

LOUISVILLE ZOO

MASTER PLAN UPDATE

theZOO
LOUISVILLE

clr
DESIGN



FEBRUARY 8, 2016

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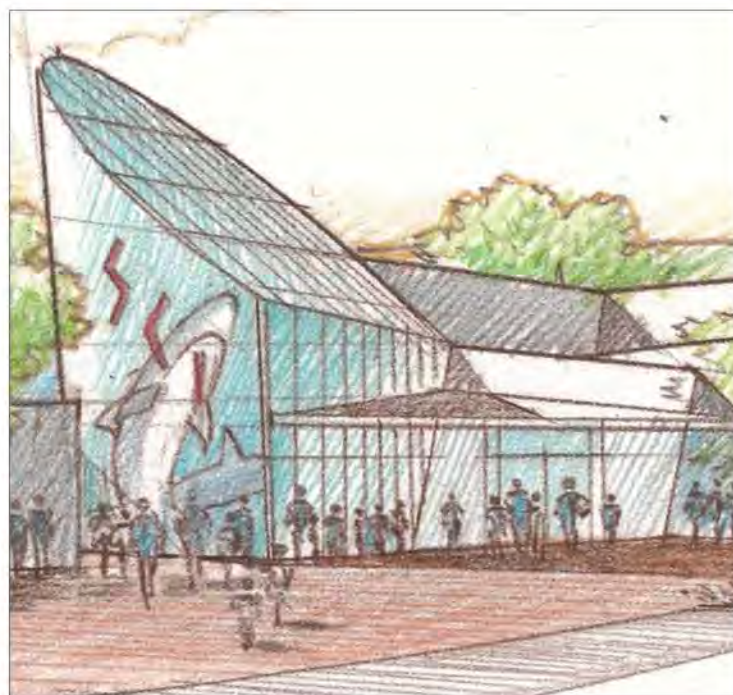
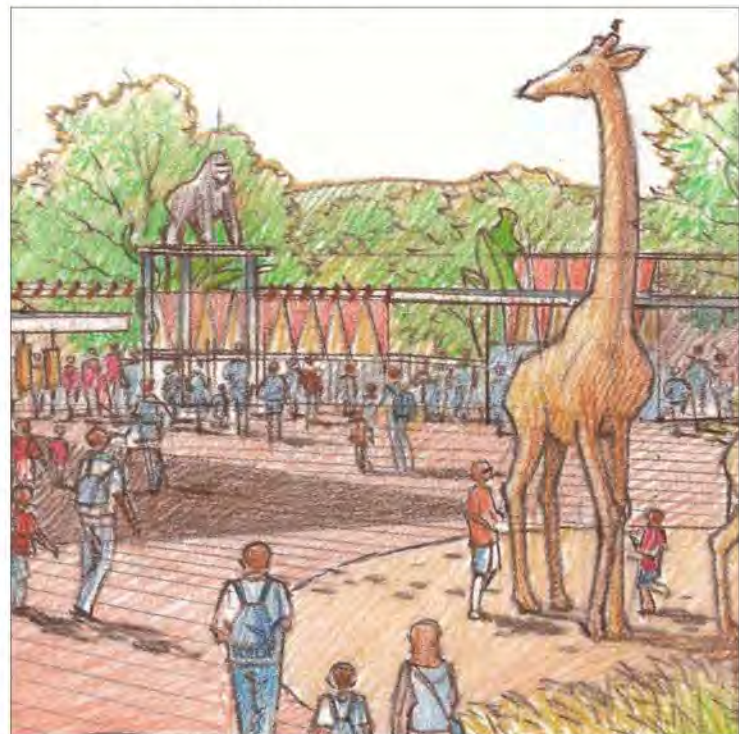
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VISION

Our vision: "To be the region's leading zoological and botanical resource for conservation, education, and scientific study and the top choice for quality, family fun."

There has never been a more important time for the mission of the Louisville Zoo than here and now. In an age of distraction, we help **families** make lasting memories and are the first choice for family fun in the region. During an era of massive loss of rare and **precious species** and habitat, we are a supporter of conservation initiatives and a leader in the re-establishment of endangered species. In a time when our kids need help to succeed, we are the provider of **award-winning educational programming**. We are the ever-present reminder to our community, through captivating and award-winning exhibits like Gorilla Forest and Glacier Run, to live in better balance with the planet and those who share it with us.

What we've accomplished is truly significant. We must capitalize on our momentum. Through innovation, research-based design and greater insights, we are preparing to challenge our guests and ourselves to see the natural world from a new perspective and make more meaningful contributions as a **reimagined 21st century zoological institution**.



Through this master plan, we will engage and amaze our guests like never before. We will draw our community and children into a playful and inviting environment even before they enter the Zoo. Colorful, larger-than-life sculptures of elephants, giraffes and other wildlife will welcome arriving guests. A **transformed reception plaza** with enhanced guest amenities and conveniences will better prepare them for their journey. Newly staged expansive views will ignite their imaginations and build anticipation of a **new Zoo experience**.

As with our award-winning Islands, the world's first species rotational exhibit, we will introduce inventive designs that captivate guests and cultivate conservation advocates. Exhibits including the proposed **Crocotorium** will showcase charismatic, predator species in novel perspectives to surprise and engage audiences. Crocodiles, many of which are threatened or endangered, will astonish observers with natural displays of athleticism as they leap into the air.

New exhibits will ensure guests are both enthralled and inspired to care. The **Shark Conservation Institute** will immerse guests into the ocean environment with sharks, rays, skates and other high-profile ocean inhabitants. Guests will be introduced to important research and can participate in shark conservation programs that help them better understand the drastic plight of this apex predator. The health of shark populations is directly related to the health of our oceans, and as the health of the oceans goes, so goes the health of our planet. These **new indoor exhibits** will also help make Zoo visits more pleasant and inviting during the temperature extremes in winter and summer.

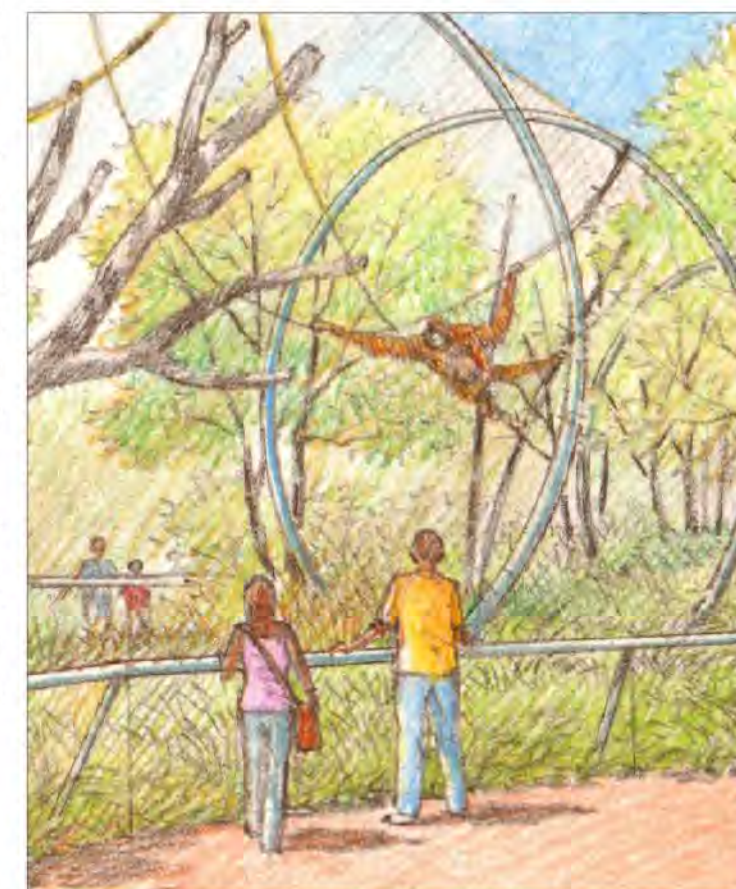
We will redefine how our guests and animals share outdoor spaces by dissolving traditional barriers and creating new **passages** where animals can cross our paths — at our feet and over our heads. These passages will provide unforgettable and varied experiences for guests while encouraging more natural roaming behaviors for giraffes, elephants, primates and others.

Imagine students at the **Safari Base Camp**, a new education hub located on the edge of the mixed-species African Savanna, watching the sunrise over browsing giraffes and zebras. Imagine learning science in such a provocative setting. The Zoo will ensure students are excited by science, have a thirst for **lifelong learning**, and are prepared to develop 21st century learning skills necessary for success in work and life. We will inspire the mindfulness, care and compassion essential for a vibrant community.

A re-energized and expanded **waterpark** will further enable families to relax and play together in a safe, summer oasis. Fostering this highly prized togetherness for young families and hosting memorable experiences will strengthen bonds with our guests and members and nurture the **next generation of Zoo supporters**.

We will achieve this vision as a leader in **sustainable practices** within our region and an inspiration for people to live in better balance with the planet. An investment in the Zoo is an investment in the heart and soul of Louisville, contributing to its quality of place for current and future residents. The Zoo helps define Louisville as a destination city for many families. The Zoo helps ensure a wealth of exciting experiences, a reputation for innovation, provides a positive economic impact and ensures global recognition for excellence in Louisville, Kentucky.

Our Zoo is a story of innovation, forward momentum, and a mission of reconnecting people to wildlife, wild places and to each other. We can and will inspire people to love, respect and protect wildlife. We will, "better the bond between people and our planet." Our Zoo of **tomorrow begins today**.



INTRODUCTION

The 1999 Louisville Zoo Master Plan Update has guided investment and development over the past fifteen years. Numerous large and small projects have been completed including several AZA award-winning exhibits and attendance has increased steadily from 625,000 to nearly 900,000 annually. This plan includes both a strategic business plan and a plan for overall campus physical development. A strong emphasis is on a balanced investment approach that recognizes the need to invest in infrastructure projects, strategic services and guest attractions.

This plan continues to develop the overall site in several areas based on the foundation established in the 1999 plan. New ideas for use are proposed for some of the undeveloped areas, while other areas have been completely redefined based on future needs of the Zoo. This plan is developed based on several funding combinations but illustrating the grand vision for the Zoo with several large scale projects to be completed during this planning phase.

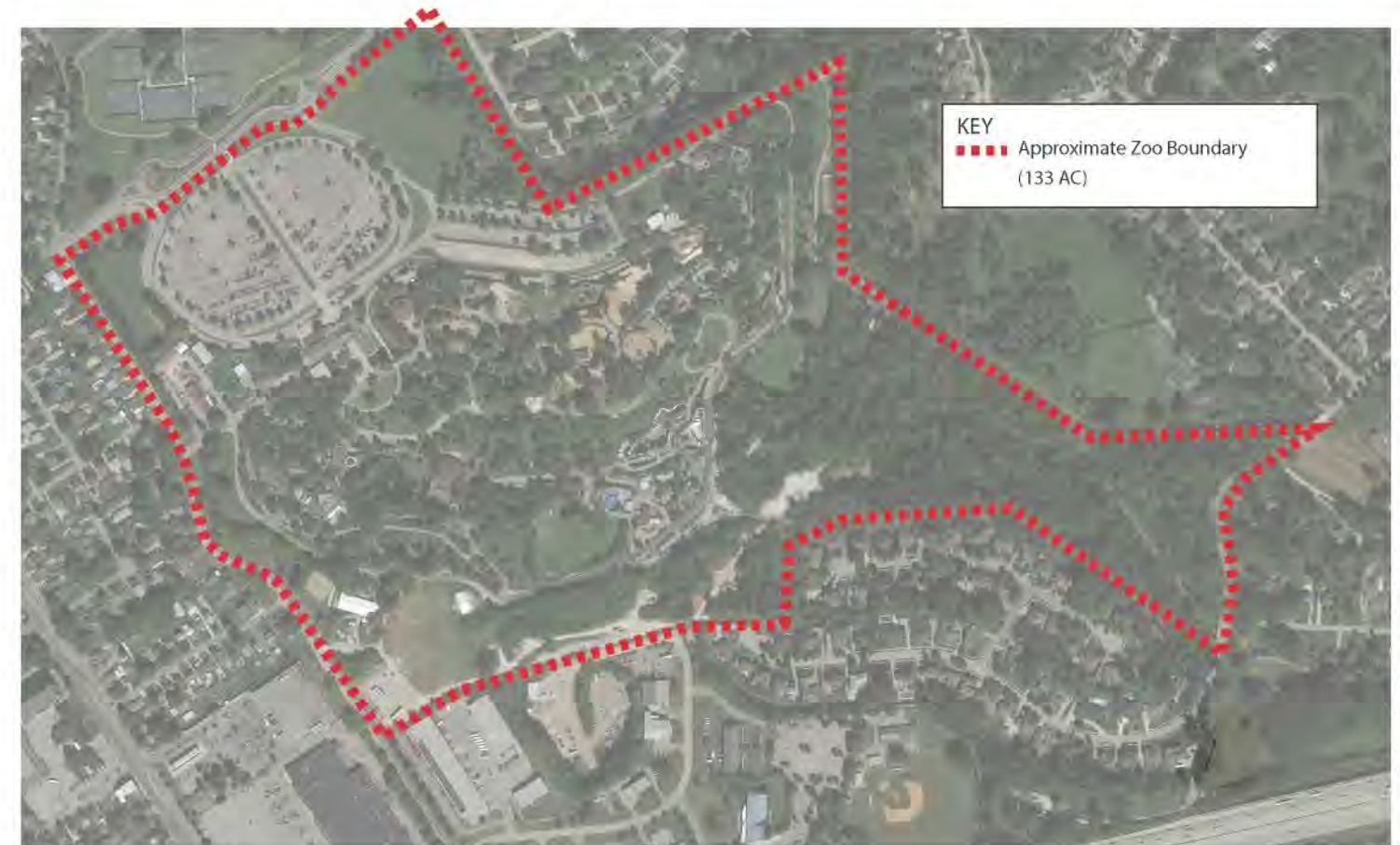
Three key design drivers, land-use, landform, and circulation, helped establish the proposed physical plan. The primary components of the plan are:

- 1 Redevelop the front entry of the Zoo into a more open and inviting space for the guests and make it an easy and convenient place for the guests to start and end their Zoo experience.
- 2 Rethink the approach to education and develop a hub and spoke system. The proposed Safari Base Camp is intended to be the hub of the education at the Zoo while satellite exhibit-based indoor and outdoor spaces will provide the "in the field" experience.
- 3 Provide guests with more indoor opportunities such as the Crocotorium and the Shark Conservation Institute. This will help make the visit to the Zoo more pleasant during the temperature extremes of winter and summer. These facilities will provide nose to nose animal viewing opportunities along with scheduled animal presentations.
- 4 Expand or upgrade existing facilities that are popular with the guests or could be re-energized with a small investment. This

will include the very popular Splash Zone, or construction of animal trails and feeder/flex habitats in Islands Passage or Primate Passage, that will also take advantage of existing holding buildings and habitats.

