

# Lake Pflugerville Park Master Plan Pflugerville, Texas

June 2014





The following individuals made significant contributions toward the preparation of the Lake Pflugerville Park Master Plan. Their assistance and careful consideration have greatly influenced the outcome of this planning and design effort.

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Brad Marshall – Council Place 2  
Omar Pena – Council Place 3  
Starlet Sattler – Council Place 4  
Victor Gonzales – Council Place 5

### Parks and Recreation Commission

Christina Crouch – Chair  
Melody Ryan – Vice Chair  
Bret Stewart  
David Taylor  
Ronda Gindin – Secretary  
Danny Vinzant – Alternate  
Sarah Young – Student Member

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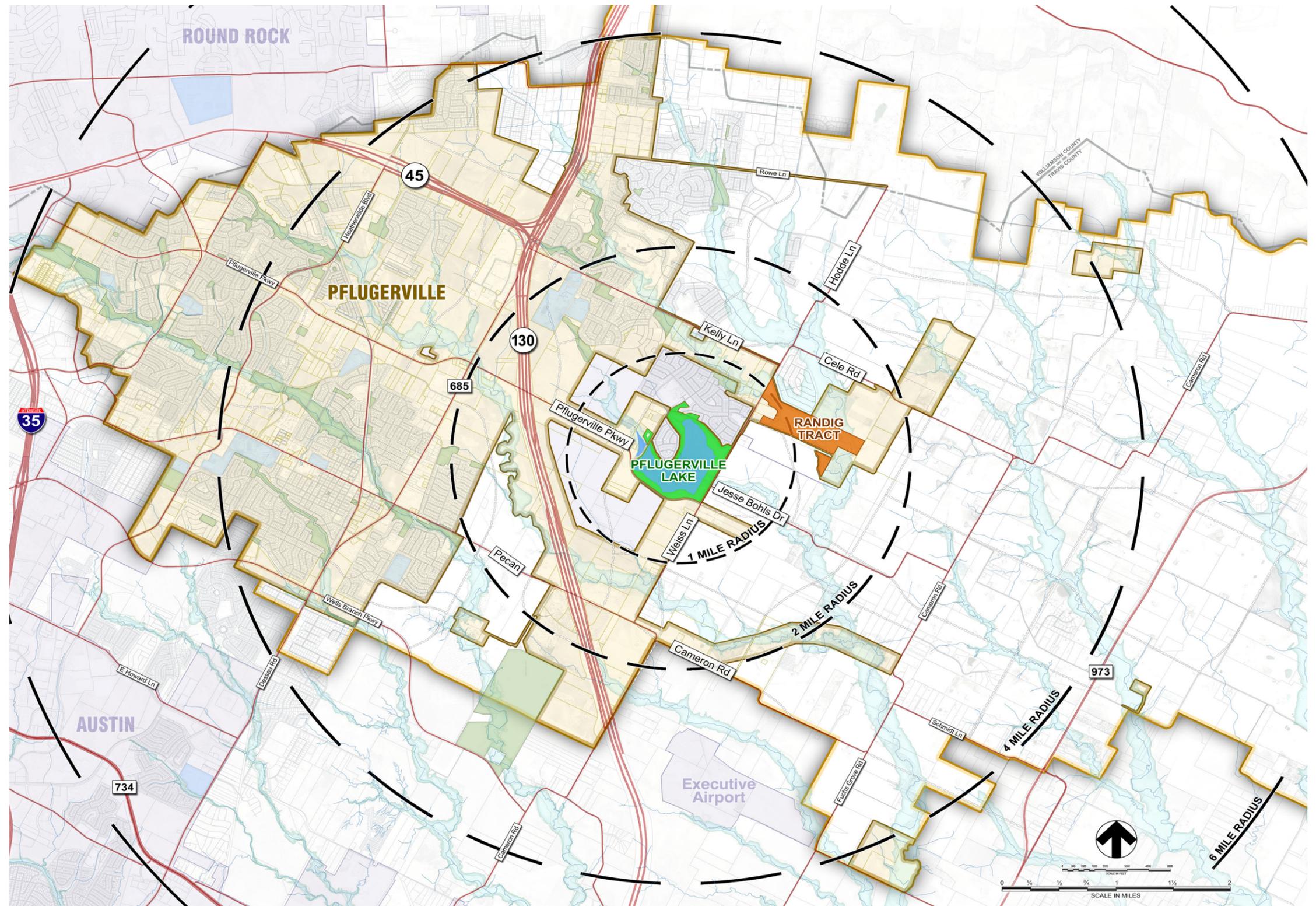
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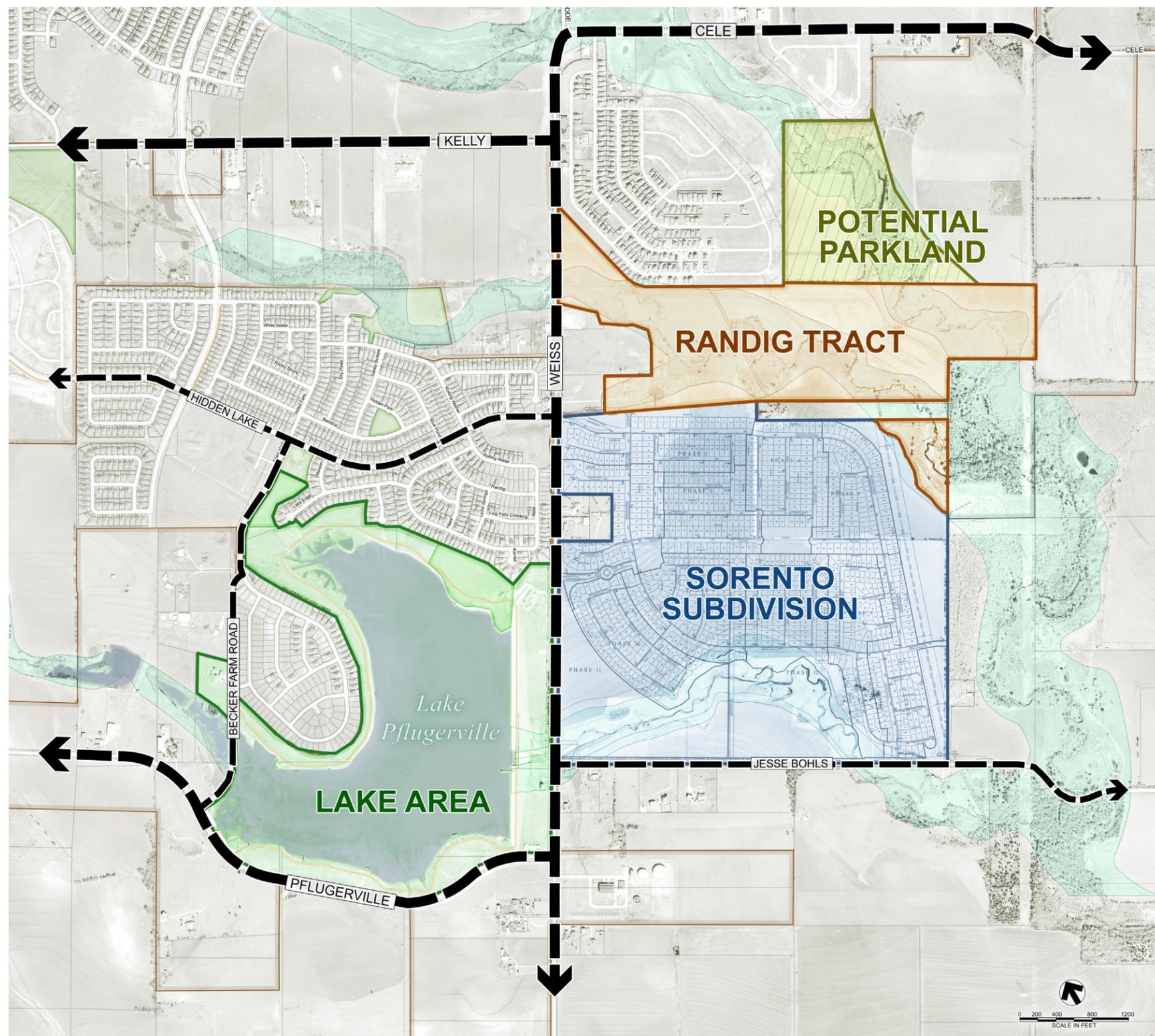


