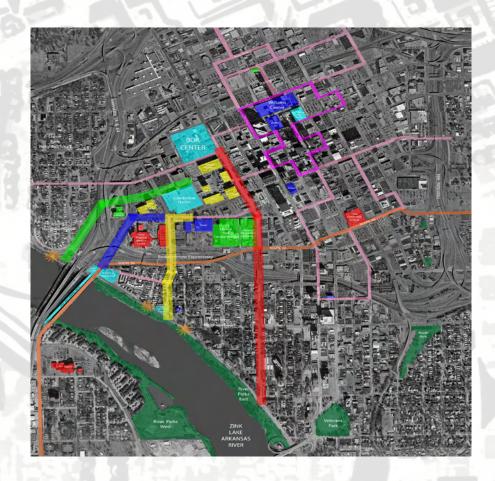


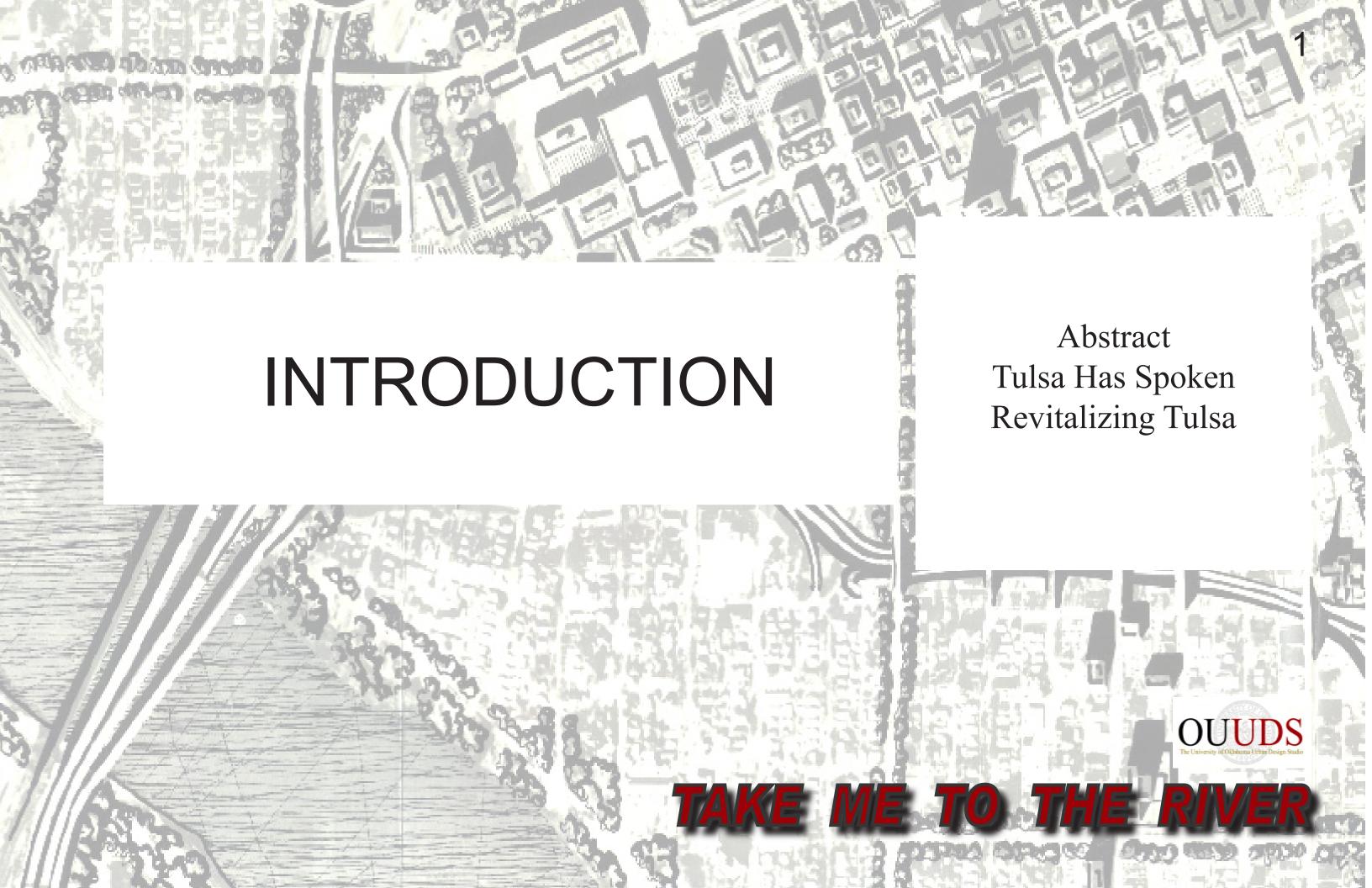
LINKING TULSA'S CENTRAL BUSINESS DISTRICT TO THE ARKANSAS RIVER WATERFRONT

INTRODUCTION	1
TULSA HISTORY AND URBAN PLANNING	5
REVITALIZATION OF WATERFRONT CITIES - CASE STUDIES	13
PROJECT SIGNIFICANCE - TULSA CBD AND RIVER DEVELOPMENT	29
SURVEY AND ANALYSIS	38
ASSESSMENT AND PLANS	71
DENVER AVENUE LINKAGE	90
HOUSTON AVENUE LINKAGE	102
SOUTHWEST BOULEVARD LINKAGE	112
4TH STREET PEDESTRIAN LINKAGE	118
CONCLUSION	128

TABLE OF CONTENTS







LINKING TULSA'S CENTRAL BUSINESS DISTRICT TO THE ARKANSAS RIVER WATERFRONT

ABSTRACT

Limited access to the Arkansas River waterfront for residents and visitors impedes efforts for revitalization of downtown Tulsa and its waterfront.

Current revitalization efforts in downtown Tulsa and along the Arkansas River adjacent to downtown make access to and from these areas even more important. This design research project will explore the many barriers that limit access and will provide solutions and design ideas that will improve access so that the public can benefit from the contributions these places have to the quality of life in all its aspects – economic, social, and cultural.



Vision 2025

FORESIGHT 4 GREATER TULSA

Tulsa Has Spoken

Downtown Riverfront Revitalization & Development

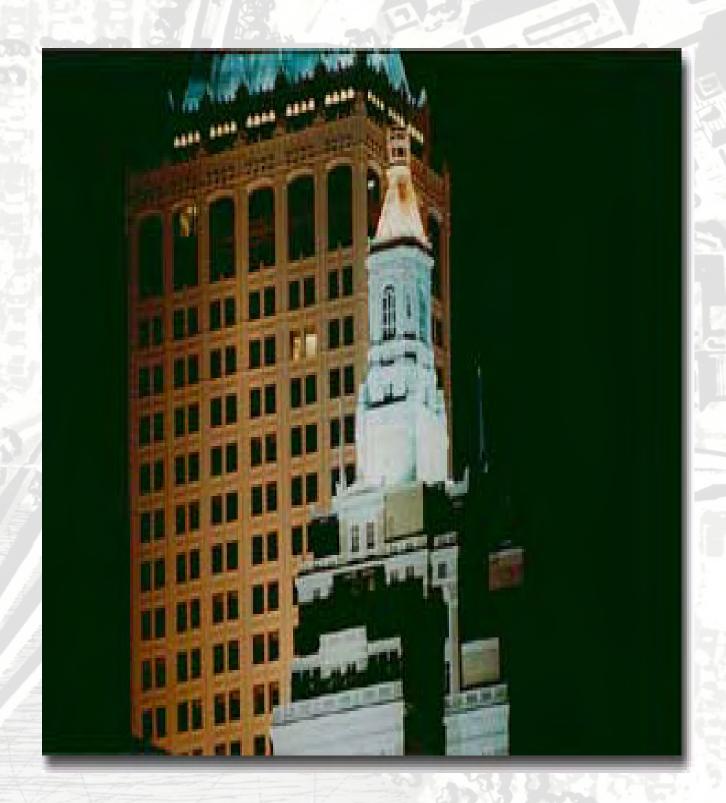
On September 9, 2003, Tulsa County voters overwhelmingly approved a 1-cent 13 year sales tax increase to finance \$885 million in community improvements. The package called "Vision 2025: Foresight 4 Greater Tulsa" was the culmination of an arduous and cooperative effort between city and county officials and citizens to grow economic and community infrastructure for present and future generations. Each of the four Vision 2025 ballot propositions passed by at least 60 percent of the vote and officials proclaimed that this was the beginning of a new future for Tulsa. Although the Boeing proposition funding would never be realized due to their decision to not locate in Tulsa, passage of the propositions meant funding of an additional \$29 million in private monies. After civic projects in 1997 and again in 2000 had been rejected, the mayor proclaimed that Tulsa sent a "loud and clear" message that they were willing to move forward to improve Tulsa's future.

Some primary directives in Vision 2025 include capital improvements for community enrichment. Specifically, local governments, including Tulsa, would receive funds to promote community beautification and economic vitality of their downtowns including streetscaping, pocket parks, fountains, signage and neighborhood gateways. Other enrichment funding involving downtown Tulsa include Zink Lake shoreline beautification, improvements along Route 66 and enhancement of the 11th Street Bridge over the Arkansas River and the surrounding area. Additionally, a new downtown events center and convention center improvements were funded. This voting message was a culmination of earlier events started in 2002 including Dialog 2025, the Mayor's Vision Summit, the "Battle of the Plans" and the larger combined process known as Dialog/Vision 2025 Citizen's Summit. All of these processes emphasized the importance of a revitalized downtown and Arkansas Riverfront development.

Officials have begun the processes to meet the charge defined by the citizens. Much work involving Vision projects has started already. Downtown, construction of the events center and convention center is starting. Plans for a Centennial Walk involving the Central Business District are being completed and work will be starting shortly. The Route 66 Design Recommendation Committee has presented plans for approval to the Oversight Committee and activity will be seen along the route including major changes around the Cyrus Avery (11th Street) Bridge and the Arkansas Riverfront. The Arkansas River Master Plan is being completed by INCOG and final recommendations are coming forth soon. These are indeed exciting times for Tulsa

As Tulsa moves forward with current revitalization efforts in the central business district and along the Arkansas River, access to and from these areas is even more important. For many years this issue has been discussed but no efforts have been forthcoming. This design research project will explore the many barriers that limit access and will provide some solutions and design ideas that will improve access so that the public can benefit from the contributions these places have to the quality of life in all aspects – economic, social, and cultural.





Revitalizing Tulsa

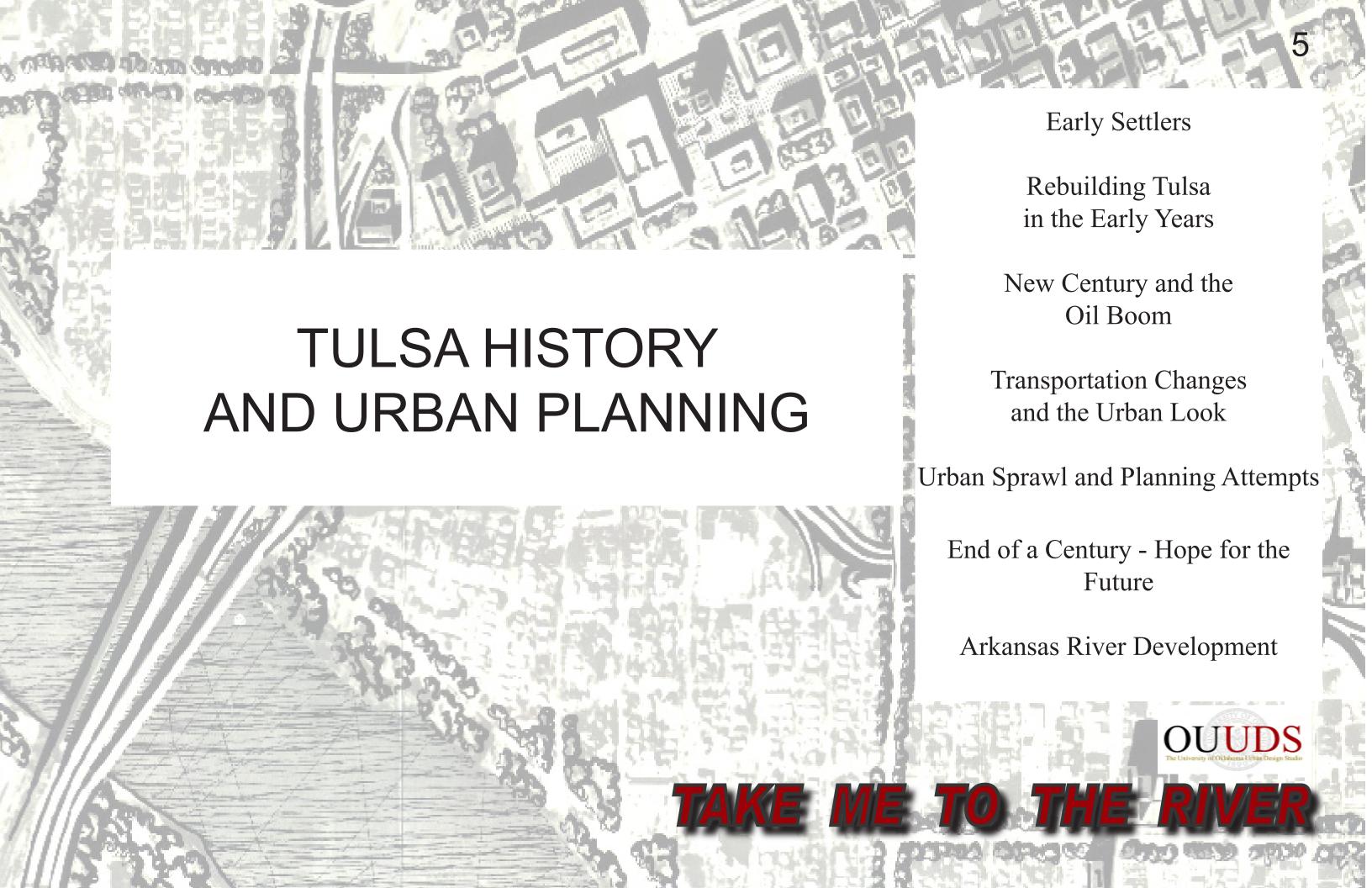
The Importance of a Successful Downtown

Groundbreaking of the iconic Cesar Pelli – designed arena in downtown Tulsa will be celebrated in history as a new beginning for downtown Tulsa, but urban designers and city planners, as well as many in the community, know it will take much more than this to resurrect the central city to the stature it had 40 years ago.

The importance of the central city has been demonstrated on multiple occasions throughout the country in serving the role of stabilizing the well being of the larger community. By creating a central point for a city's identity, a sense of place and a focal point for community life is provided. Also, an attractive downtown reduces sprawl and suits demographic trends in cities in which high household incomes are moving back from the suburbs. Additionally, nonfamily households, as well as the aging population desiring a more walkable community with amenities nearby, are moving to the downtowns. Economically, many studies show that the better the core center does, the better the suburbs do and conversely, a declining city can drain the vitality of the suburbs both socially and economically. Urban lifestyles are also attractive to high-tech workers and the creative class (architects, artist, engineers, scientist, and techno-whizzes) as described in Richard Florida's book *The Rise of the Creative Class*. Lastly, the vital city center can provide a destination for culture and entertainment for local citizens as well as places to attract tourists as demonstrated by Tulsa's emphasis on the arena and convention center.

Although work has begun on the arena and other areas around downtown, a vibrant successful downtown is not just about a single mega project or concern for those businesses and employees who work downtown. It is important that Tulsa recognize many of the strategies used by other cities that have rebounded from the decay of their downtowns. It is important that Tulsa planners develop a long range, comprehensive plan that encompasses a broad regional perspective on metropolitan development. A center that maximizes access and mobility and reduces dependence on the automobile as well as supporting mixed land use and density in the downtown area is vital. A downtown atmosphere should be cultivated as a place of diverse uses of public spaces that attract people of many cultures and socioeconomic status. It is also essential to establish design guidelines and achieve a balance between the environmental, economic, and social uses of urban space. Lastly, a vibrant downtown should encourage development that creates a sense of place and reflects the values as well as the history and culture of the area. In this respect, it should build on Tulsa's assets such as the Art Deco architecture, petroleum industry, Native American culture, art museums, music history, etc. In this particular project, Tulsa's long relationship with the beauty, culture, and history of the Arkansas River will be emphasized.





Trail of Tears painting by Robert L. Lindneux. Woolaroc Museum, Bartlesville, Oklahoma

Tulsa History Early Settlers

The Arkansas River originates east of the Rocky Mountains near Leadville, Colorado and flows westward across Kansas and the plains of Oklahoma. It enters western Tulsa County near Sand Springs and runs east and south just beyond Bixby, exiting the county near Leonard before its march to the Mississippi River. For centuries it was home to generations of Native American Indians, beautiful wilderness, and vast herds of buffalo. Spanish explorers searching for gold and silver report "discovering" what is now eastern Oklahoma in the 1500s.

In 1803, the United States acquired most of present-day Oklahoma from France in the Louisiana Purchase. The government determined soon afterward that this huge addition to the territory would be a desirable place to relocate Native Americans and forced them to relocate from the southeastern states in order to make more land available to white settlers. The Five Civilized Tribes, because of their sophisticated systems of government, law, and agriculture, were targeted to relocate. From 1812-1837, tens of thousands of Native Americans were forced to march hundreds of miles, without sufficient rations, to the relocation territory. This infamous "Trail of Tears" saw thousands of Native Americans die from malnutrition, disease, and harsh winter weather.

A group of Creek Indians, one of the Five Civilized tribes, arrived at the future site of Tulsa in 1836. This group, called the Lochapochas, from the name of their former home in Alabama, found the end of their trail on a bluff overlooking the Arkansas River. As they sought shelter under an expansive oak tree, the group decided to make this piece of Indian Territory their own, lighting a ceremonial fire and naming the land "Tallahassee" or "Tulsi". The Council Oak at 18th Street and Cheyenne Avenue marks the humble beginnings of what later natives referred to as Tulsey Town and has become a lasting symbol of the city's Native American history and its embrace of multiculturalism.

As forced relocation of Native Americans continued, the small settlement that would become Tulsa welcomed other members of the Five Civilized Tribes – including Cherokee, Chickasaw, Choctaw and Seminole Indians. For many years, the areas only settlers were Native Americans, who worked to rebuild their communities and cultures. The 1840's saw a few white settlers brave the rugged frontier environment and establish homes and business in the Tulsa area. Unfortunately, this promising growth was cut short by escalation of tensions between abolitionists and slave owners. When the Civil War erupted two decades later, the violence between Kansas and Missouri residents spread into Oklahoma Territory. Many of Tulsa's early settlers fled in fear of that violence as well as notorious outlaws of the time. Overrun by soldiers from both sides of the bloody conflict, about the only thing left standing at the war's end in 1865, was the home of Lewis Perryman, a mixed Creek who had opened the area's first trading post, believed to be located near 31st and Riverside Drive close to the Arkansas River. Perryman's home was at 33rd Street and Rockford Avenue.

(Sources: Tulsa Preservation Commission, Tulsa - Biography of an American City)



Photograph of Tulsa as it appeared in 1898. From the Tulsa Historical Society - www.tulsahistory.org

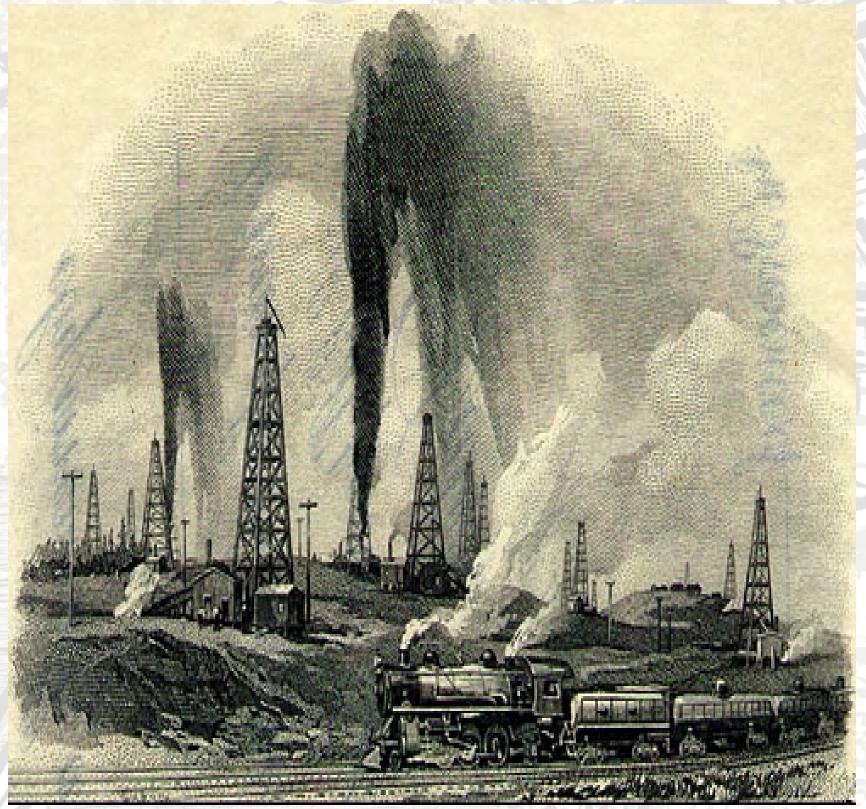
Rebuilding Tulsa in the Early Years

After the Civil War, there were few meaningful structures left and Tulsa underwent a rebuilding process much like its neighbors to the south. As mentioned previously, one of the few meaningful structures left was the Perryman home. This eventually became the town's first post office and "Tulsa" was the name given to this stop on the U.S. Mail, Star Route in 1879. With only a few hundred people, the area began serving as a trading post, attracting farmers and ranchers from the adjacent areas. Tulsa, due to its location, was also a popular stop for cowboys who drove huge herds of cattle from Texas to Missouri. The influx of goods and money in turn drew the attention of the railroad.

In 1882, the Frisco Railroad extended its line to Tulsa and the Hall brothers, considered the founders of modern Tulsa, began their store in a tent pitched beside the new railroad. With rail service, Tulsa became an important cattle shipping point and the town continued to grow. Soon, in addition to Hall's General Store, a barber shop, hotel, railroad depot, and residences were erected. The cluster of buildings marked the foundation of downtown Tulsa.

Tulsa, Indian Territory, was very much a part of the Wild West. Gunfights were common. Cowboys from nearby ranches came to town to celebrate when they were paid, and outlaws, including the Dalton gang and Belle Starr, were known to frequent the area. Land runs of 1889, '91 and '93 brought many more settlers into the area. The population more than quadrupled in the years from 1882 to 1898. And then on January 18, 1898, more than 60 years after the Oak Tree ceremony, Tulsa was officially incorporated as a city into the Oklahoma Territory.





Oil field with gusher and railroad transport depicted in this drawing on this 1920 stock certificate. From www.geoinfo.nmt.edu.

Text Source: Tulsa Preservation Commission and *Tulsa-Biography of an American City*.

New Century and the Oil Boom Early Urban Development

A new century brought an entirely new way of life for Tulsans. In 1901, in an area on the west side of the Arkansas River known as Red Fork, oil spewed from the first commercial well in the area. Oilmen from around the United States headed for Tulsa, making it their headquarters. Four years later, the largest oil well strike the world had ever seen at the time was made in Glenpool, a little community just south of Tulsa. This would change Tulsa forever.

The oil boom brought a construction boom with it, the money rolling in from oil sales going to fuel numerous urban projects like housing tracts, hotel, and utility systems to accommodate the rush of people relocating to the city. And true to predictions, the city's population exploded from 7,000 to 70,000 in less than 15 years. Tulsa became known as the "Oil Capital of the World".

As Oklahoma became a state in 1907, Tulsa was flourishing, with many individuals becoming extremely wealthy. It was during this heady time that downtown Tulsa was transformed from an idiosyncratic neighborhood into the Art Deco community it remains today. Additionally, numerous rail lines converged on the city. In 1902, the city convinced the Missouri, Kansas, and Texas Railway Line (MK&T) to go through Tulsa, rather than follow the route seven miles to the east. A year later, leaders were able to secure a third railroad as a form of security against the negative impacts that strikes cause. The Midland Valley Railroad was persuaded to bypass Sapulpa in favor of Tulsa. Oil was good for the city and its residents, and prosperity lasted for several decades.

By statehood, the City of Tulsa was primarily located within the boundaries of the railroads on the north and east, and by the Arkansas River on the west. The MK & T ran along the north, parallel to the Frisco several blocks to the south. Tulsa's early warehouse district lay between these two sets of tracks. Downtown Tulsa was located south of the Frisco tracks. Tulsa's original town site was platted at right angles to both the MK & T and the Frisco tracks. However, all subsequent plats were correct to a north-south, east-west axis. The Frisco tracks became the north/south dividing line for street names and Main Street became the east/west dividing line. Streets west of Main were to be named for western cities and streets east were named for cities east of the Mississippi River. Streets running both north and south of the Frisco tracks were originally to be numbered but it was later decided that the northern streets be named for prominent Tulsans and other notable Americans. Later, when personal names were exhausted, names such as Pine, Virgin, Ute, and Zion were chosen. This later lead to the city's decision to begin the use of numbers. Also, by the time Tulsa reached as far east as Sheridan, the city adopted a new numbering system beginning with 66th Street. In 1920, the city Tulsa established Admiral Boulevard as Tulsa's new north/south dividing line.





Mayo Hotel in 1925 had stained glass windows and marble floors and accommodated famous guests including President Kennedy and Babe Ruth. From Tulsa Preservation Commission - www.tulsapreservationcommission.org.

Transportation Changes and the Urban Look

With the oil boom and the subsequent rail and street development, the urban look of Tulsa had been established. An outgrowth of rail development was traction and trolley service. Initially, the service concentrated mainly downtown and the areas just south of downtown. Later, a trolley was developed to Tulsa University and in 1908 Charles Page developed his own railroad which operated between Tulsa and Sand Springs. The trolley system continued to thrive until the early 1920s, but competition from jitney cars, taxis, and the private automobile led to its decline.

The 1930s saw the great Depression sweep across the country, doubly detrimental for Oklahoma when coupled with the Dust Bowl. The assets and stable foundation of Tulsa made the city fare better than most. World War II followed and afterward there would be a fundamental shift in the city. Ever increasingly, oil was was being struck offshore and elsewhere, and Tulsa was no longer the epicenter of production. Capitalizing on the state's history of aviation, especially demonstrated with manufacturing during the war, Tulsa reinvented itself as a home for aviation companies, including American Airlines as the first to move its operations there.

The automobile had a profound impact on Tulsa in the early twentieth century not only in the physical form, but in the use of petroleum products which fueled the economy. By 1925, more roads were paved through northeastern Oklahoma than any other part of the state. By the late 60s and early 70s, freeways were again changing the physical form of Tulsa. In some cases, new freeways followed old railroad alignments but many freeways did not. Many freeways carved significant areas out of established neighborhoods to accommodate their rights of way. Railroad bridges were built in urban areas to facilitate automobile traffic through the city, and auto access across the Arkansas River was designed and constructed. Multiple gas service stations and garages were built and were designed to conform to the city designs of the period.

In the past few decades, Tulsa has again positioned itself at the forefront of another industry – telecommunications. Considered the most high-tech of Oklahoma's cities, Tulsa prides itself on being on the edge of the future of this industry.

Regardless of what social and economic paths come the city's way, Tulsa, the crown jewel of Green Country, will hopefully continue to embrace its legacy as a town of opportunity for all. History is a powerful force for Tulsa and gives the city a rich character.









The Tulsa Inner Dispersal Loop with sprawl directed to the southeast. Courtesy GoogleEarth.com

Urban Sprawl and Planning Attempts

Tulsa's economy had diversified after the war and although losing its title as the "Oil Capital of the World" the city fared better than most. Tulsa continued to grow but the minimal long term planning since the 1920s and other forces would forever change Tulsa's future. Tulsa had evolved over time into a physically and socially segmented city with the city's population and wealth center moving to the south and east of downtown. These lines of class also lead to racial separation in a city that already had strain from a race riot in 1921. It appeared that most growth was driven strictly by the marketplace and very little by conscious design. But one of the biggest influences on the growth and shape of Tulsa beyond the second World War, was the automobile. Much like other cities in the United States, urban sprawl was occurring and the effects added to the disruption of normal growth in Tulsa. Multiple expressways were established linking the suburbs to the core city and sometimes creating controversy as neighborhoods were divided and isolated areas were formed. As the city grew predominately south and east, Tulsa's downtown felt the commercial effect, especially in the retail business.

Tulsa's downtown continued to change due to many forces. In 1952, the city opened its first major shopping center at Utica Square. To counter this movement, Downtown Tulsa Unlimited was formed in 1956 to develop strategies to keep trade downtown. Within seven years, many of the more than a hundred members and some of the oldest merchants had moved to the new Southland Shopping Center. In 1957, the planned Inner Dispersal Loop was funded along with construction of seven other expressways further isolating the urban core. Downtown survived, but not as a retail center, rather as an office park for several national firms.

In 1958, Mayor James Maxwell persuaded the public to approve a \$7.2 million civic center and over the next five years another \$24 million to construct an entire complex that covered twelve city blocks and provided modernized, architecturally integrated city and county office buildings and the library. During his term, the Tulsa Metropolitan Area Planning Commission (TMAPC) developed the first city master plan in 1960 and the process that led to the eventual downtown pedestrian mall was started.

Throughout the sixties and seventies, with funding from the federal urban renewal system, Tulsa, like many cities, used its power of eminent domain (and \$42.4 million federal dollars) to acquire sites the city government defined as "blighted". The Tulsa Urban Renewal Authority (later TDA) had some success with such areas as the downtown Doubletree, Westport Apartments, Center Plaza, University Center at Tulsa, and eventually the Greenwood Cultural Center. However, there were flaws, as evident today by the bulldozed areas within the IDL that remain empty and undeveloped.



Cesar Pelli & Associates Architects

Rendering of the proposed BOK Center designed by CesarPelli and Associates.

Tulsa History

End of the Century Hope for the Future

As the urban renewal processes continued in Tulsa as well as other cities in America, the shortcomings of the planning process began to occur. The apparent success of immediate, neighborhood planning encouraged the city to extend the process. Rather than attack one blighted neighborhood at a time, Tulsa would plan for a long range future of the entire city. In 1972, the Tulsa Metropolitan Area Planning Commission developed an ambitious idea known as Vision 2000. The city's chief problem was identified as the "expanding unidirectional (southeastern) sprawl" and the planners described the future as moving towards "balanced growth." The primary project was the Williams Center Complex. On urban renewal land, the Williams Companies put up the state's largest office tower, two parking garages, an urban park, and matched city and privately raised funds to build the Performing Arts Center. This was designed to lure citizens and visitors back to downtown. It did not, and the sprawl continued with the development of Woodland Hills Mall in the mid seventies. The effects of the car and the expressways were rapid and between 1968 and 1974, Tulsa's schools lost 14,136 students (approximately 20%) while the suburban schools experienced growth rates of 69,137 (approximately 349%). Tulsa, like many other cities in America, had sprawled to a point that its physical form imperiled its own continuing health.

The success of the suburbs continued in addition some older areas rejuvenated. The Brookside area and Cherry Street merchants offered specialty items and walking areas, and have continued to enjoy success by discovering their own history.

In 1997, Tulsa brought forth the Tulsa Project, a \$200 million plan that included an arena, convention center improvements and parking garage, soccer/track stadium, aquatics facility, and downtown residential development. The idea was to attract tertiary events such as smaller conventions and amateur sports venues. Voters rejected the plan and downtown remained stagnant. In 2000, a similar but different "grassroots" plan, Tulsa Time, was proposed. This \$263.3 million tourism and convention package included renovation of the convention center, a coliseum, parking garage, a rubber-tired trolley system and a heavily landscaped pedestrian route connecting the convention center to Riverparks. This failed at the ballot box as well.

In 2002, starting with a citizen's summit, the "Vision Process" was started. Multiple public meetings, both large and small, culminated into over 300 proposals totaling around \$4 billion. Through an exhaustive process the list was reduced to thirty-two projects for \$885 million. In September, 2003, the combined City of Tulsa and Tulsa County proposal was approved. After Boeing rejected the incentive package portion of the plan, the total sales tax would be 6/10th of a penny for 13 years. Many of the projects of Vision 2025 are well underway today.





Arkansas River Development

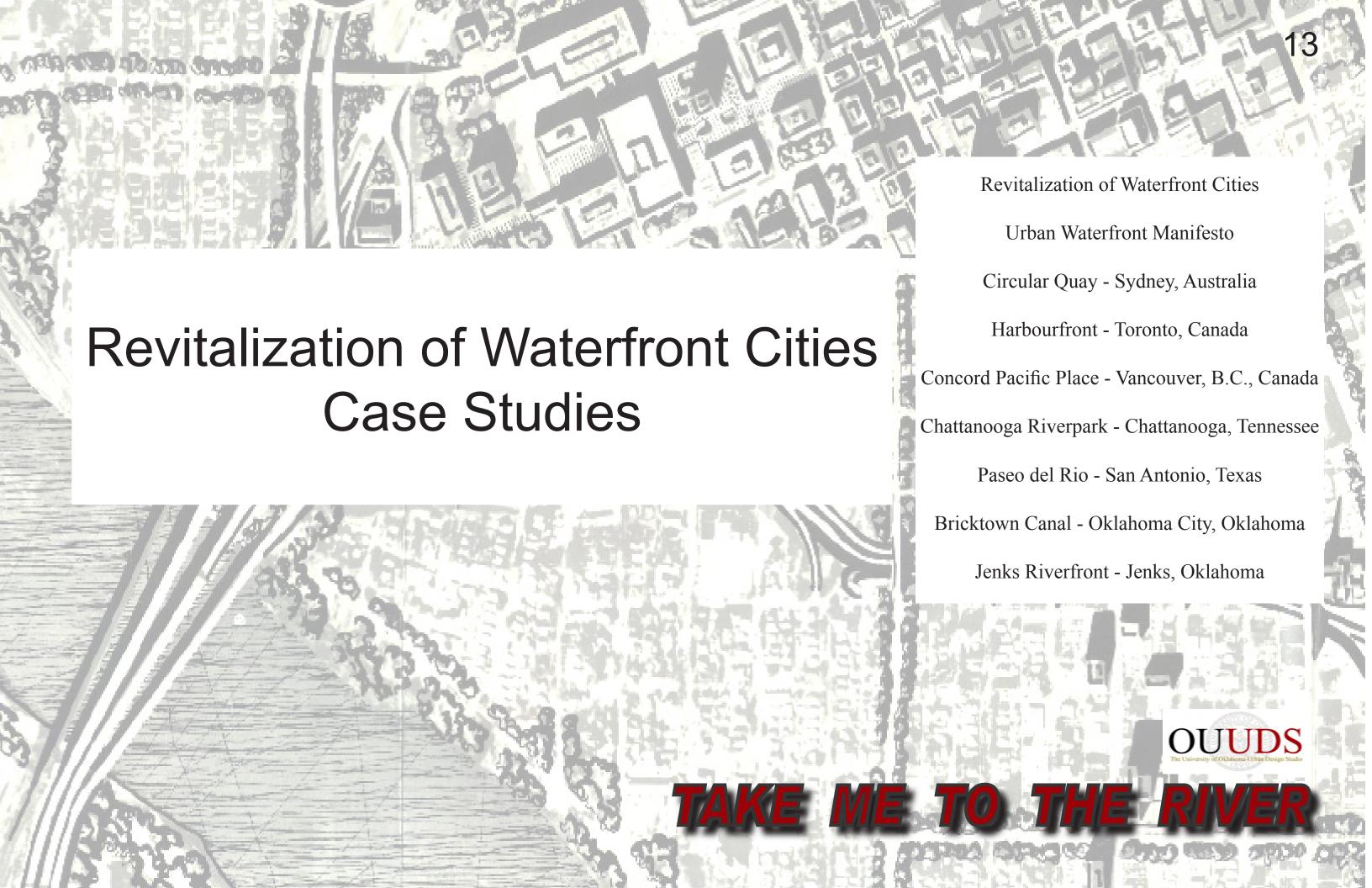
Although early Tulsa has gone through many years of growth and prosperity, the land along the Arkansas River remained relatively undeveloped except for the riverfront industries and a few clusters of houses. The Arkansas River posed a real obstacle between the city on the east side and the oilfields of Redfork on the west side. In 1904, a toll bridge was built by some enterprising businessmen at the site of the current Southwest Boulevard and I-244 bridges. One of the problems for development as observed by the disgruntled owner of a commercial steamboat was that "the bottom of the Arkansas is too near the top." And contrasting with the frequent problem of too little water for navigation was the more serious problem of flooding. In all, the river was considered more of a liability than an asset.

