and support required during the thesis research process. Most notably, I want to thank my major professor Rick Forsyth for the extra effort, time and resources spent in support of this research project.

This project would not have been complete without the help of several key individuals utilized during the research process. A special thanks to Paul Kissinger, Principle of EDSA; Kelly VanEders, Project Manager for HNTB; Karen Seaberg, of Atchison, Kansas; and Kelly Demeritt, City Manager for the City of Atchison; along with all others responsible in providing the essentials necessary for this research project.

I would like to thank my friends and family who have supported me throughout my long and tedious educational career. Without you my path to success might have been a much different route. I owe a great deal of thanks to those who strongly believed in me pushing my abilities to the next level, allowing me to accomplish all that I desire in life both professionally and personally.

Chapter One: Introduction

Research Objectives

Numerous communities today are growing an interest in the revitalization and development of waterfront corridors. Throughout North America cities of substantial size have implemented numerous developments with tremendous success and positive results further heightening the popularity of waterfront design. Unfortunately, smaller communities are often limited in resources and face unique challenges that hinder the actual implementation of these challenging redevelopments. This study will look to identify the challenges and critical issues associated with waterfront redevelopment, identifying key factors and creating an annotated outline helpful to other smaller communities interested in redevelopment. Furthermore, identifying factors crucial to redevelopment and developing an annotated outline of the redevelopment process, will hopefully aid planning a design professionals in understanding approaches and techniques useful in overcoming the hurdles necessary for success. With this in mind, smaller communities will hopefully utilize this knowledge as a tool to increase the development opportunities for waterfronts throughout the United States.

Relevance of Investigation

Many people perceive cities to be areas of high crime, filth, drugs, poverty, homeless and underclass citizens. Although these negative factors tend to be commonly associated with cities, attractive elements can also be coupled within these diverse areas. Such factors as: vitality, beauty, cultural stimulus, and a strong sense of community can all be linked to downtown environments (Breen, 1994).

Downtowns often are an area of opportunity to incorporate waterfronts, which are frequently associated with positive desirable results for a community. In the past thirty years North America has transformed waterfronts contributing to, and often playing a major role in continuous efforts to restore the centers of cities and towns to economic and social wellbeing (Breen, 1994). Communities looking to restore and revitalize the core of a downtown, in several cases, utilized the positive characteristics of a waterfront as a vehicle for achieving encouraging results.

Waterfront redevelopment in small cities can be an excellent catalyst for small community revitalization. The commitment or aim to develop healthy cities with vigorous central communities is as important in small towns as it is to the classic big-city examples. For every big city, there are hundreds of smaller cities pursuing regeneration. Today, smaller to mid-sized communities in America are experiencing a tremendous amount of growth and redevelopment, especially those with historic ties (Breen, 1994). With this in mind, the opportunity to utilize waterfront redevelopment as a tool for enhancing downtowns has never been better. Waterfronts, if properly pursued, can serve to bring communities together, enhance sociability, increase activity, and improve community image and pride.

Summary of Thesis Format

Chapter two consists of background information introducing the historical aspects of American waterfronts and the overall redevelopment process. This chapter focuses on the transitional changes experienced over time in and around waterfronts leading into the discussion of design principles and implementation. In particular, this chapter details the

redevelopment process introducing elements involved in predevelopment and development.

The methodology utilized for the thesis research project will be discussed in chapter three. This chapter involves necessary information useful in guiding this research project an addition to introductory information important in understanding this project. The following chapter includes critical operational definitions, an overview of the research design, and an explanation of data collection and analysis.

Chapter four consists of a case study investigation focusing on two successful riverfront redevelopments in Owensboro, Kentucky and Atchison, Kansas. Each case focuses on detailed information including: site history, master planning, and implementation. In particular, this chapter will discuss important areas of waterfront redevelopment such as public consensus building, site analysis, preliminary master planning, final master planning, and construction.

Chapter five consists of a case study analysis involving two case study projects. This chapter utilizes information obtained from research to identify major factors influential in the redevelopment process. In addition, a brief comparison and evaluation is performed useful in identify similar and unique approaches to project success. Finally, the chapter concludes research findings and limitations of research.

Chapter six involves an overview of the research project followed by a detailed annotated outline derived from case study research, ending with recommendations for further research.

Chapter Two: Background

History of the American Waterfront

Since the discovery of America, waterfronts have been the backbone of economic growth and prosperity for communities for many centuries. America's earliest cities were founded along coasts and shorelines where vessels transported people and goods by



Figure 2- 1: Coastal seaports (Wrenn, 1983).

the only means available at the time. Quickly North American cities began to grow along waterfronts creating a combination of overland and water networks serving as links to coastal harbors and inland ports. This complex network moved settlers west, developing new cities along riverfronts throughout the U.S.

The early settlement of North America was primarily tied to the location and accessibility of navigable waters (Wrenn, 1983). Oceangoing vessels provided the only means of transporting people and products to and from the New World. Early colonist began to dock their vessels and develop settlements in and around protected areas of the east coast. These new harbors provided safety and security in addition to easy access to the ocean and

navigable rivers. Anchoring ships in areas safe from harsh winters and storms of the Atlantic was of cardinal importance to early settlers. Prime areas included Philadelphia where the Delaware River stretched inland and the characteristics of the surrounding topography offered ideal protection and access which could not be found in numerous

open ports. Similarly, Charleston, South Carolina proved to be a location where vessels could anchor safely avoiding the inconvenience of having to drop anchor away from shore and use barges to load and unload (Fisher, 2004).

Throughout the eighteenth and nineteenth century, river cities developed into small inland towns such as Pittsburgh and Cincinnati and in some instances into large ports with ocean access as in the case of Philadelphia and Portland, Oregon. As economic activity increased, safe harbors evolved into fully functional sea ports, which as a result, stimulated growth in the surrounding region. With the increase of water traffic came more piers and buildings in addition to road networks to service the riverfronts. By the 18th century, five of the early major colonial settlements developed into small thriving towns: Boston, Newport, New York, Philadelphia, and Charles Town, each continually growing into more sophisticated ports and harbors capable of handling significant cargo-handling vessels and storage facilities.

Similar to the East Coast, the West Coast eventually began to take shape in the same fashion. San Francisco's first major pier was built in 1849, with San Diego's development of a commercial wharf the following year. West Coast harbors pattern of developed mimicked that of the East Coast, cities were formed based on safety and security and ease of transportation (Fisher, 2004).

Technological innovations such as the steamboat and railroads spurred urban growth along viable rivers and coastlines. These technological advances created opportunities for development in new regions of the continent previously viewed as inaccessible. The introduction of the steamboat and railroad benefited transportation by cutting shipping times and costs significantly in the early 19th century (Fisher, 2004).

Essentially, transportation and the commercial industry served as the driving force which shaped development, provided social interaction and influenced cultural life for many American cities. Unfortunately however, technology later would serve as the primary culprit responsible for the abandonment of waterfront property.

Decline of Waterfronts

Industrial waterfronts reached their peak in popularity by late 19th and early twentieth century. As the 20th century progressed a number of technological advances began to reduce the need for cities to be directly located along the waterfront. Most notably, changes in transportation and cargo-handling marked the beginning of the end for downtowns along waterfronts (Fisher, 2004). Prior to World War II changes in



Figure 2- 2: Boston Pier 1912 (Wrenn, 1983).

technology caused profound shifts in waterfront land use, laying the groundwork for the need of waterfront redevelopment. Waterfronts were slowly abandoned as the industrial revolution began to wind down. Factories and manufacturers either moved or became obsolete as the need for railroads declined. Downtowns began to slowly creep inland away from waterfronts, leaving behind unwanted waste and pollution.

A series of technological changes in American industry ultimately caused a widespread increase in abandoned and underused facilities along bodies of water (Breen, 1994). The United States began shifting to containerization of cargo, leaving behind the

predominant “break bulk” method of dock facilities. Modern containerization required larger spaces, more facilities and deeper ports to accommodate this new method of importing and exporting. Trucking and interstate highway systems became the primary link for cargo phasing out railroad transportation. The introduction of the jet aircraft shifted international travel away from traditional passenger ships, leaving cruise ship terminals vacant and airports full of intercontinental travelers. Likewise, ferries were left behind as more bridges and roadways were built increasing the desire for private automobiles (Breen, 1994). Aside from transportation, in the 1950’s a new type of community began to



Figure 2- 3: Tacoma, Washington Waterfront in 1930 (Wrenn 1983).

take shape, the suburb. Americans began moving away from the over crowded, uncomfortable conditions of the city to more pleasing environments found in suburban locations. Abandonment of urban waterfronts across the United States resulted in cheap land perfect for construction of highway systems. Locating Highways along waterfronts benefited cities by limiting the displacement of residents and businesses (Breen, 1994). Unfortunately, planners were blindsided by short term financial gains, not realizing the long term disadvantages of blockading waterfronts from the community. Many cities created enormous traffic barriers severing ties between the downtown core and the Waterfront. Philadelphia, Hartford, Louisville, Seattle and Cincinnati were among some

of the popular cities developing extensive highways systems along sensitive riparian zones (Breen, 1994).

Pollution of major waterfronts plagued the image of many cities waterfronts. The Cuyahoga River (Figure 2-4) in Cleveland was so saturated with harmful pollutants and it literally became enflamed in the 1960's (Breen, 1994). Once regarded as highly active social areas, waterfronts began to become undesirable areas unfit for gathering and visiting. The water's edge was no longer sociably acceptable, unfortunately becoming an unsightly area for many communities. Something needed to be done to rejuvenate the undesirable persona of the waterfront; cities began to take interest in redeveloping these liabilities into assets advantageous to communities.

Reclaiming the Waterfront

As early as the late 1960's, communities such as San Francisco, San Antonio, and Boston, Massachusetts, turned back to the waterfront



Figure 2- 4: Cuyahoga River in Cleveland, Ohio 1969 (www.case.edu.).

as a catalyst for

redevelopment. Sagging cities began to promote redevelopment for public recreation and open space, housing, retail and office space to spark economic growth.

Waterfronts in Baltimore, Boston, and Toronto are often credited as early leaders in the revitalization trend. By the 1970's local governments worked to reclaim their communities image by transforming the waterfronts responsible for the establishment of

their existence. Renewed attention to waterfronts has additionally sparked interest in historic preservation and a movement to revive urban cores. Aside from recent shifts in economics and transportation, other considerations have prompted urban riverfront development (Otto, 2004). Disrespectful of nature and natural systems, planners have begun to think more ecologically, pushing developers to be more sensitive not only to the community but to the environment as well.

Factors Leading To Change

The beginning of the environmental movement can be dated to 1970, when the Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) were created in Washington (Breen, 1994). Earth Day was founded signifying a change in the perception of land use and values, Americans became aware of the declining quality of the air, water, and land. Legislation began to enact federal initiatives which addressed air and water quality. In 1970 the Clean Air Act was initiated followed by the Water Quality Improvement Act (Fisher, 2004).

The deindustrialization of the waterfront, coupled with new environmental regulations led to significant improvements in water quality, thus attracting new developers and entrepreneurs. Brownfield development became a new trend which cities offered incentives for chemically saturated sites. Many former brownfields were revitalized into romantic parks, attractive residential units, and commercially desirable locations (Fisher, 2004). Aesthetically waterfronts were experiencing a transitional movement back to the vibrant centers they once were.

Several other factors additionally led to a new appreciation for waterfront development. Demand for recreation has steadily increased due to more leisure time, the

popularity of exercising and the growth of water sports (Breen, 1981). Consumers seem to enjoy outdoor activities associated with water such as biking, fishing, surfing, boating, in addition to visiting shopping centers and other retail outlets adjacent to waterfronts.

Federal tax laws introduced in the mid seventies created recruiting opportunities for cities to promote redevelopment in blighted areas. Entrepreneurs became enticed by the encouraging tax benefits for the rehabilitation of older structures, further increasing the attractiveness of investments in older vicinities. In 1976 and 1981 tax law changes enabled residential buildings near waterfronts eligible for tax breaks previously limited to commercial buildings (Breen, 1981). Tax laws became crucial tool in the revival of downtown cores and urban waterfronts, creating a much needed catalyst for economic relief.

The rising cost of commuting from the suburb to downtown coupled with attractive pricing of older homes in rundown waterfront districts, pushed movement back to the city. Waterfronts became prime locations for neighborhood renaissance. Since the mid seventies, more and more households began to shift towards single-person residents with no children (Breen, 1981). The need for sprawling backyards and more living space became less important to single residents more interested in the city life and careers establishment.

Waterfronts proved to be excellent areas for successful urban market places, consumers could purchase goods while being entertained by views and other forms of entertainment. Urban markets provided a variety of interests including outdoor vending, refreshing social interaction, and opportunities for outdoor entertainment. Several urban markets such as Ghirardelli Square in San Francisco, Boston, Seattle, and Baltimore took

early advantage of this unique retail experience which lured consumers downtown (Breen, 1981).

The Urban Waterfront Today

Many cities across the globe are striving to achieve the same objectives in waterfront development. Cities today are seeking a waterfront that is a place of enjoyment with plenty of physical and visual public access. In addition, projects today are geared to meet multidimensional demands, serving more than one purpose year round. The perfect waterfront in the eyes of the city and the user contributes to a better quality of life in all aspects including: economic, social, and cultural benefits (Fisher, 2004).

Often high expectations are expected in urban riverfronts today. Trend setters such as Baltimore, San Antonio, and Chicago have awakened the public to the real value of reclaiming the water's edge. Developing vibrant riverfront centers as a tool for downtown rejuvenation and urban sprawl has become a popular approach to solving development issues. The waterfront is an excellent opportunity for visitors to enjoy the water's edge, becoming familiar with its history, culture, and environment (Fisher, 2004).

Although several projects have paved the way for other cities to follow, communities must realize that each waterfront is unique requiring special planning to ensure proper customization to meet individual needs. Approaching waterfront development with a "cookie cutter" solution is not the answer in most instances. Experience has shown that the best plans for the urban waterfront, in most cases, stem from balancing interests and achieving scenarios which satisfy multiple parties. The idea

is to strive for an articulated overall vision, rather than settling for piecemeal solutions, especially in the case of small town waterfront redevelopment (Fisher, 2004).

Principles of Waterfront Design:

In the past few decades many cities have embarked on a journey to embrace the reconnection of the waterfront to the downtown urban core. Efforts have been made to redirect the public's attention back to the historical roots accountable for their very existence. Today, due to the continual change in technology and industry, cities have had to learn to adapt quickly, revolutionizing waterfronts to meet the demands of society. Cities across America and throughout the world have engaged in planning efforts intended to restructure the role of the waterfront, utilizing this unique space as an opportunity to promote new uses. Design of these distinctive areas often involves the challenge of creating solutions which promote a sense of place, provoke senses of emotion, and accent the dynamic character of the context.

Issues and Challenges:

Communities looking to refresh their image through redevelopment should be cognitive of the issues and challenges present in the creation of a development project. Often city governments neglect redevelopment efforts by making poor planning decisions based on financial and political objectives. In an attempt to conserve resources, communities have in the past resorted to the duplication of design elements found to be successful in other projects. For example, many communities have tried to replicate the successful formula of mixed-use development paying no attention to site specific issues and the surrounding context. Unfortunately due to the lack of identity and individual character, cities often experience failure in the redevelopment of waterfronts.

Each waterfront should tell a story which captures the true essence of each city's, history and context, image and character. When designing these interactive spaces, professionals must be aware of site influences such as physical, social, and economic factors important in the creation of an attractive project. Since the beginning of the waterfront redevelopment movement many challenges have surfaced which seem to have a strong impact in the success of waterfronts (Fisher, 2004).

Location and Timing

Location and timing of projects is a crucial determinant frequently overlooked. Redevelopment in any circumstance can be very risky, careful planning must take place in order to reduce the chances for failure. When locating a site or timing the development of a project, many cities make the mistake of rushing decisions, overlooking details important to the integrity of the development. For instance, the location of Baltimore's Inner Harbor is comfortable in scale, intimate, and located adjacent to the central business district. These three factors are the primary reason for the success behind this often replicated project. All too often, many communities ignore these details and attempt to recreate the projects formula of mixed-use development involving housing and retail. Unfortunately, the duplication of various project elements is a common practice among elected officials. Due to short term tenure, elected officials typically vision short-term goals often resorting to "quick fixes" in development solutions. With this in mind, many projects often backfire, resulting in poor design and planning decisions on behalf of the city (Breen & Rigby, 1994).

Accessibility

Accessibility is of primary importance in the design of all waterfronts. The lure of water and its ability to provoke sensations, stir curiosity and attract attention is often unexplainable. Regrettably in past efforts, the design of waterfronts has involved limited public access and blocked views. Physically in the past, accessibility has been limited, forcing users away from the water which has consequentially created an unfriendly public atmosphere (Breen & Rigby, 1994).

Learning from popular redevelopment projects such as Baltimore's Inner Harbor and Boston's Long Wharf, designers are learning to apply new ideas which have changed customary design standards of the past. Waterfronts have shifted to a more user friendly environment allowing visitors to freely traverse through the site uninhabited. Recent developments have taken advantage of the opportunity to allow users to build a relationship with the water, creating areas of interpretation and recreation which support the experience of the waterfront phenomena.

Liability

The fear of liability has repeatedly limited the experience of many waterfronts across North America. Cities have, in the past, been reluctant to allow seamless design, disrupting the natural transition from nature to urban development. Quite frequently, due to the risk of liability, municipalities have enforced the use of fences, barriers, walls, railings and other structures to enforce safety. Unfortunately, safety, although important, has altered the experience of truly understanding and expressing the natural character of waterfronts in an urban fabric. Water can be viewed as an inherent danger promoting the need for barriers and other structures, despite the fact that thousands of miles of

shorelines, paths along coastal cliffs, and other seemingly dangerous locations throughout the globe are unprotected (Breen & Rigby, 1994).

Environmental Concern

Waterfronts have always been areas of unique opportunity, developers, planners, and designers alike have been drawn to these irreplaceable regions for decades.

Unfortunately due to their high popularity, waterfronts have become highly impacted areas of insensitive use ultimately altering the natural environment. Urban waterfronts are subject to a host of environmental issues and challenges (Breen & Rigby, 1994).

Toxins left from previous industrial plants continually plague redevelopment efforts.

These abused sites often require the costly removal of toxic waste and other substances often restricting the appeal of restoration and redevelopment. For instance developments such as Kansas City have been completely sealed off and posted as dangerous to public health. Similarly, Seattle's acclaimed reclamation of Gas Works Park experienced trouble when black sediments containing polynuclear hydrocarbons began to surface throughout the site. Cleaning of these residual chemicals is a costly process. Allied Chemical Co. on Baltimore's Inner Harbor required a \$60 million dollar cleaning investment to allocate more land available for development. Today, sites are routinely subject to strict testing and boring in order to identify possible harmful chemicals prior to implementation (Breen & Rigby, 1994).

Climate

Frequently located along shorelines, waterfronts often experience turbulent weather putting them in areas of high risk. Natural disasters such as flooding, hurricanes, and Tsunami's continue to threaten these highly attractive locations. With this in mind,

the design and development community must take into account factors which emphasize the importance of effective safeguards within the realm of the design community (Breen & Rigby, 1994).

Elements and Considerations of Attractive Design

Waterfronts that stand out the most are those that have found their own special identity (Fisher, 2004). Many waterfront cities may contain superficial similarities; however each is unique in its own specific details including physical, geographical, economic, and demographics characteristics. There is no direct approach in the design of waterfronts. Cities can learn and implement elements from other projects; however, a successful design requires special attention to the overall context of the site. Each project is different in its own kind. Members of the planning and design community must approach waterfront projects with a broad perspective of solutions which combine new and old ideas coupled with local initiatives and finances (Breen, 1981).

There is hardly a waterfront without a story to tell, an attraction to exploit, or an experience to offer. This chapter focuses on considerations found to be important in the design of attractive waterfronts. With a strong understanding of the historical influences involved in waterfront development, this chapter will now build on desired elements and considerations which should be apart of any fine project.

Undoubtedly, there are numerous elements and considerations to address when planning and designing a waterfront development. Before diving directly into the specifics and individual details, a checklist of important characteristics which intensify the memorable qualities of a development has been outlined. Special elements and considerations which designers and planners should address include:

- Design of each project should recognize the intrinsic qualities of each site.
- Barriers to all waterfronts need to be removed, not to be replaced by inward-facing complexes or large inactive open spaces.
- Reinforce features which recall the underlying structure of the landscape and strengthen spatial form and identity.
- Create numerous linkages to the waterfront with multiple interests for visiting the location.
- Although historical references are insightful, attention to communities economic and social diversity adds character to the waterfront, change and adaptation are of greater value than historicism.
- Multipurpose modes of transportation corridors should be designed at the water's edge.
- Infrastructure improvements should be designed to serve multiple purposes simultaneously.
- The city should extend to the waterfront, affording a mix of urban uses, especially in residential developments.
- In the same sense, the waterfront should influence inland uses serving to establish greater amenity and value for redevelopment.
- The transitional zone between land and water should be carefully designed with care and consideration, allowing urban dwellers to sit, play, sight see, and move freely through the space.
- Waterfront architecture should be permeable and balanced allowing open views and access from multiple directions (Fisher, 2004).

Obviously when designing a development there a number of issues which must be addressed. More specifically designers must face the task of carefully designing a project which fits seamlessly into the context, emphasizing existing and proposed elements. Elements which are typically influential in the creation of a good design often include, but not limited to: the establishment of meaning and identity, the ability to extend uses to and from the waterfront, architectural influences, transportation and movement, creating a sense of place and appealing to human senses.

Meaning and Identity

Although full of historical precedence, meaning and identity is an aspect which is often difficult to create. One of the first challenges of a redevelopment project is to develop a new meaning and identity. Marketing these projects in an attempt to establish

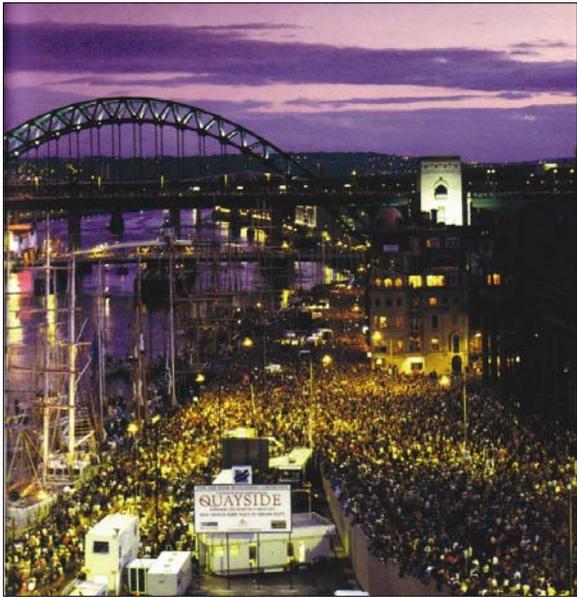


Figure 2- 5: Newcastle Waterfront with the River Tyne Bridge in the background in Tyne, UK (Breen, 1996).

an identity which attracts new users and rejuvenates old spaces is a common tool useful in redevelopment.

Earlier projects of the 1960's and early 70's were instrumental in raising design standards and introducing new activities to waterfronts. Unfortunately due to their success these projects have been produced in mass creating a sense of monotony in the design community.

In an attempt to raise social status, concerned communities have made several advances in recreating popular elements, reducing the appeal of waterfront developments. Whether

it is financial or political, designers and planners are still incorporating prepackaged designs which fail to attract new meaning and identity (Fisher, 2004).

Identity can be accomplished in a number of fashions. One sure method of raising the popularity of a development is to attract thousand of visitors through public and special events as seen in the Newcastle Waterfront in Tyne, UK, figure 2-5. Special events can initiate



Figure 2- 6: Hamburg, Germany (Breen, 1996).

a series of intermediary changes capable of establishing new traditions and help bring new meaning, activities, and identity to a development project (Fisher, 2004). One of the major advantages for public waterfront projects is the idea of creating neutral territory for

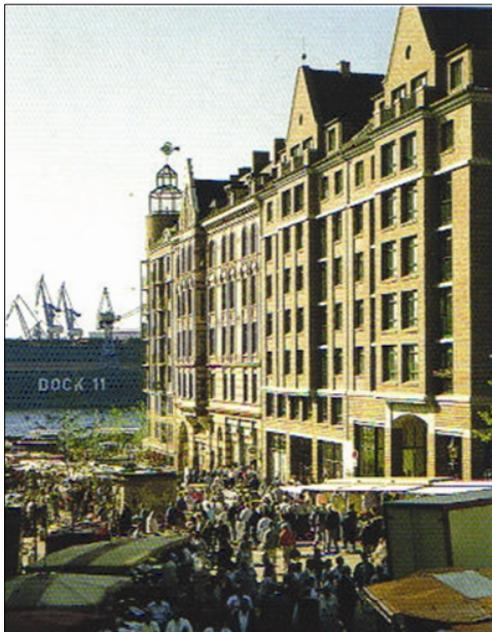


Figure 2- 7: View toward the Elbe River with cranes in the background Melbourne, Australia (Breen, 1996).

festivals and other community gatherings (Breen & Rigby, 1994). Cities are beginning to recognize the value of hosting a parade, bicycle race, festival, celebration, or market as an instrument for changing the image of a place and initiating the process of adaptation to new urban uses (Fisher, 2004).

Extending the Urban Fabric

Introducing a mix of new activities and uses is an effective approach to revitalizing an

urban development, making it a vital part of the city. Extending the urban fabric to the waterfront can challenge any project; public policies and zoning often restrict extension of uses or multiple use environments. Single-use developments are often hard to sustain, occasional events and activities are not enough to support a waterfront. Experience suggests the idea of mixed-use developments supported by year-round events and activities.

One of the largest mistakes in development is allowing the excitement of the waterfront to only be experienced at the water's edge. Often buildings are introverted, only promoting private space rather than welcoming visitors with public open space and accessibility. Architecture quite frequently faces the waterfront, turning away from the city closing off ties through gated communities and closed views. Many developments claim the water's edge as their own exclusive domain, limiting the experience as a whole.