Lake Pflugerville Park, located at the city center, is no more than 6 miles from the Pflugerville city limits in any direction and lies in close proximity to new growth to the eastern side of the city like that of the Sorento Subdivision currently under construction. The locations proximity to new residential communities along with connections provided by Pflugerville Parkway and Weiss Road, provide easy access from all areas of the city. Centrally located, with an already high demand for recreational use, this site, along with its potential for future improvements could easily become Pflugerville's flagship park, setting the standard for future parks.

This booklet documents the efforts made in arriving at a fourth, or final concept master plan. It illustrates the progression from site inventory and analysis, where opportunities and constraints were identified, the identification of the user needs from the results of a public survey, the original three concepts, a final plan that incorporates the desired or favored amenities of each of the three original concepts into one, final concept, and finally, the cost associated with each phase of development.



Regional Context

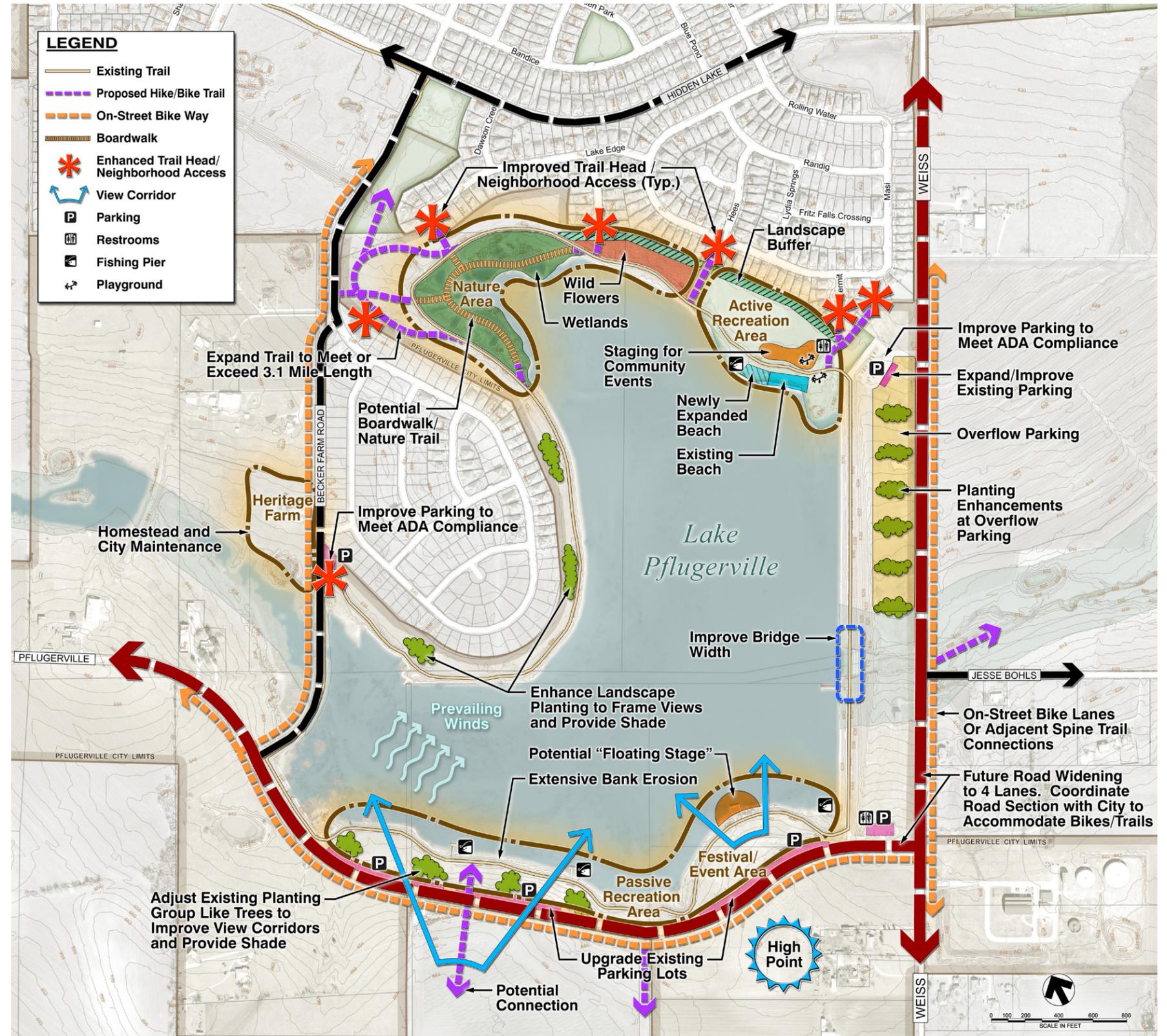


Site Context

Park activities include a trail system that spans some 2.9 miles in length surrounding the lake, a beach with a designated swimming area, fishing piers, a picnic shelter with restrooms, and some playground equipment. Some paved/striped parking exist at four different locations around the lake, with more parking available in less formal (gravel lots), or as overflow parking below the dam. Many of the existing facilities on site and in use today fail to meet current ADA (American's with Disabilities Act) compliance, one of the many goals of this Master Plan for both future site improvements and the existing facilities. Shelter from the Texas sun is limited to a few shade covered picnic tables and a pavilion. Future improvements should include both vegetative (canopy shade trees) and artificial shade (shade structures & pavilions) strategically placed throughout the site.