- 5 Simplify overall Zoo circulation by eliminating numerous decision points for the guests and reducing the number of steep sections. Eliminate Zoo service traffic from guest walkways by investing in an internal perimeter service road. The tram will be an important people mover with two to three stops along the loop and with unique animal viewing. The very popular train is also seen as a people mover with at least one more stop along the way and with more animal viewing opportunities as demonstrated in the redesigned African Savanna Exhibit.
- 6 Several key animal attractions are being proposed in this plan. The first is a complete renovation of the African Savanna area taking advantage of the space available between the African Outpost and the Carousel. The African Savanna will be developed with the state of the art multi-species hoofstock habitat and large and small predator habitats. The Kentucky Trails project is intended to display local and North American animals in a unique setting that can be viewed both from a moving flatboat ride and a trail through the woods. Two major indoor facilities are being proposed: the Shark Conservation Institute next to the main entrance into the Zoo, and the Crocotorium as an addition to the existing HerpAquarium.
- 7 The Zoo hosts several large scale events annually at the south west corner of the Zoo and sees a great opportunity growing this business. This plan shows a significant investment in new structures, amphitheater, parking, and transportation to support the growth.

This plan is intended to guide the growth of the Zoo over the next ten to fifteen years. Numerous interim projects can be implemented such as low impact play areas and zip lines and then removed or relocated to other areas. The plan is flexible and projects can be modified to respond to various funding models or sequencing of implementation. Overall this plan will improve the Louisville Zoo in all areas of staff services, animal attractions, and guest experience.



Existing Zoo Aerial

PLANNING PROCESS

The foundation for this plan is based on the Master Plan Update from 1999 that was a collaborative effort by the Louisville Zoo, CLR, S&W, and Arrasmith, Judd, Rapp, Inc. This final report for the 2015 Louisville Zoo Master Plan Update represents the culmination of a seven month workshop-based planning process. The work effort by CLR and S&W began in May 2015 with an analysis of the existing Zoo campus and adjacent land use, with a special focus on identifying the critical programming and operational needs, as well as developable land available. The initial process recognized the strong framework established by the 1999 Master Plan Update and steady project implementation, including Gorilla Forest, Glacier Run, and several smaller projects currently under construction or about to go into design. Based on the priorities

identified by the planning participants, including infrastructure, operational facilities, and animal attractions, several land-use concepts were tested for consideration within the physical plan. As the programmatic requirements became established, integration with strategic objectives helped to shape the overall direction of the plan, including the implementation schedule and funding options (see Appendix).

A special thanks to the Louisville Zoo Core Planning Team, Zoo Staff, Zoo Foundation Board Members, Friends of the Zoo, and Metro Government. Through this collaborative process, your time, effort and creative thinking have helped to establish the vision for the Louisville Zoo for the next ten years and beyond.

OVERVIEW

During the planning process, the team thoroughly evaluated existing conditions at the Zoo. On the basis of a holistic assessment of opportunities and constraints, the team determined the priority issues that should be addressed in the Master Plan. Numbered items are addressed through enlargement plans on the following pages.

PROJECTS

INFRASTRUCTURE

- 1 Expanded and Improved Guest Parking & School Bus Drop Off
- 2 Zoo Maintenance & Horticulture Facilities
- 5 Expanded Animal Health Center
- 7 Conservation Resource Administration Center
- 15 Animal Embassy

STRATEGIC SERVICES

- 3 Education Safari Base Camp
- 6 New Guest Arrival Experience
- 10 Expanded Waterpark
- 16 Nature Play
- 17 Event Area

ATTRACTIONS

- 4 Shark Conservation Institute (Sharks, Lions of the Ocean)
- 8 Renovated African Savanna - Mixed Species Exhibits
- 9 Primate Passage Exhibits (Phase I & II)
- 11 Islands Passage
- 12 Crocotorium
- 13 Kentucky Trails Exhibit
- 14 Snow Leopard & Education Facility

OTHER

ONGOING MAINTENANCE

This category refers to essential improvements which protect existing assets and increase guest comfort and convenience. These include:

- Major utility and infrastructure repairs and replacement, throughout the campus.
- Repainting and other minor renovations and repairs throughout the campus to reinvigorate engagement, make a positive impression on guests and contribute to strong staff morale.

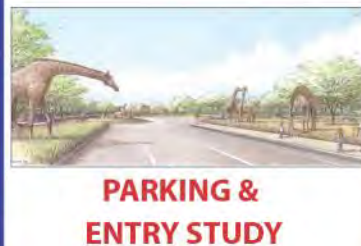
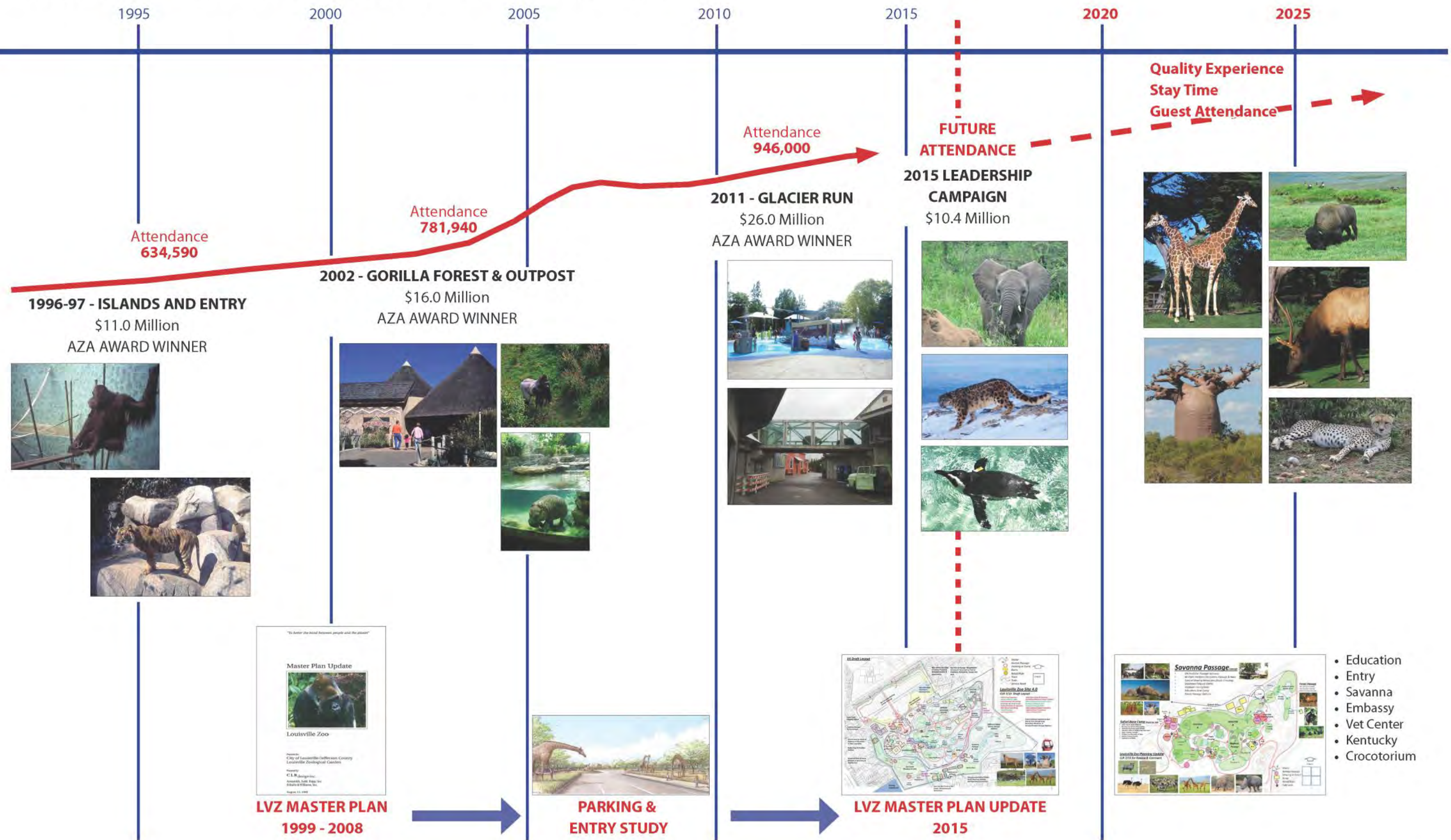
SEASONAL ATTRACTIONS

Development of seasonal exhibits to attract guests between major events has long been an important feature of the Zoo's business plan. Seasonal exhibits to be developed could include the following:

- Animal presentation venues around the Zoo, including at the Amphitheater and the new Education Safari Base Camp, or other venues.
- Seasonal animal exhibits with the potential to attract a broad audience, e.g. a koala exhibit.
- Nature Connects Lego Brick exhibitions, Animatronic Dinosaurs and Nature Play Learning Areas.



LOUISVILLE ZOO CHRONOLOGY - MOMENTUM



- Education
- Entry
- Savanna
- Embassy
- Vet Center
- Kentucky
- Crocotorium

MASTER PLAN UPDATE

FEBRUARY 8, 2016

OVERALL ILLUSTRATIVE SITE PLAN



ZOO ZONES



Series of waterfalls located along the central garden area



Parking lot study concept sketch



Mixed species savanna exhibit

LEGEND

- ANIMAL EXHIBIT ZONE
- VISITOR SERVICE & EVENT ZONE
- VISITOR EDUCATION & PLAY ZONE
- ZOO OPERATIONS ZONE
- PARKING



Kentucky Trails Flatboat ride



Flex exhibit and animal trails concept sketch



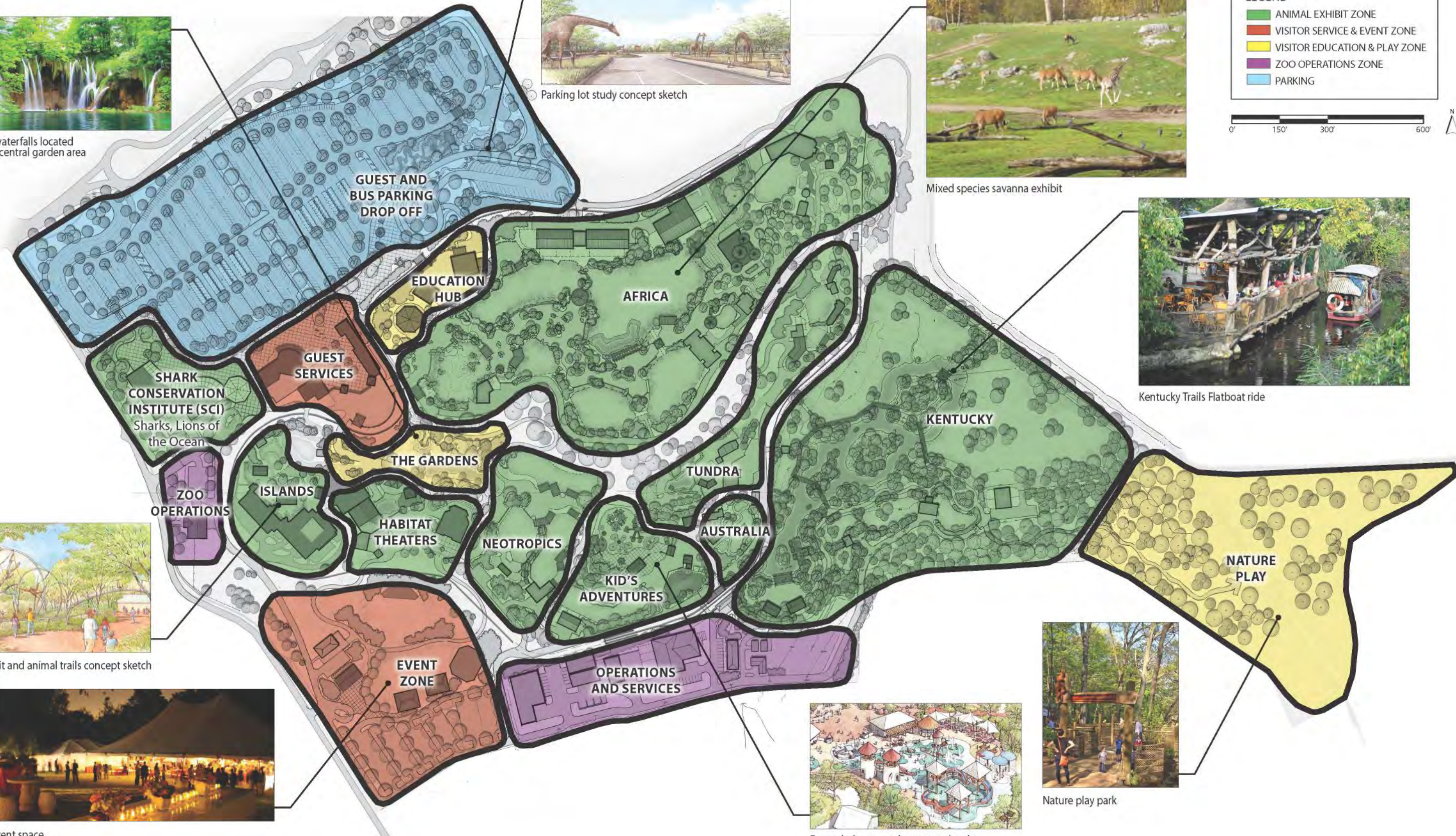
Event space



Expanded waterpark concept sketch



Nature play park



KEY PROJECTS PLAN



PROJECTS

INFRASTRUCTURE

- 1 Expanded and Improved Guest Parking & School Bus Drop Off
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AFRICAN SAVANNA

The African Savanna is the Zoo's anchor attraction, home to some of its most beloved animals. The core concept behind the re-design of these exhibits is to provide "passages" among habitat areas, so that both herbivores and predators have opportunities to roam, similar to how they would behave in the remnant wild. The African Savanna will include a passage between the elephant habitats and the mixed-species herbivore habitats, providing maximum flexibility of species movement, as well as for exhibit management.

Reorienting the savanna exhibit around the idea of passage not only has the potential to improve animal wellness, it also provides unforgettable experiences for guests when an animal "crosses" their path. Zoo guests will also enjoy enhanced viewing of predators, new viewing and shade structures throughout the savanna, new planting and seating along the paths, and sweeping views from a new deck at the Lodge. During evening functions guests can enjoy watching the sun set over the savanna with elephants and giraffes browsing in the foreground, or from the Education Hub catch the early rays of the sun as it rises in the east.

New hoofstock barns, screened from public view, will be located on the north side of the exhibit, with easy service access.

