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Introduction
Built upon Utica Zoo’s mission, this master plan reorganizes and focuses Utica Zoo on conserving and teaching about the wildlife & habitats from a diverse range of forest and grasslands from across the globe including, the incredible landscape of the Mohawk Valley.

This plan capitalizes on the zoo’s forested site in Roscoe Conkling Park, its views North to downtown Utica, and an expanded diverse animal collection to create habitats that will immerse visitors as guests into the natural environments of the animals who reside at the Utica Zoo. This new plan will build upon the zoo’s conservation mission and the zoo’s educational mission to teach visitors about the wildlife, habitat, and conservation issues relevant to the world’s rainforests, Asia, Africa, and the Adirondacks.

The master plan will be implemented through collaboration between the City of Utica and the Utica Zoo. Funding will be pursued through both public and private sources. For cost and operational efficiency, existing buildings, exhibits and infrastructure will be reused wherever appropriate.

Methodology
The Utica Zoo Master Plan was prepared in 2016 through collaboration between members of the City of Utica and the Utica Zoo board and staff. The planning process was facilitated by elm environments Planners, Architects & Landscape Architects. The planning process began with an assessment and inventory of the zoo’s existing conditions coupled with discussion of the zoo’s mission, conservation purpose, intended visitor experience and educational programs. The project made use of previous surveys and visioning sessions conducted by the Zoo staff, and referenced past planning reports, utility studies and storm water reports which are identified in the Appendix of this document. This information inspired brainstorming and creative evaluation of ideas to reach an implementable master plan, and a guiding organizational theme.

Implementation of the plan is outlined in a series of phases that extends the life of the master plan well beyond the 10-year focus this master plan entails. This master plan has been developed by a discovery and programming process. During a series of interviews and two site observation trips, the Zoo’s challenges and opportunities were shared, cataloged and reviewed to determine the significance of each and what solutions may be taken to minimize the challenges and capitalize on the opportunities.

This document identifies opportunities and concepts for improving, adding or expanding facilities and operations to meet the needs, goals and mission of the Utica Zoo, and develop from a local family attraction into a larger regional community destination. Primary factors in decision making were: animal health and welfare, risk management, economic impact and overall guest experience. The program and organizational theme were tested in draft concept plans and reviewed by the Utica Zoo staff.

The master plan focus included but, is not limited to:
• Providing a cohesive circulation pattern that emphasizes the different zoo-geographic areas of the Zoo.
• Creating unique guest experiences.
• Strategically locating guest services and improved visitor circulation.
• Providing opportunities to incorporate storylines and cultural themes to strengthen educational and conservation messages. Insuring ADA compliance.
• Considering revenue generating opportunities. Addressing needed facility improvements.
• Providing adequate space and services for the present and future animal collection.

To help zoological institutions better plan for and support master plan implementations and capital construction projects, a custom tool called “Return on Exhibit” (ROE) was integrated into this master planning process that allows zoos to project the potential impacts on capital construction budgets. ROE was used to rank the impact of both renovated and new exhibits based on a number of factors including, species type, construction complexity & cost, staffing burden, and reproduction frequency.

The initial phases of the plan are intended to be implemented over the next 10 years with additional improvements identified to span beyond that time frame. The animal collection plan identified within each zoogeographic area is tentative in nature and may change when final exhibit design and or fundraising goals are completed. The collection plan is compiled here to provide a framework for program development, fundraising, public relations, and exhibit design. Factors affecting the ultimate collection include species availability, AZA Species Survival Plan (SSP) Programs needs and requirements, and creating a differentiation among other zoological institutions in the region.
Vision & History

Mission
The Utica Zoo creates unique experiences and promotes public appreciation of wildlife through education, conservation and recreation.

Vision
The Utica Zoo will be a premier destination for visitor experience while providing excellence in animal care.

History of the Utica Zoo & Utica Zoological Society
The Utica Zoo has served the region for over 100 years. Located in Roscoe-Conkling Park, the zoo is part of a recreational complex made possible by the donation of land from Thomas R. Proctor in 1909. He had a dream that a park could do as much for South Utica as Central Park was doing for New York City. He hired a famous landscape architect, Frederick Law Olmstead, who had designed Central Park, to plan the roads and scenic walkways in Roscoe Conkling Park. The Zoo has grown from its small beginnings with three fallow deer in 1914, to its present collection of 99 species of animals. Of the 80 acres of land set aside for the zoo’s use, 40 are presently developed. The Zoo property is owned by the City of Utica, and until 1964, was operated by the Parks Department. In order to ensure the Utica Zoo’s continued existence, the Utica Zoological Society assumed full management of the Zoo in 1964. The first professional zoo director was hired in 1966. One year later, Marlin Perkins officiated at the opening of the Children’s Zoo. The society was chartered as an educational institution by the New York State Educational Department in 1968. In 1973, the education department was established with the appointment of a curator to carry out its programs.

