

# ABQ BioPark AFRICA

*Concept Planning Report*

September 4, 2025

**FINAL DRAFT**



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# **EXECUTIVE SUMMARY**

# Introduction

The ABQ BioPark Zoo is contemplating a complete redevelopment of the Africa Zone to create enhanced, more enriching habitat environments for all species, and more engaging and immersive experiences for guests. A key element of this effort is the reintroduction of lions, a highly requested species by the Albuquerque community.

This document presents high-level facility concepts for the redevelopment of the Africa zone at the ABQ BioPark Zoo. It outlines potential development areas and provides a framework for key logistical considerations related to implementation. The report is intended to serve as a strategic tool to support informed decision-making during the redevelopment process.

## Key Planning Objectives

- Re-envision the existing Africa site, including giraffe, zebra, rhino, hippo, chimpanzee, hyena, and other species.
- Incorporate a new immersive, activity-based lion habitat into this zone.
- All new habitats shall be larger, more complex, and create opportunities for **all species to thrive and exercise natural behaviors**.
- The guest experience improvements will explore more immersive environments and dynamic circulation and viewing opportunities, including vertical elevation changes with better sight lines.
- The existing habitats and facilities for hippo, giraffe, rhino and chimpanzee are mainly in good condition but options for **expansion and enhancements** should be explored.

## Planning Process

The planning process spanned several months and focused on identifying both opportunities and challenges within the BioPark's Africa zone. The effort prioritized finding innovative, guest-engaging, and animal-centric solutions. The process was structured into three phases, or:



EXISTING AFRICA ZONE IS RICH WITH ART SCULPTURE AND STRUCTURES



EXISTING ZEBRA HABITAT

# Existing Conditions

Located on the northern edge of the ABQ BioPark Zoo, the Africa zone is bordered by Stover Road to the north, the main zoo parking lot to the east, and the under-construction Australia zone to the south. A primary east-west zoo pathway divides the site north and south. Vegetation transitions across the site, from open grassland in the west to denser, tree-covered areas in the east, creating a diverse landscape. Additionally, the site is sprinkled with artwork that requires inclusion or repurposing in Africa or in BioPark.

The site presents a range of challenges and opportunities:

### Challenges

- Compact site to accommodate a large and diverse animal collection
- Need to maintain service access through the site to the Australia zone
- ADA accessibility issues at both ends of the site due to elevation changes
- High desert climate limits the use of plantings for visual screening and habitat transitions

### Opportunities

- Diverse animal collection
- Potential to create mixed-species and rotational habitats
- Flexibility to phase development over time to allow for richer, more immersive projects



EXISTING HIPPO POOL AND FALLS

## PROGRAM

Giraffe Habitat 1	16,628 SF	Chimpanzee Habitat	7,039 SF	Aviary 2	1,939 SF
Giraffe Habitat 2	5,858 SF	Chimpanzee Barn	2,049 SF	Hippo Habitat	5,919 SF
Giraffe Yard	714 SF	Hyena Habitat 1	3,471 SF	Hippo Yard	1,576 SF
Giraffe Barn	3,772 SF	Hyena Habitat 2	4,081 SF	Hippo Barn	3,071 SF
Zebra Habitat	21,019 SF	Hyena Barn	620 SF	Klipspringer Habitat 1	931 SF
Zebra Yard	1,382 SF	Warthog Habitat	4,685 SF	Klipspringer Habitat 2	1,237 SF
Rhino Habitat	14,190 SF	Warthog Barn	1,877 SF	Klipspringer Barn	650 SF
Rhino Yard	2,942 SF	Cheetah Habitat 1	3,631 SF	Hornbill	112 SF
Rhino Barn	3,511 SF	Cheetah Habitat 2	2,597 SF	Gibbon Habitat	3,005 SF
Australia Habitat 1	3,777 SF	Cheetah Yard	378 SF	Restrooms	1,111 SF
Australia Habitat 2	2,281 SF	Cheetah Barn	1,333 SF	Multi-Purpose Building	3,953 SF
Australia Barn	841 SF	Aviary 1	4,096 SF	Cafe	825 SF

### Existing Site Plan



# Concept Development

During the planning process, several key themes emerged to guide the future development of the site. These include the creation of two large, flexible mixed-species savanna habitats; rotating carnivore habitats for lions and hyenas with one open and two mesh enclosures; and a series of layered, adaptable, linear habitats through the lion/hyena, chimpanzees, and ravine habitats that form a long central train system.

Additional priorities include a modest expansion of the hippo habitat and updates to the existing pool, the development of two large aviaries that combine bird species with ground-dwelling mammals, and the relocation of the guest hub further north, anchored by the Ravine and Chimpanzee habitats.

### Planning Drivers

- Develop rich, engaging, and accessible visitor experiences.
- Design larger and more complex animal habitats.
- Maximize available space through efficient layout and planning.
- Maintain service access to both existing and proposed facilities.
- Ensure projects are logistically feasible and can be implemented in phases.

### Test Collection Plan

The ABQ BioPark Zoo staff developed a test collection plan, which includes the introduction of *new species*, most notably, lions.

#### Carnivores

- *Lion 1.1 (non-breeding) or 1.3 (with off-exhibit yards)*
- Spotted Hyena 1.1.2

#### Primates

- Chimpanzee 3.5 (possibly +2)
- *Lemurs 1.3*

#### Pachyderms

- Hippo 1.1.2
- White Rhino 1.3

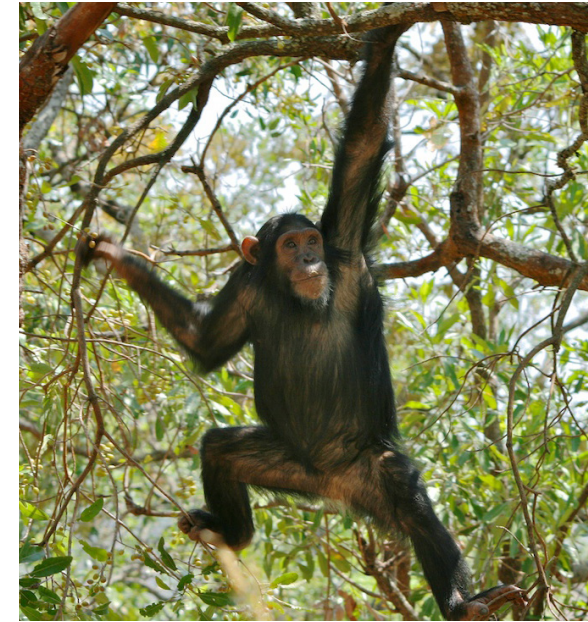
#### Ungulates

- Giraffe 1.3 (+2)
- Zebra 4.0 (+2)
- Warthog 1.1.4 (2 yards needed for breeding)
- *Duiker 1.1 (pair)*
- *Antelope (in mixed-species habitats)*

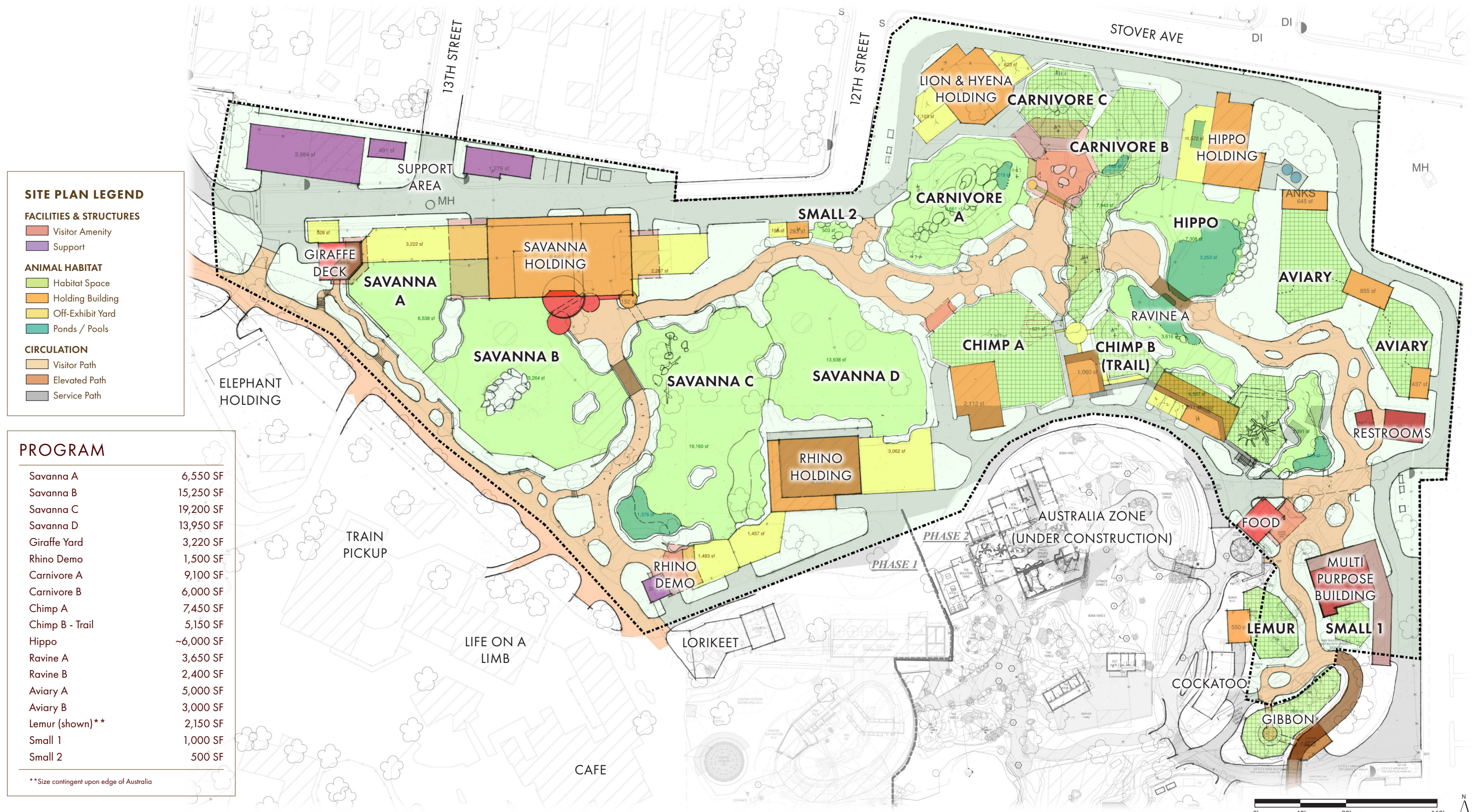
#### Birds

- *Ostrich 3*
- Crowned Crane
- Vultures 3.3.1 (lappet faced, cape)
- Hornbill 1.1 (+2)
- Marabou Stork 1.1.1 (mix with vulture)

*\*New species*



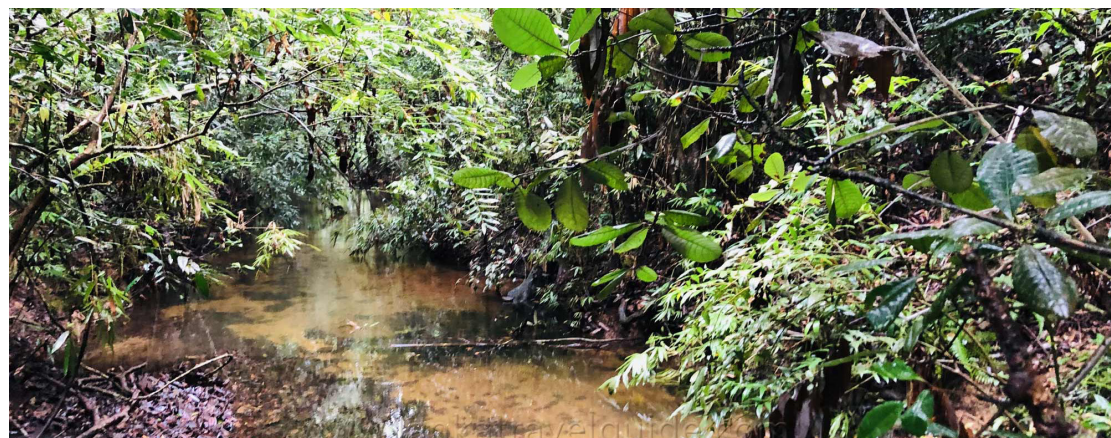
# Illustrative Plan



## Site Organization

The Africa zone is divided into five distinct areas, each representing a unique African biome. As visitors move from east to west, the landscape transitions from a dense, shady forest to a vast open savanna.

- **Forest** – Visitors descend from the existing gibbon habitat to the forest floor, entering a lush, shaded environment that evokes the feeling of a dense African forest.
- **Outpost** – A human-centric area featuring visitor support buildings inspired by African architecture, both in style and materials. This zone serves as a cultural and functional hub.
- **Ravine** – Following a natural watercourse, this area guides guests from the denser forest into a more open landscape, marking a gradual ecological transition.
- **Kopje** – Characterized by prominent rock formations, this rocky terrain creates elevated vantage points for animals to observe guests and fellow animals alike.
- **Savanna** – Expansive viewsheds allow visitors to observe a wide range of animals sharing open fields, echoing the vastness of the African savanna.



FOREST



RAVINE



KOPJE



SAVANNA



ILLUSTRATIVE RENDERING

## Implementation

Implementing the redevelopment of the Africa vision will likely require a phased approach, allowing funding, design, and construction efforts to be distributed over time. The existing visitor path could remain open, at least from one direction, throughout much of the redevelopment to maintain guest access and experience.

The diagram to the right outlines potential project zones. In some cases, it may be beneficial to group related projects together to streamline construction and minimize disruptions. The Carnivore Area is a strong candidate for early-phase development due to its current need for renovation and the BioPark's goal of returning lions to the BioPark.

### Test Project Areas\*

**A. Carnivore Area** – Conceptually, the Carnivore Area is closely tied to the Ravine Area and should be considered for simultaneous early-design phases.

**B. Savanna Area** – The existing giraffe holding building may remain in operation until the new savanna holding facility is completed and functional.