The park is subdivided into 4 distinct areas or activities:

1. **Active Recreation Area** – Located at the northeast corner of the lake, this area is home to a number of different activities including playground equipment, expansive beach with swimming area, trail access within the park and to the adjoining neighborhood, a picnic pavilion with restrooms, and boat rentals. Paved parking (57 spaces) is also available opposite the levee.
2. **Nature Area** – This area, located at the northwest corner of the lake, remains largely untouched and is in sharp contrast to the remaining park which has a more urban feel. Made up of low lying wetland plants and marsh grasses, it presents an opportunity where facilities could offer an educational component with consideration for bird watching blinds and low-lying boardwalks with interpretive kiosk. Careful consideration should be given to any improvements in this area in order to ensure the delicate balance of nature is minimally impacted.
3. **The Biehle (Heritage) Farm** - Just of west of the lake is a small farm house purchased by the City of Pflugerville that could easily be incorporated into the proposed park improvements. The farm could serve as a demonstration farm for interpretive/educational purposes.
4. **Passive Recreation Area** – The southernmost edge of the lake is home to a more passive experience, with limited amenities like that of fishing piers and the continuation of the Lake Pflugerville Trail. Pull off gravel parking lots extend along E. Pflugerville Parkway with a smaller, hard surface lot located at the southeast corner of the lake by the dam. Like most areas around the lake, shade is at a premium and limited to a few small groupings of canopy trees, not yet mature enough to provide adequate shelter from the sun.



## Site Photos



Limited accessible routes within activity areas and from parking



One of the few shade structures found around lake



Lake Pflugerville Trail varies in both width and material varies throughout the park



Variable materials for trail and parking and the lack of a containment edge



Significant erosion and receding shoreline is present at the south bank



Typical view of the wetlands at the northwest corner of the lake

During the months of August and September of 2013, Half Associates conducted a public survey to gauge interest from the community on what activities and facilities are favored with future park improvements. Participants were asked to rank their top five choices from the list of preferred items (see sample comment sheet to the right). Of the preferred items available to choose from, three categories tied for the most responses with twelve apiece. Those categories were:

- Enhanced Fishing Piers/Overlooks with Seating and Shade
- Enhanced Wildflowers/Natural Areas
- Enhanced Sustainable Landscape Improvements (Tree Planting)

Other noteworthy categories that received high votes were *Additional Beach on the South Side of the Lake* (10) and *Improved Parking* (11). The additional beach at the south shore is not conducive due to prevailing winds from the southwest which would cause the sand on the beach to pull out to the middle of the lake increasing maintenance and upkeep of the beach area.

Participants were also asked to provide additional feedback and comments that might not have been among the list of preferred items. Excerpts from those comments are seen below.

*“Build a boardwalk on the south east corner of the lake. Make it very wide”*

*“Dredge part of the lake and put scuba structures that attract divers.”*

*“I really want to see lighting for the walking path...”*

*“Have shops and restaurants...”*

*“Explore the idea of an area for live concerts...”*



## City of Pflugerville Lake Pflugerville Master Plan Discussion Meeting August 15, 2013

### Comment Sheet

Of the Recreational Imagery items for the Lake Pflugerville Master Plan, please check your preferred item. **(Up to 5 MAX)** Please rank Park Imagery Items options from highest priority to the lowest priority.

Check preferred item	Rank	Item
<input checked="" type="checkbox"/> Enhanced Fishing Piers/Overlooks with seating and shade	3	
<input type="checkbox"/> Large Playground Units for the Community		
<input type="checkbox"/> Additional Beach on the South Side of the Lake		
<input type="checkbox"/> Outdoor Amphitheater		
<input type="checkbox"/> Sprayground / Splash Water Park		
<input type="checkbox"/> Wakeboard Park		
<input type="checkbox"/> Additional Hike and Bike Trails		
<input type="checkbox"/> Nature/soft Surface Trail		
<input checked="" type="checkbox"/> Themed Picnic Pavilions / Shade Shelters	2	
<input checked="" type="checkbox"/> Additional Benches/Tables	1	
<input type="checkbox"/> Educational / Interpretive Signage		
<input checked="" type="checkbox"/> Horseshoe Pits	5	
<input type="checkbox"/> Improved Parking		
<input type="checkbox"/> Decorative Water Fountain at Lake		
<input type="checkbox"/> Enhanced Wildflowers / Natural Areas		
<input checked="" type="checkbox"/> Enhanced Sustainable Landscape Improvements (Tree Planting)	4	
Other _____		

Of all the ideas you heard about today, which one did you like the best and also the least? Or, what one amenity would you not like to see in the park?

Seating is also a high priority whether it be benches to sit near the water, or tables for meals. Some sort of cover at all would be preferred. I am not against any of these suggestions, but my least favorite would be the Wakeboard Park in lieu of the water park that is being built not far from lake.

Please feel free to add any comments regarding the proposed ideas for Lake Pflugerville Master Plan that you saw today.

The more family friendly the environment can be, the more interested I am in spending time there. Something mentioned on the web site but not on this form was bathrooms. That would definitely rank high on the priority along with water stations.

List of Preferred Items: Potential Park Imagery Items for Consideration	Item Rankings by Count (Top 5)						
	First	Second	Third	Fourth	Fifth	Checked/Unranked	Total
Enhanced Fishing Piers/Overlooks with Seating and Shade	2	1	4	2	2	1	12
Large Playground Units for the Community			1			1	2
Additional Beach on the South Side of the Lake	2	3	1	1	1	2	10
Outdoor Amphitheater	4			1	3		8
Sprayground/Splash Water Park		1		1	3		5
Wakeboard Park	2						2
Additional Hike and Bike Trails		4	1	2	1	1	9
Nature/Soft Surface Trail	2		1				3
Themed Picnic Pavilions/Shade Shelters	1	3	1	3		1	9
Additional Benches/Tables	1	2		2	2	2	9
Educational/Interpretive Signage			3				3
Horseshoe Pits			2	1	1		4
Improved Parking	2	4		1	3	1	11
Decorative Water Fountain at Lake							0
Enhanced Wildflowers/Natural Areas	1	2	4	4	1		12
Enhanced Sustainable Landscape Improvements (Tree Planting)	2	2	3	2	2	1	12