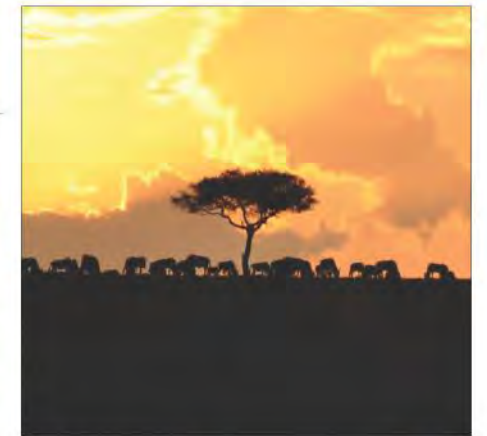
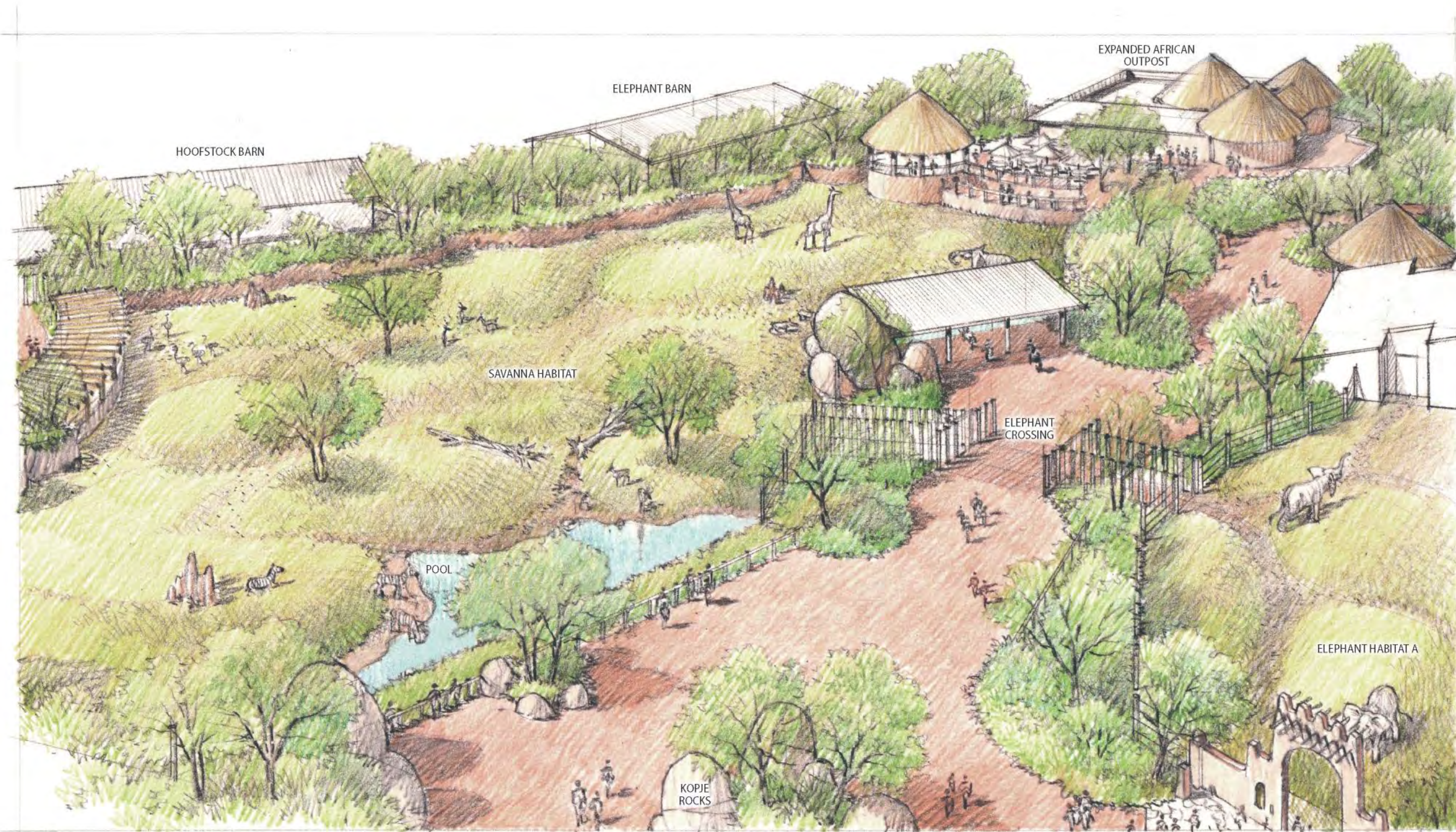
PROGRAM
TOTAL AFRICAN SAVANNA AREA 596,190 SF

Mixed Species Savanna A	78,365 SF
Mixed Species Savanna B	36,193 SF
Elephant Exhibit A	27,290 SF
Elephant Exhibit B	20,933 SF
Predator Flex Exhibit A	25,937 SF
Predator Flex Exhibit B	12,072 SF

Holding Buildings:

Barn 1	6,700 SF
Barn 1 Yards (total)	5,200 SF
Barn 2	7,800 SF
Barn 2 Yards (total)	2,500 SF
Barn 3	11,150 SF
Barn 3 Yards (total)	3,400 SF
Barn 4 (renovation)	6,000 SF
Predator Holding	2,600 SF
Predator Yard	1,100 SF

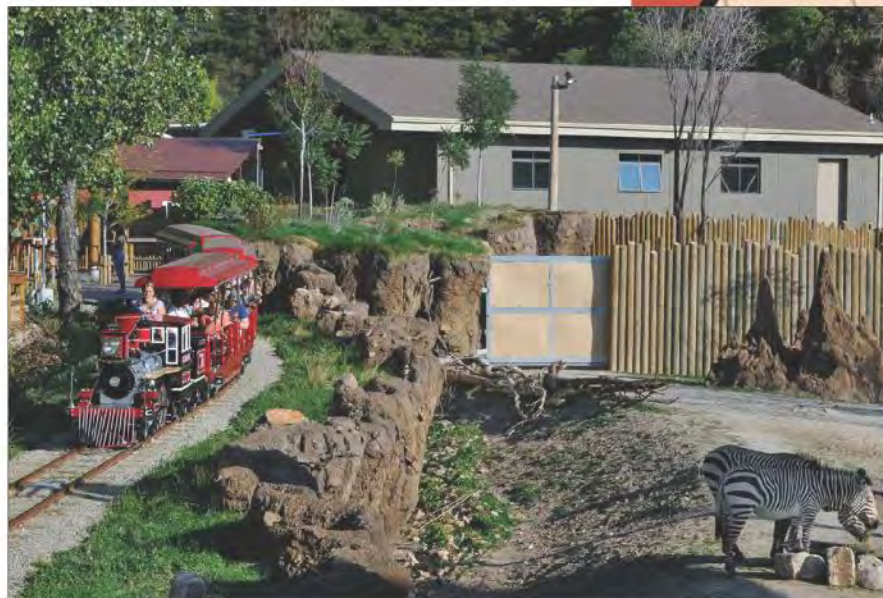




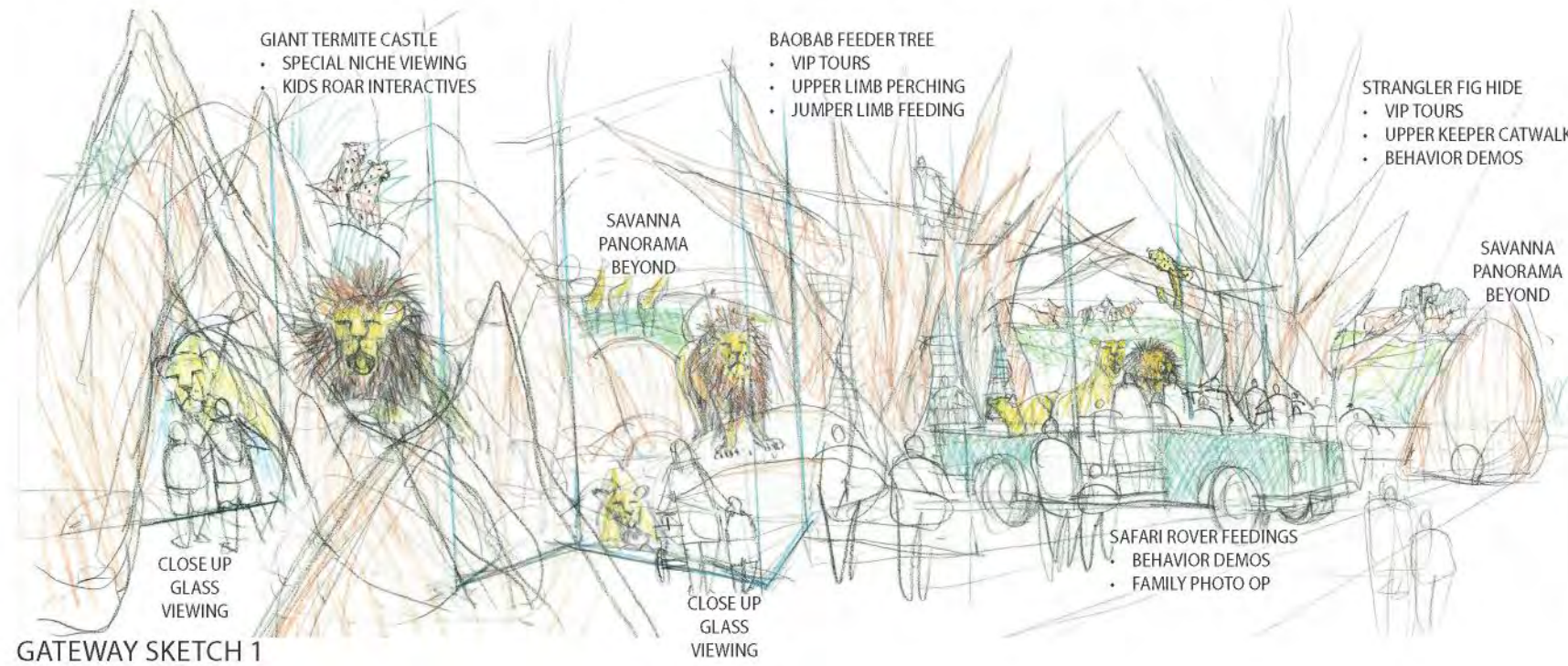
AFRICAN SAVANNA DESIGN OPTION

TRAIN RE-ROUTING THROUGH SAVANNA HABITAT

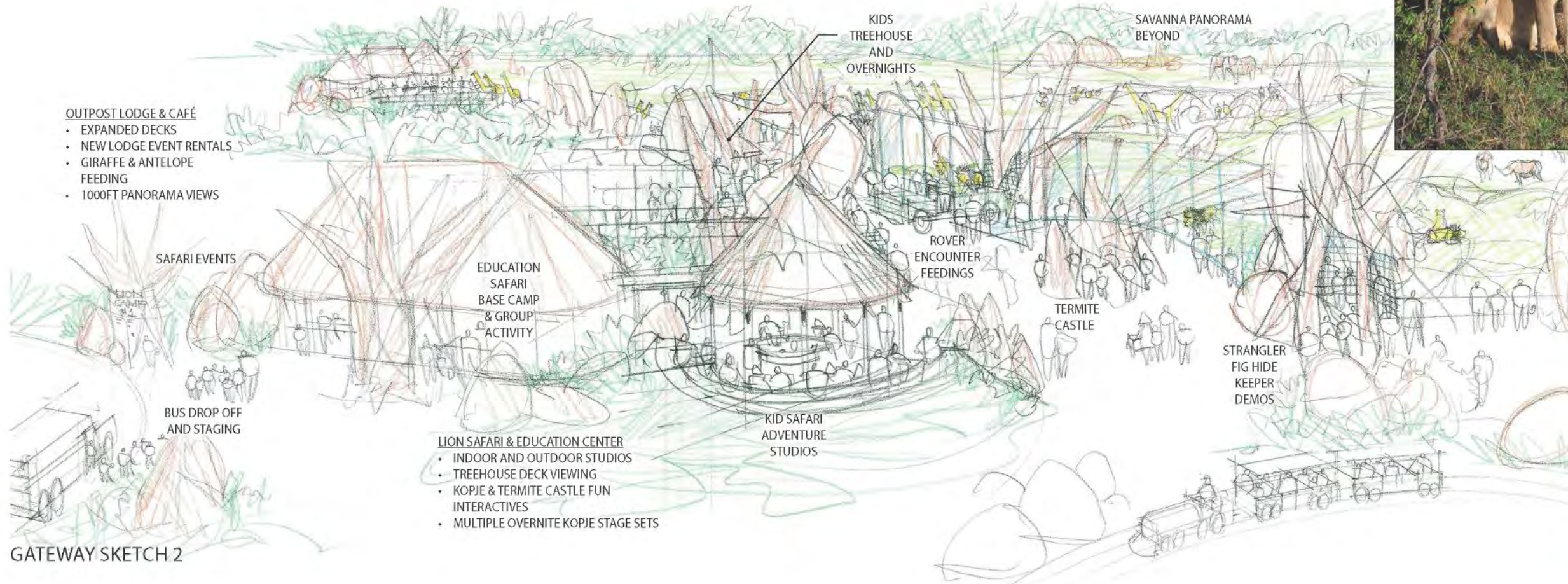
This design concept for the African Savanna modifies the north side of the site so that the train is re-routed to engage the exhibit. The train could potentially run on the high side of the exhibit mudbank barrier and take advantage of long views of the habitats from above.



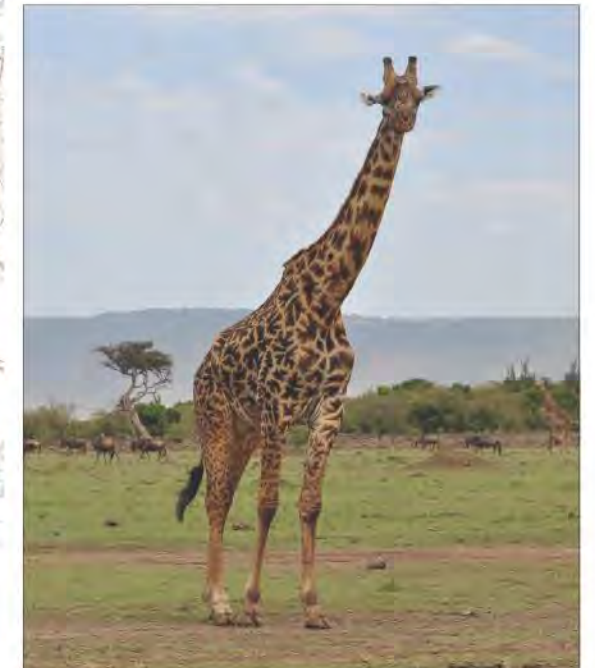
LION CAMP SAVANNA GATEWAY SKETCHES



GATEWAY SKETCH 1



GATEWAY SKETCH 2



PRIMATE PASSAGE

This ambitious exhibit activates an underutilized area of the Zoo adjacent to the existing gorilla habitat, and provides memorable opportunities for the public to view primates. An extensive network of new habitat areas and overhead tunnels that cross the public path is envisioned. Primate species will be able to move freely through the tunnels, among mesh enclosures that range in size from 500 to 1,550 SF. Changing the timing and locations of feedings could encourage the primates to move about, similar to how they would forage for food in the wild. The entire network of tunnels and new habitat will span approximately 1 acre.