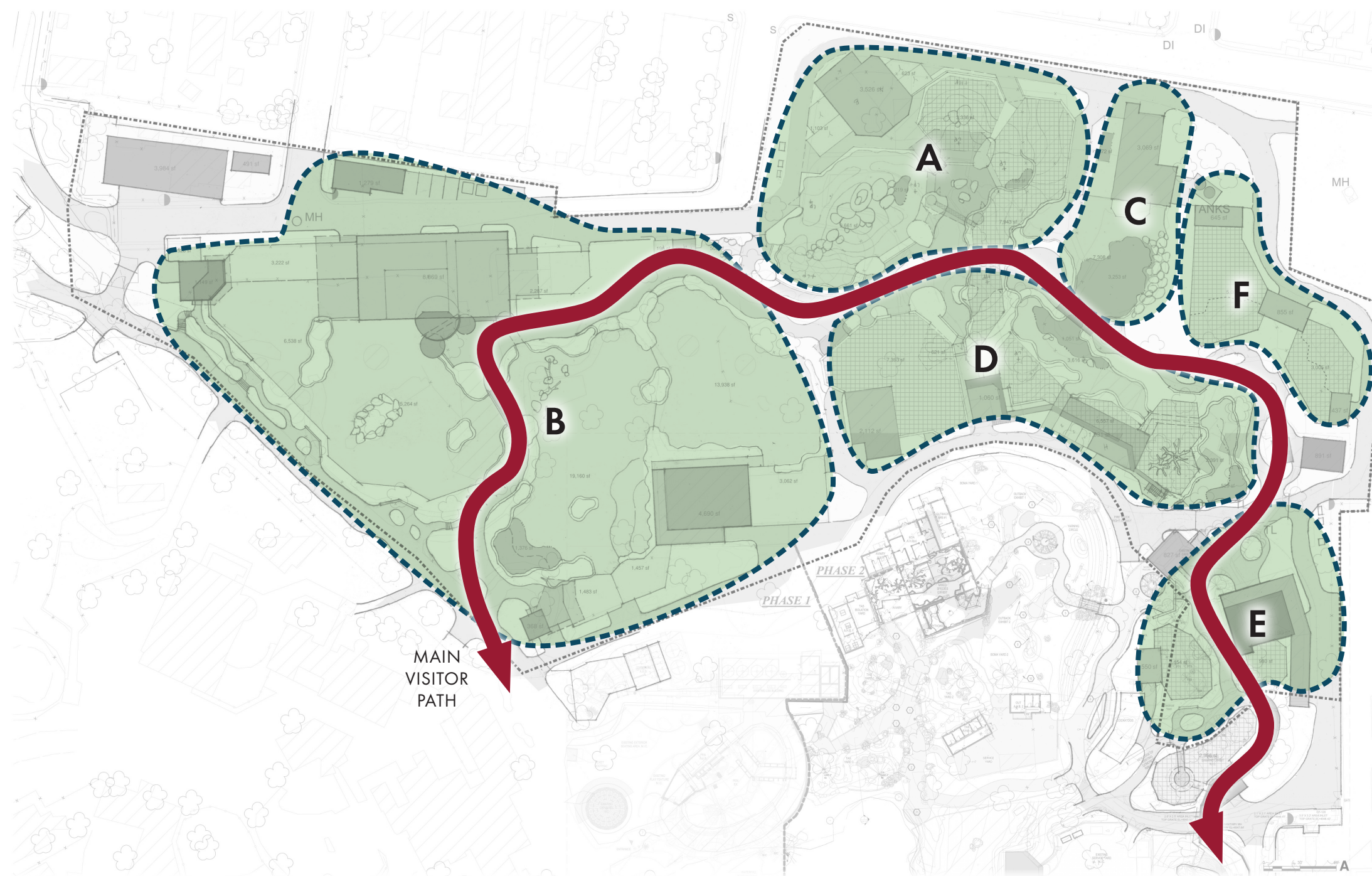
**C. Hippo Area** – The habitat and pool are influenced by both the Carnivore and Ravine Areas, making it feasible to develop in conjunction with either or both. The Life Support System (LSS) upgrades could be implemented independently when they are needed.

**D. Ravine Area** – Conceptually, the Ravine Area is closely tied to the Carnivore Area and should be considered for simultaneous early-design phases.

**E. Outpost / Primate Area** – This area will be essential for providing visitor support facilities for the Africa Zone.

**F. Aviaries Area** – This zone is required for permanent enclosures after displacement from the Carnivore Area.

\*Order does not indicate priority





# **AFRICA PROJECT AREAS**

# Savanna



Comprised of four main savanna habitats and multiple smaller encounter yards, the Savanna Area refresh aims to reintroduce the large mixed-species environments for which the exhibit was originally designed.

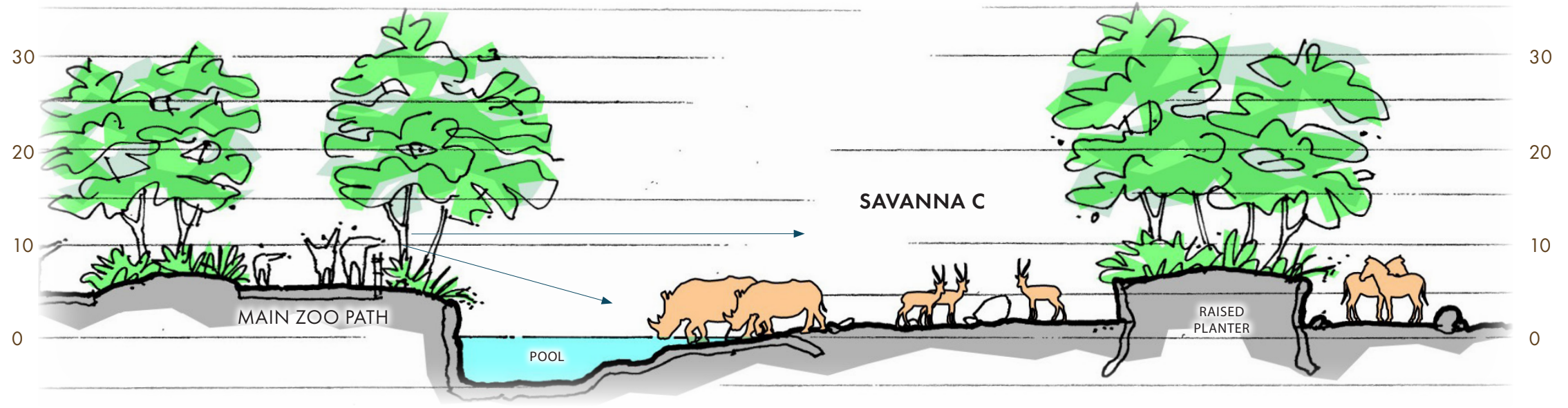
## Project Features

- Species: **giraffe, white rhinos, zebra, antelope, ostrich, hornbill** (in small habitat)
- **Four mixed-species savanna habitats** – giraffe exclusive to west side of path, rhino exclusive to east side of path
- **New accessible grand entry with panoramic view**
- **New multi-species savanna holding:** giraffe, zebra, other hoofstock, and ostrich. Holding will include large indoor giraffe herd room and outdoor yards that could be viewed by public if operators choose to allow access
- **Giraffe Deck:** elevated feeding deck with small hoofstock or ostrich holding below
- Opportunity for **Rhino Demonstrations**

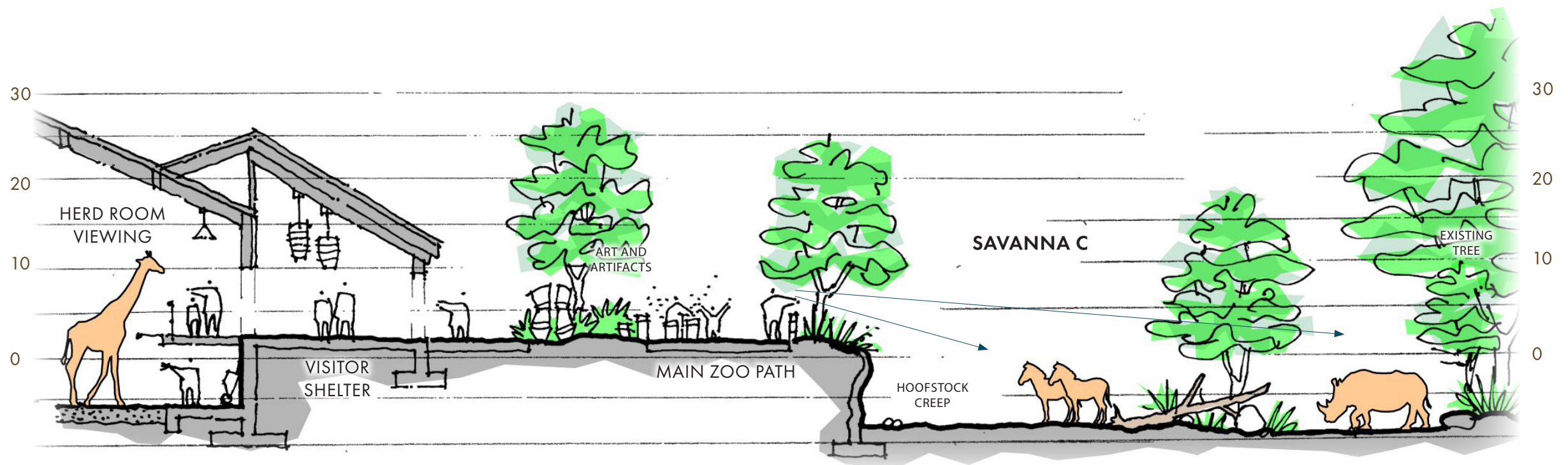
PROGRAM	
<b>Buildings</b>	
New Savanna Holding	9,000 SF
Existing Rhino Holding	4,700 SF
Small 2 Holding	200 SF
Giraffe Deck/Holding	1,150 SF
Africa Keeper Support Building	1,280 SF
LSS	TBD
<b>Habitats</b>	
Savanna A	6,550 SF
Savanna B	15,250 SF
Savanna C	19,200 SF
Savanna D	13,950 SF
Giraffe Yard	3,220 SF
Rhino Demo	1,500 SF
Small 2	500 SF



# Savanna Site Sections



Section A-A



Section B-B



# Carnivore and Hippo



KEY PLAN

## Carnivore

The Carnivore Area enables the BioPark to reintroduce lions and enhance living spaces for its resident spotted hyenas. Creating flexible habitats that support rotational management is essential to providing the carnivores with enriching lives. Connection to the Ravine/Chimp Habitats will provide even more habitat space.

## Project Features

- Species: **lion, spotted hyena**
- **Varying Viewing** – mix of mesh, glass, and moat viewing give varying experiences to see lions and hyena
- Two mesh/capped and one open-top habitat
- **Carnivore Demonstration Space** – Habitat C allows for demonstration space
- **High Points** - Carnivore A and B high points allow for monitoring the savanna habitats
- **“Landbridge” connections** to Ravine and Chimp habitats create even more flexible habitats
- **Layered views** across Hippo to Carnivore B

## Hippo

The Hippo Area will refresh the existing habitat by expanding the beach and addressing the aging pool. Eventually, the LSS system may also require attention, though this could be done separately from the habitat improvements when it is required.

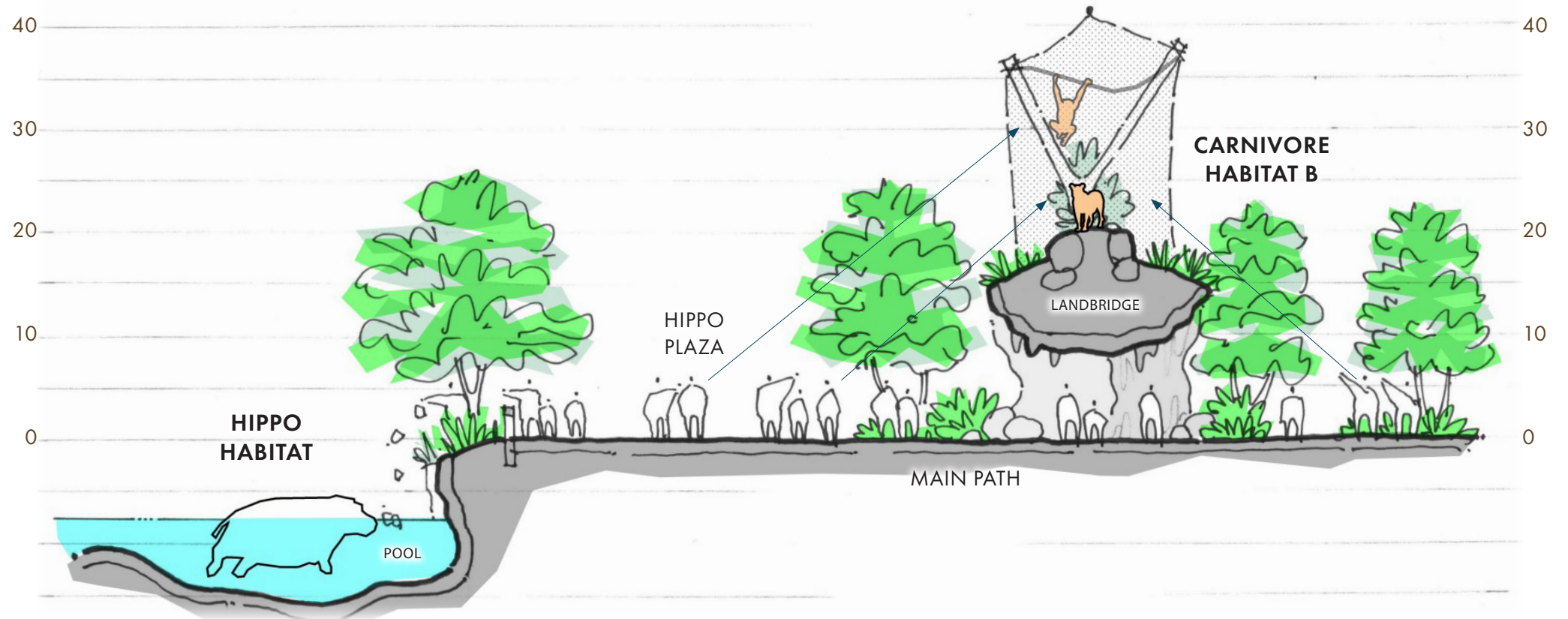
## Project Features

- Species: **hippopotamus**
- **Expanded observation areas** on both sides of bridge for feeding viewing
- Add **beach** area
- Remove, redesign, and replace pool

