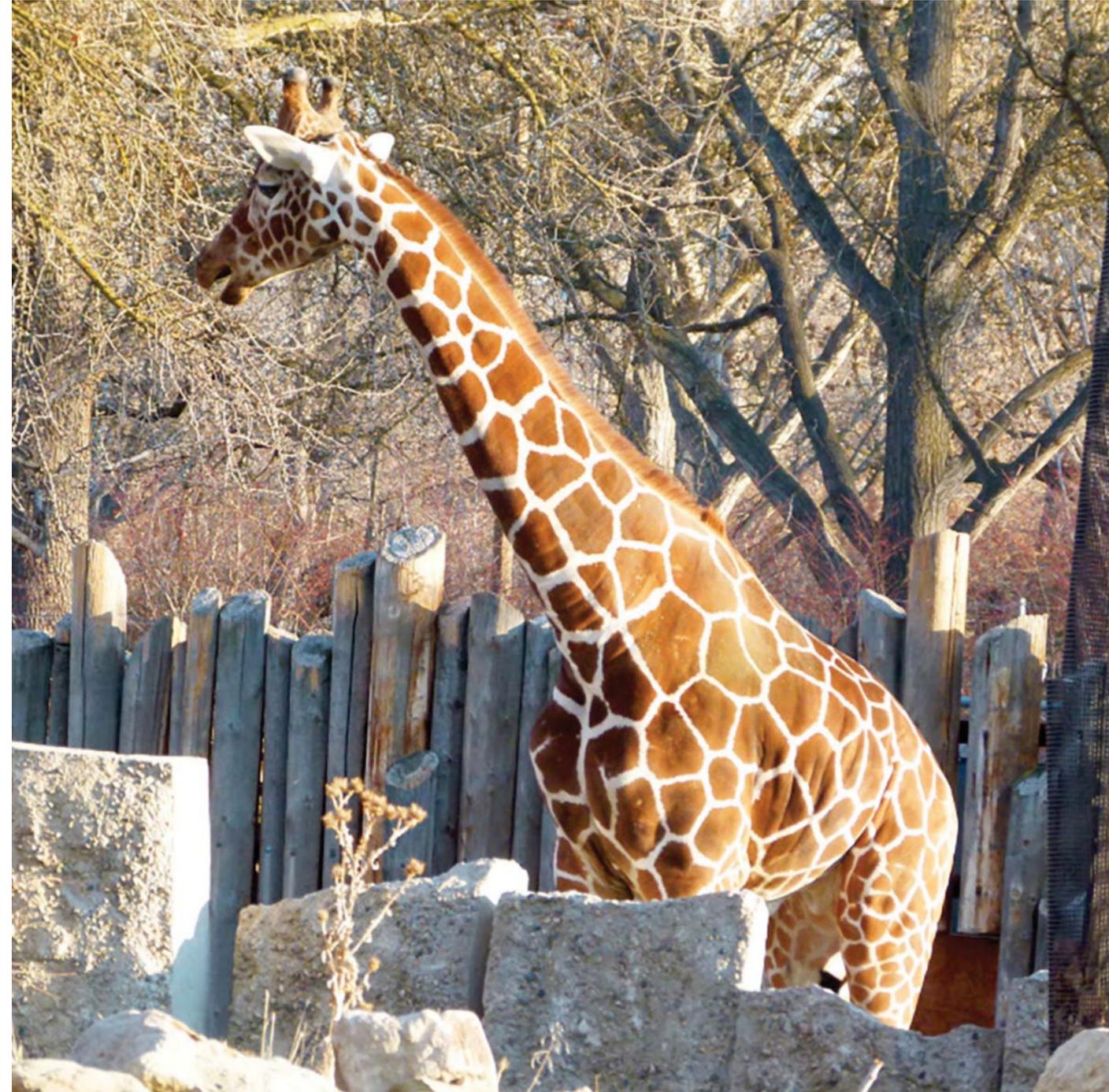




2015 STRATEGIC PLAN + MASTER PLAN UPDATE

APPROVED - DECEMBER 2015



By Legislators Valerio and Delehanty

Intro. No. 525

RESOLUTION NO. 413 OF 2015

ADOPTING SENECA PARK ZOO DEVELOPMENT PLAN UPDATE

BE IT RESOLVED BY THE LEGISLATURE OF THE COUNTY OF MONROE, as follows:

Section 1. The Seneca Park Zoo Development Plan Update is hereby adopted as a guide for the future management and development of this important Monroe County park and asset.

Section 2. This resolution shall take effect in accordance with Section C2-7 of the Monroe County Charter.

Recreation and Education Committee; November 17, 2015 - CV: 5-0
File No. 15-0377

ADOPTION: Date: December 8, 2015

Vote: 28-1

(Legislator Haney voted in the negative.)

ACTION BY THE COUNTY EXECUTIVE

APPROVED: VETOED:

SIGNATURE: Magico Probst DATE: 12/16/15

EFFECTIVE DATE OF RESOLUTION: 12/16/15

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Executive Summary

Today's 2015 Master Plan builds on the legacy of the 1991 Plan, recognizes over 20 years of exhibit expansion and offers specific recommendations to honor history, while evolving the mission.

Strategic Approach

Monroe County, with the participation of the Seneca Park Zoo Society, undertook a strategic approach to updating its plans for the Seneca Park Zoo. This 2015 Strategic Plan & Master Plan Update is founded on a renewed mission statement, modified vision and strategic goals – all of which forward the Zoo's commitment to conservation.

Mission: Seneca Park Zoo inspires our community to connect, care for, and conserve wildlife and wild places.

Vision: Seneca Park Zoo will be a national leader in education and conservation action for species survival.

Goals:

- Be the conservation leader for the Greater Rochester Community
- Deliver exceptional care for our animals while providing habitats that foster enrichment and enhance animal welfare
- Excel in telling compelling stories and providing educational programming at the Zoo and in the community
- Offer an exceptional guest experience
- Seek and nurture community relationships, as well as collaborative partnerships
- Continue to strengthen and build a dedicated, proud, and highly motivated Zoo team
- Ensure fiscal sustainability and implementation of best business practices
- Be a destination of choice for Greater Rochester and beyond

Guiding Principles of the Master Plan Update:

- Conservation leadership and education
- Prioritize animal welfare
- Tell compelling stories
- Create a great guest experience
- Facilitate partnership opportunities
- Effectively support operations
- Offer a return on investment

Background & Conditions

History: Frederick Law Olmsted developed the original plan for Seneca Park in 1891. Three years later, animals were introduced to the Lower Park, and since then, the Zoo has evolved, migrated to the Upper Ridge of the Park and grown. In 1991, a Development Plan was prepared for the Zoo that recognized the importance of the Olmsted park design, yet allowed for limited expansion to accommodate animal needs and educational priorities. Today's 2015 Master Plan builds on the legacy of the 1991 Plan, respects its footprint, recognizes over 20 years of exhibit improvements and growth (including Genesee Trails, Rocky Coasts and A Step Into Africa), and offers specific recommendations to honor history, while evolving the mission.

Trends & Market Condition: Market and global conditions are forcing zoos to adapt. Major trends affecting zoos across the nation include:

- Heightened conservation awareness
- Increased animal management regulations
- Standards for animal welfare
- "Landscape immersion" exhibits
- Increased emphasis on Zoo horticulture
- Competitive visitor service facilities
- Increased involvement with the community
- Enhanced marketing

Context: Seneca Park Zoo has a strong identity within the community, having had generations of residents visit its central and urban location. The site within Seneca Park offers a natural setting, mature woodlands and riverfront that are well suited for telling a conservation story.

Geography: The Zoo is challenged, though, by its linear footprint and relatively small size. The footprint presents challenges to visitors by forcing an experience that is "out and back," rather than a circular journey. The footprint also creates two long edges, one that desires to be buffered

from neighboring private properties, and one that needs to transition to the historic Olmsted park. In addition to the linear condition of the site, vertical grades present challenges for pedestrians, accessibility and constructability.

Existing Conditions: The condition of Zoo facilities varies widely. In general, the older exhibits and facilities in the front, or southern section of the Zoo, are in greater need of repair or replacement. The central part of the Zoo has a mix of newer facilities and older facilities, and similarly, a mix of building and exhibit conditions. The northern portion of the Zoo (from Rocky Coasts to the north) has newer exhibits that are in very good condition and are built to higher animal welfare standards.

The current Main Zoo Building (MZB) collection includes mammals, birds, reptiles and amphibians. The MZB layout is in a menagerie format with no particular theme. The menagerie format is outdated and out of favor, and does not meet project goals of creating ecosystem-based habitats with educational, interactive and immersive experiences for the visitors. The Association for Zoos & Aquariums (AZA) has made it a condition of future accreditation that the MZB must be demolished by 2018.

The site conditions of the Zoo are generally in good repair and functional. Parking is adequate for current and future demands, thanks to the Department of Parks' acquisition and improvement of adjacent property for 108 additional overflow spaces. Utility capacity is available and the site is well vegetated with mature trees and landscaping.

Collections & Animal Exhibits

The collections priority is to plan exhibits as ecosystem communities that demonstrate the interconnectedness of animals, plants, and habitats with each other - and especially - with people. The emerging role of zoos is to show they have advanced beyond the menagerie format and demonstrate through diverse, multi-species choices - in immersive, complex of exhibits - a platform to convey impactful, conservation messages in an engaging, innovative, inspiring, and entertaining manner.

In this Plan, new species are discussed in context with the Zoo's past geographic or ecosystem approaches - such as Ngorongoro Crater, Rocky Coasts and the Genesee Trail.

Theme 1: Africa Expansion: Adding species found in the Ngorongoro Conservation Area (such as giraffe, rhino, zebra and ostrich) provides opportunities to expand the successful A Step Into Africa development.

Theme 2: Tropical Complex (replacing MZB): Three ecosystems are proposed.

1. **African Congo:** One of the world's most endangered and biodiverse ecosystems and the world's second largest rainforest. It is rich in birds, reptiles, fish and mammals (including lowland gorillas and a variety of monkeys).
2. **Madagascar:** 4th largest island in the world with 75% of wildlife found nowhere else on Earth (including a large variety of lemurs); It is home to the 3rd largest network of coral reefs in the world; Successful conservation efforts, which the Seneca Park Zoo has supported in a leadership capacity for more than a decade.

3. **Borneo:** 3rd largest island in the world with many species of mammals, birds, and fish found nowhere else on Earth; Successful conservation efforts which Seneca Park Zoo is supporting in a leadership capacity; Provides a new home for our highly endangered Bornean orangutans, along with other species

Theme 3: Cold Asia north of EcoCenter & ZOT Zone: Asia contains more wild cat species than any other continent—including tiger and snow leopard. The habitats are shared with canines and a variety of other hardy species.

Based on these three interpretive themes, primary exhibits are proposed for species such as gorilla, orangutan, lemurs, snow leopard, tiger, and giraffe, among others.



Guest Experience

Internal Transportation: Due to the linear nature of the Zoo, an uphill grade on the return path, and an interest in providing an excursion experience, the plan recommends a themed people mover (scale train) that would connect the north and south ends of the Zoo.

Guest Services & Ticketing: Existing guest services and ticketing operations are inefficient, in need of updating, and not representative of the Zoo's mission and vision. These operations represent the first impression of Zoo guests and must meet the needs of the modern consumer. It is recommended that the entire arrival sequence be modified and facilities replaced in order to meet the needs of an increased volume of knowledgeable guests. Ticketing will be handled within a new guest services building, distinct from the Zoo entrance.

Education Building: The Plan includes creation of flexible exhibition, education, lecture, and special events space that can be rented and supported by catering service.

Internal Transportation: Due to the linear nature of the Zoo, an uphill grade on the return path, and an interest in providing an excursion experience, the plan recommends a themed people mover (scale train) that would connect the north and south ends of the Zoo.

New Concessions Buildings: In order to accommodate the expansion of the exhibit space at the entrance to the Zoo, accommodate anticipated rise in attendance, optimize earned revenue, and meet current industry standards, it is proposed that the existing main food service building be taken down and replaced with a larger facility.

Gift Shop: The gift shop is recommended to be replaced and increased in size to accommodate the anticipated rise in attendance, optimize earned revenue, and to meet current industry standards.

Ropes Course, Carousel & Attractions: Additional attractions are proposed to meet the increased market demands, higher expectations and to appeal to a wider demographic.



New Entry & Tropical Complex Concept

Phasing & Capital Investment

Phasing: Phasing has been designed in consideration of financial availability, constructability and to maximize revenue generating attendance. The first five years of the capital strategy (Phase 1) is committed to taking down the existing MZB and replacing it with a new entrance, new Tropical Complex, and maintaining Zoo attendance during that period. The second five year strategy (Phase 2) will further enhance the excitement and build on the momentum gained in Phase 1.

Phase 1A: Expand “A Step Into Africa” (including a giraffe and rhino exhibit) in order to accommodate some of animals from the MZB and to maintain attendance during Phase 1B construction. Construct the people mover (scale train) in order to accommodate guest flows between the north and south ends of the Zoo during Phase 1B construction. Construct new perimeter fencing along the east and west borders to define the proposed new Zoo admission area, including the new service drive. A temporary ticketing, retail shop and entry location is recommended.

Target Opening – Spring 2018

Phase 1B: Demolish the MZB, the existing entrance buildings (gift shop, guest services & ticketing) and the existing concessions stand. Construct the new entry buildings (Guest Services, Gift Shop, Ticketing, Entry and Education Building), the new central concessions building, and the new Tropical Complex & Exhibits.

Target Opening – Spring 2020

Phase 2A: Update the Rocky Coasts Exhibit.

Target Opening – Spring 2021



Phase 2B: The remainder of the “A Step Into Africa” expansion, including additional smaller animal exhibits and the African Boardwalk.

Target Opening Spring 2022

Phase 2C: Renovate the Eco-Center and the ZOT Zone and add the remaining Habitat Trails to the Tropics exhibit.

Target Opening – Spring 2023 & 2024

Phase 2D: Enhance education and the guest experience with a ropes course and amphitheater.

Target Opening – Spring 2025

Phase 2E: Construct the remainder of Cold Asia improvements, add the Carousel and the lower interpretive play area.

Target Opening – Spring 2026

Capital Budget:

The total estimated budget to build-out all recommendations in the Master Plan is approximately \$85 million. The 10-year build-out is phased based on need and other business criteria. Construction costs are based on similar projects using similar systems, and include soft costs for

design and administration of the project. The budget has been created based on year 2017 costs, and has been escalated through a completion date of June 1, 2026 using a 3% annual averaged escalation for the duration of the project.

The estimated completion date for Phase 1 (in 2020) is based on the anticipated time needed by the project team to acquire funding, complete design and construct the project. A more detailed schedule and budget verification will be developed during the Schematic Design phase of the project to confirm or adjust the conclusions of this study.