PROGRAM

NEW HABITAT AREAS (TOTAL)	8,200 SF
Enhanced Primate Holding	2,200 SF
Primate Encounter	1,300 SF
Habitat 2	1,550 SF
Habitat 3	720 SF
Habitat 4	350 SF
Habitat 5	580 SF
Habitat 6	300 SF
Primate Feeding Habitat	1,260 SF
Primate Holding Phase II	1,300 SF
Trails	1,300 SF

PRIMATE PASSAGE CONCEPT

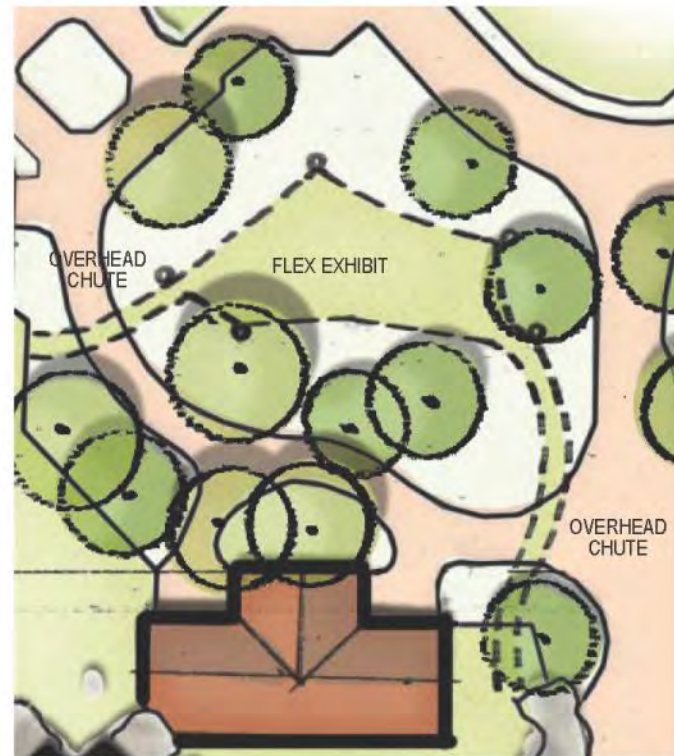


ISLANDS FLEX EXHIBIT

Adding to the Zoo's popular Islands exhibit, overhead passages constructed of steel and mesh will connect existing habitats to a new, central habitat featuring an Animal Engagement Theater. This will give different inhabitants of the Islands exhibit, such as orangutans and tigers, a chance to roam and explore a new territory, while greatly improving public viewing opportunities and providing staff an opportunity to do public demonstrations.

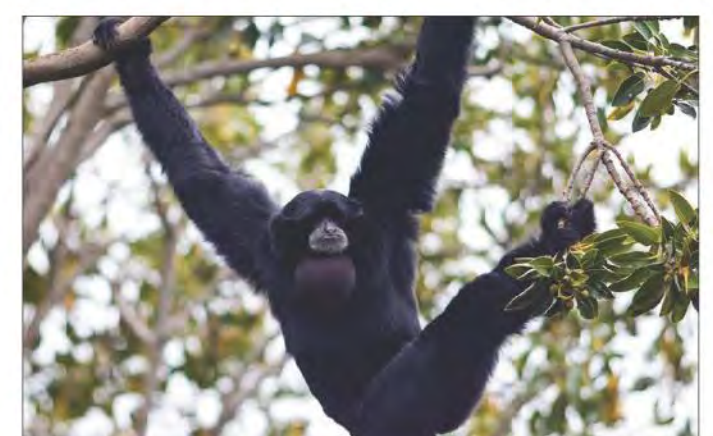
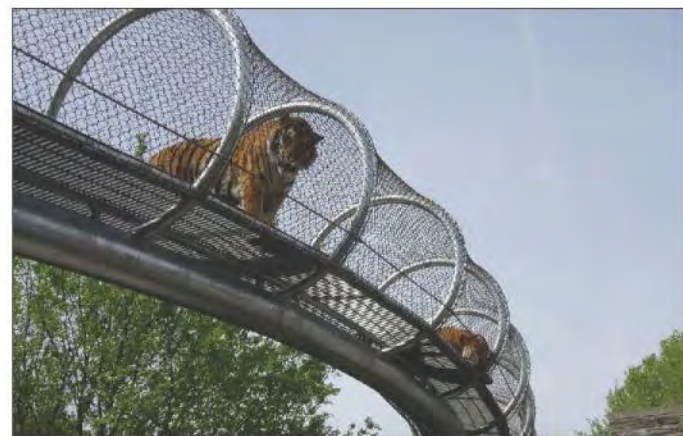
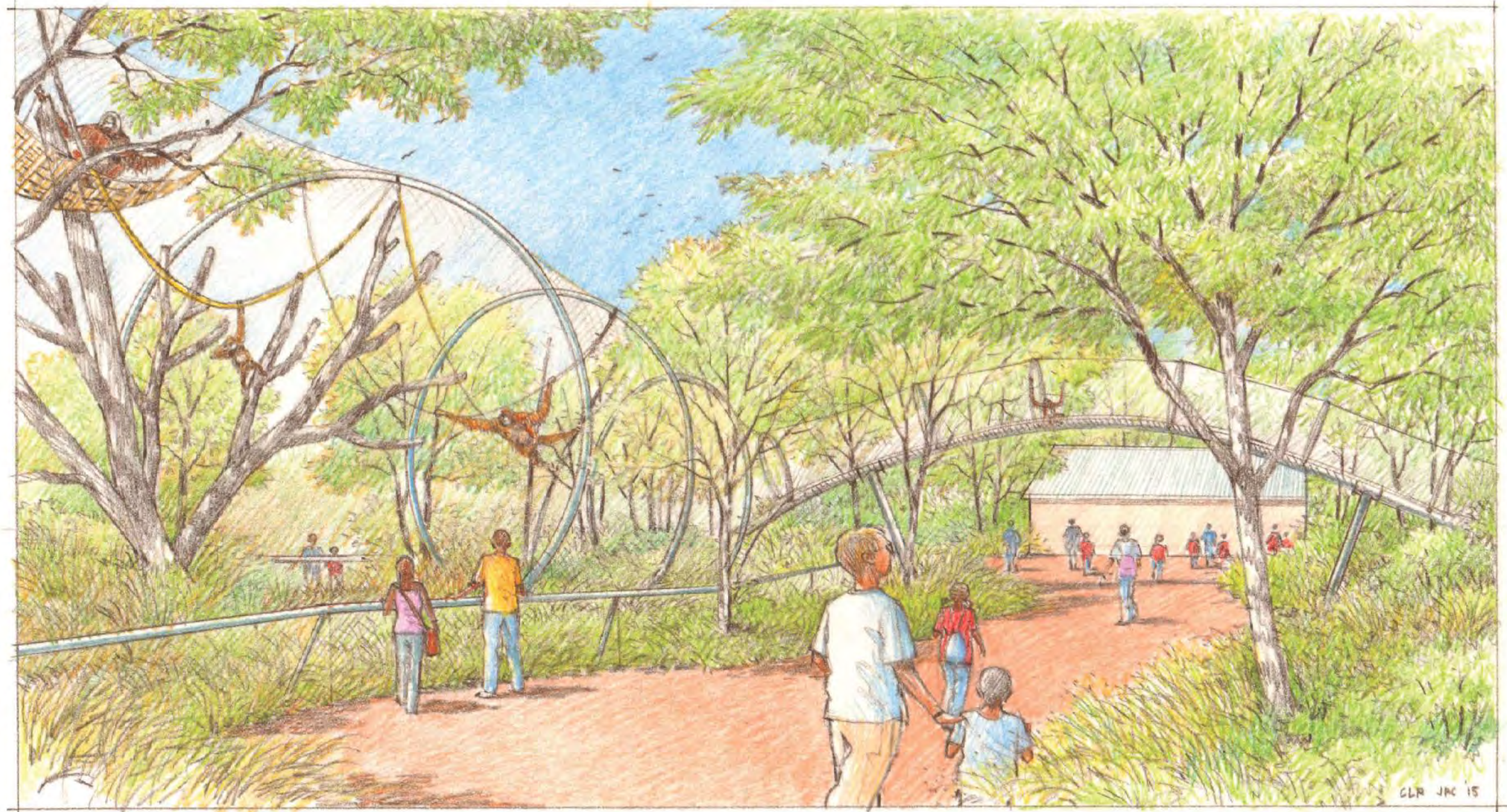
PROGRAM

NEW FLEX HABITAT AREA (TOTAL) **11,800 SF**



LEGEND

- Visitor Path
- Animal Exhibit



WATERPARK EXPANSION

Already a popular attraction, the Zoo's splash park has the potential to draw a much larger audience, and to become a meaningful source of revenue for the Zoo. The existing splash park will expand to the west, more than tripling in size to approximately 19,000 SF. New water play elements will provide a wider variety of effects and play opportunities. These will include additional themed structures and interactive elements. Other guest amenities added as part of this expansion will include more shaded seating for parents and guardians outside the splash zone, food and beverage concessions, locker rooms, restrooms and changing areas. Once the expansion is complete, the Zoo will charge a modest admission fee to generate income from the splash park.

PROGRAM

Expanded water play area (including existing water play area)	19,000 SF
Total area of improvements (including existing splash park area)	61,800 SF



LEGEND

- Visitor Path
- Visitor Amenity Building
- Exhibit Building
- Holding Building
- Off-Exhibit Yard
- Animal Exhibit
- Service Path / Parking
- Buffer Vegetation
- Pools and Stream





KENTUCKY TRAILS

The Kentucky Trails sequence of attractions is one of the most ambitious parts of the Master Plan, creatively utilizing up to 19 acres of Zoo property that are not now accessible to the public.

Exhibits of native Kentucky animals can include “varmints” such as fox and opossum, large areas for mixed hoofstock, and predators such as black bear. These are interspersed with diverse activities for guests including a flatboat ride, birdwatching, picnicking and strolling. The trail will lead guests from solid ground, to boardwalks over low-lying areas, and across meandering streams to islands. Structures along the way, such as viewing blinds and other public buildings, will draw from elements of vernacular Kentucky cabins and camps. Trails, boardwalks and buildings will be designed and built to retain the existing natural features and character of this part of the Zoo with its mature trees and rugged terrain.

PROGRAM

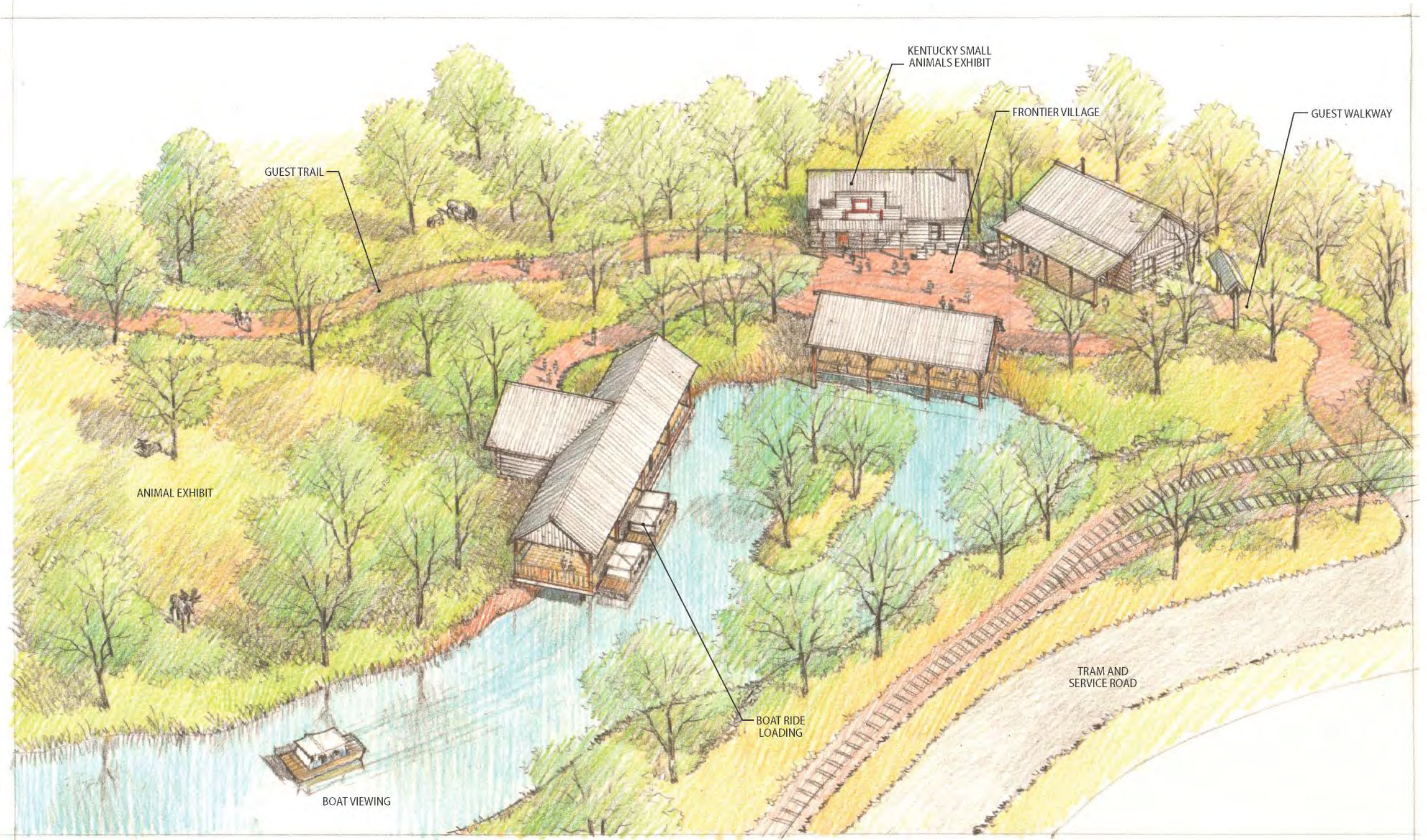
TOTAL KENTUCKY TRAILS AREA 833,000 SF

Bison, Elk & Deer Passage Habitat 1	103,300 SF
Bison, Elk & Deer Passage Habitat 2	160,000 SF
West Predator Flex Habitat 1	11,000 SF
West Predator Flex Habitat 2	6,700 SF
East Predator Flex Habitat 1	12,400 SF
East Predator Flex Habitat 2	8,850 SF
Small Mammal Flex Habitat 1	6,300 SF
Small Mammal Flex Habitat 2	4,000 SF
Mixed-Species Holding Building	3,000 SF
Predator Holding Building	2,400 SF
Small Mammal Holding Building	800 SF
Classroom Building	1,750 SF
Restroom Building	1,750 SF