The idea of developing Tulsa's riverfront was unsuccessful until 1974 when it was proposed as one of several civic projects designed to celebrate the city's 75th birthday. Though met with open skepticism by many, community leaders were inspired by the success of riverfront developments in other cities at the time. They envisioned public and private partnerships blending open space, industrial and residential properties into a corridor of public-use area areas all along the Arkansas River. That year also marked a decade of flood control by Keystone Dam, further building confidence that the river and its banks could be managed and developed for economic and cultural benefit of the community. A \$30 million project was proposed which included park development, low water sill, pedestrian bridge, 21st street restaurant, amphitheater, marina, activity plaza with retail space, as well as a planetarium and museum.

Although not all of the projects were approved, the River Parks Authority was created and soon began transforming the riverfront with over \$2 million in urban renewal funds. The agency's first project was the conversion of the Midland Valley Railroad bridge at 29th and Riverside into a pedestrian walkway linking the east and west banks of the river. Next came the development of the "model park" north of 21st and Riverside. With a river overlook, playground, trail, parking, restrooms and food concession, this early development and a growing variety of public events were designed to draw people to River Parks to see its potential. River Parks now includes over 800 acres of land stretching along miles of the Arkansas River. The focal point of the park is its trail system, weaving through open lawns and tree-lined picnic areas, past bronze wildlife sculptures, fountains, and the seasonal color of native trees and wildflowers. Public events are now centered primarily at the River West Festival Park with its amphitheater and the Reynolds floating stage. Zinc Dam and Lake, completed in 1983, have made the river a popular spot for fishing, rowing, and kayaking. Further south, the untamed beauty of the Turkey Mountain Urban Wilderness Area rises above the riverbed, offering rugged hiking and equestrian trails, as well as a panoramic view of the city from its summit.

With approximately 42 miles of riverfront within Tulsa County, the Arkansas River offers a generous resource for both recreational and socioeconomic developmental opportunities.





Baltimore Inner Harbor at night. From gregpeacephoto.com.

Revitalization of Waterfront Cities

Waterfront cities throughout the world are looking for ways to reshape and redefine their waterfronts. This international urban planning trend is transforming large waterfront areas from unused industrial spaces into thriving mixed-use, recreational and cultural districts. It has allowed cities to demonstrate the ability to adapt due to changed circumstances and new technological impacts, and to create new images for themselves. It has also allowed cities to redefine and/or create new neighborhoods.

The popularity of waterfront cities dates back to the 11th century Venetians and their traditional gondolas but renewed interest in modern cities is evident today. Waterfront revitalization has been a topic of academic and professional interest since the 1960's and has even generated its own subject matter. In the book The New Waterfront: A Worldwide Success Story, Breen and Rigby asserted that the waterfront revitalization phenomenon represents "a historic shift of resources away from the transportation related and industrial functions that have dominated cities since the turn of the century, toward more varied, public uses today".

Richard Marshall addresses the unprecedented challenges of transforming the environmental conditions of many redundant waterfront sites in his 2001 book <u>Waterfronts in Post-Industrial Cities</u>. Marshall claims that although these sites are typically located adjacent to downtown areas of the older cities, the size of and former use of the sites has generally resulted in waterfront spaces that are disconnected from the physical and social fabric of the city. Much of this could hold true for the waterfront area adjacent to downtown Tulsa. Marshall goes on to remark that these sites speak to the future by providing opportunities for cities to reconnect with their water's edge. Because of their size and complexity, these sites require innovative mechanism for their consolidation. Historically, the sites of industry, waterfront areas now attempt to re-center activity in urban space, to reposition concentrations of activity, to shift the focus from old to new.

Alex Krieger, an urban design professor at Harvard University, emphasizes that the revitalization of waterfront sites often presents polarized visions as to how these sites should be developed, combining "grand expectations with considerable self-reflection about the very nature of contemporary urbanism". Waterfront revitalization requires planners to balance somewhat conflicting ideals: for instance, accommodating traditional land uses versus new; maintaining old identities or creating new ones; increasing public access or leveraging private development at the water's edge. Krieger argues that visits to many cities located on major bodies of water "leave indelible images of place" and that "the value of these proverbial postcard views is not to be dismissed...A memorable setting can help attract global markets while forestalling the "this could be anywhere" syndrome of much current urban development".





The following principles are offered in the spirit of encouraging communities to aim for distinctiveness as they undertake the challenge of converting or conserving their waterfront resources:

• It is essential to keep in mind the inherent public interest in waterfronts, reflected in public ownership of water itself.

Planning

- Waterfront planning should be long-range, comprehensive and holistic and should encompass all relevant disciplines. It should use all appropriate technologies and encourage a system of sustainable growth and operation.
- Meaningful community involvement is integral to valid waterfront planning and development. It should begin early and be continuous.
- Waterfront work is not just about economic development, is not simply a design question or only about environmental issues. Rather it is a fusion of these and related disciplines that should be sought.
- We encourage communities to think long-term in waterfront work. Many conversions take 10, 15 or 25 years. The understandable desire to achieve instant results should be resisted in all except the smallest steps. Development over time allows a richness of character vs. the sameness of a onetime "Big Bang" approach.
- It should be remembered that every waterfront is an integral part of a watershed consisting of creeks, rivers, estuaries or bays.

Urban Waterfront Manifesto

Cities throughout the United States and the world have joined the waterfront phenomenon in hopes of transforming once abandoned, underused waterfronts into areas that, when redeveloped, can serve as a unifying force for community enrichment, creating a more vibrant community essential for both environmental and socioeconomic advancement. Unfortunately, some in the design and development field have taken the formula approach in copying something that has worked in one place and transferring it elsewhere. Others have done building projects that were unsympathetic to the unique waterfront setting. There has also been cases of over-building and excessive privatization along the waterfronts today.

A group known as *The Waterfront Center*, a non-profit educational organization based in Washington, D.C., since 1981 was formed to assist communities and the professions in making wise and best long-term uses of waterfront resources for maximum public benefit. They created a statement and principles for communities to use in hopes of promoting sensitive, site specific planning and development that reflects individuality of each place. The Urban Waterfront Manifesto reflects some important principles for Tulsa to follow in their plans for the Arkansas River waterfront development as well as the blending of the city's downtown urban fiber with the river.

(Used with permission from The Waterfront Center)





Development

- The best undertakings involve a partnership between the dynamism of the private sector, the stewardship of public entities and the energy of citizens.
- Public access to and along the urban waterfront should be the hallmark of all projects, including residential developments. This means physically and psychologically welcoming access. Visual access to the water likewise should be a pervading objective.
- It is vital that communities distinguish between learning from good examples of waterfront planning and development elsewhere and blindly copying them. Waterfront concepts and projects should flow from the nature of each place and embody its essential spirit.
- Where possible, a diversity of uses wants to be included along waterfronts, from passive parks to vibrant commercial attractions. People of all income levels and cultures should feel welcome. Nighttime activities as well as daytime can be provided. Distinctive places for children as well as the elderly should be included.
- Waterfronts present unparalleled opportunities for interpretation and education of natural
 values, community history and culture, including notably the industrial and transportation
 activities that often preceded today's developments. Preserving and interpreting the tangible
 aspects of the history of a place provides character and meaning to waterfront development.
- The tendency to clean up waterfronts should be approached carefully so that rich underlying values are not unnecessarily sacrificed. Preferences for uses that require access to water is important, even if they are somewhat unsightly.
- Public art installations should be encouraged and the active participation of each city's arts community sought from the outset of waterfront planning, to ensure that artists' special way of seeing things is incorporated.

Urban Waterfront Manifesto

Water is a defining force that fundamentally shapes the character of each place it touches. The role of water in transport, industry, sanitation and nourishment made it the raison d'être of human settlement. It is a feature to be honored and celebrated — not to be treated merely as cosmetic or as just a commodity.

Waterfronts, the unique places where land and water meet, are a finite resource embodying the special history and character of each community. Urban waterfronts, like the cities they help define, are dynamic places. The last three decades have witnessed profound changes along abandoned or underused waterfronts. The trend is accelerating in cities around the globe. It applies to canals, lakes and rivers as well as coasts.

With this growing popularity comes a tendency by some to look for the quick solution, to adopt a formula that may have worked somewhere else. In the 1980's it was the "festival marketplace" fad. In the 1990's, it is the "urban entertainment district" and/or stadiums. In a time of pervading sameness and homogenization worldwide this is particularly dismaying because waterfronts above all factors give each community a chance to express its individuality and help distinguish it from others.

(Used with permission from The Waterfront Center)





Circular Quay

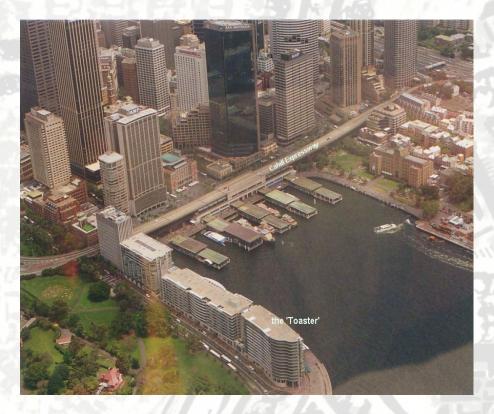
Sydney, Australia

Sydney, with plentiful sunshine and sheltered from wind by protecting ridges, has grown up around its waterfront. The Circular Quay, an extremely popular urban space, is a central focus of Sydney's pedestrian linkages and is connected locally and globally by motor vehicles, rail, and a variety of marine crafts. One end of the Quay connects John Utzon's famed Sydney Opera House, and the other with The Rocks, an area that constitutes Sydney's historic "original village", and the Sydney Harbour Bridge. Services are plentiful along the length and are oriented to both tourists as well as locals. There are fresh produce stands, fish shops, breads, meats, and wines along the corridors. The Quay has become symbolically the birthplace and the living room of the nation. The area appeals to ordinary people as well as the affluent. A true mixed-use domain, multideveloper project, the Quay is an example of a great waterfront - integrating living, working, and entertainment areas as well as blending historic structures seamlessly into the surrounding new development.

Interestingly, a striking fact about the area is that the Quay did not have a single master plan nor did it emerge suddenly or go through the typical stages of industrilization, decline, and development as many waterfronts have done. Instead, it changed gradually and remains a place in flux. A strong local government and intense civic interest in future visions as well as the gravitational pull of the international architectural movement, predominately the Opera House, has led to the success.

Sources: Information from Remaking the Urban Waterfront Photographs from frontpagetravel99.com











Circular Quay

Sydney, Australia

Access and Linkages: The construction of Circular Quay was started in 1850 using convict labor and sandstones from The Rock. The twisty, hilly little lanes, leading up from and parallel to the shoreline of Sydney Cove, is a unique pathway and was the first area settled in Sydney. The primary appeal for locals is the Quay's function as the essential transit center for the central business district. A majority of downtown commuters live across Sydney Bay and use ferries to travel to work. With its aesthetic, practical and efficient qualities, the Quay functions as an effective transition space between docks and downtown. Tourist are particularly attracted to the Writers' Walk - a pathway from the Quay to the Opera House tiled with plaques commemorating Australian writers and and other writers focused on Australian history including Charles Darwin and Mark Twain.

Lessons Learned: Criticism of Circular Quay seems to focus on the elevated railway and freeway structure that is behind the area. With the recent Harbor Tunnel completion, many are suggesting that the freeway be demolished. But the overall general consensus in the research of internationally acclaimed waterfront developments, Circular Quay is exceptional. The success was influenced by continuous civic attention, creation of suitable public institutions to match emerging needs and aggressive attention by various local and national leaders involving various projects. Interestingly, the process emerged from a fragmented and ad hoc approach and there was no single master plan. Essential elements of success of Circular Quay include its central, well connected location and its easy access to a multitude of transportation methods. Broad access to a variety of income groups engaged in a range of activities, proximity to major tourist attractions, and preservation of authenticity were also cited as keys to success of the development.

Sources: Information from *Remaking the Urban Waterfront*Photographs from frontpagetravel99.com





Harbourfront

Toronto, Canada

In 1972, the Canadian government took over a 96 acre strip of waterfront land in Toronto to preserve the vista. It was not prime real estate at the time but over the past 30 years that has changed. The abandoned warehouses and crumbling factories have yielded a stunning urban playground that now stretches over the old piers. Interestingly, private development was involved just previous to the federal governments involvement constructing high rise commercial and residential buildings at the water's edge. Citizens objected to this movement as they perceived these buildings as blocking public access to the water and were concerned that the area would become private domain for profit only, with limited public use. After several years of intergovernment negotiations, the government created the quasi-independent developmental agency, Harbourfront Corporation, to manage the development of a waterfront park. The corporation would submit each project to the City of Toronto and to the federal government for approval of public funding. Upfront public investments in infrastructure was used to attract private investment and promises for long term leases were established. Harbourfront would be an identifiable community, providing live/work opportunities and would provide public access to the waterfront and would integrate with the city and railway lands. Development would also demonstrate respect for climatic conditions by, for example, using buildings and covered walkways to shelter open space. All building designs would demonstrate respect for views and vistas and ground level space would be devoted to public uses.

In wake of the economic boom of the late 70's and early 80's. Harbourfront was able to dramatically change the image of Toronto's central waterfront, turning it into a desirable destination for residents and tourist alike. After the recession of the mid 1980's, the real estate efforts declined and the public lost trust in the Harbourfront Corporation and a new nonprofit organization, Harbourfront Centre was asked to oversee the programming.

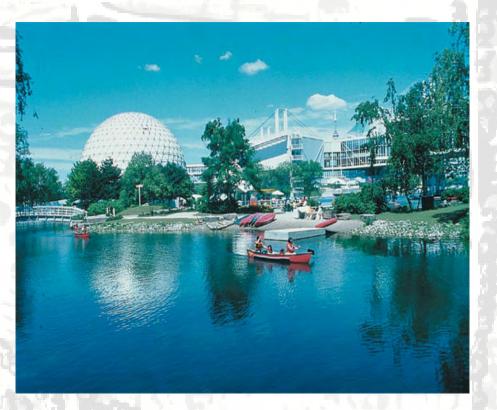
Sources: Information and photographs from *Remaking the Urban Water-front and* www.harbourfrontcentre.com.











Harbourfront

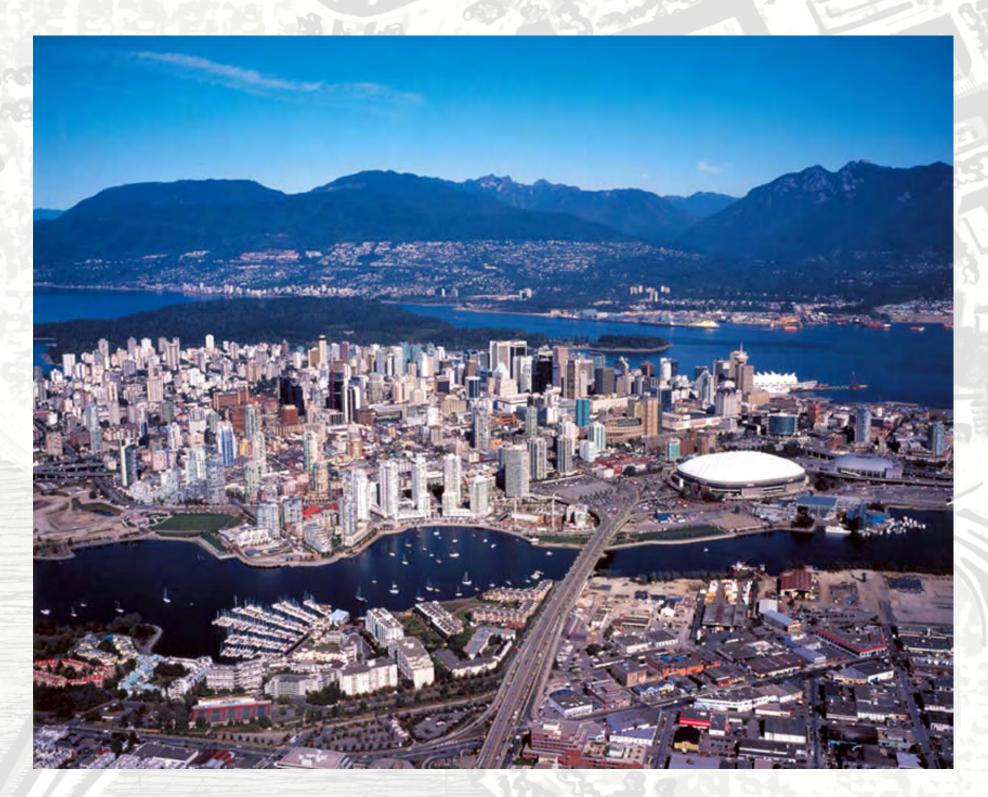
Toronto, Canada

Access and Linkages: The waterfront walkway, which provides an uninterrupted link along Harbourfront, is pleasant and does offer some reprieve from the busy downtown area. It provides connections to a number of cultural, commercial, recreational and entertainment facilities, but lacks the coherent and high quality public domain that is found in many other high profile waterfront cities.

Lessons Learned: Harbourfront has become a vibrant part of the Toronto community and has helped make the area attractive for both tourist and locals alike as central to cultural, recreational, and educational activities. It is viewed as a distinctive neighborhood, rather than a special area managed by the government. Harbourfront has been criticized due to its lack of being fully integrated into the fabric of the city and this has been blamed on many factors. In addition to the lack of development of the rail lands, the primary reason for this linkage problem has been the elevated Gardner Expressway. This structure has been a physical and psychological barrier between the city and its waterfront for decades and plans for replacing the the expressway with an upgraded regular road network and a regional transit system are forthcoming. However, it will take many years before this will substantially benefit the waterfront. Other imporant lessons learned include the importance of the developmental agencies' ability to adjust to changes in the real estate and commercial economy, and to hold the developmental agency accountable if it appears the public interest is not being respected. It is also important to realize that corporate goals of financial self sufficiency and short term profit should not jeopardize other objectives of the project, including the future of urban centers and the role of public spaces and cultural programming to ensure their vitality.

Sources: Information and photographs from *Remaking the Urban Waterfront*, www.harbourfrontcentre.com, www.torontoenespanol.com.





Concord Pacific Place Vancouver, B.C., Canada

The Concord Pacific site was developed as the terminus of the Canadian Transcontinental Railroad in the late 1800s and was used for industrial purposes until it deteriorated and was abandoned by the 1960s. In 1974, the area was rezoned and was cleared for use for the location of the 1986 World Exposition. In 1988, the provincial government articulated the city's goal and planning principles and expressed a desire to bring housing and mixed use development to the core of downtown Vancouver. The government's decision to sell the property to a single developer was critical to the project and the Concord Pacific Group was chosen based on many planning factors that governed the project.

The 204 acre project responded to several objectives identified by the City of Vancouver. The new community is woven into the fabric of the adjacent city grid and provides public access to the waterfront along its entirety as well as view corridors throughout the project. A self sufficient community with many retail, services, and amenities within, Concord Pacific is demographically diverse, with both affordable and family-oriented mixed housing. At completion, the project will house some 15,000 people with 9,200 dwelling units with two schools, four daycare centers, a community center, three marinas and 50 acres of public parks and open spaces. The market rate housing units are generally sold prior to the commencement of construction.

The site plan truly extends the city to the waterfront and is not a separate wall enclaved area. The public is symbolically encouraged to visit the waterfront and the community in general. The views of the waterfront are very well protected and the scale and character of the buildings and city style are maintained. Pacific Boulevard, the major cross street that runs from one end of the linear site to the other, has been designed with street level commercial development and residential development above. Moving back from the water's edge, the spaces are layered up from the continuous seawall to terraced areas above transitioning to housing with public park space between.

Sources: Information from *Remaking the Urban Waterfront, www.concord-pacific.com.* Photographs from www.see-vancouver.com.











Concord Pacific Place Vancouver, B.C., Canada

Access and Linkages: The seawall walkway is the highlight of the area and throughout most of downtown Vancouver. The two mile path with designated pedestrian and bike paths wraps around the edge of the entire pennisula connecting the world famous Stanley Park with many neighborhoods and public entities including Science World, the former 1986 World Exposition. Within the peninsula the walkways tie into the downtown city grid seamlessly and encourage pedestrians to visit the waterfront along the many open spaces and parks between the residential and commercial developments. The need for an automobile is limited as public transportation and bike paths fulfill the need like no other city. With numerous beaches and small coves in Stanley Park just minutes away from large apartment buildings, marinas, and mixed commercial use - Vancouver epitomizes good urban planning and waterfront development.

Lessons Learned: The official development mandate by the City of Vancouver to Concord Pacific was based on seven organizing principles: 1) Integrate with the city 2) Build on the setting 3) Maintain the sense of a substantial water basin 4) Use streets as an organizing device 5) Create lively places that have a strong image 6) Create neighborhoods 7) Plan for all age groups, with a particular emphasis for children.

Public and private development interests are not mutually exclusive in this development and with careful site planning and urban design, it has been possible to preserve public access to the waterfront. The compact layout, mix of use, and a measure of density has created a truly urban, pedestrian-oriented community lessening the need for automobile ownership and parking. The use of eye-level continuous street facades guiding vision to the lower three floors as well as the unbounded space at the water edge softens the intensity of the density created by appropriate high rise developments. With these urban design standards, combined with its location, Vancouver is renowned as one of the most picturesque and liveable cities in the world.

Sources: Information from *Remaking the Urban Waterfront, www.con-cordpacific.com.* Photographs from www.see-vancouver.com. and personal photos.





Chattanooga Riverpark

Chattanooga, Tennessee

In 1969, a Federal Air Quality Report labeled Chattanooga as the most polluted city in the country and leadership from both civic and industrial sectors were forced to make the necessary changes to effectively clean up the air. Within five years, the city had met or exceeded air quality standards. Although the air was clean, the outdated factories closed and the loss of manufacturing jobs to other cities and countries left the city in a recession. The city's ability to solve their air quality was the catalyst for a group who decided to spearhead an effort to revitalize the city. A group called the Chattanooga Venture developed a process to increase Chattanooga's livability and raise its attractiveness for potential investment. The primary feature of this plan was Riverwalk, a 22 mile greenway along the Tennessee River that would be the catalyst for development and creating jobs and tax revenue for both the county and the city. RiverValley Partners, a private, nonprofit organization was organized in 1986, to drive the master planning process and arrange public and private collaboration and cooperation. Eight local foundations and seven financial institutions contributed \$12 million to start the transformation. The group used \$4.5 million to acquire several waterfront properties adjacent to downtown in the initial phase of planning.

One of the first projects for the group was the Tennesse Aquarium built in 1992 by funds provided by private gifts. Public funding was used to build a new plaza around the aquarium and this public/private sharing of cost became a hallmark of the the process. Soon, a visitors's center, children's museum, 3-D Imax theater, and shops were built to create a catalyst for tourism, income development and community enrichment that had been envisioned initially.

Information and photos derived from "The Chattanooga Riverpark: Transformig a City and its Economy" from www.pps.org.











Chattanooga Riverpark Chattanooga, Tennessee

Access and Linkages: The 22-mile riverwalk links the public and private attractions together in a park-like atmosphere. Plans to reconfigure a parkway into a more pedestrian friendly road will reconnect the downtown museum with the riverfront. Additionally, a new boat dock will be added at one of the trailheads and plans for water taxis for crossing the river and transporting larger crowds during events are fothcoming. The revitalization of a historic bridge for pedestrian use will contribute to access and linkages.

Lessons Learned: One of the great lessons of this project was bringing forth a project that allowed civic leaders to become risk takers. Also it showed that very difficult challenges could be overcome with a cooperative effort. The first three miles of the Riverwalk went across nine different properties, including the TVA, railroads, a community college, and several local businesses. Also, 75% of the land was in the river's floodplain and required special design challenges. Land was used that was not suitable for industry or other development and was recreated for great public experiences and good. It was concluded that building a park was one of the safest things you can do for a city. Even if all predictions about the economic impact a park will have doesn't live up to expectations, a city is still left with a green space that can be a legacy for generations to come. Other advice in this successful endeavor include planning for positive change and that cities are dynamic and should be reinvested just like a business. It is important to be inclusive in giving opportunities for project ownership and to plan, design, build, first and foremost, for local citizens. It was also suggested to enhance and highlight the unique qualities of the community based on the history or geography of the area and to form partnerships with the public and private sectors. A unique and interesting suggestion by many of the leaders were to try and convince elected officials that special places for exercise, rest, relaxation, and community building are essential services just as garbage, police, and fire protection are. Lastly, the mantra was to take risk and remember that if these projects were easy, they would have already been done.

Information and photos derived from "The Chattanooga Riverpark: Transformig a City and its Economy" from www.pps.org.





River boat on Paseo del Rio in San Antonio, Texas. Photo from www.stlouisnrhs.org

Paseo del Rio

San Antonio, Texas

The San Antonio River was saved from drainage attempts in the 1920s but the Riverwalk, or Paseo del Rio, was not developed until years later by the WPA. Multilevel walks, steps, and bridges were constructed using the native materials throughout the project and giving the walkway much of its present day character. However, much of this work deteriorated rapidly and the riverfront park developed a seedy reputation in the 1950s and '60s. A second redevelopment campaign was started with the goal to lure local shops and resteraunts to the area. This successful effort resulted in the city's hosting of the 1968 HemisFair. The park has been well maintained since that time and is now home to numerous outdoor cafes and resteraunts, sightseeing river cruises, outdoor theaters, and a parade of riverfloats.

Paseo del Rio is an early example of a riverfront park that became a catalyst for revitalizing not just a neglected waterway, but an entire community. The Riverwalk brings economic benefits to the city by providing an important public space as an attraction to visitors and locals alike. Twentyone bridges, each unique, and 31 stone stairways connect the river level with downtown San Antonio streets. The variations in landscape provide opportunities for people to walk, jog, or even just sit in tranquility in the lush gardens that have been blended into the landscape. There are ample opportunities to sightsee, eat, shop, or just people watch in the varied attractions that include a mall and a linkage to an open market.

Paseo del Rio hosts major cultural events as well as smaller-scale community events, and the mix of businesses, leisure and cultural uses attract people to it at all times of the day and week. Because of the success of the walk, many large conventions are planned for San Antonio due to popularity with tourists on a national level.

Information taken from www.sanantonio.gov/planning.









Various photos from the pathways along Paseo del Rio in San Antonio. Photos available at www.jimtardio.com.

Paseo del Rio

San Antonio, Texas

Access and Linkages: The meandering pathways formed by the course of the San Anonio River are one of the greatest gifts to visitors on foot while visiting downtown. Turn any corner in this area and one can find some fascinating testament to the city's rich historical past. In addition to both canal level connections to the various hotels, clubs, and resteraunts, there is also step tansitions into a multitude of street level businesses and attractions. Most notably include a water-lined pathway to the historic Alamo as well as connections to the mall, convention center and Alamo-Dome, all within walking distance. Also within a short distance from the RiverWalk is El Mercado and a Farmer's Market. All of these areas include open air shops and eateries. If walking becomes a problem, there are streetcars available at many corners with frequent stops. A light rail system is planned for the future. Despite the many levels of terrain there are several handicapped-accessible area along the 2.5 mile river route.

Lessons Learned: The Paseo del Rio is one of the world's great urban linear parks. Over the years, the development has spawned thousands of inquiries from civic entrepreneurs seeking ways to cultivate similar economic river communities in their own cities. The development of this project was based on a balanced doses of capitalism and ambition, mixed with the interests of conservation and preservation.

If there is a concern today, it is that the RiverWalk could become over developed with entertainment complexes opening at an alarming rate. The crush of bodies along the busiest section can become somewhat claustrophobic in the summer heat although there are still plenty of quieter spots in existence. The city is currently involved in a 10 year \$140 million plan that will extend connection 15 miles and focus on restoring the rivers' natural environment and enhance residential community connections along the way.

Information taken from www.sanantonio.gov/planning.





Bricktown Canal with the Bricktown Ballpark in the background.

Bricktown Canal

Oklahoma City, Oklahoma

In 1993, the voters of Oklahoma City approved a \$238 million tax increase to revitalize their downtown. Metropolitan Area Projects, or MAPS, was a progressive effort that included a bundle of projects that offered something for many including arts, sports, recreation, tourism and culture. Despite setbacks, including the Oklahoma city bombing tragedy in 1995, construction of projects began in the Spring of 1996. In April, 1998 the Bricktown Ballpark opened and the following summer the Bricktown Canal opened. Complete with a water taxi service, the manmade canal winds its way through the historic red bricked one and two story buildings in a former industrial zone of the city. The canal links downtown, extending past restaurants and venues to the Bricktown Ballpark and further to a 3-D Imax theater complex and further to a Bass Pro Shop area. While only a single restaurant was available on the opening of the canal, the area now boast 17 restaurants, clubs, and shops along the canal. Likewise, worries about a canal boat ride to "nowhere" was disproved as the water taxi has carried 540,000 passengers earning a profit all but one of the past four years.

Additionally, a pedestrian connection links the Bricktown Canal to the newest MAPS project known as the Oklahoma River. The former North Canadian River section just south of the downtown, has been transformed into a 7-mile long series of river lakes bordered by landscaped areas, trails and recreational facilities. Included in the \$52 million construction were three dams, boat ramps and a skateboarding park. Along with the restoration of the waterway, thousands of trees were planted near the shore and pathways were constructed. This area has already been a catalyst for economic revitalization with the \$111 million Native American Cultural Center planned and the recent revelation that Dell Computers has decided to build a riverside corporate facility.

Information and photos from www.okc.gov.







Jenks Riverfront

Jenks, Oklahoma

Only minutes away from Tulsa on the banks of the Arkansas River, Jenks offers its residents small town charm with big city convenience. Recently, this ambitious, small suburban town has developed into a city which stands on its own in residential, commercial and tourism growth. With the opening of the Oklahoma Aquarium in the summer of 2003, the development of the Riverfront District was started. This attraction has been followed by a 75 room, 5000 square foot conference facility and hotel to accomodate the large number of visitors to the aquarium and the surrounding amenities. Just upstream from these developments, a dynamic new development known as the Riverwalk Crossing is opening and expanding new venues monthly. This area will be home to restaurants, retail, and office space with the objective to establish high quality, vibrant entertainment and become a mixed use center that attracts visitors from local, metropolitan and regional areas.

The design of the facility features a Mediterranean style architecture theme and will be linked by an uninterrupted riverfront pedestrian plaza, which connects to the Oklahoma Aquarium by an extended riverfront trail system. The plaza will serve as an area for visitors to stroll, shop, dine, and perhaps enjoy live concerts and events at the outdoor stage backing up to the Arkansas River. Recently, the pedestrian bridge was painted and special lighting was installed making it the only lighted bridge in the Tulsa area and a focal point for development.

The city has added over \$500 million to its tax base in the past 10 years and with its downtown quaintness and riverfront development, Jenks has truly become a point of destination for the Tulsa metropolitan area and surrounding communities and states.

Information and photos from www.jenkschamber.com and the magazine "Oklahoma Cities and Towns" September 2005



Present Downtown Tulsa and the Arkansas River Development and the Significance of this Project

River - City Linkage

Downtown Tulsa Today

Vision 2025 Downtown Projects

Tulsa Centennial Walk

Tulsa River Parks

Vision 2025 Route 66 Roadhouse and Plaza

Zink Lake Masterplan

Comprehensive Base Map





Pathway between Chattanooga and the Tennessee River Walk.



Richmond, Virginia Riverwalk next to interstate.

River - City Linkage

Why Connect a Pathway from "Nowhere" to "Nowhere"?

Early in the course of the project, the compelling question was raised, "Why would one want to go from downtown to the river or conversely, why would one want to go from the river to downtown?" Along with current amenities offered by the Central Business District and the River, as well as the future development planned for both areas, a pathway is essential to allow both locals and tourist to have easy access to these areas and to enjoy the benefits of both. This will encourage those traveling to distinct destinations at either the River or the city's core to move freely and effortlessly from the waterfront to other key development areas within the city. Additionally, well designed connections will serve as amenities themselves and attract locals and tourist alike to enjoy these pathways and thus experience different areas of the city that would normally be neglected. Also, with current residential developments, and more planned soon, these pathways will serve as a bridging mechnism for neighborhoods to connect to each other as well as important urban amenities that make living near the waterfront and/or downtown more desirable.

Connecting waterfronts to the city core also connects the city back to its historical roots and gives the city a new and resurrected identity. As many urban planners advise - a city that loses touch with its beginnings loses touch with the whole. Public access to and along the river should become the hallmark of most projects and current attractions, as well as current new and existing residential developments along the river. This includes both physically and psychologically welcoming pahways.

From the book, *Hail Babylon - In Search of the American City at the end of the Millenium*, Andrei Codrescu writes:

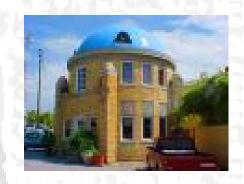
"Wise old cities...have always known that the river is more than a thoroughfare for the passage of goods. A city's river is also a spiritual artery, a place for citizens to stroll and think, reflect, remember, and exercise. The river focuses the soul of a city."











Downtown Tulsa Today

Tulsa's Central Business District

With the completion of the unique BOK Center, designed by Cesar Pelli, a new icon for downtown Tulsa will be created. But Tulsa is no stranger to wonderful architecture and has much to offer the traveler as well as locals. Tulsa (population 385,000) may have more art, culture, and style per capita than most any midwest city. The historical Central Business District of Tulsa offers a meaningful account of the downtown's early years and the opulence and wealth of the oil barons of the '20s. Their infatuation with Art Deco produced some of the finest examples anywhere of Zigzag skyscrapers, the Streamline style of the '30s and the Classical style of the Great Depression and the New Deal. Attractive brick walkways shaded with leafy trees weave through downtown. More than 150 buildings have undergone detailed restoration: 25 of these can be enjoyed on the 11-block -self guided walking tour, which reveals a boldness in architecture and a vision of aesthetics and vigor. Historically significant buildings reveal terra cotta sculptures, stained glass windows and soaring towers sheathed in copper. Newer structures now dominate Tulsa's skyline, including the 52-story Bank of Oklahoma Tower designed by Minoru Yamasaki.

Other developments recently completed downtown include renovation of the grand lobby of the Mayo Hotel and the Main Mall reconstruction with pedestrian and vehicular friendly streetcaping. Several new nightspots have opened in the Brady Village and Blue Dome District and the area is becoming a 24/7 destination that will include entertainment and residential uses. Plans for development of the 115 acre East Village District continue to be pursued by the Tulsa Developmental Authority.





Vision 2025 Downtown Projects Map demonstrates many projects currentl planned for downtown. (Source: www.vision2025.info)

Downtown Tulsa Today

Vision 2025 Downtown Projects

With the recent approval of Vision 2025, Tulsa has taken a major step to revitalize its sluggish downtown Many projects have been funded and construction has started to help make downtown a bustling, thriving community for business and residential development alike.

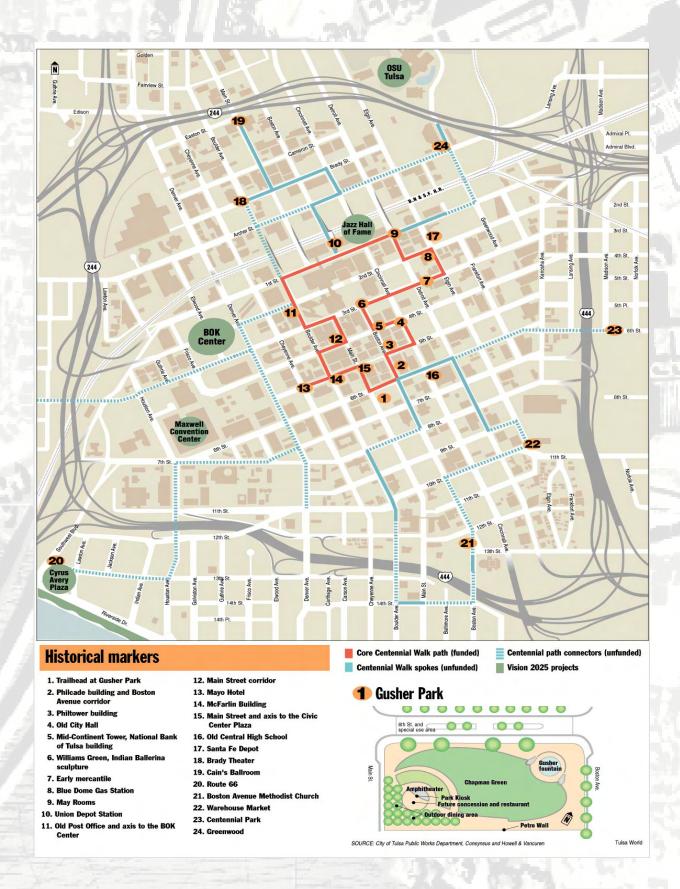
Central to the development, is the new 18,000 seat arena developed by arguably the world's most famous living architect, Cesar Pelli. The \$141 million project will be built adjacent to the existing convention center, which will get a \$42 million face-lift. The 550,000 square foot arena is scheduled to open in April 2008 and its dynamic design is expected to gain notriety for its unique architecture.