PHASE I BUDGET

	Budget
Primary Exhibits (Phase 1)	
Tropical Exhibit w/Overhead Trails	\$ 29,737,850
East Service Drive	\$ 946,000
Africa Complex Phase IA - Giraffe Component	\$ 7,066,150
Sub-Total Primary Exhibits (Phase 1)	\$ 37,750,000
Guest Experience & Enhancements (Phase 1)	
Guest Services Building	\$ 7,448,868
New Concessions Building	\$ 1,200,000
Train	\$ 2,430,540
Africa Complex Phase IB - Complete Exhibit	\$ 3,133,250
Education Building	\$ 5,923,260
Sub-Total Other Components (Phase 1)	\$ 20,135,918
TOTAL PHASE I BUDGET	\$ 57,885,918

TOTAL PROJECT BUDGET & SCHEDULE

Project	Total Project Cost	Year On-Line
East Service Drive	\$2,090,660	2018
Africa Expansion: Phase 1	\$10,199,400	2018
People Mover/Train	\$2,430,540	2018
Central Concession & Restrooms	\$1,200,000	2018
Tropics Complex	\$29,737,850	2020
Guest Services Building	\$7,448,868	2020
Education Building	\$5,923,260	2020
Rocky Coasts Improvements	\$1,884,750	2021
Africa Expansion: Phase 2	\$1,392,600	2022
Africa Boardwalk	\$852,280	2022
Tropics Habitat Trails	\$2,147,000	2023
Eco Center Renovation	\$732,240	2023
Animal Health & Education Center Renovation	\$345,000	2024
Ropes Course	\$1,416,000	2025
Ampitheater	\$1,403,964	2025
Cold Asia	\$12,947,242	2026
Carousel	\$2,648,448	2026
Lower Interpretive Play	\$484,000	2026

ANNUAL & TOTAL BUDGET \$85,284,102

Business Opportunity

A business assessment was performed to ensure that the solutions discussed here are feasible and sustainable while meeting the mission of the Zoo and the needs of the community. This project provides the following business opportunities:

- High impact exhibits to drive attendance
- Encourages membership growth
- Enhances food service
- Enhances gift and retail opportunities
- Presents premium parking options
- Proposes revenue-based ancillary entertainment and attractions
- Provides flexible and rentable indoor space for exhibits, education and events

The substantial growth of the Zoo under the proposed project plan will be accompanied by an increase in expenses. The largest incremental expense categories will be the operations and maintenance costs associated with the new facilities, as well as additional staffing.

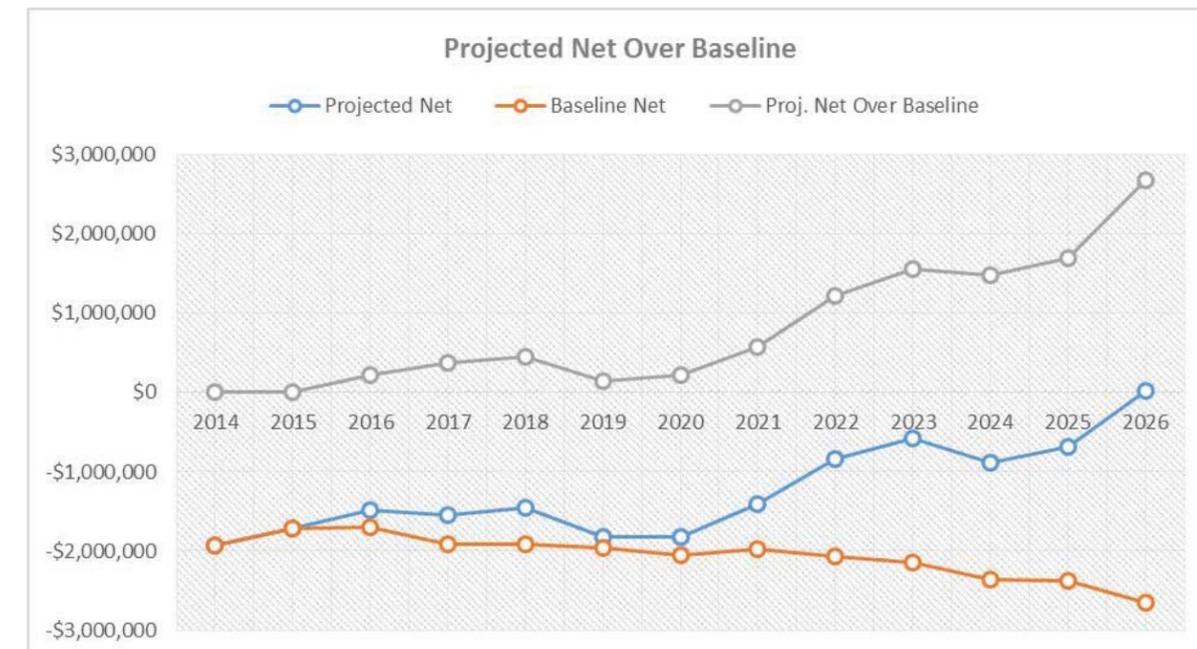
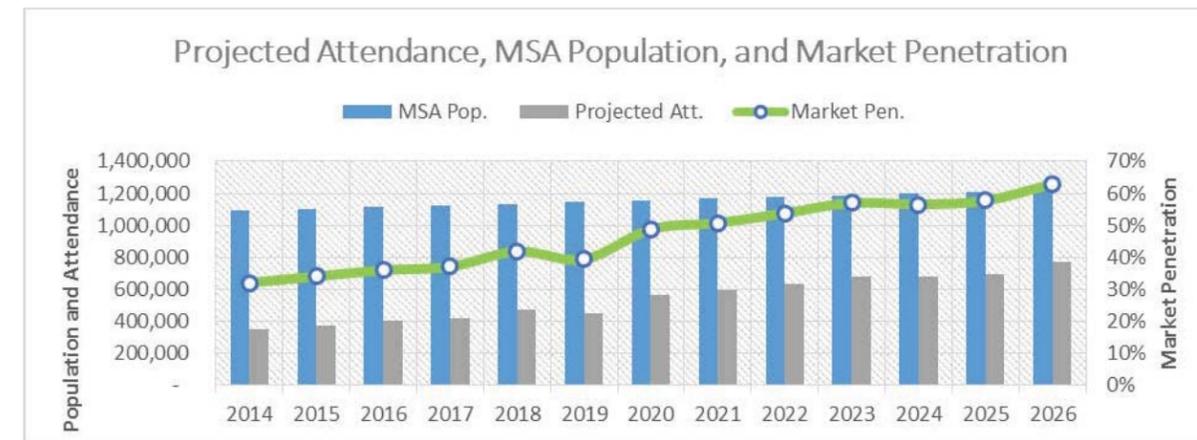
It is projected that with the implementation of the recommendations in this Plan, an increased percentage of the total operating income will be from earned revenue than occurs today (not including any new debt service). The need for an ongoing operating subsidy from Monroe County is likely to be diminished.

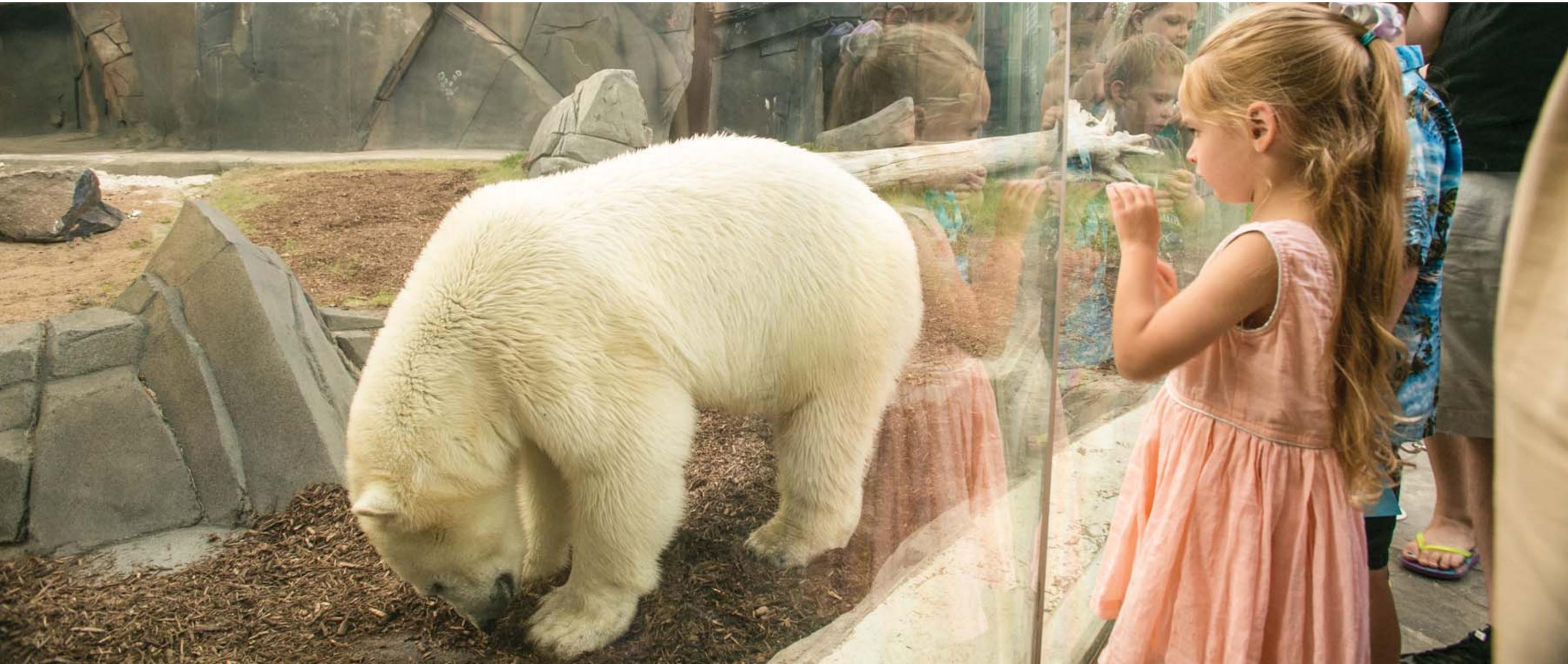
County-Society Operating Agreement

The current operating agreement between the Seneca Park Zoological Society and Monroe County will remain in effect through the end of 2016. The parties will negotiate a new agreement which will define roles and responsibilities, as well as cost obligations and revenue sharing going forward.

Conclusion

From both mission and margin standpoints, the proposed plan offers a bright future for Seneca Park Zoo, Monroe County and the Greater Rochester community. The investment not only ensures the Zoo is operationally sustainable, but will elevate it into the upper echelon of zoos nationwide.





Strategic Plan

Mission

Seneca Park Zoo inspires our community to connect, care for, and conserve wildlife and wild places.

Vision

Seneca Park Zoo will be a national leader in education and conservation action for species survival.

Rationale

Seneca Park Zoo must look both internally and externally to inform its strategic development. The following considerations have been used to establish a rationale for the Zoo's Mission, Vision, Goals and Initiatives.

Zoological Trends:

- National and international conservation focus
- Much larger exhibit spaces supporting better animal welfare
- Creative means of offering animal choice
- Addressing Zoo opposition by focusing on mission and animal welfare

Existing Seneca Park Zoo Conditions:

- The Main Zoo Building does not meet AZA standards and must come down
- The middle of Zoo is dated
- Circulation issues exist at the front gate and throughout the Zoo due to the it's linear configuration
- Opportunities exist with the easterly railroad right-of-way acquisition
- An opportunity exists to expand north, per the 1991 Master Plan footprint, while potentially exacerbating the linear layout of the Zoo

Profitability & Market Position:

- A strong need exists to increase the level of guest service & amenities
- Competition exists with other area attractions
- A need exists to reduce dependency on un-earned revenue
- Seneca Park Zoo must maintain its affordable price point
- Opportunity exists to increase market penetration





Goals & Initiatives

Be the conservation leader for the Greater Rochester Community

- Develop innovative messaging throughout the Zoo to connect visitors to conservation efforts and inspire action
- Through multiple platforms, be a voice in the community for conservation initiatives
- Prioritize and fund conservation projects (in the Zoo and in the field) which tie back to the Zoo's collection and the community
- Develop staff expertise in identified areas to be leaders in the zoo and conservation community

Deliver exceptional care for our animals while providing habitats that foster enrichment and enhance animal welfare

- Provide habitats – with appropriate space and environments - that enrich the animals' lives
- Continue to enhance animal welfare through innovative methods
- Exceed all industry standards, especially as they relate to animal care
- Be a leader in the AZA, gaining recognition for the Zoo's commitment to animal care and wellness

Excel in telling compelling stories and providing educational programming at the Zoo and in the community

- Link educational programming to curriculum needs in the Monroe County region
- Expand educational experiences throughout the Zoo for the casual visitor
- Increase opportunities for greater on-site school programming



Offer an exceptional guest experience

- Build a positive Zoo brand of conservation, fun, innovation, safety, family and affordability
- Open innovative animal exhibits that support the Zoo's conservation mission and engage guests in that mission
- Provide amenities that serve the guest where they are, with what they want, and when they want it
- Introduce new and changing attractions that add fun to the visit, encourage repeat visitation and contribute to the Zoo's financial sustainability
- Enhance the guest's experience before they even enter the Zoo – (website, parking, and ticketing) – and engage them in the mission after they leave.
- Provide shelter and climate control to mitigate seasonal weather impacts

Seek & nurture community relationships, as well as collaborative partnerships

- Foster positive relationships with the Zoo's neighbors
- Strengthen connections between the Zoo and the Park
- Develop partnerships for programming and awareness building with those business, non-profit, and education institutions in the region that share the Zoo's commitment to conservation and preservation of the world's habitats
- Position the Zoo as a component of a regional destination attraction through participation in tourism promotions and partnership programs

Continue to strengthen and build a dedicated, proud, and highly motivated Zoo team

- Develop knowledgeable staff to be leaders

in the industry.

- Reinforce the Zoo team's focus for providing outstanding interactions between staff and guest.
- Invest in building a high-performing team to provide the best in animal care, education, and guest services.
- Engage staff and volunteers for collective decision making

Ensure fiscal sustainability and implementation of best business practices

- Identify, evaluate and implement initiatives which will increase income to support the Zoo's mission
- Explore, evaluate, and obtain alternative funding sources for operational and capital support
- Assess alternatives for best-practices, governance and operating model and implement a preferred alternative
- Maintain AZA Accreditation
- Employ environmentally sustainable business practices in construction and operations
- Utilize data and measurable goals to assess needs and progress towards goals
- Maintain a clean audit and balanced budget
- Build an operations endowment

Be a destination of choice for Greater Rochester and beyond

- Attract audiences beyond Greater Rochester, with a specific focus on the expanded Upstate New York region.
- Target additional geographic regions where there is opportunity to attract new visitors
- Create and execute marketing strategies that leverage excitement around new habitats and attractions

Measures & Assessments

Indicators

The following performance indicators, among others, are recommended for the Seneca Park Zoo to assess its progress in meeting Strategic Goals and completing its Initiatives.

- AZA Accreditation & government regulatory standards
- Attendance
- Net Promoters Score for customer satisfaction
- News Media recognition
- Awards
- Student programs
- Student outcome surveys
- Number & type of partnerships
- Staff retention
- Staff satisfaction survey
- Net-positive operating income
- Balance of public, earned & contributed revenue
- Capital investment
- Endowment growth

Baseline data and targets for goals will be established by leadership.

A Parks Department staff member should be designated to assume primary responsibility for data collection and monitoring. Periodic progress towards goals should be shared with County Administration, County Legislature, Director of Parks, Zoo leadership team and Zoo Society Board. Key indicators should be shared with the public and entire Zoo team (staff, docents, volunteers, donors, etc).



Project Background

Brief History



In 1891, noted landscape architect Frederick Law Olmsted developed the original plan for Seneca Park, which opened in 1893 as "North Park". One year later, the first animals were displayed in the Lower Park. By 1904, such animals as deer and exotic fowl were displayed near

Trout Pond. In 1931, the main menagerie building was opened and the Zoo was relocated to its present site along the park boundary on a terrace overlooking the main park area. There were two overlook pavilions located in the present Zoo area, both of which are now gone. Some trace of original park pathways can be seen on the hillside below the present Zoo.