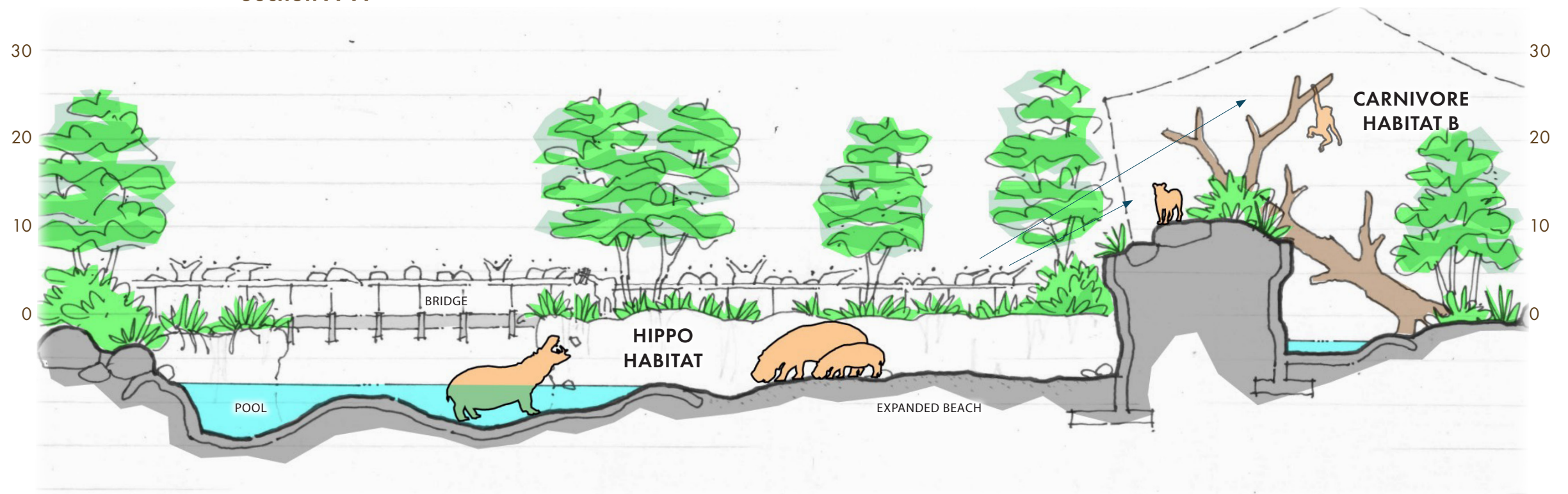


ILLUSTRATIVE RENDERING

# Carnivore and Hippo Site Sections\*



Section A-A

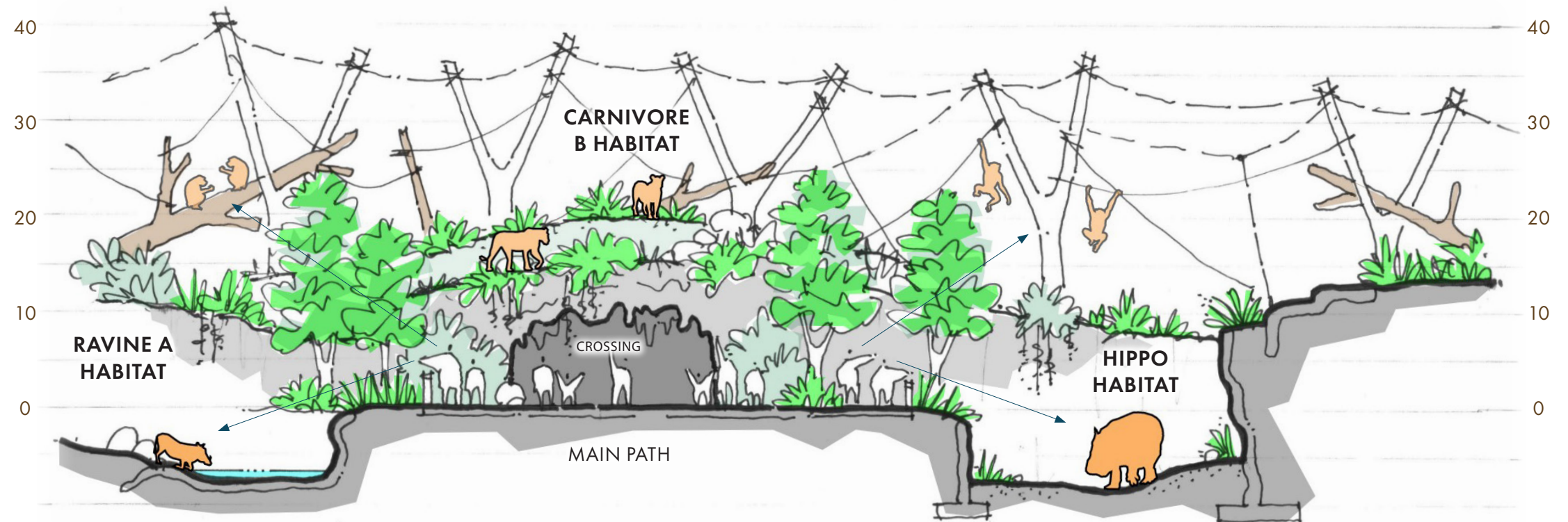


Section B-B

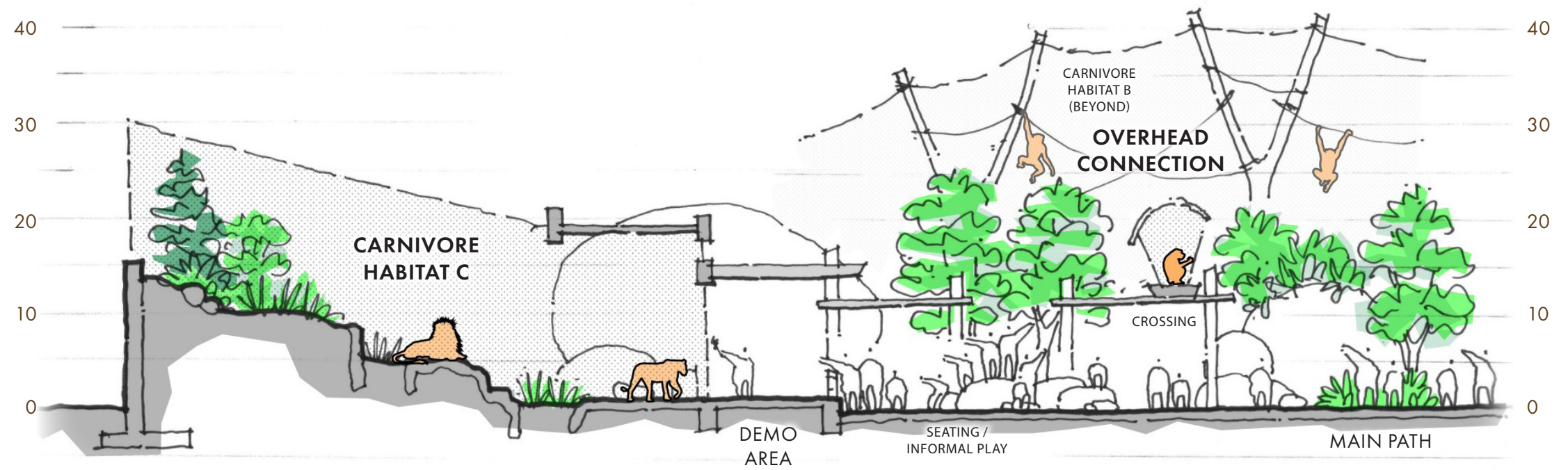
\*NOTE: CHIMPS AND LIONS ARE SHOWN IN SAME HABITATS TO ILLUSTRATE USE BY BOTH SPECIES, ANIMALS WOULD NOT BE EXHIBITED TOGETHER



# Carnivore and Hippo Site Sections\*



Section A-A



Section B-B

\*NOTE: CHIMPS AND LIONS ARE SHOWN IN SAME HABITATS TO ILLUSTRATE USE BY BOTH SPECIES, ANIMALS WOULD NOT BE EXHIBITED TOGETHER

# Ravine and Chimpanzee

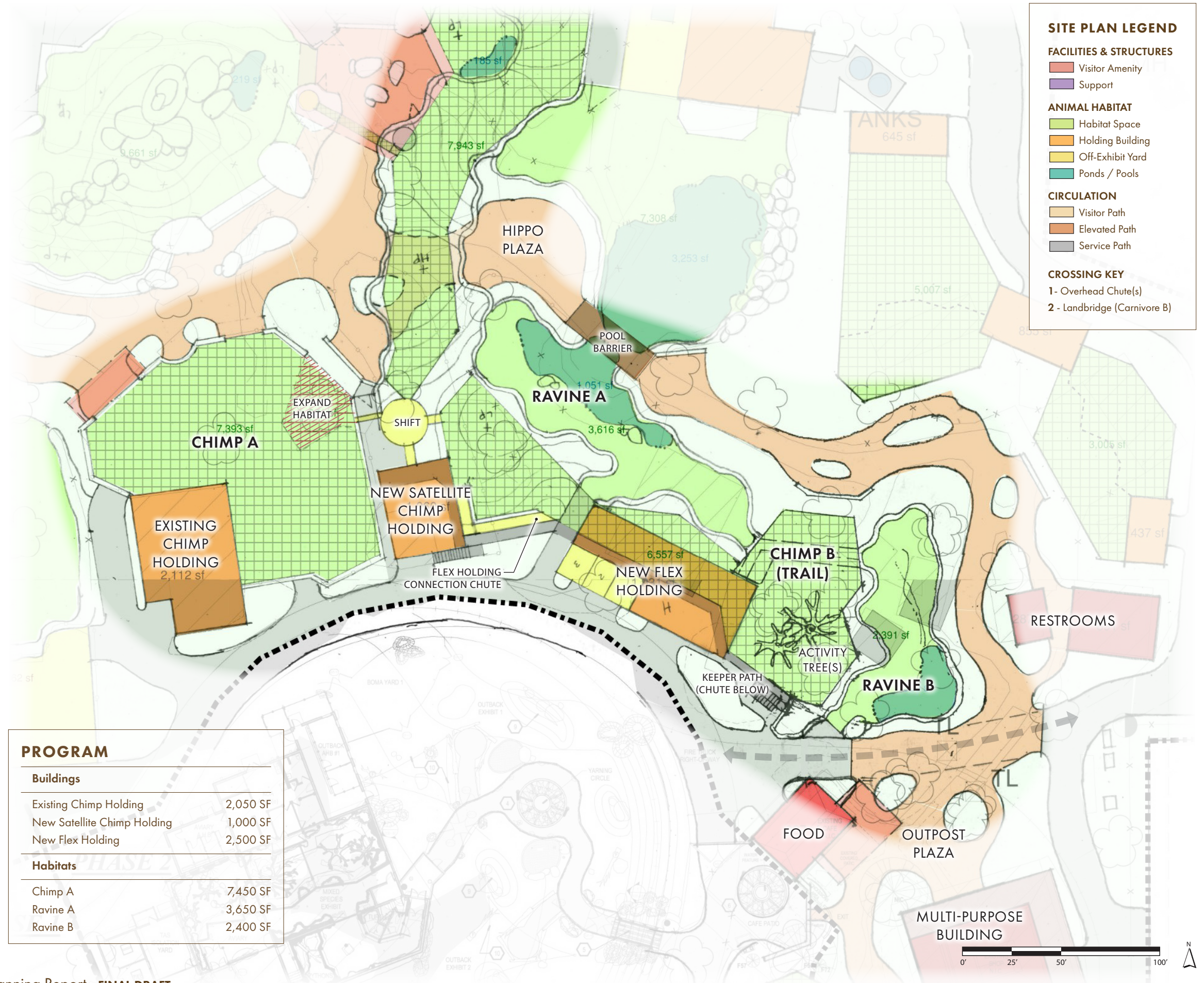


KEY PLAN

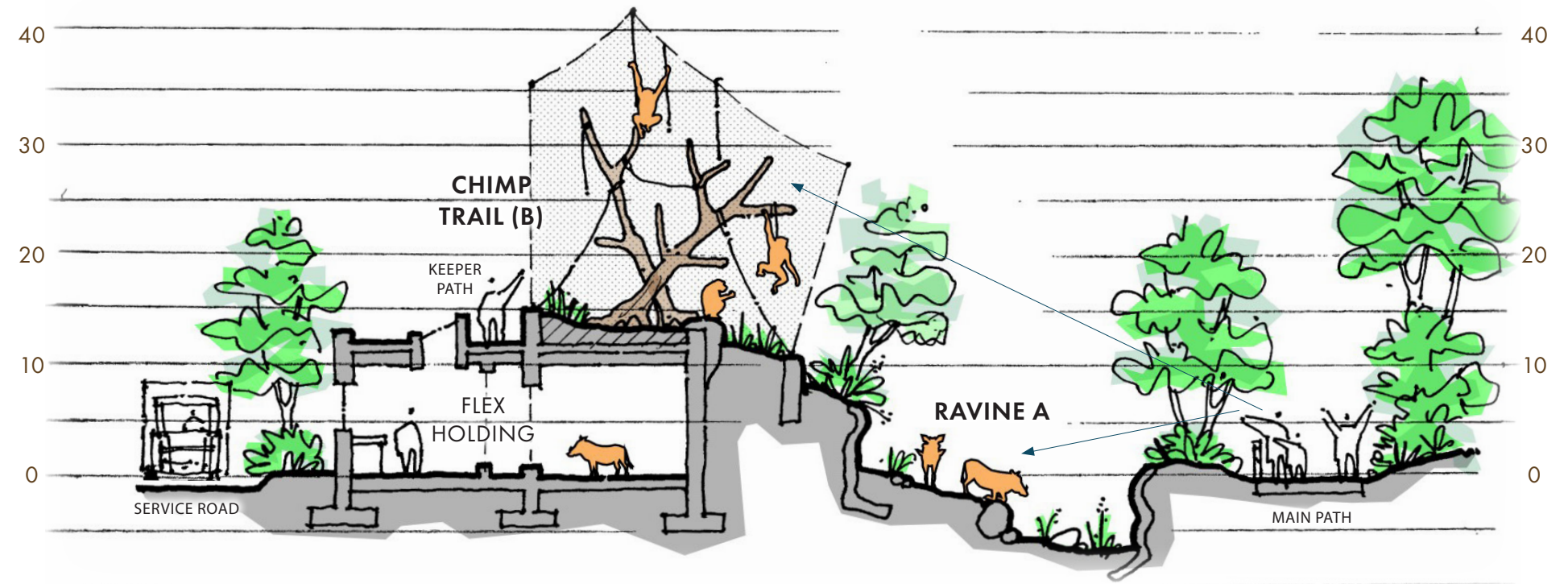
The Ravine and Chimpanzee Habitat expansion, along with new and expanded holding spaces, will provide much-needed additional room for the chimpanzees and warthogs. The habitats are designed as layered environments, allowing guests to view multiple species simultaneously. Connection to the Carnivore Habitats will offer even more habitat space.