TEST ANIMAL LIST

<u>KENTUCKY PREDATORS</u>	<u>SMALL MAMMALS</u>
Wolf	Fox
Bobcat	Raccoon
Bear	Opossum
Eagle	Vulture
Puma	
<u>KENTUCKY GRAZERS & BROWSERS</u>	
Bison	
Elk	
Deer	





CROCOTORIUM

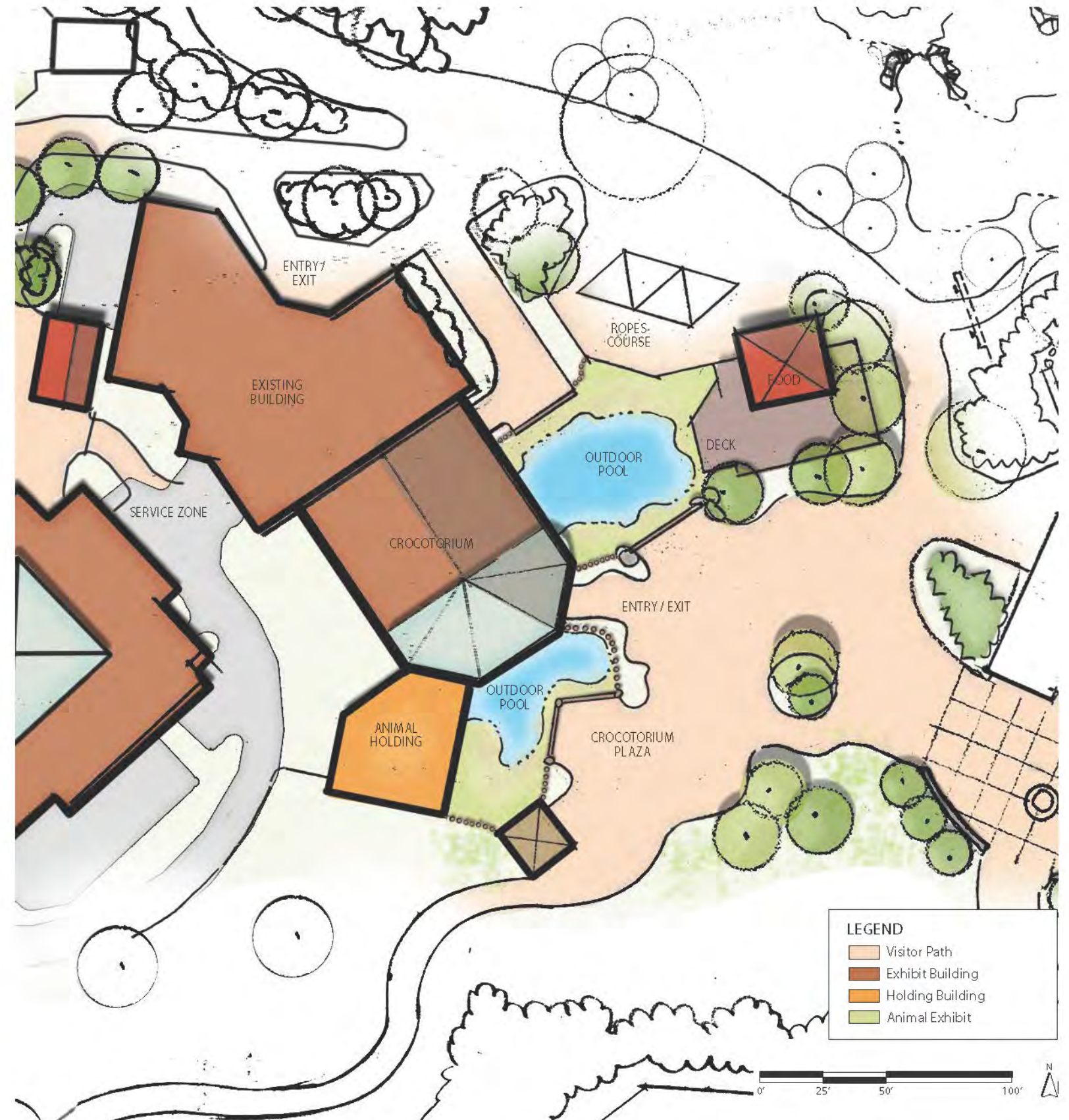
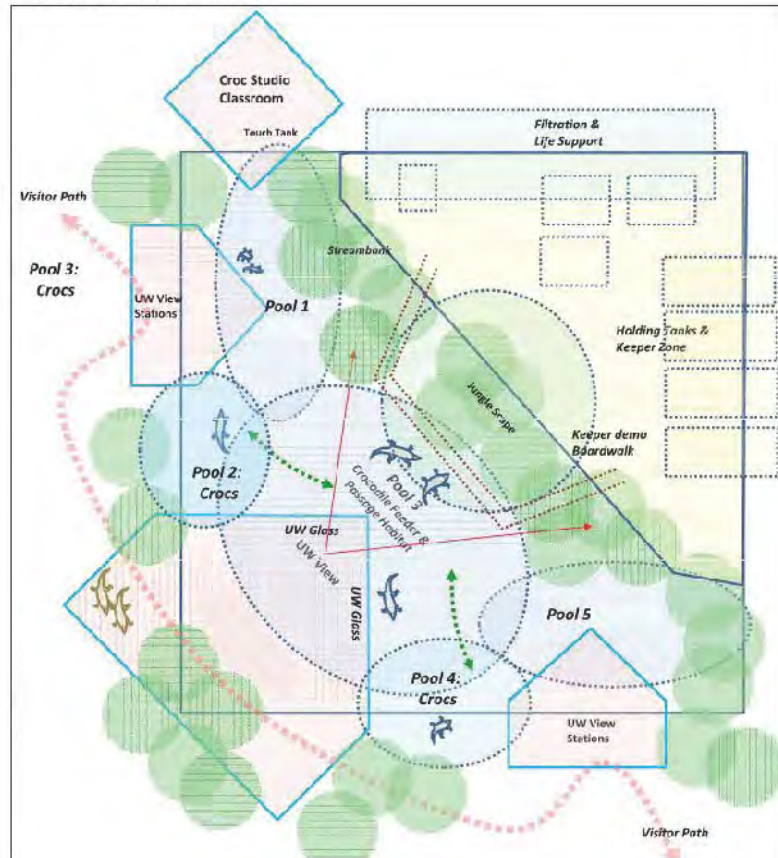
The Crocotorium will be a major new attraction for the Zoo, featuring the Cuban Crocodile in pools totaling approximately 60,000 to 80,000 gallons. Located adjacent to the HerpAquarium, the Crocotorium has the potential to draw a large audience throughout the day to engage guests with the amazing athleticism, speed and grace of this ancient species. The exhibit is oriented around a new interpretive center which contains artifacts and information about crocodiles and related reptiles, a classroom space, and potentially other animal exhibits. Zoo guests will be able to observe crocodiles from underwater as well as from above.

PROGRAM

TOTAL AREA OF IMPROVEMENTS 29,500 SF

Crocotorium Building	7,200 SF
Life Support	2,300 SF
Crocodile Pool 1	2,400 SF
Crocodile Pool 2	1,400 SF

CROCOTORIUM CONCEPT



SNOW LEOPARD

The Leopard Leap project is a Leadership Capital Campaign project scheduled to open to the public in spring of 2019. The project is located west of the existing Tiger Habitat and takes advantage of the sloped site and existing circulation. Guest will be able to spot Snow Leopards moving gently up and down a talus slope or exploring a trail leading to a feeder habitat. A satellite education hub, with an indoor and an outdoor classroom, will be located adjacent to the exhibit overlooking both the Snow Leopard and the Tiger habitats.



PROGRAM

NEW HABITAT AREAS (TOTAL) 8,200 SF

Snow Leopard Habitat	3,800 SF
Snow Leopard Holding	1,000 SF
Snow Leopard Yards	830 SF
Snow Leopard Viewing	625 SF
Tiger Demo / Feeding Habitat	1,000 SF
Education Building	2,530 SF



ENTRY PLAZA & GUEST SERVICES

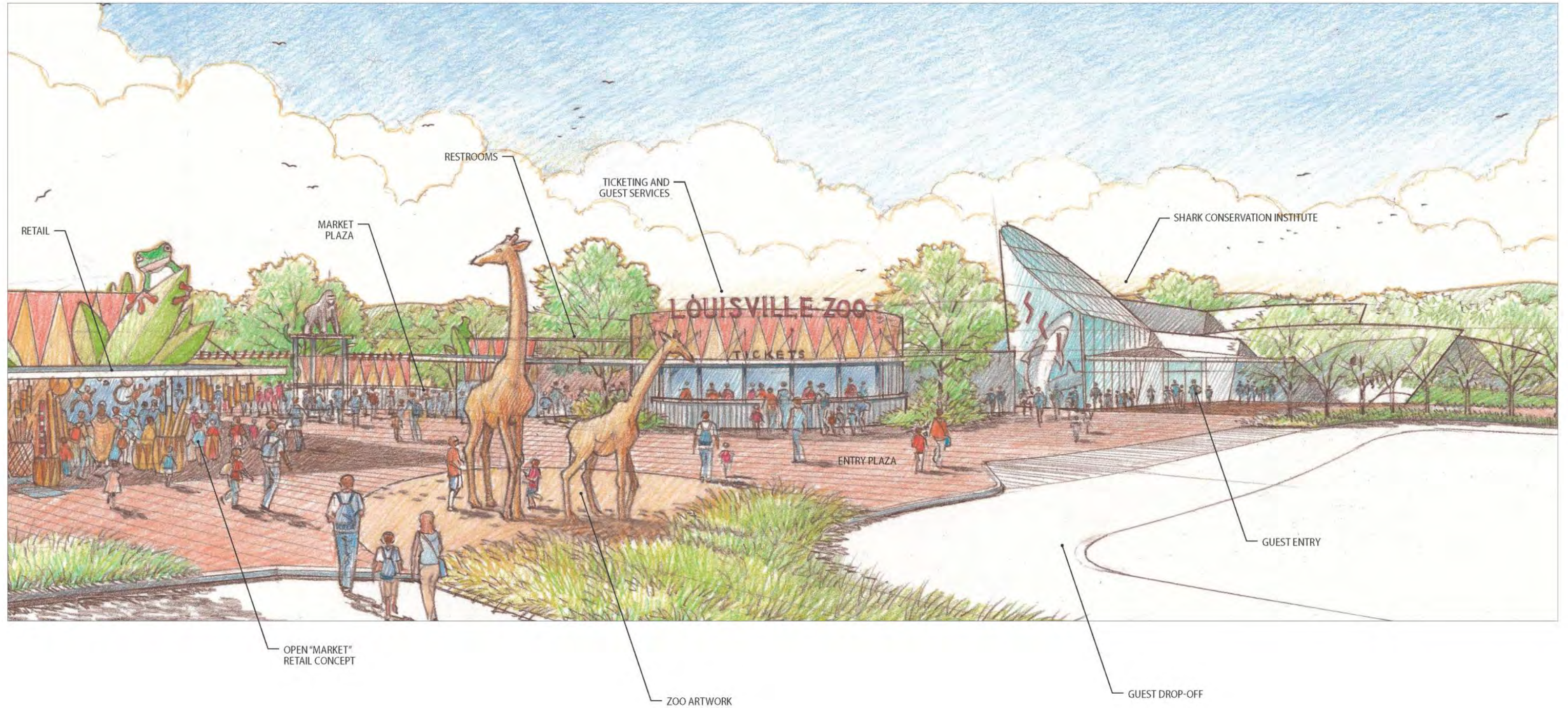
An enhanced plaza and entry sequence at the main gates will give a welcoming and exciting first impression of the Louisville Zoo. The plaza could feature an iconic sculpture or other structure that heralds guests' arrival, as well as wayfinding devices that make the locations of services and amenities in the plaza instantly legible. Guest facilities – information, ticketing, retail, security, member services, etc. – are reorganized and/or upgraded, to make the flow of circulation in and out of the main gates logical and comfortable. The new plaza extends through the main gates to an overlook, leading to expansive views across the meadow.

PROGRAM	
TOTAL AREA OF IMPROVEMENTS	
Front Entry Plaza	46,000 SF
Overlook Plaza	18,000 SF
Ticketing & Zoo Staff	8,000 SF
Restrooms (Existing)	3,400 SF
Retail (Existing)	6,750 SF



Iconic sculptures, paving and landscape enhance the entry plaza





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SHARK CONSERVATION INSTITUTE / SHARKS, LIONS OF THE OCEAN

A new state of the art facility located directly at the front of the Zoo will house the Louisville Zoo Shark Conservation Institute (SCI). SCI will be dedicated to showcasing Sharks, the Lions of the Ocean, along with other ocean inhabitants, including skates and rays. As one of the ocean's top predators, sharks are a key part of the ocean's ecosystem, and SCI will contribute to the study and education needed to assist in shark conservation efforts. Exciting interactive programs, such as Real Time Shark Migration Tracking Center, Ocean Health Awareness Center, and Shark Behavioral Research and Operant Conditioning, will engage guests and students, but will also help to impact these important conservation efforts. In addition to large aquarium and exhibit spaces, the building will house guest services, education classrooms, and a large event area. During evening events, guests may enter directly into the Shark Conservation Institute.



Reef Shark



Eagle Ray

PROGRAM

TOTAL AREA OF IMPROVEMENTS **43,000 SF**

Shark Conservation Institute	30,000 SF
Event Entrance	5,175 SF

CONCEPT SKETCH



SAFARI BASE CAMP - EDUCATION HUB

The Safari Base Camp creates a dedicated, new facility at the Louisville Zoo to support expanded year-round immersive educational programming for school-age guests. The Safari Base Camp is the center for the Zoo education, but several satellite facilities will be located throughout the Zoo to provide more "hands on" learning opportunities. Each satellite facility will have a unique character and feel based on education focus. The Education Hub is integrated into the design of the African Savanna Exhibit to create a stronger connection between the two facilities and the educational mission.

Groups of school children, summer campers, and other young guests can enjoy a wide range of educational programs at the camp. In addition to an education building with office space and storage, a multi-use hub building provides flexible space to accommodate classes, interpretive exhibits, and overnight stays, as well as special events.

Public entrance to the Safari Base Camp is located close to bus parking and it is also convenient to the main entrance of the Zoo. Located adjacent to the Zoo's Savanna exhibits, Base Camp programs can provide a condensed Zoo experience in one or two hours, or they can kick off a day-long experience that takes guests everywhere in the Zoo.

