

Draft
May 26th, 2023

Aspen Landing

City of Broken Arrow

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An aerial photograph of a suburban landscape. A river flows through the bottom of the image. Residential areas with houses and streets are visible in the center and right. Commercial buildings and parking lots are in the top right. A highway runs along the top. The background is a mix of trees, fields, and developed land.

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Birdseye view of Indian Springs Sports Complex



View of soccer fields



View of a creek at the sports complex

Project Introduction

This project aims to provide a framework for increasing the utilization of the Indian Springs Sports Complex by attracting new visitors, and retaining existing visitors attending athletic events. Currently, the complex is primarily used on weekends for sporting events. However, due to the lack of a variety of activities at the park, spectators often leave Broken Arrow and take their business to neighboring cities. Therefore, the stakeholders goal is to construct a regional sports complex that not only attracts visitors and boosts the local economy but also benefits local residents by establishing a connected area that can be easily accessible by many forms of transportation. An additional aim is to create a more effectively used park that can cater to a wide range of groups throughout the year.

Project Location

The Indian Springs Sports Complex is situated in Broken Arrow near the southern end of Aspen Avenue, two miles south of the Creek Turnpike. Currently, it offers facilities for baseball, softball, and soccer. However, beyond these athletic activities, there are limited attractions in and around the park. Despite its close proximity to the river, visitors are unable to access or view it due to several barriers that separate the area from the waterfront. The park is intersected by a few streams, most notably the mouth of Haikey Creek, which runs parallel to the river.

Project Initiation

Every year, students at OU-Tulsa's Urban Design Studio select a service-learning project. The goal of this project is to provide students with an opportunity to learn about urban design using real-world projects, as well as provide something that may benefit the community. In early 2022, Shawn Schaefer, Director of the OU Urban Design Studio, was approached by Farhad Daroga, Placemaking Manager for the City of Broken Arrow, to study the Indian Springs Sports Complex, the Arkansas Riverbank, and Aspen Avenue from the Creek Turnpike to the park. This area has since been coined *Aspen Landing* and is the subject of this report.





Neighborhood exit from the sports complex



Retention pond for Haikey Creek



Golf course north of the Indian Springs Sports Complex

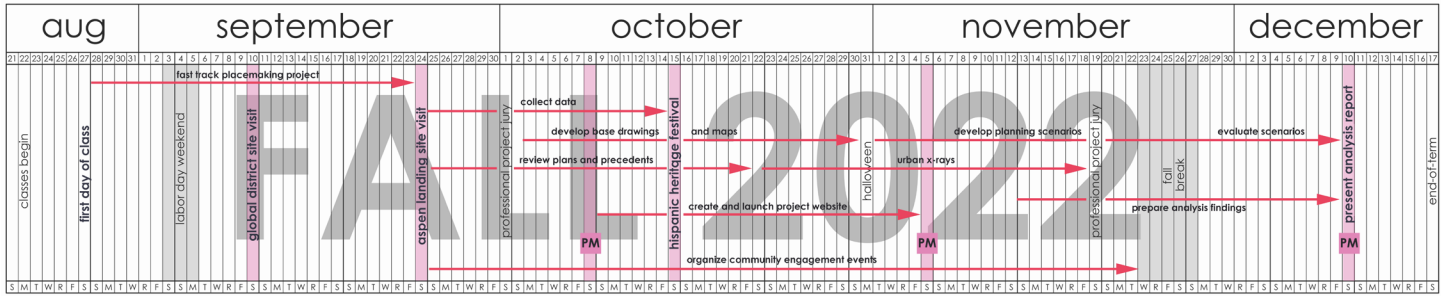


View of Creek Turnpike looking west

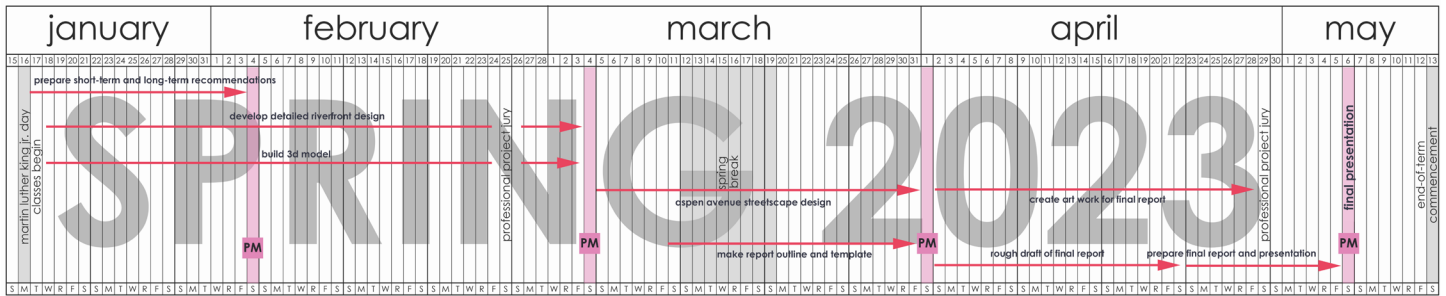


View of Arkansas River looking south

Project Schedule & Process



PM - Steering Committee Meetings



Project Schedule

This Urban Design Studio project was completed over the course of eight months, spanning across the fall and spring semesters of 2022-2023. The research and engagement stages of the project took place during the fall semester, while the design, execution, and delivery of the final document were carried out in the spring semester. You can see a graphic representation of the timeline in the bar chart above.

Research and community engagement included collecting data, developing base drawings, reviewing existing plans, organizing community engagement events, and analysing findings. Design and execution included preparing short-term and long-term recommendations, developing 3D models, finalizing designs, preparing the final report, and presentation.

Stakeholder Meeting Schedule

November 5, 2022

November 30, 2022

January 25, 2023

February 22, 2023

March 29, 2023

April 26, 2023

Stakeholders & Project Team

Steering Committee

The Steering Committee consists of people representing local government, business owners, local residents, and outside experts.

Farhad Daroga - Placemaking Manager at the City of Broken Arrow
Jill Ferenc - Interim Director of Community Development
Hon. Christi Gillespie - Vice Mayor, City of Broken Arrow
Phil Hink - Parks Superintendent, City of Broken Arrow
Lori Hill - Director of Tourism & Economic Development, City of Broken Arrow
Travis Kelly - General Manager of BA Youth Baseball
JoAnne Oxford - Resident near Indian Springs Sports Complex
Barbara Wilson - General Manager of Broken Arrow Soccer Club
Amanda Yamaguchi - Planning Section Manager, City of Broken Arrow

Consulting Team

The consulting team consists of faculty and graduate students from the University of Oklahoma Christopher C. Gibbs College of Architecture, Urban Design Studio.

Shawn Schafer, AIA, AICP
Director, OU Urban Design Studio

Greg Warren
Professor, OU Urban Design Studio

Master of Urban Design Students:

Sonu Malla
Dylan Siers
Tyler Duncan
Preslie Anderson
Roshita Taylor
Marshall Berry



Stakeholders during the monthly Stakeholder meeting at BA City Hall
From left to right: Barbara Wilson, Farhad Daroga, Shawn Schaefer, Travis Kelly, Phil Hink, Amanda Yamaguchi

Community Engagement

The OU Urban Design Team and Community Stakeholders are kept informed about project-related information through stakeholder meetings.

Summaries of Stakeholder Meetings

Stakeholder meetings took place on the last Wednesday of each month at the City of Broken Arrow conference room. The meetings are summarized below:

October 14th Stakeholder Meeting

The following issues, opportunities and barriers were identified by the stakeholders:

Site Issues	Opportunities	Barriers & Limitations to Progress/ Development
<ul style="list-style-type: none">➤ Difficult to access River➤ Difficult to get around for strollers and wheelchairs➤ Business retention/ business goes to Bixby➤ Security Issues➤ Lacks shade➤ Lacks reason to stay➤ "Brain Drain"/young adults leave area➤ Lacks nightlife	<ul style="list-style-type: none">➤ Improve accessibility➤ Better visibility➤ Gates that lock➤ Nature conservation➤ Educate on history➤ Economic development➤ Create connection along Aspen corridor➤ Enhance sports complex➤ Attract & retain users➤ Build shade structures, playground, etc.	<ul style="list-style-type: none">➤ Flood plain limitations➤ How do we involve people?➤ Financial/economic limitations➤ New development is going up➤ School site was bought➤ Zoning issues➤ Complex site➤ NIMBYS/Naysayers➤ Time to make an impact➤ Can this become a district?

November 30th Stakeholder Meeting

We asked the stakeholders to write a single word or a few words expressing their goals for Aspen Landing. The outcomes are shown in the word cloud below. The most frequently used terms and ideas are emphasized. The most often used themes were: post-game entertainment, trails, local businesses, economic development, nature preservation, and local business.



Community Engagement

January 25th Stakeholder Meeting

A brainstorming session was held to brainstorm ideas for the project branding. Themes included rivers/water, people, sports, and animals. An aspen leaf as the background was preferred for the logo, along with initials. The background can be altered depending on the usage of the logo. For instance, adding a pictograph of a ball instead of a leaf.



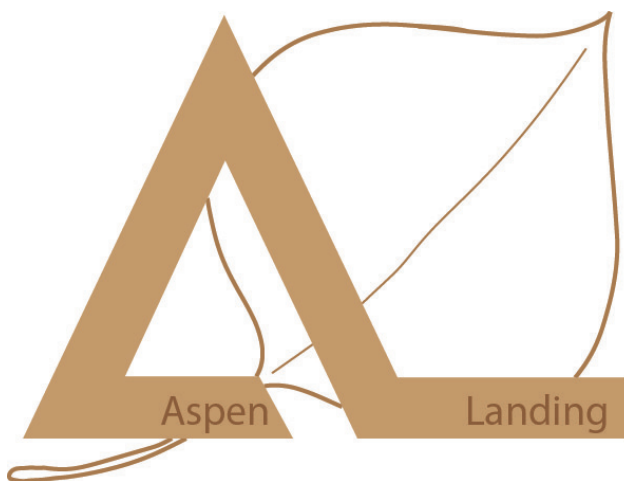
*Branding for nature center
integrated with Aspen Landing logo*



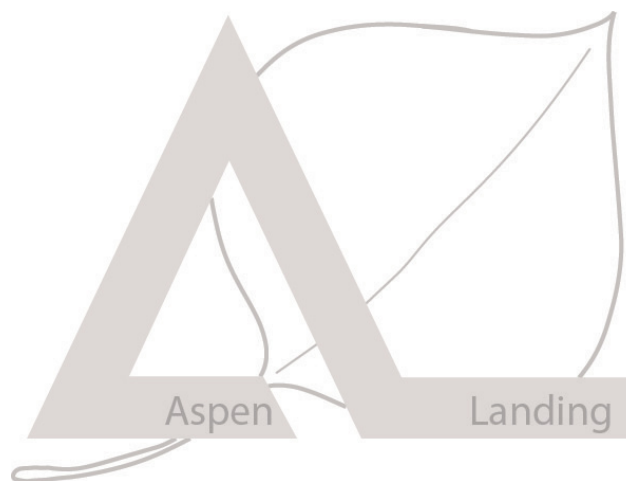
*Branding for Soccer games
integrated with Aspen Landing logo*



*Branding for Baseball games
integrated with Aspen Landing logo*



Branding for Aspen Landing with Aspen leaf in the background



February 22nd Stakeholder Meeting

The Broken Arrow Soccer Club expressed its desire for eleven more full-size soccer fields to meet the requirements for regional tournaments. The group reviewed the Park within a Park ideas displayed on the next page.

March 29th Stakeholder Meeting

The emphasis was on the park's main attractions and the pier proposal. Everyone appreciated the concept of having a pier or deck that goes into the river and is covered with activities along the boardwalk. The stakeholders encouraged the notion of reconfiguring the little soccer fields while preserving the fields with lighting and irrigation.

April 26th Stakeholder Meeting

The group was given a final presentation that had all of the ideas combined as well as the next steps in the project, starting from the top. The concept of adding more soccer fields opened conversations about expanding the fields onto the sports complex's west side property.

“Park within a Park” concepts



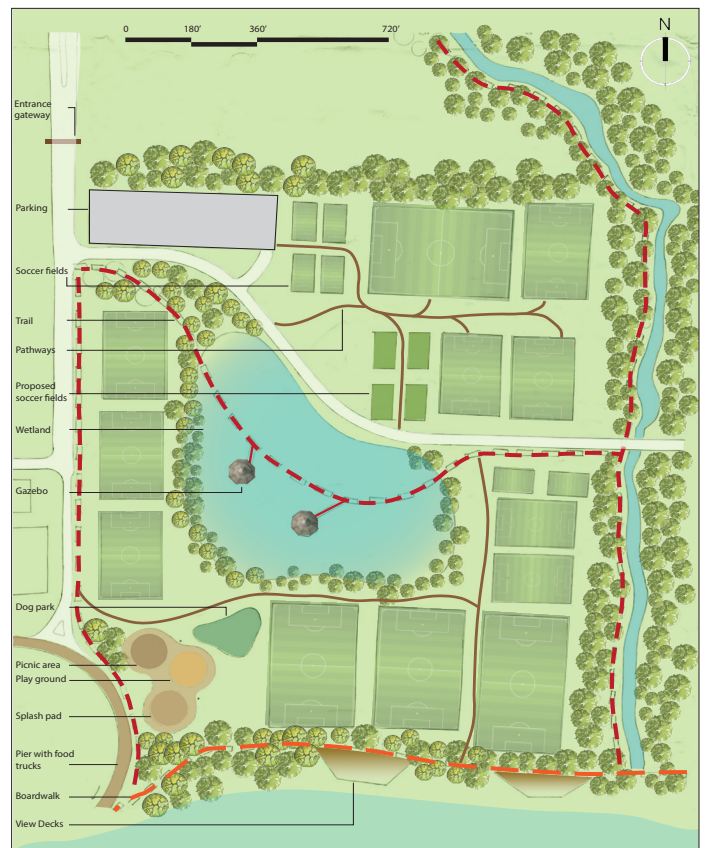
A haven for activities



Food truck park



Aspen boardwalk



Embracing wetlands in the park

Community Engagement

During community engagement activities, the team had the chance to interact with the community and gather feedback on their vision for the area.