## Project Features

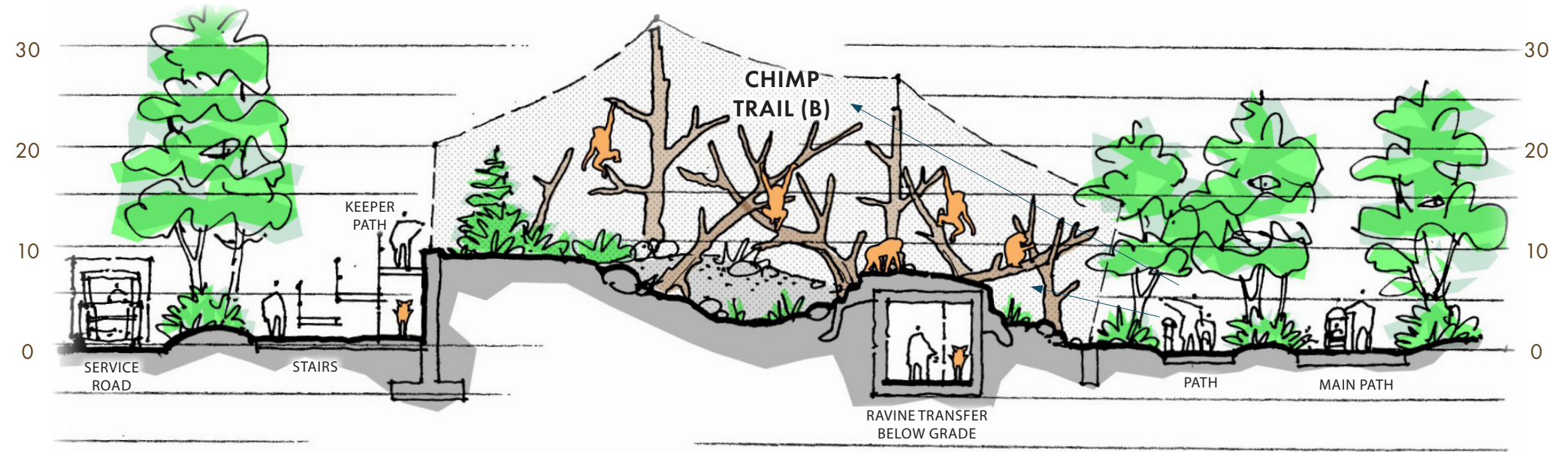
- Species: **chimpanzee, warthog, antelope**
- **Multiple sets of layered habitats** allow for multi-species views
- **Maintain existing chimpanzee habitat** except for small expansion on east side
- A long, **elevated trail system for chimps**, connecting the existing Chimp Habitat A to the Outpost Plaza
- **Two flexible Ravine Habitats** for warthogs and small hoofstock



# Ravine and Chimpanzee Site Sections\*



**Section A-A**



**Section B-B**

\*NOTE: CHIMPS AND LIONS ARE SHOWN IN SAME HABITATS TO ILLUSTRATE USE BY BOTH SPECIES, ANIMALS WOULD NOT BE EXHIBITED TOGETHER

# Aviaries



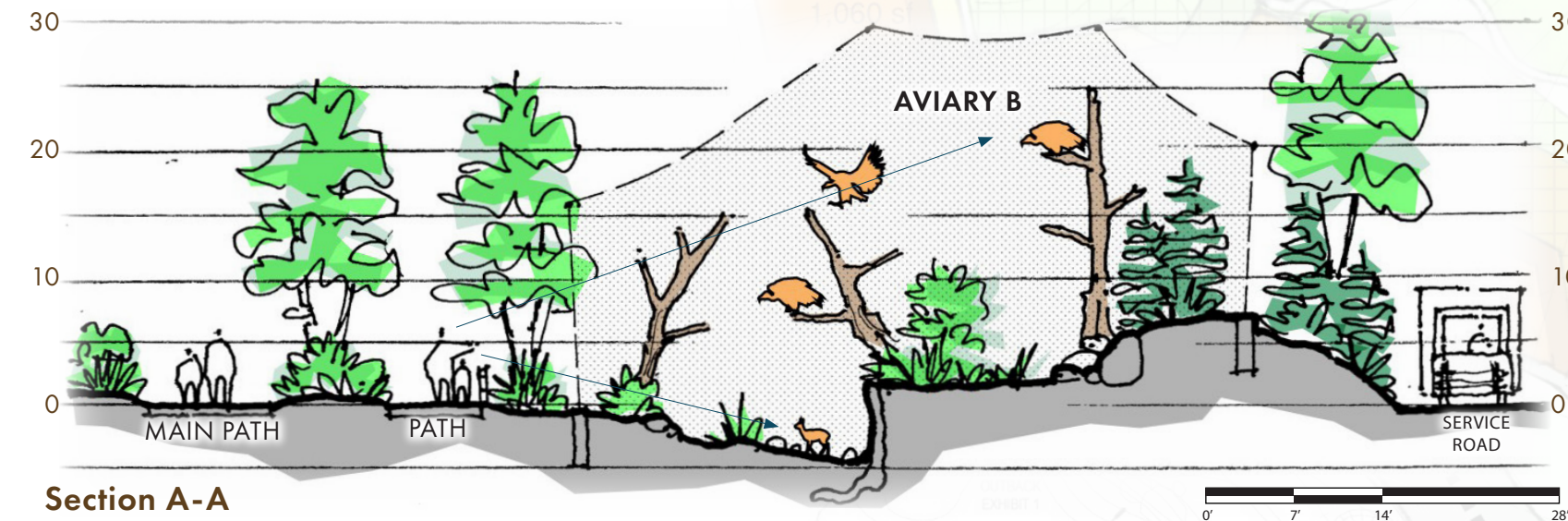
KEY PLAN

The Aviaries provide large flight spaces for large bird species displaced by the proposed Carnivore Area. The mixed-species spaces (both birds and ground mammals) provide visitors with a great opportunity for dynamic animal interactions.

## Project Features

- Species: **vultures, marabou stork, crowned crane, duiker**
- **Mixed species habitats** – large bird and small ground mammal
- **Large aviaries** allow for flight

PROGRAM	
<b>Buildings</b>	
Aviary A Holding	650 SF
Aviary B Holding	450 SF
Mammal Holding	850 SF
<b>Habitats</b>	
Aviary A	5,000 SF
Aviary B	3,000 SF



Section A-A



**SITE PLAN LEGEND**

**FACILITIES & STRUCTURES**

- Visitor Amenity
- Support

**ANIMAL HABITAT**

- Habitat Space
- Holding Building
- Off-Exhibit Yard
- Ponds / Pools

**CIRCULATION**

- Visitor Path
- Elevated Path
- Service Path

# Outpost and Primates



KEY PLAN

The Outpost Area will create intentional connections and synergy between visitor-oriented buildings to form an African hub. Surrounding this hub with art and animal experience (ravine/chimp to north, lemur to the south) will result in a dynamic and engaging guest experience.

## Project Features

- Species: **Lemurs, small animal**
- **Service crossing** doubles as plaza space.
- **Layered views** of Ravine B and the Chimp Trail (B) from the Plaza
- Anchor a small animal habitat to the Multi-Purpose Building for viewing from inside building.
- Incorporate **King Chair** and other art of significance
- A Lemur Habitat size and geometries will depend on final buildout of the Australia Project(s). Plan to right shows some creep into space earmarked for Australia.

**SITE PLAN LEGEND**

**FACILITIES & STRUCTURES**

- Visitor Amenity
- Support

**ANIMAL HABITAT**

- Habitat Space
- Holding Building
- Off-Exhibit Yard
- Ponds / Pools

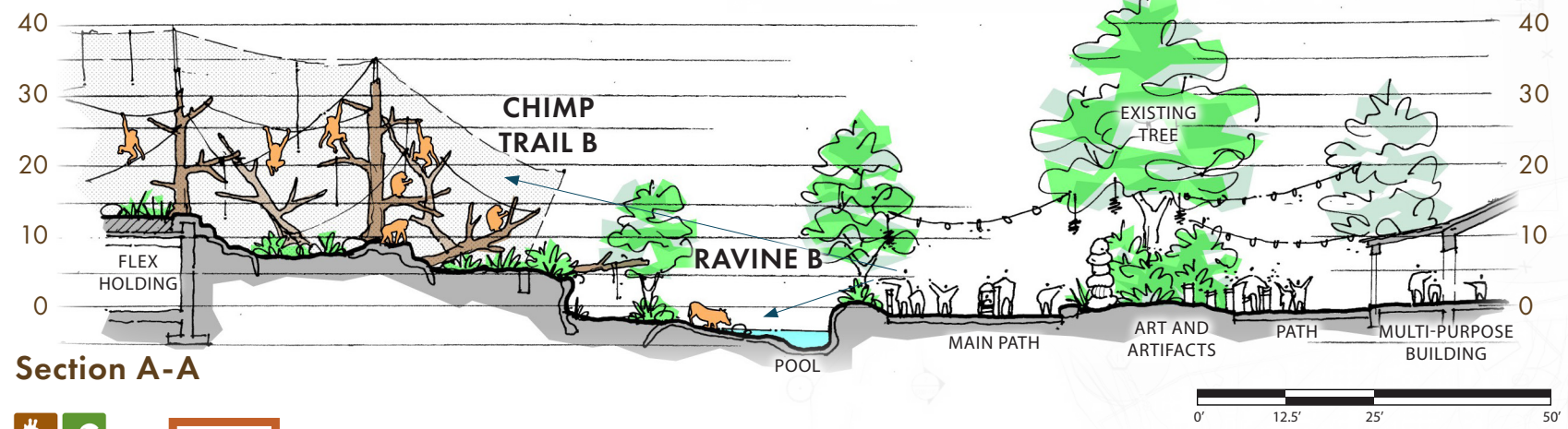
**CIRCULATION**

- Visitor Path
- Elevated Path
- Service Path

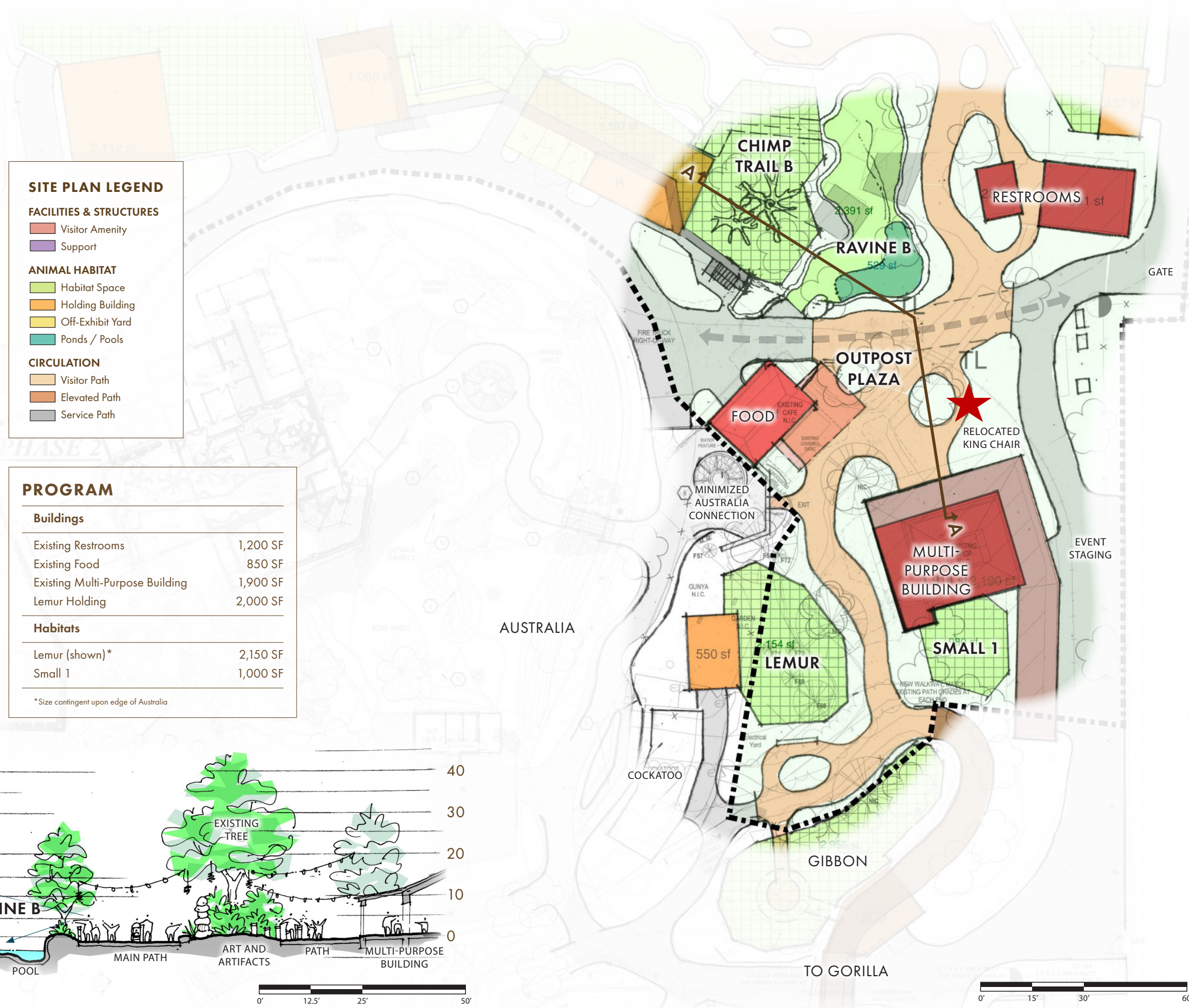
**PROGRAM**

Buildings	
Existing Restrooms	1,200 SF
Existing Food	850 SF
Existing Multi-Purpose Building	1,900 SF
Lemur Holding	2,000 SF
Habitats	
Lemur (shown)*	2,150 SF
Small 1	1,000 SF

\*Size contingent upon edge of Australia



Section A-A



ILLUSTRATIVE RENDERING



**CONCEPTUAL FRAMEWORK**

## Activity Based Design

This planning effort considered animals health, welfare, and quality of life as the highest priority. To ensure this is achieved in executed projects, activity-based design should be incorporated and drive the evolution of those projects. Design factors to consider include but are not limited to:

- Foster natural behaviors
- Animal choice
- Flexible habitats
- Rotating species
- Mixed species
- Enrichment furnishings and feeders
- Creature comforts

## Land Use

The BioPark Africa Zone faces spatial constraints. As a result, this plan aims to use the available land as efficiently and creatively as possible to maximize space for animals in ways that enhance their well-being. This is achieved through the proposal of flexible habitats that allow for the mixing of compatible species and the rotation of non-compatible ones. This gives animals access to more habitats and ultimately more stimulus.

Vertical expansion has also been explored, with habitats designed to extend upward, increasing usable volume and overlapping with other programmed areas to make the most of the limited square footage. See the diagram on the opposite page for examples of different types of on-exhibit animal spaces.

In addition to the exhibit areas, animals will have access to off-exhibit yards and holding facilities. These spaces provide extra square footage for animal management and offer valuable opportunities for enrichment.



ABQ BIOPARK'S ASIA EXHIBIT DEMONSTRATES MANY OF THESE ACTIVITY-BASED DESIGN FACTORS.