PROGRAM

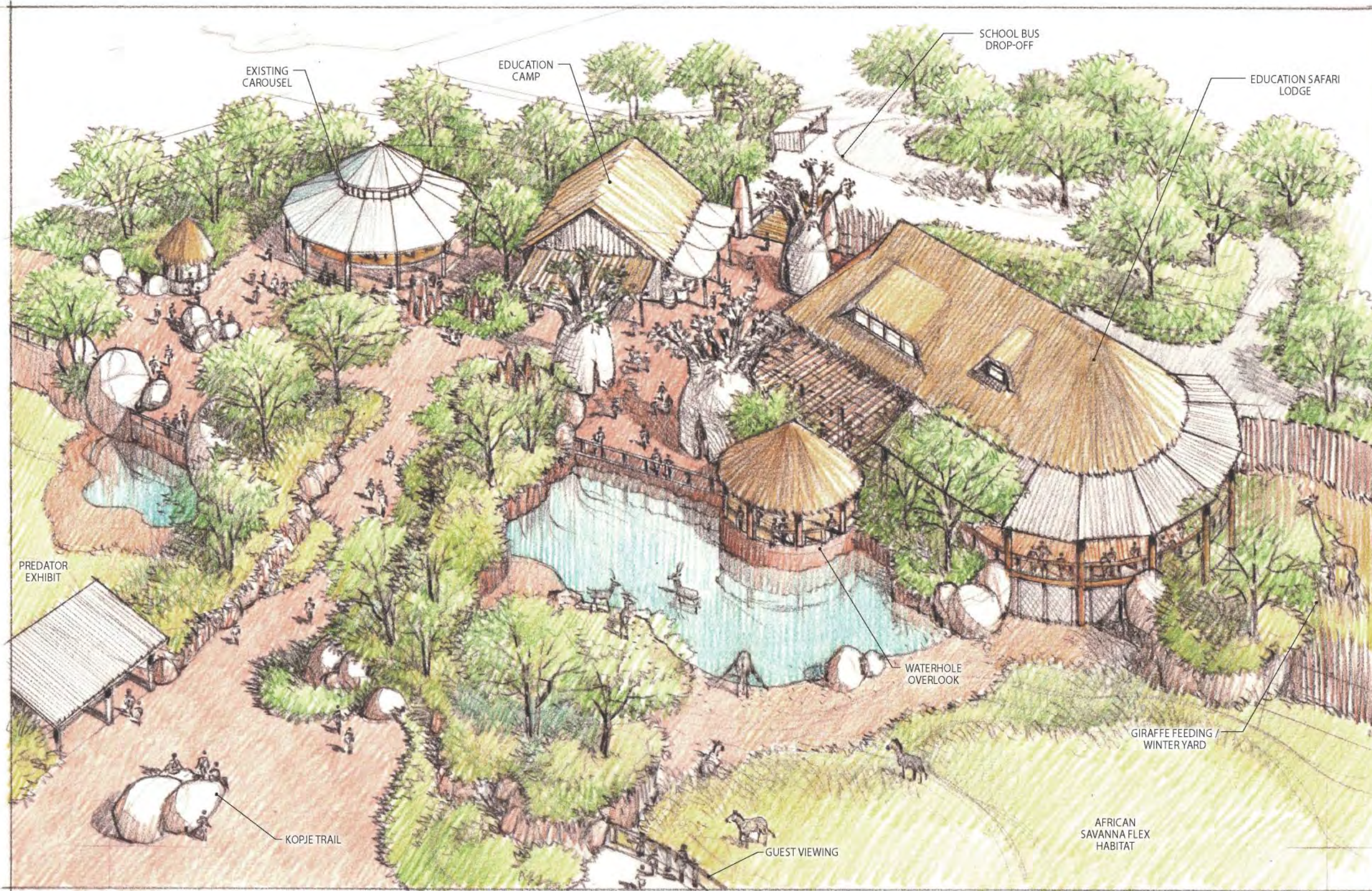
TOTAL AREA OF IMPROVEMENTS **59,000 SF**

Multi-Use Hub Building	9,000 SF
Education Building	3,400 SF
Base Camp Arrival Plaza	8,300 SF
Base Camp Main Plaza	10,800 SF



MASTER PLAN UPDATE

FEBRUARY 8, 2016



ANIMAL HEALTH CENTER

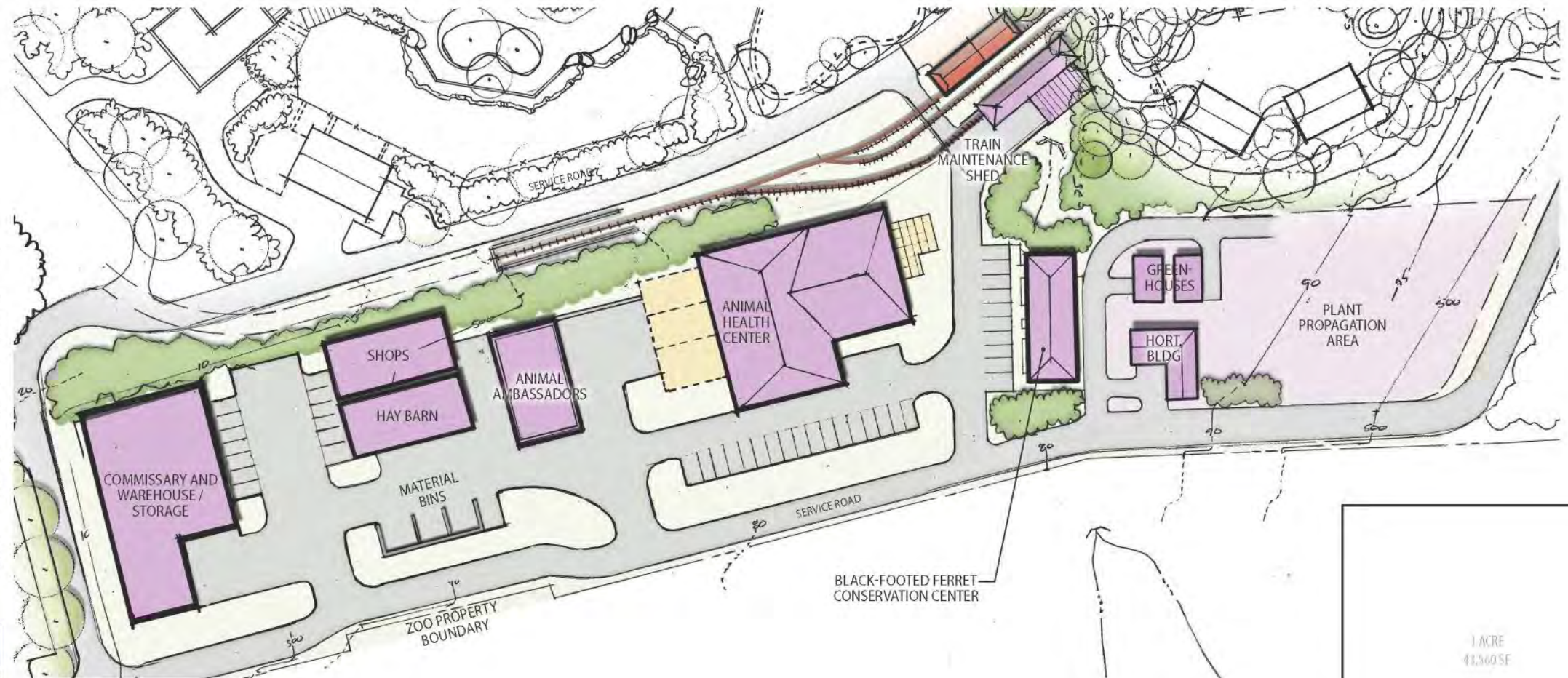
The new Animal Health Center will provide a needed expansion of the Zoo's existing animal health services and is designed to accommodate all projected future veterinary needs. It includes office space, lab space, and expanded holding and animal recovery facilities.

ANIMAL HEALTH CENTER PROGRAM (TOTAL AREA) 14,400 SF

Medical Treatment Suite	600 SF
Surgery Suite	500 SF
Necropsy Wing	600 SF
ICU	300 SF
Barns	3,000 SF
Holding & Recovery (4 Zones)	2,400 SF
Administrative Wing - Conference & Offices	3,500 SF
Labs	500 SF
Classroom/Studio	500 SF
Satellite Quarantine Barns	2,500 SF

ANIMAL AMBASSADORS (TOTAL AREA) 3,800 SF

BLACK-FOOTED FERRET CONSERVATION CENTER 3,200 SF



LEGEND

- Support
- Service Path / Parking



ZOO MAINTENANCE AND HORTICULTURE

New maintenance and storage buildings will be clustered on the southern side of the Zoo. The design of these buildings and lots will provide more efficient access for service vehicles and staff. In addition, locating these operational buildings together will reduce inefficiencies in material handling and transportation, and reduce conflicts between guest and service circulation campus-wide.

A dedicated horticultural building, along with greenhouses and a 40,000 SF area for a plant nursery will add capacity to the Zoo's planting and plant maintenance operations.

TEST PROGRAM APPROXIMATE PROJECT SITE AREA +/-19.2 AC

Commissary/Warehouse/Storage	11,500 SF
Shops and Haybarn	5,500 SF
Greenhouses (2)	1,500 SF
Horticulture Building	1,500 SF
(7) Exterior Material Bins	
Plant Propagation Area	40,000 SF
Train Maintenance Shed	2,500 SF



EVENT AREA

The 7 acre Event Zone takes advantage of land located at the southwest corner of the Zoo. It is separated from the core of the Zoo by existing train tracks, an internal Zoo service road and the layout of current exhibits. The area is intended to have facilities to host a variety of events including concerts, weddings, company picnics and special Zoo events. New buildings will include a stage located at the northern edge of the site, an area for permanent or temporary tents, picnic pavilions, restrooms, a kitchen facility and a storage area. Guest access to the site can be from within the Zoo by walking or taking the Zoo tram, or by using Illinois Avenue and parking next to the Event Zone.



PROGRAM	TOTAL AREA OF IMPROVEMENTS	310,000 SF
Administration Building		3,000 SF
RR Building		3,600 SF
Event Tents #1 & #1	(2)	4,000 SF
Event Tent #3		8,400 SF
Event Lawn		37,000 SF



GUEST PARKING & SCHOOL BUS DROP OFF

Parking and drop off areas will be expanded to accommodate the Zoo's growing audience, and enhanced to provide guests with a strong sense of arrival at the Zoo. In the new plan, a visit to the Zoo begins along Trevilian Way, where the landscape features life-size animal sculptures. Leading down the center of the parking area, an enlarged promenade planted with flowers, shrubs and shade trees brings guests toward the main entrance. Adjacent to the entrance are ample, shaded gathering areas featuring seating, lighting, banners and sculpture.

Vehicular circulation in the parking area will be safer and more streamlined by separating car and bus traffic. A queuing zone is shown on the western side of the lot. Large green spaces adjacent to bus parking are planted with native shrubs and trees. These provide opportunities for passive programming as well as environmental education. A water conservation demonstration park will handle stormwater runoff from the parking area. This area could incorporate an engineered wetland or a sequence of detention ponds connected by planted swales. A naturalistic butterfly garden adjacent to the water conservation area could include educational information about plants and butterflies as well as places to picnic and stroll. This area will include additional new green practices such as pervious paving, solar collecting car ports, and a wetland lagoon to decontaminate the parking lot runoff. Along the borders of the parking area, landscape berms and evergreen planting screen views to neighboring properties and service buildings.



PROGRAM

TOTAL AREA OF IMPROVEMENTS 953,000 SF

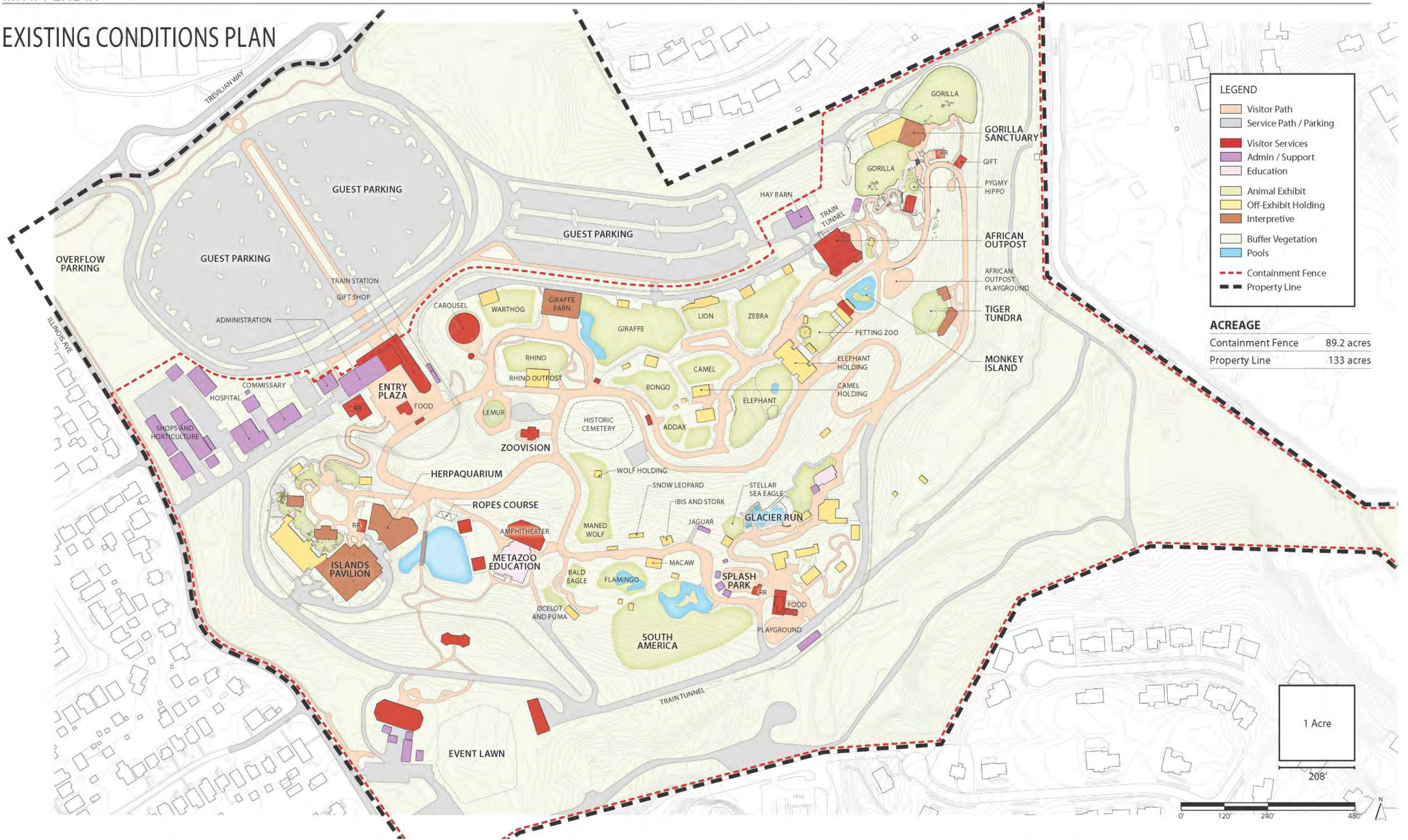
	Existing	Proposed
Car parking spaces	996	1,440
Bus parking spaces	32	38
Water Conservation Demonstration Park		56,700 SF
Butterfly Garden		28,800 SF