The first building, completed in 1920, is currently named the Wildlife Building and houses the administrative offices, auditorium, reptile exhibits and the zoo’s kitchen. In 1981, the Animal Care Center was added to the Wildlife Building for the quarantine and veterinary facilities. The first building made exclusively for animal use was completed in 1927 and still houses the primate collection. Other major exhibits include the Lion exhibit and the California sea lion exhibit (finished in 1986).

Funding
The Utica Zoo receives annual support from Oneida County and an annual operating grant from the Natural Heritage Trust (a state agency). The remainder of the budget is raised by the Society. Admissions fees, society membership, special events such as Wine in the Wilderness, Brewfest & Spooktacular, the gift shop, the Adopt an Animal and Encounter program, animal feed sales, stroller rentals, pavilion rentals and donations complete the operating budget income. Major capital improvements are funded through specific fund drives, major grants and other contributions and sponsorships.

New partnerships are constantly being formed for initiatives that include cross marketing, provide employee/employer volunteer opportunities, funding sources and bartering of amenities. New and current partnerships include: MV Edge (Economic Development group) and the anxiously awaited Nano Center.

The City Council and Mayor’s office often seek ways to partner with us along with looking for funding opportunities for the Zoo. The NYS Senate and Assembly office in our jurisdiction also seek opportunities for Utica Zoo.

Visitation
The Utica Zoo averages approximately 65,000 visitors per year and has experienced a steady increase over the last seven years. Visitors come from all over New York State however, the heaviest concentration comes from the greater Mohawk Valley region. With a population of over 62,000 in Utica and over 622,000 in the Mohawk Valley, there is a great user base for the Zoo.

Nearly one-quarter of Utica’s population is made up of refugee families. A large concentration of immigrants include Vietnamese, Bosnians and Burmese.

The busiest time of the year are the summer months (June, July, and August). Once the school year starts, monthly attendance rapidly drops off with January being the least visited month.
Regional Demographic Analysis

- Darker blocks represent Census Blocks with higher population density
- Colored dots show where the population is projected to grow at a normal rate (blue), grow at a very high rate (green), or shrink (magenta).
Overview
Utica Zoo is located in Roscoe Conkling Park, a 625-acre park first envisioned by T.R. Proctor for the City of Utica and part of a parkway system designed between 1908 and 1914 by the famed Olmsted Brothers Landscape Associates, headed by Frederick Law Olmsted, Jr. Roscoe Conkling Park is part of the Utica Parks & Parkway Historic District and is listed on the National Register of Historic Places. Within its borders are several Utica attractions, including the Parkway Recreation Center, Val Bialas Ski and Sled Center, the Eagle Monument and Picnic Area, Valley View Golf Course (designed by Robert Trent Jones) and the South Woods and Switchbacks. The Zoo is located up the hill from the intersection of Steele Hill Rd and Memorial Parkway along the Southern edge of the city limits.

Currently, 40 acres of the Utica Zoo is developed out of a total of approximately 80 acres and home to a surprising variety of species considering its modest size. The Eastern, Southern and Western edges of the Zoo are primarily undeveloped as passive park/forestland. The Northern edge is bordered by forestland sloping (severely in places) to Memorial Parkway.

The current footprint of the Zoo is limited only by slope & accessibility issues (see Pedestrian Circulation). With over 40 additional adjacent acres for development, there is plenty of room for growth. It should be noted that great care should be taken to develop additional areas due to the magnificent forests and open spaces available. The Zoo has great “bones” and potential to become a magnificent facility.

Climate
Utica has a continental climate with four distinct seasons and is in the humid continental climate zone, characterized by cold winters and temperate summers. Summer daytime temperatures range from 70–82 °F, with an average winter daytime temperature below (27 °F). The city is in USDA plant hardiness zone 5a, and native vegetation can tolerate temperatures from -10 °F to -20 °F.