### On-Exhibit Habitats

**Trail** – series of habitats spanning the Carnivore and Ravine Zones - lion, hyena, chimp, and ravine species access

**Mixed Species Savanna** – giraffe, hoofstock, and ostrich

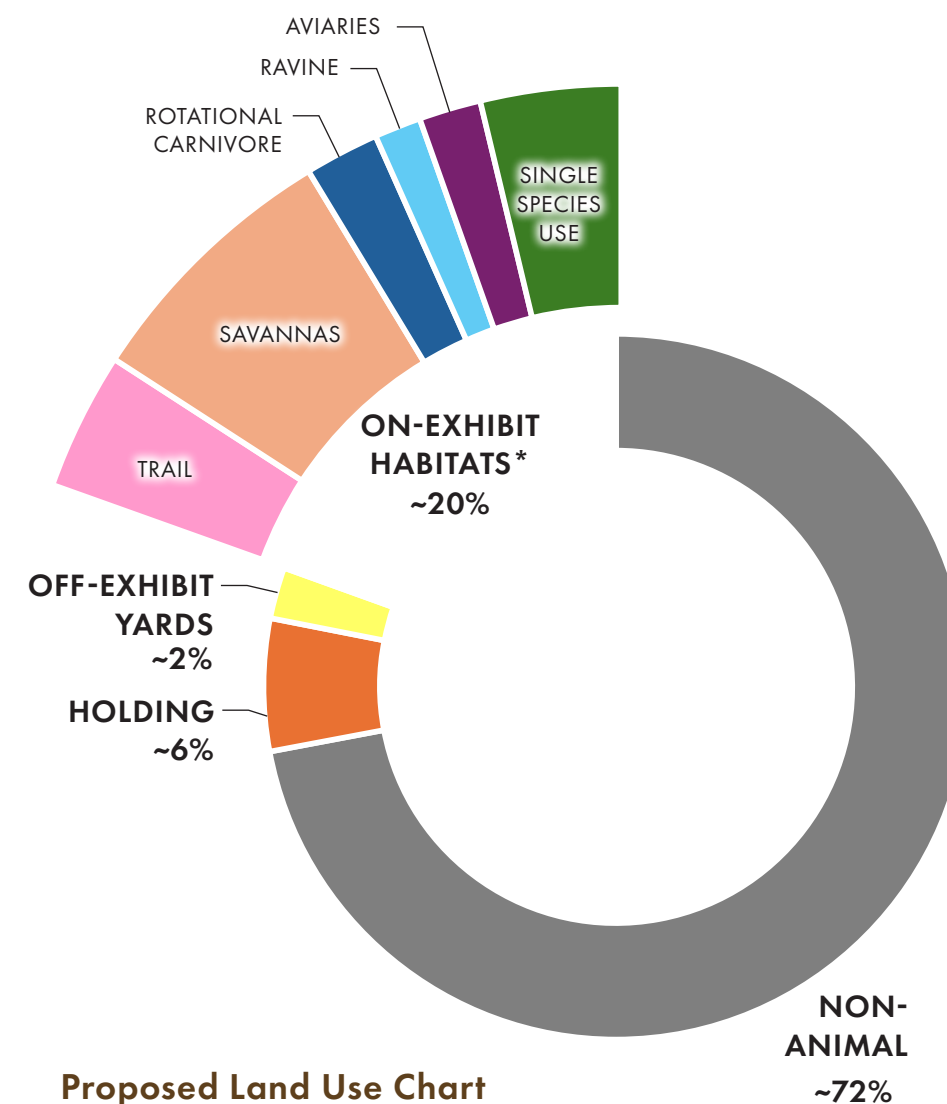
**Mixed Species Savanna** – rhino, hoofstock, and ostrich

**Rotational Carnivore** – lion and hyena

**Ravine** – rotating small hoofstock and warthogs

**Aviaries** – large birds and ground mammals (birds fixed, ground mammals rotate)

**Single Species Use** – habitats used for a sole species (or similar species)



**Proposed Land Use Chart**  
\*ON-EXHIBIT HABITATS INCLUDES ON-EXHIBIT YARDS

# Land Use

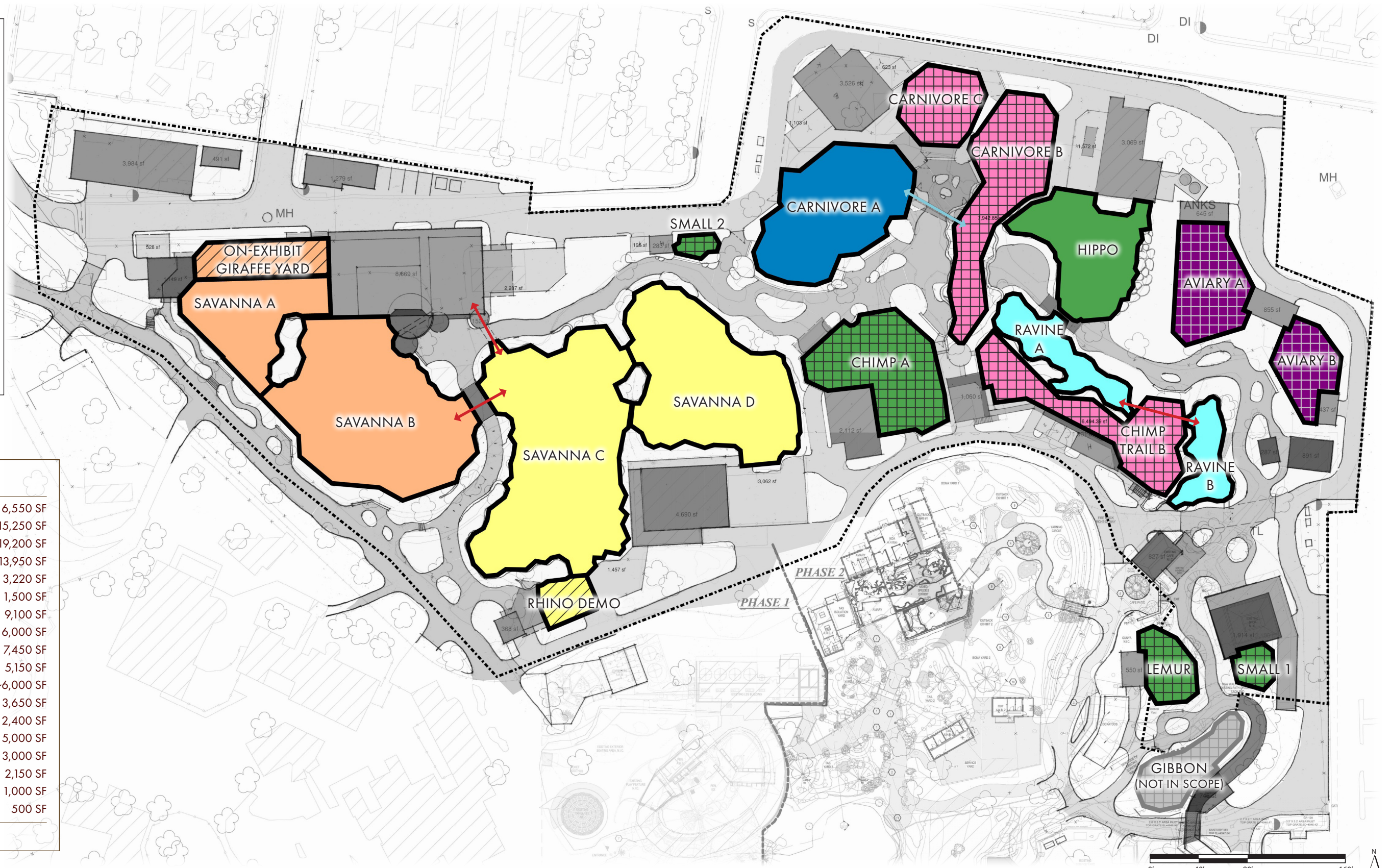
**LEGEND**

- Trail Habitats  
series of habitats spanning the Carnivore and Ravine Zone - lion, hyena, chimp, and ravine species access
- Mixed Species Savanna  
giraffe, hoofstock, and ostrich
- Mixed Species Savanna  
rhino, hoofstock, and ostrich
- Ravine  
rotating small hoofstock and warhogs
- Aviaries  
large birds and ground mammals (birds fixed, mammals rotate)
- Single Species Use
- Overhead Crossing
- Below-Grade Transfer
- Mesh/Capped Habitats

**PROGRAM**

Savanna A	6,550 SF
Savanna B	15,250 SF
Savanna C	19,200 SF
Savanna D	13,950 SF
Giraffe Yard	3,220 SF
Rhino Demo	1,500 SF
Carnivore A	9,100 SF
Carnivore B	6,000 SF
Chimp A	7,450 SF
Chimp B - Trail	5,150 SF
Hippo	~6,000 SF
Ravine A	3,650 SF
Ravine B	2,400 SF
Aviary A	5,000 SF
Aviary B	3,000 SF
Lemur (shown)**	2,150 SF
Small 1	1,000 SF
Small 2	500 SF

\*\*Size contingent upon edge of Australia



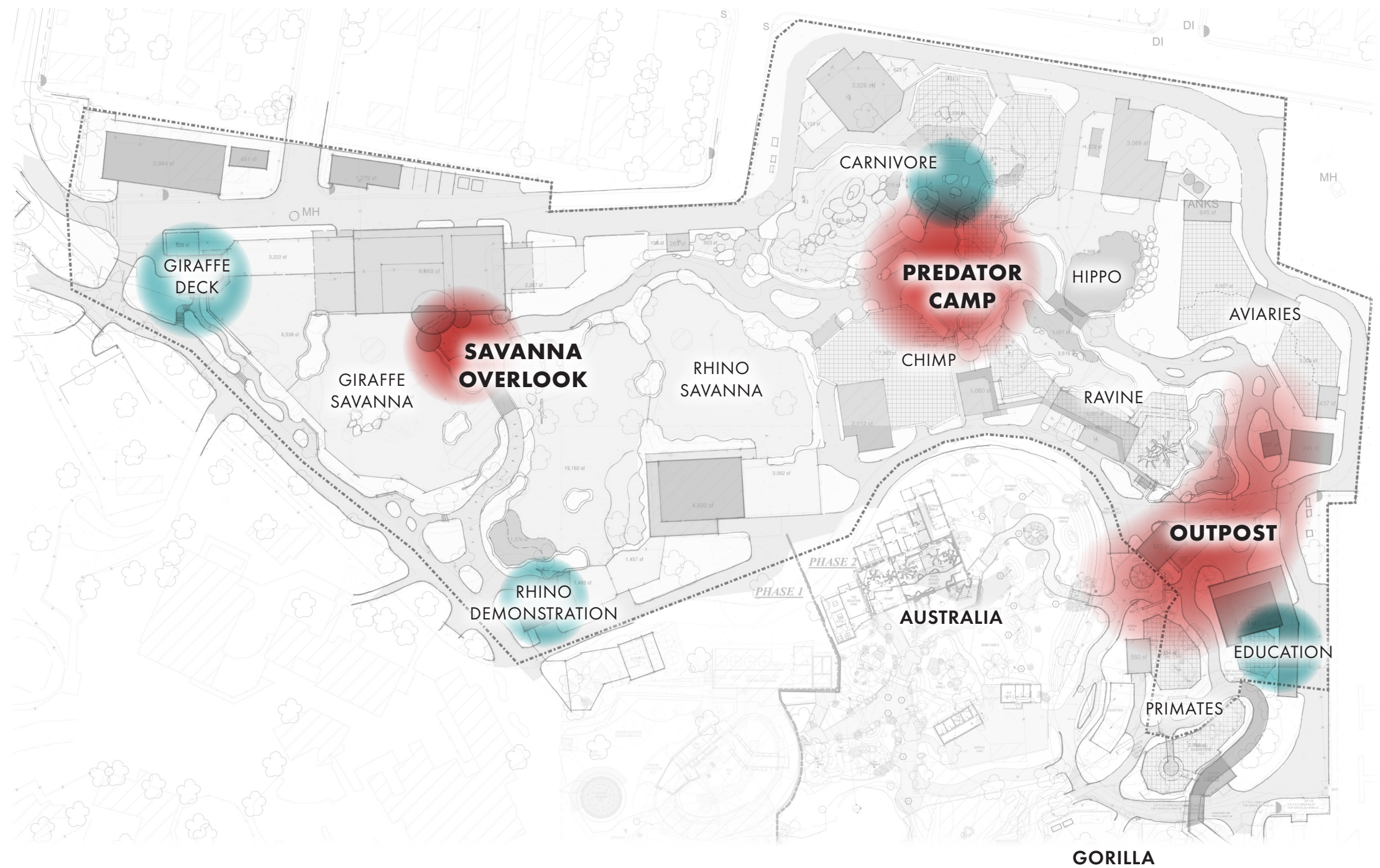
# Guest Experience

The Africa Area has a few areas where guest support is concentrated.

- **Outpost** – Main guest service hub: Multi-purpose building (education and events), Food Building, Restrooms, Plaza, and flexible space for guest service programming
- **Predator Camp** – Concentration of viewing spaces with flexible space for guest service programming
- **Savanna Overlook** – Concentration of elevated viewing spaces with flexible space for guest service programming

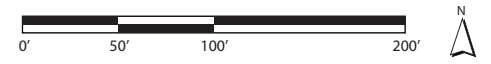
There are several permanent spaces devoted to animal encounters:

- **Giraffe Deck** – Upcharge animal feeding experience
- **Carnivore B Habitat** – Opportunity for formal or informal keeper talks and eye-level animal encounters with animals at eye-level
- **Rhino Demonstration** – Opportunity for formal or informal keeper talks and eye-level animal encounters
- **Multi-Purpose Building** – Space devoted to education programs, ambassador animal encounters, and keeper talks