## Concept A Master Plan



The development of schematic design options resulted in three distinct Master Plan concepts, which were presented to City Council on December 10th, 2013. While each concept possessed its own unique focus and program elements, certain common themes are found within each, such as:

- Improving connectivity – Each concept addresses the need to upgrade, extend, and improve the existing trail. This included addressing access within the park, to and from the adjacent neighborhoods, and meeting ADA compliance.
- In a supporting role to the trail improvements, site furnishings like that of benches (or other forms of seating), trash receptacles, signage, lighting, and monumentation were addressed.
- Shade – All concepts address the need for more and improved shade options. Shade trees and shade structures are shown equally distributed around the site in an effort to minimize the distance between shade opportunities and limit the occurrences of extensive areas exposed to the sun.
- Expanded trail and boardwalk in association with the Biehle Farm.
- Extensive parking lot improvements throughout the site – Current conditions have parking at a premium and limited to certain locations around the lake. Each concept addressed the need for additional parking while distributing the parking around the perimeter of the lake, creating new access points and trail head locations.
- Interpretive Boardwalk – To take advantage of the marshy conditions that exist at the northwest corner of the lake, each concept offers some version of a boardwalk with interpretive stations.

Concept A; building on the already popular beach area, the primary goal here was to create a large esplanade in association with the beach. Separating the expanded beach from the nearby and expanded playscape area is a large, meandering area of decorative concrete plaza. Within that plaza are numerous shade structures, a large shade pavilion, lighting, seating, and shade trees along its perimeter. To the north, a bypass trail exists to allow joggers and bicyclist an alternate route in order to avoid the more heavily used esplanade.

On the southwest side of the lake the existing trail location has been reconfigured to provide upper and lower connectivity. The lower section of trail meanders and interfaces with the lake edge and connects with two proposed fishing piers. The upper section of trail provides a connection between the lower section of trail and the proposed parking lot improvements. The addition of playground equipment is another recommended improvement for this area.

At the peninsula located at the southeast corner of the lake, the continuations of the upper and lower trails again connect park users from the nearby parking lot to the lake edge and also a large event pavilion with restrooms. A boardwalk is also shown at the lake edge extending off the lower trail segment.



View 1 - Conceptual Rendering of Beach Esplanade

## Concept B Master Plan

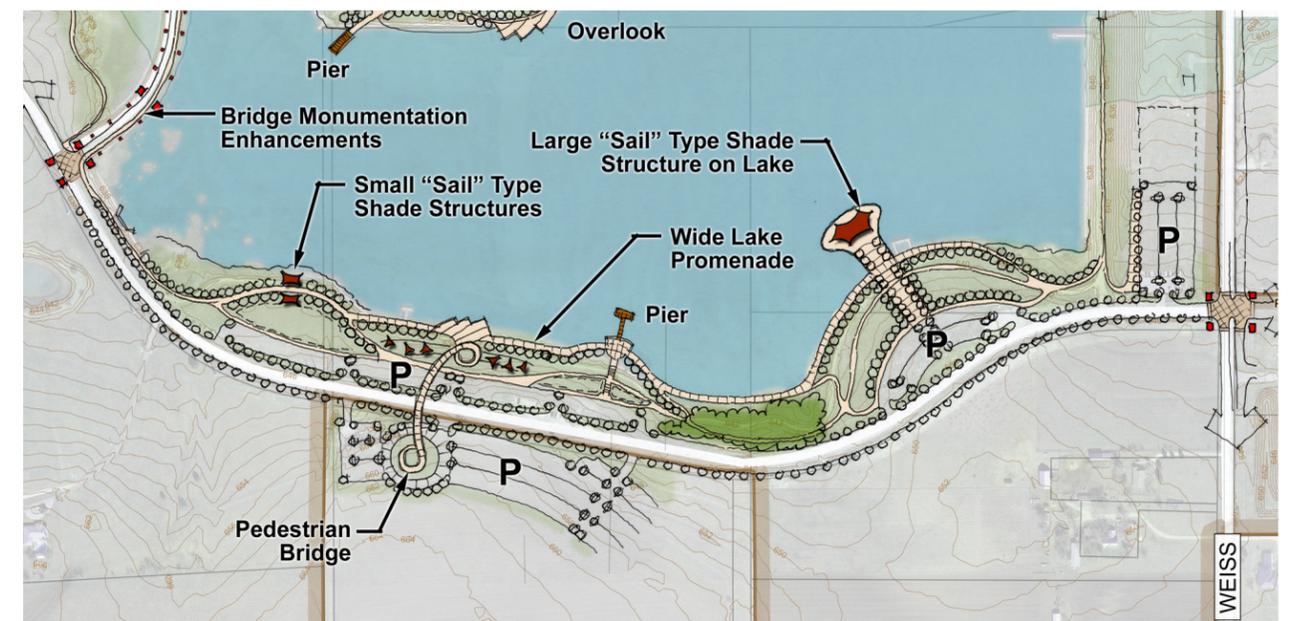


Similar to Concept A, Concept B enhancements to the beach area are included with this concept. Here, one large pavilion is facing the lake with playground equipment to either side. The pavilion provides views to the lake and playgrounds where parents can rest in the shade with their children easily in view. Again, a trail bypass is provided to the north for those using the trail that might want to avoid the heavier use of the beach.

Where Concept A's focus was primarily with the beach esplanade, that focus shifts to the south side of the lake with Concept B. The trail network is made up of both upper and lower connections, but with the distinct difference of a lake wall and promenade for this concept. The promenade, a much larger concrete plaza adjacent to the lake, is designed for the park user to be more directly engaged with the lake, but also serves as a means of erosion control. A number of small sail type shade structures are also located near the trail.

For the southeast peninsula, a large shade structure is provided, this time extending into the lake on a large overlook platform. The shade structure in this concept is similar to the smaller sail structures found at the promenade and made of a fabric material.

An alternate to Concept B is shown below that addresses connectivity issues between the adjacent property south of Pflugerville Parkway and the park. The potential for future development in the area may require consideration for pedestrian access safely across the road. This drawing illustrates how a pedestrian bridge might accomplish this by spanning Pflugerville Parkway, linking each side.



Concept B2 Enlargement - Alternate Pedestrian Bridge Crossing



**Before - Existing Wetland Area**



**After - Artist Rendering of Boardwalk and Interpretive Wetland/Nature Area**

The above illustrations depicts a before/after scenario for the northeast corner of the lake. As described in the site analysis section and seen in the “before” photo above, this area of the lake tends to be more low-lying and wet, with an abundance of aquatic plants and wildlife. The “after” illustration shows potential improvements in the form of boardwalks, interpretive signage with a shade structure in the background. When comparing the photo of the existing conditions to the illustration one can see how easily the boardwalk and other related facilities could coexist with the natural environment.