Concerns in the past over low residential developments consuming large areas of space have shifted to developments which encourage higher densities. In particular, urban residential housing should be more publicly oriented, attracting large number of residents and guests, as well as activity to the waterfront. A sense of neighborhood can be established in higher density developments through open design schemes which allow visitors. For example, residential buildings which open first floors to commercial use, allowing visitors to enter from both the urban and waterfront corridor are a common solution to opening up a waterfront development as seen in the Fish Market in Hamburg, Germany and Melbourne, Australia figures 2-6 and 2-7. This approach can be conceived as a part of a larger urban pattern allowing the public to seamlessly travel through the urban environment uninhabited. Creating strong visual and physical links, stepping down

architecture, and allowing public access through new vibrant neighborhoods can aid in creating a strong link back to the downtown core. In addition design and planning which respect inland views and public access can also help to reunite the waterfront to the city (Fisher, 2004).

Architecture and Existing Infrastructure

The water's edge often consists of impressive scenery and unimaginable views which mark a perfect location for some of the world's most compelling architecture such as the Sydney Opera House in Australia, figure 2-8. Each waterfront possesses a unique setting of its own often determined by the arrangement of physical elements in an urban setting. Each individual piece of architecture represents a gateway into the city, shaping the image and character of the waterfront. It has been said that people appear to look better next to water; undoubtedly, the same can be said about architecture. In this unique environment the water's surface echoes adjacent vertical elements, acting as a canvas for highlighting architecture and painting a distinctive scene of a city (Wrenn, 1983).

Without a doubt, architectural features along beaches, boardwalks, promenades or any other type of development should be carefully planned and designed to take full



Figure 2- 8: Sydney Opera House (Breen, 1996).

advantage of the surrounding setting and unique personality along the water's edge.

Good design and planning welcomes visitors from both the urban and waterfront corridor, creating a balanced façade in multiple directions.

In urban environments designers and planners must be cautious of image and accessibility when placing architectural elements adjacent to such a powerful surface as the water's surface. With this in mind, professionals must consider the footprint and



Figure 2- 9: Aerial view of Boston's Rowe's Wharf (Breen, 1996).

heights of buildings, paying careful attention to the overall impact on the vision and experience of the space. In many cities, height regulations have been enforced to preserve open views and limit developers from closing off the waterfront to the public. Regulating heights can be beneficial in preserving

views; however, interest and character can be established when allowing diversity in building heights creating an interesting composition at the water's edge as seen in Boston's Rowe's Wharf figure 2-9. Many cities, especially in North America, have developed buildings with minimal variety and interest, creating a homogenous appearance ultimately affecting the overall experience.

Furthermore, lowering building heights has resulted in larger footprints which occupy more space and limit the ability to incorporate public spaces on the first



Figure 2- 10: Multi-family building with residential above street level shops & restaurants (Fisher, 2004).

floor. Buildings with reduced heights often limit public access and are designed inward to

create more of a private atmosphere along the waterfront. Taller buildings, such as those seen in figure 2-10, allow designers to limit private locations to elevated spaces such as terraces, balconies, or rooftop plazas allowing multiple uses of both public and private to inhabit the space. Contrary to conventional wisdom taller buildings are not necessarily more visually obstructive than lower architecture. A great example of this can be viewed on Vancouver's northern waterfront, where the tall buildings and smaller footprints have formulated an essential urban neighborhood crucial to the success of the development (Fisher, 2004.)

Transportation and Movement

Aside from identity, transportation is an important element which can make or break a project in terms of function. Although typically viewed as a negative component, various modes of transportation can be a welcoming addition to any waterfront. Whether on land or waterborne, transportation is an integral part of any urban waterfront. To deprive these areas of activity and movement would ultimately destroy the very essence which gives it life. Dating back to the historic role of the waterfront, transportation has always been the center of movement of people and goods. With the onset of cramped freeways and increased air pollution, technology has improved waterborne transportation providing a faster more energy-efficient and environmentally friendly alternative to automobiles. Traveling by water has recently experienced an enormous amount of growth. Recent disasters such as earthquakes and the destruction of the world trade center have highlighted the importance of waterborne transportation. After these terrible events, water was the only reliable means for commuting.

Apart from being environmentally friendly and reliable, travel over water can be highly pleasurable. Commuters can experience expansive views, enjoy the impressive façade of the city, and avoid the stress of driving allowing passengers to relax and take pleasure in the experience of the ride (Fisher, 2004). Alternate modes of circulation can offer new and exciting dimensions to a development which increase popularity and enhance the experience.

Designing for transportation and circulation within an urban context can often be challenging, designers and planners must respect existing conditions and meet the needs of new and proposed features such as in the Kuching Waterfront in Sarawak, Malaysia, figure 2-11. Circulation design should be based on approaches which fit the appropriate size and scale of the site and its facilities (Fisher, 2004). Designers should carefully study user needs and desires, assuring an adequate and efficient means of movement through a site without damaging the visual character of the waterfront. In addition, waterfronts should offer multiple types of

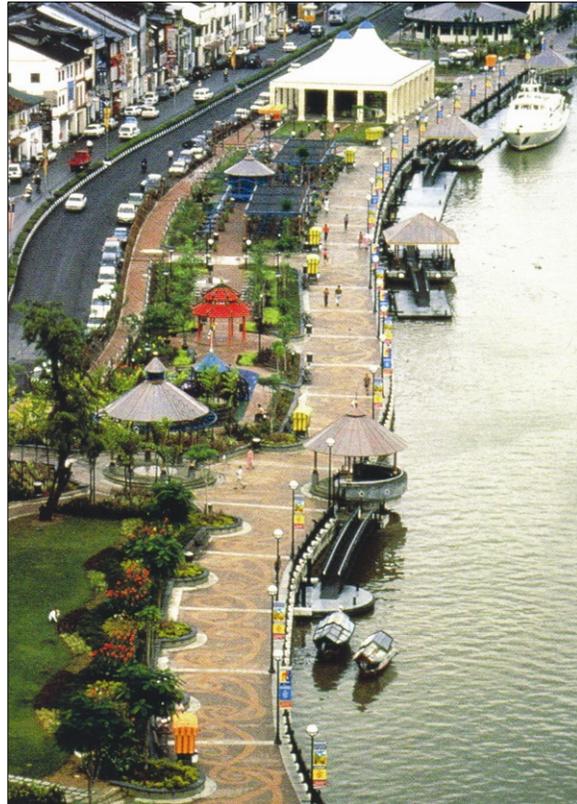


Figure 2- 11: Promenade feature among the Kuching Waterfront in Sarawak, Malaysia (Breen. 1996).

pedestrian and vehicular transportation such as walking, bicycling, automobiles, ferries, buses, and light rail. Water transportation corridors need to provide adequate space for

all applications of circulation and should be located in public areas of mixed-use in order to be successful (Fisher, 2004).

Sense of Place

Transportation is an important element of attracting users to a space; however, once visitors reach the waterfront, it is crucial to create a sense of place in order to keep visitors coming. Creating a sense of place can dramatically enhance the value of a waterfront project. Establishing a sense of arrival and movement which generates the feeling of eagerness, anticipation and excitement are essential emotions important in the establishment of identity. Designing waterfronts must incorporate elements which pull the public through the design, creating areas of interest which accentuate the feeling of place. Not only must a design encourage movement through the site but also create a sense of arrival or a destination in itself. Open space is very important in establishing a sense of place. With adequate open space, the public perceives the waterfront as a public place attracting more attention and uses. Open space can be very convincing allowing the waterfront to not only read as a public place but also provide the opportunity to truly become one, thus creating the opportunity for a sense of place (Fisher, 2004).

Sensory Experience

Since World War II Americans have shifted their time and effort to focus more on leisure and relaxation. Since the deconstruction of the working waterfront and its service related appearance, waterfronts have additionally experienced a transition paralleling efforts to accommodate these changes. Today, waterfronts have become friendlier in appearance offering a more approachable atmosphere to live and play. Visitors today can

expect a multifaceted facility which not only provides jobs, but welcomes recreation and new uses appealing to need of the public.

Provoking people to engage in a variety of experiences whether they are grouped or individual, can not only create visual and symbolic meanings, but also embrace sensory qualities of the environment. The sensory experience is key to enlightening the



Figure 2-12: Barnaby Evan’s *Waterfire* in Providence, Rhode Island (Fisher, 2004).

spirit and emotion along the transitional space of a waterfront development (Fisher, 2004).

Sense’s can be heightened through a number of approaches which accentuate the environment.

Senses such as physical interaction can often be seen through

swimming and bicycling, sharing an emotional moment of intimacy with a loved one in a private location, watching wildlife such as bees flying wondrously pollinating flowers can all be apart of a memorable experience stimulated by emotions.

Well designed developments heighten the sensory experience and embrace the natural and manmade features of the surrounding environment. A great sensory experience can be seen in public art such as Barnaby Evans’s *WaterFire* in Providence, Rhode Island, figure 2-12. Essential features are expressed simply, allowing the place to reveal it self and to be discovered by visitors on their own terms. Waterfronts should be both engaging and flexible, offering multiple dimensions of meaning, allowing an individuals imagination to wonder as they interact with the space. No waterfront should

be designed around one purpose, rather, allow room for a multiplicity of purposes and meanings, allowing the space to change, adapt, and gain value over time (Fisher, 2004).

Waterfronts have been subject to intensive development efforts for ages, no other area within the urban realm has experienced more change and transition which is continually subject to high demands and expectations (Fisher, 2004). With this in mind, no matter how unique and exciting a waterfront project is, success ultimately depends on how well it functions within the context on all levels. Whether it is creating a sense of place, solving circulation issues, or provoking senses, good design requires the capacity of handling multiple levels of function at all times. These important factors are issues which any good designer and planner must address when ultimately achieving the goal of a desirable waterfront acceptable on all levels of implementation.

Implementation

Introduction to the Development Process

In an ever changing environment continually experiencing the highs and lows of demand, waterfronts have commonly become areas in need of redevelopment. These once thriving locations now abandoned and unappreciated, have in many locations lost their appeal. Today, many struggling communities have turned to waterfront renewal as a catalyst for new development in hopes of an economic boost. With a continual decline in port-related activities, neglected infrastructures, and changes in environmental quality, waterfronts have become a growing concern for many cities. Numerous cities are now challenged with implementing new developments which require political support, adequate organization of finances, and public approval. Starting a waterfront project requires money, land, power, and vision (Fisher, 2004).

Design and development adjacent to the water's edge is typically more complex than most areas of community development. Despite the recent underutilization of these limited spaces, waterfront renewal developments commonly face complexities which complicate these otherwise simple projects. In order for any project to be completed from planning to implementation, each project must embrace certain qualities common in waterfront renewal. Such requirements include:

- The capacity to find a site suitable and feasible for development.
- Access to capital required to purchase land and to design and build the proposed project.
- The ability to seek permit approvals such as zoning, design regulations, street and highway access, environmental clearances and other public approvals needed for development.
- The capability of accessing public services such as water, sewer, gas, electricity, roads and other necessary infrastructures.
- The ability to acquire potential buyers or leasing agreements within the newly completed space at a price which will attract investors and cover cost in a timely matter.

Meeting these requirements is an essential part of completing a large or small waterfront project. These basic needs are the primary tools necessary for attracting new development and enabling the implementation process (Wrenn, 1983). Missing any one of these crucial factors can greatly increase the complexity of the project and reduce the chances for initiation.

Aside from fulfilling basic needs, waterfront development additionally requires excellent management on the part of all parties involved. More so, the primary developer or organization whether public or private, is typically the primary force responsible for overseeing all phases of the development process in a waterfront project. The developer is held accountable for the task of creating a reliable and collaborative management team which is efficient and expedient in all processes of development. Without a productive and well equipped development team or organization, waterfronts would be left for extinction. Developers oversee the everyday activities and complexities associated with the development process such as: production, cost control, resource allocation, scheduling and public relations (Wrenn, 1983).

No matter how large or small, simple or complex a project may be, the waterfront renewal process often experiences the same basic development process. The development process consists of five primary stages which include:

Predevelopment.

- Project planning and initiation (the process of carrying out an idea to the implementation stage).
- Analysis (market, planning and design, and financial).
- Project packaging (obtaining formal agreements and approvals).

Development.

- Project implementation (financing, leasing, design, and construction).

Postdevelopment

- Project management and maintenance.

The development process consists of three primary stages of production, however the development process in reality is much more complex and in depth than noted above. Figure 2-13 below, is a simplified overview of the development process from start to finish (Wrenn, 1983).

Figure 2- 13: Development Process (Wrenn, 1983).



The predevelopment stage of waterfront development often begins with an idea, an opportunity, or a need for redevelopment. These preliminary conceptions can be built upon and refined eventually leading to implementation and construction or in most cases put aside for another time. Communities who are serious about a project get the ball rolling by initiating phase one of development. The first phase consists of duties which include: project planning and initiation, analysis, and finishing with project packaging. These elements within the predevelopment phase are directed toward identifying opportunities, developing and testing strategies, programming, and securing agreements between public and private interests.

The first task of predevelopment is known as project planning and initiation. The nature of this initial phase involves defining the project and its parameters and the type of development entity best suited to implement the project. The second element of predevelopment is to conduct careful analysis of economic, environmental, financial, social, political, and regulatory factors. Following a thorough analysis, the development

process moves into the final task of predevelopment, known as project packaging. Project packaging finalizes all predevelopment necessities by working out preliminary commitments and negotiations which position the parties involved to finalize a development plan.

Project Planning and Initiation

Development Entity

Clearly the establishment of a development entity varies from project to project. Each city's unique political and legal structure undoubtedly can influence the type of developer suitable for a redevelopment project. To aid in the initiation of waterfront planning and design, many cities have turned to low budget assistance which has proven to be a beneficial move rather than the traditional municipal/private relationship (Breen, 1981). In the past, cities have utilized a variety of popular development methods key to managing and overseeing the redevelopment of a project.

Waterfronts have been strongly associated with five popular development entities typical of these types of developments. Popular development approaches often utilized by cities to oversee and handle the development process include:

- Waterfront development committee.
- Private development corporations.
- Public/private development ventures.
- Port authorities.
- Quasi-public development corporations.

A waterfront development committee is often viewed as the simplest organizational structure utilized in managing this area of development. These

organizations typically consist of regional planning, advisory, or regulatory bodies which are capable of handling debates over initial plans and coordinating limited planning and infrastructure projects (Breen, 1981). In the instance of large scale redevelopment or long-term planning, development committees often lack the power to acquire land ownership and access to revenues needed to initiate a waterfront. For Example, councils



Figure 2- 14: London’s Dockland Waterfront (Fisher, 2004).

such as London’s Dockland Joint Committee (figure 2-14) experienced minimal success in redeveloping this complicated urban waterfront. Multiple stakeholders made progress difficult do to the safe guarding and control over ownership and access to the waterfront (Fisher, 2004).

Municipalities limited in development experience and resources often employ private development corporations as a means of handling small waterfront projects. Typically cities with limited expertise will resort to this type of developer. Cities involvement is frequently limited to the creation of plans which requires local private corporations to compete for these smaller projects.

Private developers are an excellence source for small scale projects, however in the case of larger projects of multiple phase, cities might choose to go with a master

developer. Master developers are much more sophisticated in structure and much more experienced in handling large complex redevelopments (Fisher, 2004).

Public/private ventures are a useful alternative for cities to consider who have limited public and private agencies without the resources needed for this type of project (Breen, 1981). In addition, when dealing with the public sector, public/private partnerships are a great method for involving public input and involvement necessary in most redevelopment projects.

Public/private organizations are capable of handling multiple types of projects and have been useful in many moderately sized waterfront redevelopments of limited phasing. Over the past 25 years numerous projects across North America have been

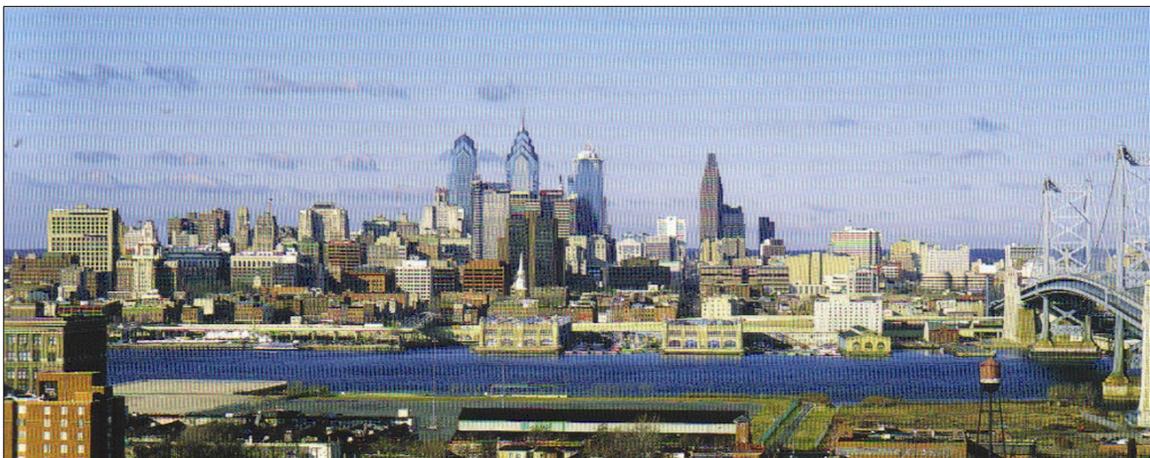


Figure 2-15: Riverfronts of Philadelphia and New Jersey sharing the Delaware River (Fisher, 2004).

subject to this form of management. Arrangement typical of this type of organization include real estate joint ventures, tax increment financing, and the donation of land and infrastructure through negotiations with the public (Fisher, 2004).

If public/private entities are not an option to consider, another popular organization with numerous project experience is local port authorities. Traditionally port authorities have focused interests on maritime and industrial activities which have

unfortunately limited the revenue potential of many waterfront sites. Recent developments however, in cities such as Long Beach, New York, Los Angeles, San Francisco, Boston and Seattle have experienced substantial revenue due to changes in the once narrow minded organization. These highly independent structures are capable of producing their own sources of financing and have the power of eminent domain. This method of management is well suited for large scale projects which are often victims of funding and boundary constraints (Breen, 1981). Port authorities can be extremely helpful in handling sites of multiple political boundaries. For instance, port authorities were responsible for the creation of the waterfront which shares the Delaware River with the cities of Philadelphia and New Jersey (figure 2-15). Projects subject to political and legal boundaries often complicate matters which ultimately slow down the development process. This method of development is often the only organization competent in multi-jurisdictional developments (Fisher, 2004).

Unfortunately it is common practice for city governments to require developers to go through lengthy approvals which more often than not hinder the development of most public projects. Procedures such as these typically restrict project initiation, complicate the decision making process, and lengthen the overall process. With this problem in mind, many cities have resulted to a hybrid form of development which combines the desirable benefits of both public and private development organizations. Quasi-public development entities have become an innovative approach to waterfront renewal, proving to be a successful vehicle for redevelopment. Quasi-public organizations offer a flexible management structure avoiding the pitfalls of public agencies and highlighting the benefits of private entities (Breen, 1981).

No matter the method, the most effective agencies begin with a proactive board,



Figure 2-16: Battery Park site prior to construction (Breen, 1996).

well equipped staff, and an entrepreneurial executive. Any agency involved in the development process must have strong consensus-building skills and a sturdy knowledge of local

values and processes. In any instance, cities must be primed to handle the enduring effort of planning and project initiation. It is not uncommon for planning initiation to last five to ten years, as in the waterfronts of Boston, New York, London, and Toronto (Fisher, 2004).

Project Proposal

Once the need for waterfront renewal is recognized and a developer is found, participants must then create a concept for the project. Participants associated with the project should consult with planning and design professional in the creation of concept drawings. Concept development is a crucial tool for identifying a projects goals and objectives in addition to highlighting the development potential of a redevelopment. The conceptual process pushes the developer to define general characteristics of the project which set guidelines for site selection. Site selection involves elementary studies for site suitability, setting the scale of the project, projecting capital requirements, and researching potential sources of financing.

When locating a potential site for development, agencies must consider factors which impact the opportunities and constraints of a waterfront proposal. Battery Park for instance, was a major challenge for the City of New York. The site chosen for this well known project required creative planning and design on the part of the developer to overcome major circulation restrictions as seen in figure 2-16. Developers must be aware of several factors when choosing a site including:

- Physical relationship of the site in relation to surrounding transportation patterns and active urban centers.
- Cost of land acquisition, clearance, and site preparation.
- Development issues such as multiple ownerships, title problems, and the relocation of residential housing and businesses.
- Use restrictions and regulations.
- Compatibility to surrounding land uses
- Capability of supporting public needs including: parking, piers, roads, and other public facilities.
- Size and shape of site.

Subsequent to the site selection process follows the initial analysis of the potential uses for the site. Opportunities for public and private contributions help to drive land use programming and identify preliminary economic possibilities which offer a sound foundation for decision making. Obviously, preliminary studies do not cover the ins and outs of a complete market analysis; however, in the initial phase of development, decisions such as scale, type of mixed-uses, and space allocation can be accomplished. With these factors identified, the development agency can begin to formulate a general

picture of the market value and opportunities of a waterfront renewal project. Based on preliminary findings, the development entity is now prepared to determine a potential mix of uses. Extreme care must be taken when determining site uses, agencies must investigate local regulations regarding specific uses. Each use under consideration should be carefully researched in terms of leasing arrangements, availability of space, potential tenants, and the level of support for financing (Wrenn, 1983).

Redevelopment in any circumstance can not only be a very risky venture, but also extremely costly. It is very valuable in the initial stages of development for a developer to hire a professional consultant. Many North American cities participate in government assistance programs, which have over the years, made a huge impact on waterfront redevelopment. It is crucial for developers to research local, state, and federal assistance programs which can potentially share the financial support, technical assistance, and the excitement of adding physical public attractions (Wrenn, 1983).

Upon the completion of concept development and basic analysis, parties must then begin constructing a preliminary design analysis. The Design of a waterfront project is a continual process which begins with a proposal and continues into development.

The primary objective of design analysis is to determine the feasibility and suitability of a concept within a given context. The analysis of a site focuses on major areas of concern which can hinder the goals and objectives outlined previously. Analysis of the site should inventory elements such as:

- Neighboring land uses.
- Site access by highway and railroad.
- Water resource characteristics.

- Climate details.
- Views in and out of the site.
- Soils characteristics and condition.
- Vehicle and pedestrian circulation.
- Location and condition of existing utilities and infrastructure.
- Easement, right-of-ways, and other restrictions.
- Unique natural and cultural features.

Upon the completion of preliminary design analysis, the design team should be well prepared to construct several schematic designs. The design concepts should reflect solutions which respond to analysis findings and programming goals. Plans should be completed with preliminary cost estimates and a projected construction schedule. A schematic design is the first document guiding the creation of a development strategy (Wrenn, 1983).

Formulating a Development Strategy

Creating a development strategy is essential to any project. At this point of the process it is a good idea to eliminate as many alternatives for further investigation. Reducing the number of plans not only reduces time and expenses, but also eliminates unnecessary complications for the parties involved in the conception of a project.

No matter the scale and complexity of the project, development strategies are an essential part of the process needed in redevelopment. Development strategies should include but not be limited to:

- A concise statement of the projects intended function.
- A detailed program which list components of the project and preliminary details.

- Plans which locate boundaries and identify surrounding relationships to adjacent properties.
- Preliminary cost estimates.
- An outline of regulatory restrictions and a schedule of expected dates for approvals and permits.
- Rough estimate of income and expenses and return on equity for each participant.
- A definition of the type and amount of public sector participation.
- A general plan and schedule for the project including target dates for completion of planning and design activities, construction, and expected occupancy (Wrenn, 1983).

Project Analysis

The second phase of predevelopment is dedicated to intense analysis, evaluation, and improvement of the development strategy. The preliminary studies completed in the project planning and initiation phase are now much more involved and complete. Further detailed studies involving market, planning and design, and financial analysis will be undertaken to ensure the best program and development strategy for development. Typically in projects of this type, developers rely upon the expertise of professional consultants experienced in performing these studies (Wrenn, 1983).

Market Analysis

To get an idea of the demand for a project, professionals begin with a market analysis to paint a clearer picture of the need for a particular development. It is very important for a development team to understand the general market conditions of a particular region and the demand for activities which satisfy the needs of both the project

and the community. To gain a better understanding, research is focused on local demographic trends such as: population characteristics, employment projections, disposable income and other indicators of the general market condition. Specific studies can be customized to better suit the need for explicit water-related uses such as retail, residential, and office space. In addition to gaining knowledge on specific needs and expectations, market analysis is an excellent vehicle for determining timing and phasing, as well a recipe for potential mixed uses (Wrenn, 1983).

Planning and Design Analysis

Planning and design analysis is yet another important area to be examined in the analysis phase of predevelopment. Market analysis is important in gaining a general economic feasibility of a particular redevelopment; however the objective of planning and design analysis is to refine and test a design concept and its alternatives. With the help of planning and design professionals working with interested parties and members of the community, design analysis involves the refinement of a concept to a level which can aid in further decision making. It is important for the design team to refine a drawing to a comprehensible level of understanding; however the level of detail should be that of a conceptual nature avoiding the urge to create a set of detailed drawings.

Further analysis and studies involving planning and design should reveal to the design team significant findings such as environmental impacts, potential problem areas, engineering properties, and circulation requirements. The design team and all outside consultants are responsible for maintaining close ties in terms of communication in order to track all changes or needs affecting the refinement of a schematic plan (Wrenn, 1983).

Financial Analysis

Following the analysis of the market, planning, and design, efforts are then shifted toward a very important piece of the puzzle known as a financial strategy. Prior studies have contributed to narrowing the details of the redevelopment project which now can aid in the development of a better financial picture.