Events

Soccer Tournament:

On October 22, the design team participated in their first public engagement event: a soccer tournament hosted by the Broken Arrow Soccer Club. The team created visual preference boards which are shown on the following page. The aim of these boards was to collect feedback on what improvements and new attractions patrons would like to see in the park. Visitors indicated their preferred ideas by placing stickers on pictures of park amenities and activities. Many options were suggested. Zip line, walking trails, bicycle track, splash pad, and food trucks were the most highly ranked (see graph on the next page).

Broken Arrow City Expo:

On February 18, 2023, the design team attended the Broken Arrow Community Service Expo, which was a free and public event that provided an opportunity for municipal leaders to engage and collaborate with residents at vendor booths and in breakout sessions. During the event, the students presented their visual preference boards and interacted with community members to gather feedback on what they would like to see and do at the park. The most popular suggestions included a walking trail, bicycle track, zip line, outdoor theater, and observation deck. In addition to engaging with community members, team also collaborated with various representatives from the City of Broken Arrow, including representatives from planning, parks, transportation, police, and fire.



Students conducting the visual preference survey during community engagement at the soccer game

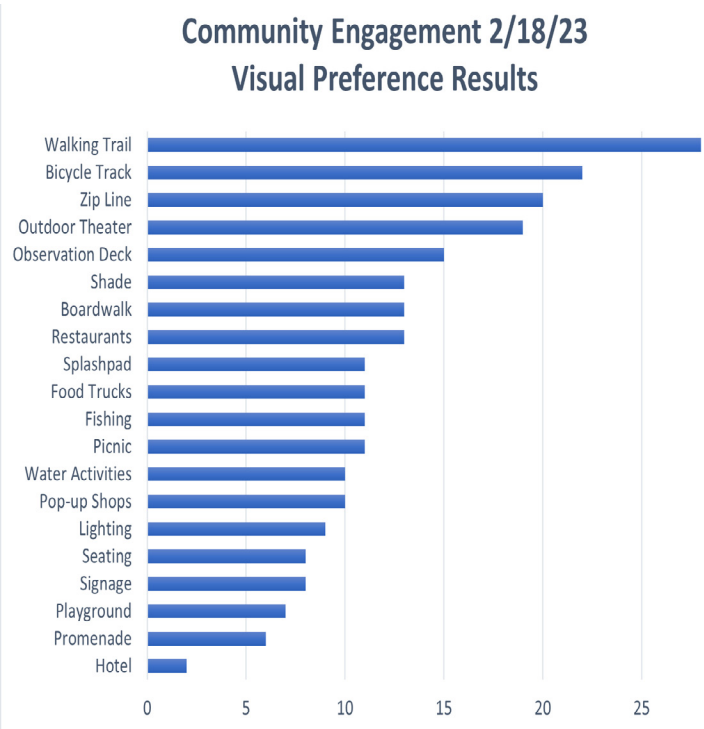
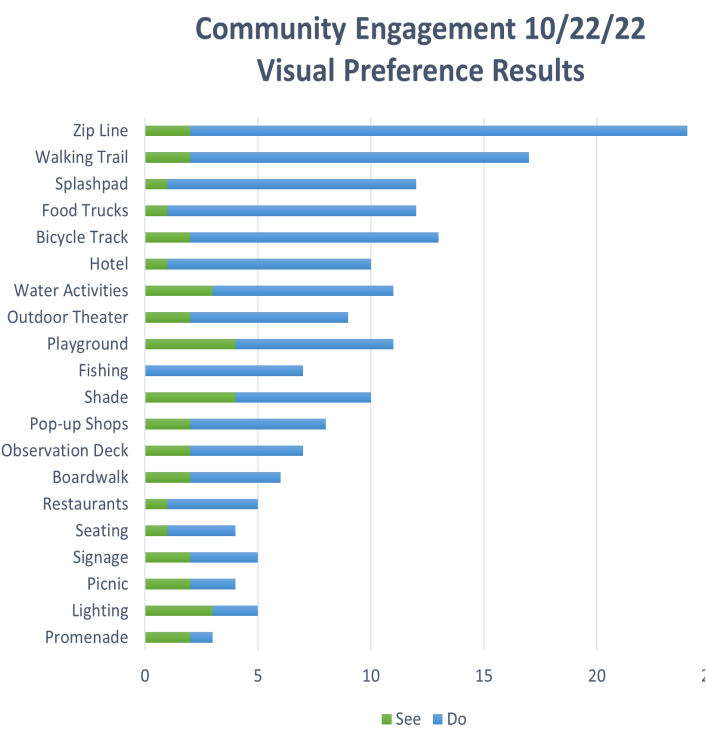


Residents visit the Aspen Landing table at the Broken Arrow City Expo

Community Engagement

Findings:

A visual preference survey board highlighted what the community desired to SEE/DO. The results are listed below.



Results of the visual preference board survey with activities to do and see, displayed to the community.

Research and Analysis

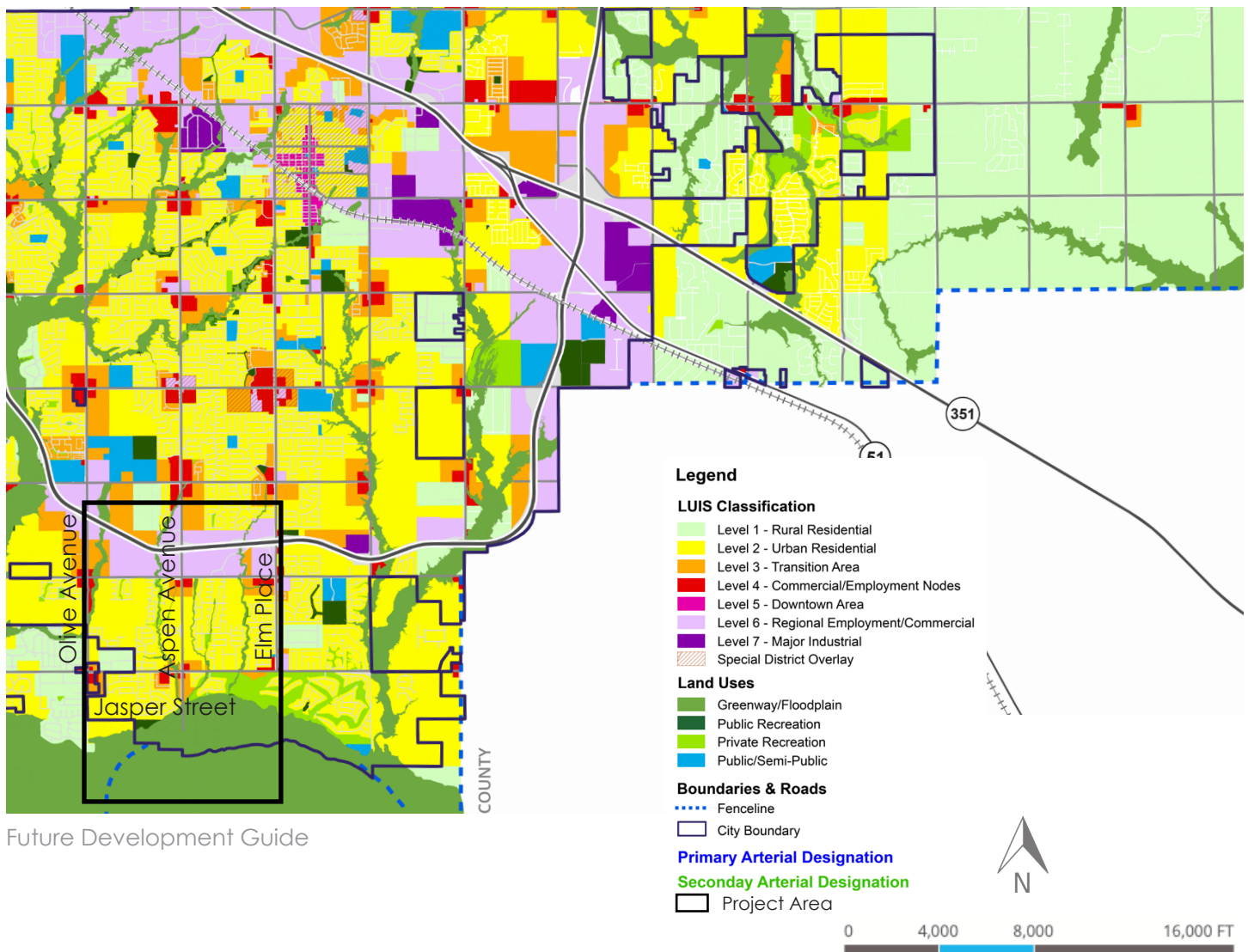
Students reviewed proposed and existing plans for the neighborhood.

Existing Plans

By reviewing existing plans, students can align the design with larger planning goals and specific recommendations from previous studies.

Broken Arrow Comprehensive Plan - Adopted in 2019

A comprehensive plan's objective is to guide and organize the actions of local governments, designers, and other stakeholders to make sure that development is planned and sustainable. Future possibilities and challenges, such as population increase, economic development, and environmental issues, can also be anticipated and addressed. The BA Next Comprehensive Plan highlights the Indian Springs Sports Complex as an important sports destination that attracts visitors. The plan also recognizes the scenic views of the Arkansas River and suggests creating a vision for developing trails and other amenities along the riverfront. (p. 81, 152 & 154)

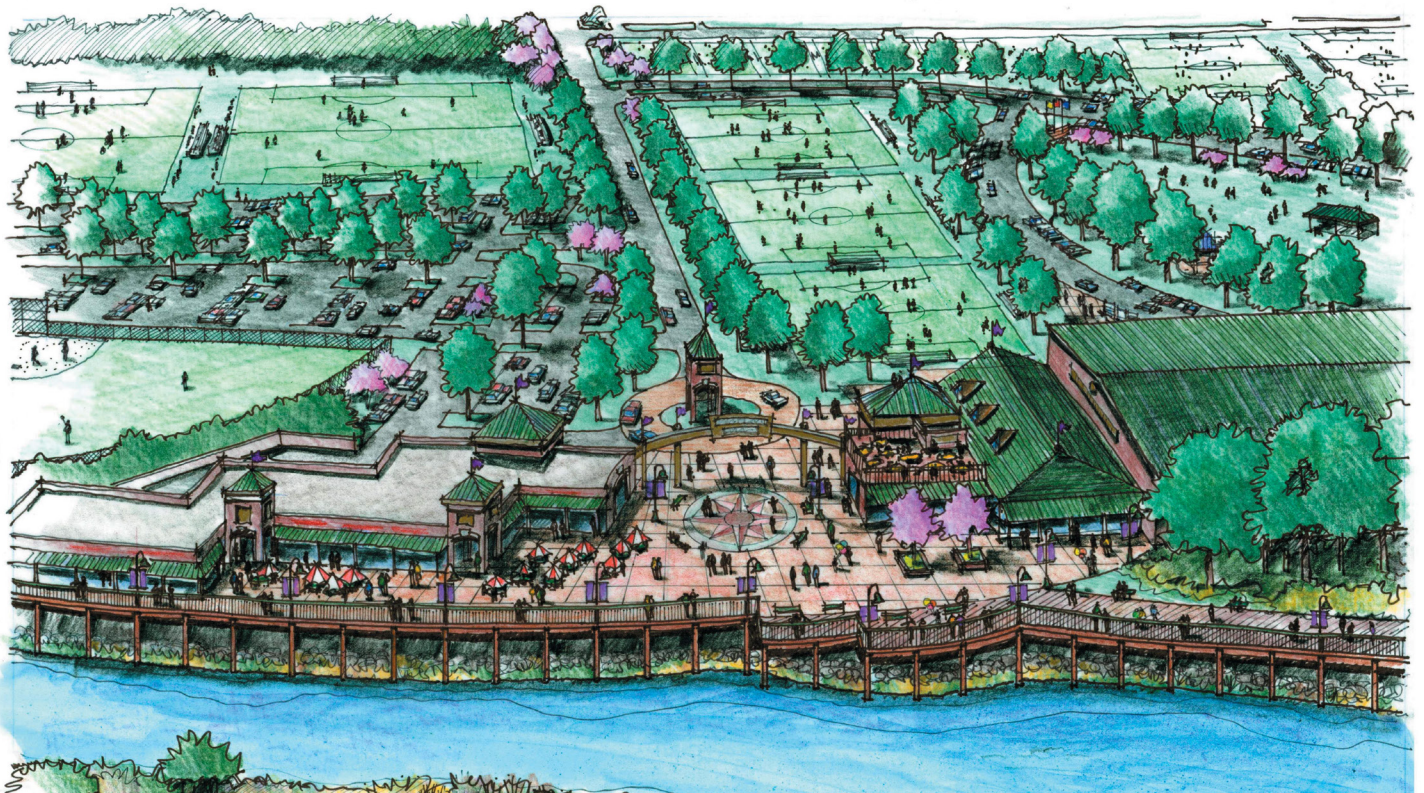


Future Development Guide

Research and Analysis

Arkansas River Corridor Plan - 2004

The Arkansas River Corridor Plan, was produced with input from citizens, county and local officials, and the U.S. Army Corps of Engineers (USACE). It was adopted in 2004 and offers a framework for controlling development along a 42-mile section of the Arkansas River from Sand Springs to Broken Arrow. The plan discusses challenges and ways to provide entertainment, dining, shopping, or family activities. It proposes adding a boardwalk, shops, and other attractions to address these improvements. (p. 183-199)