PARKING ASSESSMENT

- 1) Design Day = 1% of Annual Attendance
- 2) Design Day = 9,500
- 3) Parking Demand = Design Day x 80% / 3.5 per car / 1.5 to 1.75 turnover

Attendance	Design Day	Parking Demand
900,000	9,000	1,300 to 1,350
950,000	9,500	1,450 to 1,500
1,000,000	10,000	1,500 to 1,550
1,050,000	10,500	1,550 to 1,600

EXISTING CONDITIONS PLAN

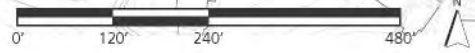
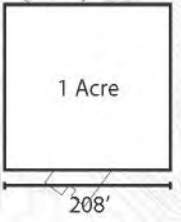


LEGEND

- Visitor Path
- Service Path / Parking
- Visitor Services
- Admin / Support
- Education
- Animal Exhibit
- Off-Exhibit Holding
- Interpretive
- Buffer Vegetation
- Pools
- Containment Fence
- Property Line

ACREAGE

Containment Fence	89.2 acres
Property Line	133 acres



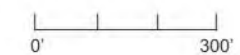
CIRCULATION



1999 MASTER PLAN UPDATE



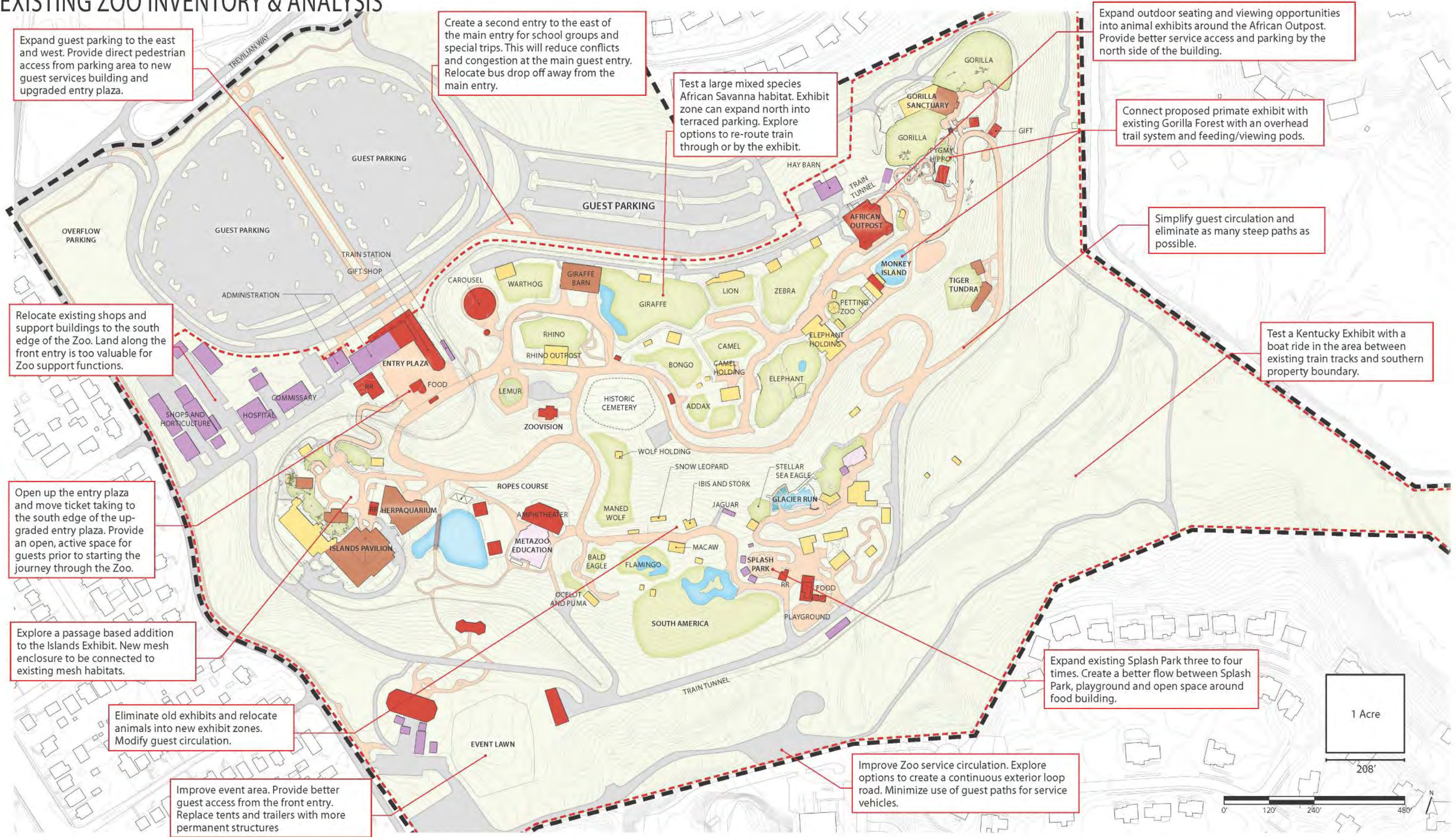
ILLUSTRATIVE MASTER PLAN



MASTER PLAN UPDATE

FEBRUARY 8, 2016

EXISTING ZOO INVENTORY & ANALYSIS



Expand guest parking to the east and west. Provide direct pedestrian access from parking area to new guest services building and upgraded entry plaza.

Create a second entry to the east of the main entry for school groups and special trips. This will reduce conflicts and congestion at the main guest entry. Relocate bus drop off away from the main entry.

Test a large mixed species African Savanna habitat. Exhibit zone can expand north into terraced parking. Explore options to re-route train through or by the exhibit.

Expand outdoor seating and viewing opportunities into animal exhibits around the African Outpost. Provide better service access and parking by the north side of the building.

Connect proposed primate exhibit with existing Gorilla Forest with an overhead trail system and feeding/viewing pods.

Simplify guest circulation and eliminate as many steep paths as possible.

Test a Kentucky Exhibit with a boat ride in the area between existing train tracks and southern property boundary.

Relocate existing shops and support buildings to the south edge of the Zoo. Land along the front entry is too valuable for Zoo support functions.

Open up the entry plaza and move ticket taking to the south edge of the upgraded entry plaza. Provide an open, active space for guests prior to starting the journey through the Zoo.

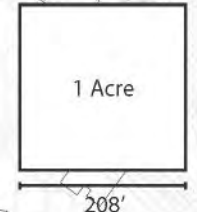
Explore a passage based addition to the Islands Exhibit. New mesh enclosure to be connected to existing mesh habitats.

Eliminate old exhibits and relocate animals into new exhibit zones. Modify guest circulation.

Improve event area. Provide better guest access from the front entry. Replace tents and trailers with more permanent structures

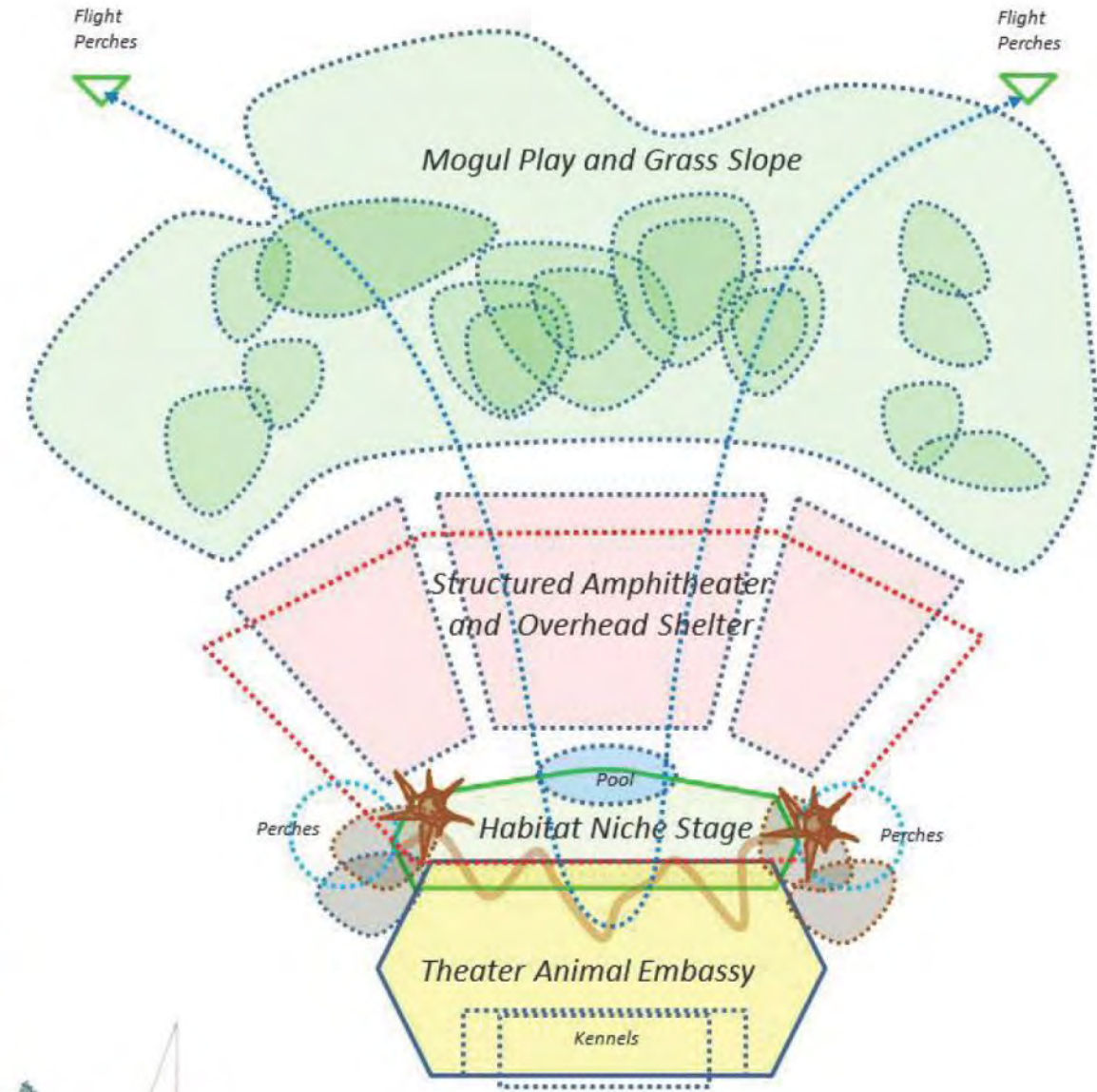
Improve Zoo service circulation. Explore options to create a continuous exterior loop road. Minimize use of guest paths for service vehicles.

Expand existing Splash Park three to four times. Create a better flow between Splash Park, playground and open space around food building.



Habitat Theater Concept

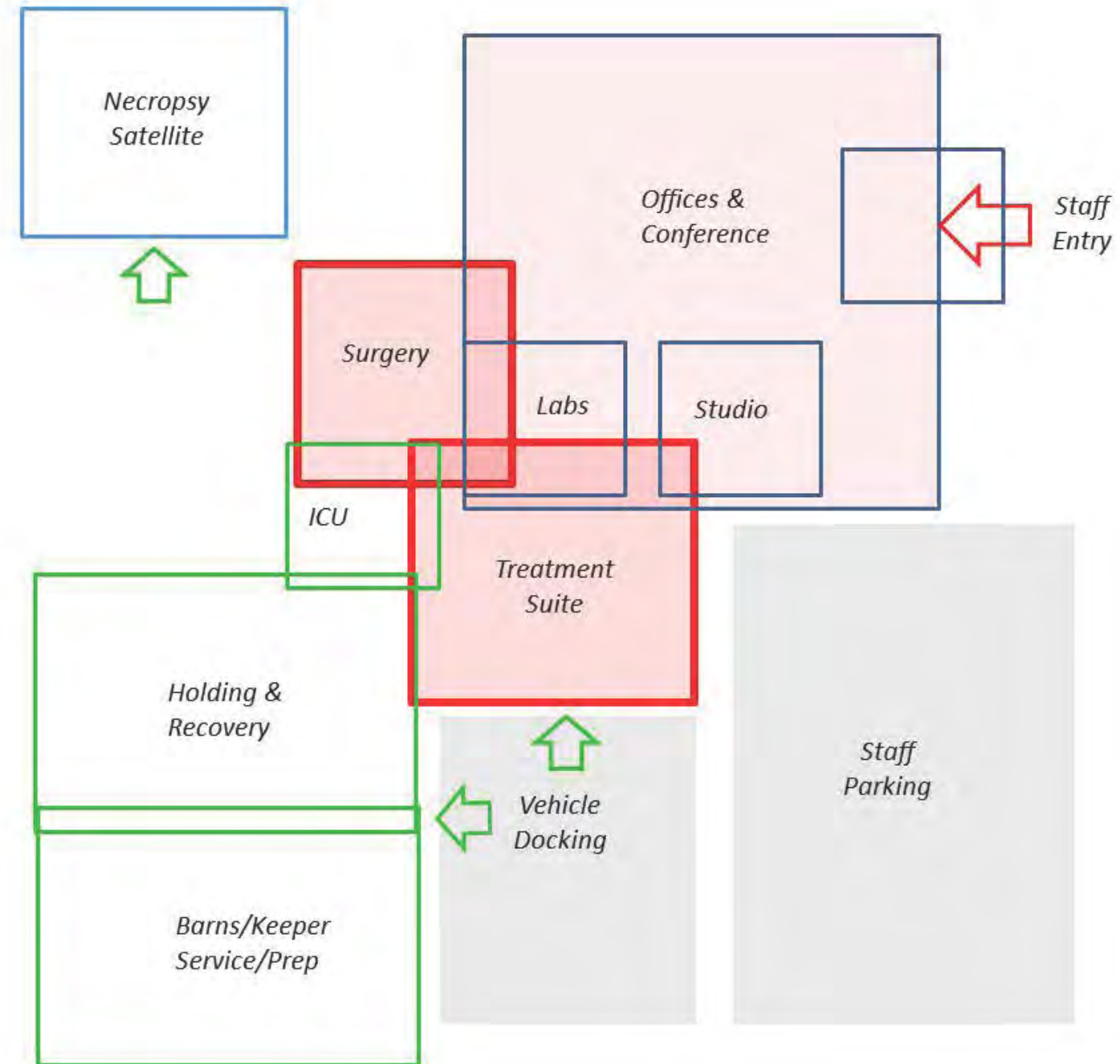
- *Habitat Niches Stage Set for Various Species*
- *Multiple Seating Options..Benches to Grass*
- *Animal Embassy Satellite: Show Animals*
- *New Shade and Shelter Zone*
- *Expanded Open Meadow Slope Zone*
- *Multi-use options for Events and Concerts*
- *New Lighting, Video, and Sound Systems*
- *Special VIP Concierge Box Seating*



Louisville Zoo Planning Update
 CLR 7/15 for Review & Comment

Animal Health Center Concept?