## Concept C Master Plan



Concept C; like Concept B, many of the same amenities are provided here but in a different configuration; a central pavilion is provided with improvements to the playground equipment and beach area with number of small shade structures covering picnic tables flanking the trail along the beach and beyond. The trail adjacent to the beach area has been widened from 12 feet to 24 feet. Once past the beach the trail transitions back to 12 feet.

For the southwest area of the lake, a less formal, meandering trail provides upper and lower connections. Along the lower trail are two overlooks with fabric shade structures and a large covered fishing pier.

The primary focus for Concept C is with the southeast peninsula where an amphitheater is shown cut into the hillside. The amphitheater looks down on a large stage at the lake edge covered by a large sail type shade structure, perfect for concerts and other events.



**Before - Existing Fishing Pier and Varying Width Decomposed Granite Trail**



**After - Artist Rendering of a Covered Fishing Pier, Trail, and Contained Lake Edge**

The “before” photo above captures the gamut of conditions found along the southern lake edge. Here, erosion is evident in the foreground along the water’s edge with sparse plantings of small, undersized canopy trees that provide little in the way of shade. Few amenities exist here with only a few aging fishing piers and the continuation of the Lake Pflugerville Trail. Parking is available, although largely in the form of gravel pull-off lots that lack formal trail connections or ADA accommodations.

While the existing amenities are limited, ample opportunity exists to improve the site as illustrated in the “after” drawing. Here, densely spaced, large canopy trees are shown casting shade over a widened and better maintained trail. Way-finding signage and seating are also positioned along the trail. To the right, a more formalized and improved parking lot is shown as paved, striped parking that meets ADA compliance and provides easy access to the trail network. Also the fishing pier is depicted with a shade structure incorporated into the design. Finally, the erosion issue at the lake edge is addressed with a stone lake wall that also adds an aesthetic element to the design.



**Before**



**After**

The view from the dam shows the peninsula-like area extending into the lake. Much like the remaining park to the west of this location, this area is home to few amenities made up of mainly fishing piers with the Lake Pflugerville Trail passing nearby. The grade change between the gravel parking lot and the lake edge is fairly significant (8 to 10 feet) and yields itself nicely to having an amphitheater with stage like that shown in the above illustration. The illustration also suggests the need for rip-rap or a stone wall at the water's edge. Parking is shown improved over the current, pull gravel lot and groupings of large shade trees are seen in the foreground.

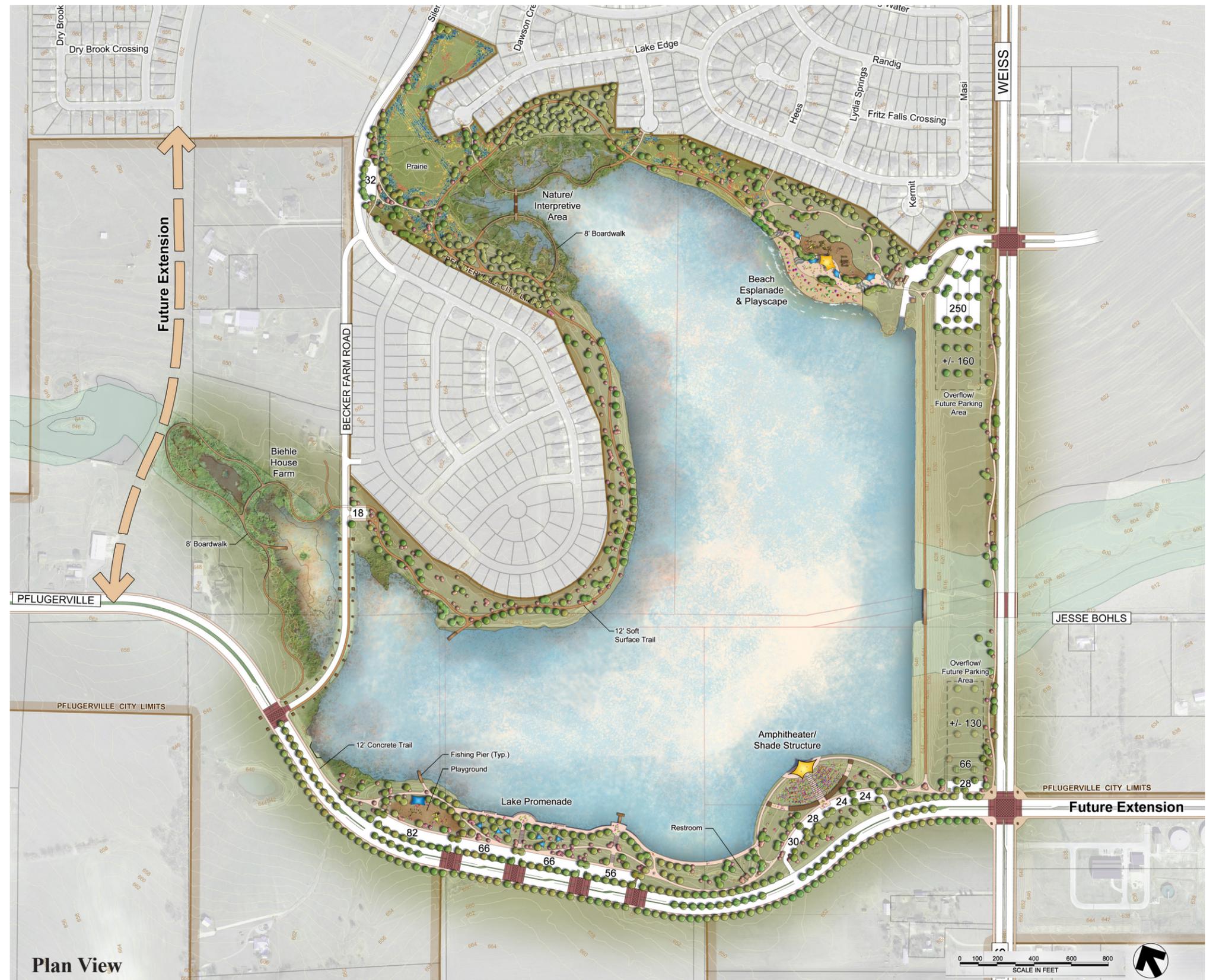
# Master Plan

# Lake Pflugerville Park Master Plan

Based on comments during the December 10th presentation to City Council, and with follow-up discussions among City Staff, and members of the Parks Commission it was agreed that no one concept stood out, but instead certain amenities, or features from different concept options were favored. It was requested of Halff Associates to create a plan that would incorporate and combine those different, favored features into one final plan. That plan is depicted to the right.