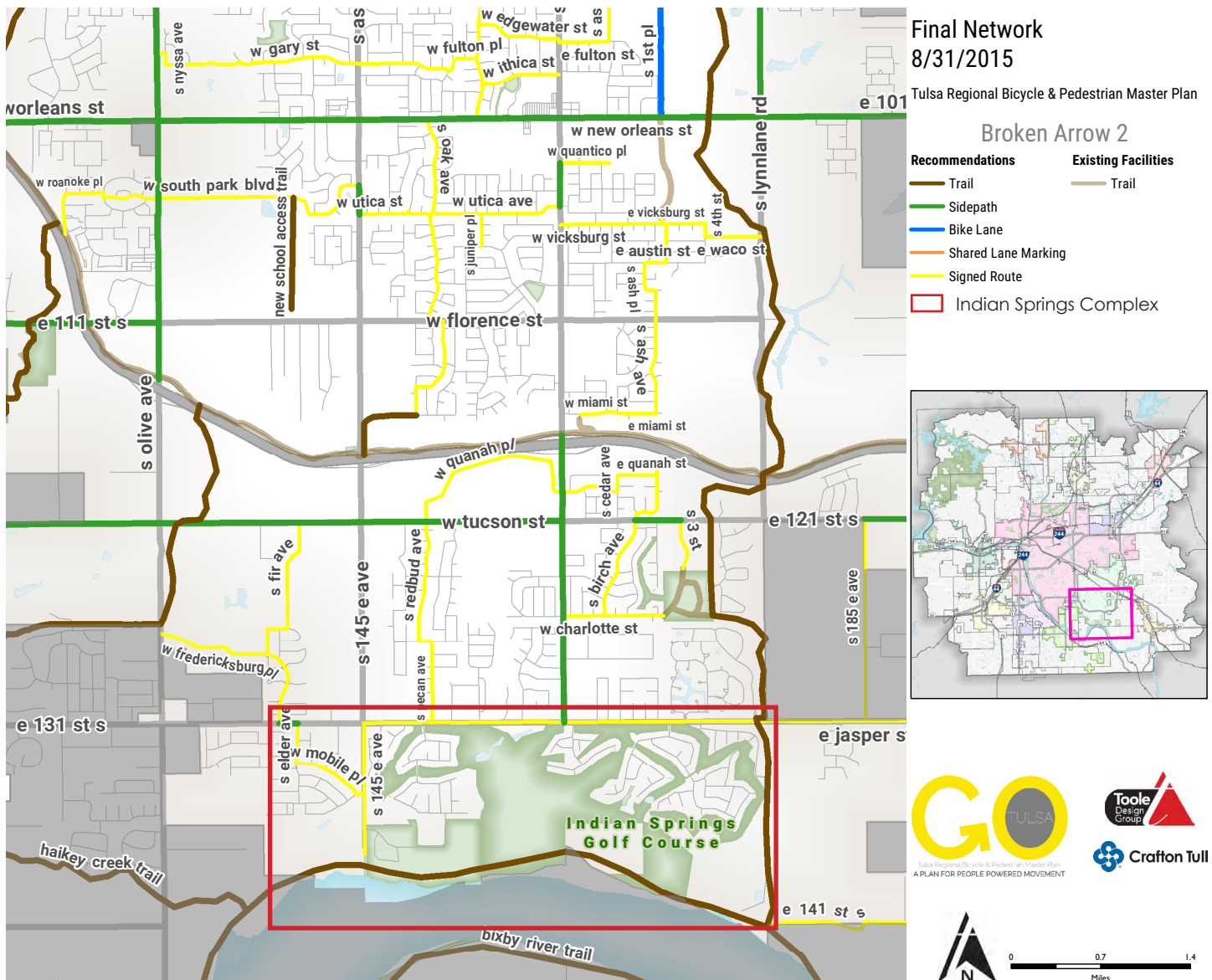


Citation: Arkansas River Corridor Master Plan and Pre-Reconnaissance Study, Tulsa County, OK | C.H. Guernsey
| EDAW | Alaback Design | July 15, 2005

GO Plan - 2015

The GO Plan provides an in-depth regional plan for pedestrian and bicycle improvements, connectivity to the existing regional trail network, and identifies potential solutions to allow people to access destinations using walking or bicycling modes.

The GO Plan suggests that there should be a side path located on Elm Place heading south from the Creek Turnpike. This would finish at the Indian Springs Golf Course. This side path would allow for different forms of transportation to the golf course or the sports complex. (p. 80-95)



Research and Analysis



Map showing existing infrastructure in Indian Springs sports complex

The graphic above illustrates the current lighting and infrastructure around the soccer and baseball fields. Because rearranging this infrastructure is expensive, the design concepts do not interfere with the existing infrastructure and focus instead on flexible areas where there is less infrastructure.



Source: National Pipeline Mapping System (NPMS) Public Viewer

- Gas Transmission Pipelines
- Hazardous Liquid Pipelines

Public Service Company of Oklahoma, PSO, is responsible for maintaining a high-voltage power line easement located to the north of the Indian Springs Sports Complex. In addition, there are gas transmission and hazardous liquid pipelines that pass through the park. The design team took this information into consideration when developing their plans. As a result, no buildings, permanent structures, or deep-drilled projects on these easements. The idea of installing parking lots in these locations is considered, as there are existing parking lots and sports fields under these lines, which would make a negligible impact.

Case Studies

The students used a variety of sources, including personal observations, local examples, and design precedents, while seeking for creative inspiration for the project. Some outstanding examples are illustrated below.



Example of a stormwater wetland that could be used in the site.

Source: <https://www.archdaily.com/446025/qunli-stormwater-wetland-park-turenscape>



Example of a boardwalk that could be used for River views.

Source: <https://www.floridastateparks.org/parks-and-trails/tarkiln-bayou-preserve-state-park>



Example of a walkway similar to the concept for a trail connection.

Source: <https://www.archdaily.com/445661/red-ribbon-park-turenscape>



Example of Roy Morse Park, Longview that includes trail connection that could be used in the site.

Source: <https://www.mylongview.com/DocumentCenter/View/1742/Master-Plan---Executive-Summary-Small>

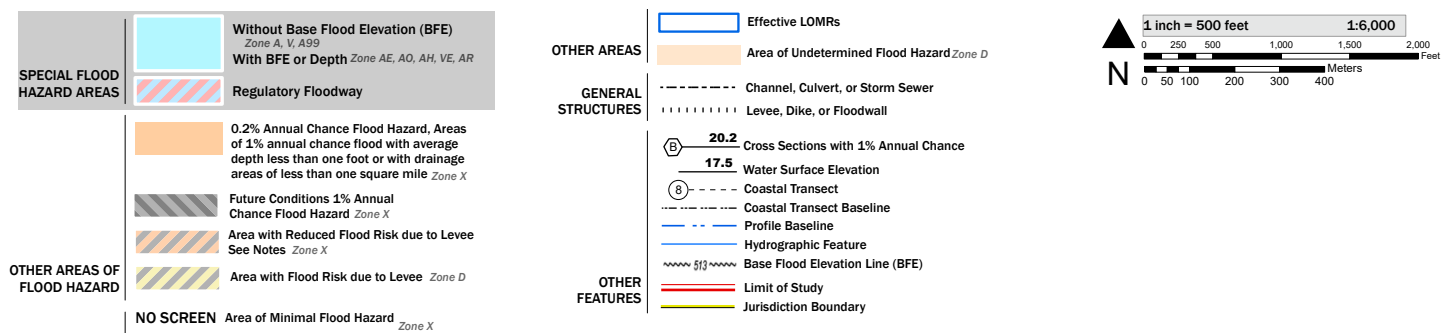
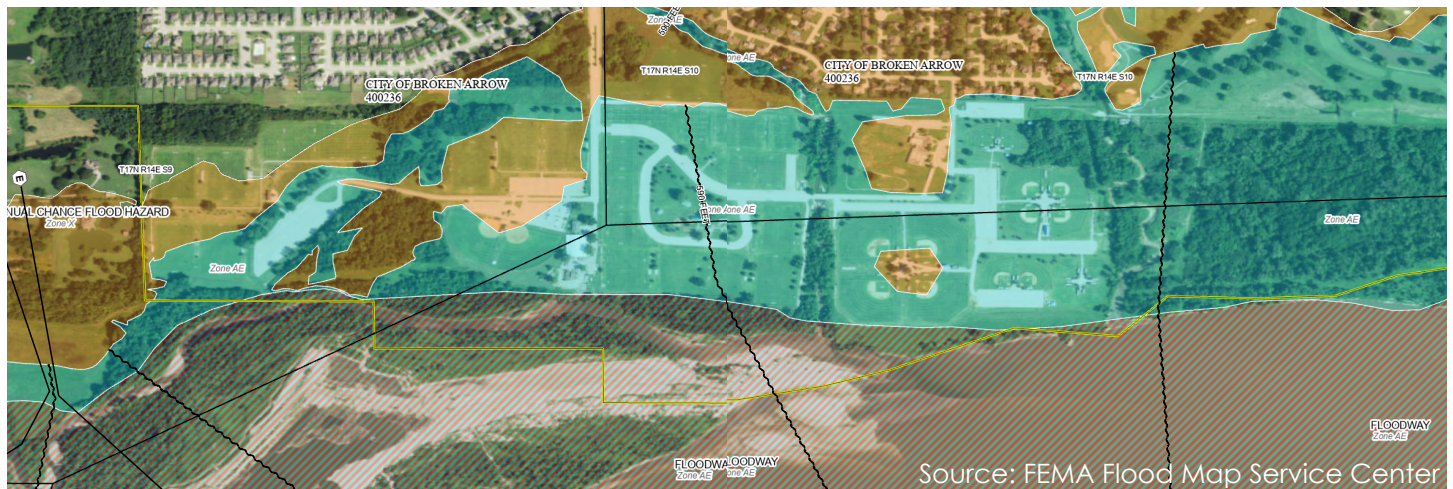
Site Analysis

Topography and Drainage

Flood Insurance Rate Map (FIRM)

Communities use flood maps as a way to identify places potentially in danger of flooding. Flood maps and risk assessments are used by the Federal Emergency Management Agency (FEMA) to maintain and update data. The probability that a region would flood is depicted on flood maps. High-risk areas are those where there is a 1% or greater possibility of having a flood each year. You can check how your property is related to the regions that are most in danger of flooding by using a flood insurance rate map. Based on the maps below, the majority of the park is in a regulatory floodplain.

A channel that regularly floods is known as a floodway. The Arkansas River channel is a floodway. The floodway fringe is the portion of the floodplain between the floodway and the outside boundary of the flood risk area. A floodplain is a low-lying area of land close to a river that is prone to flooding and is mostly formed by river sediments.