Winters are cold and snowy; Utica receives lake-effect snow from Lake Erie and Lake Ontario. Utica is colder on average than other Great Lakes cities because of its location in a valley and susceptibility to north winds; temperatures in the single digits or below zero Fahrenheit are not uncommon on winter nights. Annual precipitation (based on a 30-year average from 1981–2010) is 42.1 inches, falling on an average of 171 days.

Access
Access to the Zoo is currently accessed via One Utica Way for both visitors, staff and support services, including deliveries. One Utica Way is a steep narrow two lane road however, it was recently repaved and widened. Potential support access is possible off of Master Garden Rd through the Park however, this access is only available seasonally. Due to steep slopes, deteriorating pavement, and lack of snow removal during the winter, Master Garden Road is closed during the winter.

Parking
The Zoo is currently served by a terraced parking field. The lower (primary) parking area “Lot A”, is essentially an extension of One Utica Zoo Way and has a total of approximately 75 parking spaces. There is a secondary unpaved parking area (“Lot B”) located upslope, of the lower lot that supports parking for approximately 175 additional vehicles.

The unpaved upper lot is a mix of gravel with exposed soil, has no markings and, is not ADA accessible. Both lots will fill to capacity during large event days, requiring people to park in the adjacent neighborhood and walk up One Utica Zoo Way which, has no paved sidewalk.

Additional parking is necessary. In addition, One Utica Zoo Way separates the Zoo from the parking lots, creating a conflict forcing people to cross the road to get to the zoo entrance. There is also a lack of dedicated bus parking available. Currently, buses drop off groups, then park in the parking lots or sequester off-site until pick-up. Service support vehicles, e.g. Hay/Animal Feed deliveries, also use One Utica

Site Analysis
Zoo Way and contribute to visitor & vehicular conflicts.

**Zoo Entrance**
Upon approach from the parking, the entry is not clearly marked nor, is there any great sense of arrival as you enter the Zoo. The main entry building & gift shop is the current “face” of the Zoo and, upon first impression, looks to be an unmarked back door (actually an exit door from the gift shop).

The single ticket window is located on the side of the building adjacent to the pathway and is hidden from view minus a side sign hanging off the building. Until recently, the single ticket window was adequate. However, expanding to a second window would improve the guest flow during busy times or providing a separate secondary entry portal elsewhere on campus.

**Pedestrian Circulation**
Upon entering the Zoo and purchasing a ticket, a pathway pulls you into the heart of the zoo. However, there are no exhibits or animals within view upon zoo entry. Upon arriving, visitors feel like they are entering an old passive park facility, rather than the conservation education hub that all zoo’s should strive to be.

There is no clearly defined route that takes guests to all exhibits in a logical and scripted experience. There are several areas of “spaghetti junctions” where multiple pathways options are presented to the visitor creating confusion to which direction the visitor should go. The lack of a primary visitor circulation route causes significant back-tracking required to visit all animal habitats which ultimately leads to visitor fatigue.

There are a considerable number of inaccessible pathways within the zoo. Non-ADA compliant routes create risk management issues increasing the potential for trips, falls and, runaway strollers. Steep slopes also contribute to visitor fatigue, force multi-generational family outings to split up during their Zoo visit and, creates a less-than-desired visitor experience.

Most pathways are paved with blacktop. Tree roots and cyclical freeze/thaw events have split the blacktop creating trip hazards and uneven paving.

**Architecture**
Existing architecture is a mix of old stone & stucco structures that match the development periods of their origin. Many of the existing structures are from the Works Progress Administration (WPA) era, and though they are not original to the park’s Olmsted design, they are no less significant. Recent structures are CMU-block and wood-framed structures and do not contribute to a unified architectural feel with the Zoo. Many of these structures, while tended to diligently by zoo staff, have maintenance issues that require more than cosmetic fixes. Some of the structural systems are not appropriate for the species. The last USDA inspection from 2009 noted that “Housing Facilities for nonhuman primates must be designed and constructed so that they are structurally sound for the species of nonhuman primates housed in them.”

**Vegetation**
The majority of the zoo campus is forested with ironwood, basswood, viburnum, and other early trees and shrubs. The understory of North Trek & African Alley has a fantastic mix of deciduous trees and understory plantings that create excellent opportunities for use as native species exhibits or to use as backdrops to control the visual composition at viewpoints.

**Organization**
There are currently four primary “zones” at Utica Zoo: Children’s Zoo, Asian Realm, African Alley, and North Trek. Other areas include Wildlife Hall and the Primate Building. However, they look to be in a similar zone due to their similar architecture.