Additional downtown projects include the purchase of the historic Tulsa Union Depot for use by the Oklahoma Jazz Hall of Fame. This will return a beloved icon in the heart of downtown back to the public for use and will serve to connect the Blue Dome and Brady Village entertainment areas. Also, \$9.3 million has been has been provided for the central core to stimulate housing development at various locations throughout.

At OSU-Tulsa downtown campus, plans for a 180,000 square foot Advanced Technology Research Center are underway which will create jobs and activity downtown with an economic impact of commercialization of technology expected exceed \$400 million annually within 10-15 years.

A Centennial Walk is funded for downtown and is expected to connect important downtown icons to entertainment districts and the arena/convention center area.





Future Downtown Development

Tulsa Centennial Walk

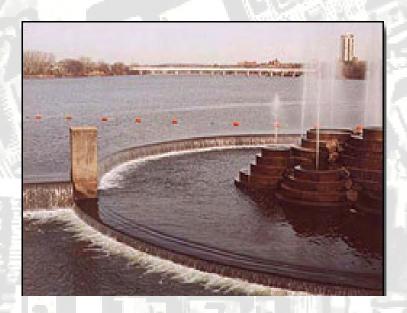
The Downtown-Neighborhood portion of Vision 2025 was approved for \$30 million, \$10.4 million specifically earmarked for the core of the Centennial Walk Project.

The Walk will feature well-lit streets linking pedestrians, joggers, visitors and tourists with such places as the Civic Center, Brady District, Greenwood, East Village, and others. Descriptive granite tablets will be placed along the walk, celebrating Tulsa's rich history. There will be about 320 trees planted along the walk with 50 to be a part of the trailhead known as Gusher Park located off 5th Street between Main and Boston Avenue. The design consultant team consists of Kathleen Page of Consynsus teamed with the Howell and Vancuren architectural firms. Others involved include Sasaki, Communication Arts, Sisemore, Weisz, and Associates, Dewberry, D.W. Gates, Danny Goble, Susan Everly-Douze, and Michael Wallis.

This will be a significant step in linking public, commercial, and residential developments in the central business district. Funds to provide connections to the walk's core from the BOK Center are included in the mayor's proposed third-penny sales tax package going to vote in the Spring 2006. Mayor Robert LaFortune also expressed a desire to see the walk eventually connected all the way to Zink Lake River Front Development. Many of the nodes and landmarks created will serve as origination for the proposed CBD to river links proposed in this project. The Centennial Walk is scheduled for completion in December 2008.

(Source: Tulsa World 12/25/05 by Brian Barber)









Scenes of various activities along the Arkansas River front. Photo souce includes Tulsa River Parks and personal photos.

Arkansas River Today

Tulsa River Parks

The River Parks Authority, a public trust authority, was created in 1974 by joint action of the City of Tulsa and Tulsa County. The Authority's mission is to maintain, preserve and develop the Arkansas River and/or land areas adjacent to the river within Tulsa County for the economic and cultural benefit of the community and to promote public use of all park lands and facilities under the Authority's jurisdiction.

The River Parks system has over 800 acres of public land including park areas and a recreation trail which extend from 101st Street South on the east bank of the Arkansas River, north approximately 11 miles to Gilcrease Museum Road. Here the trail joins the 5.5-mile M.K. & T. Tulsa-Sand Springs "Katy" Trail, running west to Adams Road in Sand Springs. On the west bank of the river, the Authority's property extends from 71st Street South, north to 61st Street, picking up again at 51st Street and running north to 11th Street. Trail construction between 71st Street and 51st Street on the west bank is in the design and planning stage.

Additionally, the Arkansas River offers many recreational and cultural activities. Zink Dam is a popular spot to fish for catfish and Striped Bass. Rowing activities occur on Zink Lake year-round and Tulsa Rowing Club members regularly compete in regattas around the country, as well as host such activities here in Tulsa. Kayaking is popular on the west bank of the river south of Zink Dam in an area of whitewater that is created by a rock jetty. Non -motorized boating is allowed on Zink Lake. The Rivers Edge at 19th and Riverside Drive is open year-round, weather permitting, serving a menu of salads, sandwiches, beverages and local entertainment in an outdoor sidewalk café atmosphere. River Parks is home to the city's largest collection of outdoor wildlife bronze sculptures. Trees and brush along the river banks offer habitat for a variety of small animals including fox, raccoon, opossum and beaver. The Arkansas is also a popular nesting area for the Interior Least Tern, an endangered species that is federally protected. Picnic areas are located throughout the park system, most in proximity to parking lots and restrooms. River Parks' focal point is often considered the Pedestrian Bridge, located adjacent to Zink Dam near 29th and Riverside Drive. The Pedestrian Bridge, formerly a bridge for the Midland Valley Railroad, was donated to the City of Tulsa and converted for pedestrian use in the 1970's. The wooden-deck bridge is 1,400 feet long and offers a relaxing spot for viewing the downtown skyline and the river. It is also a popular fishing spot.

Resource: Tulsa River Parks at www.riverparks.org.





Route 66 Centennial Plaza



Design images by Dewberry Engineering, consultants for Vision 2025 Route 66 Masterplan, reveal plans for a future Route 66 Roadhouse and Route 66 Centennial Plaza located at the overlook property at Southwest Blvd. (11th Street Bridge) and Riverside Drive.

Future Arkansas River Development

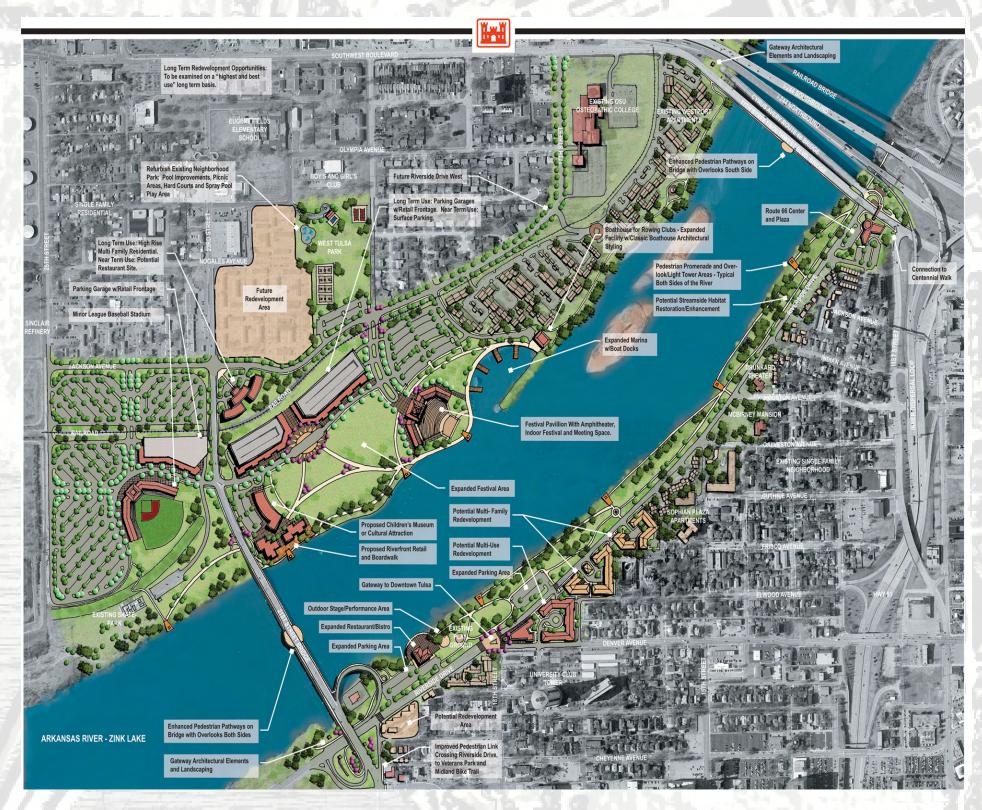
Vision 2025 Route 66 Roadhouse and Plaza

The Vision 2025 Route 66 Project was allocated \$30 million which will be provided to improve the national icon that winds through Tulsa known as the "Mother Road." Route 66 exists because of the efforts of Tulsan Cyrus Avery who would not give up on his vision for a highway across America and today Route 66 is considered a valuable piece of Americana and international tourist draw. This project is designed to enhance economic development, strengthen adjacent neighborhoods, and promote tourism.

Central to the project is the Cyrus Avery Route 66 Memorial Bridge at 11th Street and Southwest Boulavard. In coordination with the Dewberry Engineer/Architect Group and Littlefield Marketing, the Route 66 Design Committee has put much emphasis on this property overlooking the banks of the Arkansas River. Not only could this become a central icon for Route 66 on a national level, it will become a catalyst for river development. It will almost certainly be a connecting node for the central business district and the river, serving both an origination as well as a destination point for tourist and locals alike.

The proposed Cyrus Avery Plaza will be located at the east end of the Cyrus Avery Route 66 Memorial Bridge. The focal point of the plaza will be the larger than life-size bronze statue of the Avery family riding in a Model "T" and an encounter with a horse drawn wagon coming west from the Tulsa oil fields. The Route 66 Roadhouse, proposed for the northeast corner of Southwest Boulavard and Riverside Drive, will be a three story structure housing an interpretive center, giftshop, administrative offices, coffee bar and sandwich shop, multipurpose rooms and an upper level restaurant with an overlook deck.





Phase II mapping of the Zink Lake Master Plan from the Arkansas River Corridor Master Plan. Source: www.incog.org.

Arkansas River Development

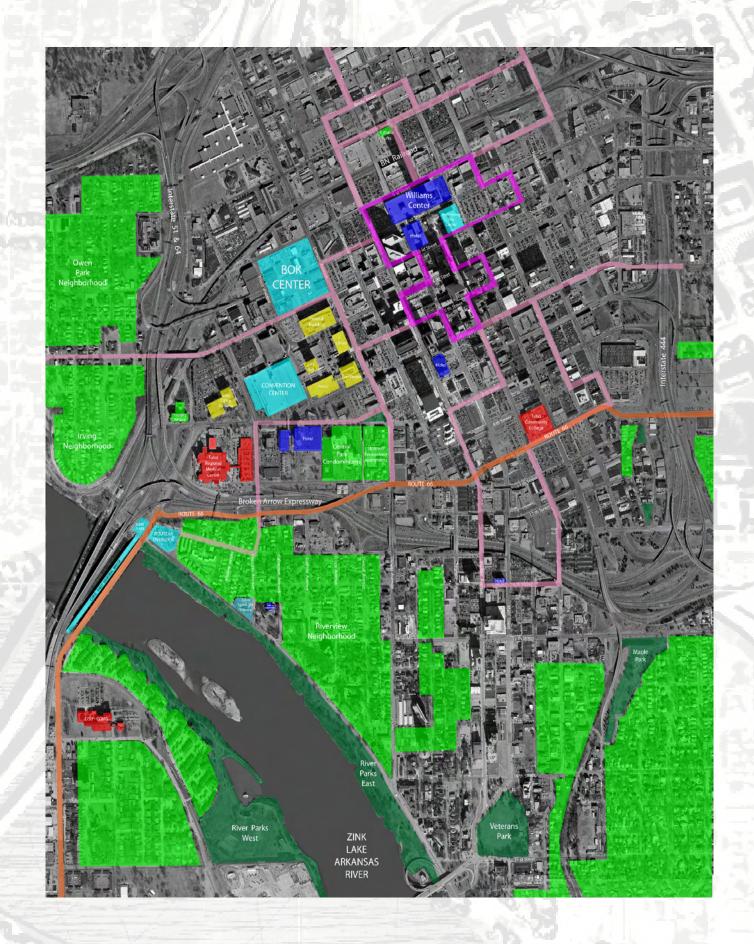
Zink Lake Master Plan

The Arkansas River Corridor Master Plan aims to create a complete, coherent and vibrant feature throughout Tulsa County. Approved by the Indian Nations Council of Governments (INCOG), Phase I of the Vision Plan is complete and has been accepted by TMAPC, Tulsa City Council & Tulsa County Commission as an element of the comprehensive plan. Phase I, performed by Carter & Burgess, was charged to create a vision for the project that would enhance the river and the citizens' lives. It engaged the public to participate and solicited consensus and developed a plan that is the basis for the more technical Phase II study. Phase II is nearing its completion phase and the Zink Lake Master Plan portion is shown. The purpose of Phase II is to provide a detailed evaluation of the proposed plan elements and projects. Phase II partners include: INCOG, U.S. Army Corps of Engineers, C.H. Guernsey, Alaback Design, EDAW, and HISINC.

Along Zink Lake, local neighborhood scale bistros and eateries are desirable within discrete key areas along River Parks in this area. An example of this would be an upgraded version of the existing River's Edge Cafe. The area between Peoria and the river, from 15th Street to 41st Street. The public expressed a strong desire to preserve the nature and feel of these neighborhoods. Creation of localized higher density residential or neighborhood scale commercial opportunities along Riverside Drive from 11th Street to Denver Avenue was supported by the public during the process.

Source: INCOG at www.incog.org.





Project Region

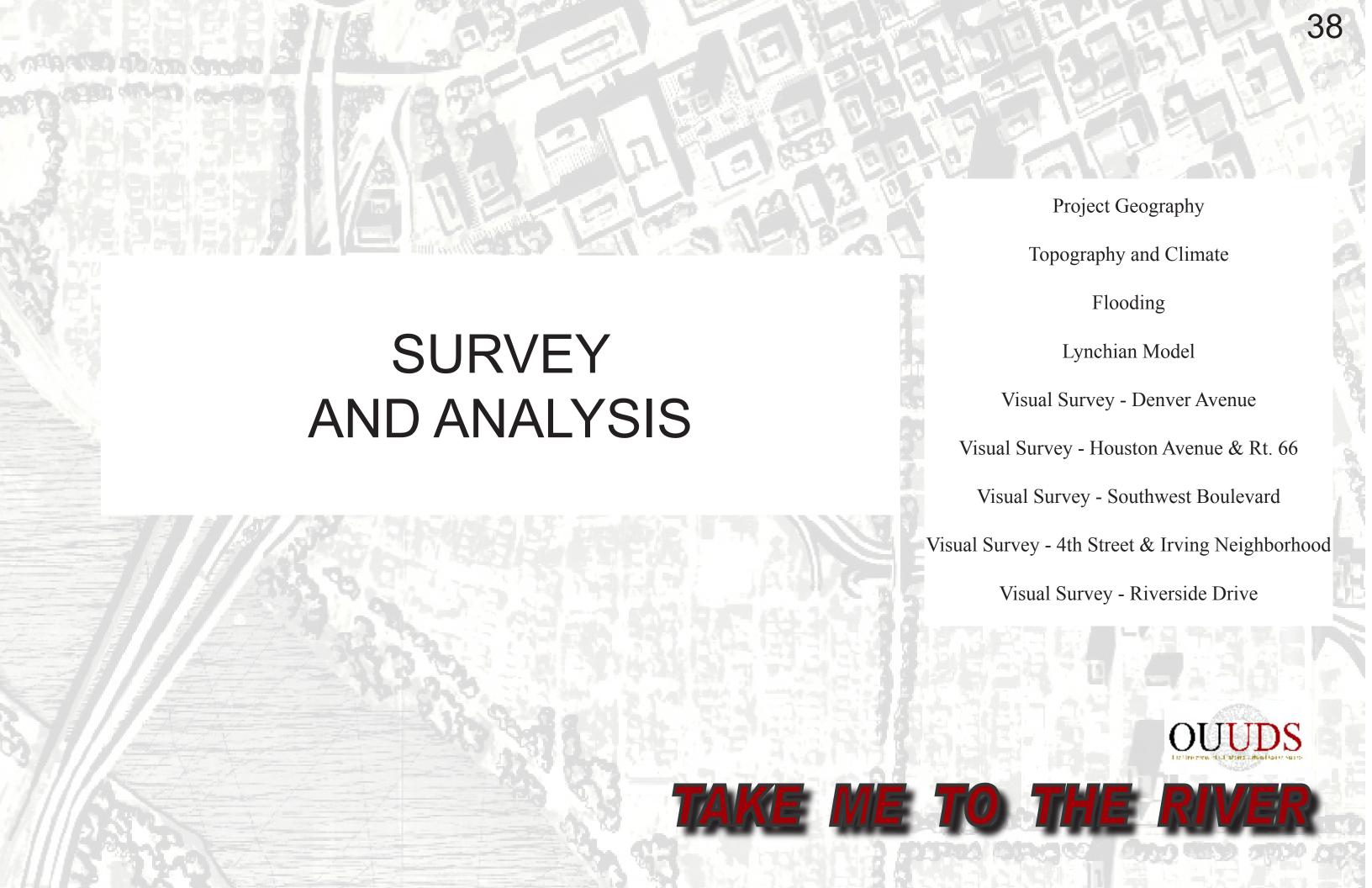
Comprehensive Base Map

The area defined includes the Tulsa Central Business District (CBD) within the Inner Dispersal Loop as well as the River Parks at the bend of the Arkansas River. This includes the edges of Irving and Owen Park Neighborhoods on the west, and the River View Neighborhood on the south with the River as its border.

Legend

- Venues and Attractions
- Residential Developments
- Commercial Developments and Hotels
- Hospitals and Colleges
- Government
- Parks
- Centennial Walk (Core)
- Centennial Walk (Connectors)
- Historic Route 66





Geomap from the U.S. Census Bureau and geography information from Wikipedia.org.

Project Geography

Tulsa and the Arkansas River

Tulsa is located at 36°7'53" North, 95°56'14" West (36.131294, -95.937332)GR1 in the northeastern corner of the state, some 99 miles northeast of Oklahoma City. It is in the Central Time Zone. Tulsa is the main city in the part of Oklahoma known as "Green Country" due to the dense green vegetation in the area. Tulsa is a heavily wooded city split by the Arkansas River.

According to the United States Census Bureau, the city has a total area of 186.8 mi². 182.6 mi² of it is land and 4.2 mi² of it is water. The total area is 2.24% water. Tulsa is the county seat of Tulsa County and has a population of 387,807. The Tulsa metropolitan area population is 930,842. Tulsa was founded in 1836 and was incorporated in 1898.

The Arkansas River is a tributary of the Mississippi which flows east and southeast through Colorado, Kansas, Oklahoma and the state of Arkansas. At 1450 miles it is the fourth longest river in the United States. Its origin is in the Colorado Rockies in Lake County near Leadville, and its outlet is at the historic site of Napoleon, Arkansas. It is the largest tributary in the Mississippi-Missouri system, with a drainage basin of nearly 195,000 sq. mi.

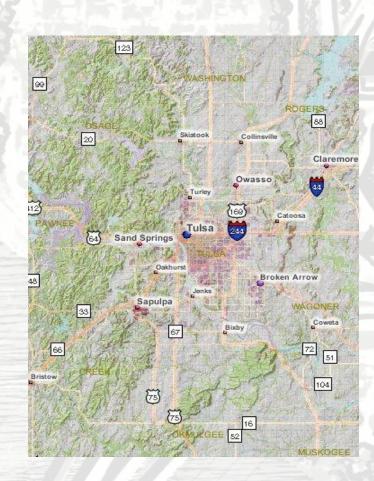
The Arkansas has three distinct characters in its long path through central North America. At its headwaters the Arkansas runs as a steep mountain torrent through the Rockies, dropping 4600 feet in 120 miles. At Cañon City, Colorado, it leaves the mountains and enters Royal Gorge. This section sees extensive Whitewater rafting in the spring and summer. For most of its length through the rest of Colorado and Kansas, it is a typical prairie river, with wide shallow banks, subject to some flooding. Through Oklahoma and Arkansas, the river deepens and builds once again into a navigable body of water somewhere between Fort Smith, Arkansas and Pine Bluff, according to the season. From this point to its mouth, the Arkansas sees commercial barge traffic and some passenger and recreational use. The Kerr/Mc-Clellan Navigational Channel (also sometimes refered to as the Arkansas River Navigation System) begins at Catoosa, Oklahoma and run via an extensive Lock and Dam system to the Mississippi.

Source: U.S. Census Bureau and Wikipedia.com

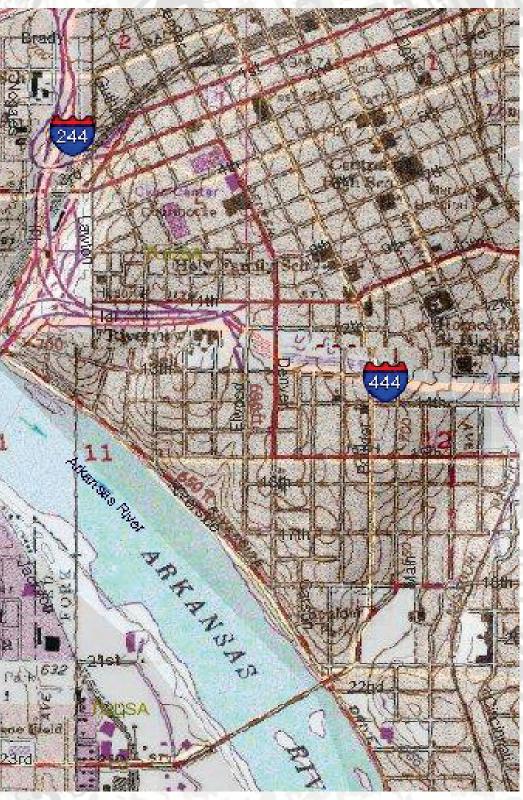




State of Oklahoma Topography Image from the World Data Center - National Geophysical Data Center.



The Oklahoma Wildlife Department provides this map demonstrating the Arkansas River Valley and Tulsa's location on the river's edge.



Topography map from Oklahoma Department of Wildlife Conservation prepared by Strategic Consulting International.

Topography & Climate

Arkansas River - CBD

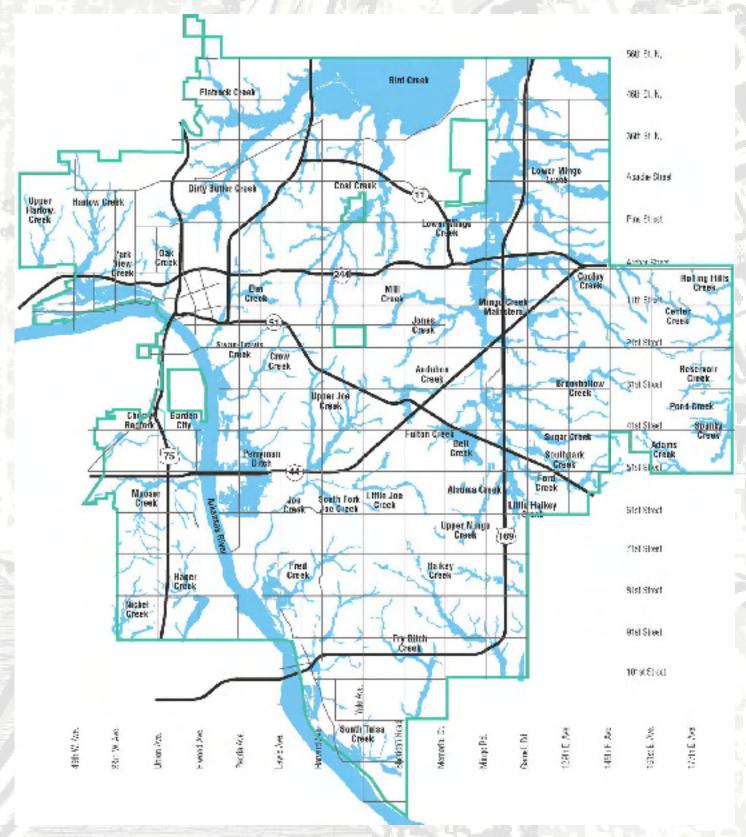
Tulsa is located in the northeastern quadrant of Oklahoma, right in the heart of Green Country. The rolling green hills and wooded terrain of the Ozark foothills make this city an attractive area to live. The city lies at an elevation of 700 feet above sea level and offers a temperate climate. Tulsans enjoy 227 days of sunshine a year and an average daily temperature of 61 degrees. The rainfall average is approximately 40 inches, and continually changing conditions occur in the city during all four seasons.

Regarding topography with the current project, there are rather dramatic changes in the elevations along Riverside Drive and the Irving and Riverview neighborhoods. Beginning at 640 feet, the terrain rises to elevations of 700 to 710 feet. There is a rise in elevation of 50 to 60 feet moving west from Riverside Drive to Denver Avenue. From the IDL to the Civic Center the elevations tend to level some.

Regarding climate, Tulsans can enjoy the outdoors for much of the year with only December and January falling just below 40 degrees. Interestingly, both 2004 and 2005 had very mild temperatures during the summer months. Unusually cool temperatures moved southward from Canada into the central United States in June, and this pattern persisted through August. The reason for the cooler temperatures was a large area of high pressure aloft over western Canada and western Alaska. This high pressure produced a northwesterly flow in the jet stream over Oklahoma allowing cool air masses to be directed into the southern plains. In a normal year, the area of high pressure is found over the central plains and allows the air mas under it to become very hot.

(Climate information from Mike Teague, National Weather Service)





Tulsa Floodplain (From the Tulsa City - County Library and the City of Tulsa)

Flooding

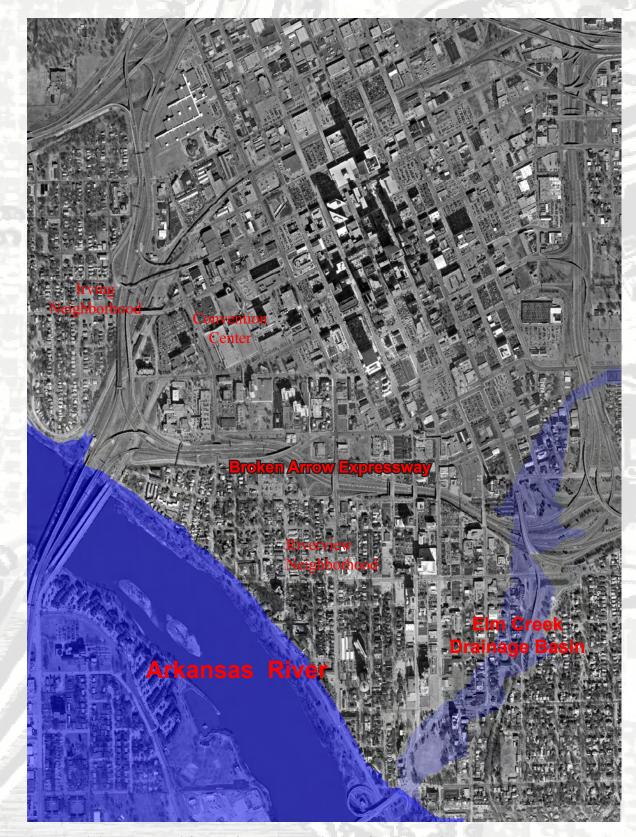
Tulsa Flooding History and the Reduction in Flood Damage

Until recently, Tulsa had a long history of flooding. The city is subject to high intensity rainstorms that can strike with little warning and dump as much as fifteen inches of rain in eight hours. Much of the city was built within the floodplain of the Arkansas River or one of its tributaries. Over 25,000 homes and businesses were built in flood-prone areas. Between 1970 and the mid-1980s, Tulsa County led the nation in flood disasters and was declared a federal disaster area ten times.

In the wake of the Mothers Day flood of 1970, the city joined the National Flood Insurance Program and developed floodplain regulations which, according to local interests, were not well enforced. A subsequent flood caused \$18 million in damage and led to the relocation of 33 homes. However, the flood also led to a channelization project that simultaneously increased downstream flooding and destroyed wetlands and bottomland hardwoods. The Memorial Day flood of 1976, which caused three deaths and \$34 million in damages, revolutionized thinking about floodplain land use strategies and renewed emphasis on regulating new development More money was spent to remove thirty additional homes from the Mingo Creek floodplain and the city initiated plans to create a series of detention basins. But, a series of dry years followed and the program lost momentum and support. Then, in 1984, Tulsa had the worst flood in its recorded history which resulted in 14 deaths and \$180 million in damage. Five deaths and over \$125 million in property damage occurred along Mingo Creek. Once again, the flood renewed local interest in reducing flood losses and stimulated greater support for re-examining past approaches to floodplain management. The City of Tulsa and the Corps of Engineers signed a cooperative agreement in 1987 to implement a local flood control project. The city organized a team of civil engineers, landscape architects, and urban planners to develop design alternatives. The teams were charged with developing a design which would provide stormwater detention benefits but would also meet the community's environmental, aesthetic and recreational needs. Today, the Mingo Creek floodplain features woodlands, wetlands, trails and parks.

Funding for the projects was obtained from a variety of sources, including FEMA programs, SBA loans, and a local revenue bond sale. As part of the city's stormwater management program, Tulsa established a stormwater utility fee which requires residents to pay \$2.95 per month and requires businesses to pay according to the runoff they create. In addition to the fee - which generates more than \$10 million per year - the city put aside capital funds specifically for the aquisition of frequently flooded properties. Overall, more than 900 structures have been relocated from Tulsa's floodplain since the 1970s. As a result of Tulsa's struggle to reduce flood losses, the community's flood insurance rates have dropped by 25 percent and are now the lowest in the nation. (From American Rivers - Case Study (www.americanrivers.org))





Tulsa Floodplain (Created from information and maps from the Tulsa City - County Library)

Flooding

Arkansas Downtown Riverfront Floodplain

The southeastern edge of downtown Tulsa is bordered by the Arkansas River and Riverside Drive is included in the 100-year floodplain. A small section just south of the Irving Neighborhood has an extension of the floodplain along the railroad track in this area. Riverview Neighborhood's eastern section is located in the City of Tulsa's regulatory floodplain and is part of the Elm Creek Drainage Basin. The portion within the floodplain begins at the northern neighborhood boundary, or the south side of the Broken Arrow Expressway, in an area lying between just east of Boston Avenue to approximately Cincinnati Place, and flowing in a southwesterly direction through Veteran's Park. Stormwater from the neighborhood ultimately discharges into the Arkansas River near the 21st Street Bridge. For any development to occur in an area designated as floodplain, a watershed development permit must be obtained from the City and any permitted new construction must be elevated one foot above the base of the floodplain.

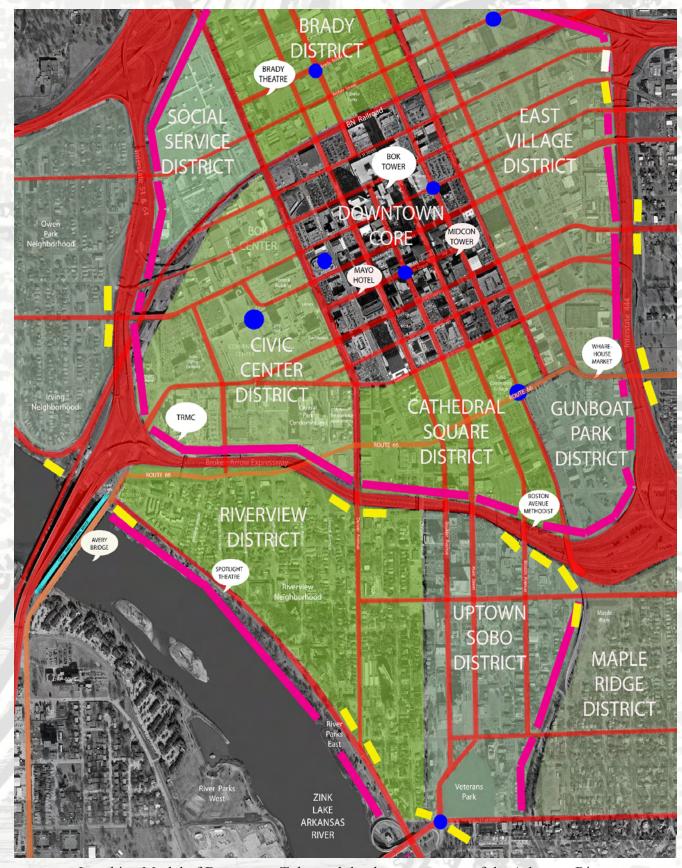
The recent approval to construct flood control improvements in Centennial Park as well as the 6th Street corridor between Madison and Peoria Avenues, should relieve flooding through neighborhoods in the Elm Creek Drainage Basin. This possibly could reduce the size of the Riverview Neighborhood's floodplain.

(Sources: City of Tulsa & Riverview Neighborhood Plan, OUUDS, by Monty McElroy).

FEMA 100 - Year Floodplain

City of Tulsa Regulatory Floodplain (Elm Creek Drainage Basin)



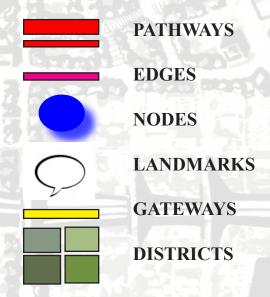


Lynchian Model of Downtown Tulsa and the downtown area of the Arkansas River.

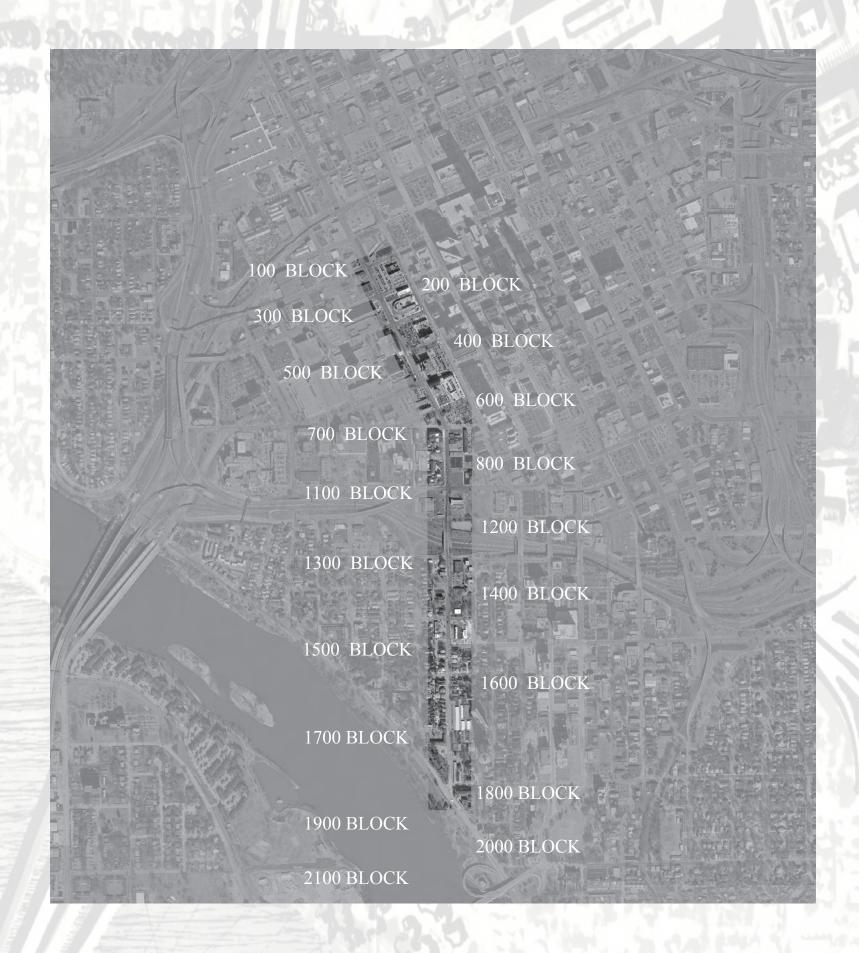
Lynchian Model

Study Area Framework

In 1960, Professor Kevin Lynch conducted a study of what people mentally extract from the physical reality of a city. He reported the results in a book called *The Image of the City*, and his findings are a major contribution to understanding urban form and to architecture as component parts of that form. In his examination of the form of the city, the professor found that there were basic elements which people use to construct their mental image of the city. PATHWAYS are the major and minor routes of circulation which people move about. A city is composed of component neighborhoods or DISTRICTS. Sometimes they are in distinct form and sometimes they are considerably mixed. EDGES are the termination of districts. LANDMARKS are the prominent visual features of the city and help people orient themselves in the city. NODES are centers of activity and are actually types of landmarks but are distinguished by virtue of their active function. GATEWAYS have been added to this image of Tulsa for completeness.