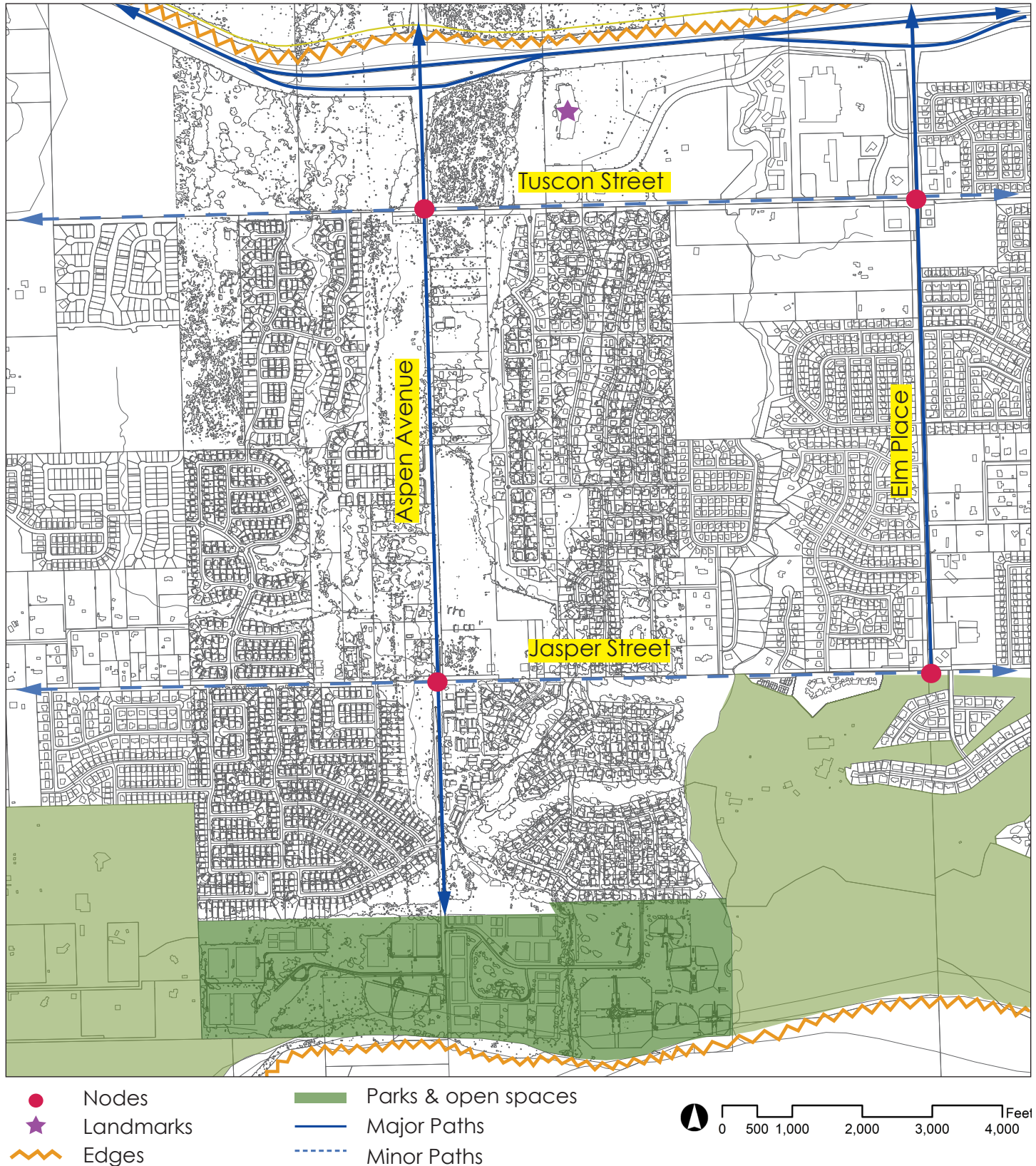


Coordination with the U.S. Army Corps of Engineers

To understand more about the challenges and possibilities for what could be proposed and built in a floodway, flood fringe, or flood-prone area, and to discuss how Keystone Dam releases influence the project location, the group met with David Williams, Chief Hydrologist at the US Army Corps of Engineers. He advised the team to proceed with the community's vision for developing the waterfront, provided we follow the regulations for flood zones and use best practices recognized by the Corps, FEMA, and the City of Broken Arrow. Best practices include placing floors of all the design structures 5' above floodplain level, and not interfering with the natural gradient and drainage of the site.

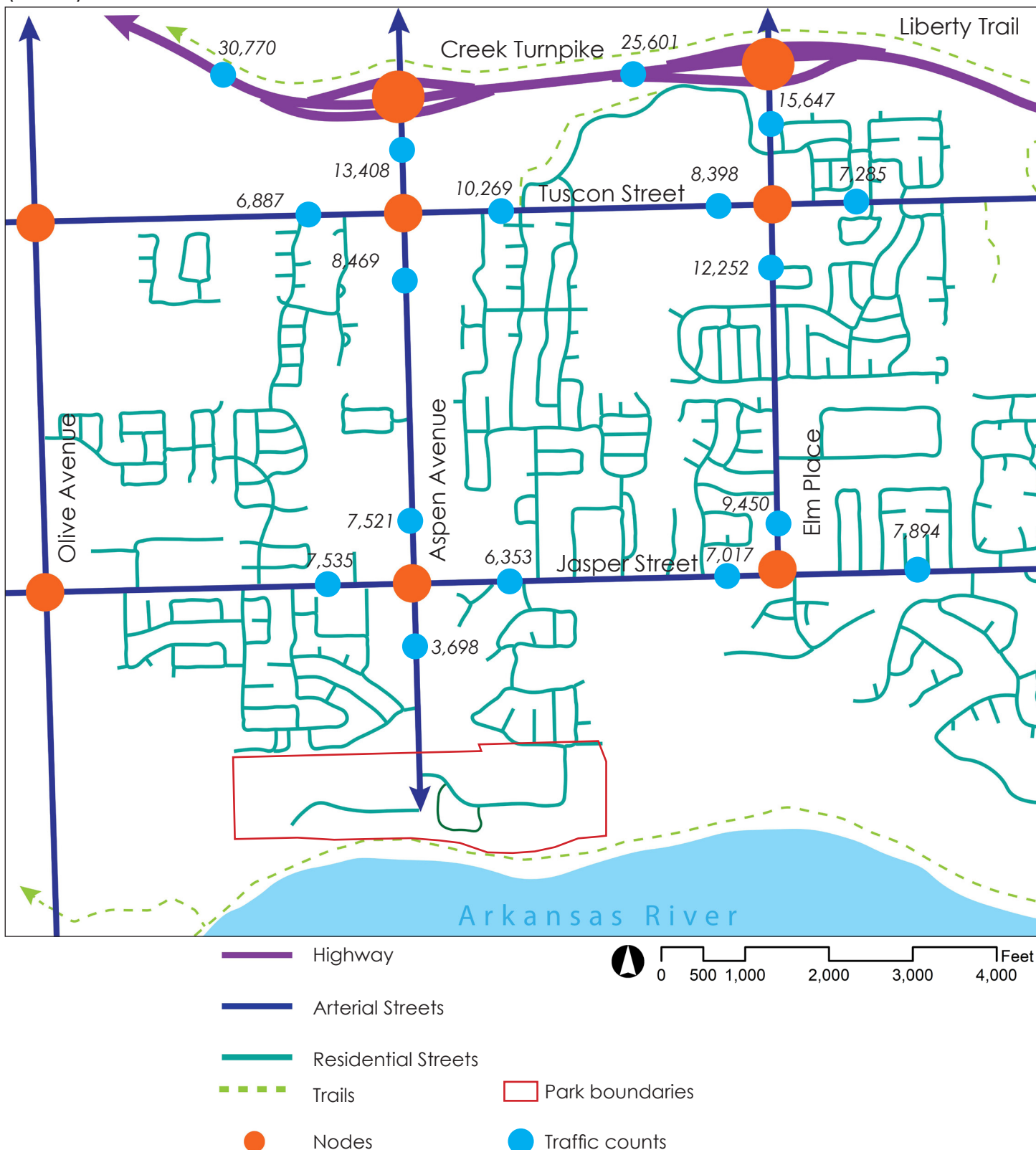
Legibility Analysis

A Legibility Study assists in comprehending the landmarks, districts, nodes, pathways, and edges in an area. This helps discover key elements which are essential to understanding the area's urban design framework. The Creek Turnpike and the Arkansas River are the edges, intersections between the arterials are the nodes, and the shaded area on the east of Sports Complex is the golf course.



Mobility and Access

This map shows the street network around the sports complex. The Creek Turnpike is the principal highway connection, with Aspen Avenue, Elm Place, and Olive Avenue going north-south and Jasper Street and Tuscon Street flowing east-west as arterials. The Liberty Trail, which runs along the Creek Turnpike, is the main trail route. Nodes are located at the intersections of the arterials. Traffic counts shown below are the annual average daily traffic (AADT) estimates from 2021 sourced from INCOG - AADT Estimates.



Buildings and Land Use

This map illustrates the presence of predominantly single-family detached homes in the area and highlights the need for other building types such as commercial, multi-family housing, and community on vacant land.

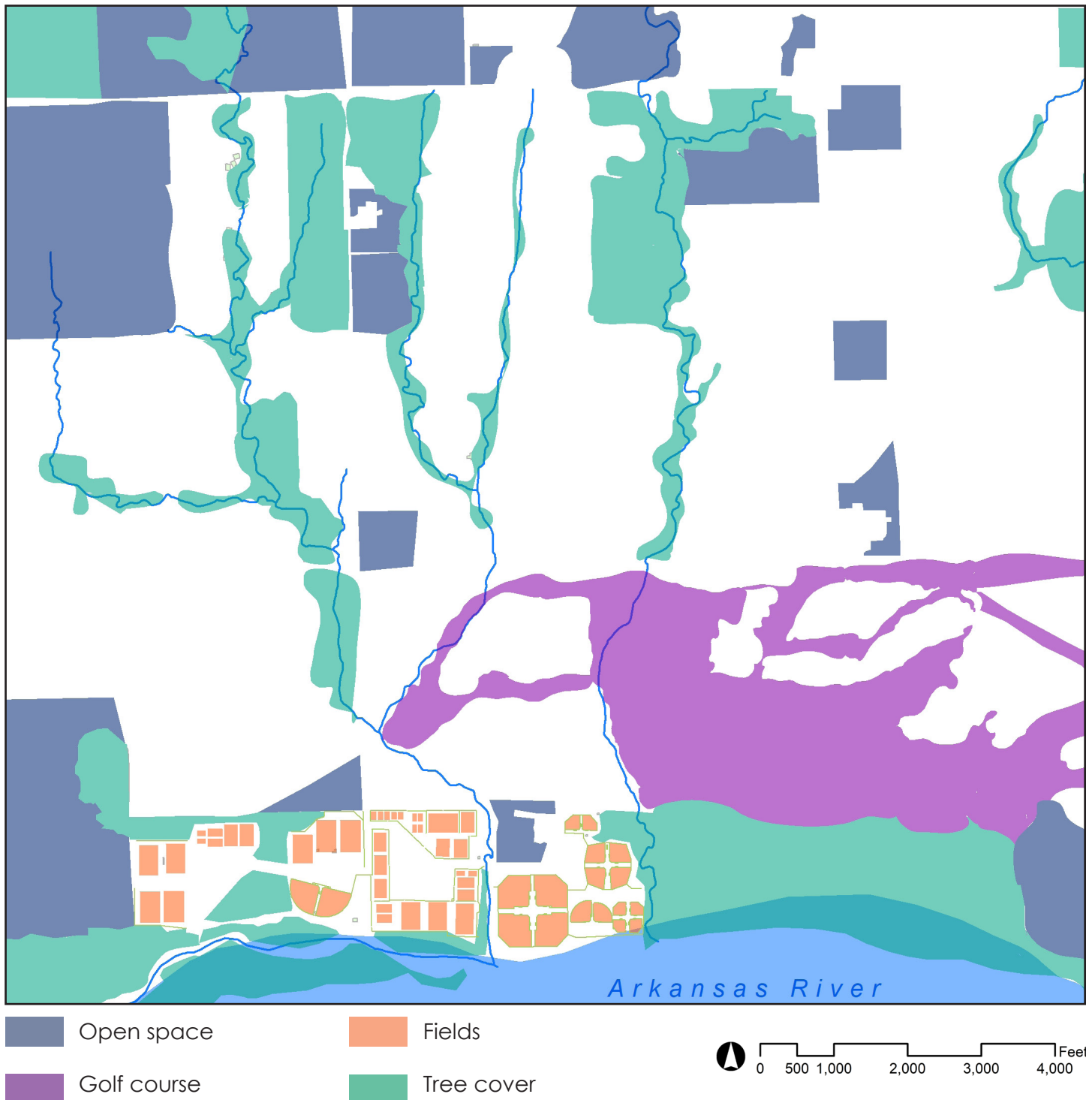


- Detached Residential
- Multi-family Residential
- Commercial
- Civic/Community

0 500 1,000 2,000 3,000 4,000 Feet

Parks and Open Space

This map shows the natural elements in the area. Dark blue represents underutilized or vacant land. This space could be used for future development. The purple shaded area is home to the Indian Springs golf club. The orange is the location of the sports fields inside the sports complex. The teal color represents tree cover in the area. The majority of the tree cover is located near the complex.



Parking and Sports Schedule

Parking

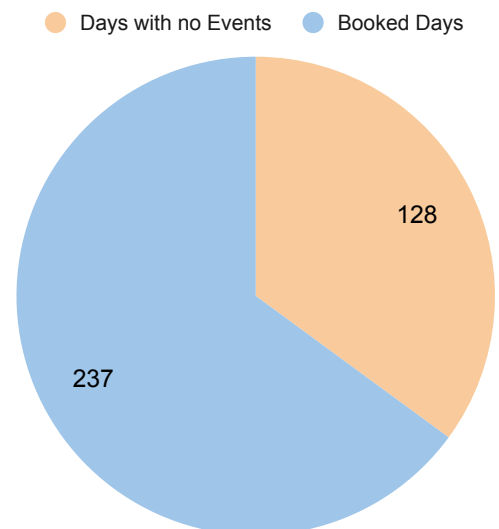
The Indian Springs Sports complex has 1,500 parking spaces. These parking spaces are shared between softball, baseball, and soccer. The layout of the parking roughly dedicates parking to specific sports by proximity. Baseball, which is located on the east side of the facility houses 587 parking spaces. Soccer, which is located in the center and west side of the facility houses 913 parking spaces. It is important to note that they do share about 150 parking spaces with two softball fields. Currently, many of the fields are separated by parking spaces. This creates a potential hazard since attendees have to cross high traffic areas.