The Children’s Zoo is a dead-end area of the zoo that contains a variety of species, e.g. Chickens & Pigs, Wallaby, Donkey, Beaver, Goats & Sheep, Alpacas, and Zebu exhibited in a variety of habitats ranging from mews, fenced paddocks, to bare dirt exhibits surrounded by blacktop.

The Sea Lion pool is the major habitat in the Children’s Zoo which offers shows and feeding demonstrations. The pool is small, old, offers only above-grade viewing and, the life support systems are in need of a complete

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*Utica Zoo Master Plan 2016*
replacement.

The primary structure in the Children’s Zoo is a large barn that provides housing for many of the education program animals. The rest of the structures in the Children’s Zoo are a mix of small wood-framed holding shelters, structures, and a deteriorating 70’s-era covered structure known as the "Ship".

In between the Children’s Zone and the Asian Realm is a picnic shelter, the Zoo’s lone 60’s era food service structure (“The Voss”), and a small garden & water feature with a large, yet eye-catching, watering can fountain.

The Asian Realm is located at the Northwest corner of the Zoo and features exhibits for Chinese Alligator, Bactrian Camel, Reeve’s Muntjac, Urial, Blackbuck and, a large Aviary. This area of the Zoo begins to experience severe topography issues as the site slopes steeply to the north. Elevated wood boardwalks are required to access the far northeast corner of the zoo that also creates great views of downtown Utica from the zoo. However, the boardwalk creates unfavorable viewing situations with visitors looking down into a few exhibits. It is always optimal to have the animal in a superior position relative to the viewer.

North Trek is located upslope of the core area of the Zoo and forms the Southern boundary of the Zoo. This area is the largest yet, least populated areas of the Zoo. Access to North Trek is along a shared service road & visitor trail that is steep in some places and unpaved. Several sections of the trail do not meet USFS trail standards nor are ADA compliant. Utilities are sparse at best with several wood-frame holding structures for Snowy Owl and Wolf that lack even basic infrastructure.

North Trek has tremendous potential. Currently, the species exhibited include Mexican Wolves, Snowy Owl, Arctic Fox and, Canada Lynx. These exhibits are scattered along the upper reaches of the trail which, due to its rough terrain, limits access to visitors with mobility issues. Relocating the visitor path down slope will alleviate the accessibility issues and create better views upslope through a series of new mixed-species habitats. The existing trail can be reused as a staff-only access road to service new holding buildings. This road can also serve as new infrastructure corridor to bring needed utilities to these holding buildings without the need to take out many existing trees. This area would also serve to have new, larger hospital facilities and large animal quarantine separated from the public. There is also potential for additional zoo supply storage (hay and feed).

The African Alley realm is currently located north of the Utica Zoo Way extension that cuts through the Zoo, is heavily forested with steep slopes. Utica Zoo Way is used both as a visitor pathway and service road. It has a long constant slope that connects the end of the North Trek Trail to the core area of the Zoo. Species exhibited in African Alley include Zebra, Ostrich, Serval, Ring-tailed Lemurs and, Striped Hyena.

North Trek also has the most potential. Currently the species being exhibited include Mexican Wolves, Snowy Owl, Arctic Fox and, Canada Lynx. These exhibits are scattered along the upper reaches of the trail which, due to its rough terrain, limits access to visitors with mobility issues. Relocating the visitor path down slope will alleviate the accessibility issues and create better views upslope through a series of new mixed-species habitats. The existing trail can be reused as a staff-only access road to service new holding buildings. This road can also serve as new infrastructure corridor to bring needed utilities to these holding buildings without the need to take out many existing trees. This area would also serve to have new, larger hospital facilities and large animal quarantine separated from the public. There is also potential for additional zoo supply storage (hay and feed).

Given the variability & occasional severity of Utica’s seasons especially winter (especially Climate section)), many of the species of the Zoo have to be contained indoors for extended
Site Analysis

Existing Conditions
AUGUST 2016
Site Analysis

periods of time. Many of the exhibits do not support off-season viewing which creates impressions that nothing is going on at the zoo for hardy winter visitors.

Several exhibits are not viable for more than a few more years for varying reasons including structural concerns, AZA accreditation issues, or USDA requirements. These exhibits include Sea Lion, the Aviary, Camel Holding, and the Primate Building. Enhanced guest experience can be supported by getting the visitor closer to the animals, improving visual access into the habitats and, creating more naturalistic habitats.