Rough calculations which were completed earlier will now go through a refinement process reflecting better information and more detailed data. At this point in the development process detailed estimates of a preferred design and its components should be completed in order to prepare a final project plan. Cost estimates, although still preliminary, should be calculated within 10 percent of the final cost figures. This level of accuracy will aid in understanding the true economic feasibility of the project, allowing the parties involved to secure a financial plan and allocate budget requirements. With a clear understanding of the financial expectations needed to initiate the project, the development entity is now in a position to begin seeking private/public sources of equity (Wrenn, 1983).

Project Packaging

Finalizing the predevelopment phase involves the difficult task of packaging all products previously produced to now be used as a communication tool for securing contracts. All designs, analysis pieces, and final plans are now grouped together and presented to each of the parties involved to allocate and finalize responsibilities. Contractual agreements are negotiated among parties to establish specific financial and management commitments for various parts of the projects. Such commitments include land acquisition, tenant leasing, and funding. These arrangements are agreed upon which outline a parties willingness to commit to economic realities and needs (Wrenn, 1983).

Site Acquisition and Disposition

One of the most critical aspects of waterfront development involves land acquisition. All too often projects fail due to the inability of a developer to secure land. In many cities the developer must overcome the obstacles of ownership, restricted property rights, problematic deeds, railroad and utility right-of-ways, and other legal limitations hindering development. It is not uncommon for a developer to uphold development agreements until land has been fully acquired. A developer has three primary opportunities to secure land in the development process: 1.) project initiation, 2.) during predevelopment, or 3.) during design development.

Developers in a position to acquire land typically approach land acquisition in one of three ways. Depending on the number of parcels needed, and if owners all agree to sell, the best approach is to assemble all of the space needed for development at once. This is especially true if land prices begin to rise due to the assumption that land is needed for development. The second approach requires the services of a real estate investor who assembles parcels of land as they become available for the developer. Although usually undesirable due to a number of reasons, this method maybe the only option available for outside developers. The third and final option is to acquire land directly from property owners interested in equity participation. This alternative allows the current land owner to share in the increased market price of the property in addition to any net income generated (Wrenn, 1983).

Public/Private Sector Commitments

Another very important part of redevelopment and the final piece to predevelopment preparation is to secure preliminary commitments from future tenants,

lenders, and other parties in both the public and private sector. The predevelopment stage is typically early in terms of legally binding any agreements; however, it is very important for a developer to understand the intent of both public and private commitments. Commitments made early in the development process help insure the key players involved the level of support in the market place for a particular development. A waterfront project cannot continue until agreements for development responsibilities have been clearly outlined and formally agreed upon on all parties.

Private Investment Plan

Total Federal Investment to the End of 86/87: \$20 million

Total Estimate of Private Capital Invested to the End of 86/87: \$241 million

1980 dollars
\$000,000's

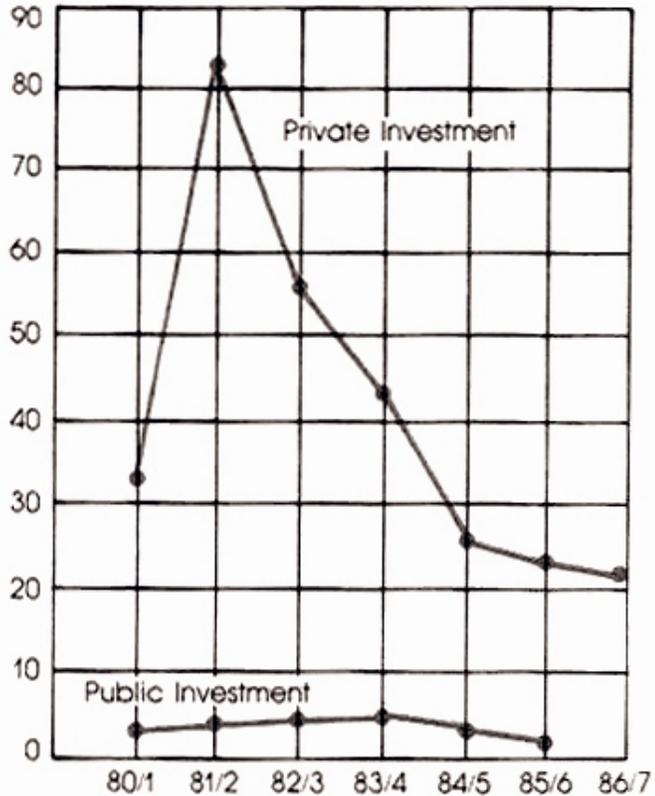


Figure 2- 17: Graph illustrates the financial commitments between the Canadian government & the city of Toronto for the Toronto Waterfront (Wrenn, 1983).

Typically agreements are made between a series of parties including redevelopment authorities, port commissions, federal agencies, tenants, and any lenders involved in the conception of the project. The most important agreement to be made is between the city hosting the project and the development agency overseeing the redevelopment. This important commitment allocates the authority of the developer to acquire land, allocate

funding, establish development schedules, and bind the city to any improvements needed to support the project. Figure 2-17 illustrates the importance of federal, public and private investment capital and the level of commitment needed from each party in the Harbourfront Waterfront in Toronto from 1980 to 1986 (Wrenn, 1983).

The Development Stage

The second stage of the development process involves project implementation. At this point major objectives have been established, a development entity has been organized, and preliminary plans, designs, and studies have been completed. In addition, a development plan has been outlined, permits and approvals acquired, and public and private commitments negotiated. Essentially all of the planning and design has been completed and the project is now ready to become a physical reality. Before actually beginning implementation however, the development stage must further focus efforts in financing, leasing, design, and construction.

Financing

Following the completion of the predevelopment opening negotiations, the developer now begins to concentrate resources on financing, and leasing the project. Prior commitments made in predevelopment are now renegotiated and reaffirmed in order to stabilize relationships. In addition, further negotiations are conducted at this point of the process to seek additional lenders and tenants.

Project financing is undoubtedly the most elementary element of the development process. This important task ultimately determines the fate of a development proposal, deciding how and when the project can be physically implemented. It is not uncommon

for a waterfront project to undergo lengthy discussions to obtain start-up capital to begin redevelopment.

Waterfronts require substantial financing for land acquisition, site improvements, project construction, along with many other indirect expenses associated with redevelopment. The development entity must obtain four types of financing in order to proceed with a proposal. These include: 1.) funds for predevelopment; 2.) short-term loans to support construction prior to long-term mortgage loans become effective; 3.) long-term loans; 4.) equity participation for the share of costs not covered by the mortgage (Wrenn, 1983). Unfortunately it is very difficult to persuade lenders to provide

PROPERTY REVENUE VS. CAPITAL INVESTMENT

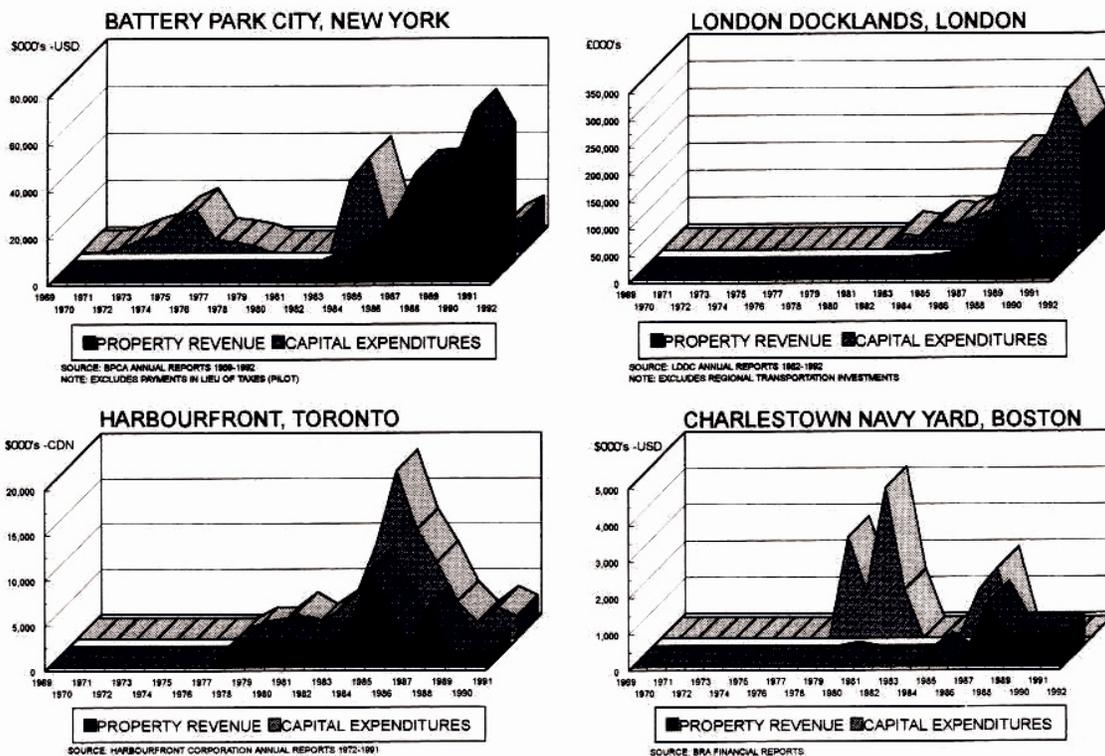


Figure 2- 18: Cash flow charts for the initiation of various waterfront projects (Fisher, 2004).

capital associated with waterfront redevelopments. Often lenders avoid these types of ventures due to the long periods of return on investment. For example, many projects

such as Batter Park City, the London Docklands, Harborfront Waterfront in Toronto, and the Charleston Navy Yard in Boston all required tremendous start-up capital in order to increase property revenue. In most cases large amounts of financing were needed for each project which was later followed by increases in property revenue (figure 2-18). Substantial government grants are a crucial resource needed to survive the financial burden of up-front financing (Fisher, 2004).

Sources of Financing

During the development stage the developer focuses on finalizing private short-term and permanent financing. There are many options and resources available for funding a redevelopment project including: individuals, banks, insurance companies, pension funds, foreign investors, savings and loan associations, public bonds, and government grants. Obviously public involvement is established well before this stage of development; private funding however, requires a little more initiative on the part of the developer. Private commitments are established when design development drawings are complete. With all of the pertinent information composed within the drawings, the developer prepares a loan package used to persuade private lenders.

Attracting investors and lenders to high-risk projects, as in the case of waterfront



Figure 2- 19: Baltimore Inner Harbor (Breen, 1996).

development, requires careful marketing and creative thinking on the part of the developer. The Baltimore Inner

Harbor seen in figure 2-19, is an excellent example of innovative public/private financing on the part of the developer. Today, the Inner Harbor shoreline can easily be considered one of the best-known pieces of real estate in the world. Clever planning of financing and creative thinking played a key role in reviving the heart of Baltimore (Breen, 1996). One creative way of attracting private investments and encouraging lenders is through public funds. Seeking public finances or assistance aids in reducing the financial load, allowing developers to extend the investment risk among several lenders. In addition, public involvement assures lenders in the feasibility of the project, making the investment much more attractive (Wrenn, 1983).

Securing Lease Agreements

Securing leasing agreements is as pivotal in the development process as establishing finances. Agreements obtained in the predevelopment phase are now finalized and formally executed. Designing space for known tenants aids in the design development process and improves chances for success. Obtaining early leasing arrangements prior to the opening ceremony contributes to easier financing, more accurate cost and material estimates, and fewer design changes. Furthermore, securing leasing arrangements early reduces the stress of forecasting cash-flow needs (Wrenn, 1983).

Financing arrangements often create stipulations which require the developer to obtain leasing arrangements prior to the agreement to finance. It is not uncommon for a lender to require a development organization to successfully secure leasing space to tenants before forgoing any long-term loan agreements. In many instances the lender will

require the developer to lease a minimum of 40 to 60 percent of the space available (Wreen, 1983).

Marketing a waterfront to attract tenants can dramatically improve the success of a redevelopment. Marketing programs should be apart of any redevelopment, this important aspect of development is a popular vehicle used to highlight features of a project in order to attract potential tenants. Marketing focuses on three primary areas important to tenants. The first and foremost important feature of a development is location. Anyone familiar with business knows the old saying, “location, location, location.” Waterfront property is often limited in an urban environment which increases the value of these attractive parcels. Furthermore, waterfronts often incorporate numerous attractions and amenities which make them a popular place to visit which in return increases the market value of waterfront locations. Another important factor in the popularity of a project is the design. Tenants can often be persuaded to move to waterfront locations due to several factors implemented in a design. Designs which have an attractive concept, incorporate new and exciting features, and fit well into the existing context can have an impact on potential tenants. Finally, the identity of prime tenants such as large hotel and restaurant chains can ultimately draw the interests of many other tenants.

Design

The design of a waterfront must meet functional and aesthetic needs, legal constraints, and financial demands. Meeting these important project goals are often a very complex and challenging task. The design links both predevelopment and development activities, providing a blueprint for the development process. Through

public participation and guidance from a design professional, predevelopment involved the development of conceptual plans outlining goals and objectives eventually leading to a final preliminary design. After approval from the city, the final preliminary design served as the basis for all participants involved to negotiate the development agreement to implement the

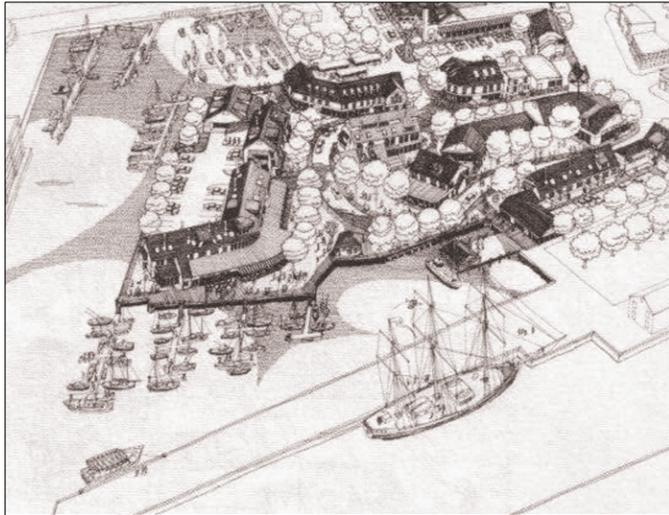


Figure 2-20: Rendering of a preliminary final design for Pickering Wharf in Salem, Ma. (Wrenn, 1983).

project (Wrenn, 1983). Figure 2-20 is an example of a final preliminary rendering used by the developer in negotiations and public meetings.

At this point in the process, preliminary design solutions are now ready to be fully carried out and resolved for construction. With a better understanding of the market, possible tenants, and the legal structure being developed, the preliminary design is in a position to undergo detailed design. Loaded with more information, designers begin to enter into design development drawings. These drawings focus on construction details necessary for the construction of the project. Working with the key players involved, the design team seeks approvals of construction details and other various drawing before proceeding to final working drawings. Following the approval of design development plans, the design team now prepares drawings comprised of a mass of very detailed drawings and specifications that legally guide the construction of the redevelopment. In

addition, these drawings will serve as these basis for establishing construction bids, contract documents, and construction schedules (Wrenn, 1983).

Project Construction

Construction is probably the most exiting and eventful part of the development process. After years of hard work and preparation, developers are now able to see the project come to life. Additional new professionals are relied upon in the construction phase of development requiring careful coordination and good communication on the part of all parties. Construction is a process full of contractual agreements, delivery and completion schedules, and a diverse workforce. The major objective of construction is to produce the highest quality product in the least amount of time as efficiently as possible

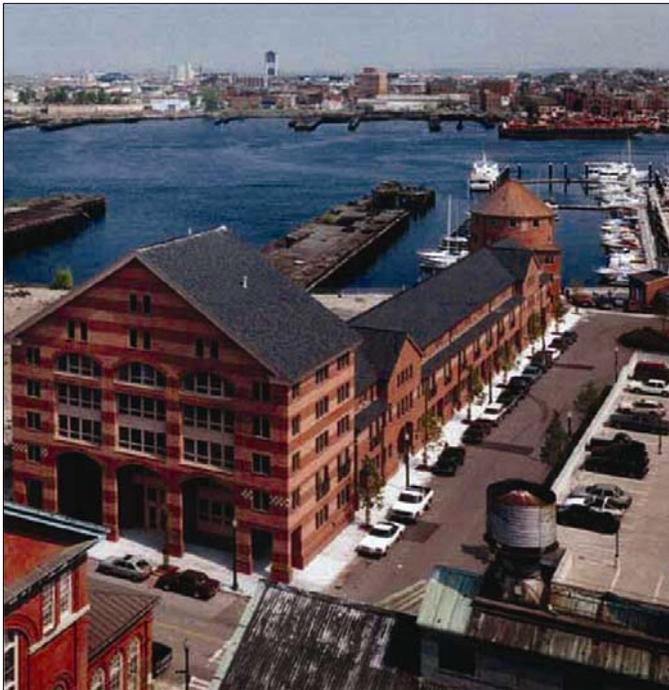


Figure 2-21: Charlestown Navy Yard Rowhouses (Fisher, 2004).

(Wrenn, 1983).

Many new professionals are responsible for overseeing the implementation of a redevelopment project such as a waterfront. Professionals including: Architects/Landscape Architects/Engineers, construction manager, contractors and subcontractors, and wholesalers. Each professional or

business has a particular role in the construction process for which they are responsible for. Architects and Engineers primary responsibility is to manage construction and make

sure the product resembles the quality specified in construction drawings. The construction manager serves as the primary link between the developer and the contractors and material suppliers. Contractors are responsible for completing various structural jobs while the material supplier provides the resources needed to finish the job. The construction manager is responsible for overseeing daily activities and meeting construction deadlines. However, the ultimate party responsible for the entire project rest upon the developer. The developer must coordinate with all parties and be involved in every part of the construction process (Wrenn, 1983).

Construction management was an integral part in the redevelopment of Boston's Charlestown Navy Yard. The developer made sure to carefully archive and document all construction procedures, meticulously coordinating schedules and deadlines to keep the project on schedule. Figure 2-21 is a recent photo of the renovated Rowe House located adjacent to the water.

Lessons for a Faster Implementation Process

With four decades of waterfront development in the United States alone, developers have experienced almost any situation affecting the implementation process. Fortunately, this experience can now be shared and passed to other development organizations looking to streamline the development process. The following is a list of best practices and characteristics needed to efficiently implement a waterfront. These characteristics include:

- Good political relations and policies.
- A well connected board of directors on all levels of the government.
- Strong links to local government staff and members.

- Strong relationships with local members of the community.
- Ability to link private development to public benefits.
- Great financial characteristics and policies (land ownership, long-term funding, fast approval process, back-up plans for recessions).
- Effective planning and design characteristics and policies (good phasing plans, use of existing infrastructure, public access).

These recommendations seem to be common sense, however these practices were not popular until redevelopment authorities of the past broadened their horizons, opening the doors to new innovative techniques for waterfront development (Fisher, 2004). It should be noted, that these characteristics are helpful, however each day new techniques are learned and this list will continue to grow in the coming years.

Chapter Three: Methodology

The methodology for this research project consists of a case study analysis of three noteworthy small towns that have implemented an attractive riverfront development. These popular projects have been perceived by members of the community and design professionals to be a success on all parts of the development process. Serving as a basis for improving the knowledge and understanding of waterfront renewal, these projects will be carefully studied in order to apply the same procedures and principles to other communities interested in waterfront development.

This chapter will focus on the introduction of fundamental elements in the understanding of waterfront development and the methodology utilized to research this topic. More specifically this chapter will discuss operational definitions, research design, and methods of data collection and analysis.

Operational Definitions

Given the nature of the subject matter, there are a number of key terms that must be identified and discussed in order to clearly understand the research material.

- 1.) **Development**- The act of converting rural farmland, open spaces, or any other undisturbed area into an area of infrastructure, architectural features, and circulation systems (Russ, 2002).
- 2.) **Redevelopment**- Renovating an area considered to be of poor condition (Russ, 2002).
- 3.) **Blight**- Physical decay and ugliness which infects and spreads along urban waterfronts (Russ, 2002).

- 4.) **Brownfield**- Abandoned properties that were environmentally neglected from past industrial activities. Typically near waterfronts (Russ, 2002).
- 5.) **Riparian Zone**- Transition zone between aquatic and upland areas (Russ, 2002).
- 6.) **Urban Waterfront**- Merriam-Webster's Dictionary defines an urban waterfront as "any land or area along rivers, lakes, or oceans in cities and towns of all sizes."
- 7.) **Waterfront**- Merriam-Webster's Dictionary defines a waterfront as "land with buildings, or a section of a town fronting or abutting a body of water."
Development linked to a body of water.
- 8.) **Riverfront**- Merriam-Webster's Dictionary defines a riverfront as "any land or area along a river."
- 9.) **Small Town**- Defined, in this study, as one with a population of less than 50-60,000.
- 10.) **Land Uses**- Type of activity or use for a particular area of land (Russ, 2002).

Research Design

In order to gain a preliminary understanding of small town riverfront development, two study sites were chosen in order to perform research in a case study format. The Cities of Atchinson, Kansas and Owensboro, Kentucky have been chosen as to serve as the basis for this research. Research will be conducted focusing on the projects major programming features, design issues and factors influencing or hindering the implementation process. Based on the knowledge gained from case study research, general guidelines for waterfront development will be identified and used as a foundation for small town waterfront development. This thesis intends to identify and answer

important questions specific to small town waterfront development. Items or elements to be answered in this research include:

- What general guidelines and design strategies are universally used in the design of waterfronts?
- What are some of the key programming elements utilized in successful waterfronts?
- What general development strategies are useful in the implementation of waterfronts?
- What are some of the constraints and critical issues associated with waterfront redevelopment.

In order to refine the research findings detailed interviews were conducted with important individuals involved in each project together with necessary site visits. All research findings and results will be analyzed and summarized in order to form conclusions and recommendations for the benefit of any community or professional entity interested in small town waterfront development. The following is a research diagram outlining the entire research process of this project.

Data Collection and Analysis

Data and information collection for this thesis will utilize a qualitative case study approach. Information will be obtained through a series of interviews, site visits, email and telephone conversations, and recorded documents. Much information will be sought directly from the project managers of the professional design firms involved, city economic development agencies and the Chamber of Commerce, and other important

figures. These crucial interviews along with on site data collection will form the knowledge base for this thesis.

Chapter Four: Case Studies

Owensboro Riverfront, Owensboro Kentucky

Description: A 500 acre site in Owensboro, Kentucky adjacent to the Ohio River. The project extends from the Ohio River to Highway 60 (4th Street) south. From the East, the site extends from the Ohio River along Crittenden to 2nd Street and from the West to the railroad tracks.

Former Use: Previous site of a hotel and parking lot and other commercial uses.

Project Timeline: Late 2000 to December 2001 Riverfront Master Planning.

2002 to 2003 Mitch McConnell Plaza & RiverPark Center Patio
Expansion

2003 to 2009 Boat ramp, parking garage, McConnell Plaza/English
Park riverwalk, levee, bank improvements.

Client: City of Owensboro

Project Cost: \$4,700,000 current funding available. \$46,360,000 projected funding.

Participants: City of Owensboro, EDSA, PDR/A, ATM, ERA, The Waterfront Center,
Thomas L. Tapp.

Designer: Edward D. Stone Associates (EDSA) out of Fort Lauderdale, Florida.

Project Size: 500 acres.

Significant Design Features:

- RiverPark Center Plaza
- Performance Stage
- Amphitheater
- Pavilion
- Overlook

Opportunities:

- Re-orient the city towards the Ohio River.
- Opportunity to create a gateway in the city and riverfront district.
- Provide public access and visual access to the riverfront.
- Provide a pedestrian connection from RiverPark Center to English Park.
- Increase activity in English Park
- Relocate a protected marina and increase recreational boating.

Constraints:

- River has a significant amount of debris floating during the rainy season.
- Existing features limit expansion of public open space.
- City lacks ownership of property along riverfront hampering public improvements.
- Existing streets create a physical barrier for pedestrian access to riverfront.
- City has sold off all public access to the river.

Site History

Owensboro, Kentucky is located along the southern banks of the popular Ohio River. Resting along one of the nation's major waterways, the City of Owensboro was discovered by white settlers traveling along the Ohio River in 1780. Among these early settlers was an individual by the name of William Smeathers who built a cabin on a site near the mighty river in 1798. It was this modest dwelling, now located on St. Elizabeth Street in Owensboro, which attracted other settlers to the rich, well-drained hill country of Kentucky. The city was originally known as "Yellow Banks" referring to the color of the soil along the banks of the Ohio River. In 1806, the United States Post Office opened an office in the newly settled city of Yellow Banks, marking the beginning of growth and prosperity.

In 1815, Daviess County was named in honor of Colonel Joseph Hamilton Daviess, a distinguished lawyer, landowner, and soldier killed in the battle of Tippecanoe. Soon after, Daviess County became the county seat for the state of Kentucky. In 1817, the city became incorporated as the city of Owensboro, later shortened to Owensboro, in honor of Colonel Abraham Owen who also was killed in the battle of Tippecanoe.

Early settlers avoided the lowland regions of the city due to malaria outbreaks and infestations sweeping the region. Eventually the Panther Creek was drained in order to control the disease, allowing access to the fertile bottom land soils. The rich soils brought about slave labor which became a popular means of profit for the region. In 1860, Daviess County enslaved over 3,500 blacks with only seventy-six remaining free.

With a total population of 15,549, Daviess County was comprised of more than 20 percent slaves.

The Civil War proved to be a very trying time for the City of Owensboro. Supportive of the Confederate movement, many residents opposed Lincoln's idea of emancipation. Lincoln and the Republicans were only able to gain the support of seven Owensboro residents during the election of 1860. The area became a popular region of violence and rebellion during the Civil War. Only one formal battle took place in the City of Owensboro along Panther Creek, Confederate forces were forced to move south out of the hostile region. Although formal battles were very limited, guerilla raids were very common events in this proslavery state.