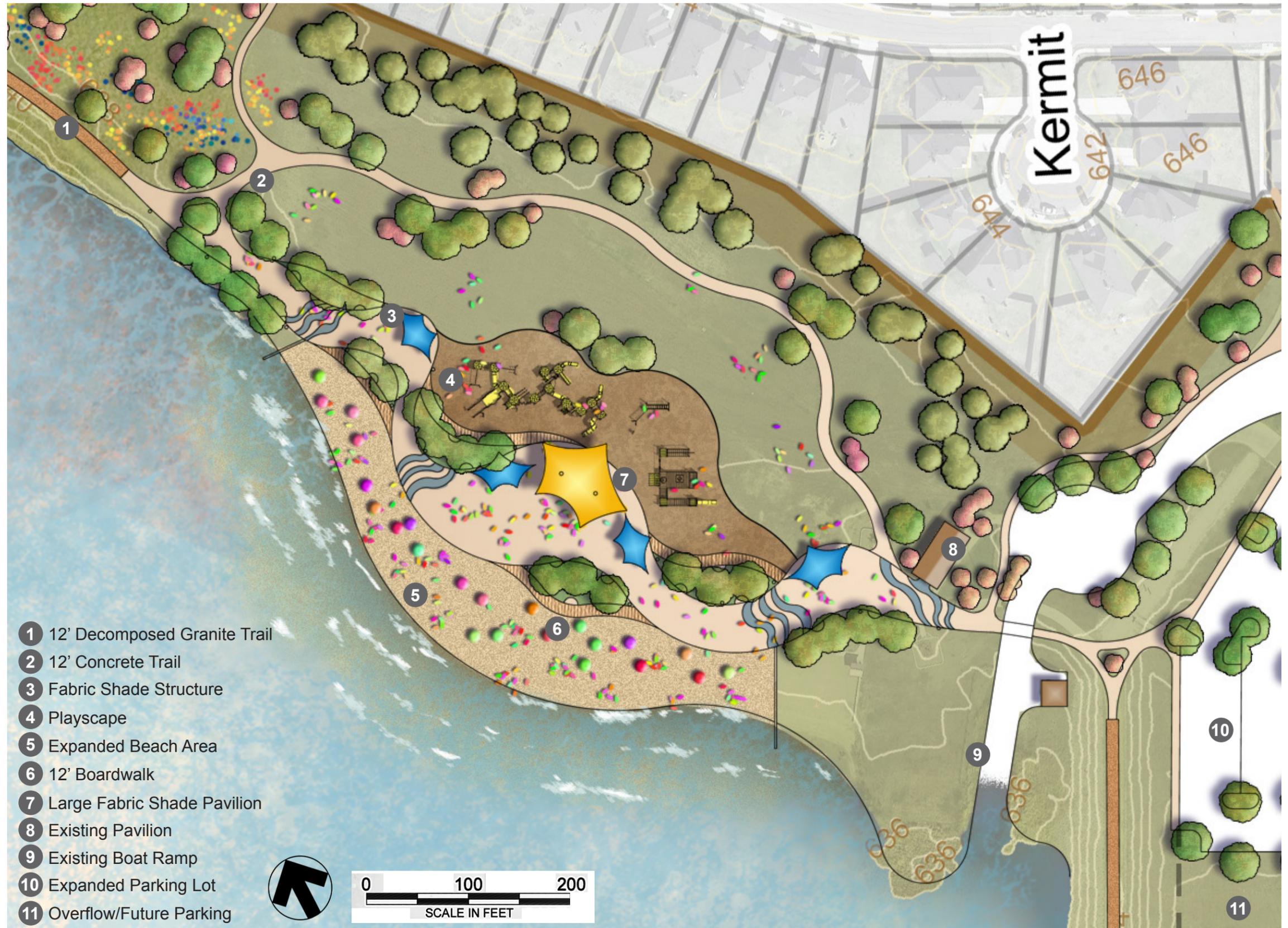
In short, it was the prominent feature or main focus for each of the individual concepts that were selected. For Concept A, that was the north lake area including both the Beach Esplanade and nature preserve. For the southwest, the Lake Promenade from Concept B, and finally with Concept C, it was the Amphitheater feature that stood out.

Like the 3 concepts before, there are park-wide improvements found with all three, like that of connectivity (trail connections, ADA access, etc.), improving shade opportunities (tree planting, shade structures), enhancements to the Biehle Farm, and expanding and improving parking around the lake.