Block Locator Map

The Denver Avenue Corridor is currently used by pedestrians and vehicular traffic as a popular linkage between the Arkansas River and the Central Business District. For purposes of this study we will designate two important nodes as endpoints of the corridor. Denver Avenue will be the eastern boundary of the BOK Center (Pelli Arena) as well as the western edge of the Centennial Walk in the Central Business District. It will be an important meeting area for both locals and visitors of the city. On the Arkansas River, Denver Avenue empties at a popular location on Riverside Drive in an area that includes the River's Edge Resteraunt, a children's playground, parking lot, and a popular river overlook. From the Inner Dispersal Loop to the river the avenue slopes approximately 50 feet (700 ft to 650 ft).









100 - 200 Block







300 - 400 Block









500 - 600 Block







700 - 800 Block









1100 Block







1200 Block









1300 Block







1400 Block





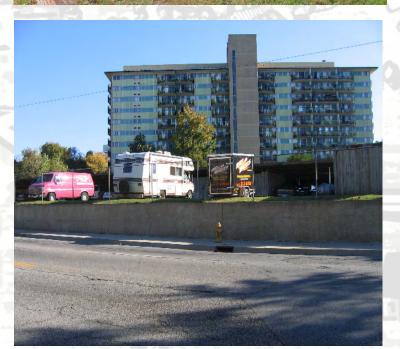




1500 Block







1600 Block







1700 Block





1800 Block



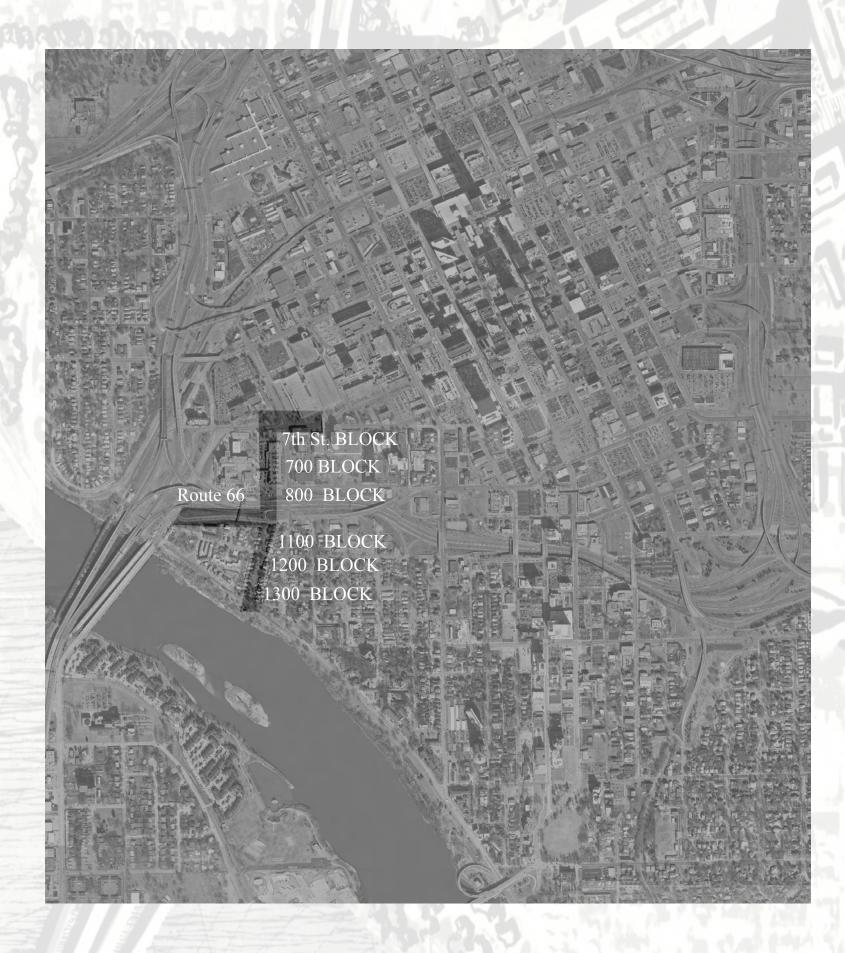


University Club Tower

Riverside Drive - Denver Ave.







Visual Survey Houston Avenue

Block Locator Map

Houston Avenue is located just west of the Tulsa Convention Center and is a very short distance from the south entrance of the Center and an adjoining hotel and overhead walkway. This is a very important connector for tourist, convention attendees, and those working at the convention center. It is also in proximity to the residents in the nearby building apartments on the east and west and traverses through the Riverview Neighborhood. Houston Avenue also intersects Historic Route 66 and in this study a branch to the proposed venue on Route 66 and Riverside Drive will be included. From the 1200 block down to the Arkansas River, the road becomes two lane rather than four lane as in other parts of the road. For purposes of this study, the end points will include the southwest portion of the Tulsa Convention Center, the proposed Route 66 Overlook and Plaza, and the intersection of Houston Avenue and Riverside Drive.



Visual Survey Houston Avenue







7th Street Block







700 - 800 Block



Visual Survey Houston Avenue







800 Block







BA Expressway



Visual Survey Houston Ave. - Rt. 66



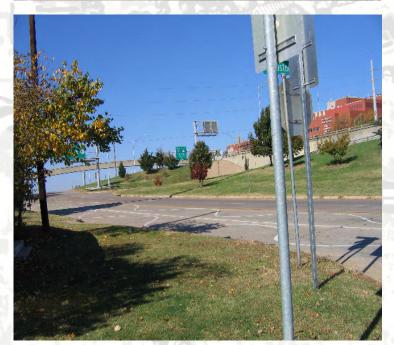




Rt. 66 - Houston







Rt. 66 - Houston



TAKE ME TO THE RIVER

Visual Survey Indian Ave. - Rt. 66







Rt. 66/Indian Ave.







Rt. 66/Indian Ave.



Visual Survey Rt. 66 - SW Blvd.







Rt. 66/SW Blvd.

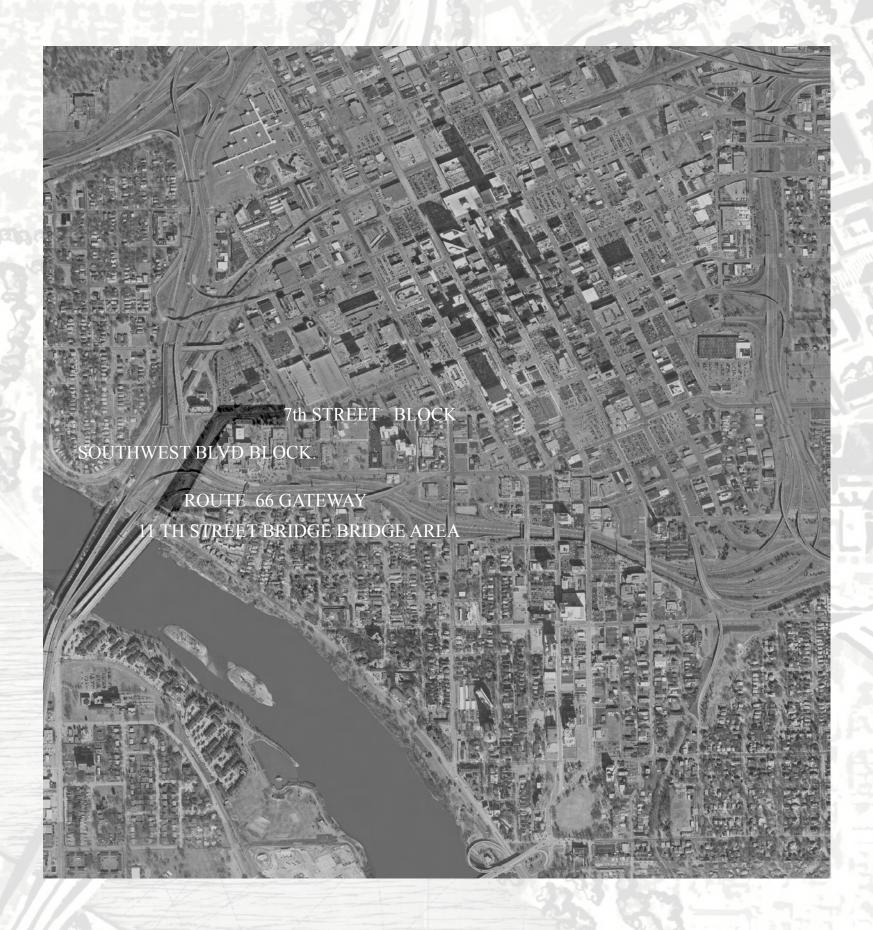






Rt. 66/SW Blvd.





Visual Survey Southwest Blvd.

Block Locator Map

The link between the Tulsa Convention Center's south entrance and the future Route 66 venue on the Arkansas River serves as the shortest path in this study. This route has one end starting on 7th Street where the convention center and the Downtown Doubletree Hotel are united. From this location there is a slight incline upward to the the State of Oklahoma (DHS) Building before descending approximately 50 feet along Southwest Boulevard to the river front. Most of the adjacent land along Southwest Boulevard is managed by the City and/or the Department of Transportation. Historic Route 66 intersects this path and Cyrus Avery Bridge is at one end of this interesting link.









7th Street - SW Blvd. Connection







7th Street - SW Blvd. Connection









7th St. - SW Blvd Intersection







7th St. - SW Blvd. Intersection









SW Blvd. Incline







SW Blvd. Incline









SW Boulevard Underpass







SW Boulevard Underpass









Rt. 66 Intersection



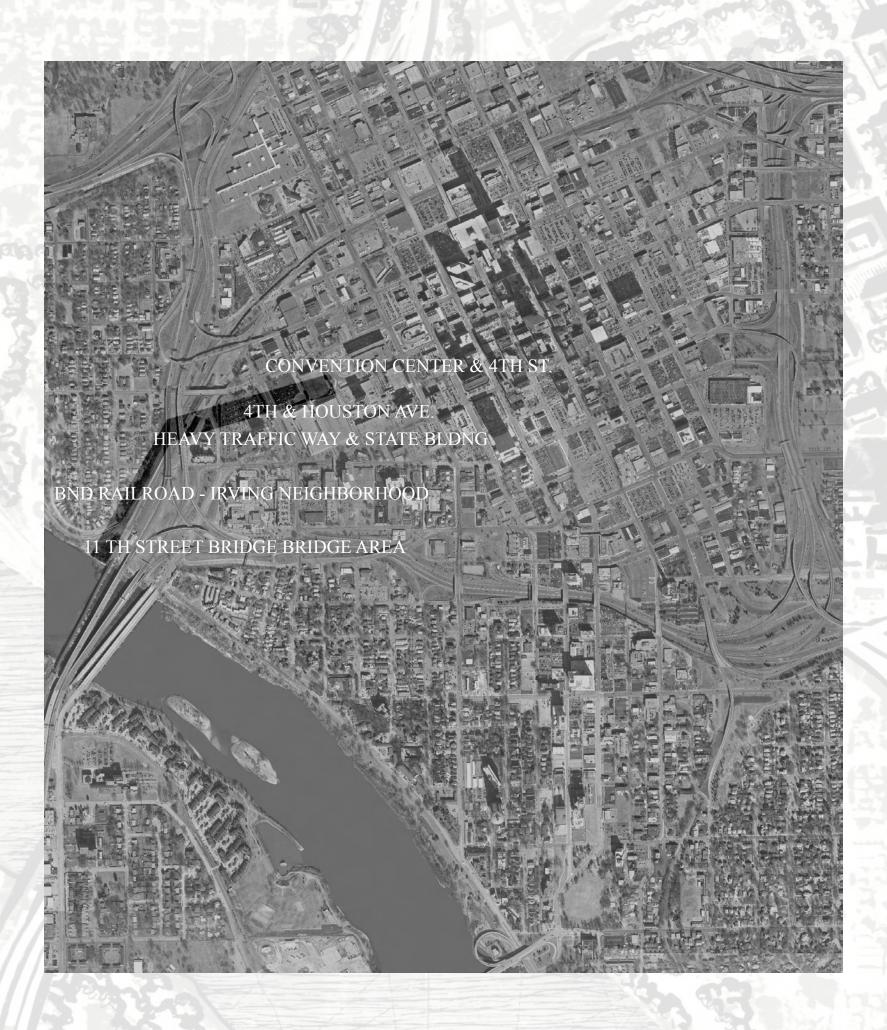




11th Street Bridge Area



TAKE ME TO THE RIVER



Visual Survey Convention Center 4th Street and the Arkansas River

Block Locator Map

From the Tulsa Convention Center, 4th Street has been transformed into essentially three blocks of parking just west of the area. The railroad and inner dispersal loop has formed a strong barrier preventing vehicular and pedestrian circulation into the adjacent Irving Neighborhood and to the Arkansas River. The slope is gradual in this area, and there is ample room for a foot and bike path in the corridor. One end of this pathway would originate next to the proposed park on the future Centennial Walk and between the mutilevel parking structure for the convention center. It would traverse the parking facility adjacent to the State Building before descending to the railroad and river plain below. From this point one could walk adjacent to the railway next to Irving Neighborhood in relationship to the River Parks Trail extension. This would eventually join the trail in the area of the proposed Centennial Plaza as a destination or origination point.









Convention Center East Side







Convention Center East Side









Convention Ctr. West Side







4th Street and Houston Avenue









State Building







Heavy Traffic Way









Railroad Corridor







Railroad Corridor









Irving Neighborhood Rail Corridor







Arkansas River Bridge & Trail



Visual Survey 4th Street - CC - River







Irving Neighborhood



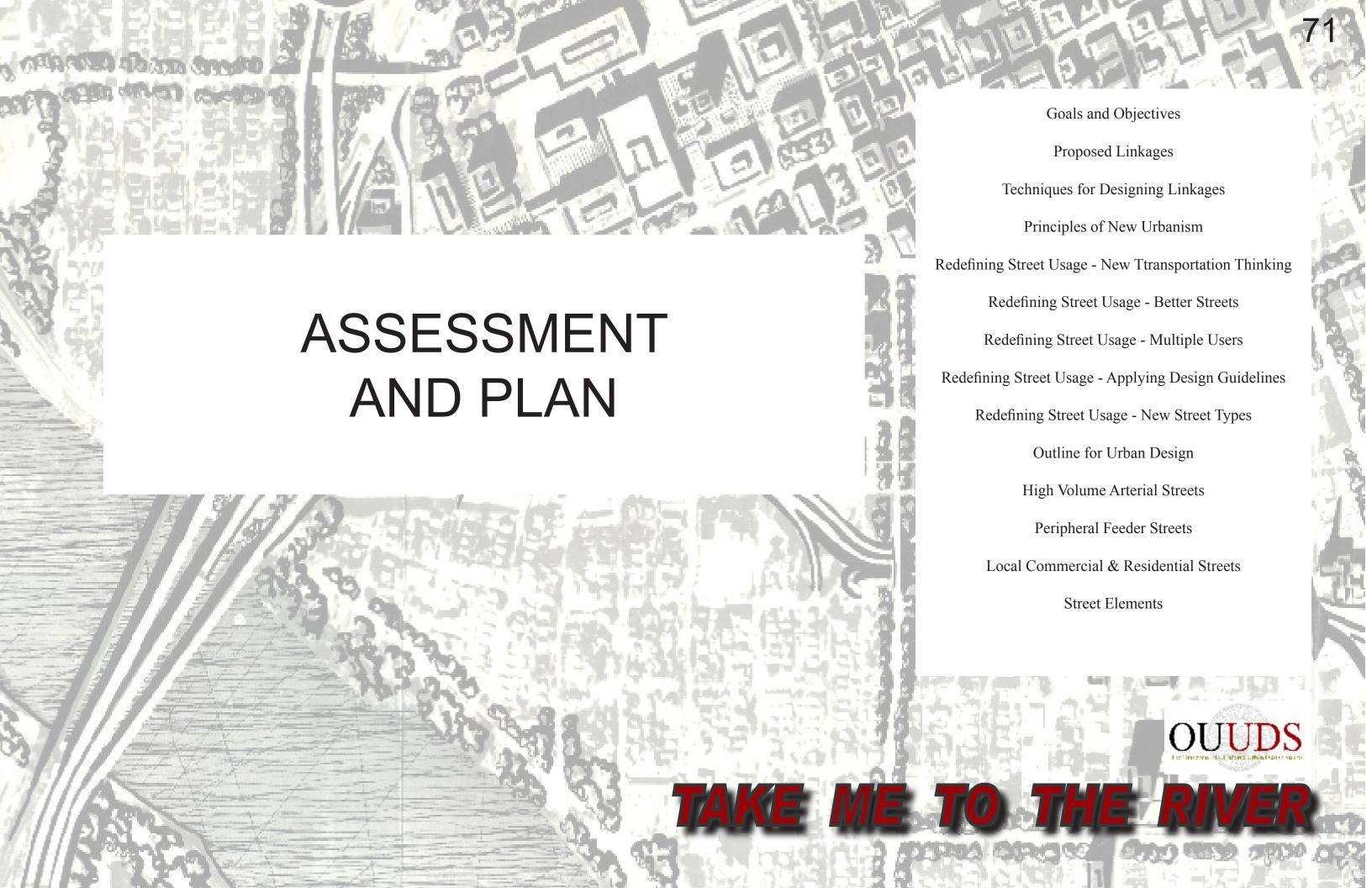




Irving Neighborhood



TAKE ME TO THE RIVER



- 1. Reestablish both physical and visual access to and from the CBD to the Arkansas River front.
- 2. Reinforce connections between involved neighborhoods, business and entertainment districts, downtown pedestrian systems, river trails and parks system, and future downtown riverfront attractions.
- 3. Reactivate unused areas along these linkages.
- 4. Overcome longtime physical, social, political, and psychological barriers to river access.
- 5. Create mixed use areas along the corridor connections.



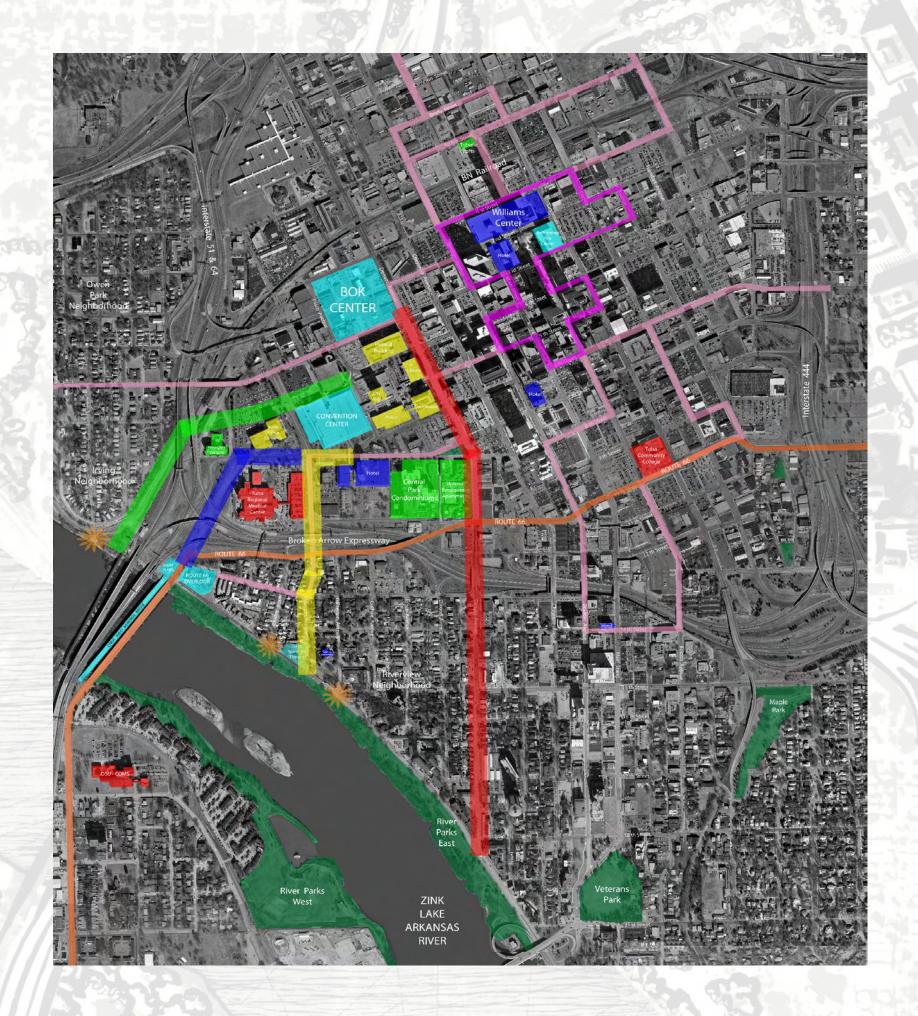
- 6. Revitalize the historic and cultural character of the relationship between the river and downtown Tulsa (Native Americans. ferry crossing, oil industry, railroad, Rt. 66, etc.)
- 7. Protect the environmental impact of the area.
- 8. Distribute traffic flow, design a street and block plan with some controls where development occurs, and plan a parking strategy.
- 9. Create a destination for Tulsans and tourist alike and explore both active and passive uses of the corridors.
- 10. Make the plan authentic for Tulsa

Tulsa's Downtown Riverfront Corridors

Goals and Objectives

With the completion of the planning process and start of the implementation phase and construction, along with the completion of the Arkansas River Corridor Master Plan, Tulsa is embarking on a new future. Downtown Tulsa will become an inviting place, both from the land and the water perspective, combining opportunities for all people to enjoy the Central Business District (CBD), the historic Arkansas River, and its varied residential, commercial, and recreation uses. Goals and objectives are important mechanisms that will guide the development of the CBD-Riverfront over the next several years. Input from city officials, community leaders, and the community at large are shaping the goals, policies, and objectives of these areas for the future. The following goals and objectives will provide the basis for this research project and can be used as a foundation for guidance in addressing issues, obstacles, and concerns. As the process grows, more can and should be added.





Arkansas River - CBD Proposed Links

After much input and debate, four downtown Tulsa - Arkansas River linkages were chosen for this study. These include Denver Avenue, Houston Avenue, Southwest Boulevard, and the 4th Street Pedestrian Connection. Because of other venues and paths which are in the development and construction phase, the originations of linkages chosen are in direct proximity to the arena and convention center area. Also included in this map are the Centennial Walk core and connections which are in the developmental phase as well as historic Route 66.

LEGEND

DENVER AVENUE CONNECTION (1.15 miles)

HOUSTON AVENUE CONNECTION (.54 miles)

SW BOULEVARD CONNECTION (.49 miles)

4TH ST. PEDESTRIAN CONNECTION (.60 miles)

CENTENNIAL WALK CORE

CENTENNIAL WALK CONNECTIONS

HISTORIC ROUTE 66

NEIGHBORHOOD CONNECTIONS



Designing Connections and Linkages Between Tulsa's CBD and the Arkansas River

- **Choice of Connections**
 - A. Denver Avenue
 - **B.** Southwest Boulevard
 - C. Houston Avenue Route 66
 - D. 4th Street Pedestrian Linkage
- II. Designing Connections for Multiple Users Assessing tradeoffs between those using the streets. (Guidelines for each group)
 - A. Motorist
 - **B.** Pedestrians
 - C. Transit
 - D. Bicvclists
 - E. Land Users (People living, working, or otherwise using adjacent properties)
- III. Applying the Guidelines Incorporating and consolidating guidelines for multiple users into a design process for linking the CBD and the River.
 - A. Existing and Future Conditions Define land use and transportation context.
 - B. Goals and Objectives Identify barriers (physical, proprietary, social, and psychological), deficiencies, and describe future objectives
 - C. Decision Making Define street type and describe trade offs
- IV. Final Guidelines and Concepts
 - A. Description of Districts and and Characteristics/Themes
 - B. Gateways and Wayfinding
 - C. Street Description and Zones
 - **D.** Street Priority Elements
 - E. Streetscaping and Other Elements
 - F. Land Use and Development
 - **G.** Infrastructure Improvements

Designing Linkages

Arkansas River - CBD Tulsa

The design method for this project will be adapted from the technique proposed by Charlotte, N.C. in 2004. Much like Tulsa is attempting, Charlotte's plan for growth included methods of better matching the transportation network to the land use that was adjacent to the network. Better integration of land uses and transportation, through context - based design, will ensure that mutually reinforcing decisions are made and that people's ability to take advantage of more transportation choices is enhanced. This will allow us to design streets better for all users and for multiple purposes rather than dominated by design for auto use only. This approach is based on the idea that streets are a major component of public spaces and play a role in creating the image of the community and establishing the framework for socioeconomic development.

From Charlotte Urban Street Design (www.charmeck.nc.us). Sketch below taken from Chattanooga Riverfront Parkway Plan.







"The Congress for the New Urbanism views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community-building challenge.

We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.

We recognize that physical solutions by themselves will not solve social and economic problems, but neither can economic vitality, community stability, and environmental health be sustained without a coherent and supportive physical framework.

We advocate the restructuring of public policy and development practices to support the following principles: neighborhoods should be diverse in use and population; communities should be designed for the pedestrian and transit as well as the car; cities and towns should be shaped by physically defined and universally accessible public spaces and community institutions; urban places should be framed by architecture and landscape design that celebrate local history, climate, ecology, and building practice.

We represent a broad-based citizenry, composed of public and private sector leaders, community activists, and multidisciplinary professionals. We are committed to reestablishing the relationship between the art of building and the making of community, through citizen-based participatory planning and design.

We dedicate ourselves to reclaiming our homes, blocks, streets, parks, neighborhoods, districts, towns, cities, regions, and environment."

Urban Design Method

Principles of New Urbanism

In the planning phase of this project for Tulsa it was noted that this process incorporates techniques of many different disciplines to create a unified vision. The urban space is looked upon from multiple dimensions including individual buildings and streetscapes to the design of entire regions. It is also important that the designs create socioeconomical sensitive and ecologically respective communities. In the attempt to create neighborhoods diverse in use and population, build communities designed for the pedestrian and transit as well as automobiles, and to create urban places that celebrate Tulsa's local history, ecology, and building practices, it is important to base the project on some standards in urban design. In this respect, their will be a concerted effort to be in harmony with the Charter of New Urbanism.

The Charter of the New Urbanism was articulated by the Congress for the New Urbanism in 1996. The Charter is a useful codification of 27 principles that represent the philisophical essence of urban design and are at once timely and timeless. These fundamental principles form a basis for communication among those engaged in city-building and creating sustainable communities.

Another more simplistic view used in the design approach comes from the architectural firm, Urban Design Associate:

- 1. Find the best things about a place, then protect them and build on them.
- 2. Find the worst problem and design ways of making them better.
- 3. Make sure to use the new things to connect the best things in ways that fulfill the dreams of the people we serve.

Resources: Congress for New Urbanism. *Charter of New Urbanism*, New York: McGraw-Hill ,1999.

Urban Design Associates. *The Urban Design Handbook*. New York W.W. Norton 2003.



CHARTER OF NEW URBANISM

The region: Metropolis, city, and town

- 1. Metropolitan regions are finite places with geographic boundaries derived from topography, water sheds, coastlines, farmlands, regional parks, and river basins. The metropolis is made of multiple centers that are cities, towns, and villages, each with its own identifiable center and edges.
- 2. The metropolitan region is a fundamental economic unit of the contemporary world. Governmental cooperation, public policy, physical planning, and economic strategies must reflect this new reality.
- 3. The metropolis has a necessary and fragile relationship to its agrarian hinterland and natural land scapes. The relationship is environmental, economic, and cultural. Farmland and nature are as important to the metropolis as the garden is to the house.
- 4. Development patterns should not blur or eradicate the edges of the metropolis. Infill development within existing urban areas conserves environmental resources, economic investment, and social fabric, while reclaiming marginal and abandoned areas. Metropolitan regions should develop strategies to encourage such infill development over peripheral expansion.
- 5. Where appropriate, new development contiguous to urban boundaries should be organized as neighborhoods and districts, and be integrated with the existing urban pattern. Noncontiguous development should be organized as towns and villages with their own urban edges, and planned for a jobs/housing balance, not as bedroom suburbs.
- 6. The development and redevelopment of towns and cities should respect historical patterns, precedents, and boundaries.
- 7. Cities and towns should bring into proximity a broad spectrum of public and private uses to support a regional economy that benefits people of all incomes. Affordable housing should be distributed throughout the region to match job opportunities and to avoid concentrations of poverty.
- 8. The physical organization of the region should be supported by a framework of transportation alternatives. Transit, pedestrian, and bicycle systems should maximize access and mobility through out the region while reducing dependence upon the automobile.
- 9. Revenues and resources can be shared more cooperatively among the municipalities and centers within regions to avoid destructive competition for tax base and to promote rational coordination of transportation,

The neighborhood, the district, and the corridor

- 10. The neighborhood, the district, and the corridor are the essential elements of development and redevelopment in the metropolis. They form identifiable areas that encourage citizens to take responsibility for their maintenance and evolution.
- 11. Neighborhoods should be compact, pedestrian-friendly, and mixed-use. Districts generally emphasize a special single use, and should follow the principles of neighborhood design when possible. Corridors are regional connectors of neighborhoods and districts; they range from boulevards and raillines to rivers and parkways.
- 12. Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
- 13. Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
- 14. Transit corridors, when properly planned and coordinated, can help organize metropolitan structure and revitalize urban centers. In contrast, highway corridors should not displace investment from existing centers.
- 15. Appropriate building densities and land uses should be within walking distance of transit stops, permitting public transit to be come a viable alternative to the automobile.
- 16. Concentrations of civic, institutional, and commercial activity should be embedded in neighborhoods and districts, not isolated in remote, single-use complexes. Schools should be sized and located to enable children to walk or bicycle to them.
- 17. The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
- 18. A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.

The block, the street, and the building

- 19. A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.
- 20. Individual architectural projects should be seamlessly linked to their surroundings. This issue transcends style.
- 21. The revitalization of urban places depends on safety and security. The design of streets and buildings should reinforce safe envionments, but not at the expense of accessibility and openness.
- 22. In the contemporary metropolis, develop ment must adequately accommodate automobiles. It should do so in ways that respect the pedestrian and the form of public space.
- 23. Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities.
- 24. Architecture and landscape design should grow from local climate, topography, history, and building practice.
- 25. Civic buildings and public gathering places require important sites to reinforce community identity and the culture of democracy. They deserve distinctive form, because their role is different from that of other buildings and places that constitute the fabric of the city.
- 26. All buildings should provide their inhabitants with a clear sense of location, weather and time. Natural methods of heating and cooling can be more resource-efficient than mechanical systems.
- 27. Preservation and renewal of historic buildings, districts, and land-scapes affirm the continuity and evolution of urban society.

For information: Congress for the New Urbanism; 140 S. Dearborn St., Suite

310, Chicago, IL 60603; 312 551-7300 phone; www.cnu.org

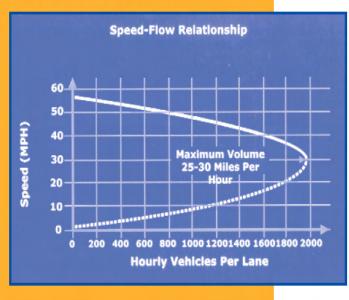




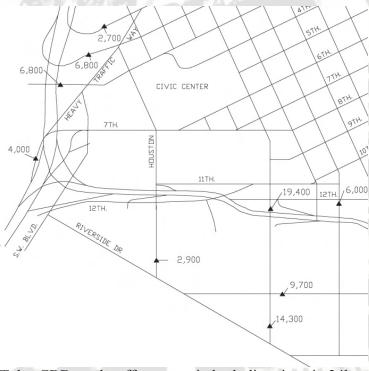


Intersection of Denver Avenue and Riverside Drive in Tulsa. This is an area with an opportunity to change transportation patterns.

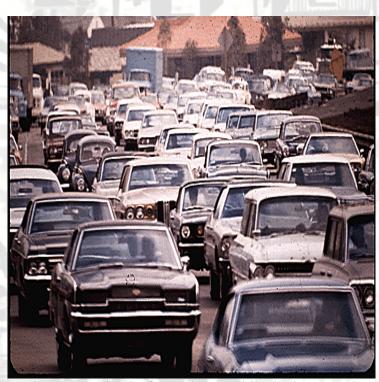
Speed-flow chart from the 1985 Highway Capacity Manual.



The capacity of a lane of vehicle traffic is at its maximum at about 30 mph according to the Transportation Research Board's 1985 Highway Capacity Manual.



Tulsa CBD total traffic counts in both directions in 24hrs. Source: City of Tulsa PW&D Traffic Section 2005



Businesses are beginning to leave gridlocked, automobbile dependent cities. The new paradigm becomes "how about moving people instead of cars which is why we move cars in the first place."

Redefining Street Usage New Thinking In Tulsa's Transportation

For many years, city planners and citizens alike have assumed that the primary method to improve transportation was to increase vehicle traffic speed and road capacity. However, over the past few years it has become increasingly clear that this approach is not affordable, imposes high social costs, and cannot solve traffic congestion problems. Now, many urban designers and city planners believe that most communities have reached a point of diminishing returns in the race for speed and capacity. They advocate an entirely new approach to defining transportation problems and solutions. There is a shift from speed and capacity to enhancing access to stores, schools, jobs, and services as well as offering diverse travel options, reducing the length of trips, and reducing average speeds along roads. These goals are especially important considering three-fourths of vehicle trips are short trips to schools and stores to run errands. Efforts to create socially and economically vibrant communities with a high quality of life are enhanced by integrated land use and transportation planning.

For a more balanced and healthy transportation system, the Local Government Commision Center for Liveable Communities promotes the following principles:

- 1. Slow your arterial to 30 mph and carry more cars. As research has shown, increasing the speed of traffic on a road to more than 30 mph decreases the volume the road can handle. The capacity of a lane of vehicle traffic is at its maximum at about 30 mph, according to the Transportation Research Board's 1985 Highway Capacity Manual. As speeds increase above 30 mph, drivers increase the space between cars to allow for greater stopping distance.
- 2. More and wider roads create more traffic. Researchers from the Federal Highway Administration and UC Berkley have found that new road capacity draws motorists from more congested routes who are hoping to save time on their commute.
- 3. Retrofit roads for quality of life. Wide, unruly roads can be retrofitted by simply changing the striping to make them safer and more liveable. Cities across the country have removed one or two lanes from four-lane arterials and improved traffic flow while reallocating the extra pavement to bike lanes, parking strips or center turn lanes. In the paper "Road Diets", by pedestrian infrastructure experts Dan Burden and Peter Lagerwey, they demonstrate that roads which are prime for conversion are four lane roads carrying moderate volumes of traffic (18-24,000 counts/day). Denver Avenue counts are between 9-19,000 counts/day and could be considered for such a conversion.
- 4. Walking is transportation. Transportation systems that focus on the automobile in the 21st century will leave a significant portion of our diverse population without transportation options.

Source: Local Government Commission Center for Livable Communities at www.lgc.org. City of Tulsa PW&D Traffic Section 2005





The Renaissance Uptown on Denver Avenue - an example of downtown residential development.

Redefining Street Usage

Better Streets for Growth and Development

As we plan for new connections from Tulsa's Central Business District to the Arkansas River, it becomes necessary to modify existing streets to accommodate the intent to move locals and visitors safely and comfortably in multiple travel modes including pedestrian, cycling, transit and vehicular. At the same time, it is important to showcase Tulsa's culture and rich history as well as promote the walkable community so desired by planners and residents of the areas.

As the Vision 2025 process continues, it becomes even more important that the city prepares and plans for future growth and development. Our ability to accommodate the expected growth using the same development and transportation approaches as were used during the previous decades is questionable at best. Our ability to do so while maintaining our high quality of life is even less likely. Quality of life is one of the main keys to Tulsa's development and the urban street guidelines in this project will support the goal of more compact and focused growth as well as more transportation choices. Providing transportation choices including pedestrian travel will also improve both the health and the air quality of Tulsa.