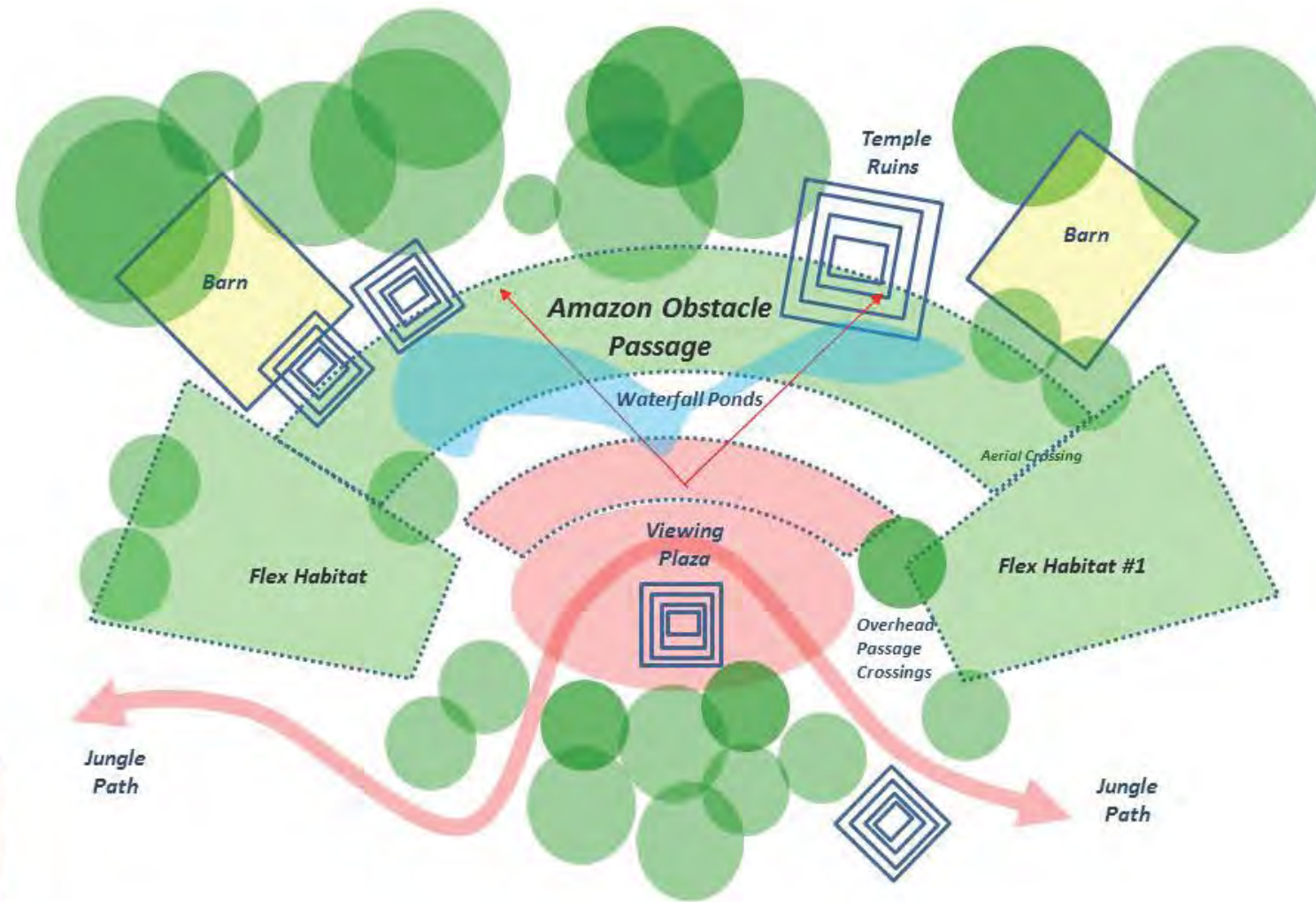
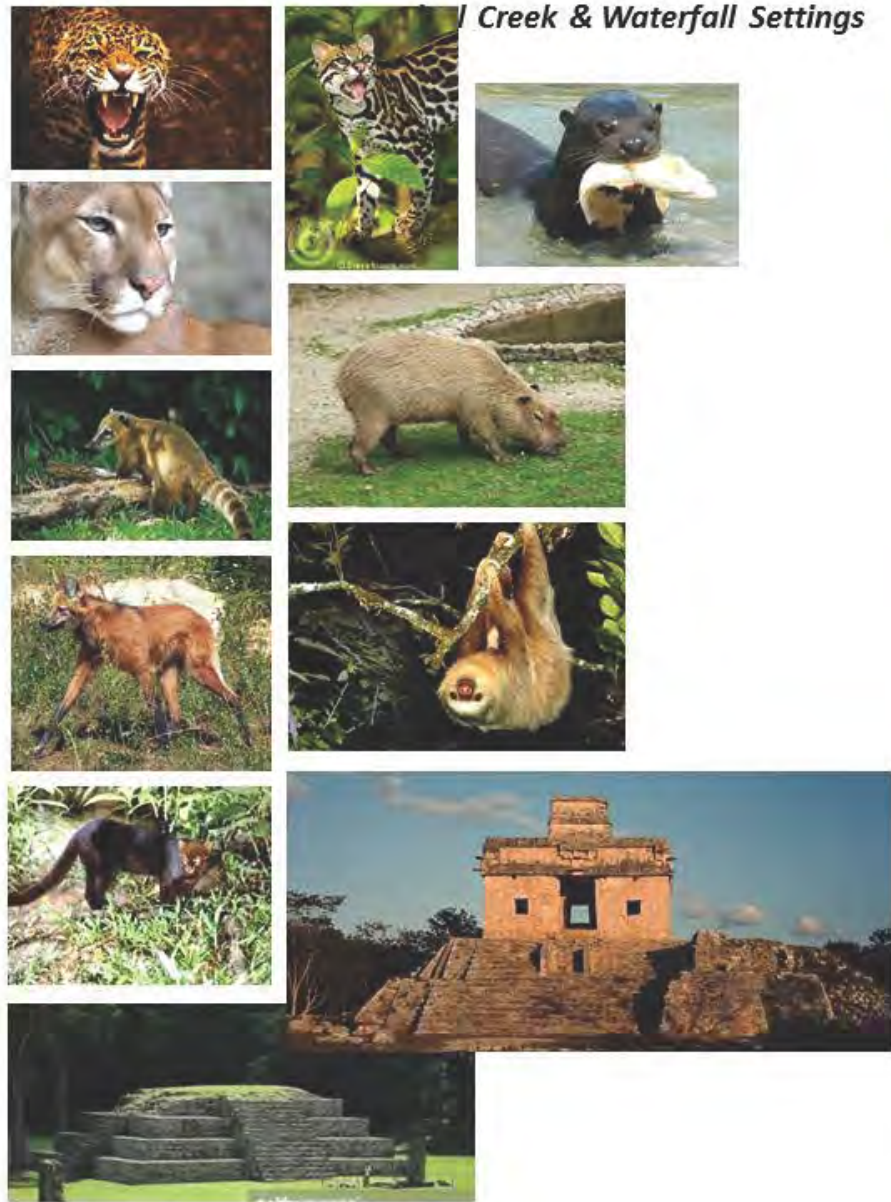
- Medical Treatment Suite 600 SF
- Surgery Suite 500 SF
- Necropsy Wing 600 SF
- ICU 300 SF
- Barns 3000 SF
- Holding & Recovery 2400 SF
Apes, Carnivores, Birds & Reptiles, Hoofstock
- Administrative Wing – Conference & Offices 3500 SF
- Labs 500 SF
- Classroom/Studio 500 SF
- Satellite Quarantine Barns 2500 SF



Louisville Zoo Planning Update
 CLR 7/15 for Review & Comment NTS

Amazon Crossing Concept

- Overhead Predator Crossings
- Multiple Species Flex habitats
- Obstacle Passage & Feeder Loops
- Predator Encounters & Demos
- Predator Climb & Leap Feeder
- Creek & Waterfall Settings



*Louisville Zoo Planning Update
CLR 7/15 for Review & Comment*

TEST IMPLEMENTATION SCHEDULE

PROJECTS	TEST BUDGET RANGE	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
INFRASTRUCTURE																
Guest Parking Ph1	\$3,000,000		■	■	★											
Guest Parking Ph2	\$3,000,000		■		■	★										
General Maintenance (12 years)	\$3,000,000 per year +/-	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Animal Hospital	\$7,000,000 - \$8,000,000		■	■	■	★										
Horticulture / Maintenance / Train Shed	\$4,000,000 - \$5,000,000			■	■	■	★									
Conservation Leadership Center (Admin Bldg)	\$2,500,000 - \$3,000,000			■	■	■	★									
Ambassador Animals	\$2,000,000		■	■	■	★										
Black-Footed Ferret Conservation Center	† \$1,200,000 - \$1,500,000		■	■	■	★										
ANIMAL EXHIBITS/GUEST ATTRACTIONS																
Elephant Expansion/Outpost Path	* \$3,000,000	★														
Penguin Cove Exhibit	* \$700,000	★														
Primate Exhibit	* \$850,000 - \$1,000,000	■	■	★												
Primate Forest, Phase II	† \$1,500,000 - \$2,500,000			■	■	■	★									
Islands Exhibit Upgrades	† \$1,000,000 - \$1,500,000		■	■	■	★										
Lego Exhibit - Dino Exhibit	* Seasonal Attraction			●												
Snow Leopard and Education	* \$3,500,000 - \$3,700,000		■	■	■	★										
Bird Show & Camel Rides	* Seasonal Attraction	●	●													
Savanna Passage	\$25,000,000 - \$28,000,000			■	■	■	■	★								
Shark Conservation Institute	† \$22,000,000 - \$25,000,000						■	■	■	★						
Crocotorium	† \$8,000,000 - \$10,000,000									■	■	■	★			
Kentucky Trails	† \$10,000,000 - \$12,000,000										■	■	■	★		
STRATEGIC SERVICES																
Islands Café	* \$500,000 - \$750,000	★														
African Outpost Expansion (Deck)	* \$300,000	■	■	★												
Ropes Course / Nature Play	\$250,000	■	■	■	★											
Waterpark Expansion	\$4,000,000	■	■	■	★											
Safari Basecamp/Education Hub	\$4,500,000 - \$5,000,000			■	■	■	★									
Front Entry Modifications	\$4,000,000 - \$5,000,000			■	■	■	★									
Event Area	\$1,500,000 - \$2,000,000						■	■	■	★						
Stay-Time / Repeat Drivers		++	++	++++	++	+	+	++++								
Attendance Drivers		Mid	Mid	High	Mid	Low	Low	High								
Revenue Enhancers		\$\$	\$\$	\$\$\$\$	\$\$	\$	\$	\$\$\$\$								

- START-UP / DESIGN & ENGINEERING
- PERMITTING / BIDDING
- CONSTRUCTION
- ONGOING
- ★ EXHIBIT OPENINGS
- SEASONAL ATTRACTIONS
- * LEADERSHIP CAPITAL CAMPAIGN & OPERATION
- † NOT INCLUDED IN THE BUSINESS PLAN

Louisville Zoo - Master Plan Update

Five-Year Financial Pro Forma Projections

The pro forma below outlines the business impacts of a \$60 million investment in the Louisville Zoo experience. Based on the success of 2014 and 2015 and the approved 2016 budget, the following are conservative, realistic and attainable projections based on the investment sequence outlined for 2017 to 2022, which include the Leadership Campaign projects, parking, front entrance enhancements, Safari Base Camp, and Savanna Passages. As noted below, attendance will increase by 16% from 2016 to the opening of the Savanna Passage in 2022.

	FY 14 ACTUAL	FY 15 PRELIM ACTUAL	FY 16 BUDGET	FY17 PROJECTED	FY18 PROJECTED	FY19 PROJECTED	FY20 PROJECTED	FY21 PROJECTED	FY22 PROJECTED
	<i>Bugs</i>	<i>LEGOS</i>	<i>Elephants, Penguin Cove, Bird Show, Camel Rides</i>	<i>Bird Show, Primates</i>	<i>LEGOS, Expanded Waterpark, Dynamic Pricing, Parking</i>	<i>Anniversary, Snow Leopard, Ambassador Animals, & Classroom</i>	<i>Safari Basecamp, Dinos, Primates, Parking</i>	<i>LEGOS, Front Entry Modifications</i>	<i>Savanna</i>
Attendance	881,776	821,518	895,000	912,900	949,416	949,416	968,404	968,404	1,045,877
<i>Metro Gov't Appropriation</i>	<i>3,357,900</i>	<i>3,173,000</i>	<i>4,044,600</i>	<i>3,500,000</i>	<i>3,570,000</i>	<i>3,641,400</i>	<i>3,714,228</i>	<i>3,788,513</i>	<i>3,864,280</i>
<i>Self-Generated Revenue</i>	<i>10,549,027</i>	<i>10,352,922</i>	<i>10,919,500</i>	<i>11,245,642</i>	<i>12,508,412</i>	<i>12,741,215</i>	<i>13,478,029</i>	<i>13,671,365</i>	<i>15,030,610</i>
Total Operating Revenue	\$13,906,927	\$13,525,922	\$14,964,100	\$14,745,642	\$16,078,412	\$16,382,615	\$17,192,257	\$17,459,877	\$18,894,899
Total Operating Expenses	\$13,940,864	\$13,690,881	\$14,964,100	\$14,680,962	\$15,425,410	\$16,302,463	\$17,179,641	\$17,452,816	\$18,469,887
Net Operating Margin	-\$33,937	-\$164,958	\$0	\$64,680	\$653,002	\$80,151	\$12,616	\$7,061	\$425,011
Operating Margin as % of Revenue	-0.2%	-1.2%	0.0%	0.4%	4.1%	0.5%	0.1%	0.04%	2.2%
Cost Per Visitor	\$15.81	\$16.67	\$16.72	\$16.08	\$16.25	\$17.17	\$17.74	\$18.02	\$17.66

Economic Impact:

With an \$18.8MM operating budget and facility capital investment of \$60 million (allocated over 7 years) through FY 2022, the Louisville Zoo will produce the following economic impacts for the Louisville region:

Operations & Facility/Capital Investment

From Operations: Economic Impact	\$34.4MM
From Facility Investments: Economic Impact	\$15.1MM
Total Annual Economic Impact	\$49.5MM
Personal Earnings from Operations (Annual):	\$10.6MM
Jobs Supported from Operations (Annual):	475

Facility Capital Investment from Total of \$60MM

(one-time impacts)	
Economic Impact:	\$127.2MM
Personal Earnings:	\$39.8MM
Jobs Supported:	1,110

With Full Vision Implementation of \$184MM in Facility Capital Investment

Economic Impact:	\$391MM
Personal Earnings:	\$122.4MM
Jobs Supported:	3,404