This Plan is designed to respect Seneca Park's rich history, Olmsted design and 1991 Zoo Master Plan footprint, while accommodating the continued renewal and improvement of the Seneca Park Zoo. The Seneca Park Master Plan describes this relationship as follows:

"From the perspective of restoring the park as an historic landscape, the optimal solution for Zoo expansion is to integrate Zoo and Park wherever that can be achieved without compromising the historic character and intent, and to separate areas of inherent incompatibility. To achieve this, design at the interface must be carefully articulated. Where required, screening must be denser than the existing forest understory. Where appropriate, there is potential for both programs to benefit from extended views and increased access."

- 1991 Seneca Park Zoo Master Plan



Seneca Park Zoo Studies

Seneca Park was opened in 1893 as "North Park" and a year later began displaying animals. The existing Main Zoo Building was opened in 1931 as a facility to exhibit animals in a menagerie fashion and has seen minor upgrades over time and an addition at the north end in 1995.

Previous Studies

Monroe County Department of Parks and Seneca Park Zoo have previously commissioned the following studies that serve as a guide for future development:

1991 – Seneca Park Zoo Development Plan

In order to address development of the zoo based on educational and conservation goals, the plan proposed expansion of the zoo site from 10.5 acres to 20.5 acres and creation of Genesee Trail and Discovery Center which were added in 1993. In 1997 the Rocky Coast exhibit was added to enhance the zoo experience.

2001 – Seneca Park Zoo Development Plan Update

The update noted that the increased attendance due to improvements of the 1991 Plan had created a severe stress on existing infrastructure leading to inadequate revenues, increased operational costs and poor fiscal performance. The plan proposed an increase of 13 acres, 25 species (40 specimens), and adding 40,400 sf of visitor service facilities. The total cost was estimated at \$65 million (Plan Not Implemented).

2006 – Existing Building Evaluation

The study addressed the tenuous state of the existing MZB in providing adequate facilities for the habitat of animals and for visitors. Building systems had been maintained on a temporary fashion and were past reasonable maintenance levels.

2009 – Seneca Park Zoo Draft Concept Design Report

The study performed preliminary program, collection planning, business planning and concept design for the replacement of the MZB. The concept included major new species including gorilla, giraffe and zebra, among others. It proposed a new entry and arrival experience with a new guest services building, new tropical exhibit building and the expansion of the "A Step Into Africa" theme to the north.

Zoo Trends

Zoological parks, like other institutions, are constantly adapting to changes in public attitudes and local and global conditions. However, the rapid and profound changes presently occurring in zoological parks are unprecedented in the long history of these facilities. The following is a brief presentation of major trends affecting zoos across the nation:

- Conservation awareness is at an all-time high. Wilderness areas and other important wildlife habitat, locally, nationally and worldwide, are being destroyed at the highest rate in human history. Zoological parks must greatly expand their already important contributions to wildlife and habitat conservation and education programs. Zoo educational activities are increasingly enriched and supported by docent and other volunteer programs.
- Animal management regulations are becoming more widespread, complex and strict. Minimum enclosure sizes are enlarging greatly and standards for “psychological well-being” will soon appear for an increasing number of species. Public Standards for animal welfare have increased greatly. Until recently most people expected to see many zoo animals in cages. Today, such exhibits justifiably draw increasingly strong public criticism. Enlightened zoological parks have been and should continue to be leaders in the broad movement to provide the best possible conditions for the animals in their care.
- “Landscape Immersion” exhibits have become the state-of-the-art in ecosystem-based exhibits because they recreate some of the experience of actually visiting the animals in an ecosystem-based habitat. This approach helps to engender an attitude of respect for both animals and their wilderness homes, laying a solid foundation for conservation education. By replicating the animals’ natural habitats, such exhibits also provide more diverse, appropriate and stimulating

homes for the animals.

- The Species Survival Plan (SSP) program was initiated by the Association of Zoos and Aquariums in 1981. All member institutions maintaining species covered by the SSP are obliged to participate in joint breeding and management programs managed by the SSP to further the long-term survival of these highly endangered animal species. SSP animals are usually given priority for improved facilities and enhanced educational and conservation programs. Seneca Park Zoo is presently participating in over 35 SSP programs, including the Amur tiger, snow leopard, African elephant, orangutan and gibbon.
- Zoo horticulture has become an important zoo profession, supporting the movement toward both Landscape Immersion exhibits and greatly enhanced visitor services and amenities.
- Contemporary visitor service facilities not only enhance the guest experience, but can become major revenue sources to help support the zoological park’s mission, reducing the need for outside subsidies.
- Modern zoological parks not only benefit from community-based support from both public and private sectors, but are increasingly involved within their communities through outreach programs in schools, nursing homes, parks, nature centers and universities. Some zoos are also involved within the global conservation community through support of sister-institutions in developing countries, conservation biology training for park wardens from these regions, and through funding support for international conservation research and management programs.



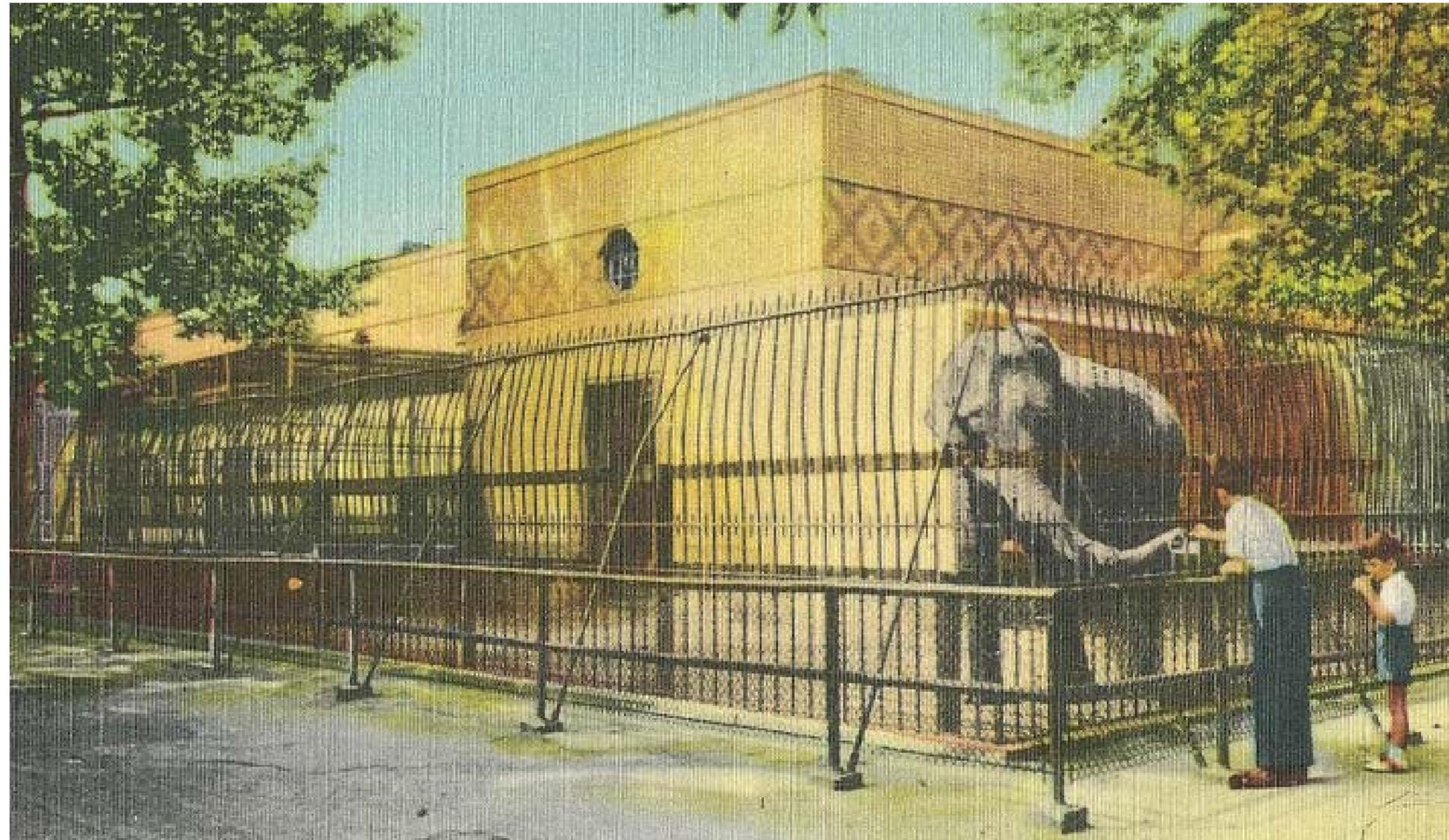
- Enhanced marketing also helps the Zoo move toward economic self-reliance. Two common marketing concepts, which affect planning include: 1) design of facilities for special events, rentals and after-hours use and 2) creation of flexible exhibit areas.

The Main Zoo Building

The existing Main Zoo Building, first occupied in 1931, has become marginal for housing modern zoological exhibits and imposes limitations on the potential for visitor experience. The building has 10,000 square feet of space on the first floor, 2,500 square feet on the upper floor and 1,000 square feet in the basement. The architectural and engineering systems, due to their age, are out of sync with contemporary regulations. Most important, the latest review of the Zoo by the AZA threatens the Zoo's accreditation if the MZB is not razed by its next review cycle (2018).

Either re-use or renovation of the existing building creates the following disadvantages to the long term development of the Zoo:

- The significant age of structure and systems and unsupportable levels of maintenance
- Not compliant with current Association of Zoos & Aquariums' standards for animal welfare and management, behavioral enrichment, nutrition and staff training – Seneca Park Zoo's AZA accreditation is in danger
- Renovations would be expensive and fail to address improvements to visitors' experience through an immersive and educational display of animals & their zoogeographical habitats
- Renovations do not address exhibit flexibility or collection enhancement while preserving the outdated menagerie exhibits
- Perpetuates poor site utilization by limiting other major exhibits along the length and either side of the building
- Remains a barrier to the entry experience and traffic flow – entrance is located to the side and the building itself restricts visitor flow "through" or "by" interactive habitats





Existing Conditions

Topography

The present 15.54 acre Zoo and parking area is located along a narrow river terrace. This terrace averages two hundred feet wide. It is about 150' in elevation above the Genesee River and about 50' above elevation of the adjacent park area. The terrace slopes back toward the east, while slopes between terraces are quite steep, between 2.5' to 1' and 1.5' to 1'.

Soils

Original soils have been disrupted by construction over the years and are not uniform. Metamorphic bedrock underlies the area and is probably quite close to the surface, judging from rock slabs visible on the slopes and from the presence of chestnut oak, a tree usually favoring shallow upland soils with rock outcroppings.

Frequent springs are encountered along the hillsides. Future development projects will have to pay careful attention to issues of both surface and subsurface drainage and depth to bedrock. Detailed soil analysis will be required before design commences on proposed projects.

Vegetation

The existing Zoo has many mature trees with some red oaks up to 3' in diameter. Most common species include Red Oak, White Oak, Chestnut Oak and Norway Maple. There are also several large Canadian Hemlock.

Many of the largest trees are of equal age and the presence of frequent stumps show that many similar sized trees have died in recent years. It is essential that the mature trees be protected as much as possible and that many young trees be planted to replace them eventually.

The slopes west of the existing Zoo are heavily tree covered with native oak and sugar maple and introduced species such as Norway maple and buckthorn.

The north Zoo expansion area has a greater diversity of native vegetation, including paper birch, yellow birch, yellow poplar, sweet gum, white pine and even magnolia, as well as introduced species such as Norway maple, Colorado and Norway spruce.

Utilities

Presently an eight inch sanitary sewer traverses the length of the site in a northerly direction. The Zoo is the most significant user of this line. Dumping of pools, wash down of animal areas and public washrooms are major contributors to this sewer line.

A new 12 inch water supply has been brought to the Zoo where it ties into the existing six and four inch lines. Future development will likely require extension of a six or eight inch line for fire hydrants and new exhibit facilities.

Existing Animal Collection

The Seneca Park Zoo has featured signature species such as polar bears, snow leopards, elephants and orangutans for decades. Penguins, lions, tigers, sea lions, rhinoceros and baboons are additional popular species. The collection highlights a wide range of tropical and temperate species including invertebrates, fish, amphibians, reptiles, birds and mammals.

Adjacent Land Use

Seneca Park Zoo is located within Seneca Park, and lies along its eastern border. A former railroad ran immediately east of the Zoo. Monroe County has since acquired the railroad right-of-way and intends to incorporate it into the park and Zoo.

The West Irondequoit neighborhood lies east of the Zoo; the nearest residences average 100'-150' in distance and 10' above the existing Zoo. The northern expansion area is about 150' away from and 150' below existing residences. Intervening forest screens the Zoo fairly well during the summer.

Visitation

The Zoo presently draws an annual attendance of approximately 375,000 – 400,000, with peak days of 4,000-6,000 being experienced. A detailed assessment of visitation patterns is included in the Operations Strategy Chapter of this Plan.

The Seneca Park Zoo Site

Millions of residents from Monroe County and surrounding areas have visited Seneca Park Zoo in the five generations since animals were first displayed in the park in 1894. This well-established identity is an important asset to build upon.

The present Zoo site is centrally located within the metropolitan area and accessible by public transit.

As the Seneca Park Master Plan and this plan demonstrate, there are a number of advantages the Zoo and Park share. The Zoo, with its greater attendance can introduce the historic importance of Seneca Park to its wide audience. The Zoo benefits from the "borrowed landscape" of the Park, allowing spacious backdrops for many of its exhibits. The Zoo could organize and sponsor nature walks and nature-oriented day camps in the park.

Assets

- Seneca Park and Zoo linkage
- Existing trees
- Easy site development
- Expansion site
- Small scale

Constraints

- Small linear site
- Outdated displays
- Olmsted restrictions
- There is a lack of space for educational programs and for volunteer assistants
- Food and gift facilities are undersized
- Limited space for evening or special events at the Zoo
- Spaces and facilities for keepers and administrative staff is limited



Collection Strategy



The collections priority is to plan exhibits as ecosystem communities that demonstrate the interconnectedness of animals, plants, and habitats with each other - and especially - with people. The emerging role of zoos is to show they have advanced beyond the menagerie format and demonstrate through diverse, multi-species choices - in immersive, complex of exhibits - a platform to convey impactful, conservation messages in an engaging, innovative, inspiring, and entertaining manner.

In this Plan, new species are discussed in context with the Zoo's past geographic or ecosystem approaches - such as Ngorongoro Crater, Rocky Coasts and the Genesee Trail.

Theme 1: Africa Expansion: Adding species found in the Ngorongoro Conservation Area (such as giraffe, rhino, zebra and ostrich) provides opportunities to expand the successful "A Step Into Africa" development.

Theme 2: Tropical Complex (replacing MZB): Three ecosystems are proposed.

- African Congo: One of the world's most endangered and biodiverse ecosystems and the world's second largest rainforest. It is rich in birds, reptiles, fish and mammals (including lowland gorillas and a variety of monkeys).
- Madagascar: 4th largest island in the world with 75% of wildlife found nowhere else on Earth (including a large variety of lemurs); It is home to the 3rd largest network of coral reefs in the world; Successful conservation efforts, which the Seneca Park Zoo has supported in a leadership capacity for more than a decade
- Borneo: 3rd largest island in the world with many species of mammals, birds, and fish found nowhere else on Earth; Successful conservation efforts which Seneca Park Zoo is supporting in a leadership capacity; Provides a new home for our highly endangered Bornean orangutans, along with other species

Theme 3: Cold Asia north of EcoCenter & ZOT Zone: Asia contains more wild cat species than any other continent - including tiger and snow leopard. The habitats are shared with canines and a variety of other hardy species.