Building streets to provide more choices will help Tulsa meet the challenges of growth, but it also means that we will be building better streets overall. Tulsans have shown a particular fondness for streets typically located in the older neighborhood such as Brookside and Cherry Street areas. These streets include abundant streetscaping and pedestrian amenities and typically take on characteristics of neighborhoods that were built before the dominance of the automobile. Among the least desirable streets in the city are those designed post WWII - intended on moving automobiles swiftly through the city by adding traffic lanes and lacking pedestrian amenities. Driveways, parking lots and utility poles are more abundant than trrees.

Base on the above, it is important to design streets that support economic development and quality of life by providing more transportation capacity, while creating more user friendly streets overall. It is also important to provide more and safer transportation choices by creating a better connected network and building streets for a variety of users. Lastly, it is important to integrate land use and transportation by avoiding mismatches between land uses and streets to facilitate planned growth.

Source: Charlotte Urban Street Design at www.charmeck.org.





MOTORIST EXPECTATIONS

- Minimal traffic delays
- Minimal conflicts affectboth delay and safety
- Consistently designed facilities

DESIGN CONSIDERATIONS

- Add through or turn lanes to inc. capacity
- Make operational change (dec. time at intersect,)
- Grade seperated intersection to reduce delay
- Seperate transit (pullout)
- Wide travel lanes
- Turn lanes
- Median seperate oppossing traffic streams
- Greater site distances
- Improved street lights



PEDESTRIANS EXPECTATIONS

- Shorter walk distances
- Seperate pedestrians from moving traffic
- Create aesthetically pleasing surroundings
- Protect pedestrians from the elements
- Walk safely

DESIGN CONSIDERATIONS

- Short blocks with marked intersections
- Safe mid-block crossings on longer blocks
- Continuous walkway systems that connect door fronts with transit stops or destinations
- Create buffers (plants. cycle lanes, parking, etc)
- Pedestrian scale lighting
- Curb cuts and extensions
- Street furniture
- Attractive surface texture



BICYCLISTS EXPECTATIONS

- Well-connected network of bicycling facilities
- Safe travel routes
- Direct travel routes particularly when bicycling for purposes other than recreation

DESIGN CONSIDERATIONS

- Designated bike lanes
- Lanes that are appropriate relative to turn lanes
- Pavement markings
- Street lighting
- Bike boxes and bike signals
- Buffers from traffic lanes and parked cars
- Secure bicycle racks



TRANSIT EXPECTATIONS

- Enough space to operate and maneuver vehicles
- Minimal conflict with other travelers and features on the sides
- Minimal delays
- Safety at bus stops
- Easy connections
- Comfort while waiting

DESIGN CONSIDERATIONS

- Wide travel lanes
- Wide corner turning radii
- Clearance for side mirrors
- Adequate merge distance
- Select safe locations for bus stops
- Provide signal priority for transit vehicles
- Transit shelters and street furniture
- Street and pedestrian scale lighting



RESIDENTS EXPECTATIONS

- Safety and security
- Slower traffic speeds
- Reduced volume (except in commercial areas)
- Access to property
- Aesthetically pleasing environment
- Commercial areas want no access controls

DESIGN CONSIDERATIONS

- Good lighting
- Driveways
- Landscaping
- Traffic calming devices
- Low design speeds
- Safe and convenient pedestrian crossings
- Excellent sidewalk system
- High quality street furnishings
- On-street parking

Redefining Street Usage

Designing Streets for Multiple Users

The initial step in designing streets that provide viable transportation options is to understand that different users of streets will likely have different expectations of what makes "excellent" streets. Ideal design elements that satisfy one particular user may not appeal to other users. Furthermore, even if the street design satisfied the transportation user, it may not satisfy the people that live or work in the area. Because of this, it is important to develop design guidelines with multiple users in mind.

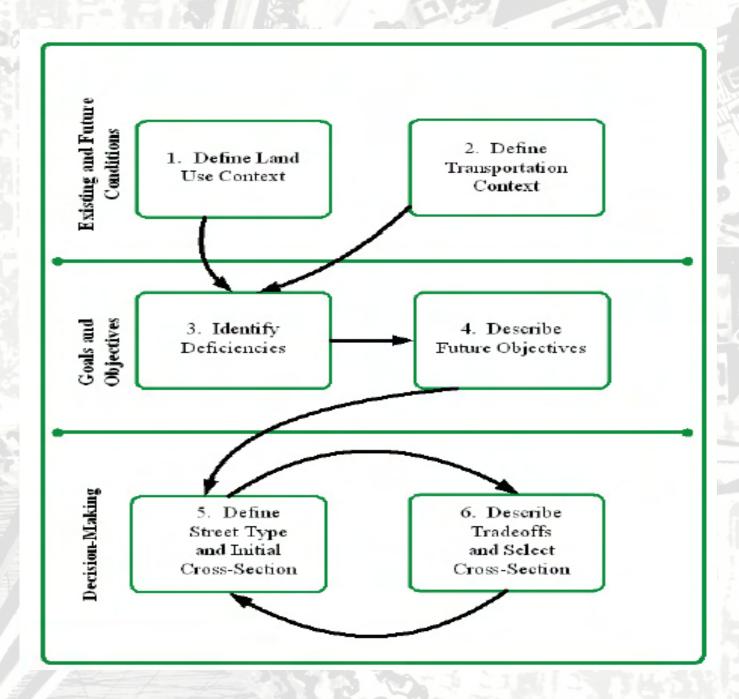
For many years, Tulsa has used a relatively predefined set of standards for designing roads with predefined classifications that have often been auto-oriented. That approach is changing in many cities, and with the intent to connect the downtown with the riverfront areas, efforts to change the current thought in designing streets should be considered. Designing streets has become more of an analytical process considering the various user perspectives and the surrounding land use context, in addition to the street function. Streets should be evaluated in terms of how they affect many different groups, including:

- motorist
- pedestrians (including transit riders)
- transit operators and riders
- bicylists
- people living, working, or otherwise using the adjacent land uses.

Each of these groups has expectations about how a given street should function and, therefore, how it should be designed. The examples on this page describe the various street users' perspectives and the consideraations that should be thought about in the design process.

Source: Charlotte Urban Street Design at www.charmeck.org.





The six step process for applying urban street design guidelines. From Charlotte USDG, April 2005.

Redefining Street Usage

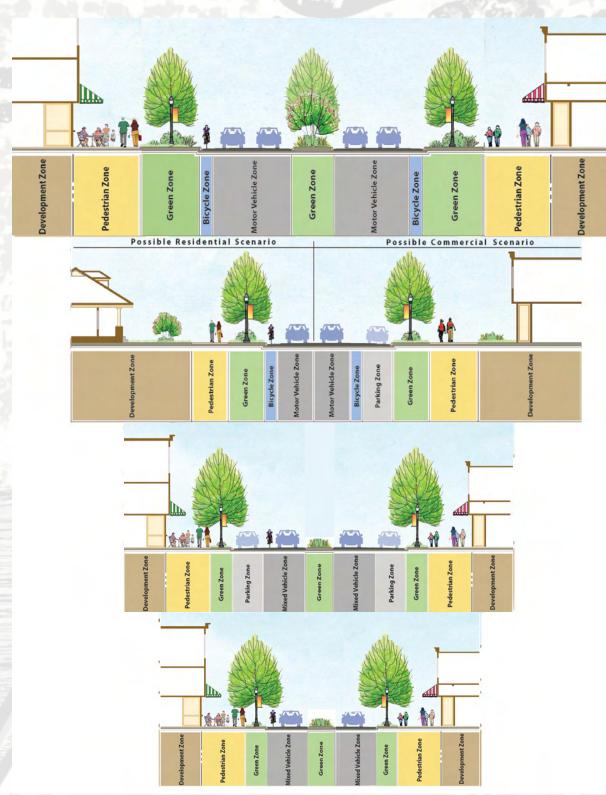
Applying the Street Design Guidelines

As described previously, the various street users have different expectations of what makes streets good or even great. Tulsa, as does many communities, struggles to meet the needs of everyone involved in planning streets and neighborhoods. The City of Charlotte adapted a new process in April, 2005, that consolidates traditional city planning, urban design, and transportation planning activities into a sequence of factfinding and decisionmaking steps. This six step process could perhaps be considered for use by Tulsa as we move forward with our efforts to revitalize downtown and the surrrounding areas. The concepts will be utilized in this project in designing linkages with all users in mind. The application of this new process for planning and designing streets is intended to support the creation of "more streets for more people." The following are the six steps:

- 1. **Define the Existing and Future Land Use and Urban Design Context** The existing and future contexts should be considered from the broadest, area wide perspectives down to the details of the immediate adjacent land uses.
- 2. **Define the Existing and Future Transportation Context** The design should reflect the entire transportation context (function, multimodal features, form), rather than that related strictly to capacity on a given segment.
- 3. **Identify Deficiencies** This step should consider all modes and the relationship between transportation and the land use context.
- 4. **Describe Future Objectives** The objectives could be derived from the plans for the area around the street, as well as from the previously identified list of deficiencies.
- 5. **Recommend Street Classification and Test Initial Cross Section** This step should also include a recommendation for any necessary adjustments to the land use plan or transportation plan for the area.
- 6. **Describe Tradeoffs and Select Cross-Section** There may be multiple alternatives to present to the interested groups. The culmination of all of the previous steps should provide sufficient rationale to select the design alternative that best matches the context and future expectations for the street project.

Source: Charlotte Urban Street Design at www.charmeck.org.





HIGH VOLUME ARTERIAL STREETS

DENVER AVENUE INNER LOOP

HOUSTON AVENUE INNER LOOP

LOCAL COMMERCIAL AND RESIDENTIAL STREETS

HOUSTON AVENUE OUTER LOOP

PERIPHERAL FEEDER STREETS WITH ON-STREET PARKING AND MEDIAN

ROUTE 66

DENVER AVENUE OUTER LOOP

PERIPHERAL FEEDER
STREETS
WITH MEDIAN AND WITHOUT
ON-STREET PARKING

SOUTHWEST BLVD. INNER LOOP

Redefining Street Usage

New Street Types

To provide the best possible connection to and from the Arkansas River and Downtown Tulsa, it will require a different approach and philosophy of planning and designing streets. In the past, Tulsa has become proficient at designing auto-oriented streets, which has had unintended consequences. It is suggested that we provide design elements that make streets friendlier and desireable for all users. Streets are much more than a pathway for basic transportation. Streets are a major component of public space and play a major role in establishing the image of a community. They affect the health, vitality, quality of life, and economic welfare of a city. Streets set the framework for development and will affect the land development patterns as well as how much development can be supported. The design of a street is only one aspect of its effectiveness. How the street fits within the surrounding transportation network and supports adjacent land uses will also be important to its effectiveness. Tulsa streets will serve a variety of users including those using the streets for transportation, as well as those whose residences, businesses, and places of recreation or worship adjoin the street. The safety, convenience, and comfort of cyclist, pedestrians, transit users, and members of the surrounding community will be considered when planning and designing these important connections in Tulsa.

To meet the challenges described, it will be important to establish some standard street types with all potential uses in mind. By creating a variety of street types, the network can provide appropriate choices for various travelers, including future and current residents. commuters and visitors.

At left are the general designs of the street layouts that will be used in this project. More specific guidelines with dimensions will be presented in the following pages. Although there will be variations in street designs, these general types will serve as models within the project.

Source: Charlotte Urban Street Design at www.charmeck.org.





Description of Districts and Characteristics/Themes

Gateways and Wayfinding

- Signage
- Landscaping

Street Description and Zones

- Motor Vehicle Zone
- Bicycle Zone
- Parking Zone
- Green Zone
- Pedestrian Zone
- Development Zone



- Vehicle Speed and Lanes
- Intersections
- Sidewalks
- Lighting

Streetscaping and Other Elements

- Landscape. Medians, and Plantings
- Street Material and Special Paving
- Bicycle and Transit Accomodations
- Street Furniture
- Buildings and Utilities
- Parking (Surface Lots and Garages)

New Development and Land Use

Infrastructure Improvements

Parks, Plazas, and Urban Open Spaces

Ecology and Habitat









Linkage Design

Outline for Urban Design

The adjacent outline will be used as a guide for the different districts along the connections between the Arkansas River and the Central Business District. Specific details will be presented in each of the design areas in the outline.

An attempt to answer the goals and objectives previously outlined will be incorporated in these guidelines. Emphasis will be placed in reestablishing both physical and visual access to and from the Central Business District and the Arkansas Riverfront. There will be an attempt to reinforce connections between the involved neighborhoods, businessess and entertainment districts, trails and parks and future development in downtown and the river. Also, efforts to reactivate unused areas along the linkages will be emphasized with a movement to create mixed use areas along the corridor connections. Distribution of traffic flow with a street and block plan with some controls where development occurs will be emphasized along with a parking plan. The historical and cultural character of the relationship between the River and Downtown Tulsa will be emphasized and destinations for Tulsans and tourist will be created with special attrempts to make this authentic for Tulsa.

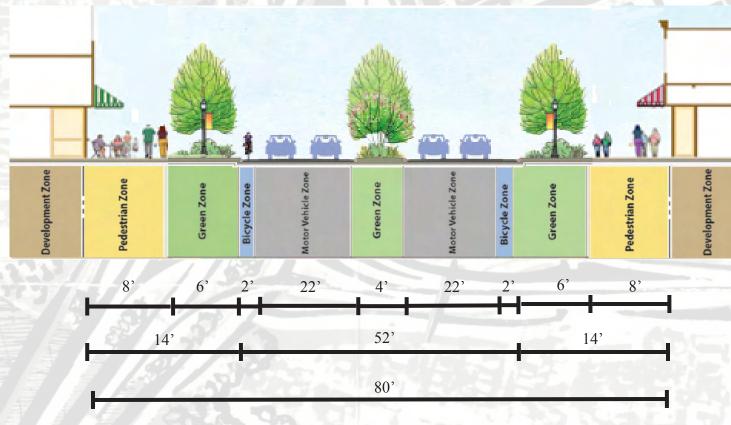
A walkable environment is particularly important along the connectors with both residential and commercial bases and important link between the CBD and the River. The future venues along Riverside Drive and the area around the new arena in downtown will make this important for visitors also. These connections will serve as an important areas to showcase Tulsa as a very liveable community and attract future growth to the area. The approach will be in harmony with principles of New Urbanism * as outlined in 1996. These principles form a basis for communication among those of us engaged in urban design and are important principles to adhere to if we are to be successful in creating sustainable communities.

(*Congress for New Urbanism, Charter of the New Urbanism, New York: Mc-Graw - Hill, 1999)





PROFILE OF HIGH VOLUME ARTERIAL STREETS BETWEEN THE CBD AND THE IDL



Development Zone: Land use and design will vary but setbacks will likely be deeper than on other roads and frontage will not always be directly onto street.

Pedestrian Zone: Although balance shifted to vehicle, pedestrian zone important in linkage concept.

Green Zone: Very important as a buffer zone with spacious planting strips.

Parking Zone: Removed from main vehicle zone and placed on access street.

Bicycle Zone: Given the higher speeds and volumes, this zone should get strong consideration for treatment to increase cyclists' safety.

Motor Vehicle Zone: Very important zone as this type street shifts towards auto-oriented use. The number of travel lanes will vary by capacity needs.

High Volume Arterial Streets

Denver Avenue Inner Loop

Houston Avenue Inner Loop

5th Street Inner Loop

The primary role of these streets is safe, convenient vehicle access to and from the Central Business District (CBD). These streets function as primary road access to the inner-dispersal loop that circles the CBD.

PRIORITY ELEMENTS:

Travel Lanes: Four 11' lanes with two adjacent and separated by center median.

Medians: Preferably 6' wide but due to contraints, 4-5' may be adequate.

Bicycle Accommodations: Bike lanes are desireable to allow cyclist to operate in the higher speed vehicular environment.

Sidewalks: Although less pedestrian oriented, sidewalks are important and pedestrian traffic is encouraged with protected tree-lined. 8' sidewalks except in constrained areas.

Lighting: Acorn style fixture on 14' pole (with banner hardware) similar to lights currently in place in downtown and planned in the downtown Route 66 Master Plan.

Planting Strips: 6' or larger strips to separate pedestrian traffic with tree spacing adequate for sight distance.

Vehicle Speed: 35-40, slightly higher than other streets that are more pedestrian oriented.

OTHER ELEMENTS TO CONSIDER

Parking: Separate from travel lanes and off street.

Transit: Preferred bus stops at cross streets including pedestrian refuge and enhancements, but no curb extensions.

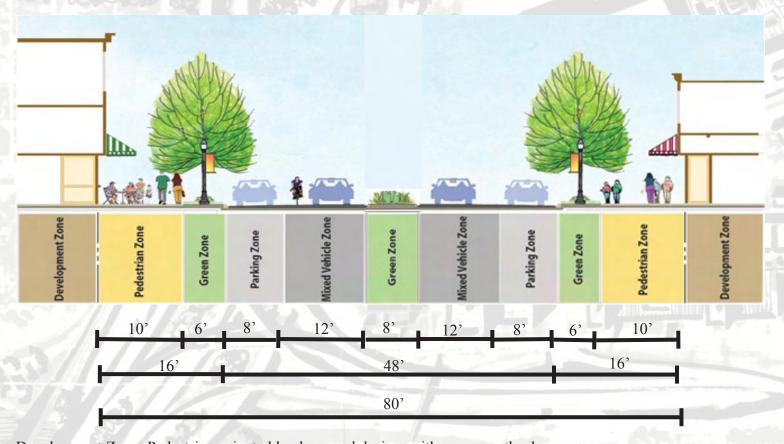
Utilities: Placed underground if possible and maintain a clear zone if possible per ADA requirements. If not possible, poles should be placed at back of ROW. No poles in sidewalks. Consolidation of utilities on poles with redundant poles removed.

Source: Charlotte Urban Street Design at www.charmeck.org.

Restoring Tulsa - OU Urban Design Studio at www.tulsagrad.ou.edu/studio



PERIPHERAL FEEDER PEDESTRIAN ORIENTED STREET WITH 2-3 LANES AND/OR 1-2 LANE ON-STREET PARKING



Development Zone: Pedestrian-oriented land use and design, with narrow setbacks.

Pedestrian Zone: Crucial to purpose and functon, this zone should include spacious, unobstructed sidewalks and pedestrian scale lighting.

Green Zone: Very important for supporting pedestrian character, this zone should include street trees and other land-scaping and provide extra buffering between pedestrian and vehicles.

Parking Zone: Important for supporting pedestrian and businesses, the parking zone calms traffic, supports businesses and provides extra buffering between pedestrians and traffic. This profile shows two parking lanes, but if capacity demands extra traffic lane, this may result in a single parking lane.

Mixed Vehicle Zone: Very important zone as this type street shifts towards multi-use, including bicycles and transit, and will require lower speeds with fewer lanes.

Peripheral Feeders Pedestrian Oriented Streets With On-Street Parking

Denver Avenue South (Outside IDL)

11th Street (Route 66) & SW Blvd.

The primary role of these streets were originally designed as vehicular distributors to sub-districts. With the proposed new role as linkages between the CBD and the River, the use will be shifted more to pedestrian based "Main Street" like roads while trying to maintain their original role as distibutors.

PRIORITY ELEMENTS:

Travel Lanes: Two or three 12' lanes according to traffic capacities.

Medians: Preferably 8' wide but due to contraints, 4-5' may be adequate. This element is important in circumstances that require special tratment for aesthetics, open space needs, pedestrian safety, or breaks in third lane if necessary.

Bicycle Accommodations: Bicyclist can operate in mixed traffic.

Sidewalks: Sidewalks are the most important element and pedestrian traffic is encouraged with protected tree-lined, 10' sidewalks except in constrained areas.

Lighting: Acorn style fixture on 14' pole (with banner hardware) similar to lights currently in place in downtown and planned in the downtown Route 66 Master Plan. Planting Strips: 6' or larger strips to separate pedestrian traffic with tree spacing adequate for sight distance. If necessary, these could be excluded if sidewalk amenity zone required extension.

Vehicle Speed: 25 mph which is comfortable for both bicyclist and pedestrians.

OTHER ELEMENTS TO CONSIDER

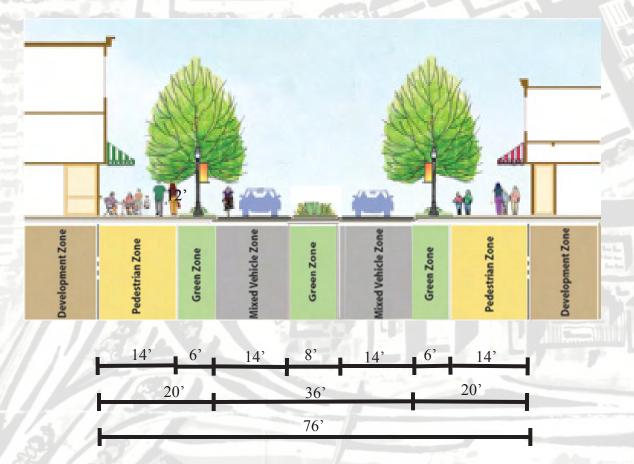
Parking: 7' on-street parking supports businesses and provides traffic-pedestrian buffer. Transit: Bus stops will typically be at intersections.

Utilities: Placed underground if possible and maintain a clear zone if possible per ADA requirements. If not possible, poles should be placed at back of ROW. No poles in sidewalks. Consolidation of utilities on poles if possible with redundant poles removed.

Source: Charlotte Urban Street Design at www.charmeck.org.
Restoring Tulsa - OU Urban Design Studio at www.tulsagrad.ou.edu/studio



PROFILE OF PERIPHERAL FEEDER PEDESTRIAN ORIENTED STREET WITHOUT ON-STREET PARKING



Development Zone: Pedestrian-oriented land use and design, with setbacks favorable for residential and commercial development.

Pedestrian Zone: Crucial to purpose and functon, this zone should include spacious, unobstructed sidewalks and pedestrian scale lighting.

Green Zone: Very important for supporting pedestrian character, this zone should include street trees and other landscaping and provide extra buffering between pedestrians and vehicles.

Mixed Vehicle Zone: Very important zone as this type street shifts towards multi-use, including bicycles and transit, and will require lower speeds with fewer lanes. Without on-street parking, the street crossing will be favorable for walking and encourage increased pedestrian traffic in heavy

Peripheral Feeders Pedestrian Oriented Street Without On-Street Parking Denver Avenue South (Near River) Houston Avenue (Outside IDL)

The primary role of these streets were originally designed as vehicular distributors to sub-districts outside the IDL. With the proposed new role as linkages between the CBD and the River, the use will be shifted more to pedestrian based "Main Street" like roads while trying to maintain their original role as distibutors.

PRIORITY ELEMENTS:

Travel Lanes: Two 12' lanes according to traffic capacities.

Medians: Preferably 8' wide but due to contraints, 4-5' may be adequate. This element is important in circumstances that require special tratment for aesthetics, open space needs, pedestrian safety, or breaks in third lane if necessary.

Bicycle Accommodations: Bicyclist can operate in mixed traffic.

Sidewalks: Sidewalks are the most important element and pedestrian traffic is encouraged with protected tree-lined, 10' sidewalks except in constrained areas.

Lighting: Pedestrian scale lighting should be provided and sufficient (alternating 100' placement on each side of street) to provide security for both locals and visitors.

Planting Strips: 6' or larger strips to separate pedestrian traffic with tree spacing adequate for sight distance. If necessary, these could be excluded if sidewalk amenity zone required extension.

Vehicle Speed: 25 mph which is comfortable for both bicyclist and pedestrians.

OTHER ELEMENTS TO CONSIDER

Parking: Excluded due to constraints and encouraging pedestrian street crossing. Transit: Bus stops will typically be at intersections.

Utilities: Placed underground if possible and maintain a clear zone if possible per ADA requirements. If not possible, poles should be placed at back of ROW. No poles in sidewalks. Consolidation of utilities on poles if possible with redundant poles removed.

Source: Charlotte Urban Street Design at www.charmeck.org.

Restoring Tulsa - OU Urban Design Studio at www.tulsagrad.ou.edu/studio



PROFILE OF LOCAL COMMERCIAL AND/OR RESIDENTIAL STREETS Possible Residential Scenario Possible Commercial Scenario Possible Commercial Scenario 14' 6' 6' 2' 24' 2' 8' 6' 8' 4' 26' 36' 18' 80'

Development Zone: Land use and design will vary but setbacks will likely be deeper than on other streets with direct access via driveways or alleys. Most cars will be parked off street and will have strong functional and visual connections to the street.

Pedestrian Zone: Crucial for safe and walkable neighborhoods.

Green Zone: Very important as a buffer zone with spacious planting strips.

Parking Zone: Both on-street and off street parking will be offered.

Bicycle Zone: Single bicyle lane in heavier traffic but not the same needs as heavier vehicular areas.

Motor Vehicle Zone: This zone sets the tone for the street's multiple objectives of allowing mobility and accessability for both motor vehicles and bicycles, while maintaining low volumes and speeds and, thereby, contributing to overall neighborhood livability.

Local Commercial and Residential Streets

Local Main Neighborhood Connectors

The main function of local commercial and residential streets is to provide direct access to sites or land use. Local residential streets are the most common and provide the most common type of streets in the study zone, particularly in the Riverview and Irving Neighborhood areas.

PRIORITY ELEMENTS:

Travel Lanes: Two 12' lanes adjacent and single 8' parking lane.

Driveways: Appropriate for direct access to streets but rear access is more preferable. Bicycle Accommodations: Bike lanes are desireable when close to main arterials, otherwise not necessary when sharing with motor vehicles in low volume areas.

Sidewalks: Sidewalks are important and pedestrian traffic is encouraged with protected tree-lined 6-8' sidewalks except in constrained areas.

Lighting: Where ambient light is insufficient, pedestrian scale lighting should be provided.

Planting Strips: 6' or larger strips to separate pedestrian traffic with tree spacing adequate for sight distance.

Vehicle Speed: 25 mph with frequent slow points to discourage speeding.

OTHER ELEMENTS TO CONSIDER

Parking: Both on and off-street parking needed.

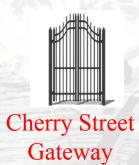
Transit: Mid block stops are allowable if there are bus routes on local streets. Utilities: Placed underground if possible and maintain a clear zone if possible per ADA requirements. If not possible, poles should be placed at back of ROW. No poles in sidewalks. Consolidation of utilities on poles if possible with redundant poles removed. Significant variations will occur depending on width of streets and intensity of development.

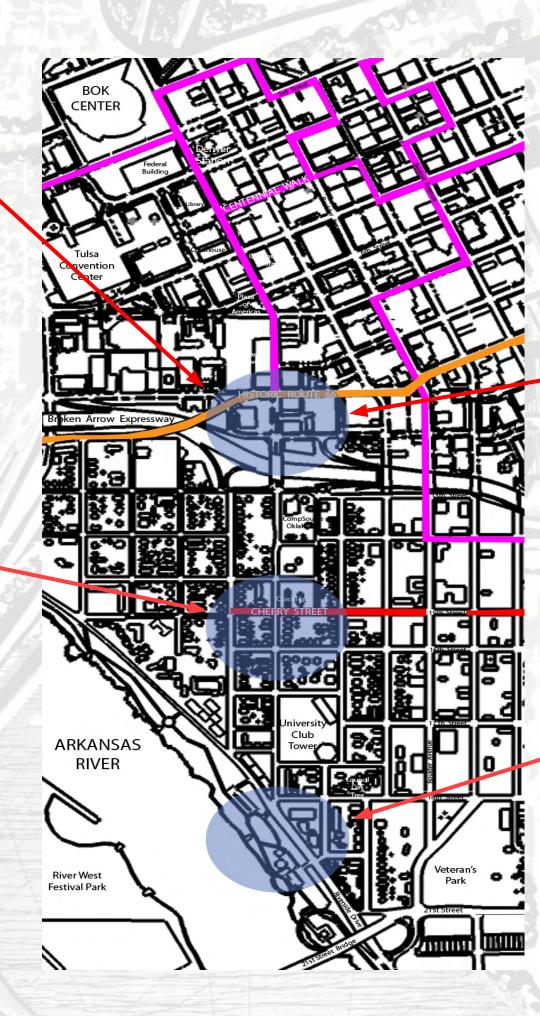
Source: Charlotte Urban Street Design at www.charmeck.org.

Restoring Tulsa - OU Urban Design Studio at www.tulsagrad.ou.edu/studio













Street Elements

Gateways

Gateways are elements that signal to the traveler that he or she has entered a special urban place. Gateways, or some type of identity element, help define a neighborhood. Gateways can be in the form of archways, landscaping and signs, public art, or special paving. Gateways can also function as landmarks and should reflect the place's character through their design.

GUIDELINES

- * Gateways should reflect the character of the urban place through subtle use of architectural elements of adjacent buildings or through thematic landscape treatment materials.
- * Gateways should be easily visible to pedestrian and vehicular traffic.
- * Gateways should have qualities that make them distinct from other streetscape pieces through the use of scale and decorative lighting.

In the Denver Avenue Linkage, for example, four important Gateways have been chosen. The Route 66 Gateway will serve as an important connection for those traveling along the Route and between the Central Business District, and for those wanting to experience the Riverfront. Another important area for a gateway becomes the Denver Avenue - BA Expressway Bridge. This is an obvious seperation between those inside the inner dispersal loop and the remainder of the city, including the River. Cherry Street Gateway is an opportunity to announce the entrance into one of Tulsa's most popular districts and a chance to expand the Cherry Street District westward. The Riverside Gateway is naturally an area that announces Tulsans to the River and for those traversing the Riverfront to the downtown region. It should be noted there are many other opportunities to establish gateways and these will be mentioned when discussing those particular districts.





Acorn-style outdoor lighting used in current new development downtown and considered for use within the areas inside the IDL.



More modern lighting with banner in the University Tower and River areas of this project.



Victorian style fixture considered for the 15th Street area along Denver Avenue.



Traffic light extension with light and banner to avoid the redundant use of multiple poles at an intersection.

Street Elements Street and Pedestrian Lighting

Decorative outdoor lighting will provide attractiveness to the linkages as well as enhanced safety and will aid in creating a sense of place and continuity desired in the districts in this project. Outdoor lighting should blend with the streetscape and function as a unifying element of other streetscape elements including trees and other landscaping, street furniture, and paving. The lighting should be located at the same distance from the street edge along the length of the entire street and the use of translucent or glare-free luminaries should be considered. The use of "cobra-style" street lighting should be replaced with more cost effective fixtures. Pedestrian lighting should illuminate sidewalks and connecting multiuse pathways using low-intensity fixtures that provide an even distribution of light while avoiding areas of intense shadows. Lights will be spaced approximately 200 feet apart in a staggered pattern providing a light source every 100 feet allowing for sufficient light more economically. It is important that street lighting conform to current standards regarding light spillage and pollution. Automatic timing devices should be considered to maximize efficiency without compromising safety. Most, if not all, fixtures should have hardware to accomodate banners. The exact style and specifications for the fixtures should be reviewed with Traffic and Engineering Department of the City of Tulsa.

Specifically for this project, the districts within the IDL will utilize the "acorn-style" fixture on a 14' pole which will match the lights currently in place in new street development started in downtown. This will also conform with the plans already underway in the Route 66 (11th Street) Master Plan as well as the Centennial Walk projects. In other areas and districts along the linkages of this project, a more distinct fixture that is representative for that area might be utilized. The lighting standard height could possibly need to be adjusted in areas where significant building frontages near the right of way require proper scaling. Where development is more widely dispersed, the standard height could perhaps be 30' but these areas are rare. Some of the possible lighting concepts are included here for consideration although final determination would be left to the stakeholders in the particular districts involved.

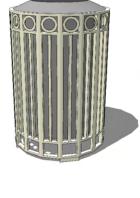
Sources: Vision 2025 Route 66 Master Plan from Dewberry, Littlefield, Howell & Van Curen, 2005.

Restoring Tulsa from OU Urban Design Studio, 2003.





Simple steel bike racks for convenient and safe use by the public.



Decorative metal trach receptacles should be convenient for public use and have sufficient tops.



Steel reinforced benches permanently attached in areas for convenient public use.



Bus shelters should be enclosed to encourage use in the winter and located in areas that are safe for public use.

Street Elements Street Furniture

Seating, benches, trash receptacles, and bike racks should be grouped together as much as possible and be placed at busier pedestrian nodes or gathering places. They should be designed and placed in safe locations and be amenities to the public. They should not obstruct the view of pedestrians, vehicles, or signs and displays for businesses. These street elements should coordinate in design and color with other streetscape elements within each district to reinforce the character and identity of that district.

Bicycle racks should be permanently mounted and placed in convenient locations throughout public spaces to encourage use. Racks should exhibit a simple and easy design that allows convenient and safe use by the public.

Trash receptacles should be convenient for pedestrian use and permanently attached to deter vandalism and have sealed bottoms. Receptacles should have sufficient tops to keep contents dry and out of pedestrian view. Resteraunts with outdoor seating should provide additional trash receptacles near seating. The receptacles should also blend into the surroundings or be specified in complimentary style or accent color matching the other street elements.

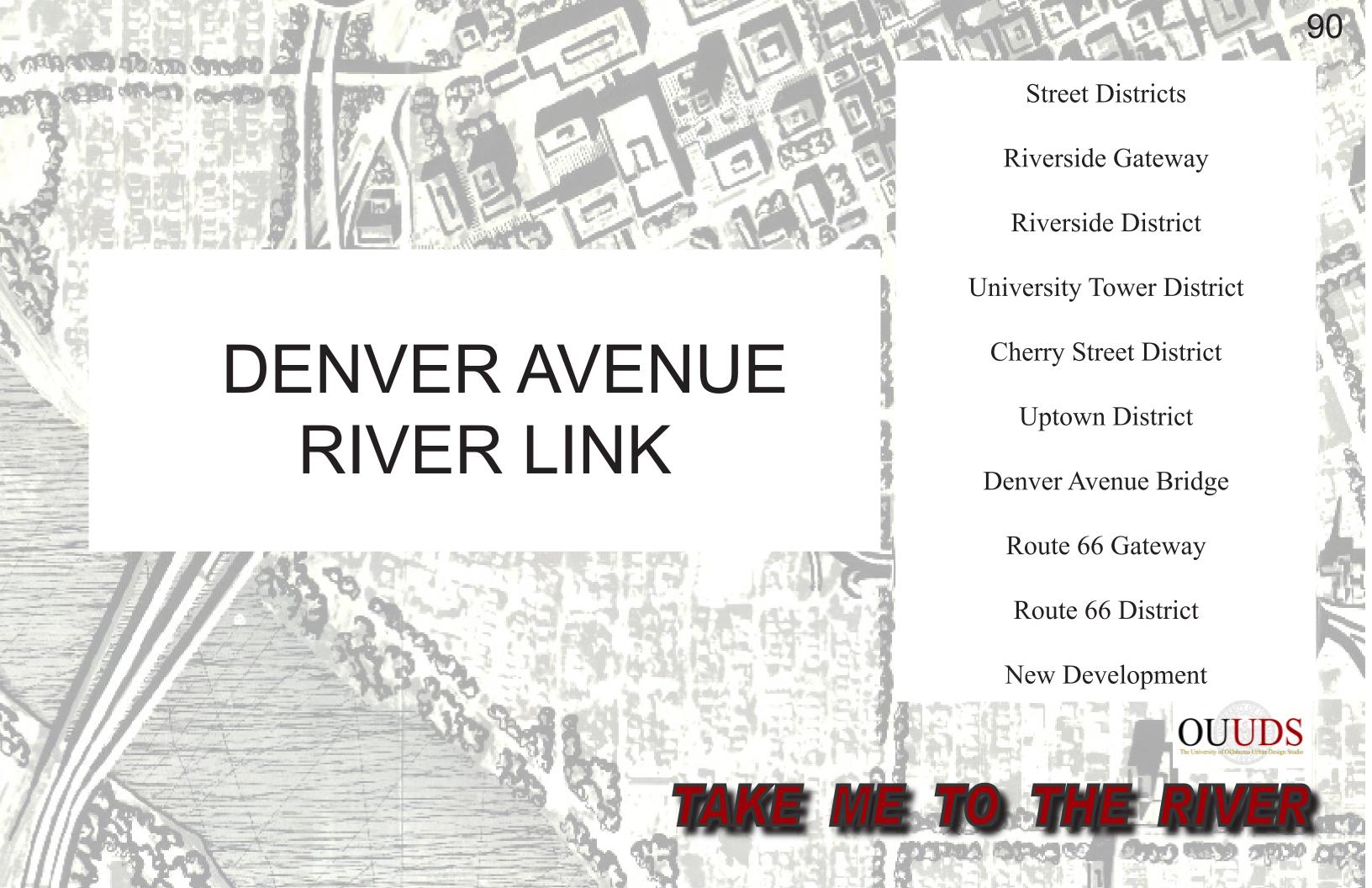
Sources: Vision 2025 Route 66 Master Plan from Dewberry, Littlefield, Howell & Van

Curen, 2005.