1500 Parking spots in total

Sports Field Layout and Schedule

The project team did some analysis on the utilization of the park. In 2022 there were 237 days where an event occurred at the sports complex between the three sports. Only 11 of those days were double booked, meaning both baseball/softball and soccer were hosting events. There were 128 days where there were no events scheduled.



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Design Studies

The following recommendations give insights and guidance for developing the Aspen Landing along the Arkansas Riverfront. These ideas, based on research, understanding of urban design, stakeholder meetings, and community engagement, cover a wide range of issues including design, amenities, and flooding issues. They not only align with the Broken Arrow Next Plan but also with the Parks Plan and the Arkansas River Corridor Plan.

Recommended Big Moves



Optimize the Existing Park and Make Improvements:

The first move is to optimize the existing park by improving the view to the river, providing better signage, and increasing lighting. Changing the road and parking arrangement, rearranging the soccer fields, relocating the maintenance building, and improving traffic circulation inside the park are included in this section.



Connect to Destinations with a Multi-use Trail System:

The park's trail system now consists of only a few sidewalks. The purpose of this move is to improve trail connections between fields and among different features in the park. It also connects new paths in the park to nearby locations. These pathways will form a loop around the park and also connect fields. Visitors will be able to reach a path paved with crushed stone path at various points throughout these paths.



Conserve and Enhance the Natural Environment: The stakeholders want to ensure that plants and wildlife in the park are preserved. This is accomplished by protecting existing waterways and encouraging wildlife conservation at the nature center. There is additional potential to work on flood control inside the park by creating designated wetlands that will provide new habitats for wildlife.



Create a Destination to Attract Visitors and Retain Business:

The goal is to provide better river access, making room for attractions, like food trucks and restaurants. A boardwalk along the Arkansas River is proposed, as well as an amphitheater with a beer garden. Both of these are designed to boost park use and encouraging tournament attendees to stay in the park after their games.



Develop Scenarios for Aspen Avenue:

Aspen Avenue has the potential to develop commercial nodes at the arterial street intersections. These are intersections along Aspen Avenue that might become highly appealing in the future with adequate streetscaping and neighborhood links. The purpose of the streetscaping is to provide a pleasant environment for all modes of mobility. Businesses may be accessible by a sidepath running along the east side of Aspen Avenue. It encourages parking to be pushed behind the new Aspen development.



Design Studies

Optimize Existing Park and Make Improvements

A new gateway emphasizes the entrance to Aspen Landing. As we go south on Aspen Avenue, a roundabout is designed to ease the traffic flow within the park. Shreveport Street is realigned and the Loop Road is eliminated making room for playgrounds, seating/picnic amenities and lighting.

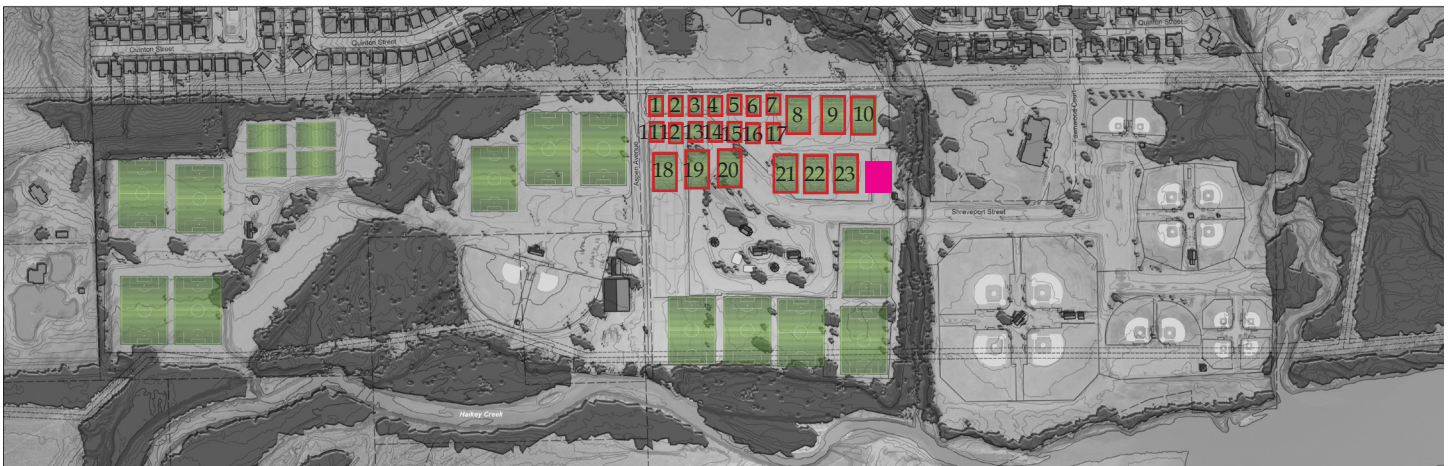
Currently there are 1,500 parking spots total within the park. On the soccer side there are 913. After reconfiguration of the soccer fields and streets, parking increased it by sixteen percent, from 913 to 1,063 spaces. Other changes include closing Fawnwood Court and making it only accessible to emergency vehicles, as well as creating a new entrance on the west side of the sports facility via Olive Avenue.

In order to take the maintenance building out of flood zone and to make room for the roundabout, the maintenance building will be relocated to the area where the smaller soccer fields are clustered. It can be combined with the adjacent soccer maintenance building to take care of the whole park.



Aspen Landing Proposed Parking and Road Layout

There are currently twelve full-size, twelve medium-size, and fourteen small-size soccer fields. The number and size of fields are kept the same, while smaller fields are clustered together. This arrangement allows age groups to be clustered during tournaments. No relocation of field lighting or irrigation is needed.

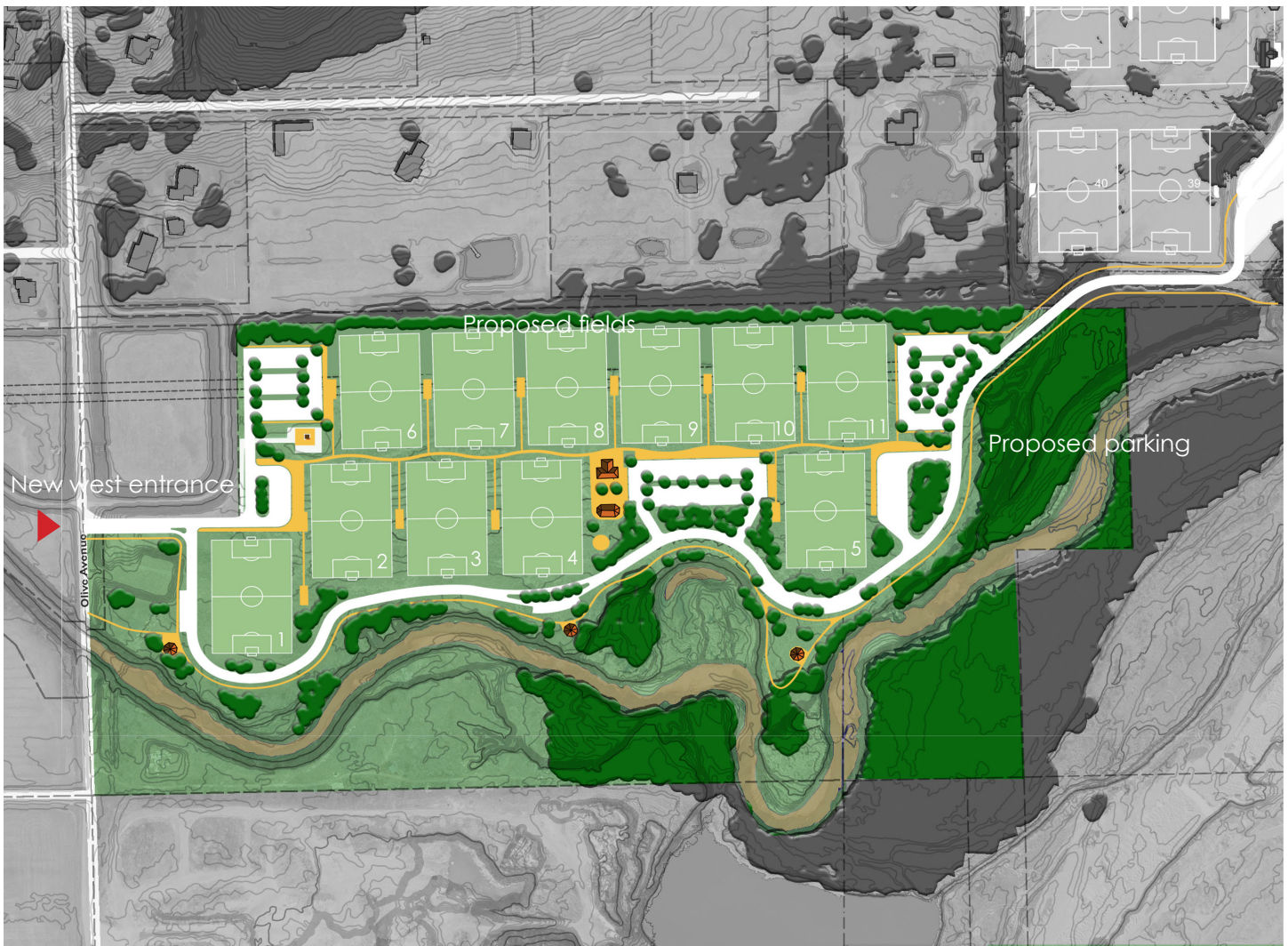


Site plan with soccer fields rearranged



Additional Soccer Fields

To provide more soccer fields to host regional tournaments, one option is to work out an agreement with the owner of the property to the west of Aspen Landing and position the fields along an extended park road with an new entrance off Olive Avenue. Eleven extra soccer fields may be accommodated in this area to the west with the necessary parking. Picnic areas along Haikey Creek and a creek side trail are also included.



West Soccer Expansion



Possible additional soccer fields arranged on the property to the west side of the existing sports complex



Design Studies

Connect to Destinations with a Multi-use Trail System



Design trails to accommodate persons of different abilities while paying attention to accessibility guidelines. Include suitable mitigation measures for possible dangers such as trail erosion, steep slopes, or crossings. To improve the visitor experience, include maps, trail names, directional indicators, safety information, and informative signage. Maintain well-maintained, prominent, and easy-to-understand signage that guides users along the trail network.

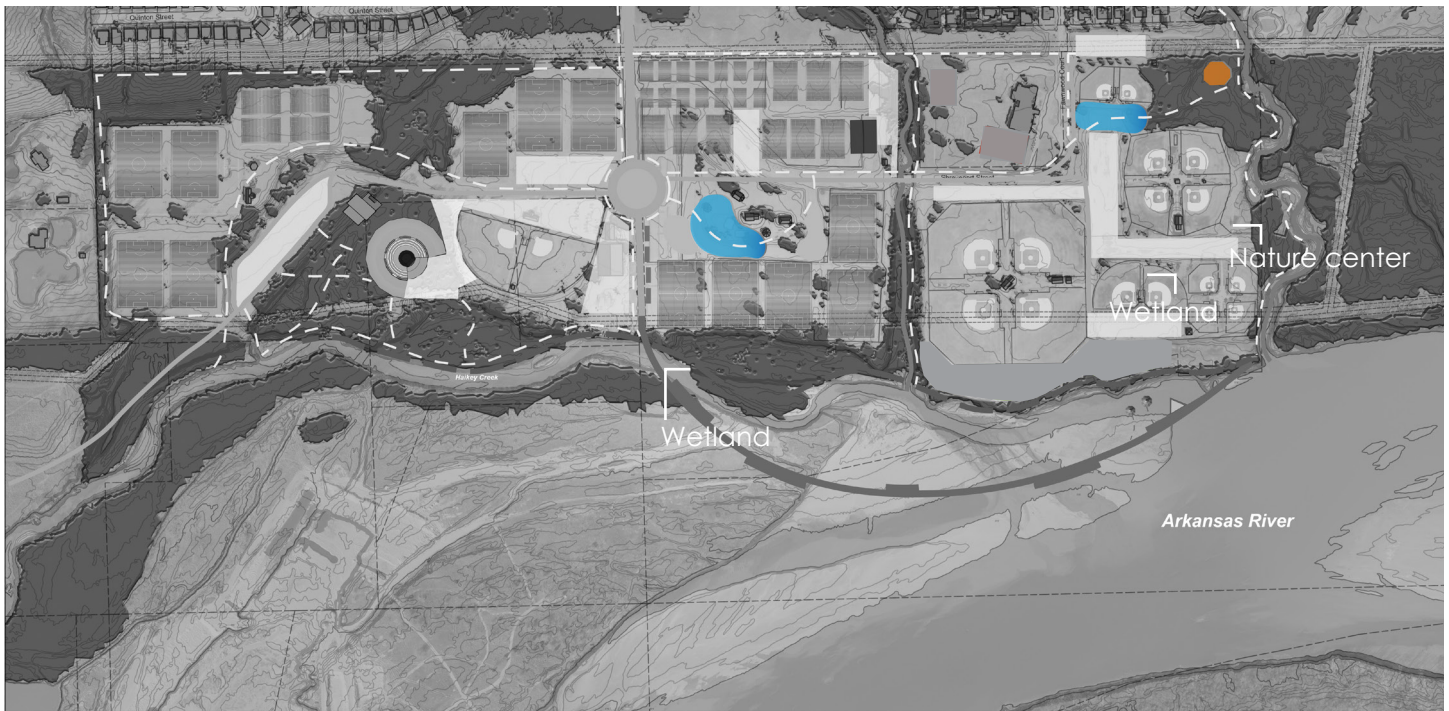
The current trail system at the park consists of only a few sidewalks, which limits its accessibility and connectivity to nearby destinations. Connect new trails within the park to nearby attractions such as Ray Harrel Nature Park, New Orleans Square, and Future Elam Park, as well as to existing trails like the Liberty Trail and Riverpark Trails. The proposed concrete trails within the park will ensure ADA compliance and create a loop around the park while also connecting fields to each other.