In addition to slavery, by 1870, Owensboro became a major producer of corn, tobacco, hogs, and cattle. This was an era of great economic boom; eighteen distilleries were erected in a period of a few years. Bourbon became the leading product produced during this time period. Nestled within the corn belt of America with direct access to the Ohio River's cheap steamboat transportation in addition to plenty of white oak timber for storage barrels, made this region a prime candidate for whisky production. Unfortunately the city of Owensboro would only experience a limited time of successful bourbon production. Competition became fierce; other producers began producing cheaper whisky and beer. In addition, bonded warehouses were subject to higher federal taxes ultimately bringing an end to the boom.

The arrival of the railroad in the 1870's and 1880's sparked yet another industrial boom allowing the city of Owensboro to be linked to other markets. The city began building factories which manufactured various products such as light bulbs, wagons,

buggies, and sewer tile. Employment rose as the need for forest products, natural resources such as clay and coal, in addition to other materials began to increase. By the twentieth century, larger plants appeared processing meat, dairy products, grain, and tobacco. In 1910 the Carriage

Woodstock Company begins manufacturing the Ames automobile creating numerous jobs for the city of Owensboro. In 1930, soybean cultivation was introduced to the region and by 1963 became the leading producer in state of Kentucky. By 1980 soybean acreage surpassed corn for the first time. With soybean production on

the rise, cattle and hog production also began to become a very serious commodity for the city of Owensboro. By the mid 1980's manufacturing jobs began to decline bringing a period of economic stagnation to the region. However, in 1988, the job market was replenished when the Green River Steel Plant reopened; creating more than 1,500 jobs (Owensboro Homepage, www.owensboro.com).



Figure 4- 1: Early photo of Owensboro (Owensboro Chamber of Commerce).

Today, the community consists of approximately 54,000 individuals within a 17 square miles radius. The average annual income is \$31, 867 compared to \$41,994 for the entire United States, with unemployment at 7 percent in 2004. The community is composed of 46 percent females and 53 percent males. Ethnicity for this region is predominately white at 90.6 percent, African Americans 6.9 percent, Asians at .5 percent,

and Native Americans at a mere .1 percent. In terms of education the city of Owensboro is relatively average with 34.7 percent of the population receiving a high school diploma, 26.1 percent seeking an associates degree, 11.2 percent finishing their bachelor's degree and 6.5 percent accomplishing a master's or doctoral degree (www.city-data.com).

Owensboro, Kentucky continues to be an industrial and cultural hub for western Kentucky. The city is now the third largest in Kentucky continuing to be competitive in the manufacturing of goods including: food, paper, plastics, and metal. In addition, Owensboro is starting to experience growth in wholesale and retail including automobile sales and parts, machinery, furniture, lumber, and industrial supplies.

Aside from the economic and demographic aspects, Owensboro has developed into a culturally active town. The city has become known as “a city of festivals,” with numerous festivals and special events throughout the summer months along the riverfront and downtown. The community comes together to host such events as the International Bar-B-Q Festival (Owensboro is considered the Bar-B-Q capital of the U.S.), Friday After Five in which locals can enjoy free concerts and other varieties of musical talent (City Of Owensboro, www.owensboro.com).

Genesis of Project

For nearly fifty years the city of Owensboro recognized the need to restore and redevelop the riverfront along the Ohio River. Over the course of time numerous master plans were developed, however none seemed to culminate into anything more than just a plan. Like many mid-sized towns, Owensboro turned away from one of its most prominent assets, the river.

According to Lee and Aloma Dew, the authors of *Owensboro The City on the Yellow Banks*, “One cannot write, or even think, about Owensboro without including the Ohio River. Its presence is responsible for the founding of the town, and much of its history has been shaped by this powerful, fluid ribbon throbbing

through time and history. The broad Ohio, curving past the high yellow banks where Bill Smothers built his cabin, symbolizes so much about Owensboro- it is the thread that runs through our history, and with strength and determination continues rolling into the future, pulling us with it.”



Figure 4- 2: Riverfront prior to development (EDSA Master Plan Report).

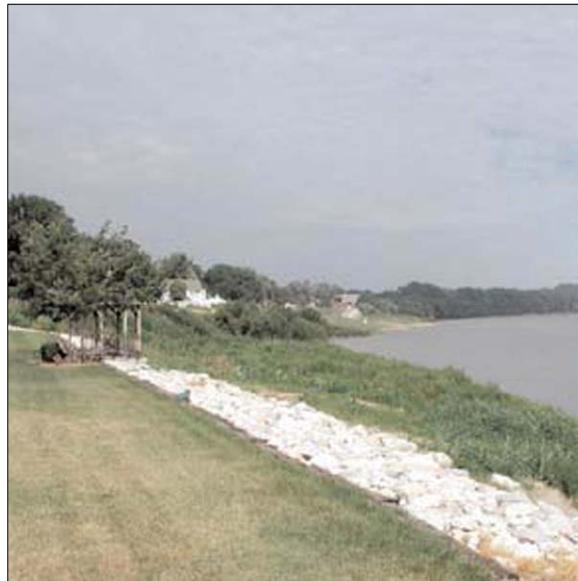


Figure 4- 3: Riverfront prior to development (EDSA Master Plan Report).

As the industrial revolution swept the nation, the dependence upon the Ohio River decreased. The City grew away from the very roots of its existence losing business and residences to suburban sprawl. Recently the community decided to refocus efforts towards revitalizing the downtown core in order to attract people back to the city and the



Figure 4- 4: Riverfront prior to development (Owensboro Chamber of Commerce).

riverfront. In an effort to accomplish this task the city began to seek State and Federal dollars in 2000 to study and develop a Riverfront District Master Plan. In addition to funding, organizations began to form such as PRIDE, a non-profit organization committed to public participation, Downtown Owensboro, Inc. and other community organizations committed to promoting the riverfront. Next the City began to organize a riverfront planning team to put together a master plan. The selection process began in late 2000, and by Spring of 2001, the city successfully selected and negotiated a contract with a professional team of experts.

Through careful planning and negotiation the City of Owensboro selected the planning firm EDSA as the primary consultant to organize and develop the Riverfront

Master Plan. Headquartered in Fort Lauderdale, Florida, EDSA assembled a multi-disciplinary team of experts as subcontractors to the project. The team included:

- PDR/A Tetra-Tech Company - Civil Engineering and local liaison, located in Owensboro, Kentucky.
- Applied Technology and Management (ATM) - Marina Consultants, located in Charleston, South Carolina.
- Economics Research Associates (ERA) – Economic Consultants, located in Chicago, Illinois.
- The Waterfront Center – Public Consensus Building Consultant, located in Washington, DC.
- Thomas L. Tapp – Recreation Consultant, located in Fort Lauderdale, Florida.

With the assistance of City Staff, EDSA developed a scope of services structured to culminate into a Final Master Plan for the Riverfront. The scope of service was developed through periodic meetings with the community to help identify the main objectives of the City Leadership. The City’s primary objectives included:

- Building a world-class Riverfront that will be enjoyed by the Owensboro Community as well as visitors of surrounding regions now and for future generations.
- Enhance downtown, encourage private development, and promote Owensboro as a riverboat destination.
- Create an attractive riverfront which accommodates boaters, fisherman, pedestrians, and nature seekers. In addition, space to support the many festivals which take place along the river.

- Seek a partnership with an intuitive team of professionals who will listen to the needs and desires of the community to gain insight and an understanding of the riverfront.

Master Plan Report

Planning Process

The master planning process consisted of five phases of work which included:

- Public consensus building
- Site analysis and market studies
- Preliminary master planning
- Public meetings and presentations
- Final master planning

To fully understand the scope and intent of what the City of Owensboro wanted in a riverfront, EDSA along with a team of professionals began extensive research and planning from late 2000 to December of 2001. Planning and research included the



Figure 4- 5: Riverfront focus group (EDSA Master Plan Report).

creation of various focus groups (figure 4-5) which allowed public input and interests to be expressed. In addition, EDSA worked to compile a detailed analysis of many physical and economic attributes which outlined specific opportunities and constraints for the project. With a clear understanding of the project scope and goals in mind, the Team of experts shifted their efforts into

meetings, and projects over a period of six to eight months. In addition, PRIDE was useful to the riverfront team by allowing the creation of specialty focus groups which



Figure 4- 7: Riverfront focus group (EDSA Master Plan Report).

helped to uncover community needs and concerns regarding the Riverfront Master Plan.

Each focus group consisted of a small group of individuals which represented a special interest group or user group of the riverfront. The focus

groups were divided into the following categories of community participants:

- Home Owners
- Boaters
- Fisherman
- PRIDE Leadership
- Business men and women
- Developers
- Arts and Entertainment

The Team began meeting individually with each focus group which involved slide shows of various waterfront projects from around the world. These



Figure 4- 8: Riverfront focus group (EDSA Master Plan Report).

images were used to familiarize each group with the opportunities of a waterfront planning and to encourage decision making on behalf of the cities riverfront. After exposing each group to the endless possibilities of design, group members discussed individual needs and concerns regarding the riverfront. To record each group's thoughts, EDSA facilitated the use of scaled aerial images and plans of the existing riverfront which allowed participants to physically record their concerns. With all thoughts and concerns recorded, the Team then took these drawings and began to summarize the results. The results found four primary areas of concern found in each focus group which included:

1. Providing a pedestrian link from English Park to the RiverPark Center adjacent to the riverbank and 1st street.
2. Revitalizing the downtown core.
3. Re-introduce marine facilities to the City of Owensboro.
4. Enhance English Park.

Site Analysis and Research

In combination with public participation, planning additionally called for the careful analysis of various elements throughout the riverfront district. The analysis included levels of varying factors affecting the planning and design of the riverfront project. The Team began by compiling a building inventory and thoroughly studying urban patterns and land uses. In addition, the analysis included the documentation of physical opportunities and constraints, an environmental study, biological study, archaeological study, and a market study. Once all data and research was collected the

Team summarized key components found in each study and outlined important issues to be solved in the preliminary phase of master planning (EDSA Master Plan Report).

At the Completion of the above studies, the Team concluded and inventoried in their analysis study the following items:

- The need to re-orient the city towards the Ohio riverfront.
- Provide public and visual access to the riverfront.
- Numerous surface parking lots and/or vacant lots exist adjacent to the riverfront offering the opportunity for new development and increased activity.
- Presence of four distinct zones; 1.) Downtown area 2.) Residential area 3.) English Park 4.) Industrial zone.
- Surrounding land uses primarily are made up of light industrial zones.
- Create a pedestrian connection from RiverPark Center to English Park along the river.
- Provide development opportunities along the riverfront.
- Increase activity in English Park.
- Calm traffic along 2nd and 4th Street.
- Based on the environmental study, the Team found no major environmental concerns prohibiting the development of the riverfront district.
- Based on the biological study, the Team found no animal species to be significantly effected by the proposed riverfront project.
- The need for a full-scale archaeological survey is unnecessary. However, the Team recommends extensive archival research to be conducted in areas of potential archaeological finds.
- Current demographics suggest positive results based upon stable population trends, modest and growing incomes, and diverse household categories.
- The economic potential for the City of Owensboro will benefit greatly with the implementation of a well planned riverfront.
- English Park posse's great potential for a proposed protected marina.

Upon the completion of the initial field analysis studies by the team of experts, the design team, EDSA concluded and recorded all critical findings on an analysis drawing (figure 4-8). In addition, at the completion of the analysis study, the design team began to construct numerous conceptual ideas and/or principles regarding the riverfront

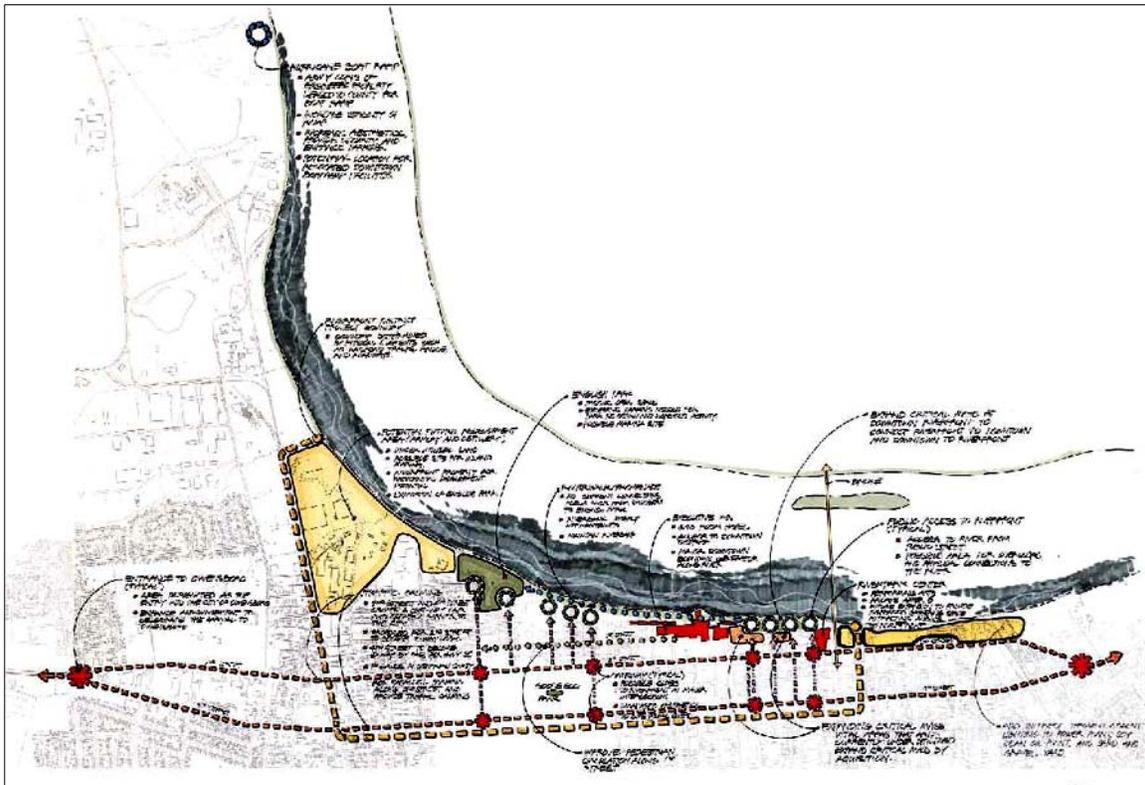


Figure 4- 9: Owensboro Riverfront District Site Analysis (EDSA Master Plan Report).

project. These initial ideas and concepts were used to develop a complete outline of guiding principles necessary for achieving the goals of the community and the design team (EDSA Master Plan Report).

Preliminary Master Planning

Working with a detailed set of guiding principles, EDSA began developing a series of master plan options to be reviewed by city staff and the community. Working toward a final master plan, three conceptual alternatives were created utilizing an

established set of guiding principles for the proposed riverfront. Guiding these conceptual drawings included an outline which included:

- **Downtown Development**
 - Creation of “Critical Mass” between the Executive Inn and RiverPark Center
 - Connecting the RiverPark Center to the Executive Inn
 - Commence land acquisition
- **Riverwalk Connection**
 - From RiverPark Center along the river bank and 1st Street to English Park.
- **Relocate Boat Ramp**
- **Traffic Calming**
 - Convert 2nd and 4th Street to two-way roads
 - Seasonal boat docks
 - Riverboat / Dinner boat
 - Inland harbor marina
- **Waterfront Restaurant / Entertainment District**
 - Create development opportunities for restaurants and entertainment venues.
- **Refurbish English Park**
 - Increase public activity
 - Provide fishing facilities
 - Initiate park programming



Figure 4- 10: Preliminary master plan streetscape sketch (EDSA Master Plan Report).



Figure 4- 11: Preliminary master plan Riverwalk sketch (EDSA Master Plan Report).

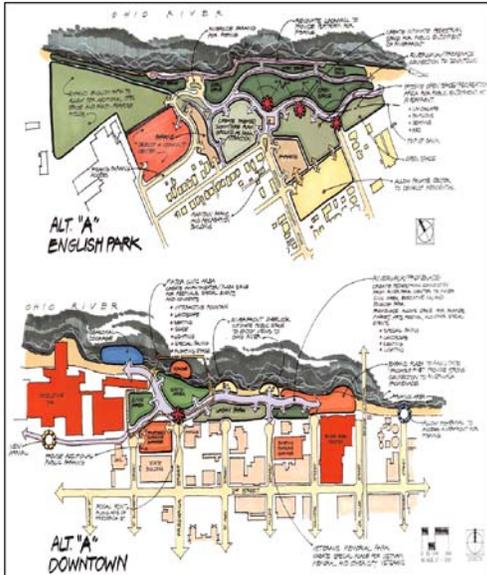


Figure 4- 12: Concept A preliminary master plan (EDSA Master Plan Report).

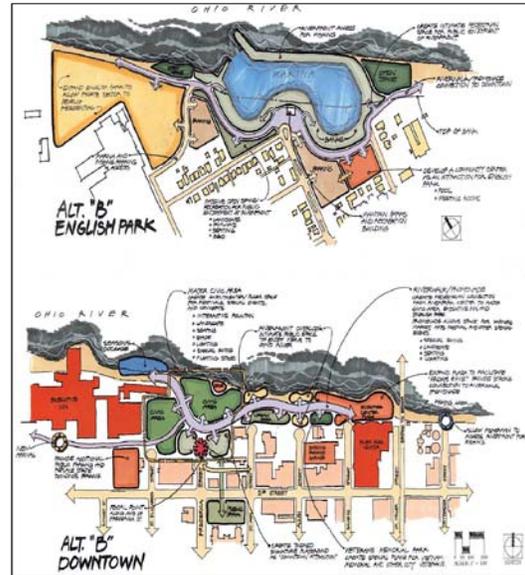


Figure 4- 13: Concept B preliminary master plan (EDSA Master Plan Report).

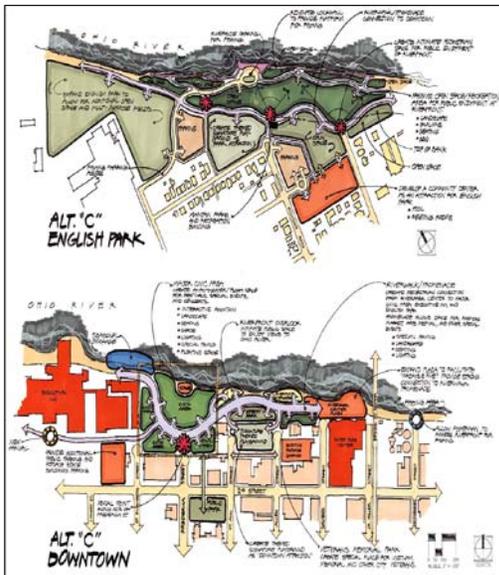


Figure 4- 14: Concept C preliminary master plan (EDSA Master Plan Report).

Identified during the analysis phase, the Downtown core, the Riverwalk connection and English Park became the three primary areas for redevelopment. With these three areas in mind, EDSA began the production of three conceptual drawings for each primary area. Three conceptual alternatives were developed for each area during preliminary master planning. Each preliminary master plan alternative possessed several common elements

which guided each concept. These common elements included:

- Calming traffic on 2nd and 4th Street and converting each street to two-way roads.
- Creating gateways and enhancing the east and west entry nodes to downtown.
- Expanding the pedestrian and visual connections to the riverfront.
- Provide a riverwalk connection from the downtown core to English Park.

- Convert Veterans Boulevard to a promenade to increase access to the river.

All options (figure 4-12,13,14) were presented to the community and city staff with the idea of gaining feedback and insight in order to prepare for final master planning (EDSA Master Plan Report).

Final Master Planning

Following the presentation of the preliminary master plan options to city staff and the public, EDSA was able to reconstruct a final master plan. Based on the preliminary concepts, the public was able to make final decisions enabling the creation of a final master plan and the ability to begin strategic planning for implementation.

Focusing on the three primary areas of concern, the final master plan included the following elements:

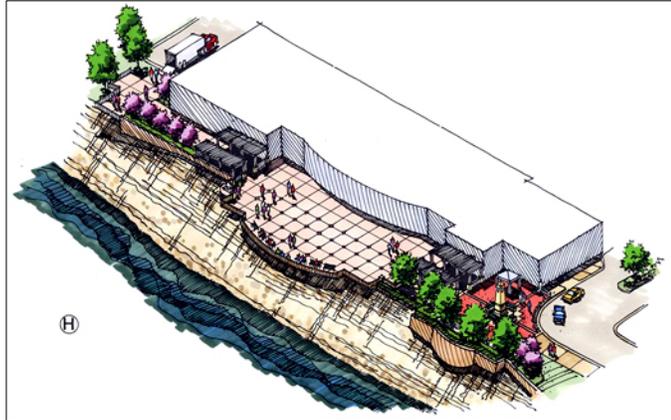


Figure 4- 15: RiverPark Center Patio expansion (EDSA Master Plan Report).

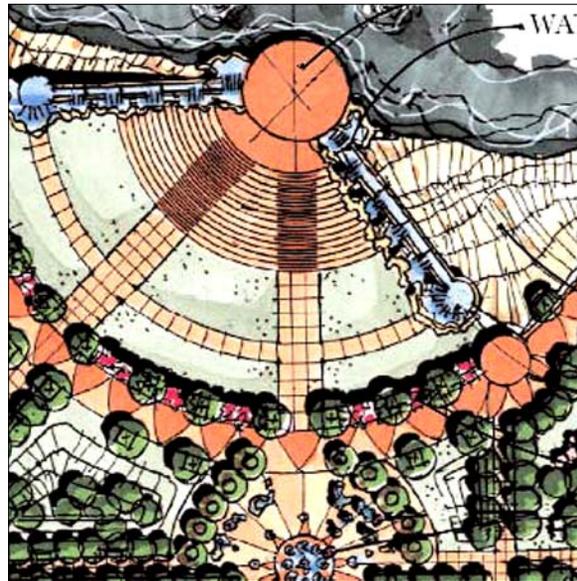


Figure 4-16: Major Riverfront Civic Space (EDSA Master Plan Report).

Downtown Area

- RiverPark Center outdoor plaza expansion to enhance “Fiday’s at Five” and other important events (figure 4-15).
- Create a promenade with parks and overlooks promoting access and public outdoor activities adjacent to the river.
- Design children’s play area close

to the proposed parks and promenade.

- Provide a prominent civic area in the downtown area (figure 4-16).
- Relocate downtown boat ramp and parking.
- Provide overlook parks at Orchard, Plum and Maple Street (figure 4-17).
- Provide seasonal boat dockage downtown for recreational boaters and dinner boat.

- Create the opportunity for public access for fishing beneath the J.R. Miller bridge.
- Create a connection to the cities greenbelt.
- Construct a parking garage to provide public parking for the riverfront.
- Create a strong visual connection between the courthouse and the riverfront.

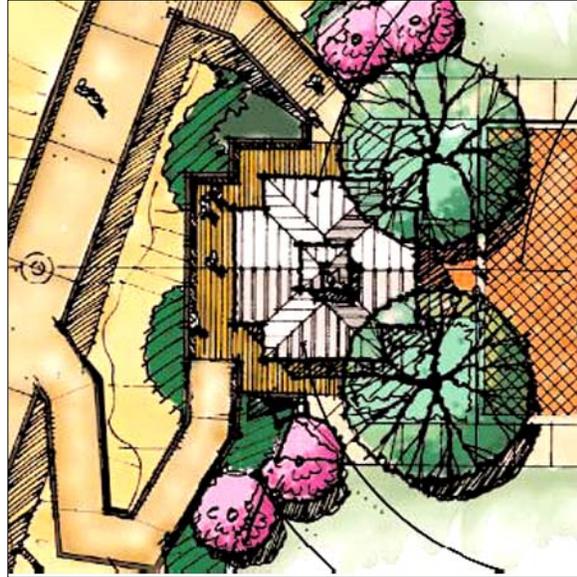


Figure 4- 17: Riverfront walkway (EDSA Master Plan Report).

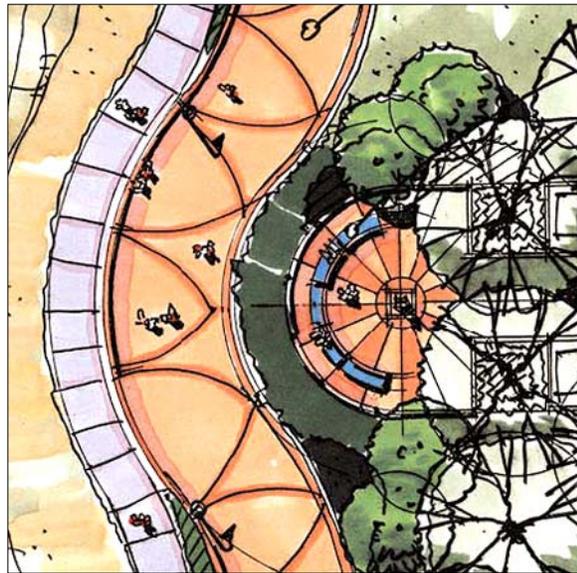


Figure 4- 18: Riverfront Cul-De-Sac Drop-Offs along Promenade (EDSA Master Plan Report).

- Promote the opportunity for a farmers market to encourage visitors to venture downtown.
- Program major civic spaces with more events.

Riverfront Walkway Connections

- Connect downtown riverfront promenade to English Park.
- Provide future connection and way finding signage to existing greenbelt.
- Create pedestrian connections from the downtown to English Park along 1st Street.

English Park

- Develop an inland harbor marina along flood plain of English Park.
- Restore the historic lockmaster building for reuse in the proposed harbor.
- Create riverfront access at top of bank (figure 4-18).
- Provide open space near marina.
- Utilize the marina banks as opportunities for amphitheater seating.
- Allow access for fishing along the river.
- Expand English Park into Army Reserve area.
- Provide connection for future use of the city greenbelt.