Plan View

## Conceptual Imagery

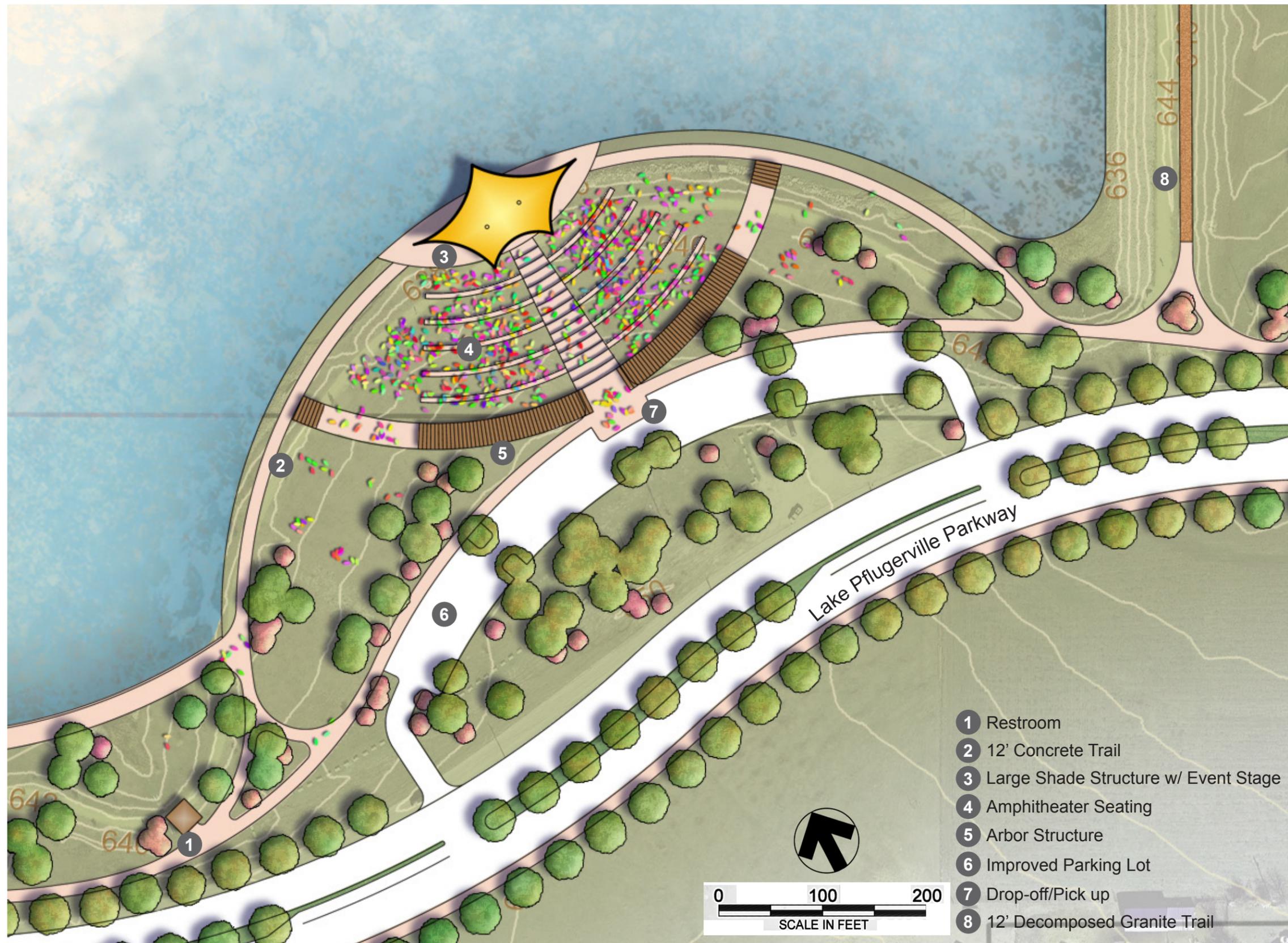


- 1 12' Decomposed Granite Trail
- 2 12' Concrete Trail
- 3 Fabric Shade Structure
- 4 Playscape
- 5 Expanded Beach Area
- 6 12' Boardwalk
- 7 Large Fabric Shade Pavilion
- 8 Existing Pavilion
- 9 Existing Boat Ramp
- 10 Expanded Parking Lot
- 11 Overflow/Future Parking



# Master Plan Enlargement

## Amphitheater/Shade Structure



Conceptual Imagery



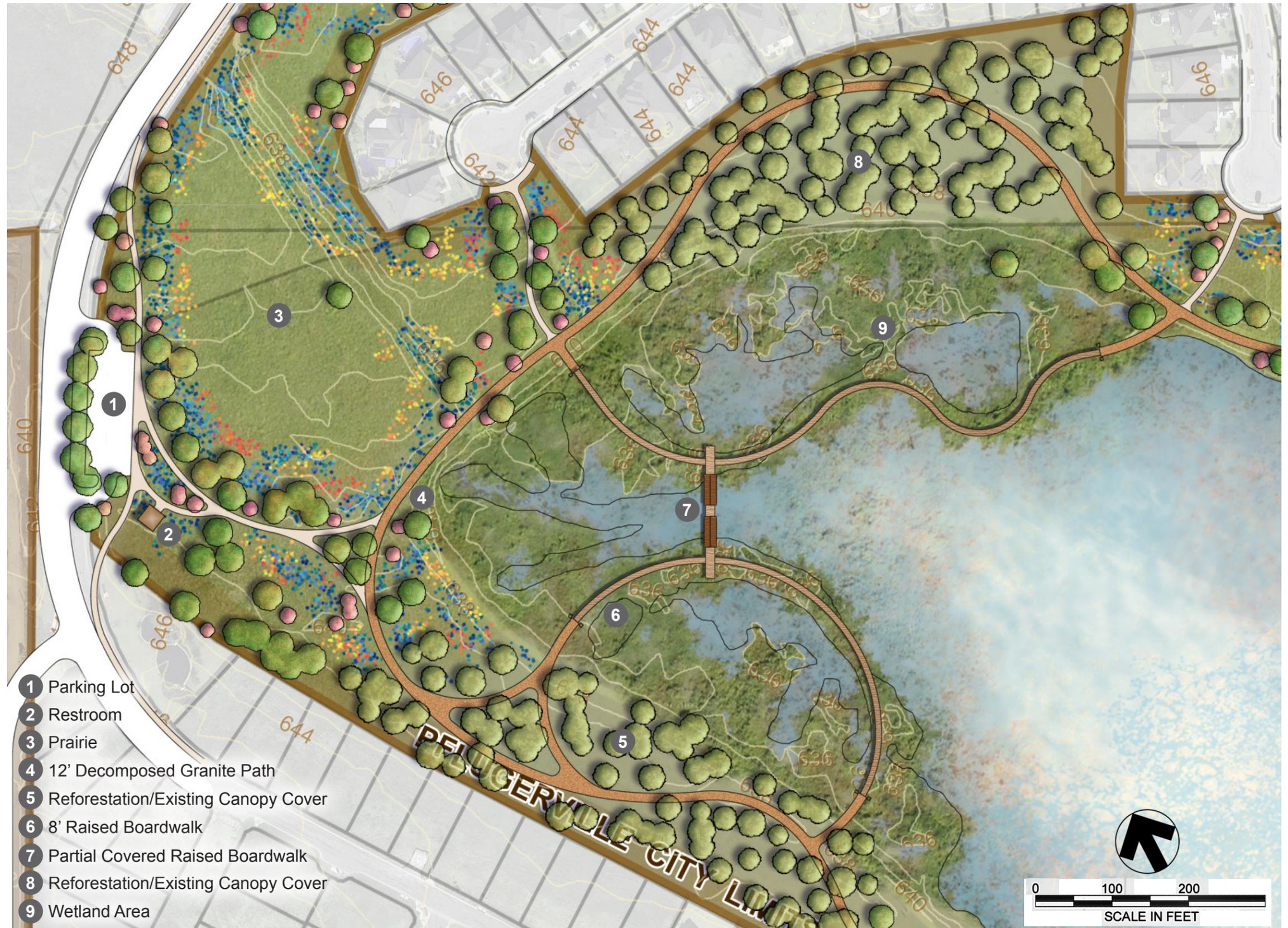
## Conceptual Imagery



- 1 Restroom
- 2 Fishing Pier
- 3 Playground Equipment w/Shade Structure
- 4 Improved Parking Lot
- 5 Decorative Pedestrian Crosswalk
- 6 12' Concrete Trail
- 7 Fabric Shade Structures
- 8 Concrete Promenade



Conceptual Imagery





- 1 Wetland Area
- 2 8' Raised Boardwalk
- 3 Raised Bridge Boardwalk
- 4 Fishing Pier/Boardwalk
- 5 8' Decomposed Granite Trail
- 6 New Parking Lot