Restoring Tulsa from OU Urban Design Studio, 2003.

www.SketchUp.com





BOK CENTER DISTRICT

BOK CENTER DENVER STATION 3RD STREET

PLAZA OF THE AMERICAS DISTRICT

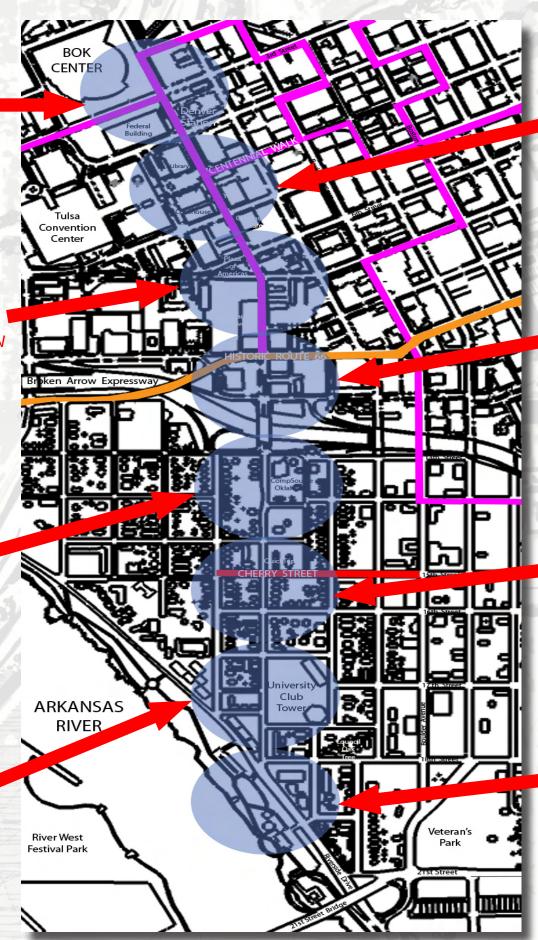
RENAISSANCE UPTOWN
POA PARK
CENTRAL PARK
CONDOMINIUMS

UPTOWN DENVER DISTRICT

COMPSOURCE AMERICA OFFICE

UNIVERSITY CLUB TOWER DISTRICT

UNIVERSITY CLUB
TOWER APARTMENTS
MULTIFAMILY RESIDENTIAL AREA



CIVIC CENTER DISTRICT

CENTENNIAL WALK
COURTHOUSE
CIVIC CENTER PLAZA
TULSA CONVENTION
CENTER
YMCA

ROUTE 66 DISTRICT

HISTORIC ROUTE 66
FUTURE CENTRAL
LIBRARY SITE
DENVER IDL BRIDGE
RENAISSANCE UPTOWN

CHERRY STREET DISTRICT

CHERRY STREET
GATEWAY
RESIDENTIAL BASED
HISTORIC COMMERCIAL DISTRICT

RIVERFRONT DISTRICT

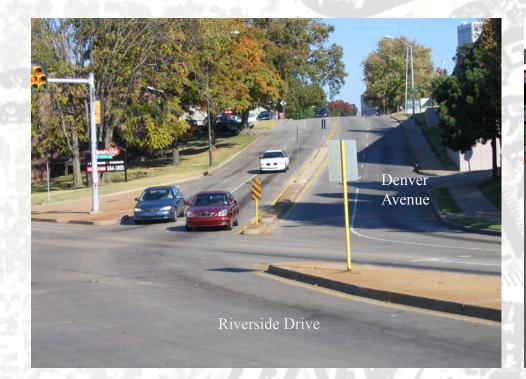
RIVERPARKS AND
TRAIL SYSTEM ACCESS
RIVERFRONT
APARTMENTS
RIVER'S EDGE CAFE
21ST STREET BRIDGE

Denver Avenue Linkage

Street Districts

An informal survey at the OU Urban Design Studio in Tulsa revealed the Denver Avenue Linkage as one of the more popular routes among the graduate students. This can be explained somewhat by existing popularity of this route by those who frequent downtown via interstate access and by those traveling along Riverside Drive. In this study, the road is highlighted at each end by the River Parks on the south and the future BOK Center on the north. This route is also intersected by the Civic Center Plaza along with a link of the Centennial Walk. Also, the well traveled 6th and 7th Street corridors traverse Denver Avenue and pass just south of the Tulsa Convention Center. Historic Route 66 intersects Denver Avenue just north of the Broken Arrow Expressway. Just four blocks south of this intersection, Cherry Street (15th Street) begins its trek eastward to the heart of the famous district around Peoria Avenue. From this intersection, the avenue begins a steeper incline south to the Arkansas River. Passing through a rather dense residential area, including the University Club Tower, the road then intersects 18th Street and Riverside Drive in a triangular fashion a few blocks south.









Riverside Drive Gateway

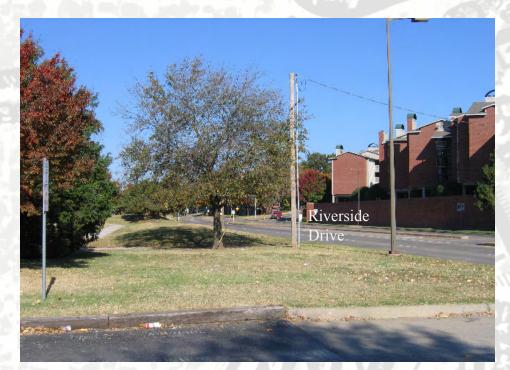
The intersection of Riverside Drive and Denver Avenue offers an excellent opportunity for a gateway to Downtown Tulsa as well as to development on the Arkansas River. This area has an abundance of multifamily housing and will become even more attractive for residential development as riverfront development progresses. It is imperative that this area becomes more pedestrian friendly for locals as well as future visitors to the area.

Photo Upper Left: The intersection of Riverside Drive and Denver Avenue today.

Rendering Upper Right: Proposed gateway looking north towards Downtown Tulsa. New development including structure designed to promote pedestrian and bicycle access to bridge to the west bank of the River. Circular ramps in compliance with ADA guidelines are enclosed in the structure which will allow safe access to new development north of the intersection as well as safe access across Riverside Drive to the River Parks and further to the Riverwest Festival Park. Note lighting with banner as well pedestrian amenities using a modern design theme.

Rendering Lower: This view incorporates the proposed pedestrian/bicycle bridge to the Riverwest Festival Park. This modern design structure will not only serve and promote safe pedestrian access to both sides of the River, but will become an icon itself in showcasing one of Tulsa's greatest assets - the Arkansas River. Apartments dominate the upper right portion of the rendering and demonstrate the importance of making this a pedestrian oriented district with plentiful opportunities for growth and development.









Riverside Drive District

The Riverside Drive District currently provides an attractive area for Tulsans to visit and live. It can also provide an opportunity for commercial development with careful consideration given to the environment. In coordination with the gateway planned, the district will focus on the area as an expanded attraction for all of Tulsa and enhance access for local residents. The property at Denver and Riverside provides an unique opportunity for enhanced commercial and residential development.

Upper Left: The intersection of Denver Avenue and Riverside Drive with Lincoln Park Apartments in the foreground.

Upper Right: Same area with a circular bridge structure connecting a large plaza with the River Parks. Pedestrians will be able to cross Riverside Drive at street level or the elevated walkway over the road.

Lower: Aerial rendering of the entire district with elevated walkway connecting residents from the University Tower Center and the other surrounding single and multi-family dwellings. This will hopefully entice residents to more readily access the river by avoiding the steep hill and Riverside Drive traffic. Visitors will be able to utilize improved sidewalks to gain access to these areas. A large multipurpose structure just above Riverside Drive can be a meeting place and provide dining, meeting spaces, small commercial and office spaces, and perhaps residential development. With large plaza space in front of the structure, a sense of place will be created and attract local and surrounding residents to the area.









University ClubTower District

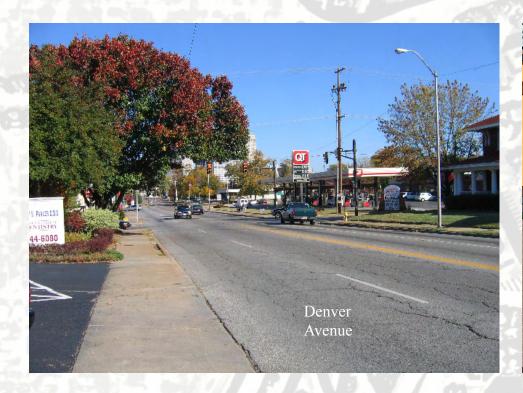
As a higher density residential area, the University Club Tower District offers a nice opportunity to enhance the area for further residential and commercial development. With two multi-story residential areas as its center, the area is prime for development with pedestrian traffic emphasized. Currently, the area is not friendly to pedestrians in that vehicles travel at high rates of speed on four-lane arterial streets. There are few crosswalks and safety is a concern. This area offers a classic example of an area that is prime for traffic calming, including reduced speed limits and narrowing of the streets from four lane to two lane with a designated left turn lane where needed. By doing so, the design would encourage pedestrian traffic and travel to the planned riverfront development to the southwest and the 15th street development to the north. This could easily become a premier place to live and work.

Upper Left: 17th and Denver intersection with parking lots of Mansion House Apartments and University Club Apartments in the background.

Upper Right: Same area converted into a meeting place for pedestrians and serving as a transit stop for commuters and visitors traveling between the River and Downtown.

Lower: Area as described above with proximity noted to the University Club Apartments, The area also would benefit from traffic calming measures as shown, with street narrowing and frequent pedestrian crosswalks. A meeting place with fountain will also give some identity to the area. It is important that the area across the street develop some commercially, with hopes that frequent visits would occur by the locals. This would add to the security of the area and give the area a sense of place, adding to further urban development.











Cherry Street Gateway & District

The intersection of Denver Avenue and 15th Street and the associated vicinity is important to this part of the linkage for many reasons. The area is at the very western end of 15th Street and empties into a historical residential area with some upscale apartments. To the east a few blocks is the historic Cherry Street District which is popular and well known to both young and old Tulsans,. This Denver Avenue area has never enjoyed the success of the Cherry Street area although current mixed use zoning make this a good possibility. With a few design changes and proposed development many feel this area is primed for the success much like its neighbor to the east. The area is also important as it will serve an important gateway from the commercialized areas of Denver, to the more residential area as one travels closer to the River. With this in mind, a proposed transition from four-lane to two-lane traffic with on-street parking will begin at this intersection. This will promote traffic calming and easier access and stimulate pedestrian and cycle use on a safer, friendlier street design.

Upper Left: Currently Denver Avenue and 15th is a transition area from a more commercialized area to a more residential area with professional office space in renovated well-maintained historical homes. Some of the structures on the northeast quadrant of this intersection are vacant and in disrepair while others are fairly well maintained and busy during the work week.

Upper Right: The same area redesigned with proposed mixed-use structures and street design compatible for both pedestrian and vehicular traffic. Note the transition between four-lane and two-lane traffic with on street parking.

Lower Left: Current restaurant on the corner with buildings north of this area that are unused or in disrepair. The successful businesses could be incorporated into the proposed future development

Lower Right: New mixed use development in the proper scale that will transition into the theme of Cherry Street District on the east. Pedestrian and transit traffic encouraged as well as shops and eateries to attract local neighbors as well as visitors. Parking behind establishments is proposed.









Uptown District

Uptown and the South Boston (SOBO) districts are just south of Cathedral Square in Downtown Tulsa. The area encompasses an area of approximately twenty blocks from the edge of the Maple Ridge Neighborhood on the east to the edge of the Riverview Neighborhood on the east and the current study area. The Uptown District is a mixed use commercial district and is in contrast to the Riverview Neighborhood, which is known for primarily older single family homes. Denver Avenue lies at the edge of these districts and consists of one and two story storefronts as well as a few converted bungalows used by professionals. The area offers a unique gateway to the downtown from the south and has areas for new development along the corridor.

Upper Left: A view from the southern edge of the Denver Bridge over the IDL looking south towards the River.

Upper Right: Similar view with new design featuring the bridge as a gate-way looking into the designated edge of the Uptown District. Note the right turn lane for access to the BA Expressway and the aesthetic feature of the center median. Other traffic slowing measures include road narrowing and more numerous crosswalks. Acorn light design with banners is suggested to promote the various districts and the street's designation as an important connection between the River and the CBD.

Lower: The area looking north between 14th and 13th Street on Denver. The district offers ample opportunities for new development with one and two story storefronts for mixed use especially on the east side of the avenue. As emphasized earlier, speed reduction and road narrowing is suggested to make the area more bicycle and pedestrian friendly.







Denver Avenue Broken Arrow

Denver Avenue Link

Denver Avenue Bridge Gateway

The bridge over the Broken Arrow Expressway could serve as an excellent gateway and promotion of this important connection between the CBD and the River. The depressed expressway gives the bridge a sense of prominence and should be emphasized more at the entrances as well as the lateral view of the bridge. With the suggested move of the Central Library just north of the bridge, this area becomes more important to the overall transition from the expressway to this area of the city, and it becomes vital that the design reflects this. Additionally, the vicinity is at the edge of historic Route 66.

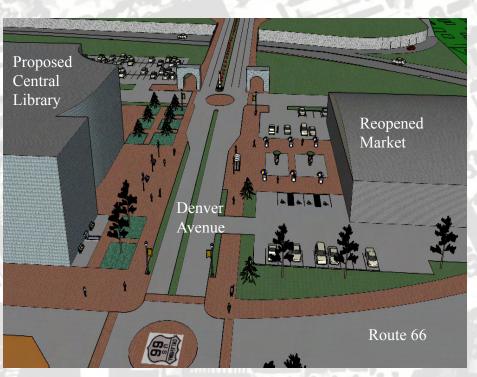
Upper Left: Denver Avenue just north of the Broken Arrow Expressway overpass separating the downtown from the area outside the IDL. This view is looking southbound from the parking lot of a vacant supermarket building.

Upper Right: View from the proposed parking lot and reopened grocery store with a Farmer's Market theme. Note the transit stop and the multiple vendors. This will be a bustling area across from the proposed Central Library to the east and will transition onto the enhanced bridge to the south. Historic Route 66 will border the area on the north. The gateway arches will promote the bridge as a vital passageway to the River districts.

Lower: Aerial view of the newer design looking eastbound. A prominent structure over the depressed BA Expressway will enhance the image of the districts features, including the Uptown District, Route 66 District, and the proposed Central Library.









Route 66 Gateway

The Route 66 Enhancement and Promotional Project was one of the 32 Vision 2025 projects submitted and approved by the voters of Tulsa County in September 2003. Like much of the Vision 2025 projects, the Route 66 project was selected because this American icon has the potential to be a catalyst for economic development throughout the county and certainly in the City of Tulsa. Gateways along the route have been encouraged and will provide part of the framework inside which the majority of the corridor revitalization will occur. Designs have been brought forward for areas on each end of the route but little has been done inside the IDL. This could be done in different, more subtle, ways directed at traffic traveling more perpendicular to the route and designs will be brought forward in this study to do so.

Upper Left: The current intersection at 11th Street (Route 66) and Denver Avenue looking south at the parking lot of the vacant supermarket and southeast at the current apartment and site of the proposed Central Library site.

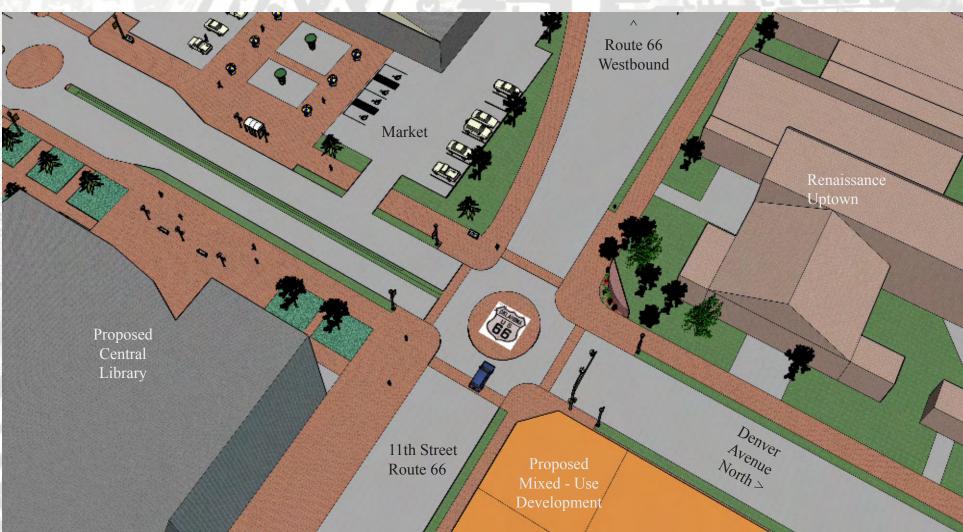
Upper Right: Aerial view of the same area with proposed revitalization of the market area and the proposed Central Library. Enhanced road markings will send a strong signal that the traveler is crossing Route 66. The traveler will have multiple choices including a visit to this enhanced area which will offer an open market and library, as well as shops selling Route 66 merchandise. Alternatively, one could have direct access to the downtown area or to the riverfront area to the southwest.

Lower: Close-up view of the intersection and gateway surrounded by an open market, library, mixed use development, and upscale residential apartments would be an attractive area to visit, live and work.









Route 66 District

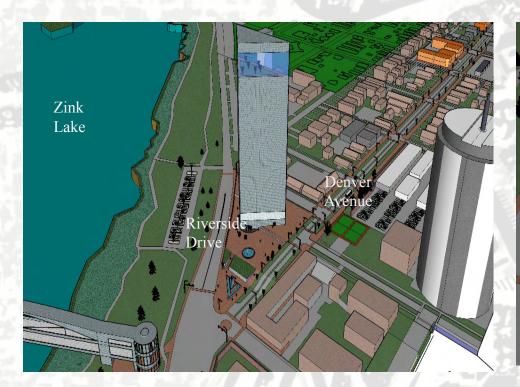
One of the goals for success of the Route 66 Enhancement and Promotion Project was dependent on the ability to create a "sense of place" for the entire Route 66 corridor. This is also one of the goals of this project. This particular intersection and district has optimal potential for doing so. The need for a downtown market has been mentioned on multiple occasions, and with the increased residential development beginning, the need becomes even more important. If further proposed development occurs, this area could become a bustling centerpiece in this transition zone between the CBD and the riverfront community.

Upper Left: A parking lot used infrequently on the northeast corner of 11th and Denver Avenue could be an area for mixed use development with parking in the rear.

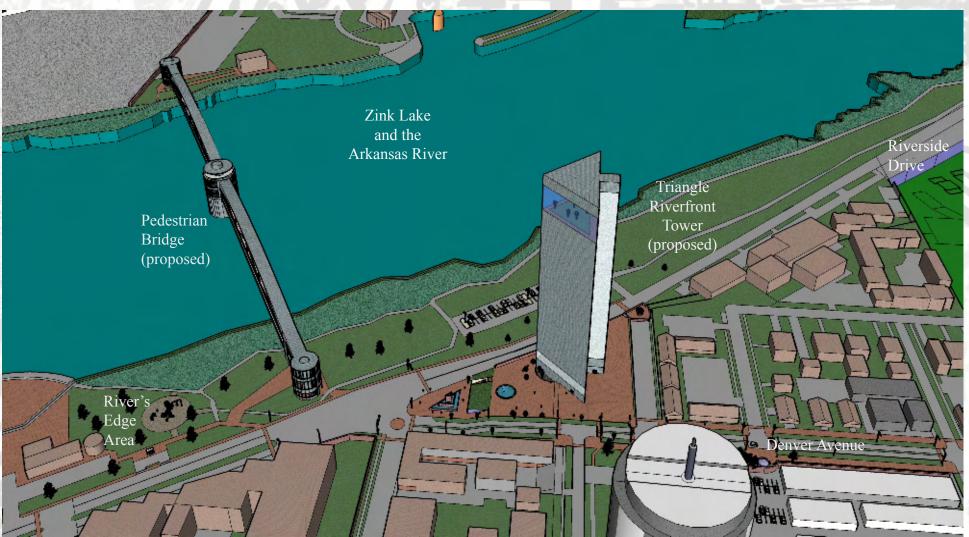
Upper Right: Proposed new development structures at the site of the mostly vacant parking lot at 11th and Denver is shown in the distance with the proposed open market in the forefront of the rendering.

Lower: An aerial concept of the Route 66 District includes the Renaissance Uptown apartments, the current upscale housing development that has been popular for urban dwellers. With the proposals noted, the area could become more attractive to those desiring downtown living and thus supporting establishments such as markets and shops. With special lighting, landscaping, street enhancements, and the use of highly graphic informational signs, the "sense of place" will be further promulgated.









New Development - Riverside

During the design process, the Denver Avenue -Riverside Drive intersection was identified by many urban designers as a unique area that should be emphasized to a greater extent. With such potential, it was suggested that a more prominent structure be designed to enhance the visibility as a gateway, as well as to make it an outstanding district in which to live, work, and play.

Upper Left: Aerial view looking north, the rendering reveals the new pedestrian bridge on the west (left) with a new residential structure designed for the northeast triangular corner of the Denver-Riverside intersection. The University Club Tower Apartments is also noted on the east (right). Unlike the previous rendering as the primary gateway structure, the bridge crossing Riverside Drive has been removed.

Upper Right: A close-up rendering of the unique triangular intersection of Denver Avenue and Riverside Drive reveals a triangular theme in the forefront fountain as well as the triangular base of the new structure at this site. Note the street narrowing, signage, and creation of space suited for the pedestrians in the area.

Lower: The triangular structure in the center of the rendering is designed to bring attention to the area as a cornerstone for riverfront development as well as providing a landmark for the gateway to and from the river and the downtown area. Designed primarily for residential use, the base of the building could serve as space for restaurants, shops, and offices. The skin of the building would be similar to that used for the downtown arena if feasible. Near the top of the structure, a multistory atrium with large trees could be created bringing sunlight deep into the building and allowing views of both the downtown and river below. This atrium concept was inspired by Cesar Pelli's Repsol-YPF headquarters in Buenos-Aires, Argentina. When lit at night, the atrium becomes a beacon for marking the riverfront area.









Additional New Development

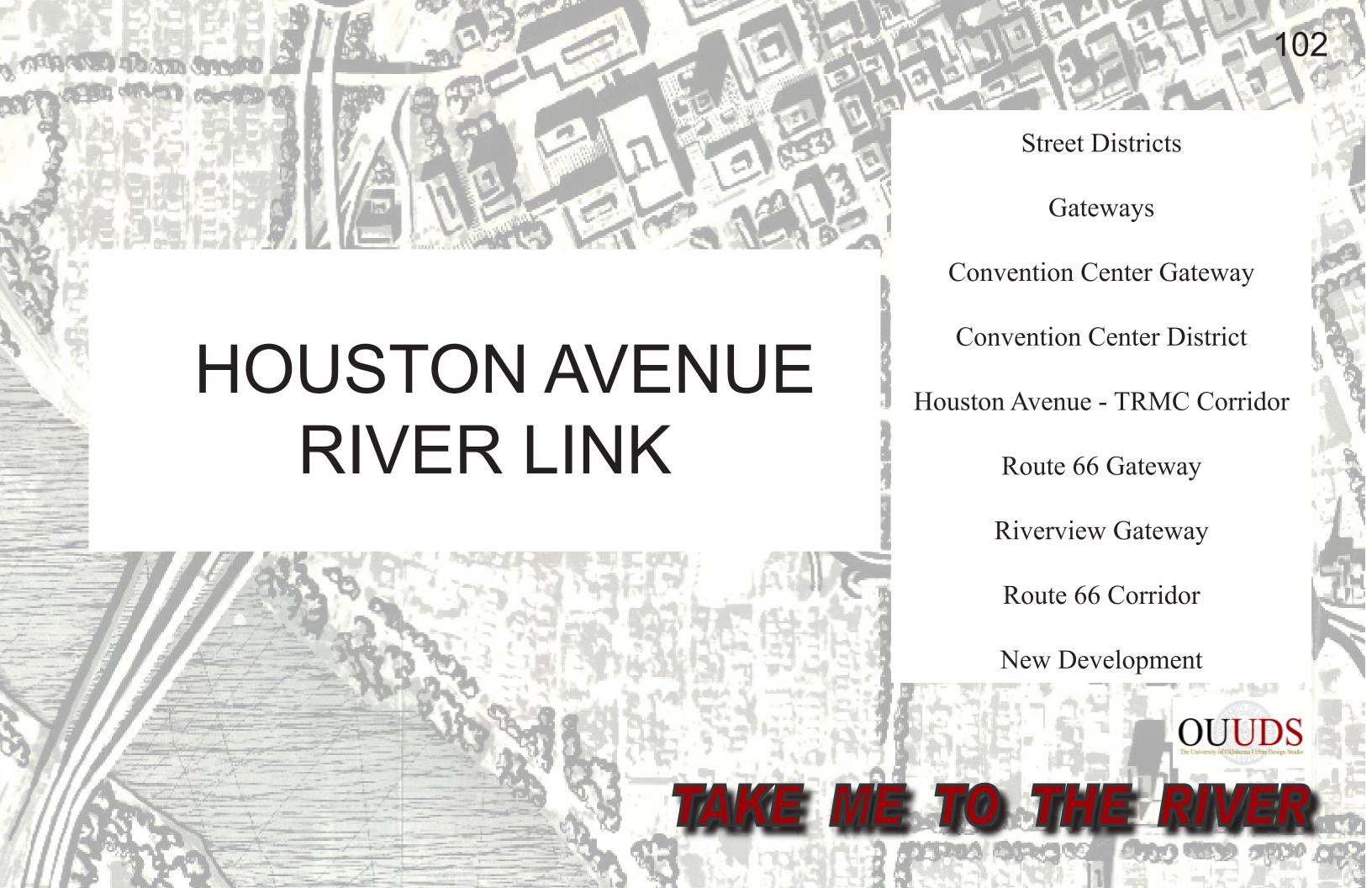
Although discussed in other renderings of the Denver Avenue Link chapter, the renderings on the left are different views of the new developments presented and this allows us to discuss the design features further.

Upper Left: The modern-style lights with banners are highlighted in this rendering of the University Club Tower District. The lights and banners differ from the more traditional acorn style lights with banners noted in the adjacent rendering. Also noted here is the narrowed streets and the pedestrian friendly environment produced.

Upper Right: Gateway structures are prominent in this view looking north from the 13th and Denver Avenue District (Uptown). The incorporation of brick and steel (material used for the downtown arena) meshes the transition district that blends the communities outside the IDL with those within the downtown districts including the arena further north on Denver Avenue. Also note the street signage and the incorporation of traffic signals, pedestrian lighting, and banners all on the same pole.

Lower: Beyond the gateway, a wide open space for pedestrians exist in this area. As discussed earlier, regardless of high quality street furniture, fountains, landscaping, and art features, it is important to attract people to areas by other means - particularly services. The success and sustainability depends on this concept and if the proposed services are considered, the Denver - Route 66 area could be highly successful. The library and open market proposed could enhance the livability for the multiple adjacent apartments and introduce people back to the concept of walking to and from most needed services.





ROUTE 66 CORRIDOR

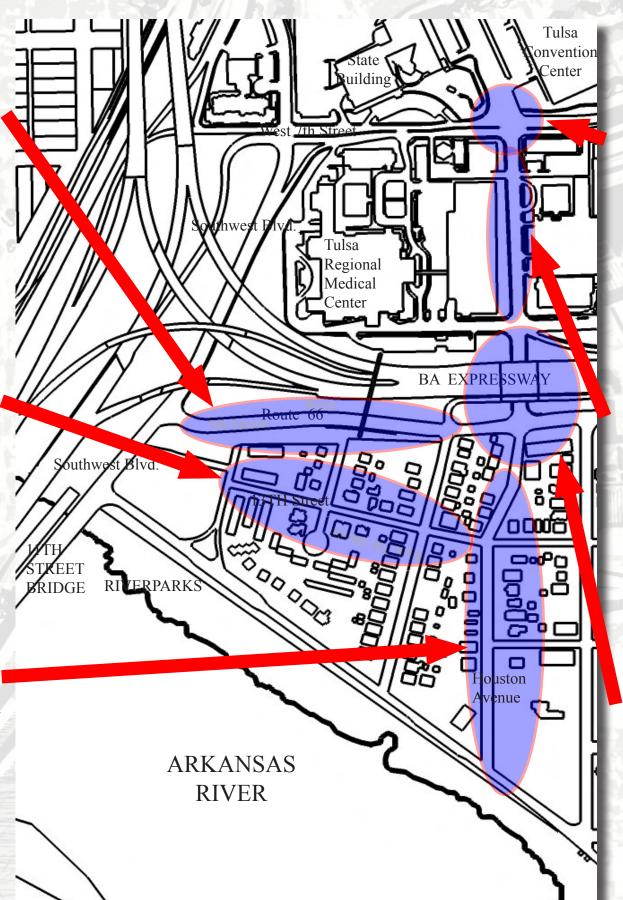
HISTORIC ROUTE 66 CONNECTION TO ROUTE 66 EXPERIENCE AND CYRUS AVERY MEMORIAL BRIDGE

13TH STREET CORRIDOR

RIVERVIEW
NEIGHBORHOOD
RT. 66 EXPERIENCE
REAR ENTRANCE

HOUSTON AVE. RIVERSIDE DRIVE DISTRICT

RIVERVIEW
NEIGHBORHOOD
RIVERPARKS AND RIVERSIDE DRIVE
ARKANSAS RIVER



CONVENTION CENTER DIS-TRICT

TULSA CONVENTION
CENTER
BOK CENTER
DOWNTOWN DOUBLETREE HOTEL

HOUSTON AVE. TRMC DISTRICT

TULSA REGIONAL
MEDICAL CENTER
TREE-LINED
CORRIDOR
INDOOR-OUTDOOR
CAFE/CLUB

ROUTE 66/IDL DISTRICT

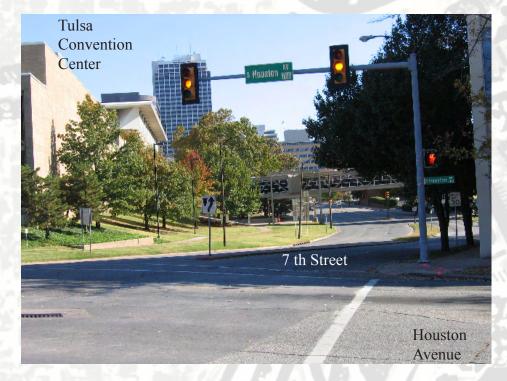
ROUTE 66
HOUSTON - IDL
GATEWAY TUNNEL
GATEWAY TO
RIVERVIEW
NEIGHBORHOOD

Houston Avenue Linkage

Street Districts

Slightly over a half mile from the Convention Center, Houston Avenue has often been mentioned as a key link to the Arkansas River. In fact, this link has been suggested as a connector to the recently created Centennial Walk. The downtown connection begins in the area around the Convention Center near the Downtown DoubleTree Hotel. Visitors and convention attendees would find this a quite favorable route to the River. Houston Avenue, next to the TRMC parking garage, is treelined but is not designed at present to be pedestrian friendly. An iimportant connection ensues at the Broken Arrow Expressway and Route 66. From this point, there are variable paths to connect to the River. The Route 66 path connects directly to Southwest Boulevard in the area that will become the Route 66 Experience. Designed properly, this could become a pleasant experience for downtown patrons in traveling between the CBD and River/Route 66 attractions. The 13th Street connection will travel through a single family residential area and has been mentioned as a Centennial Walk connection extension from Houston Avenue to the rear of the planned Route 66 Experience. This would traverse a rather steep incline along the way. The path directly on Houston Avenue is also an option and although steep, is the most direct connection among the three possibilities. It empties directly on Riverside Drive and across the street from the ever popular River Parks.









Houston Avenue Link

Convention Center - Houston Avenue Gateway

A pedestrian bridge connects the Downtown DoubleTree Hotel to the entrance of the Tulsa Convention Center in the vicinity of 7th Street and Houston Avenue. During meetings and conventions, this area is bustling with activity as would be expected in many large cities hosting such events. Many of these visitors are without transportation and have been accustomed to walking from hotels and convention centers to the area attractions and establishments. With the revitalization of the riverfront, it is imperative that Tulsa provide a safe and attractive walkway to and from the River. This particular area becomes important in serving as a gateway to stimulate the visitor to investigate the current and forthcoming offerings along the River.

Upper Left: Current view looking eastward from the intersection of 7th Street and Houston Avenue. The Downtown DoubleTree is on the right and connected by street walkway or the elevated pedestrian bridge shown in the background of the photo. This is considered the main entrance to the Convention Center.

Upper Right: View from a proposed park at the southwest intersection of 7th and Houston looking back towards the Convention Center entrance. Note the fountain and street furniture which could be enjoyed by visitors as well as nearby State Complex and TRMC employees.

Lower: Aerial view of this intersection demonstrates the relationships between the hospital campus, State Complex, and the hotel-convention center complex. Attractuve parks and gateways will encourage locals, as well as meeting and convention visitors, to investigate the many offerings that are available in the area and the riverfront.









Houston Avenue Link

Convention Center District

The area around the Tulsa Convention Center is an area that accommodates a large number of employees at the State Office Complex, Tulsa Regional-Medical Center, as well as workers in the Civic Center Complex. Additionally, there are many other establishments that associate with these entities and service these workers during the work week. This population swells when large conventions are held and could be expected to be larger when the BOK Center hosts large events. Also, many of the multifamily residential dwellings are just a few blocks away from this important area. The area has not capitalized on this population as many would assume. The area has not established itself as pedestrian friendly and there is little movement between the entities as one would expect. With efforts to design a more walkable community, this could possibly change dramatically.

Upper Left: View looking northwest at the intersection of 7th Street and Houston Avenue. The State Office Complex is in the distant background.

Upper Right: Same view from a higher elevation with a park replacing a portion of the surface parking lot adjacent to the hospital complex. This proposed park could accommodate employees from adjacent establishments as well as vistors at the Convention Center.

Lower: Aerial view looking south down Houston Avenue, this rendering demonstrates the relationship of the multiple office and hospital complexes employing numerous individuals. Improving the walkability of the area would allow these individuals to better utilize services and establishments within the area.







Tulsa Regional Medical Center Parking Garage velopment New Annex Houston Center

Houston Avenue Link

Houston Ave. - TRMC Corridor District and Linkage

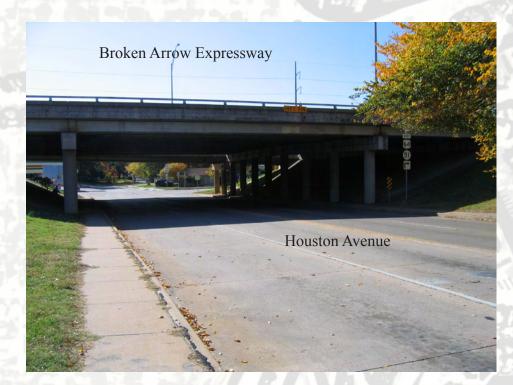
The area between 7th Street and 11th Street is currently a gently sloped tree-lined corridor running parallel to the Tulsa Regional Medical Center hospital and clinic complex. Across the street from this complex is Houston Center with offices and a restaurant on the lower floor. There are both surface and raised parking structures throughout the area. There is an opportunity for enhanced walkways for pedestrians to frequent not only the local establishments, but also to connect to further pathways to the River.

Upper Left: Houston Avenue looking north from the Broken Arrow Expressway and 11th Street. The Tulsa Convention Center is at the end of the corridor.

Upper Right: Similar view in this rendering with the addition of new multi-use facility between Houston Center and 11th Street. This is currently surface parking and an opportunity for new development with parking in the rear is suggested and could enhance the potential for a bustling walkable community.