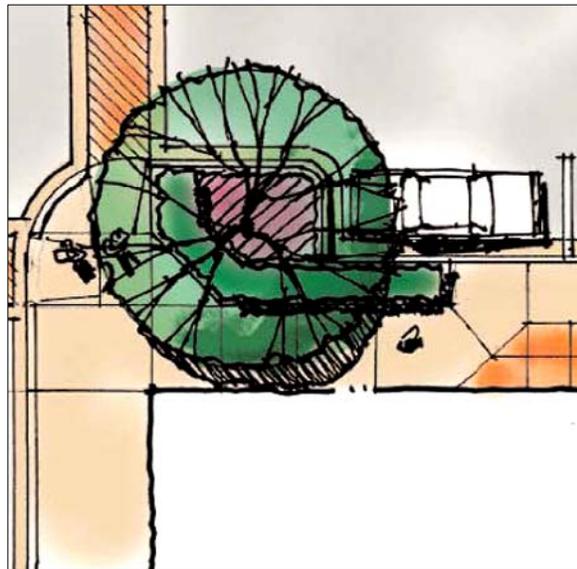


Figure 4- 19: Proposed streetscape (EDSA Master Plan Report).

Streetscape/Roadway Improvements

- Create gateways at each end of Highway 60 into Owensboro.
- Calm traffic on 2nd and 4th Steet by expanding into a two-way road.
- Implement streetscape enhancements such as reconfigured parallel parking, new traffic signals, landscaping, special paving, lighting, and furniture (figure 4-19).
- Convert Veterans Boulevard into a pedestrian promenade.

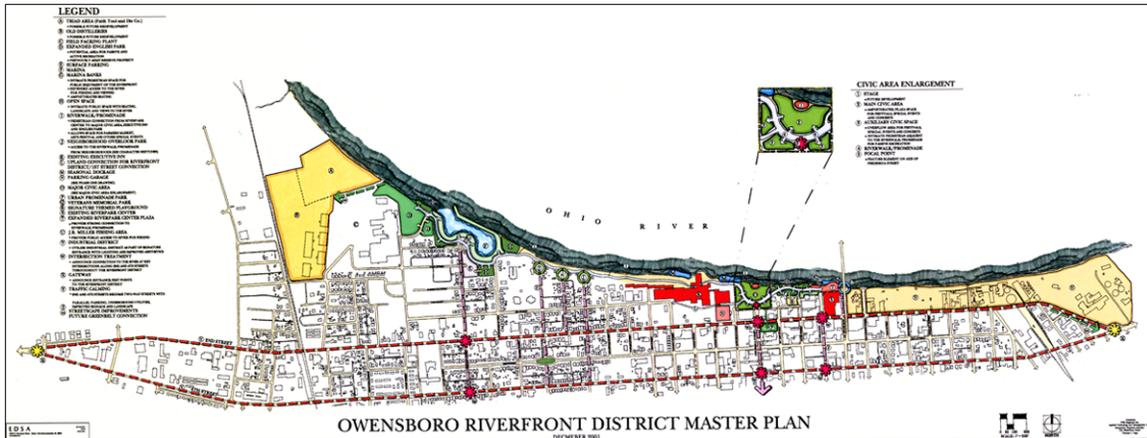


Figure 4- 20: Proposed riverfront master plan (EDSA Master Plan Report).

- Create cul-de-sac drop-off areas at Daviess, Allen, St. Ann, and Frederica Street to enhance public access.

With support from the public and a detailed final master plan, the City of Owensboro now has the necessary tools to begin allocating additional funding and



Figure 4- 21: Proposed riverfront schematic plan (EDSA Master Plan Report).

preparing an implementation plan. Few cities, no matter the size, have the necessary resources and support needed to proceed beyond this stage. In the case of small town riverfront development, few cities are successful in implementing a project. The City of

Owensboro is an excellent example of how a community can take control of their riverfront and make an asset out of a liability through strong support and effective

Programming

Programming a waterfront is an important aspect in terms of success. In addition to physical improvement, planning for outdoor recreation, special events, and festivals is a crucial tool for attracting people to a space. In the case of the Owensboro Riverfront, the final master plan lends itself to a wide variety of programming opportunities that can aid in the resurgence of the riverfront and downtown.

The City of Owensboro recently completed a survey of the parks and recreation facilities completed by Leisure Vision / Etc Institute. The Team utilized this survey to form the basis of recommendations as a part of the final master plan. Of the people survey, 20% agreed that the current recreational programs offered deserve an excellent rating and a 68% good rating.

However, of the people survey, only 33% actually participated in public programs offered



Figure 4- 25: Friday At Five band (EDSA Master Plan Report).



Figure 4- 26: Marketing for attracting visitors (EDSA Master Plan Report).

by the city and county. Therefore, based on these results, the Team believes the City of Owensboro has the potential to improve public programming for recreation which will involve more citizens and visitors within the community.

Owensboro currently offers an ample amount of successful events supported by the community. Events

such as Fridays After Five (figure 4-25), BBQ Festival (figure 4-27), Blue Grass events, and a few others, however these events are primarily seasonal. Seasonal events limit the full potential of the riverfront and downtown district. In order to increase the popularity and use of any public project, the city must incorporate programmatic elements which expand throughout the season adding to the vitality of the redevelopment project.

Adding to the list of existing events, the Team has recommended the following additional events:

- 4th of July celebration
- Art Festivals
- Auto / Cycle Shows
- Birthday Party for City
- Farmers Market
- Fishing Tournaments



Figure 4- 27: Marketing for attracting visitors (EDSA Master Plan Report).

- Jazz / Blue Grass Brunch
- Signature Playground (figure 4-28)
- Garden Show
- River Swap Meet
- Walking / Running events
- Wine Festival
- Winter Carnival

Leisure Visions / Etc. Institute found that the above list of activities and special events were of the most important types of programs the community would like the city to host. In order to promote and market these events, the team suggests the idea of appointing an organization or group represented by the City Parks & Recreation, RiverPark Center, downtown businesses, and the Chamber of Commerce (EDSA Master Plan Report). Promoting and hosting annual events can often be challenging for a smaller community. Maintaining and supporting a continual growth of these special events is an integral part of the planning process. Programming is an element of project planning which can be used as a tool for gaining public and private support. Without community involvement and public support, redevelopment is impossible.



Figure 4-28: Signature Children's Park (EDSA Master Plan Report).

Construction and Implementation

Development Strategy

Coordinating a comprehensive redevelopment strategy for the downtown and riverfront area is extremely vital. The implementation of the physical improvements are significant for a city the size of Owensboro, such as the case of the English Park Inner Harbor (figure 4-29), however there are many other concerns to be addressed to insure the progress of redevelopment. Planning for a high quality riverfront will not always go as planned. Experience suggests addressing key long-term issues when implementing a riverfront. In the case of the City of Owensboro, EDSA suggests the following issues to be considered for successful implementation:

- Acquisition of key redevelopment parcels as early as possible.
- Developing and implementing incentives for redevelopment.
- Public / Private partnerships.
- Neighborhood planning
- Transportation planning
- Seeking monetary support for the above (Tax-increment, grants, State tax-rebates, ect.).

Land acquisition is of the up most importance. In any project, it is crucial for a city to develop a land acquisition strategy early for redevelopment in the future. Experience suggests that acquiring land during initial implementation will reduce the

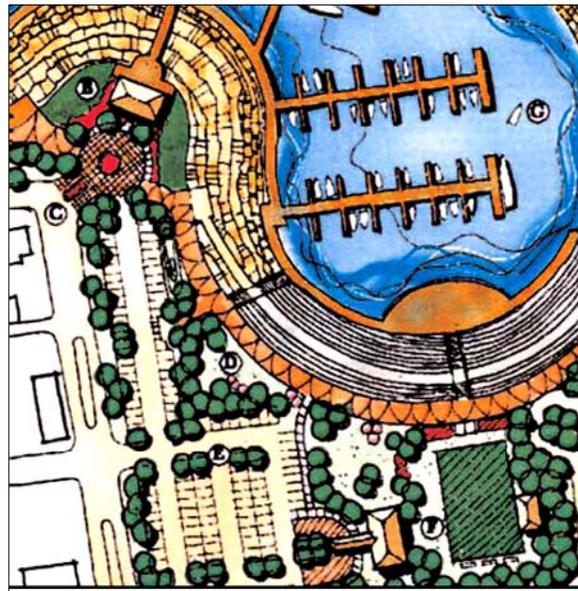


Figure 4- 29: English Park Inner Harbor Plan (EDSA Master Plan Report).

financial burden of purchasing land after initial phases have been completed. In the instance of Owensboro, it is in the best interest to purchase land early before prices increase which discourage developers and hinder the redevelopment of necessary retail, office, or residential improvements. In addition, developer incentives should be encouraged to attract redevelopment. Past riverfront projects in other cities found low cost loans, property tax reductions or other financial mechanisms to be extremely helpful.

Priority Development Strategy

Continual public support is one of the most important aspects of developing a major public space. In the case of the Owensboro Riverfront project, developing an early action project, such as the RiverPark Center's Plaza expansion (figure 4-30, 31), can help to stimulate and encourage community support. Based on the Final Master Plan, the Team put together a Phase I

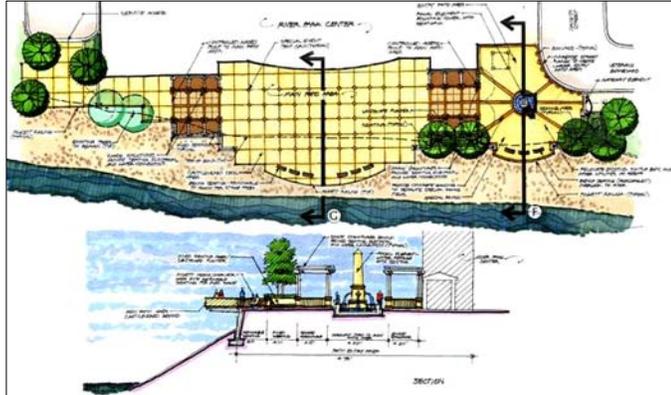


Figure 4- 30: RiverPark Center Plaza expansion (EDSA Master Plan Report).

implementation and priority initiative (figure 4-32). Phase I is to include the following projects:

Downtown

- Expansion of the RiverPark Center Plaza.
- Create pedestrian promenade behind the Executive Inn to English Park.

Riverwalk Walkway Connections

- Connect downtown promenade

with riverbank walkway to English Park.



Figure 4- 31: RiverPark Center Plaza expansion (EDSA Master Plan Report).

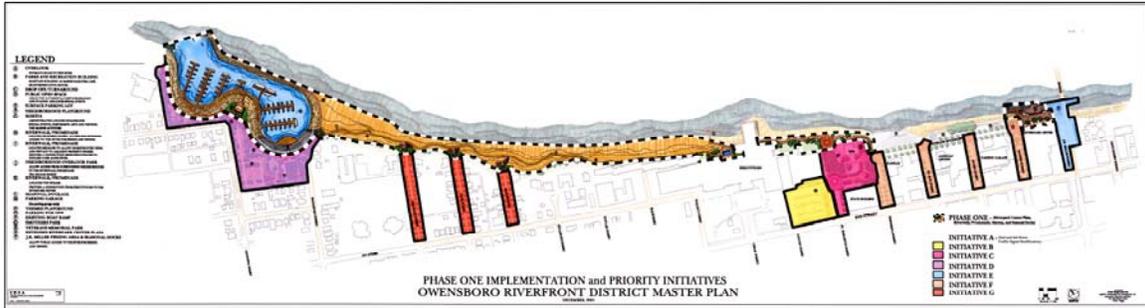


Figure 4- 32: Owensboro Riverfront Phase I implementation and priority initiative (EDSA Master Plan Report).

- Create a promenade with both elevated mid-bank and top-bank circulation.
- Incorporate overlooks at key points along the promenade.
- At key terminus points such as
- Maple, Orchard and Plum Street create small overlook parks to promote public access to the riverfront.

English Park

- Design an inland harbor marina for approximately 130 slips.
- Renovate the historic lockmaster building into a Harbormaster’s building.
- Incorporate an amphitheater with stage utilizing berms.
- Provide access along riverbank for public fishing.

Streetscape / Roadway Improvements

- Calm traffic along Highway 60 by turning 2nd and 4th street into two-way local roads.

Project Schedule

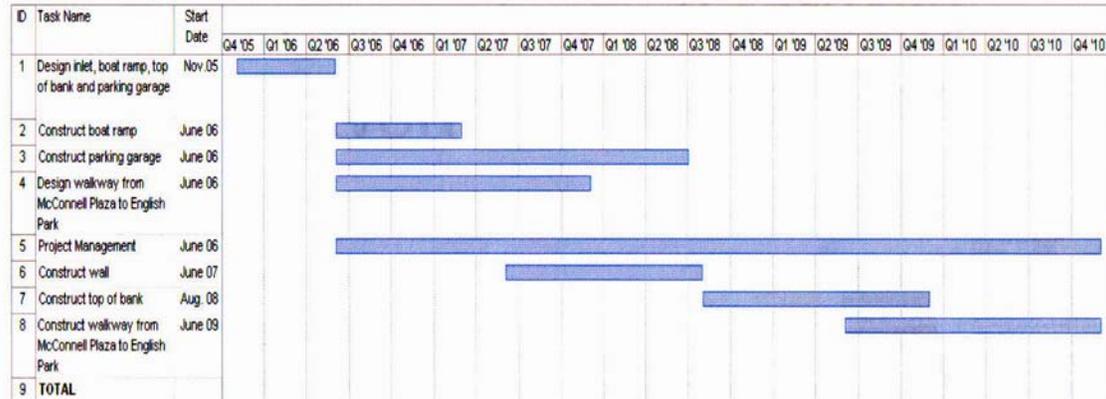


Table 1: Owensboro construction schedule (Owensboro Chamber of Commerce).

Cost/Funding Summary

As part of the master planning process the Team put together a projected cost summary for the Phase I projects in order of completion. The projects include:

- RiverPark Center Patio Expansion
- Riverwalk / Promenade from Frederica Street to English Park, including overlooks.
- Expansion of the seasonal docks at the Executive Inn
- English Park Marina.

The estimated cost summary of the listed initiatives above are as follows:

Patio Expansion

Demolition, hardscape, landscape structure, and civil

Subtotal **\$750, 000**

Riverwalk / Promenade from Frederica Street to English Park, including overlooks

Riverbank improvements	\$1,904,000
Utilities improvements	\$ 935,000
Riverwalk / Promenade	\$3,600,000
Landscape	\$ 178,000
Site Amenities	\$ 118,000
Lighting	\$ 403,000
Signage	\$ 280,000
Overlook Parks	\$ 420,000

Subtotal	\$7,838,000
Downtown Seasonal Docks	
Upland Development	
Sitework	\$ 102,000
Utilities	NA
Waterside Development	
Marina Utilities	\$ 227,000
Wetslip Marina	\$ 545,000
Subtotal	\$ 874,000
English Park Marina	
Upland Development	
Sitework	\$6,890,000
Utilities	NA
Waterside Development	
Marina Utilities	\$ 881,000
Wetslip Marina	\$1,435,000
Subtotal	\$9,206,000
Grand Total	\$18,668,000

Additional phases of improvement are to be allocated when subsequent funding is available, see figure 4-35. Due to limited funding sources, only a minor portion of the Riverfront District Master Plan can be scheduled for implementation (EDSA Master Plan Report). It is very uncommon for a major civic project of multiple phases to be implemented all together. With this in mind, when funding permits the following initiatives will be scheduled for implementation:

- Initiative A: 2nd and 4th Street traffic study and signal modification.
- Initiative B: Downtown parking garage.
- Initiative C: Downtown public plaza.
- Initiative D: J.R. Miller Bridge fishing area
- Initiative F: Downtown streetscape improvements.
- Initiative G: Maple, Plum, and Orchard streetscape enhancements.

Current funding available for implementation are as follows:

Current Balance	\$4,700,000
January 2006	\$1,660,000
June 2006	\$15,000,000
June 2007	\$8,500,000
June 2008	\$8,500,000
June 2009	\$8,500,000

Atchison Riverfront, Atchinson Kansas

Description: Atchinson, Kansas, the birth place of Amelia Earhart, is home to the newly developed riverfront known as Riverfront Plaza. This new and exciting riverfront contains 3,200 linear feet or 15 acres of park space extending from downtown Atchinson to Independence Park. The riverfront was developed in honor of the Lewis and Clark Expedition and in memory of Atchison's veterans.

Former Use: Historic Park.

Project Timeline: Planning began in the fall of 1997. The project was dedicated on June 19, 2004.

Client: City of Atchinson.

Project Cost: \$4.2 million project consisting of both public and private funding. Sources included Kansas Water Office, the Kansas Department of Wildlife and Parks, Private funding and Federal Grants.

Participants: Riverfront Park committee, the Kansas Lewis & Clark Bicentennial Commission and the City of Atchison.

Designer: Joshua Creek of HNTB.

Project Size: The project extends from downtown, North past the veteran's memorial, Independence Park and along the levy for a total of 15 acres of open space.

Significant Design Features:

- Information Kiosk
- Veteran's Plaza
- Overlook Plaza
- Children's Playground
- Boat Ramp

Opportunities:

- Promote events and document historic sites related to the Lewis and Clark observance in Kansas
- Provide information to visitors attending events or making plans to attend
- To establish Atchison as the focal point for regional Lewis and Clark observances based on the expedition's July 4, 1804 landing in present-day Atchison.
- Showcase the city's history and to promote Atchison as a travel destination
- Provide recreational opportunities.

Constraints:

- Ownership of railroad tracks.
- Private ownership of property, lack of land for commercial development.
- Poor retail mix in downtown.
- Lack of availability to large retail space.
- Overall image.
- Segregation of the Mall to the Riverfront.

Site History

Sitting on a western bend of the Missouri River in a natural bowl, Atchinson, Kansas rests as a city of great prominence and significant history. Over 300 years ago, the area known as present day Atchinson was home to the Kansa Indians. Discovered by Lewis and Clark on July 4, 1804 on an expedition to explore the newly purchased Louisiana Territory, the Kansa Indian's abandoned village marked the first celebration of Independence Day in the American West.

Fifty years after Lewis and Clark celebrated the first Independence Day in the west; on July 20, 1854 the Kansas territory was open for settlement. The Atchinson region became one of Kansas's first settlements, several men from Platte City, Missouri staked out

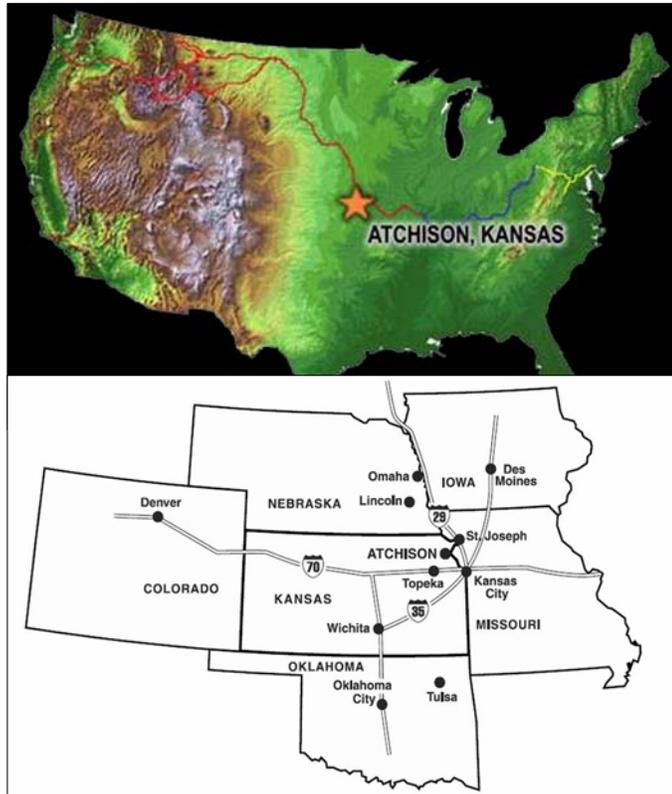


Figure 4- 33: Context Maps for Atchinson, Ks (Atchinson Chamber of Commerce).



Figure 4- 34: David Rice Atchinson (Atchinson County Historical Society).

the town site which they named after the Missouri senator David Rice Atchinson (figure 4-34). On August 30, 1855 Atchinson became incorporated as a town by the Territorial Legislature and shortly after on February 12, 1858, Atchinson became incorporated as a city.

Thriving on the Mormon migration to the west, Atchinson began to establish itself as a strong commercial community with prominent steamboat transportation and supply center.



Figure 4- 35: Commercial Street in 1860 (Atchinson County Historical Society).

Atchinson quickly became a popular outpost for many travelers heading for Sante Fe, Wyoming, Utah, California and other thriving areas in the west. In addition, Atchinson served as a supply center for many other smaller communities established along the trail to the west (Atchinson Comprehensive Plan).

Transportation became a key factor in Atchison's early years. Riverboats were a common site along the riverbanks of Atchinson. Boats frequented the busy city, stopping to load and unload supplies to handle the more than 250,000 people stopping before heading west. Numerous wagon train outfitters were established in conjunction with many other businesses including lumber mills, grain mills, dry goods, agricultural implements, hotels, and shops.

In the early 1860's overland trade began to diminish leaving leaders of Atchinson with a minor dilemma. With Atchinson as a popular hub for transportation to the west, city officials came up with the solution to make the city a railroad hub for traveling and

shipping. Considered one of the most notable features associated with Atchinson, investors armed with \$150,000 formed the Atchison Topeka & Sante Fe Railroad. Following the civil war, railroads began to expand at a rapid pace. By 1872, with the arrival of Chicago, Rock Island & Pacific Railroad, eight separate railroad tracks terminated within Atchinson, while only four connected in Missouri. Atchinson continued to experience tremendous growth, peaking from 1870 to 1900. More and more major industries along with large wholesale firms developed along with railroads, grain and milling, lumber and manufacturing. By the 1870's, only two cities in Kansas were more prominent than Atchinson, Leavenworth and Topeka.

Unfortunately growth would begin to peak and slowly decline due to the failure to build a bridge over the Missouri River. In 1875, ten years behind Kansas City and St. Joseph, Atchinson finally completed the bridge in



Figure 4- 36: Fifth and Commercial Street, Atchinson, Ks in the early 1900's (Atchinson County Historical Society).

an effort to become apart of the great transportation forefront it once led. Ultimately, Atchinson would suffer greatly from this delay, losing pace with other up and coming cities of the time.

In an attempt to become the leading hub of Kansas again, the City of Atchinson built the Mo-Kan Free Bridge (figure 4-37) in 1938, ending the era of the toll bridge and bringing the city into the automobile age. The Mo-Kan Bridge, later named the Amelia Earhart Memorial Bridge, proved to be an important tool in rejuvenating the role of Atchinson as a transportation hub.



Figure 4- 37: Amelia Earhart Memorial Bridge (Atchinson County Historical Society).

The end of World War II resulted in numerous changes throughout the country and in Atchinson. Many new structures were torn down and rebuilt to resemble modern architecture. The old Union Depot built in the 1880's was torn down and reopened on the Centennial year of 1954. The new Union Depot served passenger traffic up until 1958 when the last Mo-Pac Eagle passenger train ran. Today the building serves as a body shop on Main Street (Atchinson Comprehensive Plan).

The summer of 1958 brought about heavy winds and damaging floods. The summer floods nearly destroyed everything in sight, completely



Figure 4- 38: Atchinson pedestrian mall in 1960 (Atchinson County Historical Society).

disfiguring many buildings and the central business district. The resulting damaged prompted massive construction efforts such as the Watershed Dam Flood Control Projects and the Urban Renewal project geared to reshape the city.

Urban renewal in Atchinson focused on rebuilding the business district and building a state of the art pedestrian mall (figure 4-38) in the heart of the downtown district. The mall was modeled after other successful projects resembling the trendy malls of Miami, and Kalamazoo, Michigan. In addition, the city took the opportunity to implement several dam and flood control structures to help control the White Clay Creek. Engineer's solution involved relocating and channelizing White Clay Creek to prevent any future flood disasters. The City of Atchinson became known as "the city that refused to die" rebuilding the city into a safe and sound community with a bright future (Atchinson Comprehensive Plan).

Today the City of Atchinson consists of approximately 10,200 individuals within 6.8 square miles. Then average annual income is \$31,109 compared to a national average of \$41, 994, with an unemployment rate of 5.6 percent. The community is composed of 49.1 percent males and 50.9 percent females. Ethnicity for this region is predominately white at 75.1 percent, African Americans at 12.3 percent, Asians 3.6 percent, and Native Americans at .1 percent. In terms of education the City of Atchinson is surprisingly above the national average in some instances. 37.4 percent of the total population for the City of Atchinson graduated with a high school diploma compared to a national average of 28.6 percent. Higher education is slightly below average with 26.7 percent seeking an associate's degree compared to 27.4 nationally. 11.3 percent have finished a Bachelor's

degree with 9 percent accomplishing a master's or doctoral degree (Source: 2000 census, U.S. Census Bureau)

Manufacturing and the railroad continue to form the primary economic foundation for the City of Atchinson. Although a relatively small community, the City of Atchinson is an up and coming municipality with economic spurts in the areas of wholesale and retail. Goods such as steel, food, clothing, and furniture continue to flourish in this remarkably unique community

(www.atchisoncountyks.org). Over the years, Atchinson has become a tourist attraction with visitors traveling to see sites such as the Pony Express, St. Benedict's Abbey, and the birthplace of Amelia Earhart (Spivak, 2005).

Aside from the economic and demographic aspects, Atchinson is a relatively active community which hosts numerous festivals and special events throughout the summer months. The

city comes together to host such events as the Riverbend Art Fair, the annual Earhart Festive in July, the popular Atchinson County Fair, along with several other exciting events (www.atchisoncountyks.org).



Figure 4- 39: Riverfront prior to redevelopment (Atchinson Chamber of Commerce).