Conceptual Imagery



## Cost Estimate for Improvements to Lake Pflugerville<sup>†</sup>

I. General/Overall Site Amenities & Improvements*	\$2,916,980.30
II. Beach/Central Plaza Area	\$2,877,135.43
III. Nature Interpretive Area**	\$590,252.00
IV. South Lake Area	\$3,678,613.90
V. Event Amphitheater Area	\$1,390,487.70
<b>Subtotal</b>	<b>\$11,423,469.33</b>
Alternative Design Features	
VI. Biehle House Farm Area	\$1,116,076.00
III. Nature Interpretive Area	\$810,330.30
Other Alternative Design Features***	\$1,336,315.50
<b>Subtotal Alternative Design Features</b>	<b>\$3,262,721.80</b>
<b>Combined Project Total</b>	<b>\$14,686,191.13</b>

## I. General/Overall Site Amenities & Improvements Cost Estimate<sup>†</sup>

Sitework/Earthwork	\$195,000.00
Drainage	\$40,000.00
Hardscape	\$1,410,516.00
Landscape & Irrigation	\$317,715.00
Structures & Signage	\$200,000.00
Furnishings	\$21,000.00
Lighting & Electrical	\$9,600.00
Contingency & General Contractor Conditions+	\$673,149.30
<b>Total</b>	<b>\$2,916,980.30</b>

<sup>†</sup> Estimate of Probable Cost; Consultant shall not be liable to Owner or to a third party for any failure to accurately estimate the cost of the project, or any part thereof. All costs are approximate shall be used for planning purposes only. A detailed cost estimate shall be prepared with engineering construction drawings, survey, permitting and geotechnical borings.

### Notes:

- \* General/Overall Site Amenities & Improvement category contains cost associated with the entire site within Lake Pflugerville which could not be categorized into individual areas. This includes improvements through the entire master planned area.
- \*\* Only includes the raised boardwalk and signage.
- \*\*\* Includes all other features within the Nature Interpretive Area not including the raised boardwalk and signage completed within Phase I.
- + Contingency & General Contractor Conditions based on current built project estimates.





## II. Beach/Central Plaza Area Cost Estimate<sup>†</sup>

Hardscape	\$1,562,572.00
Landscape & Irrigation	\$154,609.10
Structures & Signage	\$318,000.00
Furnishings	\$77,000.00
Lighting & Electrical	\$101,000.00
Contingency & General Contractor Conditions*	\$663,954.33
<b>Total</b>	<b>\$2,877,135.43</b>

<sup>†</sup> Estimate of Probable Cost; Consultant shall not be liable to Owner or to a third party for any failure to accurately estimate the cost of the project, or any part thereof. All costs are approximate shall be used for planning purposes only. A detailed cost estimate shall be prepared with engineering construction drawings, survey, permitting and geotechnical borings.

### Notes:

\* Contingency & General Contractor Conditions based on current built project estimates.

Final Master Plan

### III. Nature/Interpretive Area Cost Estimate<sup>†</sup>

Hardscape	\$446,040.00
Structures & Signage	\$8,000.00
Contingency & General Contractor Conditions*	\$136,212.00
<b>Total</b>	<b>\$590,252.00</b>

<sup>†</sup> Estimate of Probable Cost; Consultant shall not be liable to Owner or to a third party for any failure to accurately estimate the cost of the project, or any part thereof. All costs are approximate shall be used for planning purposes only. A detailed cost estimate shall be prepared with engineering construction drawings, survey, permitting and geotechnical borings.

#### Notes:

\* Contingency & General Contractor Conditions based on current built project estimates.





## IV. South Lake Area Cost Estimate<sup>†</sup>

Hardscape	\$2,316,628.00
Landscape & Irrigation	\$83,075.00
Structures & Signage	\$78,000.00
Furnishings	\$292,000.00
Lighting & Electrical	\$60,000.00
Contingency & General Contractor Conditions*	\$848,910.90
<b>Total</b>	<b>\$3,678,613.90</b>

<sup>†</sup> Estimate of Probable Cost; Consultant shall not be liable to Owner or to a third party for any failure to accurately estimate the cost of the project, or any part thereof. All costs are approximate shall be used for planning purposes only. A detailed cost estimate shall be prepared with engineering construction drawings, survey, permitting and geotechnical borings.

### Notes:

\* Contingency & General Contractor Conditions based on current built project estimates.

## V. Event/Amphitheater Area Cost Estimate<sup>†</sup>

Hardscape	\$651,704.00
Landscape & Irrigation	\$72,025.00
Structures & Signage	\$258,000.00
Furnishings	\$10,800.00
Lighting & Electrical	\$54,000.00
Contingency & General Contractor Conditions*	\$313,958.70
<b>Total</b>	<b>\$1,360,487.70</b>

<sup>†</sup> Estimate of Probable Cost; Consultant shall not be liable to Owner or to a third party for any failure to accurately estimate the cost of the project, or any part thereof. All costs are approximate shall be used for planning purposes only. A detailed cost estimate shall be prepared with engineering construction drawings, survey, permitting and geotechnical borings.

### Notes:

\* Contingency & General Contractor Conditions based on current built project estimates.





## Alternative Design Features

### VI. Biehle House Farm Area Cost Estimate<sup>†</sup>

Hardscape	\$784,920.00
Structures & Signage	\$8,000.00
Furnishings	\$6,600.00
Lighting & Electrical	\$9,000.00
Traffic	\$50,000.00
Contingency & General Contractor Conditions*	\$257,556.00
<b>Total</b>	<b>\$1,116,076.00</b>

### VI-A. Nature Interpretive Area Cost Estimate<sup>†</sup>

Hardscape	\$246,426.00
Landscape & Irrigation	\$103,505.00
Structures & Signage	\$250,000.00
Furnishings	\$5,400.00
Lighting & Electrical	\$18,000.00
Contingency & General Contractor Conditions*	\$186,999.30
<b>Total</b>	<b>\$810,330.30</b>

### VI-B. Other Alternative Features Cost Estimate<sup>†</sup>

Hardscape	\$180,000.00
Landscape & Irrigation	\$12,935.00
Furnishings	\$250,000.00
Lighting & Electrical	\$585,000.00
Contingency & General Contractor Conditions*	\$308,380.50
<b>Total</b>	<b>\$1,336,315.50</b>

<sup>†</sup> Estimate of Probable Cost; Consultant shall not be liable to Owner or to a third party for any failure to accurately estimate the cost of the project, or any part thereof. All costs are approximate shall be used for planning purposes only. A detailed cost estimate shall be prepared with engineering construction drawings, survey, permitting and geotechnical borings.

#### Notes:

\* Contingency & General Contractor Conditions based on current built project estimates.

Final Master Plan