Add facilities along trail linkages to improve the user experience. These could include places to sit, bathrooms, drinking fountains, and picnic spaces. Create a maintenance strategy to keep the trails safe, accessible, and fun. Inspect the paths on a regular basis, repair any erosion or damage, and keep signs in good condition. Recruit volunteers or employ trail staff for maintenance.



Conserve and Enhance Natural Environment

The goal is to preserve the existing wildlife and woodland at the park, which is accomplished by maintaining the existing creeks and promoting nature preservation at the nature center. Additionally, the stakeholders desired to mitigate stormwater flooding within the park by creating designated wetlands, which would provide new habitats for wildlife.



Aspen Landing Proposed Dog Park, Nature Center, Wetland and Development



Rendered view of the nature center



Design Studies

Conserve and Enhance Natural Environment



Rendered view of the nature center

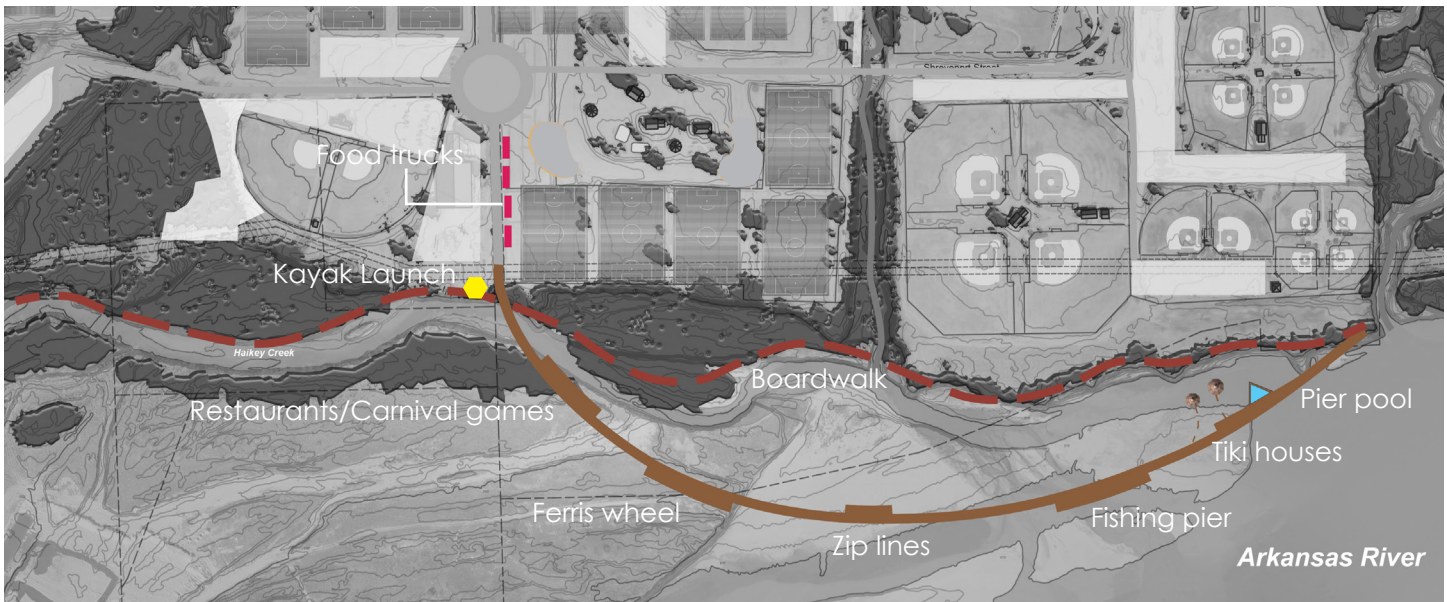


Rendered view for the wetland

Some of the minor improvements include the formation of wetlands, especially adjacent to the North-East parking lot, which frequently floods as a result of stormwater flooding. This can be done by channeling the water out of the parking lot to the north to prevent flooding. Wetlands act as natural water filters, filtering out pollutants and excess nutrients before they enter the river. Wetlands are home to a diverse range of plant and animal species, which also benefits the nearby nature center.

Create a Destination to Attract Visitors and Retain Business

To become a destination, the complex needs additional facilities that will attract tourists and give them unique experiences. This may be accomplished by restricting car access beyond the roundabout and including activities like amusement park rides, restaurants, zipline towers, fishing area, pool pier, and alternative seating as you walk down the pier, and encouraging food trucks to operate within the Aspen Landing. The design features a boardwalk along the Arkansas River and Haikey Creek to connect visitors with nature. Kayak Launch is offered at the beginning of the pier since that location is already in use for Kayak Launch.



Aspen Landing Proposed Pier, and Boardwalk

Site plan highlighting the pier, and boardwalk



Birds eye view of the pier and boardwalk



Design Studies

Create a Destination to Attract Visitors and Retain Business



View of the Boardwalk passing through the woods. These spaces can also be used for birdwatching

A boardwalk provides a designated walking path or trail for tourists, encouraging physical activity and exercise. It also offers excellent views of the park and the river at various places along the path framed by woods. This helps to create a calm and soothing environment that invites people to explore and enjoy the park.



View of carnival activities on the pier, with a fabric shading device covering the activity area

Carnival games can provide inexpensive entertainment that is affordable to the visitors. Carnival games are a pleasant and sociable activity for visitors to enjoy with their friends and family. This encourages visitors to spend a longer time in the park.

Create a Destination to Attract Visitors and Retain Business



View of ferris wheel on the pier

Food trucks:

Food trucks are arranged right after the round about, closing the road to the public and having that space for the food trucks. Ferris wheel is linked with fun, excitement, and joy.

Ferris Wheel:

The height and movement of a ferris wheel gives tourists a thrilling and exciting experience. As visitors rise higher and higher, the slow turn of the wheel produces a sense of suspense and excitement, and the views from the top can be stunning. The Ferris wheel offers tourists a unique perspective of the park and the river. Visitors can get a bird's-eye perspective of the park and the river from the top of the wheel.

Restaurant:

Visitors are welcome to eat without leaving the park or traveling to another site. Restaurants attract guests by hosting special events, promotions, and themed evenings. Restaurants can collaborate with local companies and organizations to provide guests with unique and collaborative experiences.



Design Studies

Create a Destination to Attract Visitors and Retain Business



View of zipline from the pier

Zip lines brings a sense of adventure and excitement to the park. They attract tourists and offer a unique and unforgettable experience. The two ziplines connect to the boardwalk. These zipline towers are placed in the center of the pier, along with risers that go down from the pier, where visitors may relax and enjoy the view.



View of fishing pier

Fishing pier provides deeper access to the water, allowing fishermen to capture a greater range of fish. In addition, they provide more consistent fishing possibilities than shore-based fishing. Fishermen enjoy a more pleasant and pleasurable fishing experience by using benches or seating spaces on the fishing pier.

Create a Destination to Attract Visitors and Retain Business



View of tiki houses

Tiki houses are intended for patrons looking to experience the ultimate island getaway without leaving Broken Arrow. Perfect for small groups, these huts come equipped with everything Aspen Landers need to have a good time, including a wet bar, comfortable seating, and plenty of shade. Whether celebrating a special occasion or just looking to unwind with friends, these tiki huts are the perfect choice for a relaxing and memorable day on the water.



View of pier pool showing activity pool, kids pool and activity pool

This swimming hole is intended to provide pier walkers some respite on a warm summer's day in the form of a cool dip. Using treated water, this amenity also aims to connect users to water and the Arkansas River, but not necessarily Arkansas River water.

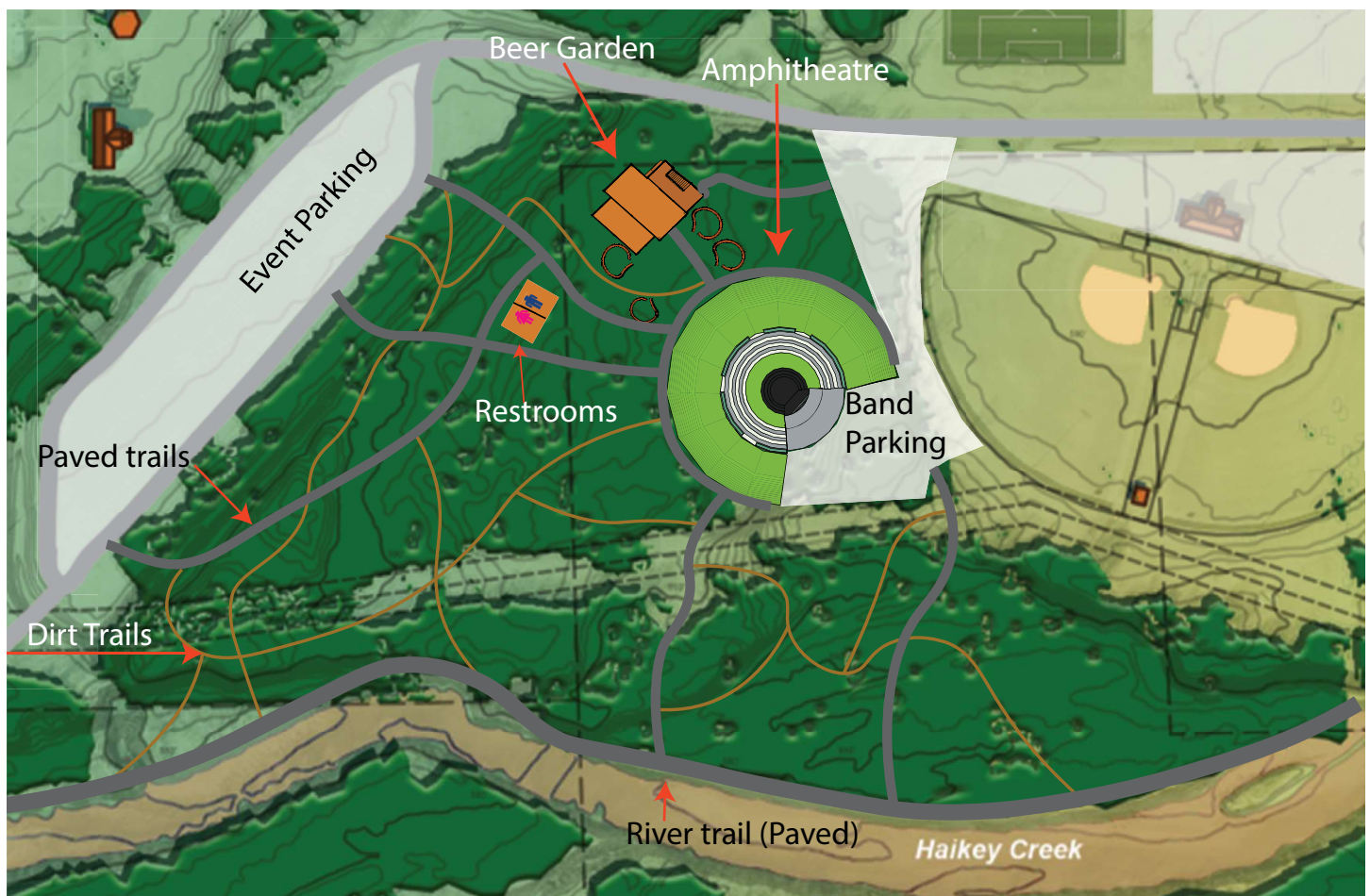


Design Studies

Create a Destination to Attract Visitors and Retain Business

The Aspen Amp is an open air amphitheater that has the potential to seat up to 2,000 fans in fixed seats and lawn seating for concerts, plays or other events. The goal is to make it possible to seat many people, but also prevent it from feeling empty when there are fewer people. The two lawns, one near the stage and one past the seating are for flexible, alternative forms of seating. The Aspen Amp has the potential to be a destination for new and emerging artists, while also providing the community with a venue for smaller events.