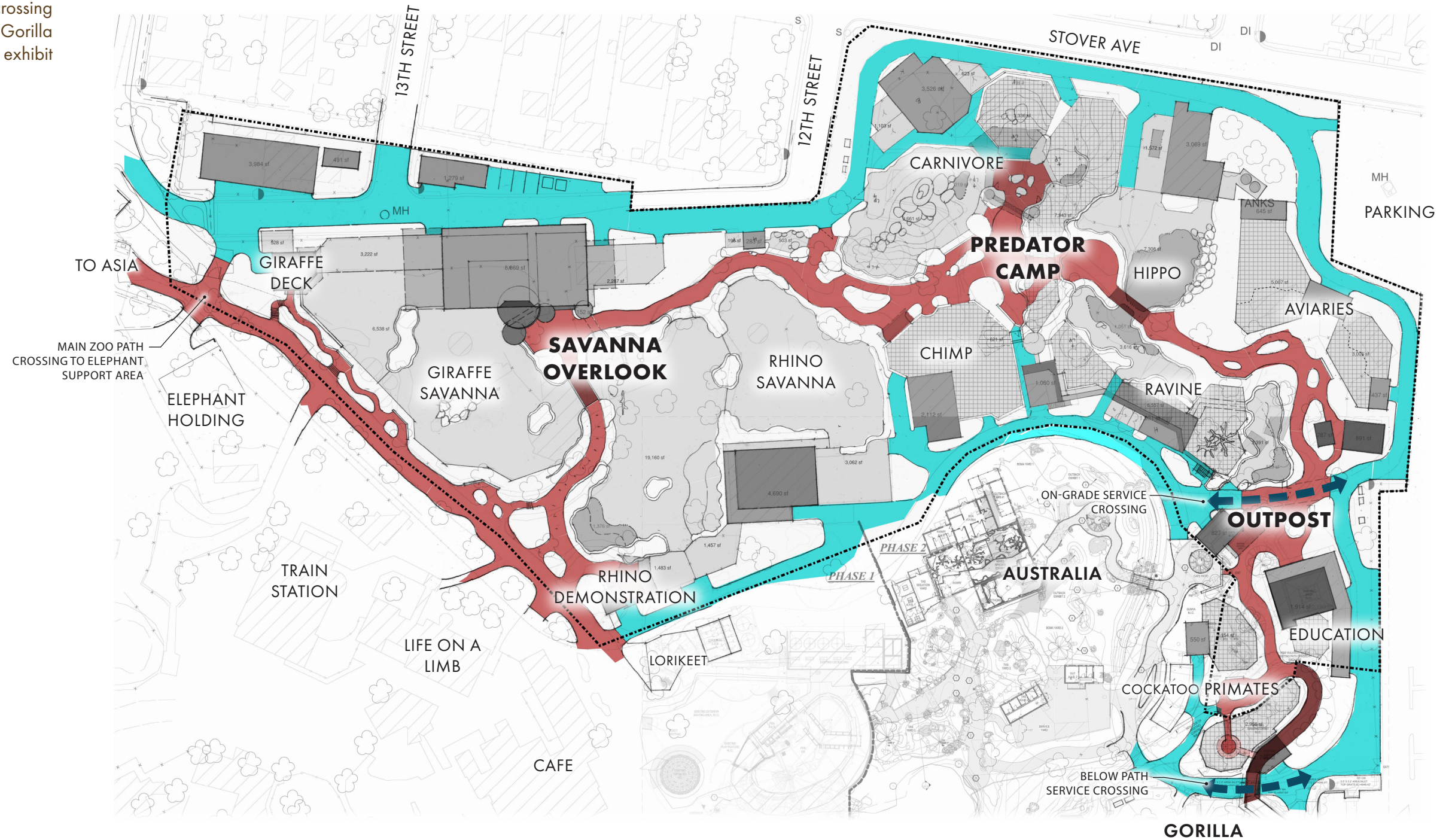
**LEGEND**

- Guest Amenity Zone
- Animal Encounter Space



# Circulation

The plan ensures clear separation of users. The main visitor path runs east to west through the center of the site, while service/support roads circle the perimeter. Two designated crossing points allow large vehicles to access the Australia and Gorilla exhibits. Additionally, the visitor path includes multiple exhibit crossings, both on- and off-exhibit.



**LEGEND**

- Visitor Path
- Service Path

## Support Spaces

Many of the Africa Area's animal support facilities have reached the end of their lifespans and/or are incompatible with the proposed changes to the site. However, several major facilities should be retained and integrated into the updated concept, including the existing rhino, chimpanzee, and hippo holding buildings.

Noteworthy features of some of the proposed holding facilities include:

- Multi-habitat support
- Below-exhibit relationships:
  - Ravine holding and yards partially located beneath the Chimp B habitat
  - Small animal barn located beneath the giraffe feeding deck
- Satellite holding facilities
- Inclement weather sheltering for alternate species in emergency situations

The recently acquired property in the northwest corner of the site is not well suited for habitat space due to assumed utilities running beneath Rio Avenue SW. This makes it an ideal location for back-of-house support functions. The area directly opposite the proposed giraffe building is designated for keeper facilities, preparation areas, and storage to support the Giraffe Barn and other Africa Area holding buildings on the north side of the site, if needed. The remaining space may be used for campus-wide back-of-house operations. However, a comprehensive campus-wide study was not within the scope of this report, and additional analysis will be necessary to determine the most effective use of this area.



**LEGEND**

- New Holding
- Existing Holding
- Keeper Support, Prep, and Storage



# **INVENTORY & ANALYSIS**

## Context and Influences

### North:

To the north, the site is bordered by the Zoo boundary and the Reynolds Addition neighborhood. A BioPark perimeter road also runs along this edge, providing a clear separation between the zoo and the residential area, while still maintaining essential access for staff and support functions.

### South:

The southern edge of the site is characterized by guest-facing amenities and animal exhibits. This includes the zoo's main entry and gift shop, as well as prominent animal habitats like the gorilla and gibbon exhibits, which help define the southern arrival experience and offer early engagement for visitors.

### Southwest:

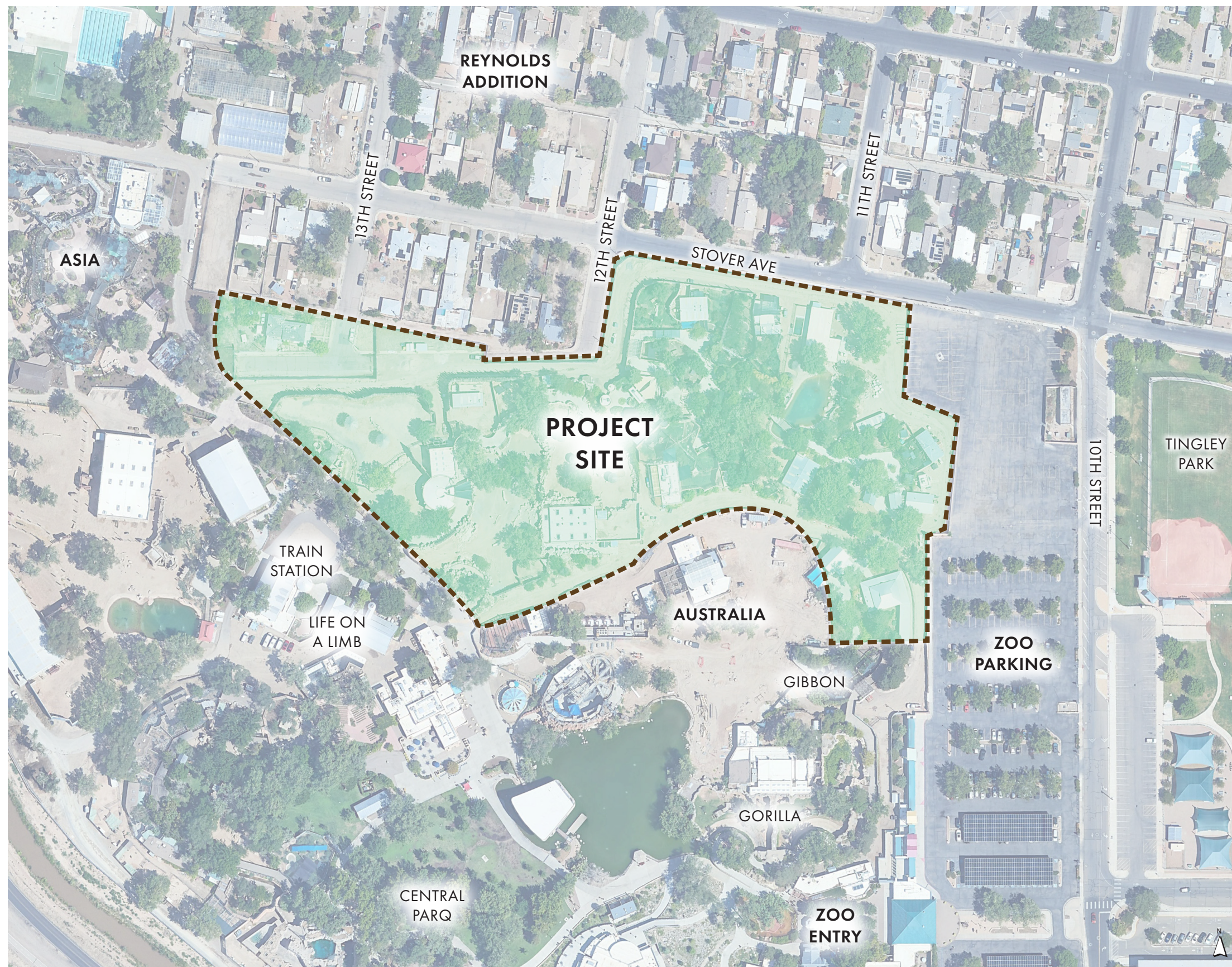
The southwest corner connects to the Australia section of the zoo, featuring species such as lorikeets and Tasmanian devils. This area also includes shared food service options, though guest access here is intentionally minimized to downplay traffic and preserve operational flow.

### East:

To the east, the site is adjacent to guest infrastructure, including the main parking area and a designated group entry point. The BioPark perimeter road continues along this edge, facilitating essential support and transportation logistics.

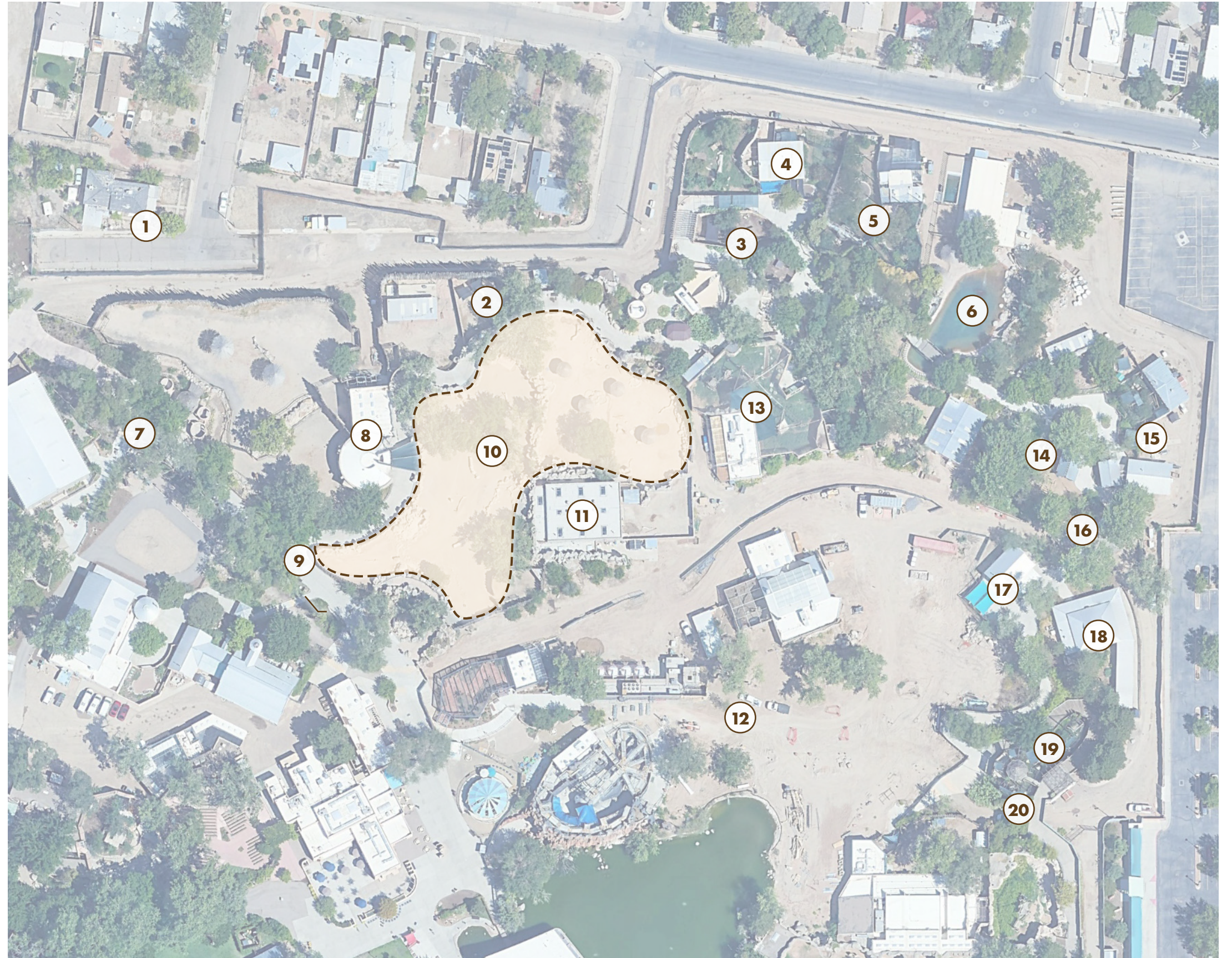
### West:

On the western side, the site links with the BioPark train route, offering visitors a unique transportation experience. This area also connects to the zoo's main path, Asia exhibits, and the interactive "Life on a Limb" feature, creating an important transition zone between thematic areas.



## Key Observations

- 1 **Property Acquisition** to be included in study
- 2 **Collection** - many current species will be removed with the opening of Australia and the Cat Walk
- 3 **Circulation and Habitat Size** unnecessary vertical circulation around small habitats
- 4 **Cheetah Holding** - small barn that could be reused
- 5 **Large Aviaries** have reached their lifespans
- 6 **Hippo Pool** is cracked and will require replacement in future
- 7 **West Edge** - while not in the Africa Zone provides guest animal viewing en route to Asia
- 8 **Giraffe Barn** has reached its lifespan
- 9 **West Path Access** exceeds 5%
- 10 **Savanna** species are currently segregated, but the exhibits were originally designed as mixed species habitats
- 11 **Rhino Holding** per zoo, is in good condition
- 12 **Australia** active project shares an edge on southwest side of the site and shares the service road
- 13 **Chimp Exhibit** per zoo, is in good condition, however more space would be ideal
- 14 **King Chair** is local icon, can be relocated but shall remain in exhibit
- 15 **Small Bird Enclosure** has been recently renovated
- 16 **Service Access** route must remain
- 17 **Food** is planned to be accessed from Australia loop
- 18 **Multi-purpose Building** recently renovated and should remain
- 19 **Gibbon Exhibit** is outside planning scope and will remain
- 20 **Service Access** is height restricted