The current organization of the Zoo creates a disjointed curated experience for guests. Similar species, e.g. primates, tend to be grouped together taxonomically, and most reptiles are on the lower floor of the Wildlife Hall.

Visitor Experience & Services
Visitors have many opportunities to interact with zoo staff as they walk around the zoo. They meet staff on pathways, ask questions, watch them take care of the animals, and hear stories about the animals.

Food service consists of Voss’, which is an outside company that leases the concession stand and is under contract with the zoo. Voss’ serves all-American fare, including hamburgers, hot dogs, fries, and their famous BBQ, as well as homemade ice cream. The concession stand is centrally located in the zoo, next to a covered pavilion and nearby the restrooms.

Retail services are available at the entry gift shop. The gift shop stocks Utica Zoo logo-ed merchandise such as mugs, magnets, t-shirts, sweatshirts, hats, stickers, and plush animals representing the animals found at the zoo. Animal & zoo-themed toys, games, and boxed sets are also available for purchase. In 2014, the gift shop grossed $112,893.25 in sales. Feed machines for goats, sheep, ducks, alpaca, and chickens, plus, a small wishing well and coin-operated optical viewers round out other revenue generating options.

Wayfinding
Located at the entrance at Utica Zoo Way & Memorial Parkway is a large Utica Zoo sign with brick pillars and a metal archway. At the entry/gift shop building, there is a Utica Zoo sign as well as informational signage with hours, rates, and possibly, times for animal feedings. Overall, the zoo lacks a comprehensive wayfinding strategy and consistent educational signage. Once guests enter the zoo, they rely on a printed map to find their way and learn about the animals & their habitats, from zoo staff interactions.

Programs
Throughout the year the Zoo hosts many social events and fundraisers: Eggstravaganza, Wine in the Wilderness, Brewfest, and Spooktacular. Staff also provide daily talks and shows for visitors, including sea lion feedings and keeper talks, a camel feeding, a lion feeding whenever possible, as well as education animal presentation daily throughout the summer.

The Zoo education programs include: monthly home-school and preschool classes, special school break camps and classes as well as week-long zoo camps during summer break. During the off season, the Zoo offers Saturday morning drop in programs revaling around seasonal topics. The discovery cottage in the Children’s Zone has bio-fact displays and activities set up. Docents are often set up in that area with an animal or two for people to interact with. Guided tours and animal presentations may be scheduled for an additional fee. The North Trek Trail has an interactive animal fitness trail with a series of fitness challenges for families to participate in, i.e. High Jump, Log Balance, Wobble Board. Animal shows are offered by education staff and interns daily during the high season.
Opportunities & Constraints

Potential to expand into adjacent ski run. Take advantage of open grasslands from old ski runs for new habitats.

Need a Big reason to venture this far up the hill.

Provide comfort/rest stations along pathways.

With a new visitor pathway, the internal roads can serve as a dedicated service spine throughout the campus.

Turn existing North Trek Trail into a service & utility corridor.

Need ADA compliant pathways, holding building too small. Need ADA compliant pathway through North Trek.

Excellent opportunity to set visitors low on the slope and looking up through new habitats.

Parking area needs to align with existing topography. Potential to expand parking capacity.

Can use slope to add a hill-side eagle to develop under-skyler viewing for sea lions.

Can use elevated boardwalk system to traverse existing non-ADA compliant paths.

Existing Eagle Aviary can either be reused or climber species put into a new vertical structure.

Central courtyard area can be a focal point instead of hiking ADA issues.

Great opportunity to create special events area with incredible views to downtown Utica.

Easy opportunity to reuse outdoor storage area in new exhibit.

Potential to expand into adjacent ski run.

Great opportunity to use elevated boardwalks over the ravines to create excellent canopy walks & vertical habitats.

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Topography works here to create small employee parking area. Would relieve some pressure from main parking area.

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Hard to expand onto steep slope. Very difficult to cut in a road to service potential habitats in this area. Still, this is potential long-term expansion area.

Need a new habitat for the existing Lion. Holding building too small.

Need ADA compliant pathway between North Trek.

Central courtyard area can be a focal point instead of hiking ADA issues.

A new two story structure here would create a new group entry/wharf as well as a drop-off area.