The Beer Garden is tucked away within the trees. With curved seating that organically fits within the forest, it has the potential to accommodate many people, and can be used as a space to rent out for private events. The goal for the beer garden is to not make it reliant on the Aspen Amp but to make it a great accessory to the Amp. There are hopes to be able to use the beer garden after adult softball league games for an after game beer with the team. To drain the amphitheater, catch basins are provided to direct water from the lowest level to Haikey Creek.



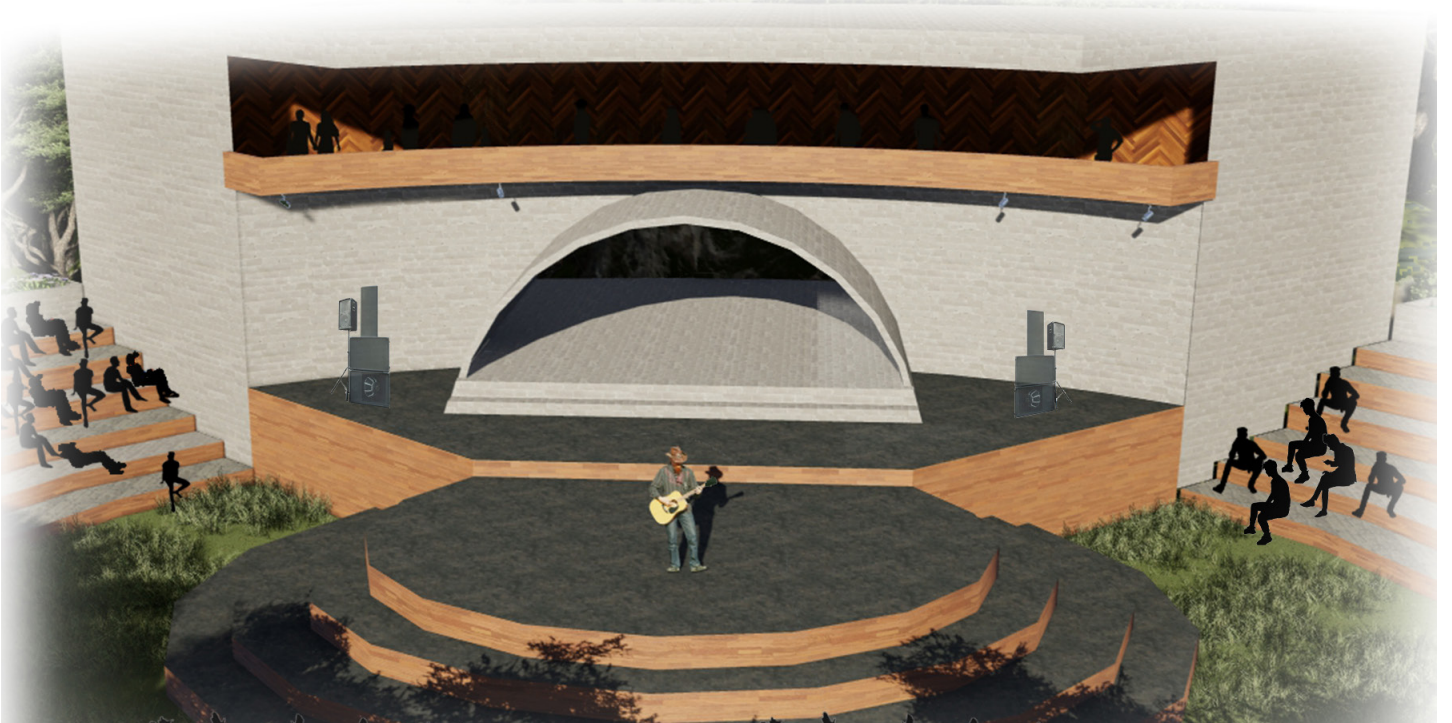
Aspen Amphitheatre Site Plan



Create a Destination to Attract Visitors and Retain Business



Rendered view of the beer garden near the amphitheater



Rendered view of the amphitheater



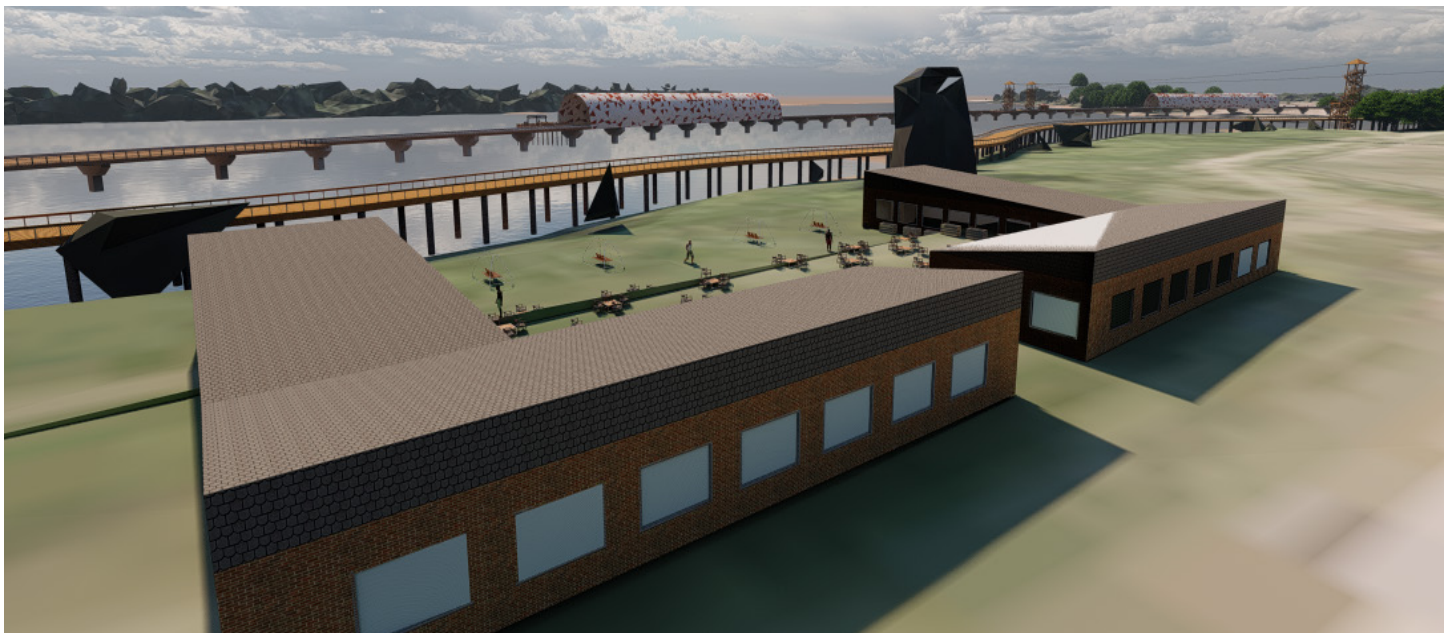
Design Studies

Create a Destination to Attract Visitors and Retain Business

A dog park is designed for dogs to exercise, interact, and play off-leash in a safe and supervised setting. It has secured enclosures where dogs can run free without being restrained by a leash. They include a variety of amenities and features, such as open areas for running, agility equipment for training and play, water stations, waste disposal facilities, and seating places for dog owners. They promote responsible pet ownership in the community by providing opportunities for exercise, cognitive stimulation, and pleasing social relationships.



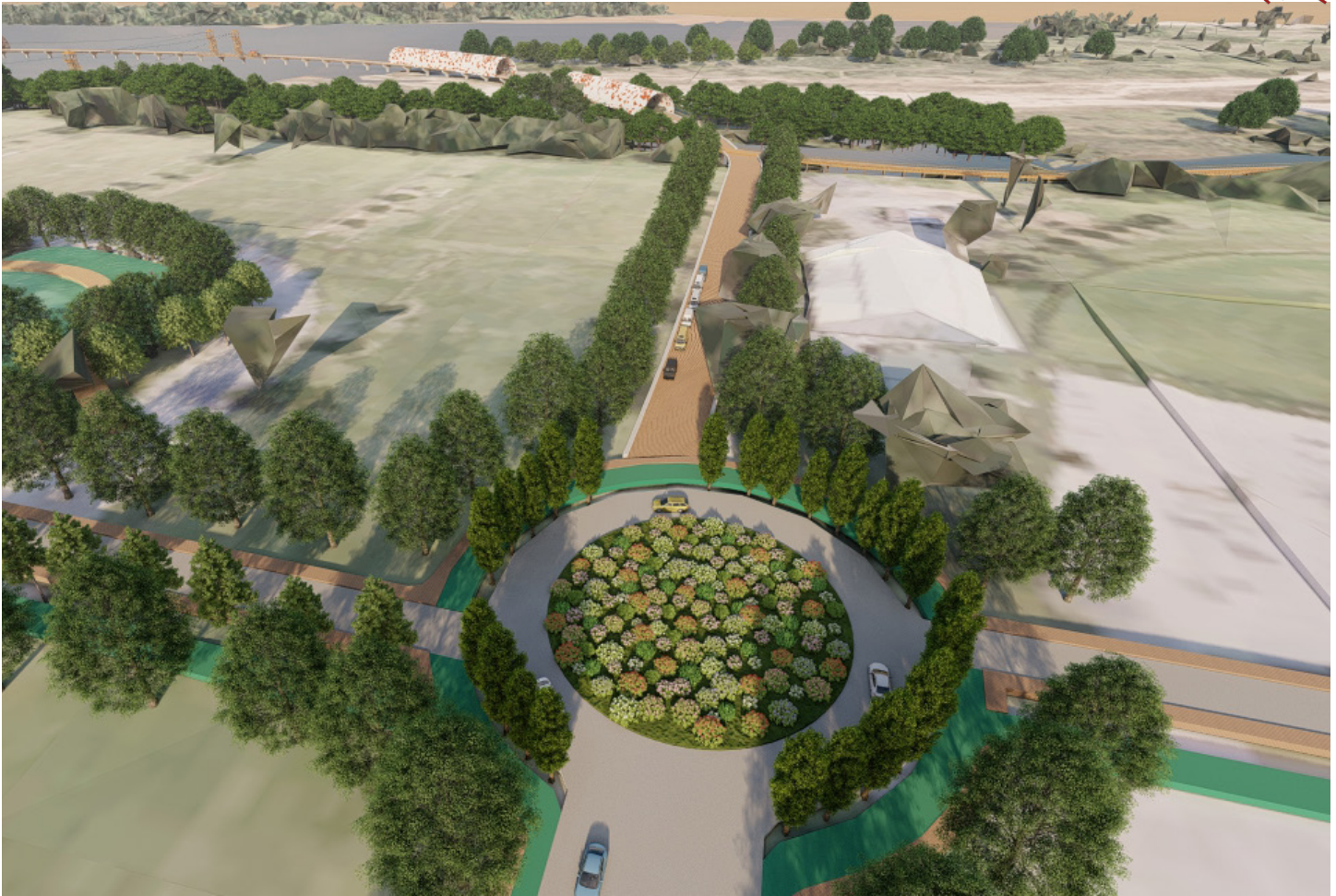
Aspen Landing Proposed Dog Park, Nature Center, Wetland and Development



Rendered view of the dog park with the pier and boardwalk in the background



Develop Scenarios for Aspen Avenue



View of roundabout looking south with the pier in the background

Complete Streets principles are used for the Aspen Avenue streetscape. Complete streets are designed and built to meet the requirements and ensure the safety of all users, including automobile drivers, cyclists, pedestrians, and public transportation. The notion of complete streets aims to build a balanced transportation system that encourages accessibility, connectivity, and safety for everyone, regardless of the mode of transportation or physical ability.

Make active transportation a priority by installing side paths, sidewalks, crosswalks, and pedestrian-friendly crossings. Encourage the usage of public transit by including services like dedicated bus lanes. Green infrastructure elements like trees and permeable pavements are used to minimize stormwater runoff, enhance air quality, and provide shade and cooling. To decrease energy usage, use LED lights and other energy-efficient lighting solutions. Considering the GO plan as a guide, the initially proposed sidepath from Elm Street to Aspen Avenue on the east side is proposed. Roundabout at the terminus of Aspen Avenue is intended as a traffic-calming measure and gateway to the park.



Design Studies

Develop Scenarios for Aspen Avenue

Aspen Avenue has the potential to be a hub of commercial activity, with several intersections that could attract investors with proper streetscaping and neighborhood linkages. The goal of streetscaping would be to create a comfortable environment for all forms of transportation. By adding a side path along the east side of Aspen, businesses are accessed through that path, which would also encourage parking to be pushed behind New developments are encouraged along Aspen Avenue.