# Existing Conditions



EXISTING HIPPO HABITAT WITH BARN BEYOND, KEY OBSERVATION #6



KING CHAIR, KEY OBSERVATION #14



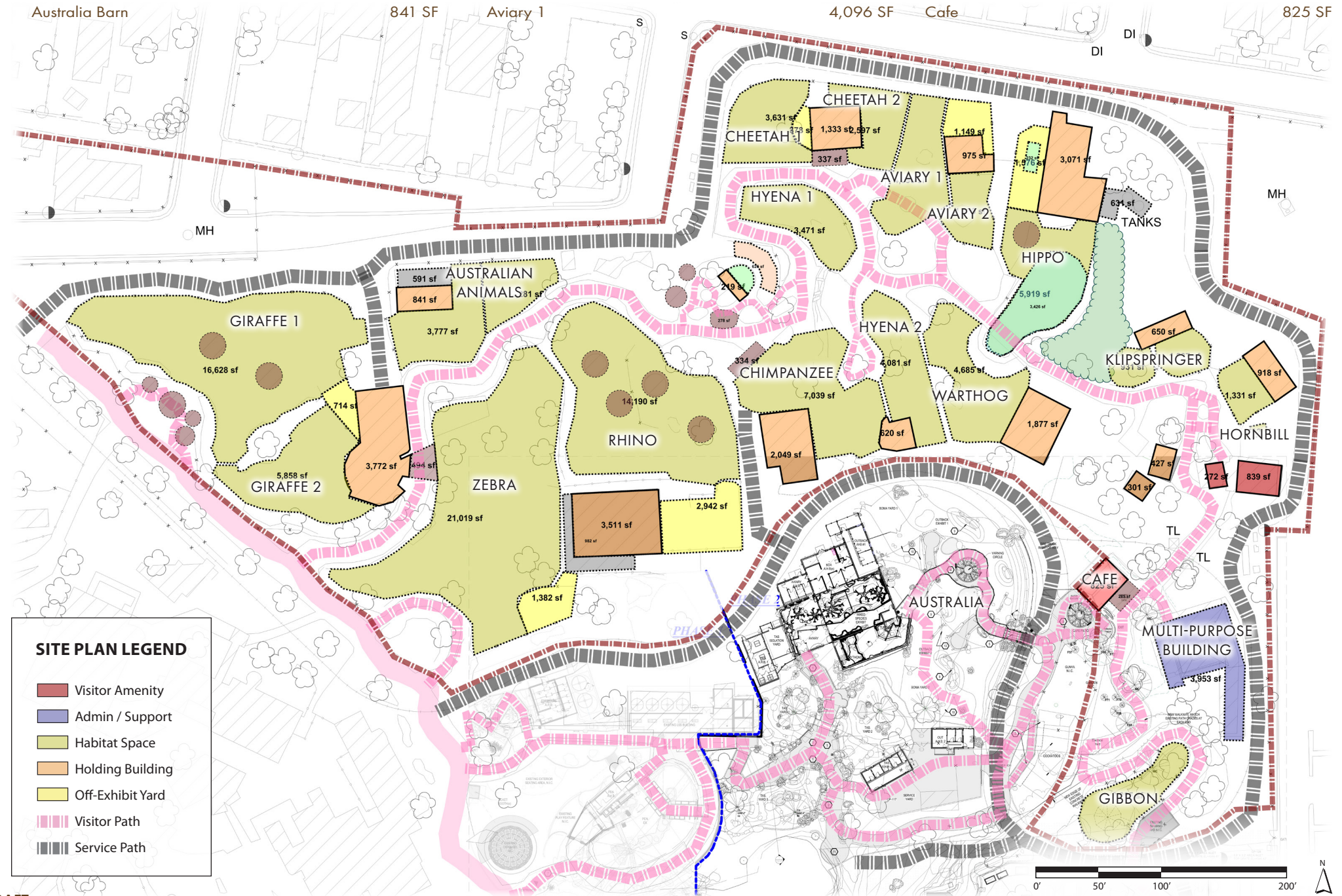
CLOSED WALKWAY THOUGH AVIARY 1 HABITAT, KEY OBSERVATION # 5



EXISTING MATUNDA CAFE, KEY OBSERVATION # 17

## PROGRAM

Giraffe Habitat 1	16,628 SF	Chimpanzee Habitat	7,039 SF	Aviary 2	1,939 SF
Giraffe Habitat 2	5,858 SF	Chimpanzee Barn	2,049 SF	Hippo Habitat	5,919 SF
Giraffe Yard	714 SF	Hyena Habitat 1	3,471 SF	Hippo Yard	1,576 SF
Giraffe Barn	3,772 SF	Hyena Habitat 2	4,081 SF	Hippo Barn	3,071 SF
Zebra Habitat	21,019 SF	Hyena Barn	620 SF	Klipspringer Habitat 1	931 SF
Zebra Yard	1,382 SF	Warthog Habitat	4,685 SF	Klipspringer Habitat 2	1,237 SF
Rhino Habitat	14,190 SF	Warthog Barn	1,877 SF	Klipspringer Barn	650 SF
Rhino Yard	2,942 SF	Cheetah Habitat 1	3,631 SF	Hornbill	112 SF
Rhino Barn	3,511 SF	Cheetah Habitat 2	2,597 SF	Gibbon Habitat	3,005 SF
Australia Habitat 1	3,777 SF	Cheetah Yard	378 SF	Restrooms	1,111 SF
Australia Habitat 2	2,281 SF	Cheetah Barn	1,333 SF	Education	3,953 SF
Australia Barn	841 SF	Aviary 1	4,096 SF	Cafe	825 SF



# Site Photos



RECENTLY RENOVATED MULTI-PURPOSE BUILDING, KEY OBSERVATION #18



EXISTING RHINO HABITAT



BACK-OF-HOUSE PERIMETER SERVICE ROAD, HYENA HOLDING BUILDING



STEEP SLOPED VISITOR PATH, KEY OBSERVATION #9



EXISTING MESH-TOPPED CHIMPANZEE HABITAT, KEY OBSERVATION #13



FRONT-OF-HOUSE VISITOR PATH OVER HYENA HOLDING, KEY OBSERVATION #3



EXISTING GIRAFFE BARN, KEY OBSERVATION #8



EXISTING BISON FOUNTAIN SCULPTURE ON THE WEST EDGE OF AFRICA ZONE

## Animal Space Analysis

The planning process began with an inventory of existing animal spaces, followed by a site review to identify opportunities for improved habitat size, volume, and spatial relationships. Adjustments to the animal collection were made (most notably the addition of lions) to align with the BioPark goals. A key focus was increasing habitat size to enhance animal welfare.

The number of habitats was also tracked, as more habitats offer greater flexibility and support varied animal use. Proposed habitat sizes and counts were compared to existing ones to ensure measurable improvements. A detailed breakdown of habitat sizes and quantities is provided in the table on the following page.

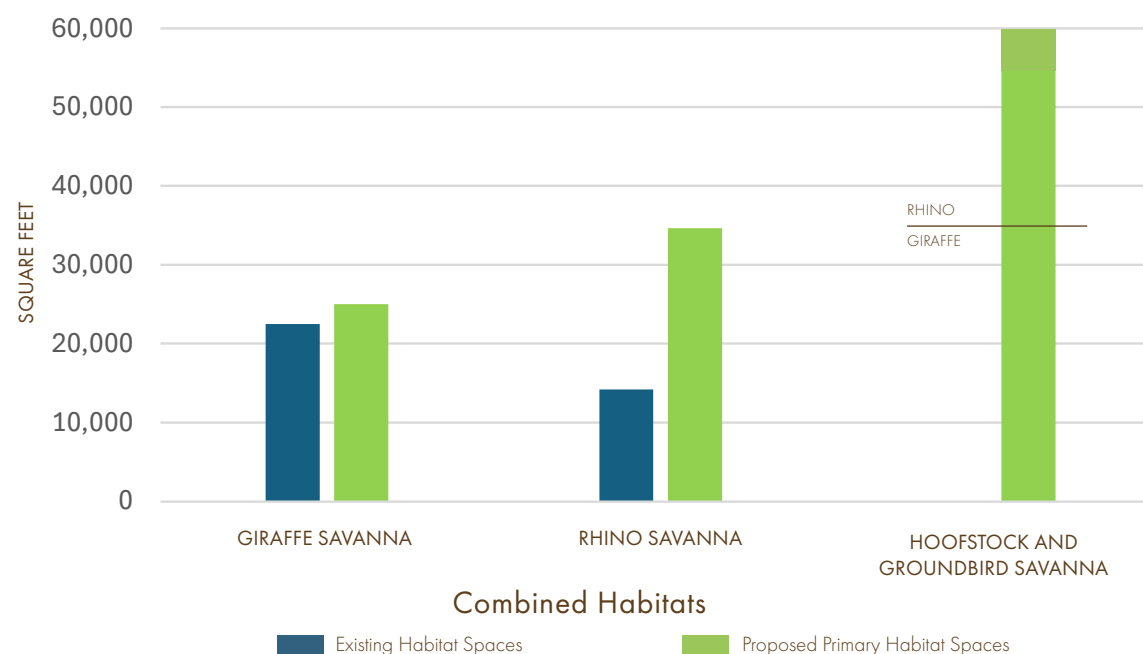
### Animal Space Gains

Critical thought was given to maximizing animal space, not only within main habitat areas but also through access to additional environments that offer varied textures, sights, sounds, and smells, all aimed at enhancing animal welfare.

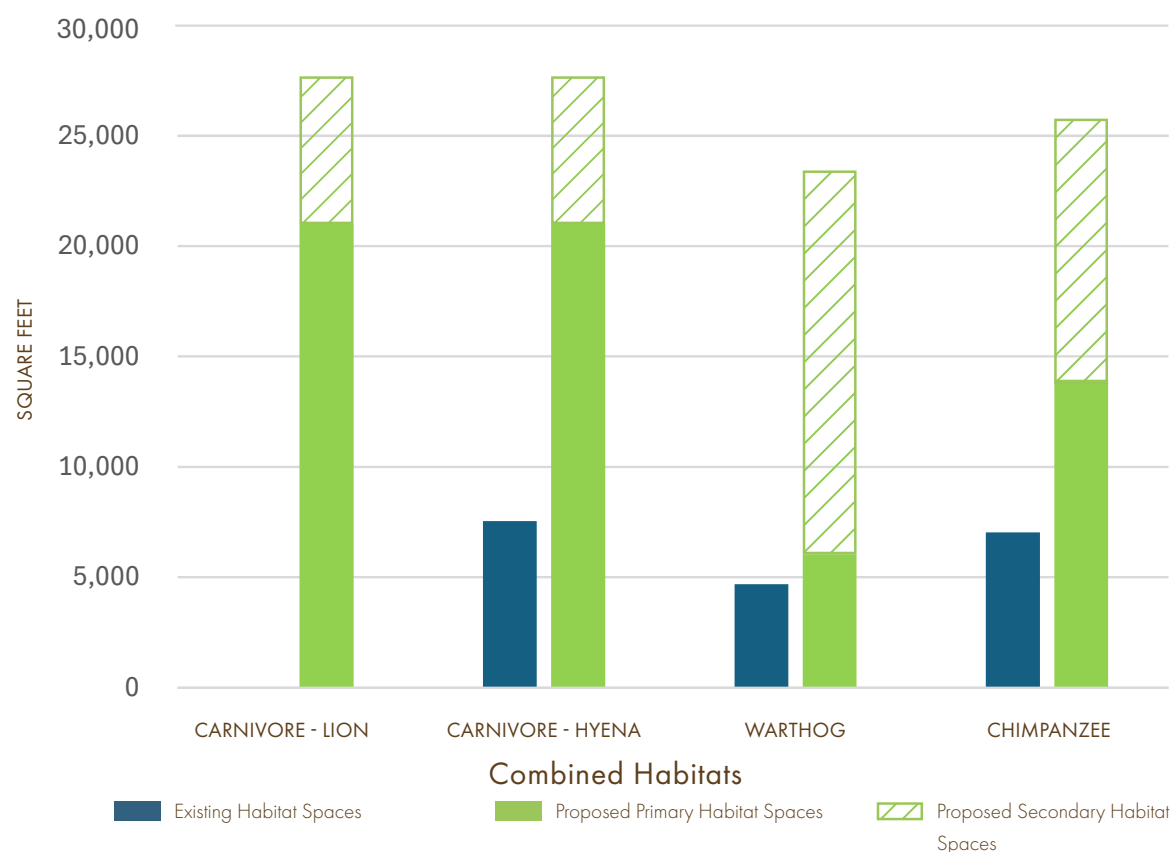
Four main animal groupings can benefit from this approach:

- **Carnivores** (lion and hyena) – With expanded habitat space and access to the central trail system (secondary habitat space), these animals will be able to roam from their core habitats all the way to the Outpost Plaza.
- **Chimpanzees** – In addition to their existing habitat, chimpanzees will gain access to the central trail system (secondary habitat space), allowing movement from the carnivore habitats to the Outpost Plaza.
- **Warthogs** (and associated ravine antelope species) – Habitat space will be increased across two ravine habitats, and with access to the central trail system (secondary habitat space), warthogs can also travel from the carnivore habitats to the Outpost Plaza.
- **Savanna animals** (giraffe, rhino, zebra, ostrich, and antelope) – Giraffes will be contained on the north side of the main visitor path, while rhinos will be on the south side. Savanna antelope will have access to both sides of the savanna.

**Savanna Flexibility Table**



**Trail Flexibility Table**



# Animal Space Analysis

Proposed Animal Collection	Proposed Collection Size	EXISTING SPACE		PROPOSED SPACE						COMPARISON		
		# of Habitats	Total Area (SF)	Primary Habitats			2ndary Habitats			Grand Total (SF)	Delta (SF)	Proposed Animal Collection
				Proposed Habitat Names	# of Primary Habitats	Total Area (SF)	2ndary Habitat Names	# of 2ndary Habitats	2ndary Total (SF)			
<b>Carnivores</b>												
Lion	1.1 (non-breeding) or 1.3 (with off-exhibit yards)	0	0	Carnivore A, B, C	3	21,000	Chimp B	1	6,500	27,500	27,500	Lion
Spotted Hyena	1.1.2	2 (includes old WD)	7,552	Carnivore A, B, C	3	21,000	Chimp B	1	6,500	27,500	19,948	Spotted Hyena
<b>Primates</b>												
Chimpanzee	3.5.2	1	7,039	Chimp A, B	2	13,950	Carnivore B, C	2	11,350	25,300	18,261	Chimpanzee
Lemurs	1.3	0	0	Lemur	1	2,150			0	2,150	2,150	Lemurs
<b>Pachyderms</b>												
Hippo	1.1.2	1	6,000	Hippo	1	7,300			0	7,300	1,300	Hippo
White Rhino	1.3	2	14,190	Savanna C, D, Rhino Demo Yard	3	34,650			0	34,650	20,460	White Rhino
<b>Ungulates</b>												
Giraffe*	1.3.2	2	22,486	Savanna A, B, Giraffe Yard	3	25,020			0	25,020	2,534	Giraffe*
Zebra*	4.0.2	1	21,019	Savanna A, B, C, D	4	54,950			0	54,950	33,931	Zebra*
Warthog	1.1.4	1	4,685	Ravine 1, Ravine 2	2	6,050	Carnivore B, C, Chimp B	3	17,850	23,900	19,215	Warthog
Klipspringer	1.1.1	1	931	Klipspringer	0	0			0	0	-931	Klipspringer
Duiker	1.1	0	0	Aviary A, B	2	8,000			0	8,000	8,000	Duiker
Antelope - Savanna*	?	0	0	Savanna A, B, C, D	4	54,950			0	54,950	54,950	Antelope - Savanna*
Antelope - Ravine	?	0	0	Ravine 1, Ravine 2	2	6,050	Carnivore B, C, Chimp B	3	17,850	23,900	23,900	Antelope - Ravine
<b>Birds</b>												
Ostrich*	3	0	0	Savanna A, B, C, D	4	54,950			0	54,950	54,950	Ostrich*
Crowned Crane	1	1	1,939	Aviary B	1	3,000			0	3,000	1,061	Crowned Crane
Vultures (lappet faced, cape)	3.3.1	1	4,096	Aviary A	1	5,000			0	5,000	904	Vultures
Hornbill	1.1.2	1	100	Small 2	1	500			0	500	400	Hornbill
Marabou Stork (mix with vulture)	1.1.1	1	4,096	Aviary A	1	5,000			0	5,000	904	Marabou Stork

\*Excludes giraffe herd room and hoofstock off-exhibit yards

■ Add to or remove from collection



# APPENDIX

# Carnivore and Hippo Alternate



KEY PLAN

## Scramble Concept Plan

This is an alternate concept explored for the Carnivore Area. In lieu of a "landbridge" for the Carnivore B habitat, a series of connected small habitats is used to create a "scramble" crossing over the main visitors' path.