Genesis of Project

Typical of many Northern American cities founded along a riverfront, downtown Atchison slowly departed away from the banks of the Missouri river. No longer a major necessity, the community gradually began to transition the downtown into a separate entity, severing the physical, social, and economic ties with the river. Abandoning the Missouri River to form a new downtown not only created a physical separation, but ultimately resulted in the decay of the riverfront. Forming the town's eastern boundary, the nearly one-mile stretch of unsightly riverfront property became a sight of disrepair (figure 4-39). Abandoned and unappreciated, the riverfront had become an unpleasant backdrop to the City of Atchison. The sight had now become a place where individuals would dump waste along the rocky bluff, teenagers would gather to loiter and drink, and a site for the railroad company to store unused rail cars on an abandoned set of railroad tracks. This once thriving impetus of the city no longer appealed to the community.

Not giving up entirely, Atchinson residents still viewed the site as a positive destination with the potential for becoming a major asset to the community. Although in relatively poor condition, residents still enjoyed what little bit the riverfront had



Figure 4- 40: Parking area prior to redevelopment where workers ate lunch and enjoyed the view (Atchinson Chamber of Commerce).

to offer. Visitors were able to appreciate the minor aspects of the site including a boat ramp, a veteran's memorial, and an access road where workers could park and enjoy the

view of the river while eating lunch, seen in figure 4-40 (Spivak, 2005). City officials and leaders soon realized something needed to be done to reconnect the riverfront to the downtown and encourage revitalization of this dilapidated site.

Concerned with image and aesthetics, the City of Atchinson approved a comprehensive strategic plan in August of 1996. The first order of business focused on the improvement of the downtown and riverfront districts. City leaders and officials were interested in developing a master plan which could serve as a guide for improving tourism and boosting the image of the community. The city desired a master plan which would establish design standards, recommendations for parking and traffic patterns, land use requirements, and a streetscape and landscaping plan (Lawson, 2005).

Pressure increased to enhance the riverfront when the National Council of the Lewis and Clark Bicentennial selected Atchinson as a site for one of its signature events in the spring of 2001. City leaders now had a reason to officially get the project rolling on this seemingly growing project. The first step of initiation involved the creation of the Atchinson Riverfront Development Council headed by a local business executive by the name of Bob Adrian (Spivak, 2005). The primary objective of this committee was to create an appropriate venue for the bicentennial celebration, putting Atchinson, Kansas on the map.

Supported by approximately 50 volunteers from the community, staff members from the chamber of commerce, and the City of Atchinson; the development council prepared to develop an official master plan. The Chamber of Commerce was awarded a \$10,000 grant from the Kansas Department of Commerce & Housing (KDOCH) which enabled the task force to begin research. Research and meetings were conducted over a

two year period before finally finishing the Downtown/Riverfront Development District Master Plan which was approved by city commissioners in March of 2002.

Avoiding a lengthy bidding process in order to make the 2004 summer deadline, the committee decided to utilize private funding to hire the HNTB corp. out of Kansas City, Missouri. Already familiar with the site, the engineering, architecture, and planning firm was already working with the Army Corps of Engineers on a Missouri River recreation study geared toward the Lewis and Clark bicentennial celebration. The firm was hired to aid in the conceptual development of schematic drawings detailing the new and improved vision for the site.

With a master plan in place and a vision for the riverfront established, the city had one last major hurdle to overcome before planning for implementation. Previous attempts to renovate the riverfront were denied when the City of Atchinson was unable to acquire the railroad tracks which bisected the riverfront. In the past decades, three attempts were made to have the tracks removed, however each attempt failed. With the help of Sen. Sam Brownback (R-Kans.), the Burlington Northern and Santa Fe Railway finally agreed to donate the property to Atchinson (Spivak, 2005). With land acquisition troubles finally resolved; the project now was in a position to move forward. The city now could begin planning for implementation and the allocate funding.

Master Plan Report

Planning Process

Planning for the Atchison riverfront corridor involved the following phases:

- Public consensus building
- Analysis and research
- Public meetings and presentations
- Preliminary master planning
- Final master planning

For many years the City of Atchison failed to update and revise the outdated comprehensive strategic plan. Many areas within the city had become dilapidated and showing signs of severe blight. Concerned with community image and economic vitality, the city soon realized it was time to rejuvenate



Figure 4- 41: Riverfront district prior to redevelopment (Atchinson Chamber of Commerce).

the outdated comprehensive plan. In 1996 the plan was completed finding the downtown / riverfront district (figure 4-41) as the number one priority for redevelopment. With ideas of community image and aesthetics established, the city now had the direction it needed to begin focusing on a master plan for the riverfront district.

Overseeing the planning and development of a riverfront entails a well organized group of individuals committed to every aspect of the project. Chances for

success are very minimal without a committee willing to put forth the effort of organizing and properly managing a project of this magnitude. Realizing the importance of good representation, the City of Atchison immediately put together a Riverfront / Downtown Development Council. The task force primary objective was to focus on efforts which improve the image of Atchison and strategies for connecting downtown to the riverfront.

Thanks to the work of the Chamber of Commerce, the city was awarded a \$10,000 action grant from the Kansas Department of Commerce and Housing (KDOCH). This grant allowed the riverfront council to begin the production of a master plan. The riverfront council compiled a group of five sub-committees dedicated to administering special areas of interest involving the riverfront. Meetings were conducted for nearly a year involving extensive research and public input. In addition, committee members participated in several field trips to study other successful riverfronts. Eventually the task force as a whole was able to develop a set of design standards which were presented to downtown mall merchants, riverfront property owners, professional organizations, and numerous business owners. With insight gained from previous meetings, the task force then held two public forums showcasing a draft of the riverfront master plan. With the public's input and support, the riverfront task force then proceeded to finalize a master plan for the riverfront corridor.

In the best interest of the riverfront and insuring the public's concerns, the riverfront task force proceeded with additional planning. With previously failed attempts in mind, the task force decided to take the initiative of not only setting design standards, but developing a list of priorities and a timeline for development strategies (Atchison Master Plan Report). Well aware of the importance of good planning and preparation,

the riverfront task force was now in a position to actually begin construction furthering the public's excitement.

Public Consensus Building

As in any major civic project, the City of Atchinson encouraged public input and participation in the development of the downtown/riverfront project. In order to satisfy the public's needs and stimulate support for the riverfront, the city of Atchison developed the Atchison Riverfront Development Council (riverfront council/task force). The task force was created entirely on a volunteer basis consisting of approximately 50 government officials, retailers, business owners, property owners, and the community at large. These diverse groups of individuals were divided among five sub-committees to address or study specific issues of the master plan. The sub-committees were divided into the following major groups:

- Historic background
- Design
- Recreation
- Image
- Finance

Each group worked as a team to gather information and conduct extensive research on the area of interest. Major responsibilities for each sub-committee involved identifying needs, problems, and solutions from each group. In addition, groups were responsible for developing strategies for addressing issues. Learning from the past, the riverfront task force firmly believed in the creation of sub-committees to allow the public's full participation throughout the master planning process. Previous attempts to rejuvenate the riverfront failed to include the public participation and input.

Working tirelessly over a 14- month period, the Atchison Riverfront Development Council (riverfront task force) held meetings and public charrette's to gather information, conduct research, and solicit public input in order to finalize a master plan. In order to keep the committee on track, an outline of specific duties was created to guide the responsibilities of each sub-committee. Major duties included:



Figure 4- 42: Leavenworth riverfront (www.randmcnally.com).

- Data Base Development
- Community Participation
- Existing and Projected Conditions
- Establish Priorities / Conduct Feasibility Study
- Develop Design Alternatives
- Asset Impact
- Identify Resources / Process

In addition to creating an outline, members of the committee visited and researched other successful projects in order to apply similar principles to Atchison's riverfront (Atchison Master Plan Report). The committee visited nearby communities such as Lawrence and Leavenworth (figure 4-42) compiling a collage of images in a photo album for the public to view at the local Chamber of Commerce. Visiting other projects aided the riverfront task force in decision making speeding up the process of master planning (Atchison Master Plan Report).

Although numerous concerns were found and identified, the riverfront task force was able to conclude key objectives to be addressed in the final master plan. These issues included:

- Define and develop the downtown / riverfront as a focal point.
- The need to unify and connect the downtown to the riverfront.
- Build on the wealth of historical structures and unique history of the City of Atchison.
- Support the development of arts, culture and recreational opportunities.
- Availability of large tracts of land for commercial development.
- Develop improved boat launching facilities.
- Expand parking lots for boat trailers.
- Expansion and enhancement of Independence Park.
- Expansion of existing boat docks.

Site Analysis and Research

In order to create a sound and fit master plan, further preparation required additional analysis and research of various elements throughout the riverfront district. As apart of the analysis phase of master planning, the

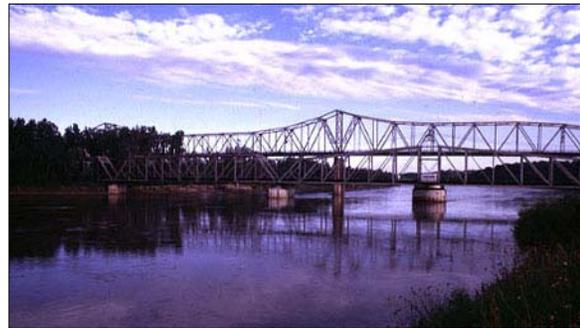


Figure 4- 43: Missouri River flowing under the Amelia Earhart Memorial Bridge in Atchison, Ks (academic.emporia.edu).

riverfront council worked as a team to identify strengths and challenges associated with the riverfront district. By identifying the elements the task force was able to prepare for solutions to these issues in the final master plan. The task force found the following strengths associated with redevelopment:

- Historical significance of the district.
- Historic architecture.
- Proximity and accessibility to the Missouri River (figure 4-43).
- Close proximity to several major metropolitan areas (figure 4-45).
- Recreational opportunities
- Visibility and accessibility from major arterial roadways.
- Abundant and accessible parking in the downtown area.

The task force found the following challenges associated with redevelopment:

- Overall image of the downtown / riverfront area.
- Address buildings with unattractive façades and in disrepair.
- Separation created by the Cap of the Mall building between downtown and the riverfront (figure 4-45).
- Potential for flooding.
- Ability to attract and extend retail, restaurants, and entertainment to the riverfront.
- Ability to acquire large tracts of land for development.



Figure 4- 44: Mall Cap Building (Atchison Master Plan Report).

Upon the completion of identifying the strengths and challenges of the district, the task force utilized this list to develop a list of critical issues used to evaluate alternatives in the preliminary master planning stage (Atchison Master Plan Report).

Before moving into preliminary planning additional research was needed to complete the analysis and research of the downtown / riverfront district. Utilizing an outline previously created to guide the riverfront council, members of the task force worked together to research



Figure 4- 45: Atchison, Ks in relation to other major metropolitan areas (www.mapquest.com).

various elements crucial in the planning of a redevelopment project. Members were

responsible for putting together a wide variety of reports, conducting evaluations, creating maps, putting together statistical data, allocating resources, taking inventory and developing plans in order to fully understand the area proposed for improvements. In addition, studies were done on cities of similar size, makeup, and proximity to major metropolitan areas to determine growth patterns, tourism, shopping and dining trends, and economic benefits. These studies aided in determining the feasibility of redeveloping the riverfront district in Atchison.

Studies found several positive factors allocating the redevelopment of Atchison's riverfront district. Studies concluded the following results of similar cities:

- Nationwide, the fastest areas of population growth were found in small cities within a one-hour travel time of large metropolitan areas.
- Population growth has spurred in smaller communities offering historic charm, good quality of life, and a relaxed life style.
- In the past ten years, communities with historic charm also witnessed a boost in tourism.
- As a direct result to tourism, retail sales have increased in smaller historic towns adjacent to larger metropolitan areas. In the last five years 15,000 shopping malls have closed across the nation.



Figure 4- 46: Traditional shopping district in downtown Atchison (Atchison Master Plan Report).

- Due to this recent trend, developers have become interested in the development of traditional shopping districts (figure 4-46).
- National retailers have initiated the redesign of their typical storefronts to fit the architectural context and charm of new shopping and tourist districts.

Considering the trends in growth and the interest of tourist to visit smaller historic communities in addition to the close proximity to three major metropolitan areas, these findings suggested that Atchison appeared to be well suited for the redevelopment of the downtown / riverfront district (Atchison Master Plan Report). With these positive results the city of Atchison was now in a position to prepare for preliminary master planning of the riverfront district.

Preliminary Master Planning

Working towards the completion of a final master plan, the riverfront task force was now in a position to identify critical issues to be addressed and serve as guiding principles in the design of the riverfront district. The primary concern for the district was developing strategies which overcome problems associated with appearance and aesthetics. Early in the planning process it was clear that the majority of the tools needed would focus on solutions for controlling aesthetic issues. The following is a list of guiding principles developed by the riverfront task force to serve as blueprint for success:

- Establish design guidelines to encourage new development and restoration. In addition, new construction to be sensitive to the historical context of the district.
- Involve property owners and business owners throughout the decision making process.
- Define, evaluate and follow the action suggested in the Atchison Comprehensive Strategic Plan.
- Determine availability of property to facilitate prospective retailers, businesses, and interested developers.
- Identify and provide resources and tools for the preservation and restoration of historical structures.
- Develop and provide support services to existing businesses to maximize profitability.

With a list of guiding principles to set standards, evaluate alternatives, and aid in decision making, the task force was now ready to address various development alternatives and create a direction for the project. In order to fulfill the needs of the public and create an economically stable development, the task force was now challenged with creating a development scenario which enhanced strengths, minimized or resolved challenges, and meet as many of the goals outlined in the Comprehensive Strategic Plan as possible.

Scenario I - Continue with existing conditions

Develop the riverfront as a light industrial and manufacturing district, allowing the mall to remain as the primary commercial district. Emphasis would be placed on increasing the number of light industrial and manufacturing operations in the riverfront district while increasing the number of retailers with the mall.

This scenario addresses several goals of the Comprehensive Strategic Plan, however lacks in the development of the riverfront as a focal point and the connection of the riverfront to the downtown. In addition, this option fails to address the historical architecture of the districts. Furthermore, this scenario does not allow the opportunity for an attractive entrance into the city and ignores the opportunity to utilize the Missouri River as a tourist attraction and recreational resource.

Scenario II – Combined Downtown /Riverfront Area

Due to the opportunity to create a tourist attraction and the historical context of the riverfront, this option focused on the implementation of more commercial, retail, specialty shops, restaurants, and entertainment. Utilizing Commercial Street as a link to



Figure 4- 47: Commercial development along Commercial St. linking downtown to riverfront (HNTB Corporation).

the riverfront, the opportunity to create a commercial district from the Missouri River to downtown can serve to link the two areas unifying both districts (figure 4-47). One major obstacle however, is the inability to create a visual and physical connection to the riverfront due to the Mall Cap Building. Design alternatives for altering the existing building need to be addressed in this alternative (figure 4-48, 49).



Figure 4- 48 Plans for opening the Mall Cap Building to create a visual connection to the riverfront (HNTB Corporation).

Aside from the Mall Cap Building this option addresses every goal of the Comprehensive Strategic Plan

relating to the downtown and the riverfront districts. In addition, scenario II offers the ability to create an attractive entrance into the city from the east, allowing opportunities for tourism and recreation along the riverfront. Furthermore, this option allows the

ability to set development guidelines which respect the sensitivity of the historical architecture and cultural structures existing in both districts (Atchison Master Plan Report).

With both alternatives available for review and suggestions, the task force must represent the community and choose the best scenario and provide a design solution which fits the standards set by the riverfront council.



Figure 4- 49: Commercial St. Mall Improvements (HNTB Corporation).

Final Master Planning

Based upon the research of other similar communities, the task force essentially chose to follow through with the implementation of scenario II. Connecting the downtown and riverfront into one continuous corridor meets the needs of many desired elements outlined in the Comprehensive Strategic Plan. With a sense of scope and direction now established for the downtown / riverfront district, the task force can now prepare for the development of a design solution.

With the added pressure of the Lewis and Clark Celebration planned for the summer of 2004, the riverfront council was limited in terms of the time constraints needed to develop several sound design alternatives and work through the approval process. With this in mind, the task force was adamant in finding a firm capable of producing a quick solution. Already working with the Core of Engineers on the Missouri

River Recreational Study for the Lewis and Clark expedition, HNTB was an obvious choice for the job. Familiar with a majority of the projects details and an integral part of the initial planning process, HNTB was able to work with the task force to create a sound design solution in a minimal amount of time.

With the help of the community and key stakeholders, HNTB and planning partner Wayne Feuerborn, established the need for various site elements including:

- Ceremonial gathering space for the bicentennial celebration.
- A better connection between the riverfront merchants and downtown.
- Adequate boat access.
- Parking adjacent to the riverfront in addition to expanded parking for boat trailers.
- Memorial recognizing fallen veterans of Atchison.
- Expansion of Independence Park.
- Walking and biking trail with the possibility of connecting to the cities existing green belt.

With the professional help of HNTB, the task force was able to construct a final draft of the Downtown / Riverfront Development District Master Plan. Approved in March of 2002, HNTB's vision included numerous elements which accented and enhanced the riverfront corridor. The final master plan included plans for the implementation of several elements including:

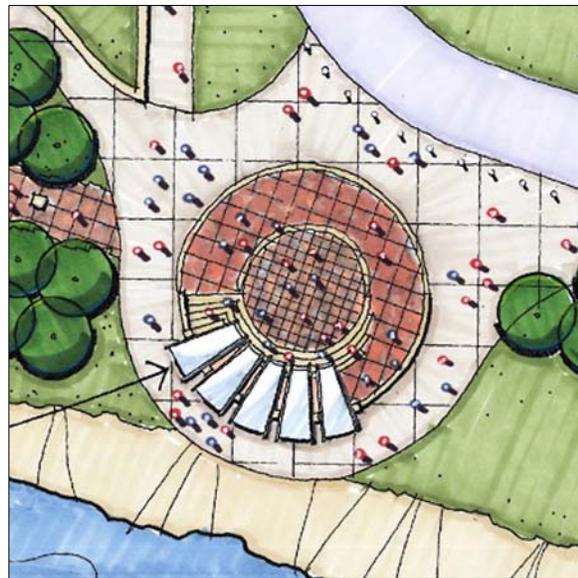


Figure 4- 50: Interpretive pavilion (HNTB Corporation).

- A multi-functional pavilion serving as an interpretive space and an outdoor amphitheater (figure 4-50).
- Completely redesigned veterans memorial with six stone columns hosting 256 names of fallen soldiers etched in illuminated glass (figure 4-51).
- Several proposed boat ramps offering easy access into the river.
- A unique children’s playground with a replica of the Lewis and Clark keelboat (figure 4-52).
- Expanded parking for boating enthusiasts.
- Proposed restroom facility with an outside shower unit.
- Overlook pavilion adjacent to the water’s edge equipped with floating docks (figure 4-53).
- Native tree arboretum.
- Renovation of Independence Park equipped with trails and an outdoor amphitheater (figure 4-55).

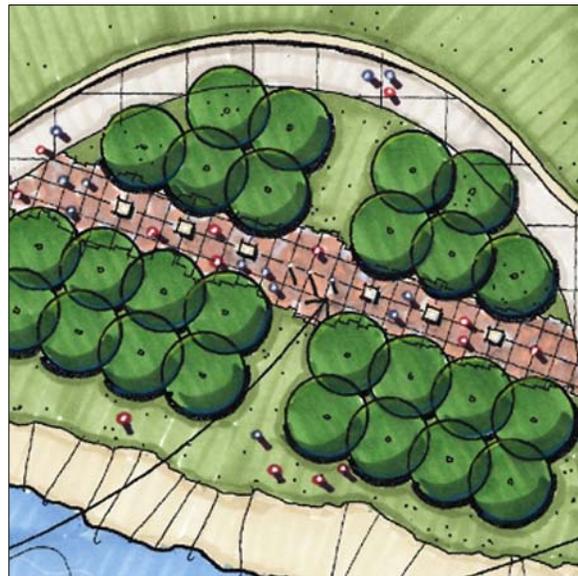


Figure 4- 51: Veterans Plaza (HNTB Corporation).

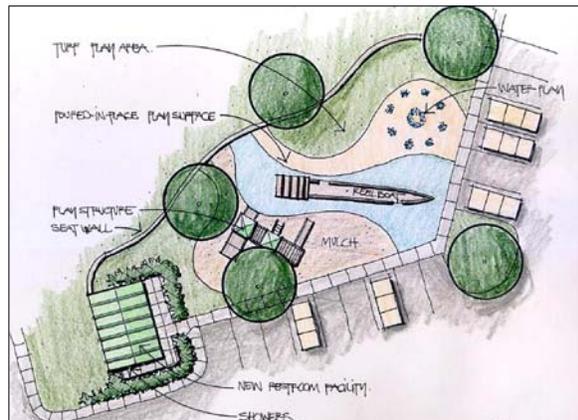


Figure 4- 52: Children’s Playground (HNTB Corporation).

With the approval of the final master plan, the City of Atchison had overcome a major hurdle, completing yet another crucial stage in the planning process. With the public’s support and a committed task force, the committee now prepared for the final stage of the development process. Many smaller communities and even larger metropolitan areas have commonly failed to overcome the implementation phase of

numerous civic projects. With an estimate of approximately \$4.36 million, the City of Atchison geared up to begin intensive fundraising, leveraging, and lobbying for public and private funding to complete the project (Lawson, 2005).

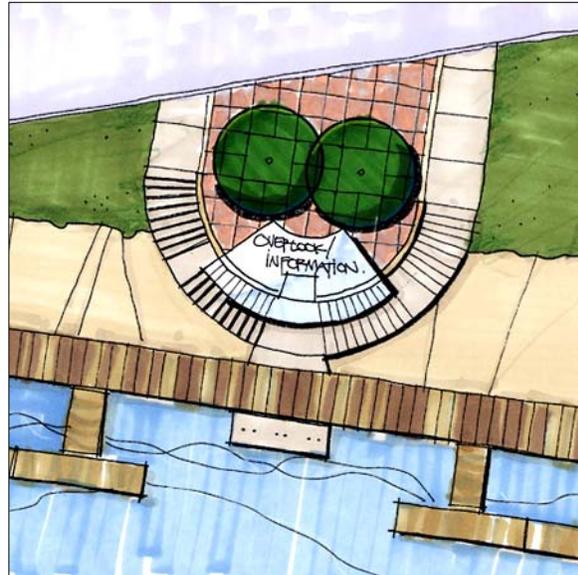


Figure 4- 53: Riverfront overlook & boat dock (HNTB Corporation).



Figure 4- 54: Riverfront Plaza plan designed by Joshua Creek (HNTB Corporation).

Programming

Designing a project which is not only functionally and aesthetically pleasing, but also allows the opportunity to attract users to the space is critical to a projects success. In terms of programming, a design solution which incorporates public access to areas of open space for entertainment purposes can be extremely beneficial in increasing the popularity and use of a recently developed project. Programming is an element which must be addressed in the initial stages of planning and carried out following the completion of the project. Hosting special events, festivals, or recreational challenges has often been a successful means of introducing a civic space to a community.

In the case of Atchison's riverfront, much can be improved to take advantage of this historically unique community and its comfortable location next to the Missouri River. In the past, historical celebrations have been the primary means for attracting individuals to the riverfront which lacked the proper accommodations. With a well thought out master plan in place, the implementation of new and improved riverfront creates the opportunity to host a wide variety of venues. With this in mind, Atchison can afford to create a list of programming events which will fully utilize the riverfront as it should be.

In the past, Atchison has been limited to minor events such as the

Amelia Earhart Festival (figure 4-56) and small fishing tournaments (Atchison Master Plan Report). The Downtown / Riverfront District Master Plan lends itself to an



Figure 4- 56: Musical entertainment during the Amelia Earhart Festival (www.atchisonkansas.net).

improved list of programming opportunities both the community and city can benefit from. Lacking the ability to host any type of major event, Atchison in the past has had no reason to step up programming efforts. With the implementation of the proposed riverfront, experience suggests the need to incorporate additional programming. Aside from the Lewis and Clark and Amelia Earhart Celebration, the Atchison Riverfront has the opportunity to enhance programming with events such as:

- 4th of July Celebration
- Art Festivals
- Barbeque contests
- Live entertainment
- Auto / Cycle Shows
- Wine festivals
- Carnivals
- Walking / Biking events

Developing a wide variety of programming elements not only benefits the community socially, but from an economic standpoint, increases the potential to increase revenue for the city. Creating a strong relationship with the community through use of the riverfront is an excellent approach to increasing use and maintaining vitality.

Construction and Implementation

Development Strategy

Preparing for implementation is a key component for any project no matter the scale. Developing a strategy for which to follow can help to ease the development process both short and long-term. Developing a well planned strategy for implementation is a tool many communities have found to be very beneficial.

Experience suggests any community looking to implement a public project should prepare a list of long-term goals outlining key components needed to complete the project successfully. Realizing the importance of a development strategy in the development of the Atchison downtown / Riverfront Development, the task force prepared an initial plan of attack. Although considered a starting point, the task force specified the following major components needed to realize the final master plan goals:

- Determine an organizational structure responsible to oversee and implement the plan.
- Communicate all plans to all major parties involved including the public.
- Solicit support and interest from investors, developers, potential retailers, and other financial resources.
- Administer to the plans outlined in the master plan and any design guidelines established for growth.

In an effort to maximize efficiency and maintain a steady schedule, the riverfront council additionally prepared a general plan outlining the implementation process.

Although relatively typical, when needed, the task force plans to make additions and alterations when other issues arise (Atchison Master Plan Report). The following is the task's force suggestion for implementation:

Develop Implementation Plans

I. Identify Process

- a. Political and Developmental
- b. Identify method of judging proposals.

II. Initiate Implementation Plans

- a. Identify potential partners, developers, etc.
- b. Solicit potential partners, developers.

- c. Develop request for qualifications
- d. Distribute request for qualifications
- e. Evaluate submittals.
- f. Select Partners and developers.
- g. Establish a façade improvement program.

III. Identify Potential Hotel Developers / Operators, Solicit Participation & Assistance in the Development of a Hotel for the Riverfront.