Lower: Aerial view showing the relationship between multiple entities and new development. The buildings in orange depict the opportunities for new development in this corridor.







Broken Arrow Expressway BA Expressway Ramp TRMC Parking Garage Houston Avenue

Houston Avenue Link

Route 66 Gateway 11th Street - Houston Avenue

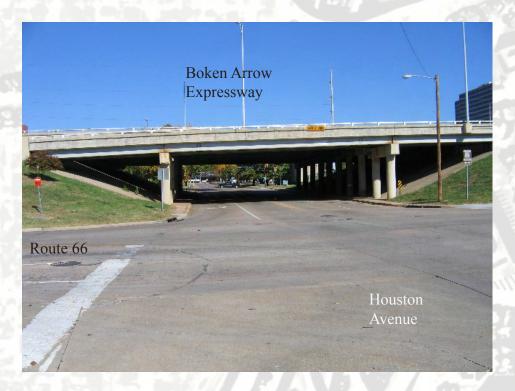
Passing beneath the Broken Arrow Expressway (southern portion of the IDL) there is a marked contrast as one immediately intersects historic Route 66. With the exception of small signs, this could easily be overlooked with the current design. With the recent movement to draw on renewed interest in the iconic roadway, it is suggested that this gateway be enhanced. Additionally, this will attract those downtown wishing to explore not only Route 66 but also the River.

Above Left: Current underpass looking south at the Broken Arrow Expressway. Route 66 intersects Houston Avenue on the opposite side.

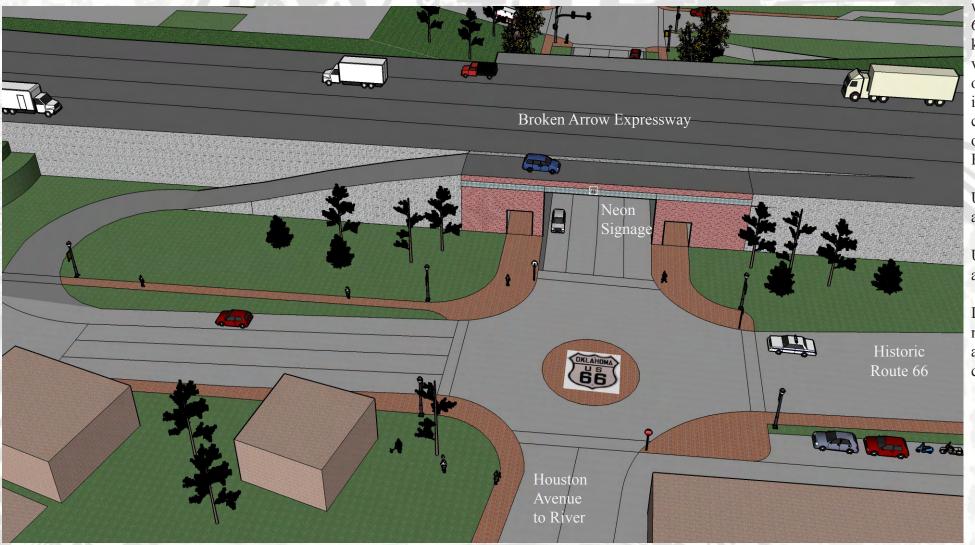
Above Right: Similar view with underpass enhanced with both safety measures and design to entice pedestrians to explore the attractions along Route 66 and the attractions associated with the Arkansas River.

Below: Aerial rendering of the area demonstrating the association with the Broken Arrow Expressway and Houston Avenue. The arterial will remain four-lane due to the proximity to the IDL. Parking will remain off street but great efforts will need to be made to make this important corridor more pedestrian friendly. The underpass could be enhanced as a gateway and become an attraction itself for pedestrians making the walk to and from the River.









Route 66 - Houston Avenue Intersection and Gateway to Riverview Neighborhood

The intersection of Houston Avenue and Historic Route 66 is another important intersection for Tulsans in that it gives both vehicular, cyclist and pedestrians multiple choices to explore. It serves as a gateway south to the Riverview Neighborhood and traveling further empties onto Riverside Drive and the ever popular River Parks. As mentioned earlier, another pathway on 13th Street, just one block south, allows the traveler access to the rear entrance of the proposed Route 66 Experience at 11th Street and Southwest Boulevard. Another option includes perpendicular turns on to Route 66. A right turn will take the traveler to the Cyrus Avery Plaza and the Arkansas River frontage. A left turn will take the traveler to the proposed Denver Avenue Route 66 intersection and the new developments at this location only a few blocks away. For those on Route 66, this intersection provides an important gateway to Downtown Tulsa with immediate access to a hospital complex and the Tulsa Convention Center District. Additionally, this area offers access to one of the Tulsa Metro area's primary interstate - the BA Expressway.

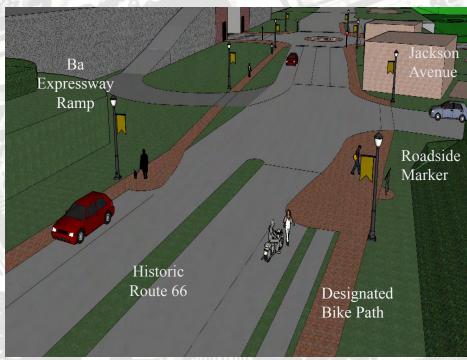
Upper Left: Underpass looking north under the Broken Arrow Expressway and the southern edge of the IDL.

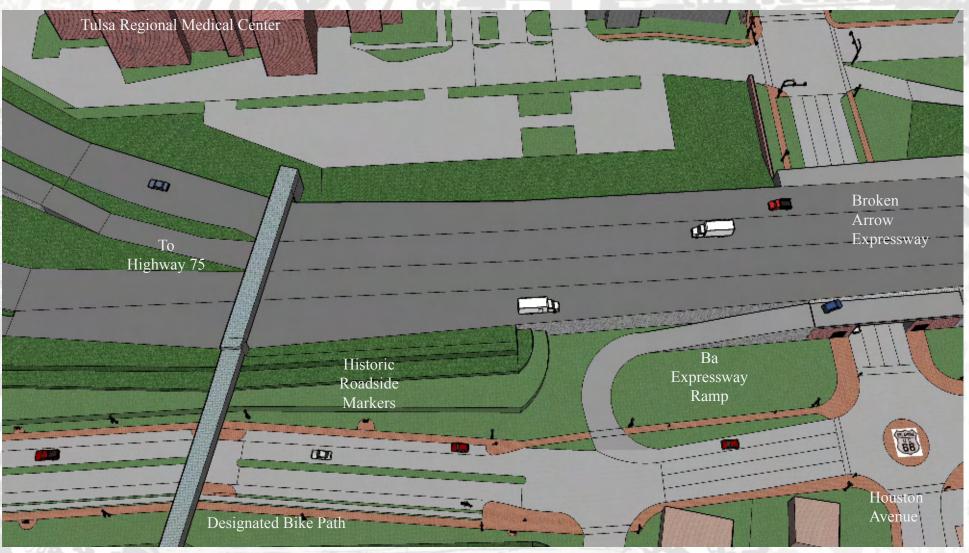
Upper Right: Rendering of the same view with enhancement of the area and with emphasis on the iconic Route 66 highway.

Lower: Aerial rendering shows the perspective at the intersection with the multiple choices offered to the traveler. The underpass will be open and be a well lighted structure offering a safe and attractive gateway to both the city and the river areas as well as Route 66.









Route 66 District

Along this stretch of Route 66 presently,, the traveler finds a rather dull road that is geared almost exclusively with the automobile in mind. There are no sidewalks or bike paths along this pathway although this route offers one of the shortest and least challenging incline of all the chosen connections. With proper design, this could be one of the more exciting connections to the River.

Upper Left: A gentle incline viewed from the west looking back towards Houston Avenue's intersection with Route 66. Note the lack of pedestrian or bike pathways.

Upper Right: Same view perspective with attracive walkways and a special designated bike pathway to encourage cyclist to use the route to travel between the city and the river region. Also, this area is a prime spot for traffic calming with road narrowing and on street parking utilized. This will encourage pedestrian and cylclist use of the pathway. Additionally, roadside historic information signs are suggested to make the walk an experience and an attraction for those visiting the area. This will blend well with the proposed Route 66 Experience and the interpretive center theme a block away.

Lower: Rendering of an important stretch of highway with significant changes proposed with emphasis more towards the pedestrian and cyclist. Both sides of the linkage will have attractive pathways to entice this alternative travel mode and this stretch could become a major attraction itself.









Route 66 - Southwest Blvd. Gateway to Houston Avenue

As Route 66 flows westward from Downtown Tulsa, a gentle incline carries the traveler to the River and opens onto Southwest Boulevard. This intersection is less than one block away from the intersection of Riverside Drive and Route 66 and the proposed attractions that will be coming soon. For this reason, it is vital in the movement to emphasize Route 66, that this intersection be well designed for all to use and enjoy. This path will also serve as another gateway to Downtown via the connection with Houston Avenue.

Upper Left: View of Route 66 (12th Street) from its base along Southwest Boulevard. Again, note the lack of any accommodations for pedestrians or cyclist.

Upper Right: Rendering showing the intersection of Sothwest Boulevard and Route 66. Special emphasis will shift towards the pedestrian/cyclist with wide, attractive sidewalks and designated bike paths. Also, proposed landscaping will provide a safe and attractive separation between the interstate and the route. Also, note the transition of lighting between the modern light with banner proposed for the riverfront area and the traditional acorn light with signage chosen by the Downtown area and the Route 66 design scheme.

Lower: The close proximity and relationship between the proposed Route 66 Experience and the Cyrus Avery Memorial Bridge Plaza with the intersection of Route 66 and Southwest Boulevard is shown in this aerial rendering of the area.









New Development

The Houston Avenue Linkage offers multiple opportunities for further development. Many of the proposed changes are directed at getting the public back to the streets. As mentioned earlier, there is an abundance of workers in the area as well as residential structures in the vicinity. Add to this, multiple visitors to the Tulsa Convention Center and the BOK Center and hotels and the population swells. With design changes geared to the pedestrian, the area could thrive with business and offerings for visitors as well as locals.

Upper Left: This proposed walkway takes advantage of the tree-lined corridor that exists at the present and adds another attraction with the heavily landscaped pathway. Interpretive signs about Tulsa's history could be incorporated to entice visitors to follow the path and perhaps feel comfortable continuing to the River. Note that all utilities are buried in this rendering as suggested for all the proposed project areas.

Upper Right: A mixed use development could be designed in the existing Houston Center parking lot. Parking could be moved to the rear of the complex as ample garage and surface parking appears to be available. With increased ability to walk in the area, there would possibly be less need for parking spaces and perhaps additional restaurants and shops could be added in the lower floors of the new structures.

Lower: Parks attract people and usually make them feel comfortable if surrounded by other people, A small park in an area where large number of people work could benefit many in the area and promte some of the goals of the project. Note the interpretive sign, lights with banners, street furniture, fountains, and reduced vehicular speed - all designed with the pedestrian in mind.



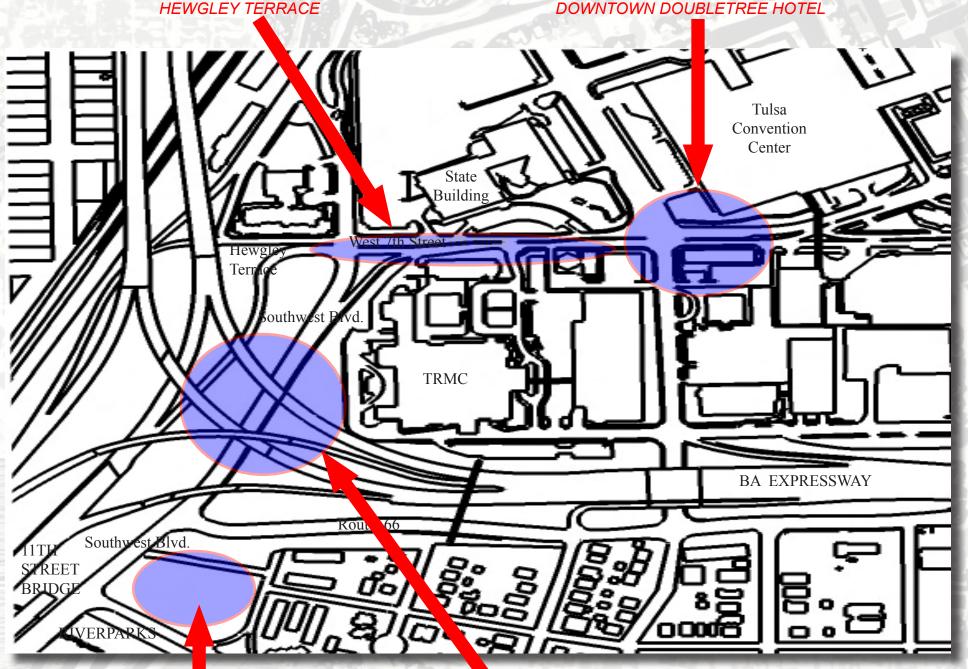


SEVENTH STREET DISTRICT

DHS STATE OFFICE COMPLEX TULSA REGIONAL MEDICAL CENTER HEWGLEY TERRACE

CONVENTION CENTER DISTRICT

TULSA CONVENTION CENTER
BOK CENTER



Street Districts

Linkage

Southwest Blvd.

The shortest linkage to the Arkansas River (.49 miles) has great potential to be a key route for those in the Central Business District to travel back and forth to the River. Presently, the route is not appealing to pedestrian and cycling and has been dominated by the Inner Dispersal Loop and the associated bridges and vast amounts of concrete. A rather gentle incline, that could be modified with design, it connects to the future Route 66 Experience and the Cyrus Avery Memorial Bridge to 7th Street and the Tulsa Convention Center. These are two important disricts that are particularly attractive to those attending events at the Convention Center and the BOK Center as well as other tourist visiting the area. The Seventh Street District between these two gateway districts includes a regional hospital as well as occupants of the State Office Complex. These structures are heavily occupied during business hours and a connection to the River will be an amenity to those employees during breaks and after hours. The path also passes by the Hewgley Terrace Apartments at 7th Street and Southwest Blvd. and would allow residents access to the riverfront areas. The current incline between 7th Street and Riverside Drive is in need of improved landscape design but has the potential to become an attractive multipurpose link and open space for locals and visitors alike and is key to the future of this important connection.

ROUTE 66 EXPERIENCE

RIVERPARKS RT. 66 EXPERIENCE CYRUS AVERY PLAZA CYRUS AVERY BRIDGE

INNER DISPERSAL LOOP DISTRICT

ROUTE 66 INTERSECTION
TULSA REGIONAL MEDICAL CENTER









Southwest Blvd. Link

Seventh Street - SW Blvd. Gateway District

Moving westward along 7th Street from the Tulsa Convention Center to Southwest Boulevard, one encounters a small incline which peaks on the southern edge of the State Office Complex. From here, the street flows in a decline to the intersection with Southwest Boulevard. The opportunity to design an attractive gateway is prime at one of the most important gateways to the city.

Upper Left: 7th Street and Southwest Boulevard intersection with the Hewgley Terrace Apartment in the background. Continued travel west-bound at this intersection leads to the one-way entrance ramp to Highway 75, a major north-south highway for the city. The intersection is also the first encounterd by those traveling into the city from this major highway and is a site of "first impression". This makes the need for changes at this site vitally important in creating an image for the city.

Upper Right: Rendering of proposed changes at the intersection suggests a very prominent gateway with water features and heavy landscape. Tulsa, as well as most of northeastern Oklahoma is lush with trees and lakes and water and vegetation needs to be emphasized and celebrated.

Lower: Rendering looking down Southwest Blvd. from the north. Note the large pedestrian areas with water features as well as street narrowing, wide attractive sidewalks, and on-street parking. These are all features promoting more pedestrian use of the area.









Southwest Blvd. Link

Southwest Blvd. - Inner Dispersal Loop District

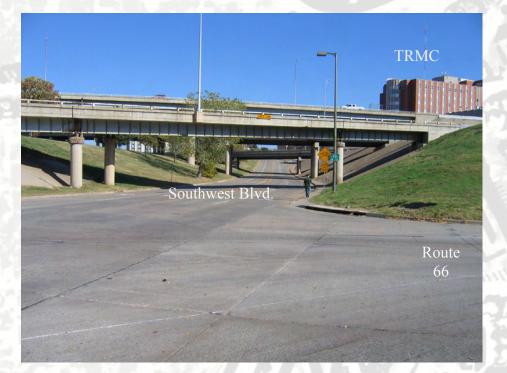
One of the biggest influence on growth and shape of Tulsa after the Second World War was the automobile. Like many of the cities during that time, urban sprawl was occuring and the effects added to the disruption of growth in Tulsa. Multiple expressways were established linking the core of the city to the suburbs and thus creating controversy as neighborhoods were diivided and isolated areas were formed. The inner dispersal loop is an example of this phenomenon in many ways, and this stretch of road is an example of the isolation that occurs when vast amounts of concrete are used in building such structures. Although used some, the sidewalk lining Southwest Blvd. to the River is very underutilized and the potential as a vital link to the major attractions on the River should be revisited.

Upper Left: A vast concrete wall separates TRMC, the expressway, and the sidewalk. It is an unappealing walkway to and from the CBD and the River.

Upper Right: Terraced waterfall feature that will be visible from both the interstate system as well as the street level. Not only will this make the walk to and from the River more appealing, the water feature will be an atraction itself.

Lower: Rendering of the area from the top of the proposed water feature below Tulsa Regional Medical Center. Note the on-street parking allowing parking for those visiting the water attractions as well as providing a buffer for pedestrians. Modern lights with banners spaced close together will provide lighting throughout the area for more secure evening walks.







Expressway Highway

Southwest Blvd. Link

Southwest Blvd. - Route 66 Intersection and Gateway

With the proposed Route 66 attractions coming soon, a prominent gateway from the IDL will be necessary. Currently unattractive to pedestrians and vehicular traffic alike, a change in design is necessary both to and from the River attractions. With the incline change of 30 to 40 feet it is necessary to soften the walk with perception changes. Terracing and heavy landscaping can achieve this to some extent and that has been attempted here.

Upper Left: Southwest Boulevard viewed from the intersection with Route 66 (12th Street). Note the wasted space below the interstate which could be utilized to enhance the appeal for pedestrian traffic.

Upper Right: Rendering of a similar view with heavy landscaping and road narrowing with emphasis on wide sidewalks. and pedestrian appeal Street features including a Route 66 road emblem as well as modern lighting with banners

Below: Aerial rendering demonstrates the relationship to the inner dispersal loop and interchanges at the site. Tree lined roads soften the harshness of the concrete surrounding the freeways. Wide, attractive sidewalks add to the aesthetics and the pedestrian emphasis in the area.









Southwest Blvd. Linkage

Route 66 Gateway Southwest Blvd.- Riverside Drive Intersection

Soon to be a prime destination site on a national level, the attractions at Southwest Blvd. and Riverside Drive will serve as an anchor for riverfront development. The projects in the vicinity of the Cyrus Avery Route 66 Memorial Bridge will create an instant attraction/destination that has the ability to inspire, impress, and educate the public, as well as attract enthusiasts and locals alike.

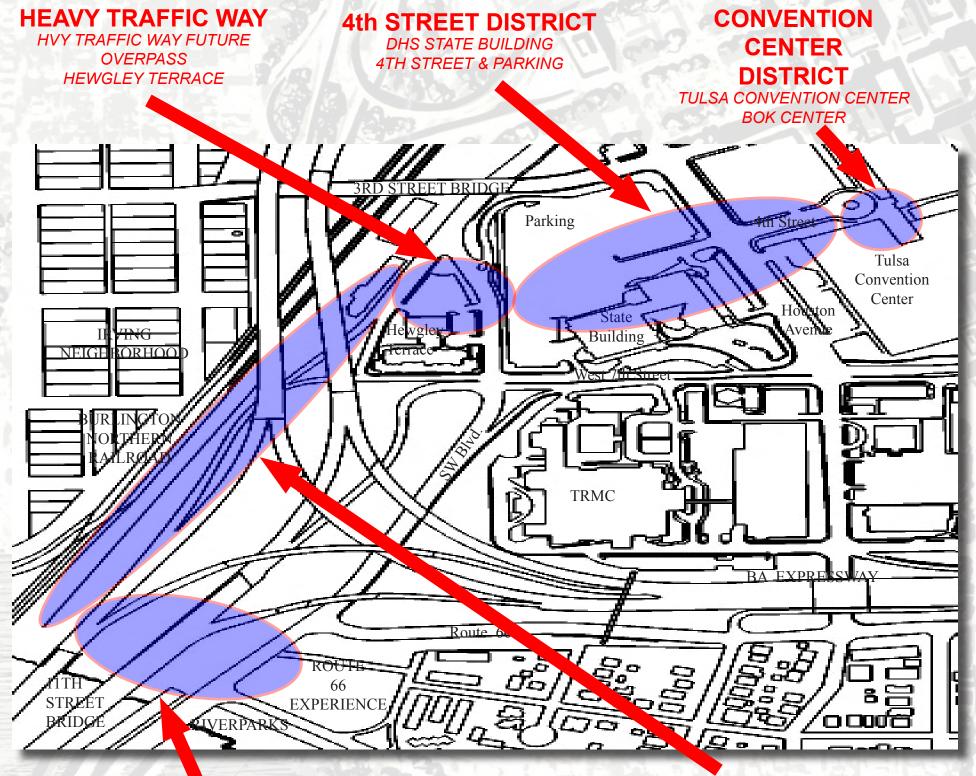
Upper Left: Current view from the southwest corner of Southwest Blvd. and Route 66 intersection. The IDL is in the background.

Upper Right: Similar view with the proposed Cyrus Avery Centennial Plaza in this rendering located at the northeast end of the Cyrus Avery Route 66 Memorial Bridge. The purpose of the plaza will be to acknowledge and commemorate the contribution made by Cyrus Avery to the early development of Tulsa and his involvement in the alignment and construction of Route 66. A larger than life bronze sculpture will honor the "Father of the Mother Road" at the site.

Below: The Route 66 Xperience will be located on the northeast corner of Riverside Drive and Southwest Blvd. and will become a major tourist destination. The first floor of the proposed three story building will contain approximately 15,000 square feet of exhibit area and will house various interactive exhibits themed toward Route 66. The second floor will be more informational and educational with administrative offices. The third floor will contain approximately 6,000 square feet used to house a restaurant.







IDL PARK

RIVERPARKS AND TRAILS RT. 66 EXPERIENCE CYRUS AVERY PLAZA CYRUS AVERY BRIDGE

IRVING NEIGHBORHOOD RAIL CORRIDOR

IRVING NEIGHBORHOOD RAILROAD BURLINGTON - NORTHERN RAIL

Fourth Street Pedestrian Linkage

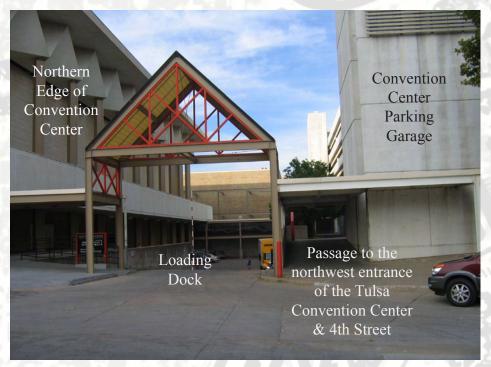
Street Districts

At approximately 0.6 mile in length, this linkage is one of the more intriguing of all and one of the most difficult to imagine. With the inner dispersal loop being a significant barrier in connecting downtown, this path serves as an important attempt to bridge this massive obstacle known as the IDL. Designed primarily with the automobile in mind, thie IDL unfortunately separated historic neighborhoods from the downtown area and over the years has become a psychological barrier as well as the obvious physical barrier it creates. A good design attempt may be able to overcome these barriers and again connect Tulsans and visitors to adjacent neighborhoods and the River.

With a gateway at the Convention Center, this primarily pedestrian link will encourage convention attendees as well as locals to take a direct path to the River by way of a carefully designed foot path in the area of the original Fourth Street. It will pass just north of the State Office Complex and cross over Heavy Traffic Way to connect alongside the Burlington Northern Rail corrridor and Irving Neighborhood. From this area, the connection will include walkways under the IDL on the north and the south and will eventually end in the area of the Route 66 attractions.

Although a bold idea, this area is essential in improving the area under the interstate, as has been accomplished in multiple freeways in the U.S., as well as bridging the gap between the CBD and neighborhoods to the west and also the Arkansas River.









Convention Center - 4th Street Gateway and District

As discussed earlier, thousands attend conventions yearly in cities throughout the U.S. With the completion of the BOK Center and renovation of the Tulsa Convention Center, the number of individuals attending events in the Central Business District will swell. Many of these individuals will be without transportation and will desire to see new cities by foot. Currently, attractions at the River are not accessible by walking and therefore one cannot expect crowds attending conventions and staying at downtown hotels to explore the destinations that the riverfront will have to offer. A gateway, of sorts, could be just the attraction the city needs to stimulate the curious to check us out.

Upper Left: Site of proposed gateway between the northern end of the Convention Center and the adjacent parking garage is now a loading dock with a small corridor to the northwest entrance of the Convention Center opening onto Fourth Street which was interrupted when the Civic Center was constructed.

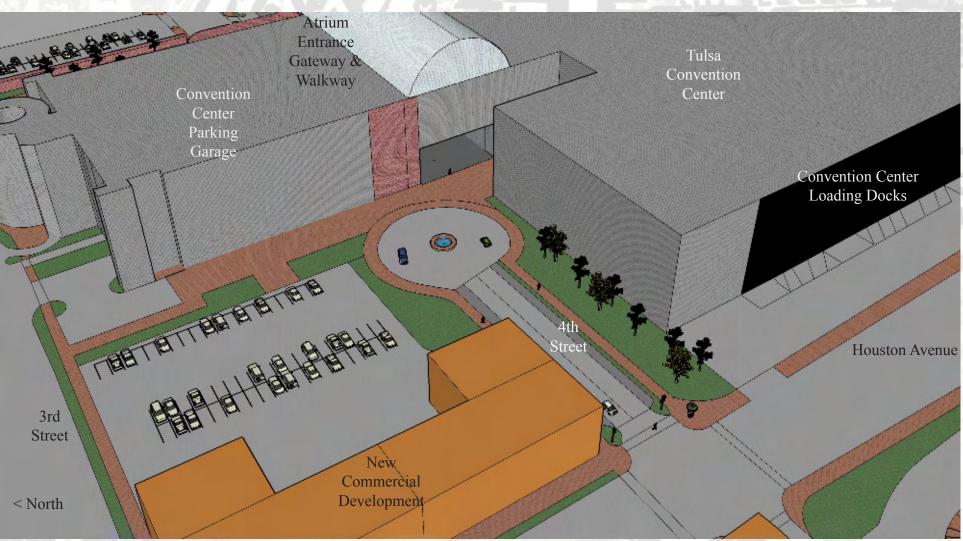
Upper Right: Rendering from the same perspective showing a more prominent gateway and atrium like corridor between the two structures.

Below: This perspective demonstrates the relationship between the new BOK Center, the Civic Center Complex, and the Tulsa Convention Center. From this vantage point, one can see the strategic location of a grand entrance to the northern end of the Convention Center for those attending events at the BOK Center, and what an opportunity exists to expand to the more isolated west side of the Convention Center, thus creating a new area to explore for visitors, employees at the Civic Center, and others from the Central Business District.









Convention Center - 4th Street West Side Houston Avenue

Besides a north side entrance and surface parking, the area west of the Convention Center has been somewhat isolated from activity on the east and from the primary entrance on the south. Fourth Street east or west of Houston turns into parking spaces, and use as a pedestrian corridor has all but ceased, although its original path runs through the heart of much activity. This new proposal regenerates this path and will expand its use to connect not just the heart of Tulsa, but eventually the riverfront as well.

Upper Left: The present view of the north entrance of the Convention Center and the parking structure attached.

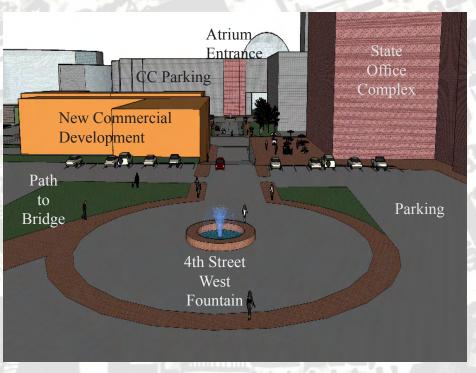
Upper Right: New rendering of the 4th Street connection to the previously created gateway proposal. Note the relationship and slight deviation to the south that the atrium corridor will have with the existing path of 4th Street.

Below: Aerial rendering showing the relationship between the proposed new atrium entrance/gateway and 4th Street on the west. This view is looking southeastwardly and shows new commercial development where current surface parking exists. These structures could house restaurants and shops as well as other services. Parking would be in the rear, and if necessary garage parking could be incorporated in the structure.

The State Office Complex is just west of this structure and services could be provided for these employees in these buildings as well as patrons attending events and Civic Center workers.









State Office Complex

Across Houston Avenue west of the Convention Center is the sprawling DHS State Office Complex. Surrounding an attractive building are four massive surface parking lots. Fourth Street is integrated into the parking areas and essentially ceases as both a vehicular pathway as well as a pedestrian route. This proposal resurrects this pathway at its entrance from Houston Avenue and maintains it to the edge of the property where it becomes a pedestrian path only in the form of a bridge over Heavy Traffic Way.

Upper Left: This photo was taken on the far western edge of the State Office Complex parking lot looking down the original path of 4th Street towards the Convention Center in the distance. The area around the central buildings is dominated by vast surface parking lots.

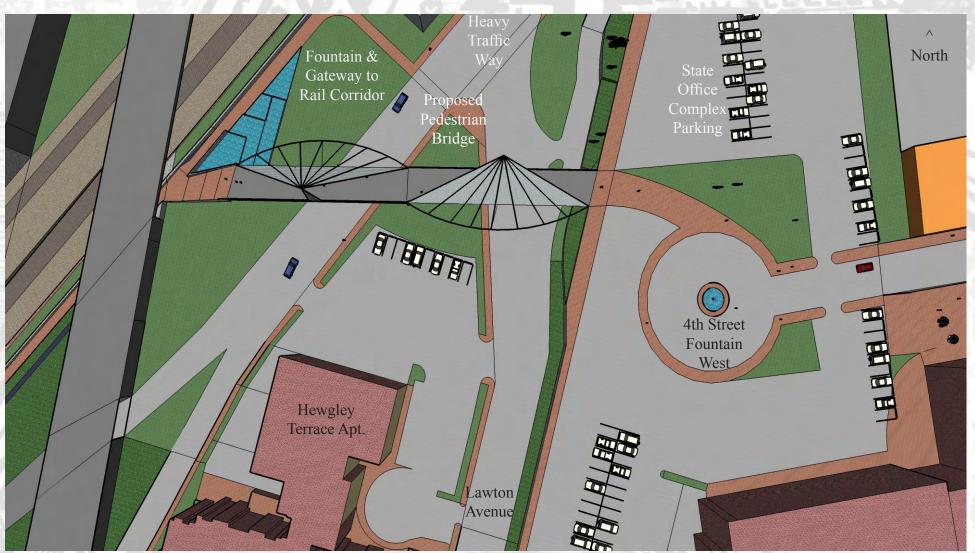
Upper Right: Rendering of the proposed resurrection of 4th Street through the State Office Complex parking lot. Note the proposed new commercial development structure along the corridor. If parking is truly needed, the creation of a parking garage could be incorporated in the structure.

Below: Aerial rendering of the entire length of the proposed resurrection of the vehicular and pedestrian 4th Street corridor. Emphasis will be heavily on the pedestrian as the walkways will extend onto a pedestrian bridge on the west on its path to the Arkansas River frontage.









Heavy Traffic Way and the Pedestrian Walk

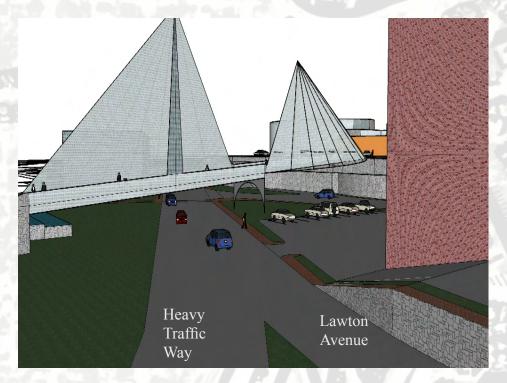
The edge of the State Office Complex is quite steep dropping around thirty feet in some locations. Below is Heavy Traffic Way which when continuing south bound becomes a ramp to the interstate beyond. Because of the steep incline and the difficulty in crossing the triangular intersection of Lawton Avenue and Heavy Traffic Way, an iconic bridge for the area is proposed. This will allow a continued, gently sloping trek to the eventual destination on the River.

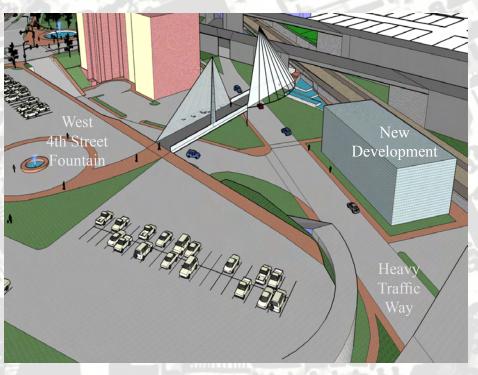
Upper Left: View from the north looking south towards Hewgley Terrace on 7th Street. Note the triangular intersection of Heavy Traffic Way and Lawton Avenue.

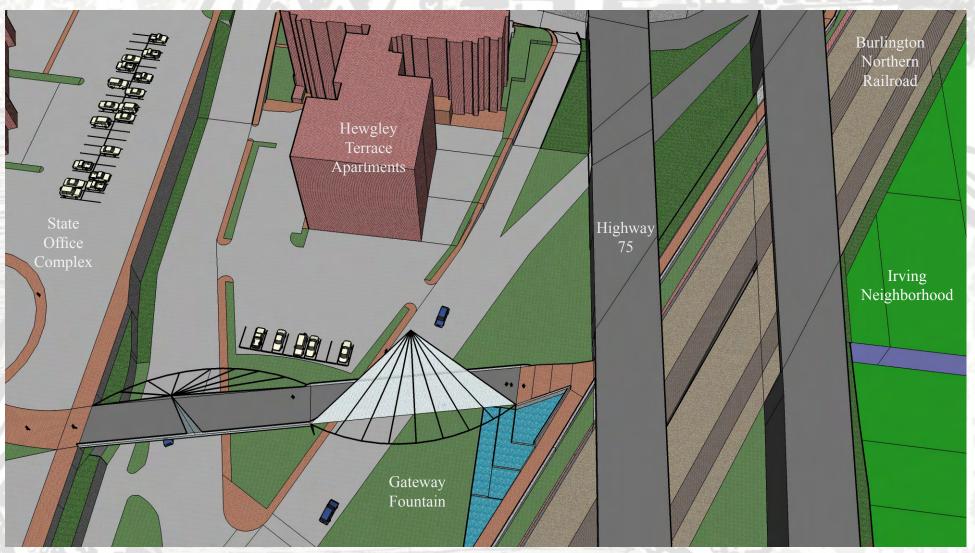
Upper Right: Proposed extension of the 4th Street Pedestrian Link with the construction of the 4th Street Pedestrian Bridge.

Below: Aerial rendering showing the relationship between the west fountain on 4th Street and the extension of the path via a proposed pedestrian bridge. The bridge will span the confluence of Lawton Avenue and Heavy Traffic Way just north of the Hewgley Terrace Apartments. The opposite end of the bridge will open near the rail corridor before making a sharp turn southwest towards the River. A fountain feature will mark this change in the pathway and improve the aesthetics of the area. This will require the razing of two vacant buildings in the area along the western side of Heavy Traffic Way.









Pedestrian Bridge District

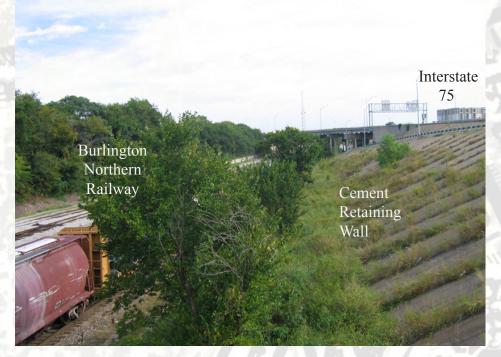
Constructing a bridge will overcome the abrupt drop off on the edge of the State Office complex and span the wide triangular intersection of Lawton Avenue and Heavy Traffic Way. This will provide easier access to the pedestrian rail corridor beyond. With this established, this gives us an additional opportunity to transform the bridge and surrounding area into an attraction itself. What previously was a blighted area could become a more popular destination for the surrounding businesses and neighborhoods.