Based on these three interpretive themes, primary exhibits are proposed for species such as gorilla, orangutan, lemurs, snow leopard, tiger, and giraffe, among others.

Animal Species Selection Criteria

1. Species Survival Plan Criteria

A major goal of the Seneca Park Zoo is to participate in the long-term propagation and humane management of threatened and endangered species. Therefore, animals belonging to Species Survival Plans, in which the Zoo actively participates, should have priority, and locally endangered plant and animal species should be featured.

2. Zoo Education Criteria

Species should be displayed which support the Zoo's desire to improve visitor understanding of the complex interrelationships with and among animals, their environments and humankind.

3. Popularity and Display Potential

The Zoo exists because of public support and it is important that some well-known species be exhibited which also meet the other criteria.

4. Zoo Trends Criteria

Zoos nationwide are replacing large collections housed in many small exhibits with fewer species living in larger more natural and diverse habitats. Today, zoos are judged not so much on the quantity of species but rather upon the quality of displays and educational programs, their support facilities and successful breeding of endangered species.

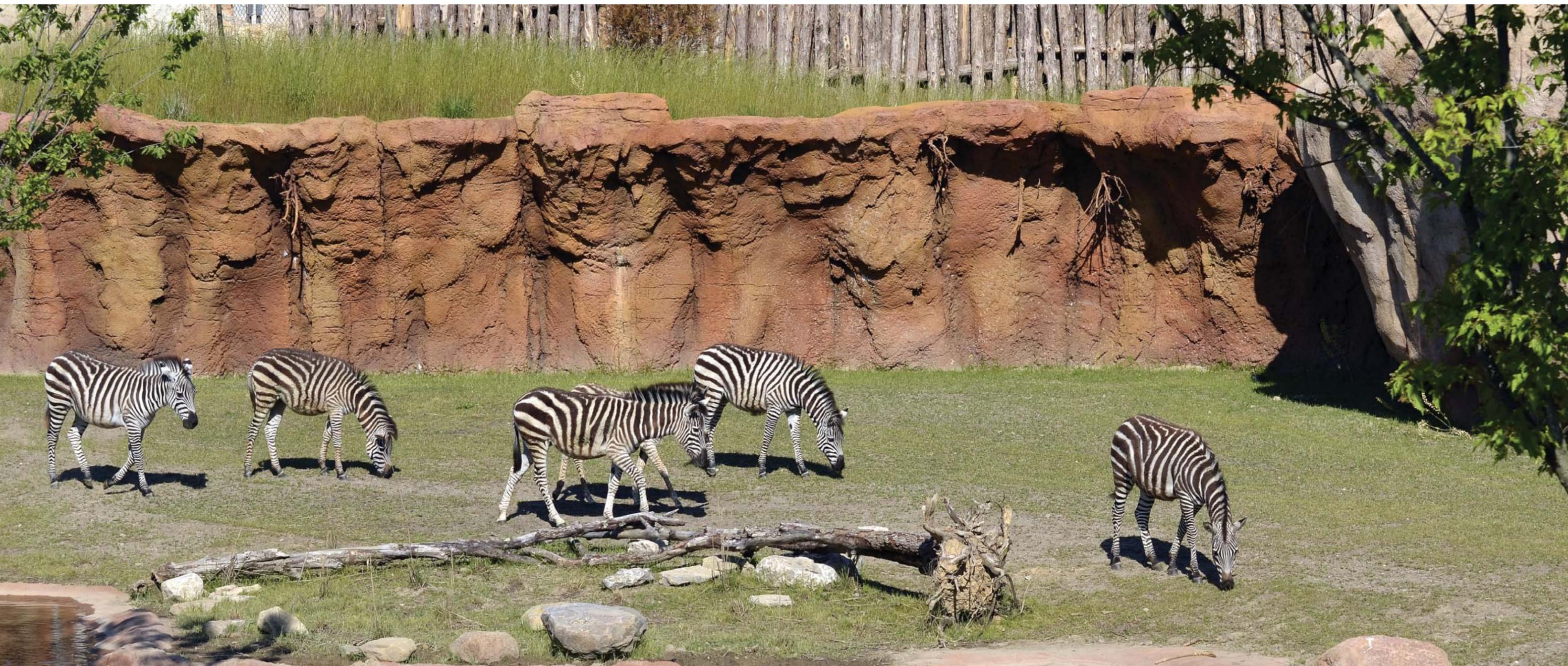
5. Bang for the Buck Criteria

Animals should be selected that are reasonably economic to maintain relative to the benefits derived from their display. The collection should help achieve an overall balance in both the display of wildlife and the operating cost to maintain this presentation. This accounting should include both the direct costs and the environmental costs involved.

6. Changing Scenes

Recent Zoo visitor preference studies prove that people most prefer to see Zoo animals in what appear to be totally natural non-confining habitats.

Further development of the collection plan to the secondary, tertiary and quaternary level of detail will be undertaken in the schematic design phase.



Master Plan

The 2015 Seneca Park Master Plan embodies the following Guiding Principles, from the Zoo's Strategic Plan:

- Demonstrate conservation leadership
- Prioritize animal welfare
- Tell compelling stories
- Create a great guest experience
- Facilitate partnership opportunities
- Effectively support operations
- Offer a return on investment

Concept & Master Plan

These Principles are embodied in the Plan's theming, exhibits, circulation, and buffering plans.

Mission, Collection, Education & Exhibits

- New Tropical Complex replaces Main Zoo Building - primate focus
- Central exhibits reimagined (Cold Asia)
- Enhanced Africa exhibits – hoof-stock focus
- Large indoor & outdoor exhibits
- Exhibits connected and interchangeable
- Elevated animal trail & play system
- Expanded interpretation system
- Enlarged & shared education building & spaces
- Learning through play opportunities
- Research & partner facilities

Guest Experience

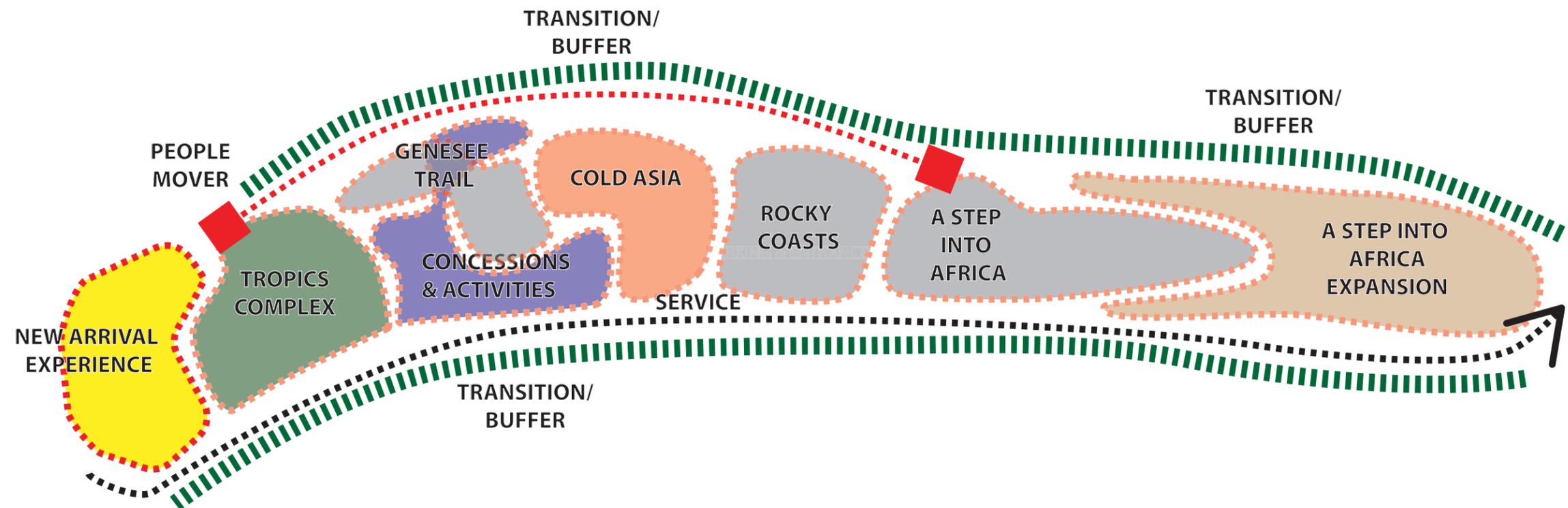
- Mixed species exhibits
- Overhead animal trails
- Introduction of new species
- Carousel
- Ropes course
- Interpretive play areas
- Shuttle train linking north & south of Zoo
- Better ticketing
- More restrooms
- New food service & concessions
- New & expanded gift shop
- Stroller & cart rentals
- More indoor space
- More covered three-season space
- New multi-purpose education, program & special event space

Design Context

- Respects 1991 Master Plan footprint
- Proposed west-side transition to Seneca Park
- Proposed east-side buffer to residential neighborhoods
- Additional interpretation of Olmsted design & significance
- Strict design guidelines for perimeter building facades & fencing

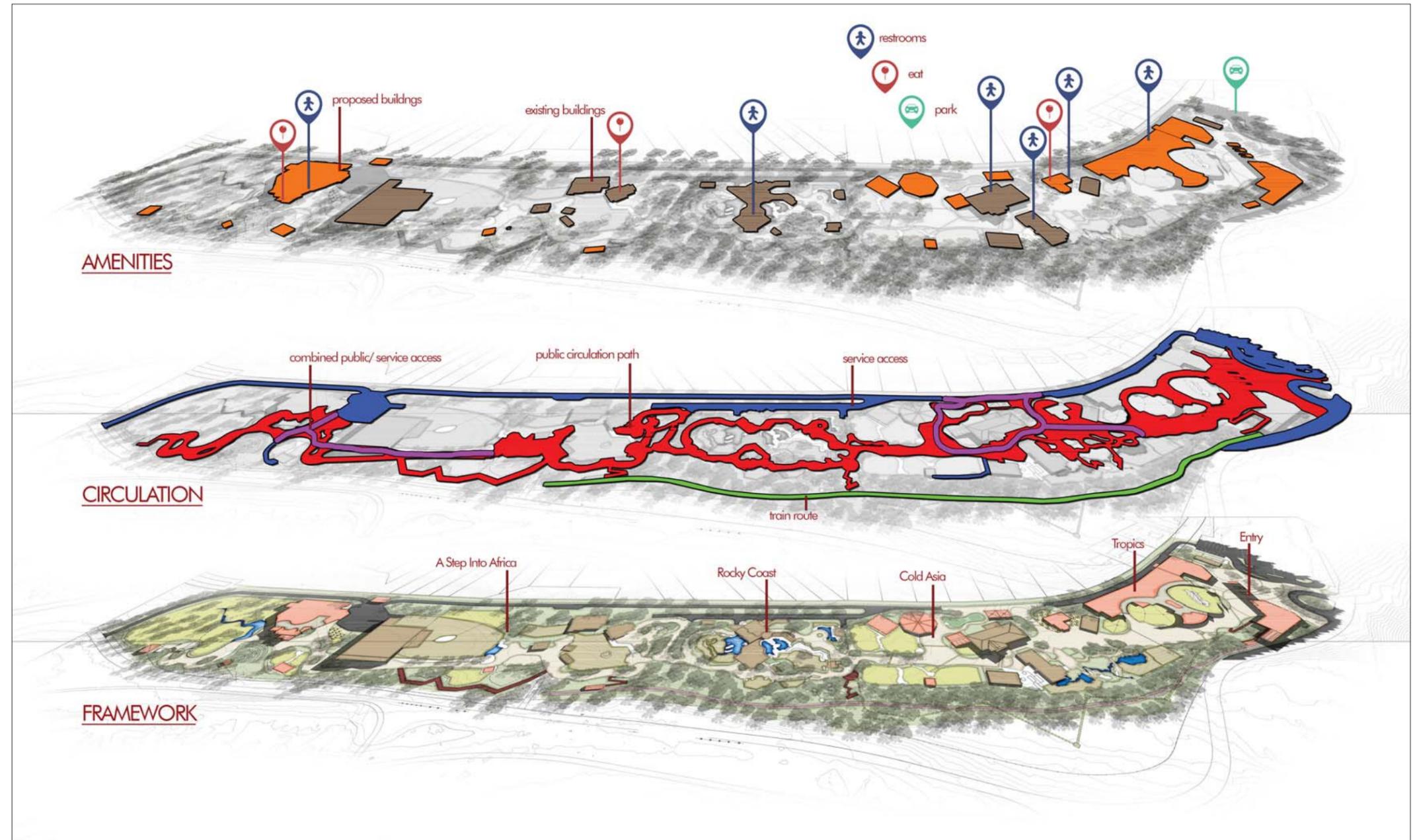
Development

- Relocation of collection
- Main Zoo Building deconstructed or demolished by 2018
- Tropical Complex prioritized first and accommodated in early phase
- Restricted hours for construction activities
- Strict specifications for maintenance of construction site



Circulation & Amenity

The Seneca Park Zoo will offer a new brand of guest experience! Beginning with arrival, moving through ticketing, experiencing animals, seeking services, and augmenting their fun – amenities are planned to appeal to all age groups.





Entry View to New Topical Complex



Guest Services and Education Buildings

New Entry

An enhanced landing area is proposed outside of the reconfigured ticketing booths with a re-queuing plaza located inside the gates. The landing area would accommodate a bus drop-off, entrance to the Education Building and a member's entrance. The landing area would provide comfortable arrival and queuing of guests. The ticketing area would be reconfigured to create a sense of arrival, ticketing independent of the entry gate, and additional ticketing areas for peak season.

The ticketing area would be flanked by the Education Building on the east and the Member & Guest Services Building on the west. The buildings would locate the administrative offices on the second floors. The Education Building would allow views into adjacent animal habitats.



Tropical Complex

The Tropics

Upon entry to the Zoo, the master plan proposes a dramatic first impression of a gorilla yard by creating a viewing area off the entrance plaza. The central focus of the plaza besides the "initial" gorilla viewing experience is a themed building entry welcoming guests to an immersive tropical experience. The exhibit would start with a mixed species habitat, as the guests meander down a tropical trail with gorillas to one side and mixed species habitat on the other. The trail would be highlighted with educational interpretive graphics telling the story of tropical flora and fauna. Inside the building, the guests would be offered an up-close viewing of the gorillas in their outdoor habitat and in an immersive indoor habitat (year-round) as they discover tropical riparian habitat showcasing diversity. The tropical experience continues with orangutan actively engaged in their habitat on the other side of the trail.



As the guests move through the building they would discover a Madagascar themed mixed species habitat showcasing fossa and lemurs in naturalistic habitats. The trail would culminate into the picnic plaza which would be surrounded with a new concession stand and restroom facilities. The plaza would be sized for outdoor events and picnics and would act as the transitioning space from the Tropical Complex to the rest of the Zoo.

Overhead habitat trails are proposed to link various exhibit areas and to provide animals with increased choice and environment. The overhead trails increase the visitor experience by offering more intimate interaction and allowing guests to see the animals from different vantage points.

The Tropical Complex itself would be a two level building with a first floor exhibit/visitor space and a "back-of-the-house basement" containing state-of-the-art animal care, zoo keeper space, and mechanical equipment facilities.







Cold Asia

Cold Asia & The Central Experience

The central portion of the Zoo is reimagined as a hub of guest entertainment, education and services. The new concession building is built into the hillside, providing service space on a lower level and food service space above. The building hosts indoor and covered eating areas opening to a plaza full of family play and interpretive areas. A carousel and ropes course offers entertainment for a wide range of ages and interests.