## Project Features

- **Varying Viewing** – mix of mesh, glass, and moat viewing give varying experiences to see lions and hyena
- Two mesh/capped and one open-top habitat
- **Carnivore Demonstration Space** – Habitat C allows for demonstration space
- **High Points** - Carnivore A high points allow for monitoring the savanna habitats
- **The Scramble** - Series of overhead crossings connecting pocket habitats
- **Layered views** across Hippo to Carnivore B



**SITE PLAN LEGEND**

**FACILITIES & STRUCTURES**

- Visitor Amenity
- Support

**ANIMAL HABITAT**

- Habitat Space
- Holding Building
- Off-Exhibit Yard
- Ponds / Pools

**CIRCULATION**

- Visitor Path
- Elevated Path
- Service Path

**CROSSING KEY**

- 1 - Overhead Chute(s)
- 2 - Overhead Chute
- 3 - Overhead Chute
- 4 - Carnivore B.3

**PROGRAM**

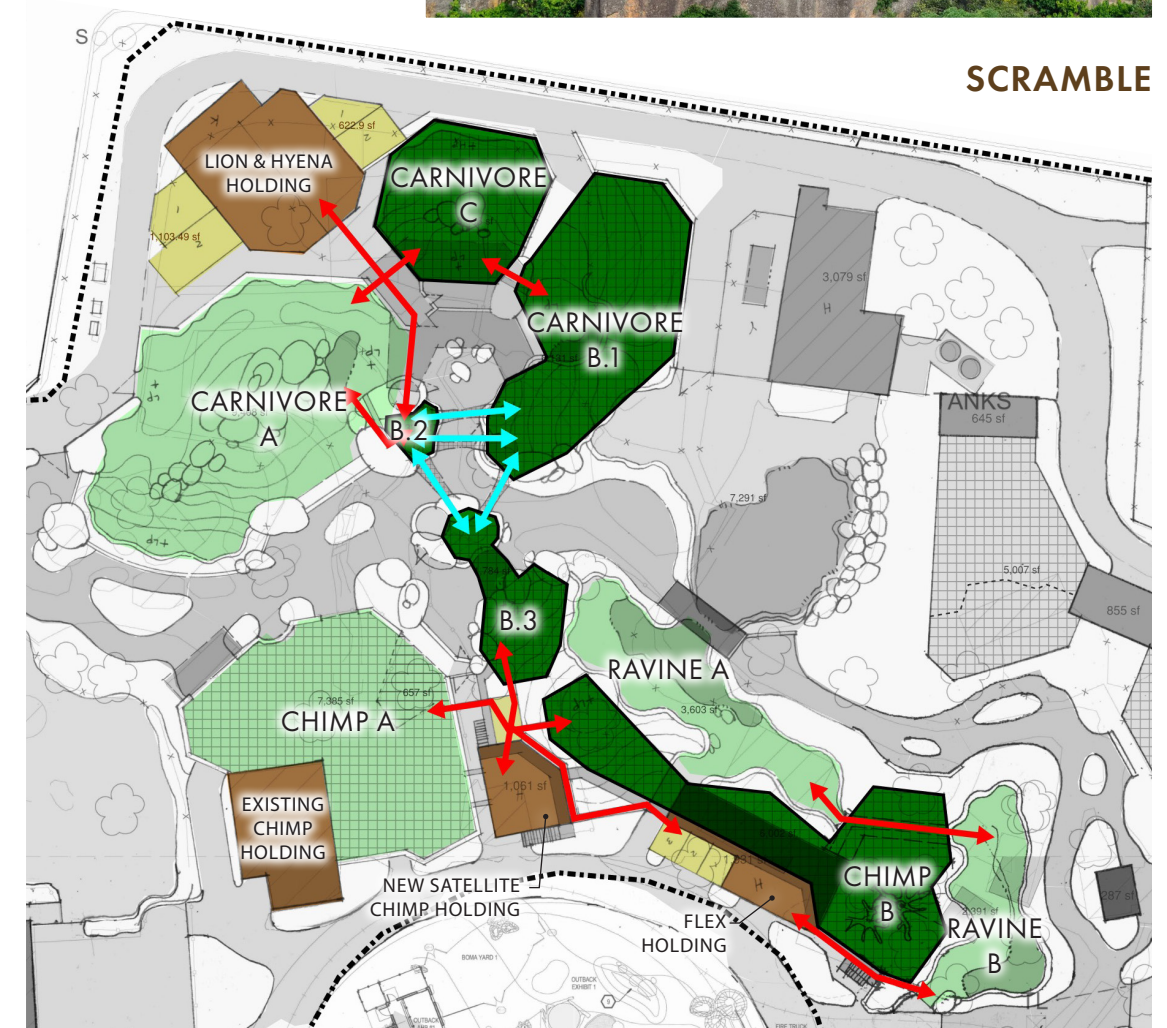
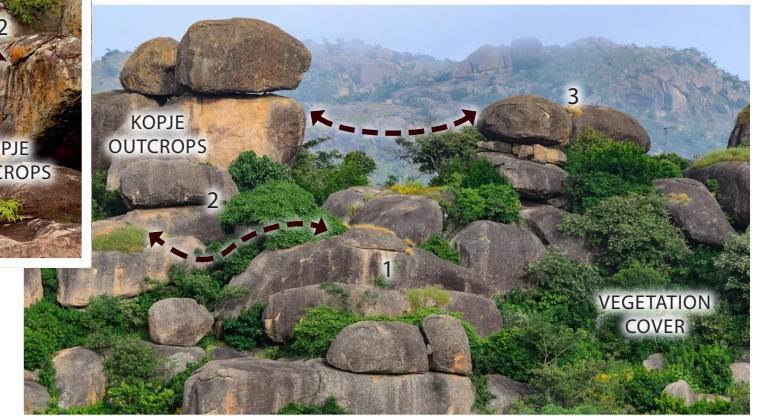
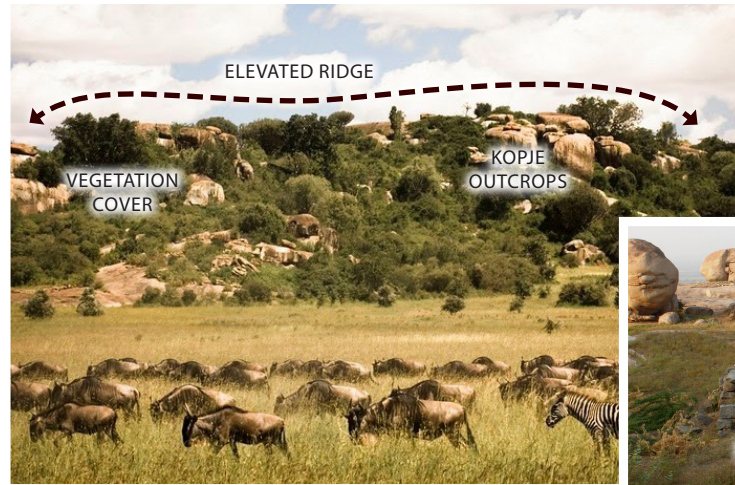
Buildings	Area
Lion & Hyena Holding	3,500 SF
Existing Hippo Holding	3,050 SF
Habitats	Area
Carnivore A	9,650 SF
Carnivore B.1	6,150 SF
Carnivore B.2	350 SF
Carnivore B.3	1,800 SF
Carnivore C	3,350 SF
Overhead Chute - 1	~50 LF
Overhead Chute - 2	~25 LF
Overhead Chute - 3	~25 LF
Small A	500 SF
Hippo Habitat**	7,300 SF

\*\*A new hippo pool will result in more usable habitat space

# Landbridge/Scramble Comparison



KEY PLAN



- LEGEND**
- Trail Habitat  
habitat usable by all species groups (carnivore, chimp, and ravine animals)
  - Non-Trail  
habitat used for specific animal group
  - Overhead Crossing\* - on exhibit
  - Transfer Chute - off-exhibit
- \*Carnivore Habitat B.3 includes an overhead crossing

**Carnivore B = 1 large habitat**

**Carnivore B = a series of connected smaller habitats (B.1, B.2, B.3)**

**Mixed species – Carnivore B can only be used by one animal group at a time**

**Mixed species – multiple animal groups can use Carnivore B concurrently**

**Fewer transfers and shifts required**

**More transfers and shifts required**

**Animals have the choice to be grounded**

**Some animal crossings will require elevated conditions**

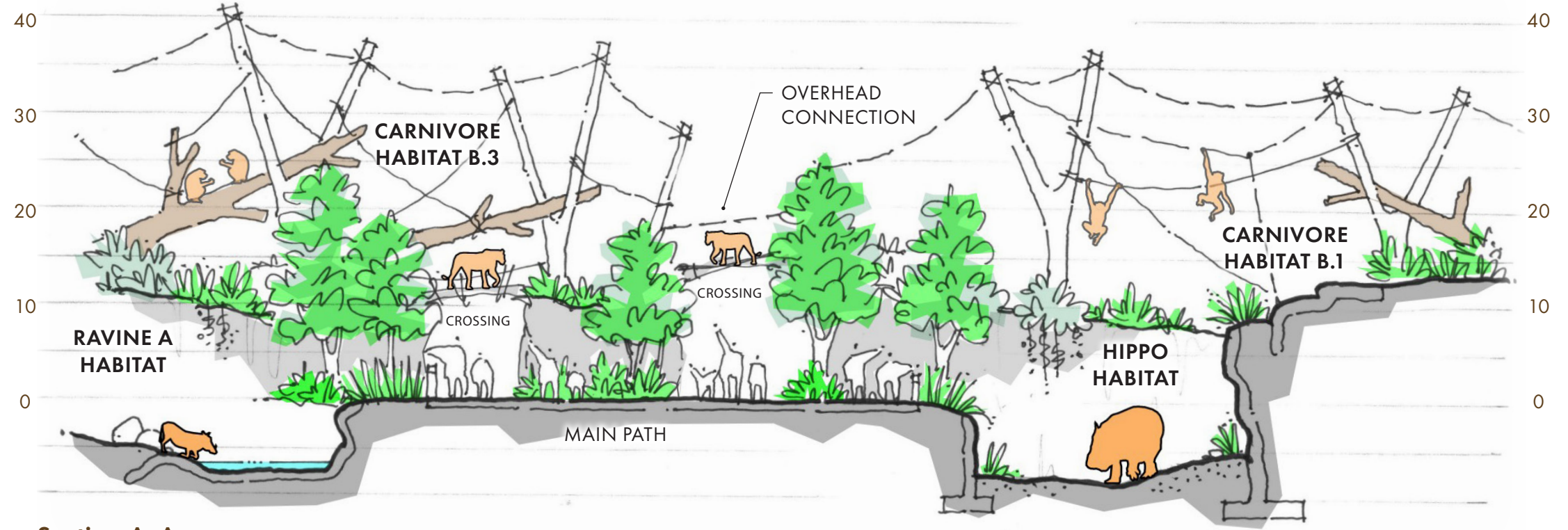
**Opportunity for many layered and multi-species exhibiting**

**Opportunity for many layered and multi-species exhibiting**

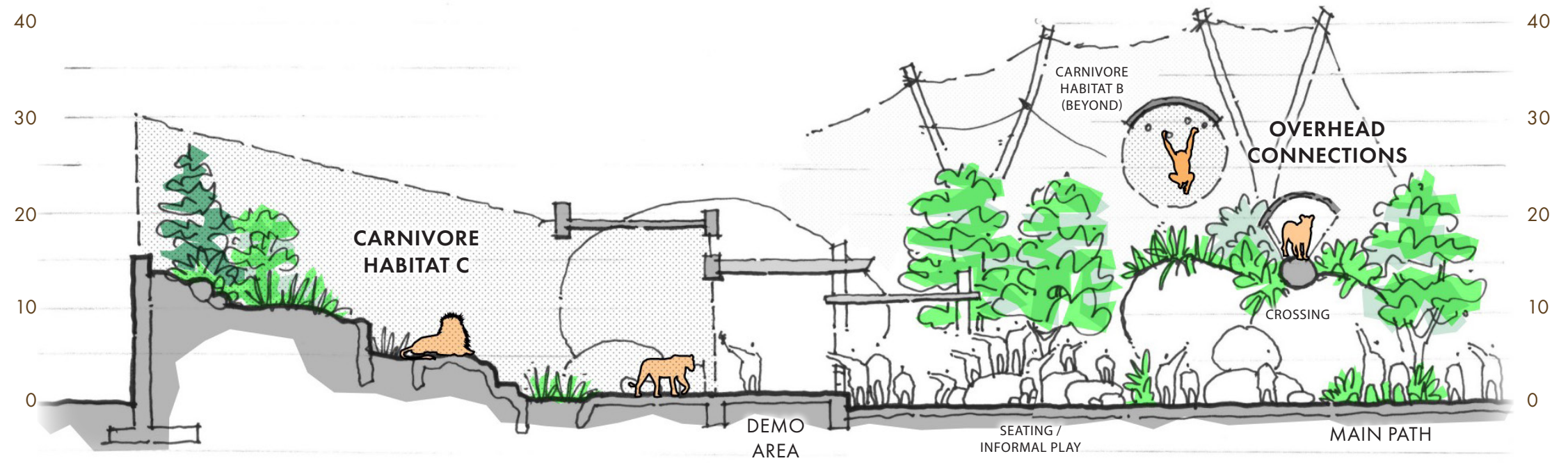
**Implementation requires immediate commitment to Ravine development**

**Implementation is easier to phase**

# Carnivore and Hippo Site Sections\*



Section A-A



Section B-B

\*NOTE: CHIMPS AND LIONS ARE SHOWN IN SAME HABITATS TO ILLUSTRATE USE BY BOTH SPECIES, ANIMALS WOULD NOT BE EXHIBITED TOGETHER



# Aerial View