IV. Design Signage System Riverfront / Downtown Area Which Fits Into the Historical Context of the Area.

Re-evaluate Priorities & Establish Phases

- I.** Meet with Selected Partners and developers.
 - a. Evaluate priorities.
 - b. Establishes phases.
 - c. Develop understanding of expectations, task, and responsibilities of all parties involved.

Many projects, depending on size and budget, utilize the idea of phasing a project. Rarely can a community implement any major project without a phasing plan. In the case of the City of Atchison, plans for implementation have been phased primarily into one phase with the option of two. The primary goal of the community was to directly address the riverfront first with the possibility of finalizing any details later. For instance, the task force planned for the entire completion of the Riverfront Plaza along with the renewal of Independence Park. However, due to time constraints and budget, plans for additional

improvements to Independence Park have been set for future dates. Without phasing, many major projects would be impossible.

Priority Development Strategy

During preliminary planning the task force decided that the best option for the downtown / riverfront development was to combine both districts into a combined commercial district capable of enhancing the retail experience, tourism, and recreational opportunities. The primary objective of scenario II is to boost tourism.

The task force identified tourism as the key trade capable of revitalizing and expanding the retail and business district. To boost tourism the community plans to implement mixed retail within the district, enhancing the overall shopping experience. Understanding the appropriate retail mix is key to achieving a successful development. In order to understand the proper type retail mix, the task force plans to conduct studies which focus on shopping needs and the anticipated types of tourist expected to visit. Making sure not to exclude the needs of existing retailers and businesses, information will be available which will allow the opportunity to fill necessary voids. Furthermore, understanding the types of retail needed to support this type of district can aid in soliciting specialty retailers (Atchison Master Plan Report). Taking the time to understand the communities will help not only to enhance the downtown / riverfront experience, but also stimulate the possibility of future development. The task force put together an outline of strategies needed for the commercial district:

- Confer with the expertise of a retail consultant to identify the appropriate retail mix which follows the goals of the master plan.
- Identify the types of retail which enhance the shopping experience and are desired by the community.

- Create a implementation plan and incentives to attract desired retailers.
- Seek out the desired retailers which fit the designed retail mix.
- Work with local retailers to fit the community's needs and desires.
- Locate resources which can be used by local retailers to aid in marketing tourist.
- Study incentives which could be used to encourage desired retailers into the district.
- Profile the desirable market for Atchison and develop strategies to implement that market.
- Identify resources which can aid local retail stores ability to adapt to a changing market and stay competitive.

Aside from developing strategies for developing an attractive retail mix, the task force also found tourism to be an important tool in the success of the desired master plan. Tourism has been found to be one of the fastest growing industries for small towns with historic ties. Tourism has been used successfully by many communities to boost local economies and reduce the tax burden for residents of the community (Atchison Master Plan Report). The following is a list of recommendation made by the task force to attract tourism:

- Develop a plan to create an identity for the community.
- Build upon and improve events which attract tourist.
- Study the potential for constructing a museum/cultural center.
- Create a marketing plan for attracting new hotels, restaurants, and specialty retailers within the downtown / riverfront district capable of supporting tourism, festivals, and other events.
- Capitalize on events which bring national and international attention (Amelia Earhart and Lewis & Clark festivals).

With excellent access to the Missouri River, the City of Atchison is in an excellent position to introduce recreational opportunities adding yet another dimension to the riverfront. Providing a wide range of activities not only enhances the quality of life within the community, but also attracts numerous users to the space. With the idea of increased attention focused around the new development, retailers will become more attracted to the space. The following is a list of suggestions created by the task force to increase recreational opportunities:

- Provide a list of recreational opportunities and implement a plan.
- Identify financial and professional resources to develop recreational elements.
- Support the development of a multi-sport recreational complex to attract state and local tournaments.
- Create trails which link to the downtown / riverfront district (Atchison Master Plan Report).

With a vision in tact, strategies identified, and a set of standards to follow, the City of Atchison is well prepared to tackle the challenges of achieving a successful project. Preparation is a key component to success in any part of the planning or development process. Creating a solid foundation of planning, support, and resources seems to be the key to achieving a desired outcome.

Project Schedule

HNTB Scope of Services schedule:

Task 1	Project kick-off	January 2002	
Task 2	Master Plan Report	March 2002	4-6 weeks
Task 3	Preliminary Design	April 2002	9-12 weeks
Task 4	Design Development	July 2002	11-13 weeks
Task 5	Construction Documents	December 2002	10-12 weeks
	Construction Administration	March 2003 – July 2004	

Cost/Funding Summary

Riverfront Park to date is the largest development project in the history of Atchison to be approved. Great measures were taken to allocate both public and private funding necessary for this unique project. Spearheaded by two key individuals, Bob Adrian and Karen Seaberg, the City of Atchison was able to scour federal transportation and state park agency grants. Lobbying in Washington, Karen Seaberg made several trips to meet with Kansas congressional staff to seek out federal funding sources capable of funding phases of the project. In addition, in order to make the Lewis and Clark Celebration deadline, state politicians and department directors worked to usher federal money through state agencies in an unusually short amount of time. In all, the community was able to solicit enough money through state and federal agencies to support two-thirds of the estimated \$4.36 million dollar project. A mere five percent of the project was funded by the city, allocating the rest to private donations (spivak, 2005).

Without the hard work and determination of several key individuals, the City of Atchison might have missed the opportunity to enjoy the benefits of an outstanding riverfront.

The following is a preliminary estimate of the proposed riverfront improvements for Riverfront Park:

Description	Total Cost
South Park Plaza	\$74,081
Pedestrian Walking Trail	\$66,001
Biking Trail	\$708,487
Veterans Memorial Park	\$155,394
Lewis & Clark Informational Kiosk & Technology	\$671,996
Road Relocation	\$355,742
Public Parking	\$116,224
Large Amphitheater	\$108,058
Children's Park	\$63,458
Accessible Restrooms / Shower	\$200,830
Existing Boat Ramp Renovation ADA loading	\$313,950
New Boat Ramp ADA loading	\$88,046
Launching Facilities	\$140,608
Overlook	\$94,570
Site Landscaping	\$140,608
TOTAL Project Construction	\$3,298,051

Table 2: Preliminary cost estimate of proposed improvements (HNTB Corporation)

The following is a break down of the funding resources which contributed to the project:

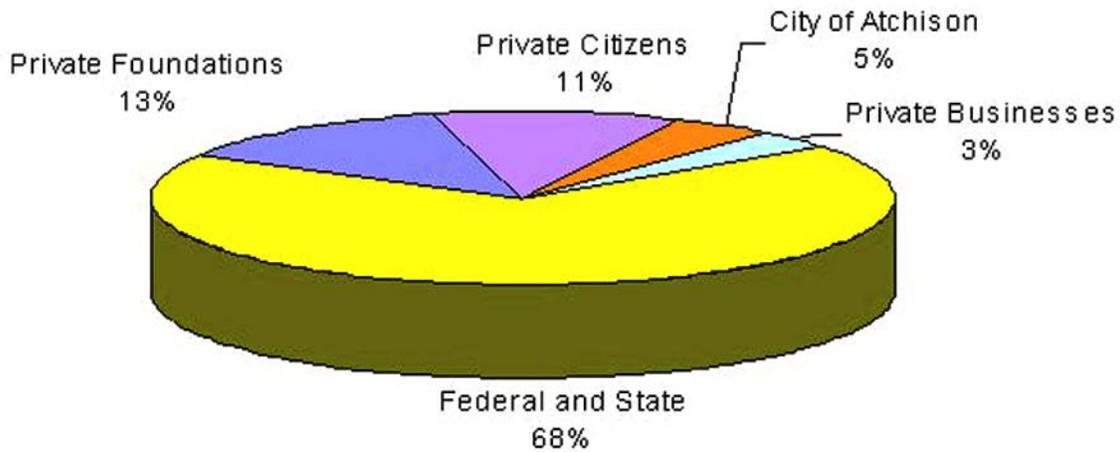


Figure 4-57: Riverfront project funding resources (Atchison Area Chamber of Commerce)

The following is a breakdown of the financial agencies and resources:

Federal DOT Congressional Earmark – through KDOT	\$1,000,000.00
KDOT Transportation Enhancement Program	\$604,821.00
Economic Development Administration	\$409,100.00
Kansas Dept. of Wildlife and Parks	\$300,000.00
HUD EDI Special Project Congressional Earmark	\$281,657.00
EPA Brownfields Assessment	\$200,000.00
Kansas Water Office	<u>\$50,000.00</u>
Total	2,845,578.00

	<u>Dollar</u>	<u>Percent</u>
Federal and State Agencies	2,845,578.00	68.4%
Private Foundations	532,500.00	12.8%
Private Citizens	447,130.00	10.7%
City of Atchison	192,322.00	4.6%
Private Businesses	<u>143,328.00</u>	<u>3.4%</u>
Total	4,160,858.00	100.0%

Dedicated on July 19, 2004, Riverfront and Independence Park (figure 4-58) celebrate the connection to the Missouri River, complementing the city with numerous improvements.

Reconnecting the city back to its historical roots, Atchison’s riverfront has become an exceptional example of outstanding planning and design. Today, this celebrated space provides an extraordinary venue for community events and interaction with the water’s edge.



Figure 4- 58: Aerial photo looking south of Riverfront and Independence Park (Atchison Area Chamber of Commerce).

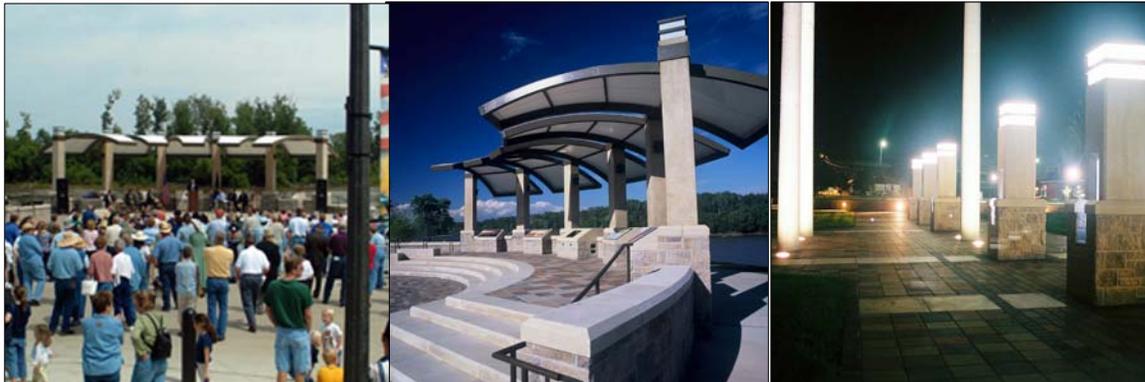


Figure 4- 59, 60, 61: left; opening ceremony, center; information pavilion, right; Veterans Memorial (HNTB Corporation).



Figure 4- 62, 63, 64: left; festival green, center; overlook pavilion, right; children’ playground (HNTB Corporation).

Educating the public of Atchison's historic past, residents and visitors alike can take advantage of the interactive touch screens located in the informational pavilion (figure 2-60) which allow individuals to experience, first hand, Atchison's past. Furthermore, the redesigned Veterans Plaza (figure 2-61) has become a significant destination which honors the community's war heroes. Five vertical monuments formalize the space representing each branch of service. Arranged in a grid pattern, flag poles along with a formal bosque of trees represent the strong organizational structure and pride of military order for each individual who served. Visitors looking to take advantage of the picturesque views of the Missouri River can enjoy the experience of the impressive river overlook (figure 4-63) along a walk leading to the ten mile trail to Independence Creek. In addition, boating enthusiasts can now enjoy the accommodations of a second boat ramp and a new handicapped-accessible boat dock. Kids can also share in the experience of the riverfront with the addition of a children's playground (figure 4-64) equipped with a keelboat replica of the actual boat used by Lewis and Clark. Today, Atchison's Riverfront and Independence Park have become a destination to celebrate the strength of Atchison's civic pride (HNTB Corporation).

Chapter Five: Analysis of Case Studies

Major Factors Influencing Projects

The analysis of the Owensboro and Atchison Riverfronts has been organized into two major areas of concern. The first involving factors which have been found to influence programming, design, and the construction of the riverfront projects.

The second area of focus is the comparison and evaluation of the case study projects identifying potential influential factors which impact the redevelopment of small scale riverfronts. The comparison study has allowed identification of specific factors associated with each project further understanding the crucial components necessary in the redevelopment of small town waterfronts.

Owensboro Riverfront, Owensboro, Kentucky

The city of Owensboro, Kentucky has experienced several major factors which have been influential in the implementation of the Owensboro Riverfront. Without the skillful planning of all the professionals and team of experts involved, the City of Owensboro might have experienced a different result in terms of project completion.

Major factors which have influenced programming, design, and construction included:

- The need to continue to enhance recreational programming for the riverfront and elements to support these programs.
- The need for recreational programming and supporting elements near neighborhood residence such as parks, open space, trails, ect..
- The need to respond and utilize existing amenities.
- Reconnecting the downtown to the riverfront through the creation of “critical mass.”
- Need for increased public access and views.
- Acquiring much needed development parcels.

Origin

After years of neglecting the mighty Ohio River and several failed attempts to redevelop the riverfront, the City of Owensboro decided to rethink earlier planning efforts to rekindle the relationship between downtown and the riverfront. For a great deal of time, the City of Owensboro was aware of the



Figure 5- 1: RiverPark Center Patio dedication (EDSA).

need for redevelopment along the riverfront, however the city was unsuccessful in accomplishing earlier efforts. Unwilling to give up, the City of Owensboro restructured their strategy which began with efforts to secure grant money. The city was finally awarded federal grant money when plans for a floating walkway designed by a local engineering firm were used as a platform to leverage money. Utilizing the grant money, the city chose to bid out a proposal for the development of a riverfront master plan. In 2001 EDSA was awarded the task of studying and producing a Riverfront District Master Plan. The cities primary interests were to create a viable, active riverfront that promoted public access, private development and put Owensboro on the map. With the help of EDSA, the City of Owensboro was able to initiate a preliminary riverfront project which was used to spur interests and gain additional public support. Completing the RiverPark Center Patio Expansion project for the performing arts center and museum (figure 5-1), ultimately generated the catalyst needed to begin planning for the remainder of the riverfront.

Factors Influencing Programming

Vital to the success of the riverfront, programming efforts were a key component in the planning of the Owensboro Riverfront. With the help of EDSA, the city wanted to focus on the development of recreational programming in combination with proposed site features to support programming as a key component useful in the resurgence of the downtown / riverfront. With several successful seasonal events already established (Friday's at Five, BBQ Festival, Blue Grass events), the idea was to concentrate programming in a manner which accommodated existing events and stimulated opportunities for new. The City of Owensboro utilized the services of Leisure Vision / Etc. Institute to conduct a study and survey of the existing parks and recreation facilities. Based on research results, recreational programming efforts were molded around the study which allowed the riverfront team to put together a list of recommendations. The list of recommendations suggested by the Team called for the addition of events which would promote the downtown / riverfront year round. Recommendations included:

- 4th of July Celebration
- Art Festivals
- Auto / Cycle Shows
- Birthday for the City
- Farmers Market
- Fishing Tournaments
- Jazz / Blue Grass Brunch
- Garden Show
- Walking / Running events
- Wine Festival
- Winter Carnival

With the addition of year-round programming , the City was able to assure potential retailers, businesses, banks, and other interested parties the idea of economic vigor and vitality through increased popularity and public gathering opportunities.

In order to enhance and support existing and proposed programming elements, the Team introduced a variety of site features in the final master plan capable of providing a venue for these special events. Proposed site features included:

- The expansion of RiverPark Center Patio, Enhancing the experience during the Friday's at Five live concert held every Friday during the spring and summer months.
- The Mitch McConnell Riverwalk and Plaza which provided ample open space, an amphitheater, and a stage for live music for members of the community and the city to utilize for both public and private events.
- Signature playground for special invents for children.
- Introduction of a special events lawn.
- Memorial and sculptural garden for the idea of art festivals.
- Proposed water feature area for general public gathering and leisure.
- Proposed civic space for hosting a variety of events.

An additional area of influence in terms of programming was the need to satisfy recreational opportunities close to residence. The parks and recreational survey found that 50% of the residence felt there were not enough neighborhood parks, trails and open space within walking distance of residential communities. The city realized enhancing facilities within existing parks and open space was an excellent opportunity to satisfy the community's concerns. With this in mind, programming of English Park became a major driving force important in the success of the riverfront. The team emphasized the inclusion of smaller community gatherings geared to attract neighborhood groups. The team's recommendations included various small scale events such as arts and crafts

shows, dancing, after school programs, picnic areas, improved playgrounds, and outdoor sports areas. Improvements to English Park in order to enhance recreational opportunities for nearby neighborhoods included:

- Development of an inland harbor marina with the idea of recreational boating and fishing.
- Provide riverfront access at the top and bottom of bank for increased views and the opportunity for walking, running, biking, and fishing.
- Creation of additional open space near the marina for possible camping, recreation, and small scale events.
- Create a connection to the cities existing greenbelt for additional opportunities of running, walking, and biking.

Factors Influencing Design and Construction

The design and construction of the Owensboro Riverfront was subject to several influential elements. In terms of design and construction the riverfront was created in response to several significant factors including: existing amenities, the need for more public access and views, and the idea of reconnecting the downtown to the riverfront by enhancing “critical mass.” Land acquisition was essentially the one major influential factor impacting the construction.

In the case of most redevelopment projects, existing amenities are an area of planning and design which must be addressed. In the case of the Owensboro Riverfront, several existing features influenced the design of the final master plan. EDSA’s design team and the City of Owensboro both agreed on the importance of utilizing existing features throughout the site. Designers worked with existing amenities such as the RiverPark Center Patio, English Park, Executive Inn, existing restaurants, reusable office and retail space, along with several other infrastructural elements capable of reducing

budget concerns and enhancing the overall experience of the downtown and riverfront district. Working to the advantage of the riverfront team, existing features were utilized in a fashion which allowed the Team to develop a sound solution and strategy in response to the existing conditions. The final master plan utilized existing buildings as opportunities to create space between existing structures for both public and private needs. By studying existing figure ground scenarios, the Team's solution introduced features such as the Mitch McConnell Riverwalk and Plaza, along with the RiverPark Center Patio expansion project designed around key buildings popular in the community.

A major concern for the City of Owensboro was the idea of creating a riverfront which enhanced public access and views. The City of Owensboro unfortunately sold all public access to the riverfront, creating a major issue for the riverfront team. Working tirelessly, the City of Owensboro in combination with the riverfront team was able to overcome this constraint due in part to strategic planning which allowed acquisition of crucial development parcels. Ready for design, the EDSA design team worked to identify possible areas for increased public access and views along the riverfront. In the end, the approved final master plan accomplished the idea of increased public access and views through the creation of:

- Expansion of RiverPark Center's outdoor plaza.
- Create parks and overlooks along the proposed promenade and provide public space for passive recreation.
- Promote public access for fishing.
- Program the major civic space with more seasonal events.
- Create a riverfront walkway behind the Executive Inn continuing to English Park.
- Create overlook parks at Orchard, Plum, and Maple Street.

- Provide riverfront access at both top and bottom of bank.
- Create cul-de-sac drop-offs at Daviess, Allen, Ann, and Frederica Streets.

A major contributing factoring in the design of the Owensboro Riverfront was ultimately the idea of reconnecting the downtown to the riverfront. Members of the riverfront team worked to identify possible areas for allowing better public access from downtown to the riverfront. With the help of the EDSA design team, the final master plan solution called for various public improvements such as:

- Create a major civic area in the downtown area along the axis of Frederica Street.
- Provide connection to cities greenbelt.
- Create a stronger visual connection between the courthouse and the riverfront.
- Introduction of a farmers market located at the courthouse in an effort to bring more people downtown.
- Connect downtown riverfront promenade to English Park
- Provide for pedestrian connections from downtown area to English Park.
- Create gateways to Owensboro and the riverfront through landscaping and signage

Land acquisition is often a crucial component in any civic project which can essentially make or break an entire project. All too often projects become void due to the inability to acquire key redevelopment parcels. In the instance of the Owensboro Riverfront, measures were taken to consider several long-term issues which needed to be addressed before proceeding with any further planning. Thinking ahead, the city in combination with the riverfront team worked to develop an acquisition strategy used as a necessary tool for success. The team's objective involved developer incentives, low cost loans, property tax reduction and other financial mechanisms to encourage project progress. In addition, the city was advised to begin land acquisition as soon as possible



Figures 5- 2, 3, 4: Left; plan of plaza, middle; view from top of hotel post construction, right; tree bosque and open lawn (EDSA).

in order to take advantage of low cost redevelopment parcels prior to the inflation of redevelopment. For instance, the city was successful in the acquisition of a portion of the Executive Inn Hotel. Acquiring the wing of the hotel allowed the city to redevelop the site into the popular Mitch McConnell Riverwalk and Plaza (figures 5-2, 3, 4).

However, the city was unsuccessful in the purchase of the Veterans of Foreign Wars site directly adjacent to the hotel. To cope with this issue, the EDSA design team developed a solution which worked around the site. In addition, the City of Owensboro filed for a “first right of refusal,” which enabled the city the first right to the property if ever sold.

To date acquisition has been an issue but not a problem for the Owensboro Riverfront. However, future plans for redevelopment may create issues for further redevelopment; although, with the help of the riverfront team, the City of Owensboro is well prepared to tackle this challenge. Essentially, due to creative thinking and skillful planning, the City of Owensboro has been successful in overcoming issues related to land acquisition, conquering yet another major hurdle in the redevelopment process.

Atchison Riverfront, Atchison, Kansas

The city of Atchison, Kansas has experienced several major factors which have been influential in the implementation of the Atchison Riverfront. Major factors which have influenced programming, design, and construction included the following:

- Need to allocate funding through several public and private resources in order to allow project initiation.
- The need to create a visually appealing, safe, interconnected and vibrant downtown and riverfront district.
- Accomplish the goal of a full potential tourist destination.
- Take advantage of the rich historical heritage and unique attractions.
- Primary objective of making the downtown / riverfront a vibrant retail, entertainment, recreation, and arts venue which benefits the community's quality of life by increasing the "critical mass" of the proposed district.
- Implement elements which enhance the Lewis & Clark Bicentennial Celebration.
- Need for increased public access and views.
- Acquiring much needed development parcels.

Origin

The Atchison downtown / riverfront development essentially was the result of two major factors. First, the completion of an updated comprehensive strategic plan for the City of Atchison which found the need to improve the overall image and aesthetics of the blighted



Figure 5- 5: City of Atchison's logo used to market the Lewis and Clark Bicentennial Celebration (Atchison Area Chamber of Commerce).

downtown and riverfront districts. Second, the upcoming Lewis and Clark Bicentennial Celebration which involved the recreation of the very same voyage traveled 200 years ago. The Nation Council Selected Atchison as a destination to host one of many celebrations along the historic journey of honored events (figure 5-5).

Factors influencing Programming

Citizens of Atchison have been encouraged to take an active role in the growth and progress of their city's future. With this in mind, the city found the need to produce a comprehensive strategic plan designed to renovate the City of Atchison. Funding for this major planning project took the work of several creative and hard working individuals from the city and community at large in order to proceed with project initiation. To get the ball rolling on this project the Atchison Area Chamber of Commerce applied for and received a planning grant from the Kansas Department of Commerce with matching funds from the City of Atchison and the local Chamber providing in-kind serves. The grant application and approval required the city to identify a specific challenge facing the community that would enhance economic development, description of the project and a projection of the desired results. During the near completion of the comprehensive plan, the city found two primary areas of concern which needed immediate attention, the downtown and riverfront districts. With this in mind, the city utilized the Comprehensive Strategic Plan to apply for the Kansas Department of Commerce and Housing Action Grant. The city was awarded the grant which allowed funding for the cost of developing a much needed master plan for the downtown / riverfront district. Working simultaneously on each district, a group of dedicated team members produced a downtown / riverfront master plan designed to create a visually appealing, safe,

interconnected, vibrant downtown and riverfront area. The final master plan involved the introduction of various special planning and improvement elements including:

- Creation of a special Historic Zoning district for the riverfront area.
 - Develop district design guidelines
 - Establish a design review process
 - Recommended densities for development
 - Establish parking requirements
 - Determine land use requirements
 - Develop property maintenance requirements
- Façade improvement program.
- Extend existing retail from downtown to the riverfront.
- Attract additional retailer, hotels, restaurants, and entertainment to the newly created unified district.
- Alteration of the Mall Cap Building to allow physical and visual connection from the downtown to the riverfront.

The ultimate goal for the Downtown / Riverfront Development District which strongly influenced programming was the idea of a full potential tourism destination which emphasized the city's fortunate location to the Missouri River. In order to achieve this goal strategies were developed to accomplish this task which included:

- Studies for making Atchison a regional, national, and international identity.
- Building upon and improving existing events which attract tourist:
 - Riverbend Art Fair
 - Amelia Earhart Festival
 - Forest of Friendship
 - Ninety-nines Fly-In
- Study possibility of introducing a museum / cultural center of national and international repute.

- Development of an aggressive marketing plan and materials to solicit new hotels, restaurants, and unique specialty retailers to locate within the downtown / riverfront area.
- Capitalize on events that would attract national and international attention.

Taking advantage of the rich historical heritage and unique attractions, additional emphasis has been focused to make the downtown / riverfront a unique destination which emphasized the city's rich historical roots. Programming elements utilized to emphasize Atchison's historical past included:

- Creation of a special Historic Zoning district for the riverfront area
- Revitalization of Historic Architecture primarily found in the riverfront area.
- Focusing attention on historical assets such as the railroad, riverfront, and aviation.
- Children's park themed after the Lewis & Clark expedition with a keelboat replica and other unique amenities signifying the history of Atchison.
- Interpretive Pavilion focusing on the Lewis & Clark voyage.
- Re-design of the Veteran's Memorial to commemorate fallen soldiers.