The exhibits become focused on Cold Asia, including snow leopard, Amur tiger, red panda and wolf. Habitat trails connect expanded animal areas to offer variety and choice.





Africa Expansion

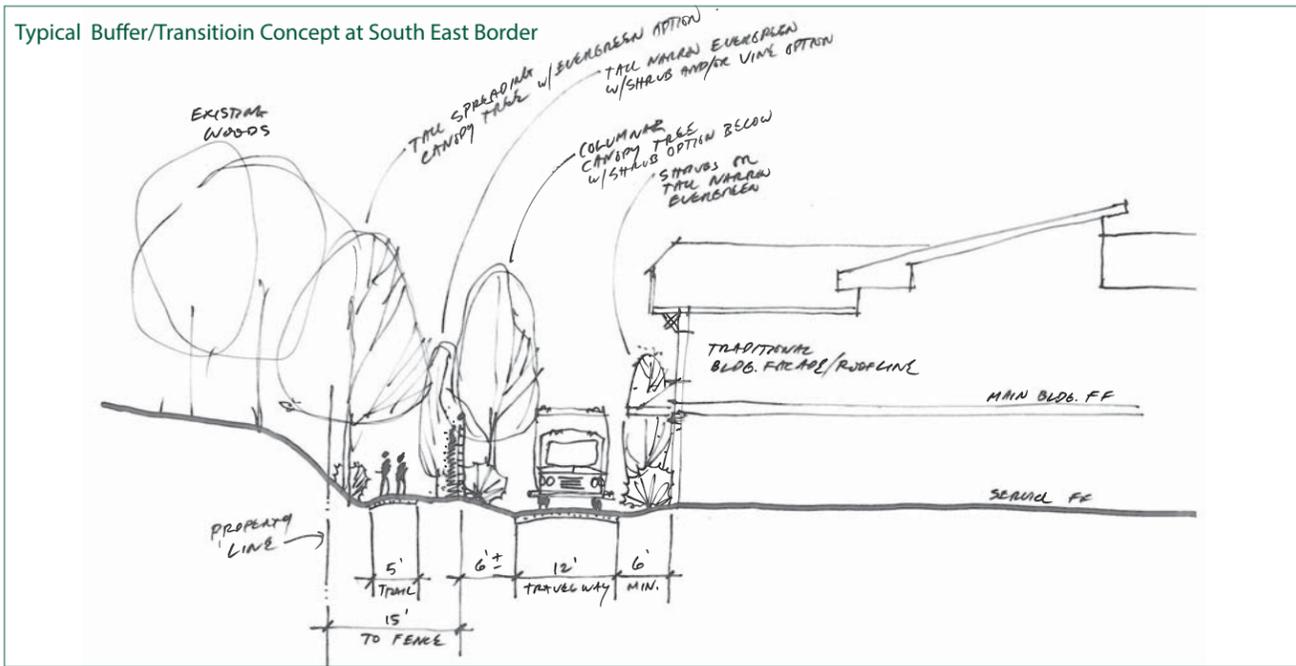
Africa Expansion

The new site north of the existing elephant holding building will be thematically consistent with the “A Step Into Africa” section of the Zoo. This site is proposed to be developed with a giraffe exhibit (and feeding opportunity), rhino, zebra, ostrich, various smaller exhibits, a commissary, and a concession area.

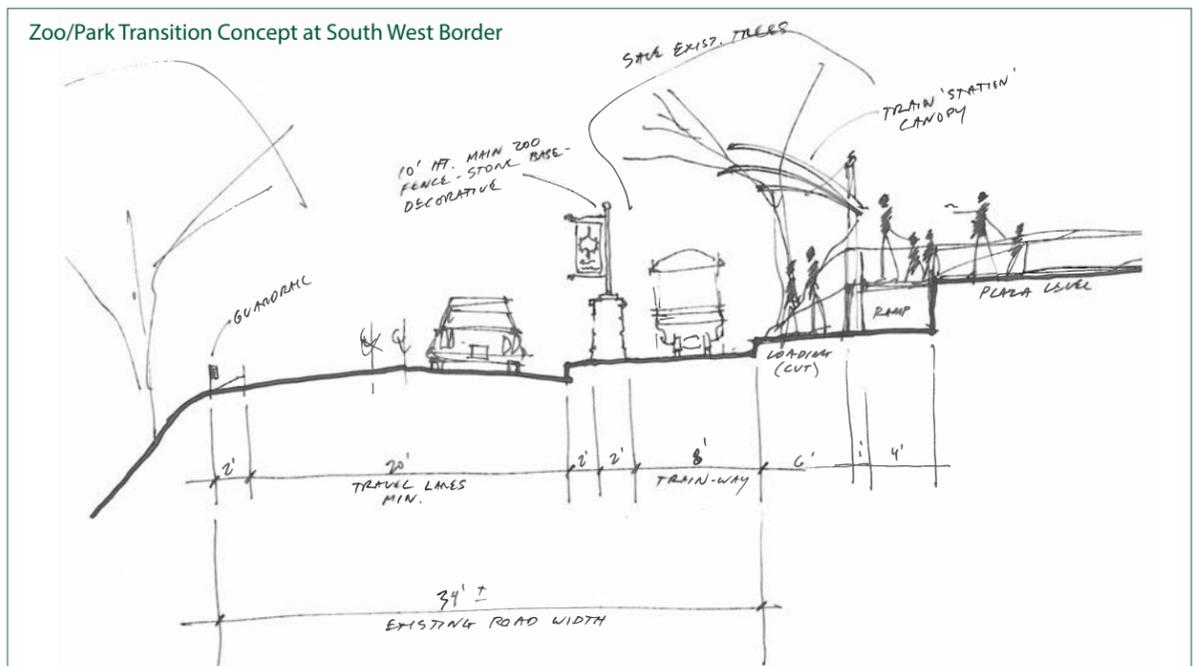
The design will pay careful attention to the transition to Seneca Park and the visual impact of improvements on its historic design.



Typical Buffer/Transition Concept at South East Border



Zoo/Park Transition Concept at South West Border



Design Components

The interface between the Seneca Park Zoo and Seneca Park proper will require special design attention to respect the historic design and character of the Park. Component guidelines are summarized below:

Buffer Edge

In general, a 50' wide planted buffer is recommended between the Park and features within the Zoo which don't enhance the historic intent of the Olmsted design. The functional requirement is that such features not have an adverse visual impact to park users, and narrower buffers may be permissible provided that they satisfy this functional criteria. The buffer on the west side of the Zoo is intended to have an informal, irregular edge composed of mixed species of primarily native plants.

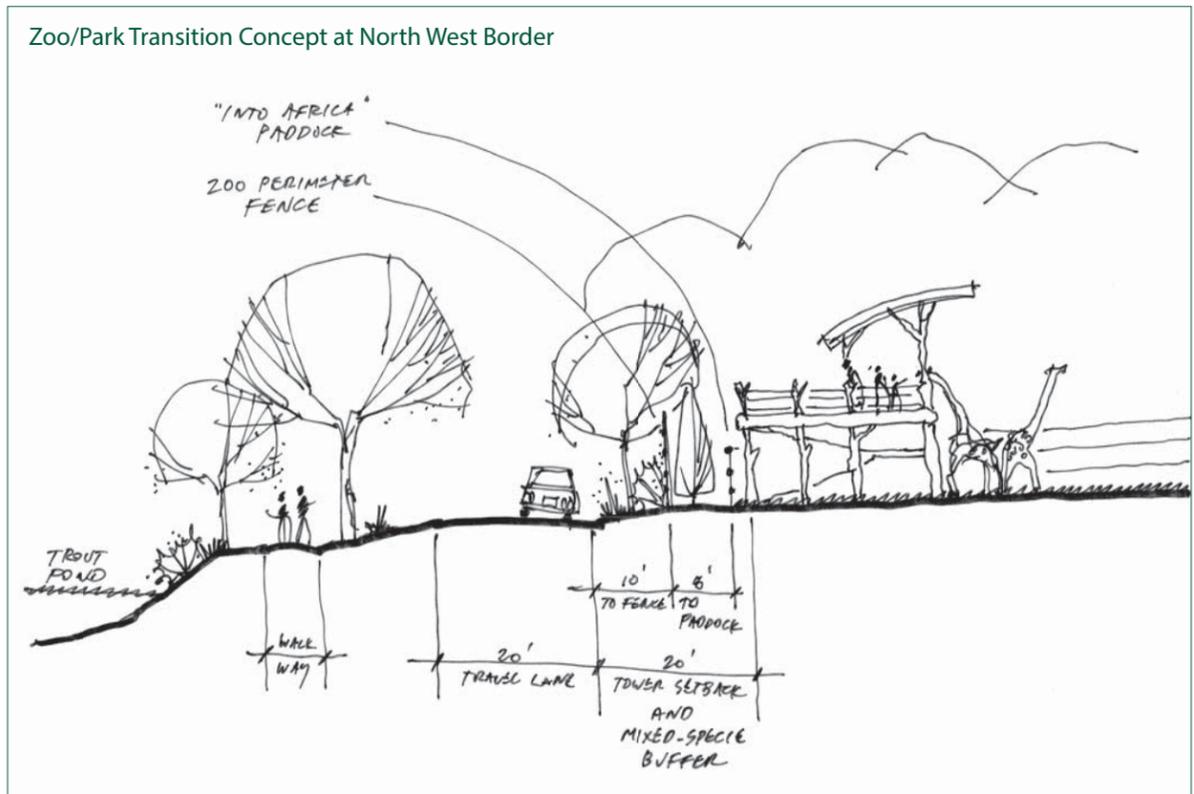
The Zoo fence may be in this buffer provided its visual impact from the Park is mitigated and consistent in character with the intent of the Olmsted design.

The residential neighborhood buffer on the east side of the Zoo should be composed of layered vegetation and fencing that screens views to the service road from low, mid-height, and high vantage points. The vegetation should include a combination of evergreen plantings, deciduous plantings and vines. The fence should be designed to have minimal visual impact.

Perimeter Fence

A USDA-approved barrier must be maintained around all developed areas of the Zoo. Such barriers are usually 8' high fencing and are built to prevent animals from digging under them. Top rails should be eliminated to reduce cost and, more importantly, to make the barrier less visible. The fencing along the entire eastern edge of the Zoo will be replaced to accommodate the new service access. The fencing along the entire western boundary and southern boundary will be replaced to accommodate the new people mover and Zoo expansion. Special care must be exercised during installation to minimize damage to existing large trees and their roots.

Zoo/Park Transition Concept at North West Border





Pedestrian Paths

The primary circulation way should maintain a clear width of 20' (25' in plaza areas) for the length of the existing Zoo. Paving and base thickness should be designed to support heavy loads such as large cranes, which will be needed occasionally to service exhibits. Secondary paths should be 8'-12' wide and may be of either hard or granular paving, provided the granular paving is well maintained. All primary and secondary pathways will be handicapped accessible. Tertiary paths in discovery areas (stepping stones, logs, etc.) may not be fully accessible provided that alternative, equally exciting pathways are created which are fully accessible to all visitors.



Tree Protection

Special steps must be taken to insure maximum protection of the many large existing trees.

- A qualified arborist should evaluate the trees and recommend any special care such as root feeding, pruning, guying, etc., that may be needed
- Trees in poor condition should be removed when appropriate
- Roads and slabs near trees should be built on granular fill raised above ground level rather than cut into the root zone
- Buildings and decks near trees should be built on piles and grade beams rather than traditional spread footings
- Utilities should be concentrated under major roads and paths and coordinated to minimize excavation. Pipes should tunnel under trees rather than trenching near them. Particular attention must be given to irrigation to avoid root damage
- Construction areas must be well defined and controlled

Zoo Horticulture

The development and maintenance of realistic habitat and landscape immersion exhibits requires a greatly increased emphasis on horticultural staff and specialized expertise. Many improved zoos find that their botanical collections become as valuable as their zoological collection.

Zoo Graphics

A comprehensive system of graphics should be updated for the Zoo, presenting a unified and coordinated message to the public. While the detailed aspects of the graphics should be developed as a part of the design of each new area, the following general guidelines are recommended:

1. The purpose of signs and other graphics is to inform and support the overall Zoo goals, themes and messages. While each graphic must be thoughtfully designed, it should not become an attraction in itself nor compete for attention with living displays or other graphics. Ornamentation must support and not compromise function.
2. Feature signs, such as graphics identifying gift shops, eating areas, pavilions or thematic areas, for example, need not be standardized but must be appropriate to the thematic intent of the feature they identify.



3. Directional and other way-finding graphics should be standardized, although peripheral elements such as color or frame may be influenced by the thematic intent of the area.
4. Interpretive graphics should be simple and clear with minimal text. Interpretive features which encourage interaction (without competing with the animal display) are generally most successful. Interpretive signs should be coordinated and to some extent standardized, yet there needs to be some flexibility when warranted.

Phasing & Capital Investment

Phasing: Phasing has been designed in consideration of financial availability, constructability and to maximize revenue generating attendance. The first five years of a capital strategy (Phase 1) is committed to taking down the existing MZB and replacing it with a new entrance, new Tropical Complex, and maintaining Zoo attendance during that period. The second five year strategy (Phase 2) is scheduled to implement the vast majority of this Master Plan’s recommendations.

Phase 1A: Expand “A Step Into Africa” (including a giraffe and rhino exhibit) in order to accommodate some of animals from the MZB and to maintain attendance during Phase 1B construction. Construct the people mover (scale train) in order to accommodate guest flows between the north and south ends of the Zoo during Phase 1B construction. Construct new perimeter fencing along the east and west borders to define the proposed new Zoo admission area, including the new service drive. A temporary ticketing, retail shop and entry location is recommended.

Target Opening – Spring 2018

Phase 1B: Demolish the MZB, the existing entrance buildings (gift shop, guest services & ticketing) and the existing concessions stand. Construct the new entry buildings (Guest Services, Gift Shop, Ticketing, Entry and Education Building), the new central concessions building, and the new Tropical Complex & Exhibits.

Target Opening – Spring 2020

Phase 2A: Update the Rocky Coasts Exhibit.

Target Opening – Spring 2021

Phase 2B: The remainder of the “A Step Into Africa” expansion, including additional smaller animal exhibits and the African Boardwalk.

Target Opening Spring 2022

Phase 2C: Renovate the Eco-Center and the ZOT Zone and add the remaining Habitat Trails to the Tropics exhibit.

Target Opening – Spring 2023 & 2024

Phase 2D: Enhance education and the guest experience with a ropes course and amphitheater.

Target Opening – Spring 2025

Phase 2E: Construct the remainder of Cold Asia improvements, add the Carousel and the lower interpretive play area.