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Introduction
The master plan seeks to organize the Zoo into discrete bioclimatic regions focused on the world’s forests and grasslands. The attached plan represents a new direction organized into the following areas:

- Entry and Parking
- The Core Zoo
- Habitats & Havens
- Asian Realm
- North Trek
- Africa Alley
- Living Rainforest

The major species and experiences found in each of these areas are highlighted with brief descriptions of their proposed habitats, how these proposed changes will benefit the animals, improve the guest experience and, help Utica Zoo better fulfill its mission.

Master Plan Goals
There are several key goals that the master plan achieves:

1. Provides a cohesive circulation pattern that emphasizes the different zoo-geographic areas of the Zoo.
2. Creates unique guest experiences.
3. Strategically locating guest services
4. Provides more opportunities to incorporate storylines and cultural themes to strengthen educational messages.
5. Creates more revenue generating opportunities. Addresses needed facility improvements & AZA accreditation issues.
6. Provides adequate space and services for the present and future animal collection.
7. Better organizes species from similar zoo-geographic zones.
8. Group species that can be exhibited together into larger mixed-species habitats with shared holding structures.
9. Each of the primary zones has a carnivore, reptile, birds, and a water feature.
10. Minimize service and visitor conflicts through a dedicated service road through the zoo.

Entry & Parking
The new access & parking lot area will dramatically improve the arrival sequence, frame both the Entry/Gift Shop and a future Interpretive Center. There is a dedicated bus drop-off area adjacent to the new Conservation Discovery Building that can serve as a secondary entrance or for groups. There will be a large arrival court with a new zoo sign at the drop-off roundabout that will present the new Entry Gift Shop Building and make it clear where visitors should go to purchase tickets. The space in between the Interpretive Center and the Zoo Entry/Gift Shop will have several one way turnstiles to prevent entrance/exit bottlenecks.

Aligning the parking lot with the existing topography will allow a larger parking area that is more organized and ADA-compliant. The parking lot would terrace from south to north, be paved with pervious pavement, have underground detention tanks, and bioswales in-between the terraces to filter water prior to entering the nearby stormwater detention basin. Following a green stormwater infrastructure approach will minimize the size of the detention area required by the city, while supporting the zoo’s mission. A separate employee parking lot will be located northeast of the new Conservation Discovery Building with about 24 employee parking spaces and a bike barn.

The Core Zoo
The Core Zoo is the administrative heart of the Zoo. While it needs some renovations, it is generally in good shape, it will continue to serve administration, staff meeting space, maintenance office & storage, hospital, and quarantine through the horizon of this master plan. This space is not large enough for a hospital facility to manage our proposed zoo expansion and additional space for veterinary care and probably food storage will be needed. The current maintenance offices and storage building could be re-purposed as additional quarantine space or animal holding.

To the east of this structure is a large open space called “Conservation Courtyard”. This area would be populated with tables & chairs, temporary mobile exhibits, live animal demonstrations and, then cleared to support large tents for special events. Access from the dedicated service road will support catering trucks and other mobile food stands as needed.
Habitats & Havens
Habitat & Havens replaces the current Children’s Zoo but, aside from the shown improvements, utilizes much of what is already there. The intended improvements add key habitats and exhibits that better support the zoo’s conservation education programs and provides a safe fun environment to learn through play. With one key access point in-and-out of the area near the picnic pavilion, security will be improved while giving children the freedom to discover on their own. The goal is to let kids explore this area on their own or with zoo staff. All the species exhibit behavior that promote mimic play and other cognitively-engaging activities for a wide range of age groups.

The Picnic Pavilion and Nature Play Area will be located at the entrance so parents can get lunch, sit down, and comfortably watch their kids play.

The new Conservation Discovery Center is a two-story structure with classrooms, office, interior exhibits, program animal holding space, restrooms, storage, an elevator, and regional conservation exhibits. The Center will also serve as a secondary entry for school groups and other organized tour groups.

Next to the Conservation Discovery Center is a new staff parking area and dedicated staff/service entrance. Off the end of the parking area is a new service road to support garbage pickup, deliveries to the Voss food service building, and service needs of the holding buildings along the north side of the zoo. This road could potentially extend to the Asian Temple for service and deliveries.
Asian Realm
The new Asian Realm will be anchored by a multi-story Asian-themed temple building in the northwest corner of the zoo. The Asian Temple will have multiple levels, be connected by both an elevator and stairs, and serve as both exhibit space and a comfort station. The top level is an overlook deck for special events with fantastic views of downtown Utica. Levels 2 & 3 will have an exhibit that can extend from the 2nd to 3rd levels, housing animals that can take advantage of the vertical space. The lower level will have a Chinese alligator exhibit.