In order to support tourism, the city additionally found the need to create a vibrant retail, entertainment, recreation and arts venue which benefited the community's quality of life. Accomplishing this long-term goal required programming efforts which focused on extending retail to the riverfront, increasing commercial activity, and grouping both districts into one by increasing the "critical mass" of the districts. "Critical mass" is defined in the master plan as the consolidation of activities, events, recreational, shopping and tourist attraction into one district. With this in mind, the city utilized a programming list of strategies to achieve the goal of a new vibrant commercial district which included:

- Tying the existing downtown commercial district to the riverfront to create a continuous strip of commercial uses along Commercial Street from the Missouri River to 10th Street.

- Evaluation of the market profile to determine a proper retail mix, recreational opportunities, historical and cultural elements, and tourism opportunities.
 - Development of implementation plan and incentives to attract desired retailers.
 - Aggressively solicit retailer who the designed retail mix.
 - Work to expand existing retail lines to address community and tourism needs.
 - Allocate incentives to encourage basic service retailers to locate in the district.
 - Programming to allow the possibility of increased performing and visual arts.
 - Higher density housing within close proximity of the new interconnected district.
- Aside from tourism and an interconnected commercial district, an additional

major component which influenced programming efforts of Riverfront Park was the Lewis and Clark Bicentennial Celebration. Chosen by the National Council of the Lewis and Clark Bicentennial as a site for one of many signature events, the City quickly realized the need for major improvements. Programming for the major event focused on the need to develop a proper venue capable of hosting such an event. With the opportunity of local, state and national attention, the City of Atchison realized the need to capitalize on the popularity of such an event. Creating a venue for this spectacular event focused on the introduction of several elements in order to accommodate such an event which included:

- Interpretive pavilion with interactive touch screens for educating the public on the Lewis & Clark voyage.
- Amphitheater within the interpretive pavilion for special events.
- Plaza space surrounding the pavilion and amphitheater for public gathering.
- A signature playground resembling historic elements of the voyage such as a keelboat replica of the actual boat used by Lewis & Clark.
- Festival Green allowing green space for public gathering and leisure.
- Public restroom facilities to accommodate visitors.
- Riverwalk connecting Riverfront Park to Independence Park with resting areas for visitors to enjoy during the celebration.

Factors Influencing Design and Construction

Several factors influenced the design and construction of both Riverfront and Independence Parks. Major factors affecting design included budget, river and floodplain issues, the need for “critical mass,” and the Veteran’s Memorial. In terms of construction, influential elements experienced during the construction phase of Riverfront Park included contractor selection, weather, and time constraints.

With a population of only 10,200, the City of Atchison was really challenged in terms of funding resources, really limiting the budget for the project. Much hard work was put into allocating state and federal funding which predominately funded most of the project. Thanks to the hard work of HNTB, Bob Adrian, and Karen Seaberg (both members of the Riverfront Development Council), resources were identified and pursued making the project possible.

Aside from budget and funding constraints, flood plain issues really challenged the design of the riverfront. With several major floods in the past, HNTB carefully designed the riverfront to handle a major flood event in the instance history decides to repeat itself. Elements such as the information pavilion were set at an elevation above the 100 year flood level to ensure public welfare and safety. Extra measures were also taken to accommodate the Missouri River’s water elevation fluctuations. Throughout the year the river can experience a 20’ change in elevation. A real challenge for HNTB was to design a dock system capable of handling the extreme changes in water elevations and the powerful current. HNTB was able to successfully implement a seasonal floating dock system which is anchored by a swiveling system to allow for changing water elevations and a heavy cable support to withstand the strong currents of the Missouri River. With a

wide variety of project experience in a broad perspective of applications, HNTB was able to utilize in-house expertise to handle this complex design challenge.

A major guiding principle in the creation of the master plan was the need for “critical mass.” “Critical mass” refers to the consolidation of activities, events, recreation, shopping, tourism, and high density housing into one district. Today, the downtown / riverfront district lacks uniformity due to the separation of the two districts. The City of Atchison early on expressed great interest in the desire to link these districts by intensifying public and private investment in the downtown / riverfront district. In order to accomplish this task the City of Owensboro and the riverfront council developed a list of strategies necessary to accomplish this task. The strategies included:

- Evaluation of the market to determine a proper retail mix, recreational opportunities, historical and cultural influences, and tourist attractions.
- Upon evaluation, determine potential elements, activities, and attractions appropriate in enhancing these areas within the district.
- Provide opportunities for performing and visual arts through the development of a performing arts venue.

Aside from overcoming floodplain issues and achieving a “critical mass,” additional influences challenging design and construction was the design of the Veteran’s Memorial Plaza. Very passionate and strong willed; some veterans strongly apposed the redesign of the memorial, fearing the change of a much regarded site. Sensitive to the Veteran’s needs and desires, HNTB worked closely with the tight nit group to accomplish a design which exceeded expectations. HNTB introduced an entirely new plaza which has become a significant destination honoring the community’s war heroes. Five vertical monuments formalize the space representing each branch of service. Arranged in a grid

pattern, flag poles along with a formal bosque of trees represent the strong organizational structure and pride of military order for each individual who served.

One of the first major hurdles during the construction process involved the unfortunate selection of an inexperienced contractor. The initial contractor awarded the project was unable to meet a standard of quality specified by HNTB. Ultimately the contractor was let go leading to the hire of a new general contractor. Fortunately the second contractor was much more experienced and capable of meeting the construction quality demanded. In addition to contractor issues, weather played a major factor in the construction of Riverfront and Independence Park. With a tight deadline in place, construction was often impacted by the unusually wet weather experienced throughout the construction process. Not meeting the July 4th Lewis and Clark Celebration deadline was not an option for this project. Extra efforts were made which involved the use of tents allowing construction during rain to persist. In addition, saturated soil was often removed and replaced to permit construction in areas conceived as inaccessible. Fortunately extra efforts paid off, construction was narrowly completed in time for the much anticipated celebration.

Comparison and Evaluation of Case Study Projects

Although relatively similar in scope, the Owensboro and Atchison riverfront projects have utilized unique techniques and guiding principles necessary in the implementation of small scale riverfront development. Techniques commonly used involved:

- Creative action for the allocation of funding to allow project initiation.
- Involvement of the public throughout the entire length of the project.

- Creation of planning teams consisting of experts and individuals of the community.
- Creation of a detailed master plan outlining specific goals, needs, guidelines, and strategies to act as a blueprint for success.
- Involved key players such as state politicians and department heads.
- Planned for the enhancement and addition of programming events to support and enhance the redevelopment.
- Implemented a priority / development strategy to guide construction and maintain a schedule.

Customization of the typical redevelopment process associated with waterfront redevelopment in combination with a unique approach to development issues has allowed the opportunity for other communities to follow the same principles. These principles include:

- Aggressive solicitation of funding resources both public and private.
- Public participation throughout the project to increase public approval.
- Planning and design team capable handling all aspects and requirements of the project.
- Careful research and analysis to design an appropriate fit for the community.
- Recreational programming to support and enhance public use and awareness of the project.
- Strong and aggressive marketing to solicit potential commercial outfits and other possible venue to enhance the overall experience.
- Careful attention to image and aesthetics.

With many other communities looking to utilize the advantages of implementing a waterfront, Owensboro and Atchison have become an exemplary example for which to follow. Identifying and analyzing the unique approaches utilized in these two outstanding projects can aid both the planning and design profession in achieving an annotated checklist useful for future redevelopment. Unique approaches to project

initiation; public participation and approval, planning, and implementation have all been areas found to crucial in the success of each case study project. Following table 5-1 is a concise summary of each factor important in the completion of each project.

The following chart (table 5-1), is a complete summary of specific design and post-construction elements observed in the Owensboro and Atchison riverfront projects. Due to the unique scale and scope of these projects a comparison can be conducted utilizing table 5-1. Although helpful, this table shall not serve to identify similarities and differences, but rather to aid in identifying distinctive approaches and characteristics utilized during planning and design.

	Owensboro Riverfront, Owensboro Kentucky	Atchison Riverfront, Atchison, Kansas
Location	Central commercial district in addition to the riverfront. Southern Banks of the Ohio River South to Highway 60 (4th St.). 2nd St. East to the Railroad Tracks West of the Distillery	Entire commercial district in addition to the riverfront area. Area west of the river to 4th St. and from Utah Ave. to Kansas Ave.
Size	500 acres	15 acres
Population	54,000	10,200
Project Cost	\$4.7 million with a projected cost of \$46.4 million	\$ 4.2 million
Project Timeline	Late 2000 to 2003 (Riverfront Park Patio Expansion and Mitch McConnel Riverwalk & Plaza) 2003 to 2009 future redevelopment plans	Fall 1997 to June 2004
Former Use	Vacant and commercial uses	Historic Park
Purpose	To create a viable, active riverfront which promotes public access, private development and puts Owensboro on the map	To promote the revitalization of Atchison's Downtown and Riverfront area focusing on City's heritage to encourage commercial growth and better quality of life.
Master Plan	Reconnect the downtown to the riverfront through riverwalks, promenades, overlooks, ect. Create a gateway into downtown and calm traffic.	Create a continuous commercial strip from the riverfront to and through the existing commercial area of downtown. Promote tourism trade and a venue for the Lewis & Clark Celebration.
Genesis	The City of Owensboro re-committing itself to discovering the riverfront. Awarded federal and state funding which led to the production of a master plan.	Comprehensive strategic plan which targeted the image and aesthetics of the downtown and riverfront districts. Later led to a master plan to enhance and connect both districts.
Historical Significance	Ohio River was and still is a place which brought people, news, entertainment and luxuries to several towns including Owensboro.	Visited by Lewis and Clark along their voyage to the West. Birthplace of Amelia Earhart.
Funding	City of Owensboro, Primarily Federal and State grants, Private Citizens, and Private Businesses.	City of Atchison, Primarily Federal and State grants, Private Foundations, Private Citizens, and Private Businesses. KDOT provided majority of funds in terms of federal support)

Development Entity & Type	Downtown Owensboro Inc., PRIDE (non-profit organization), EDSA and a team of Private Businesses. Quasi-Public Organization	Atchison Riverfront Development Council consisting of community representatives. Quasi-Public Organization
Project Participants	City of Owensboro, EDSA, PDR/A, ATM, ERA, The Waterfront Center, Thomas L. Tapp (Planner)	City of Atchison, Riverfront Park Committee, The Kansas Lewis & Clark Bicentennial Commission.
Public Participation	PRIDE Organization involved public in full participation, divided among seven focus groups. Participation included meetings, workshops, presentations, ect.	Five sub-committees which included 50 volunteers consisting of city officials, community leaders, members of the public, etc. Full participation throughout the development of master plan.
Design concept	Design a mixed-use riverfront which promotes public access for entertainment and gathering with direct commercial links to the downtown district.	Design a riverfront which enhances the cities overall image and aesthetics with a direct connection to the downtown, encouraging tourism and economic development.
Proposed Use	Mixed-use with emphasis on entertainment and public gathering.	Mixed-use with emphasis on entertainment and outdoor recreation.
Opportunities (pre-dev.)	Re-orient the city towards Ohio River, create gateway into city and riverfront, provide public views and access to riverfront, and connect RiverPark to English Park.	Promote special events, historical interpretation, focal point for Lewis & Clark Celebration, encourage tourism, provide recreational opportunities.
Constraints (pre-dev.)	Existing features limit expansion of public open space, city lacks ownership of property along riverfront, existing streets create physical barrier.	Private ownership of property, lack of land for commercial development, poor existing retail mix, overall image lacking, and existing commercial district segregated from riverfront.
Public Access	Numerous overlooks, cul-de-sac drop-offs, promenade, riverwalk, and various structures throughout development, public park and green space.	Interpretive pavilion, Veteran's Memorial, public parks & green space, riverwalk, hike and bike trails, river overlook.
Site Users	City of Owensboro, members of the community, and visitors.	City of Atchison, tourist, and members of the community.

Table 3: Case Study Comparison (John Lorg).

Summary of Major Factors

Conducting research on the Owensboro and Atchison Riverfronts has allowed the opportunity to identifying several significant factors influential in the riverfront redevelopment process. In the case of small town waterfronts, critical factors include; project initiation, public interest and participation, proper planning, and planning for implementation. The case study analysis has been crucial in understanding how smaller communities can modify typical redevelopment procedures to fit unique and unusual circumstances needed to successfully implement a small scale waterfront.

Project Initiation

Undoubtedly, any civic project arises due to a particular need, interest, or goal initiated by city leadership or other motivated parties interested in the future and well being of a community. In order to get a project rolling, local governments must begin identifying key players, allocating funding resources, create marketing strategies, gain public approval and support, and develop a vision and scope for the proposed project. Communities serious about development / redevelopment must incorporate the help of qualified professionals to develop necessary plans such as a comprehensive strategy or master plan depending on the scale of the project.

Public Interest and Participation

Plans for public development or improvements must gain public interest and include public participation. In the case of the Atchison Downtown / Riverfront Development, previous attempts to initiate the project failed due to the lack of public interest and participation. By studying the success of smaller community riverfront redevelopments, the City of Atchison soon realized the importance of public participation. Public involvement must be apart of any civic project in all stages of the development process no matter the scale or type of project.

Planning

Without a doubt, the back-bone and success of any project involves proper planning. Many communities have been successful in overcoming many hurdles and pitfalls related to development by following a well thought-out plan. Planning for small scale projects is extremely important in terms of allocating funding, securing interests, programming, design, and implementation. Developing a team capable of identifying

issues and opportunities, setting standards and implementing a strategic plan during the planning process is an invaluable tool for any project. Whether it is a comprehensive or master plan, communities must develop a blueprint for achieving goals, strategies, and recommendations.

Implementation Strategy

Often communities struggle to make it past the planning process without developing a plan of attack. Cities serious about implementation often outline a strategy for accomplishing a finished product. Diving into a project without properly studying areas of importance can often lead to failure. Communities which have created an implementation strategy often benefit by creating catalyst for further development increasing the vitality of a proposed project.

Limitations of Research

With a growing interest in waterfront redevelopment rising, design professionals and waterfront communities alike could benefit from the analysis of a wide variety similar projects. Research for this particular project involved the analysis of two case studies. Time allotted to conduct a thorough investigation of small town waterfronts, would benefit in allowing additional research of one to two more case studies further identifying resourceful information needed to fully understand the proposed research project.

The case studies presented in this research project offer a better understanding of a retail / entertainment and historic riverfront. Further investigation of other projects of different uses could aid in the development of a more standardized checklist for planning and implementation considerations.

Chapter Six: Conclusions

The conclusions drawn from this research project consist of a brief review of the results, a concise list of small town waterfront redevelopment considerations derived from case study research, the future of small town waterfront redevelopment, and recommendations for further research. This research project focused on a qualitative study organized around a case study format which investigated the development process involved in the redevelopment of waterfronts. Trends and similarities in the implementation of waterfronts can be identified through comparison of the two case study projects. Identifying similar trends unique to small town waterfront development has resulted in the completion of an annotated outline serving as a strategic foundation for other similar communities to utilize.

Review/Discussion

This research project investigated the development process involved in the redevelopment of waterfronts. Research has been conducted to gain a better understanding of the historical aspects of waterfronts, the overall design process, and considerations necessary to complete implementation. Utilization of research on case studies involving the Owensboro and Atchison Riverfronts has provided a comparative understanding of how small communities can possibly overcome the hurdles associated with waterfront redevelopment. From these findings, a comparison of the two case studies was done to expose similarities and trends in the waterfront development process. Although several similarities and differences were found, the comparison found solicitation of funding; early land acquisition, public participation, and formation of a

multidisciplinary team seem to be the primary factors attributed to the accomplishment of a final plan for implementation.

Annotated Outline Derived from Case Studies

Research on the Owensboro and Atchison Riverfront projects has enabled the creation of a general outline useful in the planning, design, and implementation of small town waterfronts. Each case study project utilized a similar approach in the creation of their riverfronts. Similar communities interested in successfully implementing a redevelopment project can utilize this planning outline as a foundation for progress.

I. Project Initiation

Although seemingly simple, project initiation is an area of struggle for many municipalities. When thinking of redevelopment, municipalities must consider factors such as funding, available land, the involvement of key players, and have an idea of the projects scope. Several questions arise when thinking of project initiation. How does a community initiate a project? Who are the key players involved in public projects? Is the project created due to other development opportunities? Is the project apart of a plan to improve a community's image, economy, or socialization? How is the project introduced to the public and marketed? Is the project geared toward re-connecting a downtown to the water's edge? What resources are needed to initiate a project?

In the instance of the case study projects, project initiation evolved due to the cities dedication of recognizing a need and pursuing it. The Owensboro Riverfront was apart of a solution to revitalize the riverfront area and reconnect the downtown to the river's edge. Initiation for this solution was due impart to the cities ability to secure initial funding enabling the development of a master plan.

The Atchison Riverfront development involved a unique approach to project initiation. Failing in the past, the city was well aware of the burden associated with overcoming project initiation. With the completion of a revised and updated comprehensive strategic plan, the city recognized the need to revitalize and reconnect the downtown / riverfront districts. With a project in place, the city was able to begin project initiation due to the hard work of Bob Adrian and Karen Seaburg. Karen Seaburg, among other individuals, was able to secure initial funding necessary for overcoming project initiation. Seaburg accomplished this through the unique approach of lobbying with Kansas Congressional Staff in Washington and pursuing the help of local state politicians and department directors.

II. Riverfront / Downtown Planning Team

Experience suggests any community involved in the redevelopment of a riverfront / downtown project must develop a planning team consisting of a wide range of important figures. Redevelopment is often a long-term affair requiring proper management of politics, finance, and design. In addition, civic projects require land, determination, and a vision usually made possible through an implementation team. Establishment of an implementation team early in the start-up phase can aid communities in developing plans, strategies, and guidelines often apart of a comprehensive or master plan created by a team.

The city of Owensboro recognized the importance of a riverfront planning team early in the start-up process. Understanding the complexities of implementing a project of this scale required the experience and attention of a team of experts. The City hired

EDSA as the primary consultant for the project which put together a team of experts including:

- Civil Engineers
- Professional Marina Consultants
- Economic experts
- The Waterfront Center
- Recreational Planner

With a team of professionals in place, the Team facilitated the creation of seven sub-committees known as “focus groups.” The focus groups consisted of members of the community, community leaders, city officials, and home owners which focused on areas of interest involving the development of the downtown / riverfront project.

The City of Atchison took a similar approach to team building by implementing a team of experts and other interested parties known as the Downtown / Riverfront Development Council. The council was divided among five sub-committees which focused on areas of concern including:

- History
- Design
- Recreation
- Finance
- Image

The council’s primary objective was to thoroughly investigate the site and develop a downtown / riverfront final master plan which set standards, developed design guidelines, developed strategies, and addressed key issues associated with the riverfront project.

III. Development of a Comprehensive / Master Plan

a. Public Consensus Building

Public approval and participation must be part of any redevelopment project.

Without community interest redevelopment is often impossible. Public participation allows community input, suggestions, ideas, and needs often resulting in a well perceived project.

In the instance of the case study projects, both cities worked to include public participation through numerous public meetings, forums, workshops, and presentations. Public participation aided the planning process by aiding decision making, recognizing needs, development of strategies, and educating both the community and the designer on the details of the project.

b. Site Analysis and Research

In order to create a project which fits into the contextual surroundings, research and analysis must be conducted in order to identify the opportunities and constraints associated with the site and surrounding area. Research should include but not be limited to; inventory and analysis, market studies, feasibility of the project, ecological, biological, archaeological, in addition to other necessary analysis pieces. Research should include city leaders and officials, team of experts, planning and design professionals, members of the community, and any other party with interests in the project.

In the instance of the case study projects, analysis included detailed studies conducted by members of the riverfront planning teams. These team of experts, which consisted of focus groups, worked meticulously to gain knowledge and

understanding of the project area proposed for redevelopment. Members within each project team focused analysis and research which involved:

- Identification of physical attributes and constraints.
- Inventory of existing conditions
 - Surrounding land uses
 - Traffic patterns
 - Parking opportunities and constrains
 - Roadways and circulation
 - Views in and out of the site
 - Identification of existing vegetation
 - Mapping of the floodplain and identification of critical flood elevations
 - Building inventory and conditions
- Environmental studies (soil contamination, brownfields, ecosystem identification, ect.).
- Biological research (Identification of primary species, endangered species, ect.).
- Archeological study (Mapping of documented archeological sites, identification of archeological deposits, ect.).
- Market study (General demographic trends, existing residential, restaurant, entertainment and retail conditions).
- Economic feasibility (Development constraints, market costs, funding, project support,etc.).

Although each case study project involved a substantial amount of inventory and analysis, it should be noted that additional research could be conducted to fit unique circumstances associated with more specific projects. For instance studies could include but not be limited to:

- Hydrology research
- Bank stability and stream classification
- Storm water analysis

- Geomorphology research
- Physiographic analysis

c. Preliminary Master Planning

Preliminary planning is a necessary tool which the team of experts, the city, members of the community and other interested parties participate in the establishment of design guidelines, standards, critical issues, and alternative design options associate with master planning. Upon the completion of research and analysis, planning efforts begin to concentrate on factors which can help to overcome research and analysis findings and create a successful riverfront project.

Factors found to be crucial in the success of a riverfront include:

- Civic vision and identity
- Pedestrian circulation
- Vehicular circulation
- Attractions
- Land Use
- Building inventory
- Boat circulation, marina opportunities
- Parks and open space
- Conceptual phasing strategies
- Cost estimation and budgeting
- Development of preliminary agreements and contracts

Outlining necessary areas associated with a project which need to be addressed can only benefit in the development process allowing speedy decisions to be made based upon a sound blueprint from which to follow.

At this stage of the development process, the design team begins the production of alternatives addressing previously identified opportunities and constraints. In the instance of both case study projects, the community was apart of the preliminary

planning process, aiding in the refinement of alternatives to produce a final plan for implementation.

IV. Develop and Finalize a Final Master Plan

Upon the completion of preliminary planning, planning efforts move into final master planning. With a design solution refined and an outline of short and long-term goals identified, the planning team now prepares for final approval and begins planning strategies for project implementation. With a final blueprint for implementation in place, interested parties seek final commitments from developers, public and private resources, potential retailers, and other details crucial to project success. Securing and finalizing commitments allows planning to move into the development of implementation strategies and priorities.

V. Development of Recreational Programming Elements

Experience suggests the development of recreational programming as an incentive for public gathering and project vitality is an important tool for success. Many successful projects have made efforts to introduce and maintain special events, festivals, and celebrations in order to promote tourism, increase private development, public gathering and access, increase the overall experience, and boost the local economy.

In the instance of the case study research, both projects already had a substantial amount of community events, however, the revitalization of the downtown and riverfronts allowed for better programming opportunities. In addition, the Atchison Riverfront project was primarily due in part of the need to create a better

venue for special events such as the Lewis & Clark Celebration and the Emilia Earhart festival.

VI. Implement a Development Strategy

Cities serious about implementation often outline a strategy for accomplishing a finished product. Communities which have created an implementation strategy often benefit by creating catalyst for further development increasing the vitality of a proposed project.

Both the City of Owensboro and Atchison outlined strategies for implementation in the planning of their riverfronts. Each project involved careful planning focusing on areas of concern including:

- Priority initiatives
- Phasing
- Individual planning of pieces within the projects which included the outline of expected program elements and final expectations.
- Planning of early action projects to promote project progress and increase public support.

Following an outline such as the one developed in this research project, can serve to aid communities in the preparation of additional waterfront redevelopment projects.

Although each project is unique and is often never the same, starting with a basic foundation proven to be successful in the completion of other similar redevelopments, is a step in the right direction. It should be noted that the above annotated outline has not been validated, however additional research could be done to refine this outline further enhancing the development process of small town waterfronts.

Future/Need of Small Town Waterfront redevelopment

Small cities across America are experiencing a substantial amount of growth in the areas of retail, tourism, and recreation. In particular, those cities which offer historic charm, good quality of life, and a relaxed lifestyle have become popular destinations for tourism. Communities looking to revive their riverfronts have the opportunity to take advantage of this recent trend, offering a playful destination not only for the members of the community, but visitors as well.

Professionals of the planning and design field offer the invaluable service of educating communities on the importance of waterfront redevelopment for communities of all scales. No matter the size of the community, with unique planning and a creative design, waterfronts can become a tool useful in the revitalization of small communities. With so many smaller communities founded along both minor and major rivers, planning and design professionals have an excellent opportunity to be apart of a unique market niche overlooked by many professionals. Today, nearly 1,000 communities with a population of 55,000 or less reside adjacent to major rivers (figure 6-1). With this in mind, much work can be done to begin a new fresh wave of waterfront revitalization.



Figure 6- 1: Map of U.S. cities with a population of 55,000 or less within one mile of a major river (John Lorg).

Recommendation for Further Research

Understanding the background, design, and implementation process of small scale waterfront redevelopment can serve as a guide for encouraging similar communities to utilize waterfront redevelopment as a catalyst for further redevelopment. With this in mind, this study has utilized qualitative research organized into a case study format enabling the production of an annotated outline. The annotated outline has been developed to serve as a foundational tool for other similar communities to follow and test in the application of small scale waterfront redevelopment. As a basis for additional research, application of the annotated outline could be applied in the development of a new waterfront redevelopment project to test and expose the validity of the outline. In doing so, the creation of a redefined annotated outline involving a more standardized and specific model in the application of waterfront redevelopment in smaller communities.

Additional research to further enhance the practice of small town waterfront development could be applied in the area of economics. Aside from a qualitative study, research could be done to develop quantitative data useful in identifying the possible benefits such as; increased economic returns, tax breaks and incentives, and other important economic concerns. In addition, identification of economic pitfalls and problems such as; high costs of development, slow returns on investment, along with other issues associated with waterfront redevelopment. Upon the identification of benefits and issues, further research could be applied to develop an annotated checklist focusing on techniques for maximizing benefits and overcoming constraints associated with the economic aspects of waterfront redevelopment. Developing a better understanding of the development process and the economic rewards associated with redevelopment, encouraging additional waterfront redevelopment in other small communities.

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