Target Opening – Spring 2026

PHASE I BUDGET

	Budget
<u>Primary Exhibits (Phase 1)</u>	
Tropical Exhibit w/Overhead Trails	\$ 29,737,850
East Service Drive	\$ 946,000
Africa Complex Phase IA - Giraffe Component	\$ 7,066,150
Sub-Total Primary Exhibits (Phase 1)	\$ 37,750,000
	\$ -
<u>Guest Experience & Enhancements (Phase 1)</u>	\$ -
Guest Services Building	\$ 7,448,868
New Concessions Building	\$ 1,200,000
Train	\$ 2,430,540
Africa Complex Phase IB - Complete Exhibit	\$ 3,133,250
Education Building	\$ 5,923,260
Sub-Total Other Components (Phase 1)	\$ 20,135,918
TOTAL PHASE I BUDGET	\$ 57,885,918

PROJECT BUDGET & SCHEDULE

project	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total Project Cost
East Service Drive		\$946,000								\$1,144,660	\$2,090,660
Africa Expansion: Phase 1	\$2,208,000	\$7,991,400									\$10,199,400
People Mover/Train		\$2,430,540									\$2,430,540
Central Concession & Restrooms		\$1,200,000									\$1,200,000
Tropics Complex		\$320,000		\$29,417,850							\$29,737,850
Guest Services Building				\$7,448,868							\$7,448,868
Education Building				\$5,923,260							\$5,923,260
Rocky Coasts Improvements					\$1,884,750						\$1,884,750
Africa Expansion: Phase 2						\$1,392,600					\$1,392,600
Africa Boardwalk						\$852,280					\$852,280
Tropics Habitat Trails							\$2,147,000				\$2,147,000
Eco Center Renovation							\$732,240				\$732,240
Animal Health & Education Center Renovation								\$345,000			\$345,000
Ropes Course									\$1,416,000		\$1,416,000
Ampitheater									\$1,403,964		\$1,403,964
Cold Asia										12,947,242	\$12,947,242
Carousel										2,648,448	\$2,648,448
Lower Interpretive Play										484,000	\$484,000
ANNUAL & TOTAL BUDGET	\$2,208,000	\$12,887,940	0	\$42,789,978	\$1,884,750	\$2,244,880	\$2,879,240	\$345,000	\$2,819,964	17,224,350	\$85,284,102

10 Year Capital Cost Estimate

Based on the Concept Design, the design team prepared a Total Project Budget based on a 10-year implementation schedule. The scope of the budget includes projected 2017 Construction Costs plus a budget for Soft Costs including Design, Administration, Equipment and other costs.

The Budget has been built using analysis of materials and systems quantities, benchmarking for similar facilities and actual cost projections based on systems descriptions included in the study. During the Schematic Design phase, with program confirmations and refinements, a detailed estimate will be prepared to test and confirm the Concept Budget. At this early stage of planning, the Concept budget is carrying 20% of project construction cost for design and contingency. A 3% annual escalation has been applied to anticipate average cost increases over this period.

The estimated completion date for Phase 1 (in 2020) is based on the anticipated time needed by the project team to acquire funding, complete design and construct the project. A more detailed schedule and budget verification will be developed during the Schematic Design phase of the project to confirm or adjust the conclusions of this study.



Operations Strategy

This study includes a business assessment to ensure that the solutions discussed here are feasible and sustainable while meeting the needs of the community.

The following key criteria were analyzed to assess benefits to the project and study the impact of development:

Opportunity Areas/Business Drivers

- High impact exhibits
- Membership growth
- Improved food service
- Enhanced gift and retail opportunities
- Expanded alternatives for indoor rental space
- Availability of flex-space for events, education, exhibits

Business Opportunities Assessment

As Seneca Park Zoo (SPZ) plans for its future, an analysis of the business impacts of the proposed plan has been completed. Before making such a significant investment, it is important to ensure that these investments are both feasible and operationally sustainable into the future. Additionally, any investment should help SPZ continue to serve the community and grow its mission impact.

A diverse team from WDM Architects and Zoo Advisors, representatives from Monroe County, the Seneca Park Zoo Society, and the community developed a vision for the Zoo to raise its profile as a regional destination, and establish it as a major, must-see attraction. Not only will this vision strengthen the Zoo's fiscal stability, but it will build a strong foundation for future growth and development. The ideas and concepts that the team developed will enhance the Zoo's mission programs, grow attendance, generate new revenue, and widen the Zoo's base of support.

Understanding the Financial Analysis & Recommendations

These concepts are based upon the delivery of a high-quality visitor experience that is supported by excellent visitor services and animal care, as well as fun and informative

environmental and conservation education experiences and programs.

It is important to note:

- This report is a long-term projection—not an annual budget. It provides an overview and guidance for the decision-making that lies ahead. More detailed multi-year budgeting should be done as the projects become reality
- Projections are based on a wide variety of variables, some of which are out of the control of the Zoo
- Phasing is critical to the projections and growth assumes projects will open on time in the early spring of each year, as noted
- The Zoo will need to make investments in marketing and communications to raise its visibility and capture the maximum benefit of new improvements

Our Approach

To develop the business plan, the team reviewed and analyzed a range of background information to first develop and then confirm our assumptions.

This information included:

- Rochester market data
- AZA institutional benchmarks; attendance, earned revenue, expenses
- Seneca Park Zoo historical attendance and financials

This information provided the basis for the creation of a series of projections and scenarios to test viability. We then modeled multiple scenarios based on attendance, revenue, and expenses.

The methodology that was employed consisted of:

- Testing the market potential for a project of this size, i.e. how big is the market and how fast is it growing?
- Understanding market competition;
- Identifying business opportunities as they relate to reve-



- Reviewing the Zoo's historical attendance and financial data to understand relevant trends and establish baseline projections (e.g. attendance and financial projections without the project being built);
- Identifying AZA benchmark institutions and analyzing pricing, market penetration, and earned revenue data to establish attendance and revenue projections;

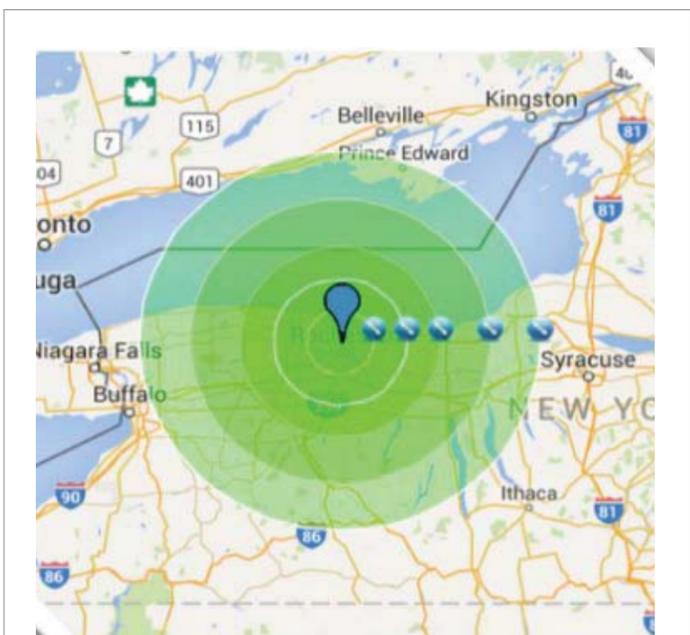
The outcome of this analysis provides a recommendation on the business and financial feasibility of the project as defined by the designers and the Zoo team.

Rochester Market Profile

The Rochester market, much like most other urban areas throughout the region and the nation, has grown steadily since 2000.

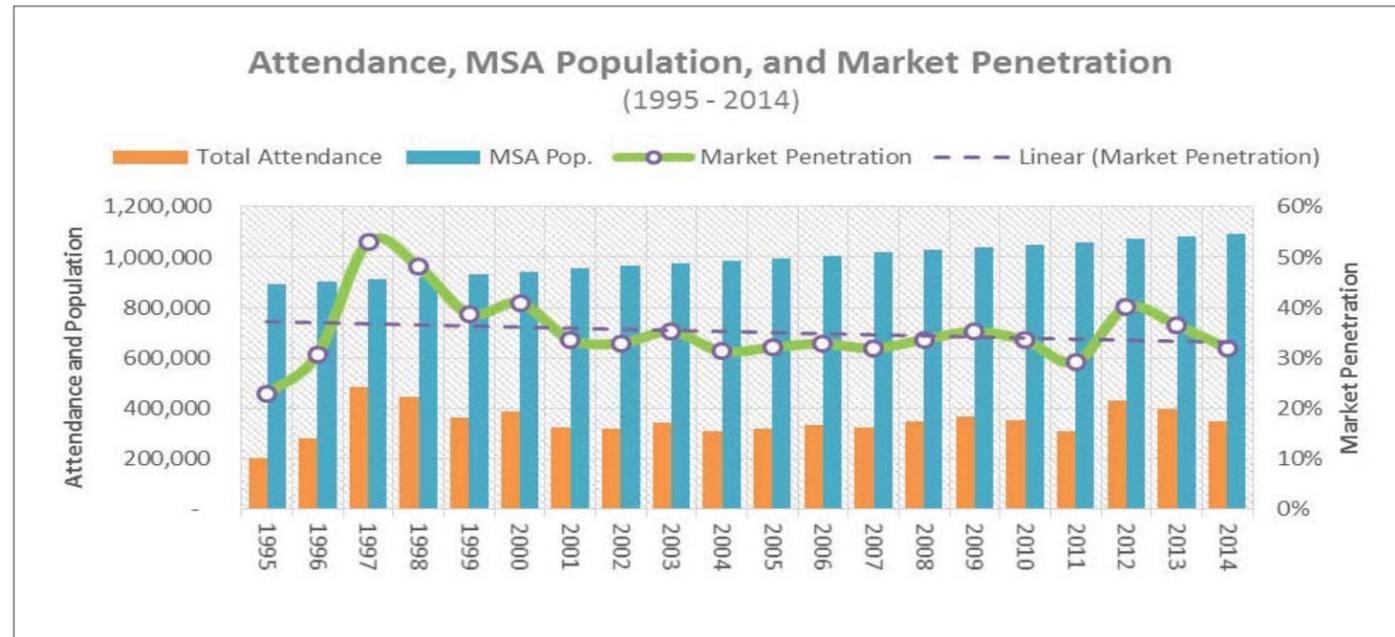
Total population the Rochester Metropolitan Statistical Area (MSA) has increased from 943,000 in 2000 to an estimated 1.1 million in 2015. With an approximate growth rate of 1% per year, the area is the second fastest growing MSA in all of New York State, behind only Ithaca on a percentage basis.

There is also a healthy population of potential regional visitors, with about 1.65 million residing within 60 miles of the Zoo. The Rochester area also trends younger and much less affluent than the rest of the state, although the wealth comparison is somewhat skewed by the extremely wealthy area surrounding the New York City MSA.



Radial	Square Miles	Total Pop.	Pop. Under 10	% Under 10
10 miles	261	593,654	70,585	11.9%
20 miles	1,603	808,437	96,596	11.9%
30 miles	2,647	960,731	113,526	11.8%
45 miles	5,885	1,169,318	136,695	11.7%
60 miles	9,013	1,653,550	190,479	11.5%

Quick Facts	Rochester	New York
Persons Under 5	7.5%	6.0%
Persons Under 18	24.8%	22.3%
Persons 65+	9.0%	13.5%
Per Capita Income	\$18,847	\$32,382
Median Household Income	\$30,875	\$58,003

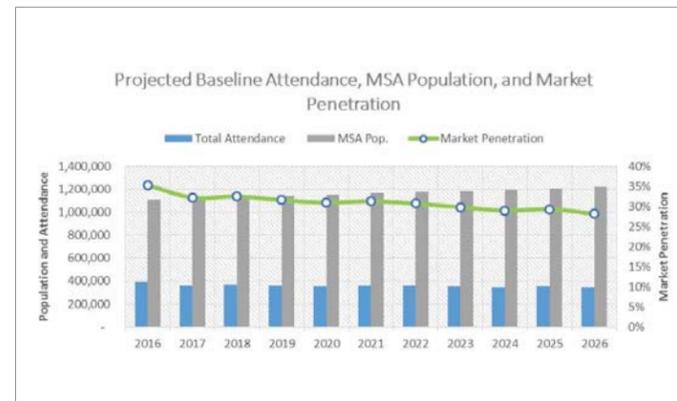


In the chart above, the blue bar shows the total population of the Rochester MSA. The orange bar shows the historical attendance to the Zoo. The green line shows the annual market penetration—total attendance divided by total MSA population. The dashed line shows the linear trend of market penetration over the 1995 through 2014 time period.

Even as the Rochester area has grown, attendance has remained mostly flat over the long-term, resulting in declining overall market penetration. This is a common trend at many zoos, and represents an opportunity to re-capture market share via a plan for sustained investment in continually improving the guest experience.

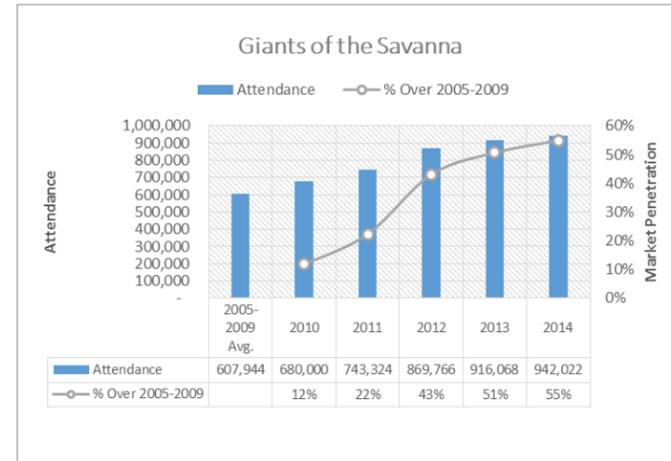
As we can see in the chart above, there have been several peaks in attendance associated with new guest-facing improvements to the Zoo.

In terms of projecting the financial implications of this project, it is important to establish a baseline. To create this baseline, the projected change to attendance through 2026 was calculated by extending the diminishing trend. Without investment in the guest experience, we assess that attendance will continue to remain flat, and that as Rochester continues to grow, penetration will continue to decline.



Investing in the Experience

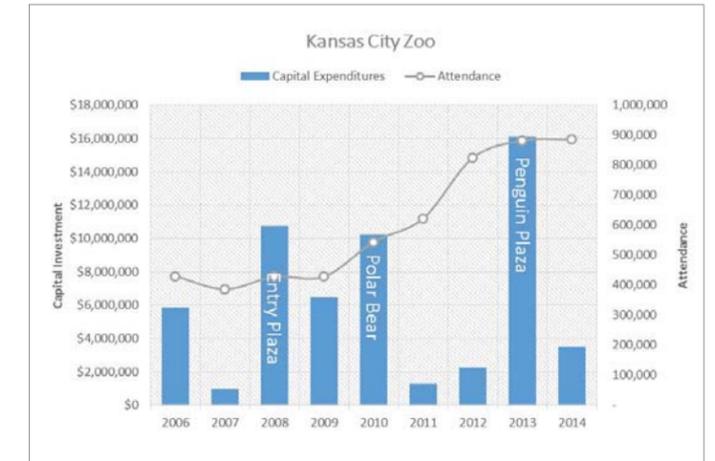
With the Seneca Park Zoo in the process of making a very important decision about a significant investment in the guest experience and the need to drive visitation, Zoo Advisors looked at recent “blockbuster” habitat openings to see what effect they had on driving attendance in the following years. While it would have been ideal to present case studies of organizations closer to SPZ’s size, reliable capital investment data is extremely difficult to come by.



Dallas Zoo

In May of 2010, Dallas Zoo premiered Giants of the Savanna, a massive mixed-species Africa-themed habitat centered on African elephants. It was one of the most ambitious exhibits in recent memory, and had an immediate and on-going effect on visitation.

In the five years preceding the opening, Dallas Zoo saw an average of about 608,000 visitors. In the subsequent 4 years after the opening, it saw increases of 12%, 22%, 43%, and 51% over the 2005-2009 average. In 2014, the fifth year, the Zoo welcomed over 940,000 visitors—a full 55% increase! The exhibit has won accolades across the industry.