Upper Left: View from the southwest looking northeast towards the proposed bridge. This modern cantilever-style bridge has the appearance of two large sails in opposite directions which represent a ship's journey in the water - in this case, both directions to and from the CBD and the River.

Upper Right: Distant view in this rendering from the northeast looking southwest. Note the new development adjacent to the western end of the proposed bridge.

Below: Aerial view of the bridge at the western end of the structure. A water feature serves as a gateway as well as a rest stop along the path. By increasing activity in the area, security will improve and hopefully more development will ensue.









Pedestrian Rail Corridor

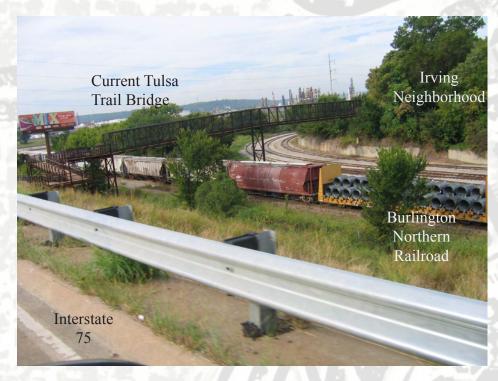
Not only did the creation of the inner dispersal loop divide and isolate neighborhoods from each other, the expansion of the rail lines and right-of-way regulations added to the division. Eight lanes of interstate and up to four sets of tracks are ominous obstacles to overcome and creates a difficult design challenge. Tulsa has seemingly forgotten these areas, and the adjacent land and neighborhoods continue to fall into disrepair and many times are abandoned. Designing a more attractive connection between these areas and overcoming both the physical and psychological barriers are necessary if Tulsa is to continue to be the progressive city we all desire.

Upper Left: The space between the interstate and the Burlington-Northern Railway as viewed today, overgrown and in disrepair. This view is looking northeasterly towards downtown before passing under the IDL adjacent to the Irving Neighborhood.

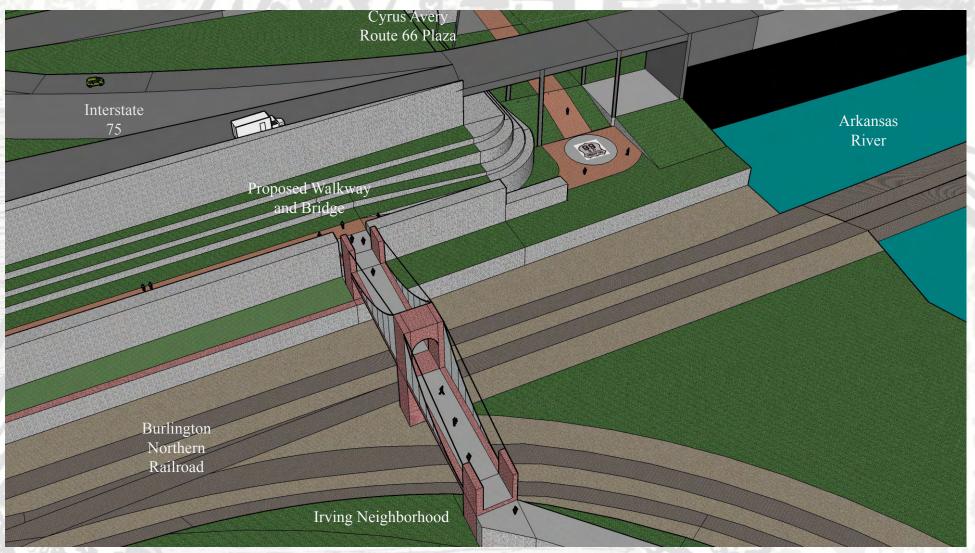
Upper Right: A similar rendering view of the same area with terraced, well maintained right-of-way, and with a protected pedestrian path.

Below: Larger aerial view of the area looking northeasterly towards Downtown Tulsa. Again, note the raised retaining walls and land-scaped terraces protecting the pedestrian on this important segment of the path. The path will end at an attractive pedestrian-friendly bridge once again attempting to connect the isolated Irving Neighborhood to the east and to Downtown Tulsa.









Irving Neighborhood Bridge

Irving neighborhood is one of the oldest and most architecturally diverse residential neighborhoods in Tulsa. The Washington Irving Elementary School (1909), now inactive as a school, is a longtime neighborhood landmark along the eastern boundary and thus the neighborhood name. As the city grew, the interstate grew, and the neighborhood became more and more isolated from the Central Business District. Many of the homes have fallen in disrepair and/or have been abandoned. This project will attempt to provide an improved connection to the neighborhood and hopefully create a more favorable place to live.

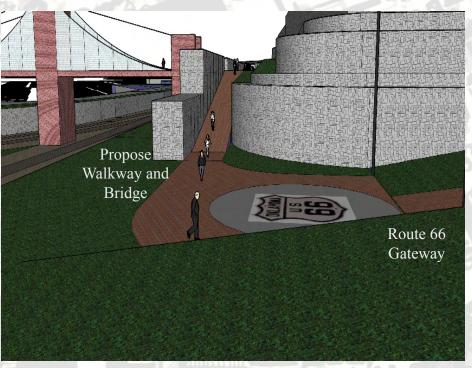
Upper Left: The separation of tracks at the southwestern tip of the Irving Neighborhood below the existing trail bridge is noted in this photo taken from the interstate. The configuration of the rail system and the IDL have compromised the area next to the River to an unusable state.

Upper Right: A new, more attractive suspension-style bridge will improve access to the proposed rail corridor walkway and give a more direct route to the Route 66 attractions and an easier indirect route to the western core of the Central Business District along 4th Street.

Below: Aerial rendering of the area demonstrating the relationship between the edge of Irving Neighborhood and the proposed rail corridor walkway to the Route 66 attractions. It becomes imperative that the city work with rail official to make the area more habitable for the pedestrian. Future consideration to relocate the railway and the interstate should be entertained.









Avery Bridge and Plaza Gateway

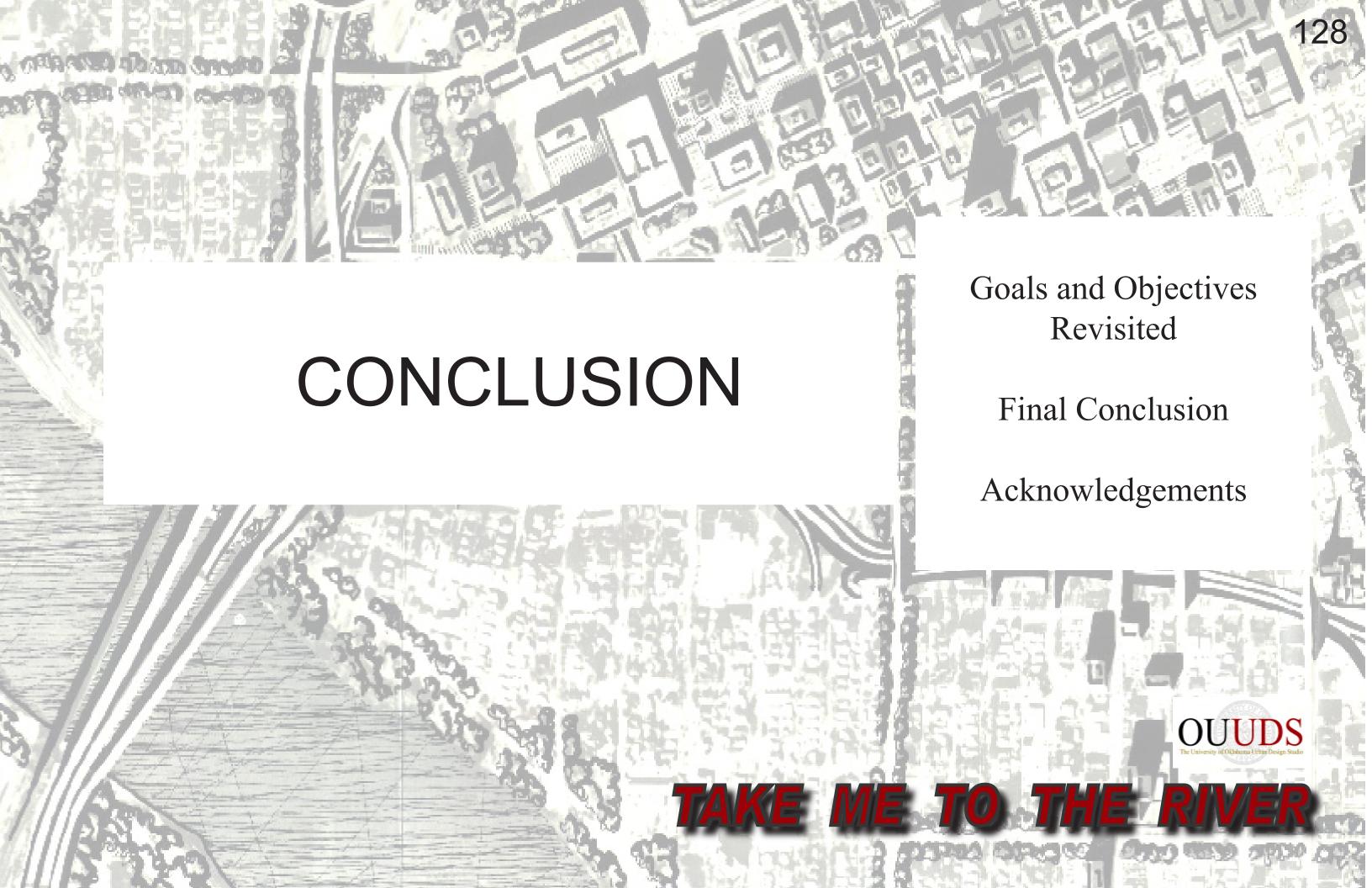
As the pedestrian leaves the proposed pedestrian bridge and embarks on the newly designed walkway, there is a gentle decline as one approaches the interstate underpass. A gateway feature celebrating Route 66 is proposed with signage and walkway etchings. A well lighted underpass will connect the neighborhoods once again and hopefully promote an expanded feel for the River Parks. Walkways will need to be designed such that both pedestrians and cyclist are well accommodated.

Upper Left: This photograph was taken looking northeasterly up the rail corridor. Note the current trail bridge to Irving Neighborhood in the background. This is a narrow steel structure with frequent sharp turns.

Upper Right: This rendering demonstrates a gradual incline to a free flowing bridge structure that becomes easily accessible and pleasing to the pedestrian and cyclist.

Below: Overall relationship with the proposed walkway and the Cyrus Avery Route 66 Memorial Bridge and Plaza is shown in this rendering. Wide walkways for the tourist to meander could be designed appropriately, and designated bike and jogging paths could be included in this expanded pathway.

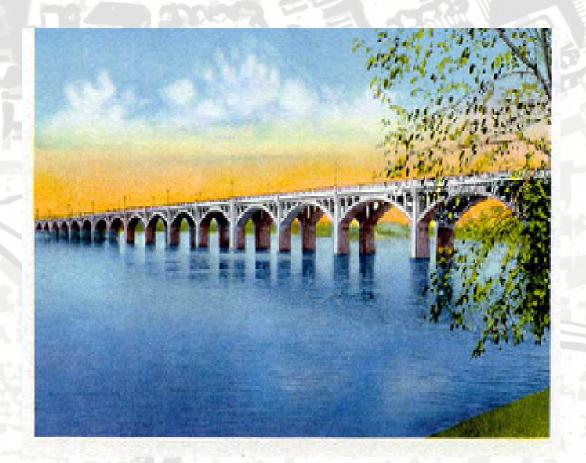




Conclusion

Goals and Objectives Revisited

At the beginning of this project, goals and objectives were identified and were well received by the urban designers at the studio. These goals are now revisited and some examples of some of the design solutions that were created are listed.



OUUDS TAKE ME TO THE RIVER

1. Reestablish both physical and visual access to and from the CBD to the Arkansas River front.

- Well defined linkages have been created (Denver Avenue, Houston Avenue, Southwest Boulevard, 4th Street Pedestrian Walkway)
- Attempt to design structures that are more visible and attractive to patrons as they travel from the CBD to the River (i.e. Riverside Gateway structures, 4th Street Pedestrian Bridge, SW Blvd. Gateway)
- 2. Reinforce connections between involved neighborhoods, business and entertainment districts, downtown pedestrian systems, river trails and park system, and future downtown riverfront attractions.
 - Attempt to bridge the disconnection between neighborhoods (i.e. Cherry Street on Peoria Avenue and 15th and Denver Avenue, Irving Neighborhood and the CBD)
 - Connect pedestrian walkways with the River Parks trail system (i.e. SW Blvd and the River Park Trails, 4th Street Pedestrian Trail and River Parks)

3. Reactivate unused areas along these linkages.

- Attempt to design new pathways that have long been abandoned (i.e. 4th Street Pedestrian Walkway, SW Boulevard below IDL).
- Redesign abandoned buildings and properties for future development (i.e. properties along Heavy Traffic Way and Burlington Northern Railway)

4. Overcome longtime physical, social, political, and psychological barriers to river access.

- Recommend working with various private and public entities to overcome design restrictions in areas of Tulsa that have not been properly developed for multiple uses by the citizens (i.e. overcome ODOT restrictions for development under and around freeway systems similar to many states especially on the West Coast, overcome barriers to developing along railroad right of ways)
- Design pathways to the River that have easier access and are not so physically challenging (soften incline by visual modalities such as SW Blvd, diminish incline by the use of pedestrian bridges such as the proposal at Riverside Drive and the 4th Street Pedestrian Bridge)

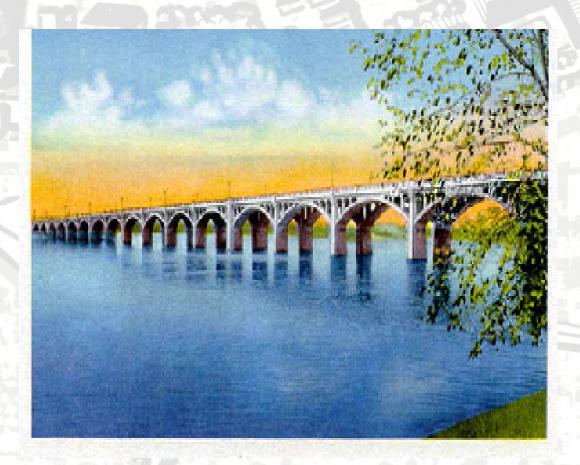
5. Create mixed use areas along the corridor connections.

- Recommended several locations along the four linkages for development including mixed use type (i.e. 15th and Denver, 11th and Houston, Heavy Traffic Way)
- Incorporate parking garage above commercial storefronts

Conclusion

Goals and Objectives Revisited

The remaining goals and objectives that were created at the early stages of this project are presented here. Included are a few of the ideas generated by the process pertaining to the goals with a few examples that are included in this project.



TAKE ME TO THE RIVER

6. Revitalize the historic and cultural character of the relationship between the River and Downtown Tulsa (oil industry, railroad, Route 66, etc)

- Capitalize on the diverse history that surrounds the areas around the chosen connections (i.e. Route 66 at both Denver and Houston)
- Revitalize some of areas adjacent to areas known for their own urban culture (!5th and Denver and its relationship with Cherry Street area around Peoria, the Arkansas River development along Riverside Drive)

7. Reduce the environmental impact to the area

- The tendency to clean up waterfronts should be approached carefully so that the rich underlying values are not unnecessarily sacrificed. Shoreline beautification efforts will help stabilize river banks and create more wildlife habitats.
- Preferences for uses that require access to water are important, even if they are somewhat unsightly.

8. Distribute traffic flow, design a street and block plan with some controls where development occurs, and plan a parking strategy.

- An attempt to bring forth techniques for slowing traffic and design streets that are pedestrian friendly. (Lane reduction along parts of Denver and Houston link)
- Design streets that take into consideration all users and that are aesthetically appealing (bike paths along SW Blvd and Denver, bury all utility lines where possible as suggested in project)

9, Create a destination for Tulsans and tourist alike and explore both active and passive uses of the corridor.

- Develop new attractions along the corridors at strategic sites and create new uses of previous abandoned or unused areas (new development and bridge at Denver and Riverside Drive, new bridge a 4th Street and Heavy Traffic Way)
- Create passive pathways and parks along the corridors between major destinations (Houston tree lined corridor, fountains along SW Blvd.)

10. Make the plan authentic for Tulsa.

- a. Well marked river linkages will be created with associated unique districts (i.e. Riverside and University Club Tower Districts along Denver, Convention Center and Irving Neighborhood along 4th Street Link.)
- b. Create one of a kind nationally known destinations (Route 66 Xperience, Riverside Gateway and Tower with pedestrian bridge to the West Bank Festival Park)

One of the hallmarks to the success of the CBD and River projects is the ability of the public to access these areas. In this design research project, an attempt has been made to demonstrate the importance of developing linkages and to use various urban design disciplines and appropriate technologies to encourage a system of sustainable growth and operation. In this research project, an attempt was made to study Tulsa's history with emphasis on urban planning tendencies the past one hundred years. Also, case studies involving other waterfront cities were explored with emphasis on their relavence to Tulsa's development. After researching the true significance of the project, a thorough survey and analysis of the area was performed followed by an assessment and plan for the area.

Thereafter, each linkage was explored with examples of graphic designs of the areas using photographs, CAD files

and the three dimensional conceptual design program known as Sketch-Up.

Concluding, it has become apparent that Downtown - Waterfront development should be long range and comprehensive and should include all relevant design disciplines in a holistic manner. Community involvement is essential in these projects and should begin early and be continuous. This type of development is not just about economic development, recreational development, design questions, or environmental issues. Instead, this project is a fusion of these and other related disciplines that should be pursued. Additionally, it is apparent that Tulsans should think longterm and resist the understandable desire to achieve instant results. Development over time allows a richness of character in contrast to the sameness of a one-time "big bang" approach. Linkages should involve partnerships between the public and private sectors and the energy of Tulsa's citizens. A diversity of uses along the linkages should be sought including vibrant commercial attractions to passive public parks. People of all income levels and cultures should feel welcome with day and night activities provided. Distinctive places for all ages should be created and should include and celebrate Tulsa's history, culture, and art.

Finally, this project, focusing on linkages between Downtown Tulsa and the Arkansas River waterfront, is about unique places - where land meets water and where Tulsa's history began. It includes dynamic places as well as abandoned or underused areas. Tulsan should be encouraged to give careful consideration to aim for distinctivenness as we undertake the challenge of connecting Tulsa's Central Business District to the Arkansas River waterfront.

Conclusion

Linking Tulsa's Central Business District to the Arkansas River Waterfront





Attoe, Wayne and Donn Logan. <u>American Urban Architecture: Catalyst in the Design of Cities.</u> Berkley, Los Angeles, and London. University of California Press. 1989.

Barnett, Jonathan. Redesigning Cities. Chicago: American Planning Association, 2003.

Booth, Colomb, Joseph Williams. The Craft of Research. Chicago and London: The University of Chicago Press, 2003.

Breen, Ann, and Dick Rigby. The New Waterfront: A Worldwide Urban Success Story. New York: McGraw-Hill, 1996.

Congress for New Urbanism. Charter of New Urbanism, New York: McGraw-Hill, 1999.

Codrescu, Andrei. Hail Babylon! In Search of the American City at the End of the Millennium. New York: St. Martin's Press, 1998.

Duerk, Donna. Architectural Programming. New York: John Wiley and Sons, 1993.

Fisher, Gordon, Holst, Krieger, Mcwilliam, Rafferty, and Emma Schiffman. Remaking the Urban Waterfront. Washington, D.C., 2004.

Florida, Richard. The Rise of the Creative Class and How Its Transforming Work, Leisure and Everyday Life. New York: Basic Books, 2000.

Goble, Danney. Tulsa! Biography of the American City. Tulsa: Council Oaks Books, 1997.

Garreau, Joel. Edge City: Life on the New Frontier. New York: Doubleday, 1992.

Hudnutt, William. Cities on the Rebound. Washington, D.C.: Urban Land Institute, 1998.

Lynch, Kevin. Image of the City. Cambridge, MA: MIT Press, 1960

Marshall, Richard. Waterfronts In Post-Industrial Cities. London: Spon Press, 2001.

McHarg, Ian. Design With Nature. New York: John Wiley and Sons, 1992.

Pelli, Cesar. Sections Through a Practice: Cesar Pelli and Associates. Germany: Hatje Cantz Verlag, 2004.

Remaking the Urban Waterfront. Chicago: Urban Land Institute. 2004.

Urban Design Associates. The Urban Design Handbook. New York: W.W. Norton. 2003.

Bibliography Books





Barber, Brian. "Walk to Tie City's Projects Together." Tulsa World 25 Dec 2005: Front Page.

Burden, D. and Lagerwey, P. "Road Diets: Fixing the Big Roads", Walkable Communities, Inc., March 1999.

Carter and Burgess. "Arkansas River Corridor Master Plan, Phase I Vision Plan". August 2004.

Dewberry, Howell and VanCuren, Littlefield. "Vision 2025 Route 66 Enhancements and Promotion Master Plan of Development". July 2005.

Huang, H.F., Stewart, J.R., and Zegeer, C.V. (2002) Evaluation of lane reduction "road diet" measures on crashes and injuries. In "Transportation Research Record: Journal of the Transportation Research Board", No. 1784, TRB, National Research Council, Washington, D.C., 2002, pp. 80-90.

"Jenks Mayor Receives Honor" Oklahoma Cities and Towns." Oklahoma City: September 2005.

Joint Task Force of the Metropolitan Tulsa Chamber of Commerce and Downtown Tulsa Unlimited, "Central Tulsa - A Plan for Action." Tulsa, OK. 1974.

Krieger, Alex. "Waterfronts", Preservation Magazine, February/March 2000.

Lassek, P.J. "Tulsa's High and Dry." Tulsa World, 31 May 1999: Page A17 of Focus.

Li, W. and A. Carriquiry. "The Effect Of Four-lane To Three-lane Conversion on the Number of Crashes and Crash Rates in Iowa Roads." Iowa State University Department of Statistics for the Iowa Department of Transportation, June 2004.

MacLeod, Kimberly. "VisionTulsa 2025." VisionTulsa 2006. Tulsa City Council. Tulsa, OK: Spring 2006.

Mayor's Vision Summit - Tulsa 2002, City of Tulsa, 13 August 2002.

McElroy, Monty. "Riverview Neighborhood Plan." Oklahoma University Urban Design Studio. Tulsa, OK: Spring 2003.

Olmstead, Roberta. "Tulsa - 50 Years Arterial Street Beautification Plan." Oklahoma University Urban Design Studio. Tulsa, OK: Spring 2002.

Project for Public Spaces. "The Chattanooga Riverpark: Transforming a City and its Economy". 22 July 2005.

"Restoring Tulsa – Vision 2025." Oklahoma University Urban Design Studio. Tulsa, OK: Spring 2004.

River Parks Consultant Group. "River Parks Project." Tulsa, OK. 3 Sept 1975.

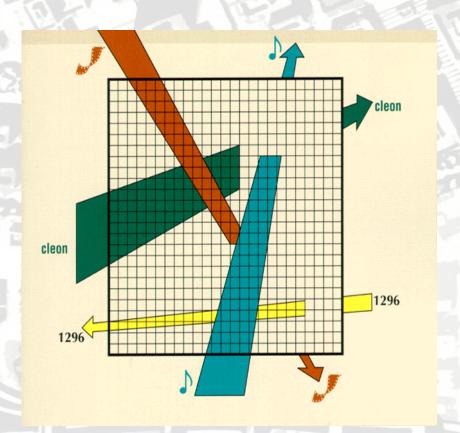
Stout, T. "Before and After Study of Some Impacts of 4-lane to 3-lane Roadway Conversions." Iowa State University/Center for Transportation Research and Education for the Iowa Department of Transportation, March 2005.

Teague, Mike. "Tulsa Climate." VisionTulsa2005. Tulsa City Council. Tulsa, OK: Spring 2006: Volume3.

Transportation Research Board (TRB). "Statistical Methods in Highway Safety Analysis: A Synthesis of Highway Practice." National Cooperative Highway Research Program (NCHRP) Synthesis 295. National Research Council, Washington, D.C., 2001.

Bibliography

Periodicals, Magazines and Other Publications





American Rivers. www.americanrivers.org, Fall 2005.

Charlotte Urban Street Design. www.charmeck.nc.us, Spring 2005.

City of Cincinnati. "Master Plan Riverfront", www.cincinnati-oh.gov/cityp-arks 24July2005.

City of Oklahoma City, www.okc.gov, Fall 2005.

City of San Antonio Planning Department, www.sanantonio.gov/planning, Fall 2005.

City of Tulsa. "Tulsa Streets – Traffic Counts" www.cityoftulsa.org/CityServices/Streets, Spring 2006.

Concord Pacific Place, www.concordpacific.com, Fall 2005.

Downtown Tulsa Unlimited. www.tulsadowntown.org, Fall 2005.

EcoCity Cleveland. "Principles for Waterfront Development." www. ecocitycleveland.org, 25July2005.

Federal Highway Administration. www.fhwa.dot.gov, Spring 2005.

Google Earth, www.googleearth.com, Fall 2005.

Harbour Front Centre, www.harbourfrontcentre.com, Fall 2005.

INCOG. www.incog.org, Fall 2005.

Jenks Chamber of Commerce. www.jenkschamber.com, Fall2005.

Local Government Commission. "Center for Livable Communities." www. lgc.org, Spring 2006.

Memphis Riverfront. "The Vision – Reunite the City with the River." www. memphisriverfront.com 1July2005.

MSN Encarta. wwwencarta.msn.com, Fall 2005.

National Geophysical Data Center. www.ngdc.noaa.gov, Fall 2005.

National Weather Forecast Office – Tulsa Office. www.srh.noaa.gov/tsa/staff.html, Fall 2005.

New Mexixo Bureau of Geology and Mineral Resources, www.geoinfo.nmt. edu., Fall

Oklahoma Department of Wildlife Conservation. www.wildlifedepartment.com, Fall 2005.

River Parks Authority of Tulsa. www.riverparks.org., Fall 2005.

See Vancouver, www.see-vancouver.com, Fall 2005.

St. Louis Chapter of NRH. www.stlouisnrhs.org/pastevent/sananton2002/sananton2002, Fall 2005.

Strategic Consulting International. www.scigis.com, Fall 2005.

"The Chattanooga Riverpark: Transformig a City and its Economy." Project for Public Spaces, www.pps.org, Fall 2005.

The Waterfront Center. "The Waterfront Manifesto". 1July2005. www.waterfrontcenter.org.

Toronto en espanol, www.torontoenespanol.com, Fall 2005.

Tulsa City-County Library. "Tulsa Floods." www.tulsalibrary.org/govdocs/flood.pubs, Fall 2005.

Tulsa Convention Center. www.tulsaconvention.com, Fall 2005.

Tulsa Historical Society, www.tulsahistory.org, Fall 2005.

Tulsa Preservation Commission. www.tulsapreservationcommission.org/history, Fall 2005.

Tulsa Transit. www.tulsatransit.org. Fall 2005.

University of Oklahoma Urban Design Studio. www.tulsagrad.ou.edu/studio, Fall 2005.

Urban Land Institute. www.uli.org, Spring 2006.

U.S. Census Bureau. www.census.gov, Fall 2005.

Vision 2025, www.vision2025.info, Fall 2005.

Wikipedia. www.wikipedia.org, Fall 2005.

Bibliography Web Sites





Page, Kathleen. Architect and Master Planner for Tulsa Centennial Walk Project, Consynsus. Personal Meeting. 22July 2005.

Vision 2025 Route 66 Design Recommendation Committee. Discussion with Members. 9September2005.

OU Urban Design Students. Professors Schaefer and Butzer. Presentation and Discussion. 15October2005.

OU Urban Design Students. Professors Schaefer, Randle, and Butzer. Presentation and Discussion. 3December 2005.

Page, Kathleen. Architect and Master Planner for Tulsa Centennial Walk Project, Consynsus. Personal Meeting. 10February 2006.

Butzer, Hans. Assistant Professor of Architecture and Urban Design, Personal Meeting. 24March 2006.

Vision 2025 Route 66 Design Recommendation Committee. Discussion with Members. 31March 2006.

Bibliography Meetings Interviews and Discussions





Thanks to

Professor Shawn Schaefer and the OU Urban Design Studio Graduate Students

Professors Hans Butzer and Roger Randle

Kathleen Page, Architect

Route 66 Design Recommendation Committee Members

Warren Clinic at Broken Arrow Family Medicine Staff

Special Thanks to

My Children Chase and Kayla

Mom and Dad (Sam and Martha Costner)

My Wife Patty

for their understanding and support.

"The future belongs to those who believe in the beauty of their dreams."
- Eleanor Roosevelt

Acknowledgements



The Costner Family at the historical Sheraton Moana Surfrider, the oldest hotel in Hawaii. Back row: Patty, Tom, Kayla, and Chase with Dad (Sam) and Mom (Martha).





This bridge was one of the keystones to the success of Tulsa. Built in 1904, it connected the oil fields of Red Fork to Tulsa on the east bank. It was built by Tulsa boosters and businessmen George Williamson, M.L. Baird, and J.D. Hagler with their own money, when the city told them there was no money in the fledgling city treasury for it. When they finished they put a sign on it that said, "You Said We Couldn't Do It, But We Did!" (The first permanent bridge built in Tulsa -1904: From ODOT - Spans of Time - www.okladot.state.)

"YOU SAID WE COULDN'T DO IT, BUT WE DID IT."

Unveiling plans for the future RANDY KREHBIEL World Staff Writer 10/28/2002

Tulsa World (Final Home Edition), Page A1 of News

Tulsans from a variety of backgrounds will present proposals for the city.

A lot of people have ideas about how to make Tulsa better.

Dr. TOM COSTNER is a physician who often wonders why he didn't become an architect or urban planner.

Patrick McPhee operates a chicken restaurant. Rabon Martin is an attorney. Ray McCollum is an engineer.

Michael Sager owns clubs. Jamie Jamison develops housing. Kathleen Page and Rachel Zebrowski are architects.

All will be among the presenters at Monday's Battle of the Plans, an unusual forum billed as a chance for ordinary residents to pitch their proposals for improving Tulsa. Sponsored by the group TulsaNow and moderated by KOTV news anchor Glenda Silvey, Battle of the Plans begins at 6:45 p.m. in the Allen Chapman Activity Center on the University of Tulsa campus.

"Monday is an opportunity for feedback," said TulsaNow's Wendy Thomas. "What we hope to do is add to the public dialog."

Battle of the Plans has no official sanction, although Thomas says it was prompted by Mayor Bill LaFortune's Vision Summit and LaFortune is scheduled to appear Monday. In fact, said Thomas, TulsaNow grew out of the city's inability to mobilize public support for quality of life improvements.

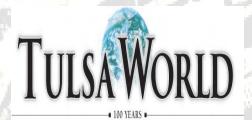
Following the Vision Summit, TulsaNow rather quietly put out requests for proposals. It expected to get a half dozen. It received more than 20.

Ten of those will be presented Monday night.

Some of the presenters, like Zebrowski and Page, are professionals. But at least as many are simply interested citizens.

Costner, his wife, Patty, daughter Kayla and son Chase put together their presentation, "The Tulsa Connection," based on their vacation experiences.

"We asked ourselves what would make Tulsa a place people would want to go -- and want to live," said Patty, a geriatric psychiatrist.





TOM COSTNER, with his wife, Patty, son Chase, 10, and daughter, Kayla, 13, pose with their entry for the Battle of the Plans forum scheduled Monday. JOHN CLANTON / Tulsa World

Thirteen-year-old Kayla likes the water and provided most of the artwork for the presentation. Chase, 10, likes the outdoors and contributed a model stadium and arena built with Lego blocks. Costner added his own ideas and put the pieces together.

"I've always been interested in cities," Costner said. "As a kid I was always drawing buildings. I wonder sometimes why I didn't become an architect."

The Costners focused on downtown and River Parks, with new and existing attractions connected by light rail, green spaces and trails. New buildings, such as an arena and signature towers at various locations, would incorporate contemporary Art Deco architecture.

Their plan also includes a new Route 66-themed city park centered on the old 11th Street Bridge and expansion and development of the West Bank River Parks.

"Costner readily admits his family's proposal is ambitious, but said he thinks the city needs to get moving. Growing up in Chandler, between Oklahoma City and Tulsa, he remembered Tulsa as "the gem." Now he and his family go to the other end of the turnpike for many activities.

We like living here, we just wish it was more exciting," he said.

Page, who belongs to a group called StreetLife, is also primarily interested in downtown and near downtown. Her presentation, with Sager, features the so-called Blue Dome District centered on an old blue-domed service station building that has been converted to Arnie's Bar at 318 E. 2nd St.

A number of thriving establishments have appeared recently, and Page said that could spark additional development.

"What we are going to present are some of the things that are going on, and how we can enhance the current momentum to create a lively downtown."

Not all of the presentations concern downtown. McPhee will speak on behalf of a group he helped organize, the Route 66 Business League of Tulsa. It wants to lure travelers off the interstates and onto 11th Street, the best-known of the various paths the famed highway took through the city.

"In doing my research, I found there's quite a bit of interest in Route 66 around the world, not just in the U.S.," said McPhee.

McPhee recommends "keeping the area nostalgic" by encouraging preservation of older buildings and architectural consistency with new ones. He said federal funds are available for some projects.

"It isn't something the people of Tulsa would have to do by themselves," he said.

McPhee said when he first heard about the Battle of the Plans, he "figured I needed to get involved like I needed a hole in the head." But the more he got into it, the more he became intrigued.

"We've got a piece of national history right here in Tulsa, and we don't play on it whatsoever." Other presentations Monday include C. Rabon Martin, attorney, "A 20/20 Vision of Tulsa"; Ray McCollum, engineer, "Arkansas River Development"; Ken Busby, Arts and Humanities Council of Tulsa, "Creative Use of the Arts"; Michael Steed, "Enrichment Plan for Tulsa: Oil Capitol of the World"; Mary Collins, Tulsa Zoo Friends, "Mohawk Park"; Rachel Zebrowsky, Zebrowsky Architecture and Planning, "Rooftops," and Jamie Jamison, Village at Central Park, "StreetLife."

Tulsa Dreaming Why am I Interested?

In 2002, after returning from a trip to the Great Northwest including Seattle and Vancouver, B.C., I was "surfing the Net" and came across a local website called TulsaNow. TulsaNow was formed by a group of citizens that were frustrated with Tulsa's failed attempts of revitalization and seeking support for quality of life improvements. Their "Battle of the Plans" was promoted as a way for the average citizen to express their views on plans to revitalize Tulsa. Having just visited some great cities ourselves, my family and I wondered why Tulsa, with its many geographical and natural assets, could not be like one of those many wonderful cities we had visited over the years. With the input of my 13 year old daughter and 10 year old son, as well as my wife, we put together the Tulsa Connection, an ambitious plan for revitalizing Tulsa. The process was great fun and to our surprise we were selected to present our plan at a citizen forum. We received multiple inquiries about our plans and afterwards, I was asked to participate in the Vison 2025 design process. Interestingly, some of our concepts have been incorporated in the Route 66 Master Plan and I have had the opportunity to serve on the Design Committee since 2003. Encouraged by my wife and friends, I decided to take it a step futher and enrolled in the OU Urban Design Studio in 2004. Radically different than my chosen profession as a family practice physician at Warren Clinic, the process has been a joy and it has been a way to channel my thoughts and energy for making Tulsa better into a more formal process. After all, if you are not part of the solution, you are part of the problem.

The brilliant Lewis Mumford in his 1961 book, *The City in History*, refers to the city in terms that draw from biology, medicine, and ecology. The city is an organism. It can decay or grow, disintegrate or progress, die or be reborn. He points out that in every organism, the anabolic and the catabolic processes - the constructive and the destructive - are constantly at work, suggesting that the life and growth of the cities depend not on the absence of negative conditions, but on a sufficient degree of equilibrium and sufficient surplus of constructive energy to permit continued repair.