Aspen Avenue streetscaping looking south



Develop Scenarios for Aspen Avenue



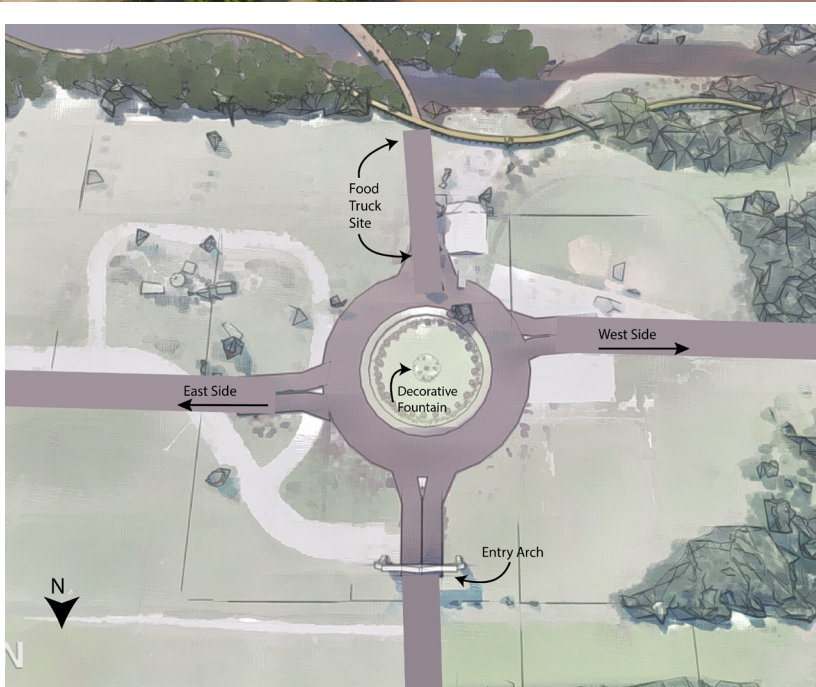
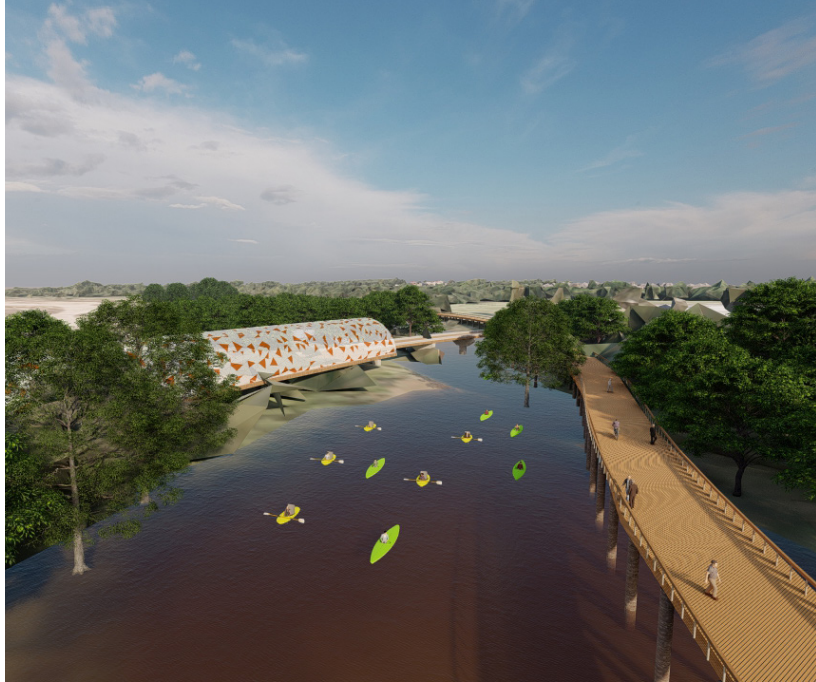
Aspen Landing Proposed Dog Park, Nature Center, Wetland and Development



There is opportunity for a hotel development near the school site, which has just been sold.







To make this design come to life, the immediate next step is to present the report to city leaders and assist the city with a community feedback survey. After that, the recommendations can be divided into short-term, medium-term, and long-term objectives.

Phases

Short-Term Objectives (0 to 2 years):

- Work on the parking, roundabout, and driveways.
- Start branding Aspen Landing for games and activities occurring at the sports facility.
- Work on connecting trails inside the park.
- Talk to food trucks and set a course for a change inside the Aspen Landing.
- Build the dog park and welcome more people.
- Group all of the little fields together as shown in the site plan.

Medium Term Objectives (2 to 5 years):

- Partner with local vendors and starting to attract business into the park.
- Construct design elements such as wetlands.
- Relocate the maintenance facility to the area where the little fields are clustered.
- Develop an amphitheater and a beer garden for events.

Long-Term Objectives (5 to 10 years):

- Construction of the pier and boardwalk.
- Add pier activities such as carnival games, a zipline tower, and a pier pool.
- Keep working on the Aspen Avenue streetscape and park trail extension to the Liberty Trail.

Funding

The first possible funding source that should be the next Broken Arrow Bond Issue for Public Improvements. For comparison, in 2014, a little over \$10 million was allocated for Broken Arrow park improvements in the 2014 bond issue. Every year, the City issues new bonds to support the initiatives specified in the bond approved by Broken Arrow voters in August 2018. The Broken Arrow City Council approved the sale of more than \$20.5 million in bond proceeds from the 2018 General Obligation Bond to finance projects in transportation, public safety, quality of life, public facilities, stormwater, and drainage.¹ Proposition 3 of the recent bond issue, set aside \$2,700,000 for Parks and Recreation projects including design and construction of Indian Springs.²

Proposition 3:

- Improvements to Indian Springs Sports Complex (Des/Const) \$1,500,000
- Construct improvements to new Southwest Park (Elam Park) (Const) \$1,000,000
- Construct Nienhuis Park Pedestrian Trail (Const) \$200,000

Some of the examples of other funding sources are listed below:

Implement park visiting fees to generate additional revenue. These fees might be charged per entrance or as yearly passes or memberships. Consider multiple pricing categories depending on variables such as age or the park's features.

Generate revenue from concerts arranged at the amphitheater.

Negotiate lease agreements with organizations and vendors operating in the park. Specify the lease term, rental amounts, maintenance tasks and any revenue-sharing arrangements.

Provide park businesses with promotional opportunities to raise their exposure and draw in additional visitors. This could entail advertising, event sponsorship, or joint marketing initiatives.

Community Development Block funds (CDBG): The United States Department of Housing and Urban Development provides these funds, which can be used for a number of community development initiatives, including park renovations. Tulsa County anticipates receiving \$1,457,941 in FY 2023 CDBG funds from the Department of Housing and Urban Development.³

Grants from the National Recreation and Park Association (NRPA): The NRPA has many grant programs that finance park improvements such as playground construction and renovations, park revitalization initiatives, and urban park development.

Grants from the City of Broken Arrow: The Community Development Block Grant (CDBG) and Neighborhood Improvement Grant (NIG) programs are two grant programs offered by the City of Broken Arrow that support park improvements.

Oklahoma Department of Environmental Quality: The Oklahoma Department of Environmental Quality offers grants to finance environmental and conservation initiatives such as wetland restoration, trail building, and other environmental benefits.

Private philanthropy provides grants. Organizations include Broken Arrow Community Foundation (BACF), Oklahoma City Community Foundation, Bloomberg, Chapman, GKFF.

Acknowledgments

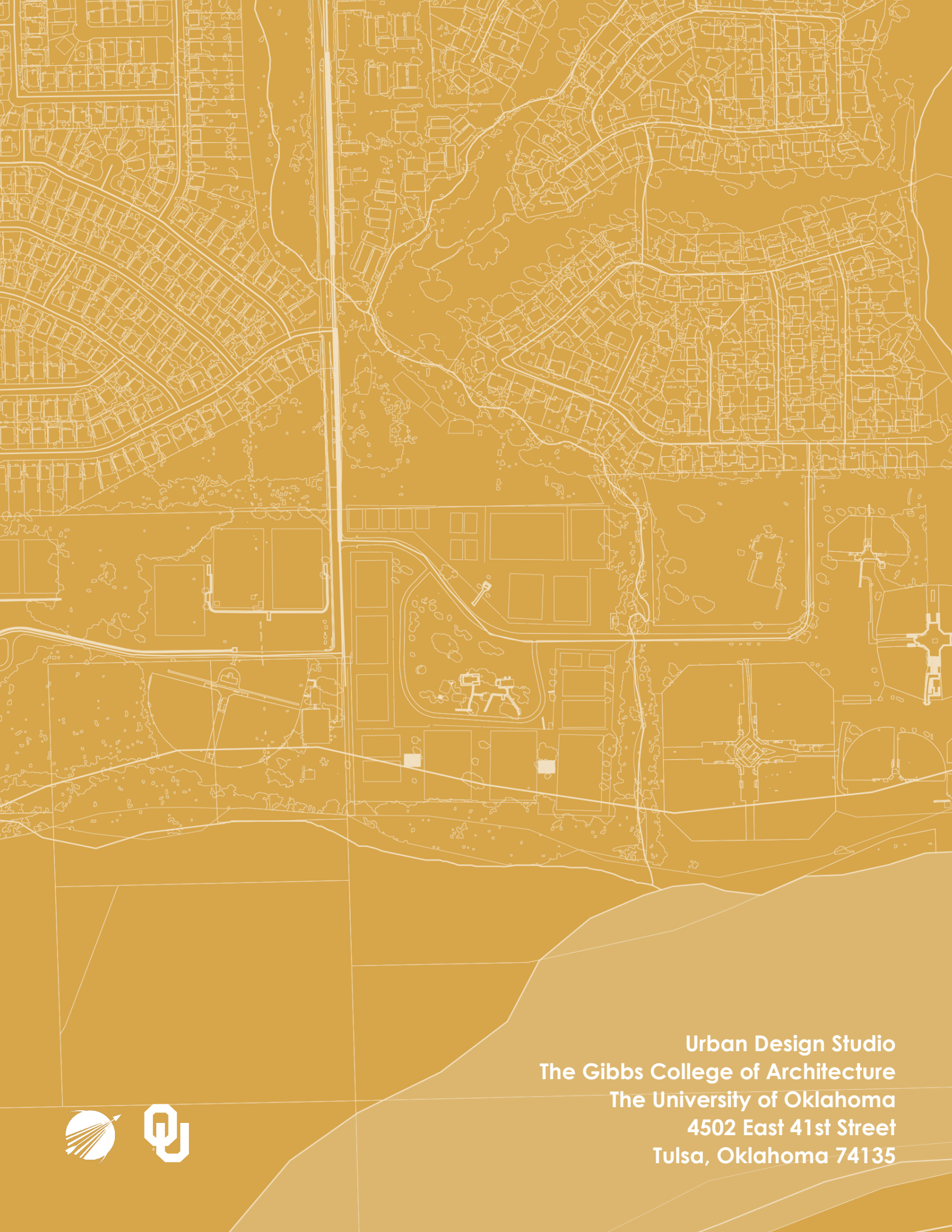
We would like to express our heartfelt gratitude and appreciation to everyone who has given time, skill, and support in the delivery of this project. Special thanks to Barbara Wilson (General Manager of Broken Arrow Soccer Club) for reviewing designs and providing information on soccer club requirements, Ty Simmons (Principal GIS Analyst at INCOG) for providing ArcGIS data for the project area, Lily Martinez (Administrative Assistant at the City of Broken Arrow) for arranging the stakeholder meetings, and David Williams, Ph.D. (Chief, Hydrology and Hydraulics Branch at U.S Army Corps of Engineers) for discussing floodplain management along the Arkansas River. Also, thank you Farhad Daroga for entrusting this project to the Urban Design Studio. Your positive attitude and ability to go out of way have made an incredible effect on the project.

End Notes

- 1 (N.d.). Retrieved from <https://www.brokenarrowok.gov/Home/Components/News/News/1809/1317>
- 2 City of broken arrow. (n.d.-a). Retrieved from <https://www.brokenarrowok.gov/government/public-works/capital-operational-programs/2018-general-obligation-bond>
- 3 (N.d.-a). Retrieved from <https://www.brokenarrowok.gov/Home/Components/Calendar/Event/2086/>

References

- Broken Arrow Next Comprehensive Plan. (2019). City of Broken Arrow, Halff Associates.
- Broken Arrow Parks and Recreation Master Plan. (Aug. 6, 2019). City of Broken Arrow, Halff Associates.
- CDBG: Community development block grant programs - hud exchange. (n.d.). <https://www.hudexchange.info/programs/cdbg/>
- Oklahoma Department of Environmental Quality. (2023, May 8). <https://www.deq.ok.gov/>
- Find available grants for school, business, and more. Grants for Students, Small Business, and Home Buyers. (n.d.). <http://grants.com/>
- Final Arkansas River Corridor Phase II Master Plan and Pre-Reconnaissance Study. (Oct. 2005). INCOG, Guernsey Team.
- Grant opportunities, fundraising resources, funding. National Recreation and Park Association. (n.d.). <https://www.nrpa.org/our-work/Grant-Fundraising-Resources/>
- INCOG - AADT Estimates. ArcGIS web application. (n.d.). <https://incog.maps.arcgis.com/apps/webappviewer/index.html?id=8f4d62c5aecc4629a019f9cbe0076b89>
- The Tulsa Regional Bicycle and Pedestrian Regional Master Plan, Community Plan - Broken Arrow. (2015). INCOG.
- National Pipeline Mapping System Public Viewer. "NPMS Public Viewer." <https://pvnpm.phmsa.dot.gov/PublicViewer>
- Programs: Land and water conservation fund. Bureau of Land Management. (n.d.). <https://www.blm.gov/programs/land-and-water-conservation-fund#:~:text=The%20Land%20and%20Water%20Conservation,all%20present%20and%20future%20generations.>



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