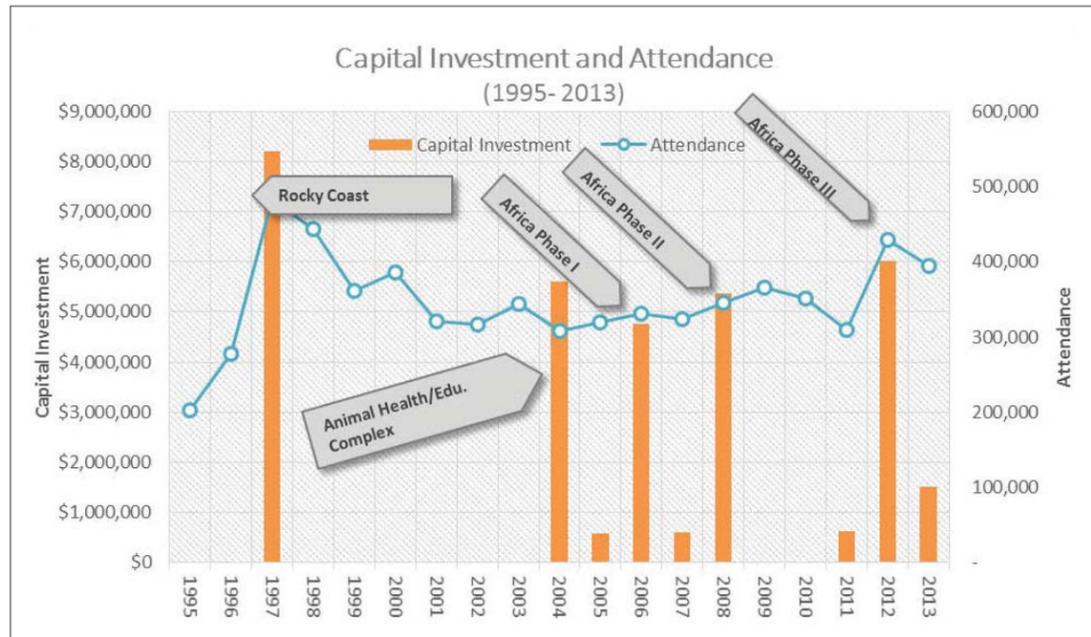


Kansas City Zoo

Kansas City Zoo represents a different approach from Dallas, and one that is more relevant to Seneca Park’s plans. As opposed to a single “blockbuster” exhibit or area costing multiple tens of millions of dollars, they invested nearly \$60 million over 9 years across a variety of improvements, with 3 major guest-facing improvements costing over \$10 million each spread throughout that period.

While the primary driver for the phasing was more likely the need to spread major construction out over a period of time and availability of funding, it also turned out to be a good strategy for driving sustained attendance growth. The benefit to the Zoo was compounded by that fact that the first phase involved a vastly improved entry plaza, which not only improved the experience through efficiency and an added “wow” factor the guest, but also prepared the Zoo for the substantial increase in attendance volume.

The phased approach to master plan improvements has many advantages to the “all in” approach. But for the purposes of this discussion, the biggest advantage is the extension of the “grand opening” effect over several years.



While it is useful to look at what other institutions have accomplished, there is no stronger benchmark for investing in habitat and exhibit expansion than Seneca Park Zoo's own history, this chart (above) shows the history of guest-facing capital investment and its effect on attendance at Seneca Park Zoo since 1995. Here, we clearly see the benefit of phased, long-term expansion. While attendance and market share trends have declined since the mid-90s, the periods when they were strongest were those adjacent to major exhibit openings.

The Seneca Park Zoo, like many of its zoo counterparts, will be transformed by a similar level of investment. As has been proven at zoos in places as varied as Dallas, Kansas City, Fresno, and Philadelphia, reimagining what the Zoo can be, and supporting that with a mix of public and private funding, not only changes the Zoo but also the community.

Assumptions Summary

Detailed in the projections are the market and economic factors to support the proposed master plan improvements. Based on the detailed analysis, the Zoo will realize positive returns upon implementation and opening of new exhibits, attractions, and amenities.

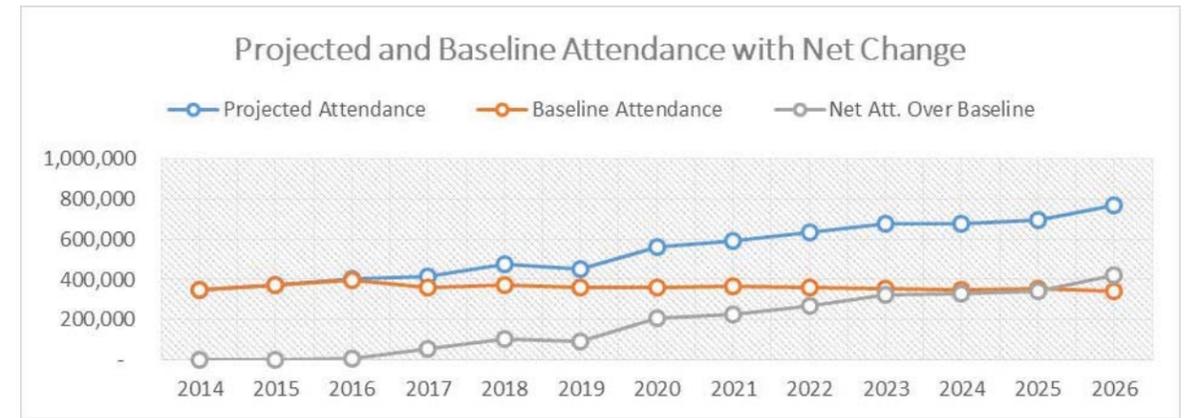
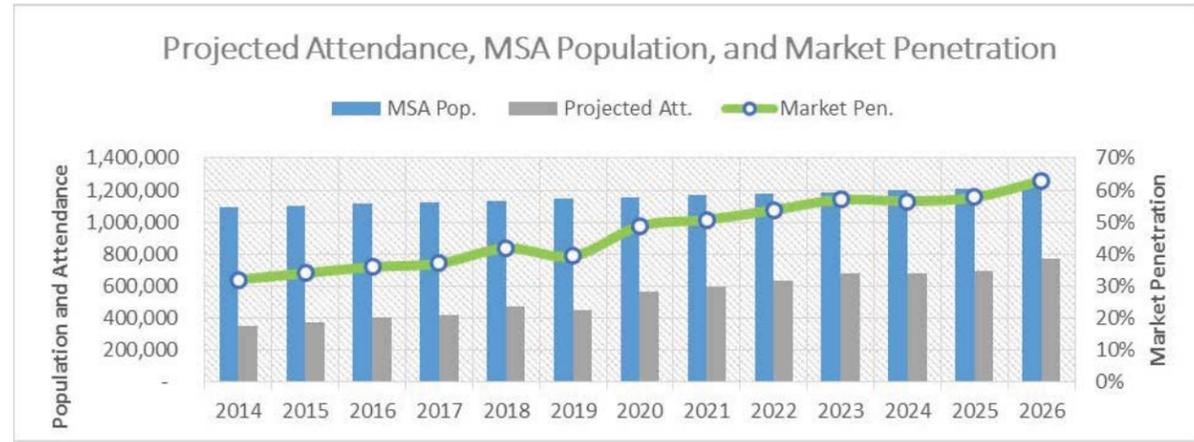
A multitude of business opportunities exist tied to the Master Plan Update improvements, all of which have been quantified in the revenue and expense projections.

Revenue

- Attendance Growth: The greatest revenue will be realized through increased visitation. With each project opening, visitation will continue to grow. The incremental cost of these visits is not significant because the cost structure is already in place, so it provides the greatest return on investment. New visitors will be attracted to the Zoo with these unique new exhibits and previous guests will have an incentive to return.
 - o Growth from 375,000 in 2015 to over 760,000 in 2026
 - o Major growth with openings of Step Into Africa, Tropics, and Cold Asia
 - o Phased approach is critical to maintain growth without significant dips in off years

- Membership Revenue: The Zoo will be able to continue to grow its membership base, converting a percentage of those new and existing visitors to members. Additionally, as admission prices increase, so too should membership prices and membership revenue across all categories.
 - o Membership households grows to over 26,000 by 2026; up from 17,500 members
 - o Membership prices increase to keep pace with admissions and value of experience
- Food & Retail Spending: The new concessions area will add to food sales as will a completely reimagined gift shop. Both of these will positively impact net revenues for the Zoo. The Zoo will also realize added food sales as visitors extend their stay time.
 - o Food and gift spending increases to \$3.34 per cap with greatly improved and new outlets, up from \$2.59
- Catering & Event Rentals: The addition and increase in event rental facilities adds to the Zoo's capacity to host more and bigger full-service events. Spaces are designed to have unique offerings and unforgettable and unrivaled settings for events allowing for premium pricing.
 - o Over \$230,000 increase from current levels by end of projection period

- Experiences: Multiple experiences have been proposed to further enhance the guest visit as well as offer added opportunities for revenue generation. These experiences have proven quite successful at other facilities and engage guests in a whole new way. These include:
 - o People Mover
 - o Giraffe feeding experience
 - o Ropes/adventure course
 - o Carousel
- Contributed Revenue: These projects will attract new audiences and individuals into the Zoo fold. Both new and existing donors will be able to be engaged, cultivated, and stewarded in new ways.



In the chart above, the blue and grey bars indicate projected growth in Rochester MSA population and SPZ attendance, respectively. The green line shows the projected course of market penetration for each year.

Expenses

- New staff is hired as appropriate with the opening of each major new exhibit area for animal care, maintenance, grounds, and other key positions to support the Zoo’s growth
- Guest services staff increases at levels to manage attendance growth
- Current expenses not directly related to the improvements are projected to increase at 2.5% per year
- Incremental animal care expenses (exclusive of staff time) projected to increase by approximately \$150 per day with the opening of Africa 1, plus further increases with additional new exhibits
- Based on industry best-practices, marketing expenses based on 5% and 6% of revenues, dependent on year
- Based on industry norms, operations and maintenance based on \$7.50 per square foot per year
- Gift and concessions cost of goods set at 34%, based on historical Seneca Park Zoo Society financial data

Baseline

In order to analyze the returns and benefit of the proposed improvement plan over the current trajectory of the Zoo, we created baseline projections for the same time period through 2026. These projections assume the continued

growth of the Rochester MSA, and an extension of the current attendance trend. Indirect revenues are grown at a 2% annual rate for the baseline calculation, while current expenses grow at the same 2.5% rate as the full projections.

Attendance Projections Detail

Based on our best assessment of the above, we believe that by the opening of the Tropics habitat, Seneca Park Zoo can expect to see attendance reach approximately the 560,000 mark, with the possibility of it climbing above 770,000 at the distant edge of our projection period.

For reference, all projections are based on the following implementation schedule:

- 2018: Africa 1, Train, Concessions
- 2020: Tropics, Entrance, Education Building
- 2021: Rocky Coast Improvements
- 2022: Africa Phase 2, Boardwalk
- 2023: Tropics Trails, Eco Center
- 2024: Zot Zone
- 2025: Ropes, Amphitheater
- 2026: Cold Asia, Carousel

This projection is based on the continued growth of the Rochester MSA, as well as attendance growth commensurate with peers and Seneca Park Zoo’s previous major capital investments. This growth would result in a large jump over projected baseline attendance (see chart above).

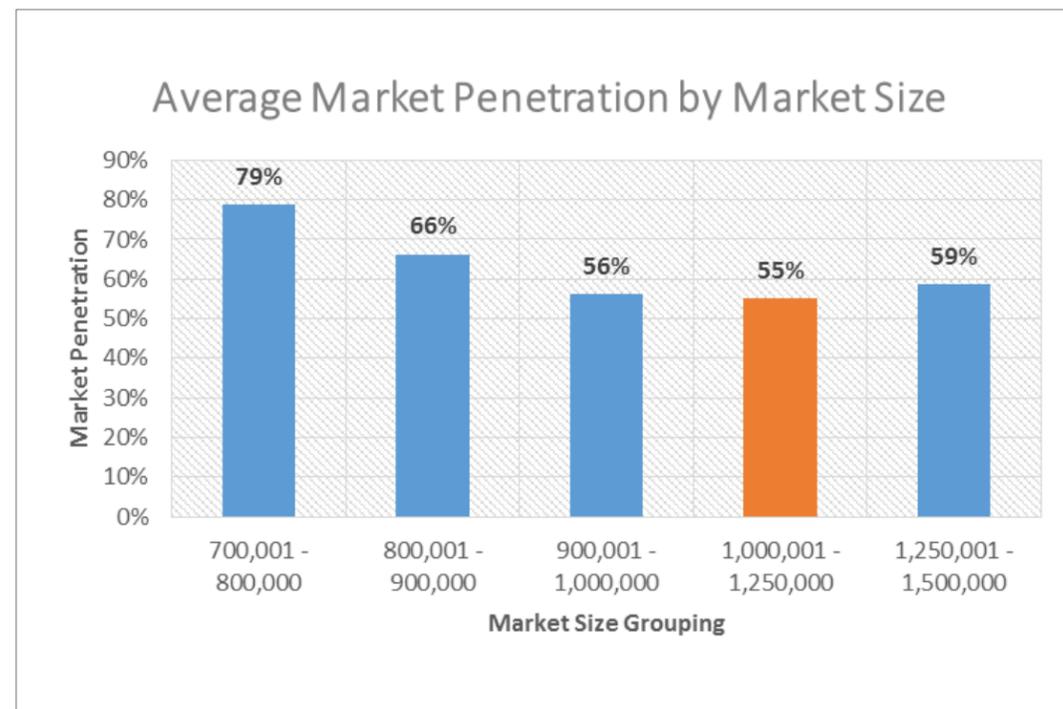
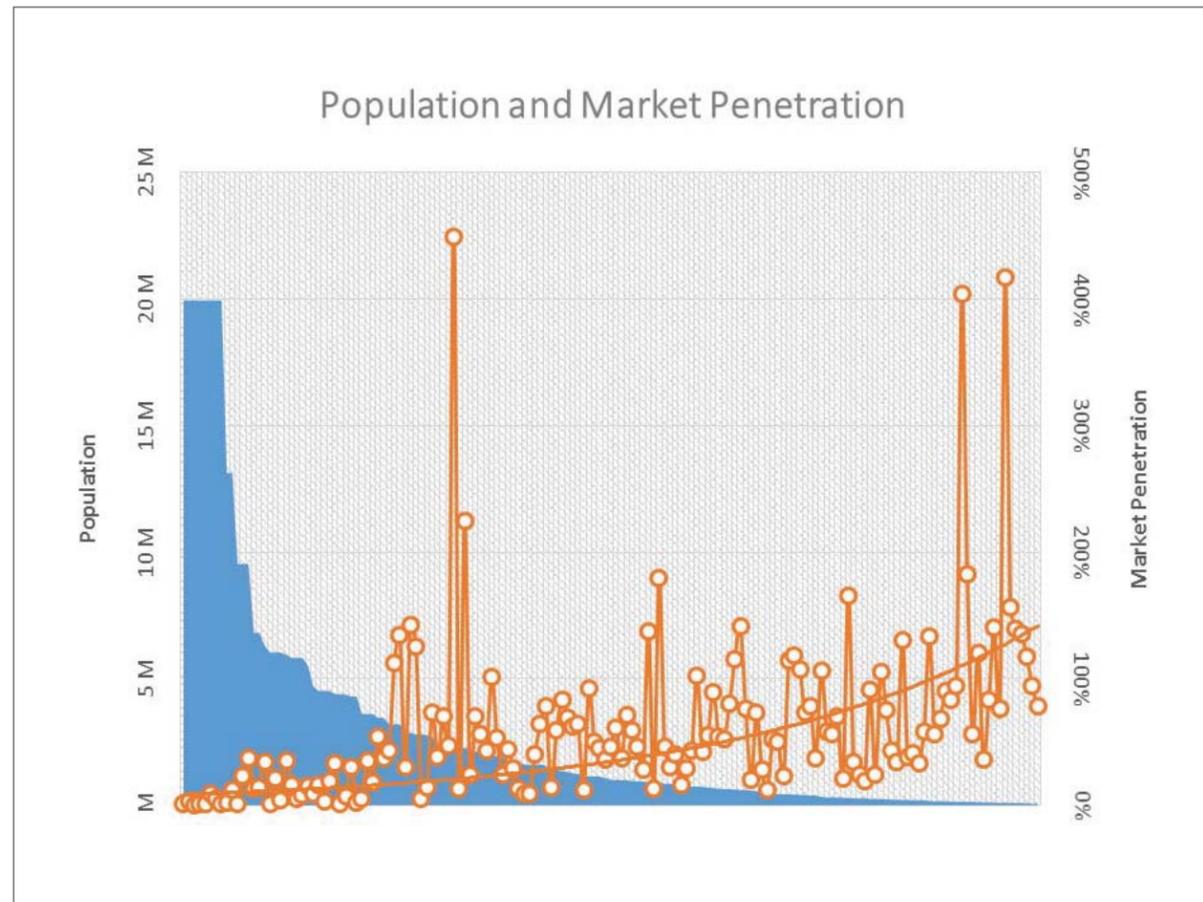
Attendance Projections Support

As attendance growth is the cornerstone of our projections, we relied on the following key findings in support of our assessment:

Seneca Park Zoo is largely under-attended

Market penetration is the key indicator of attendance health, and Seneca Park Zoo is currently below industry trends. According to data submitted to the 2015 AZA annual survey, the average market penetration of all zoos in the United States was 58.5%.

Of course there is a large range of values represented in that average. Based on Zoo Advisors’ research and analysis, the single metric most strongly associated with market penetration is market size.



As we observe in the chart to the left, there is an inverse relationship between market size (population) and market penetration. As population decreases, market penetration increases. “Data for this analysis obtained from 2015 AZA Member Survey, as well as the US Census Bureau and the American Community Survey.”

Based on a trend analysis of the Rochester MSA’s population against the entire industry, Seneca Park Zoo’s expected 2014 market penetration was 66.4%—its actual penetration was 32%.

With market size established as a key metric for market penetration, let’s take a closer look at a range of zoos in markets with similar sizes to the Rochester MSA. The Rochester MSA currently has a population of about 1.1 million. For the sake of context, we have also included metrics for smaller and larger MSAs.

Here we see that among US zoos in MSAs between 1 and 1.25 million, the average market penetration in 2014 was 55%.

Since 2000, Seneca Park Zoo’s average market penetration has been approximately 34%. This number was buoyed by a 40% showing in 2012 when Africa opened, but attendance regressed in subsequent years.

It would be easy to write off the Zoo’s attendance numbers by saying “that’s just Rochester”, but when Rocky Coasts opened in 1997, visitors turned out in droves. Seneca Park Zoo saw a penetration metric of 53%. The reality is that every market is different, but in at least one very important way, every market is the same: if you build it, they will come.

Capital Investment Generates Sustained Attendance

While reliable capital investment data on a per-zoo basis is not available, we know that it is key to long-term attendance growth. Our projections indicate that the Zoo will reach the 1997 equivalent market penetration during the 2020-21 period, shortly after the opening of the Tropics building. We are confident in this projection based on the Rocky Coasts precedent and the “blockbuster quality” (nearly \$30 million) of Tropics habitat as proposed.

At this point on the timeline, there is still a major exhibit premier remaining in the master plan—Cold Asia, another blockbuster at nearly \$13 million.

This proposal is further strengthened by the smaller improvements between major openings that will maintain visitor interest. These improvements include revenue, mission, and excitement drivers like the train, education building, ropes course, amphitheater, boardwalk, overhead trails, and carousel. This master plan is designed to carry momentum—something new will be waiting for guests nearly every year between 2019 and 2026.

Assumed Admissions Pricing

Year	Adult Peak	Youth Peak	Senior Peak	Year	Adult Peak	Youth Peak	Senior Peak
2014	\$11.00	\$8.00	\$10.00	2021	\$16.00	\$13.00	\$15.00
2015	\$12.00	\$9.00	\$11.00	2022	\$17.00	\$14.00	\$16.00
2016	\$13.00	\$10.00	\$12.00	2023	\$18.00	\$15.00	\$17.00
2017	\$13.00	\$10.00	\$12.00	2024	\$18.00	\$15.00	\$17.00
2018	\$14.00	\$11.00	\$13.00	2025	\$19.00	\$16.00	\$18.00
2019	\$14.00	\$11.00	\$13.00	2026	\$19.00	\$16.00	\$18.00
2020	\$16.00	\$13.00	\$15.00				

Revenue Assumptions for New Paid Guest Experiences

	Utilization	Net Per Participant
Train	13 – 18%	\$1.50 - \$2.00
Giraffe Feed	10 – 15%	\$2.00 - \$2.50
Ropes/Adventure Course	3 - 4.5%	\$15.00
Carousel	16%	\$2.00

Position	Quantity
Administrative Assistant	1
Building Service Worker	3
Clerk	1
Commissary	2
Development Manager	1
Education Coordinator	3
Finance Coordinator	1
Horticulture Aid	1
Maintenance Mechanic	1
Membership/Marketing Coordinator	1
Security	4.5
Superintendent of Facilities	1
Visitor Services Director	1
Zoo Keeper	6.5

Revenue Projections Detail

While the proposed plan calls for a wide diversification of revenue sources, Seneca Park Zoo’s financial outlook will remain heavily dependent on its attendance revenue. To that end, we propose the following schedule of admission increases:

This schedule (above) deviates slightly from the historical “\$1 increase every 2 years,” with a slight acceleration of increases timed with major improvements. The largest jump is in 2020, when we propose an increase from \$14 to \$16. This increase would be concurrent with the tropics/entrance premiers, which offer the most “wow,” and should go a long way towards offsetting pushback.

Revenue assumptions for new paid guest experiences are based on AZA averages, as shown on the table to the right.

Paid experience revenue is dynamic and is projected based on an initially higher participation that levels off in subsequent years, along with small increases in the net to account for price changes and inflation.

Secondary new revenue projections include incremental catering increases beginning in 2020 with the opening of the Tropics building, jumps in gift/concession per caps based on new facilities, as well as steady growth in existing revenue sources associated with attendance growth.

Expense Projections Detail

The substantial growth of the Zoo under the proposed project plan will be accompanied by a substantial increase in expenses. The largest incremental expense categories will be the operations and maintenance costs associated with the new facilities, as well as new staffing.

Staffing

By the end of the projection period in 2026, we assess that 28 new FTE staff members will be required:

Incremental FTE staffing expenses will begin at approximately \$480,000 in 2018, and grow to \$1.3 million by 2026. We have also budgeted for part time and support staff increases, beginning at approximately \$171,000 in 2018, and increasing to \$468,000 by 2026.

The total new staffing cost obligations will start at approximately \$460,000 and rise to \$1.723 million.

Operations & Maintenance

Incremental operations and maintenance costs will grow from approximately \$125,000 in 2018 to nearly \$1 million in 2026. This is calculated based on a benchmark of \$7.50 per square foot per year for new facilities (approximately 104,000 square feet of new indoor space), and also includes an annual 3.5% increase in base cost.

Other Expenses

While staffing and operations/maintenance account for the bulk of incremental expenses, there will also be increases in other areas:

- Animal care & supplies: \$50,000 in 2018, increasing to nearly \$100,000 in 2026
- Gift/Concessions cost of goods: Based on a 34.19% COGS rate, \$113,000 in 2018, increasing to over \$600,000 in 2026
- Marketing: Incremental marketing costs are projected at \$150,00 in 2018, rising to \$430,000
- Insurance: Incremental insurance costs are projected at \$10,000 in 2018, rising to \$24,000

Net Revenue Projections

Based on the assumptions in this report, we assess that on an operating basis, Seneca Park Zoo could reach financial break-even in 2026 if the proposed plan is implemented. Support from the Monroe County will remain an integral part of the Zoo’s on-going success. Projections and the business model should be reevaluated as the Master Plan Update is realized, including a thorough assessment following the completion of Phase 1.

If the project is not adopted, baseline net revenue will continue to drop as expenses grow and market penetration diminishes.

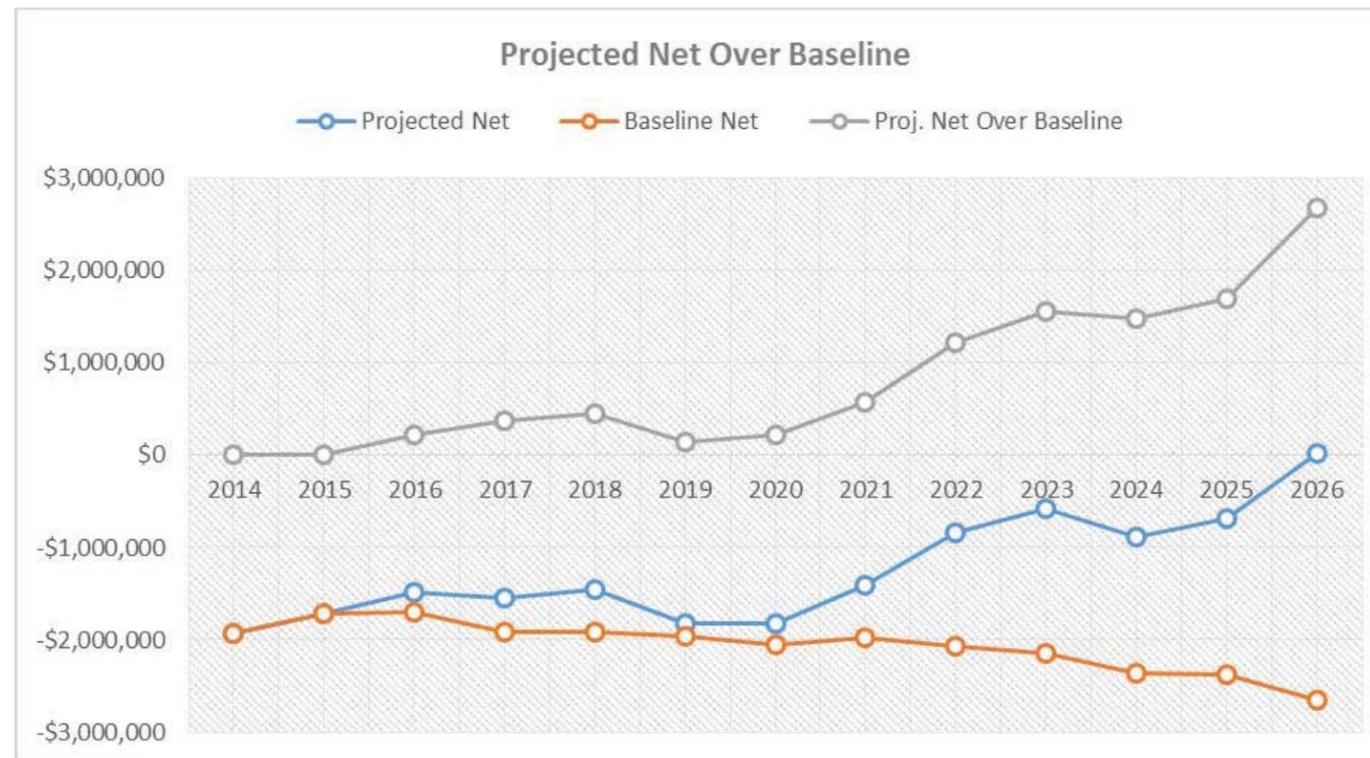
County-Society Operating Agreement

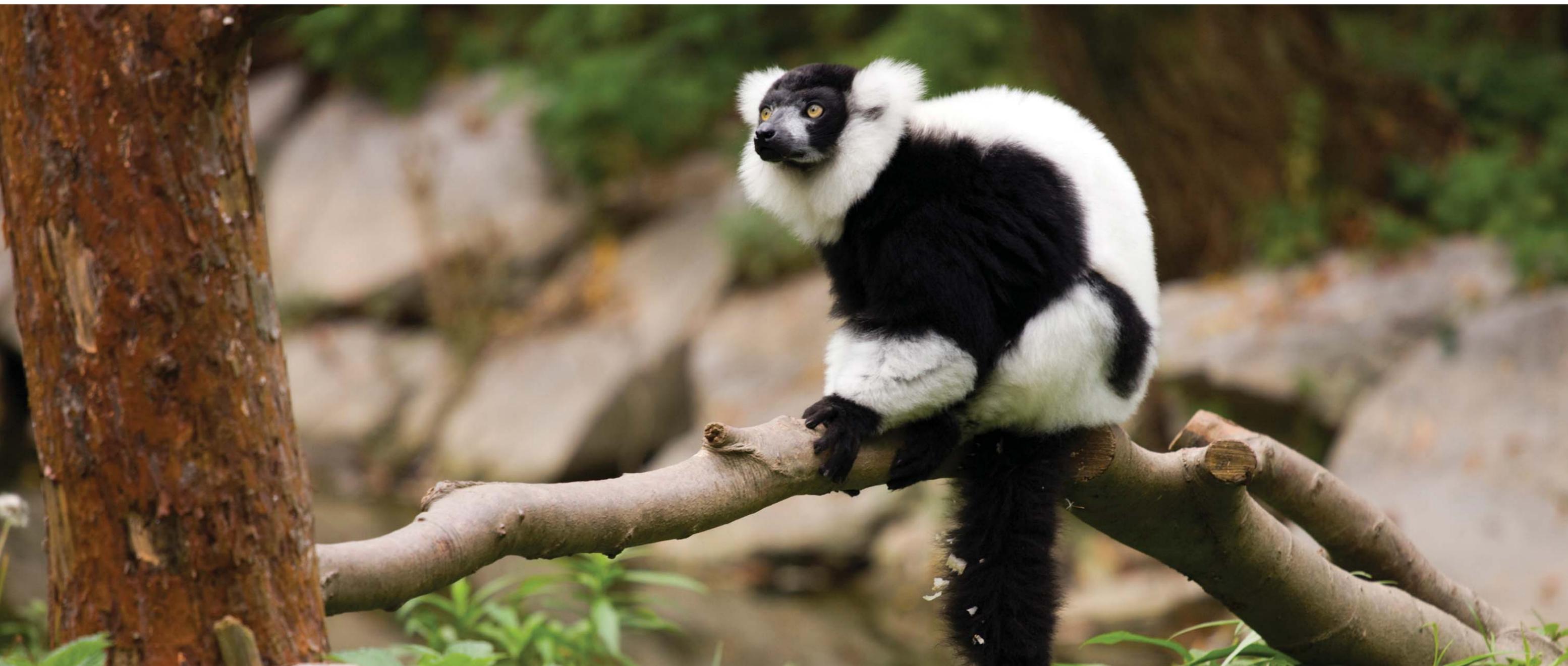
The current operating agreement between the Seneca Park Zoological Society and Monroe County will remain in effect through the end of 2016. At the end of the term, the parties will negotiate a new agreement which will define roles and responsibilities, as well as cost obligations and revenue sharing going forward.

Conclusion

It is projected that with the implementation of the recommendations in this Master Plan Update, an increased percentage of the total operating income will be from earned revenue than occurs today (not including any new debt service). The need for an ongoing operating subsidy from Monroe County is likely to be diminished.

From both mission and margin standpoints, the proposed plan offers a bright future for Seneca Park Zoo and the greater Rochester community. The investment not only ensures the Zoo is operationally sustainable, but will elevate it into the upper echelon of zoos nationwide.





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