The new exhibits in Asian Realm are planned for multi-species, with multiple views and, a stronger visitor experience. The current pond/boardwalk will be turned into a walk-through aviary and the pens below the boardwalk will be turned into forested wallows for specific species such as the Warty Pig and Binturong. Mongolian camel will have a much larger habitat (and a new holding building) that can be easily separated into two different nodes.

The current eagle aviary will be completely rebuilt as a tall forest habitat for Orangutan, Siamang with Malaysian Tapir, birds and other small hoofstock on the ground floor. A new switchback elevated boardwalk will take visitors from the bottom of the habitat up to the canopy, while providing a ADA-compliant route up to where the current Lion habitat is.

Tigers will move into the current Lion habitat with new larger holding facilities and an off-view holding area. The existing vulture habitat will be re-purposed for Snow Leopards.
Utica Zoo Master Plan 2016

1. Special Events Area on Top Floor
2. Realm Portal with Displays, Seating, and Way-finding
3. Special Events Area
4. Views to Downtown Utica
5. Bypass
6. Conservation Courtyard
7. Admin (Office, Meeting, Hospital, Quarantine)
8. Service Road
9. Emu, Wallaby, Koalaburra
10. Aviary
11. Eagle Owl
12. Red Panda, Muntjac
13. Warty Pig, Pere David Deer
14. Orangutan, Tapir, Siamang
15. Tiger, Snow Leopard
16. Camels
17. Urial
18. Visitors Pathway Across Service Road
19. Visitors Pathway to North Trek

Key:
- Main View Point
- Visitor Pathway
- Restroom
- Comfort Station
- Holding Building
North Trek

North Trek is one of the most exciting areas of the zoo. The existing dense forest can easily and economically be populated with exhibits upslope with a new visitor trail downslope from the current trail. Putting the visitor below the animals, looking up slope will create more compelling views of the exhibits while fixing ADA accessibility issues through North Trek, and take advantage of the excellent forested areas of the zoo. The current exercise stations would also be moved along the new trail. The existing North Trek Trail would become a dedicated service access road with only one small shared portion near the new Adirondack Lodge building.

Larger multi-species exhibits with individual smaller exhibits inserted strategically along the pathway, takes better advantage of the existing topography. About halfway along the trail, a covered comfort station will provide some warmth to visitors on the colder days. The station will house smaller jewel-box exhibits of herps and insects, yet also function as another viewpoint for the adjacent Bison, Pronghorn, Sandhill Crane, & Ground Birds habitat as well as the Arctic Fox habitat.

A forest zip-line “roller coaster” that arcs around existing trees will be a new revenue generator although, additional staff would be required to manage this.

At the terminus of North Trek will be the Adirondack Lodge, a multi-use structure themed in the Adirondack style with interpretive exhibits, small interior exhibits for Hellbender and reptiles, rentable meeting space, restrooms, resting area, a large stone fireplace and, a small food service facility. This facility will include interior underwater viewing of the adjacent Otter and Turtle habitats. In the background through the windows of the lodge will be views to a mixed Black Bear & Timber Wolf habitat. With the adjacent parking area off Master Garden Road, the lodge could function as a VIP entry point into the zoo when the road is open up during certain times of the year.

Across from the Adirondack Lodge is a new Special Events Center. This facility would support catered events at the top of the hill, take advantage of views across the terraced grassland plains of Africa Alley with the City of Utica and the Adirondacks in the distance.
**Africa Alley**

With the new North Trek Trail supporting an ADA-accessible route up to the top of the zoo, a new trail through Africa Alley allows visitors back down to the Core Zoo area while taking visitors off of Utica Zoo Way. Having these two trails allows Utica Zoo Way to become a dedicated service corridor through the interior of the zoo and minimize visitor & service conflicts. By taking advantage of the natural topography, a series of switchback trails, on-grade trails that follow the natural topography, elevated boardwalks, visitors can experience both the forests and grasslands of Africa.

At the beginning of Africa Alley is a large Giraffe habitat with a holding building that includes and indoor viewing exhibit. Just past the holding building will be a large feeding station & a series of overlooks for Giraffe and a large mixed-species hoofstock below.

A large indoor and outdoor habitat for Gorilla is the other key addition. Included in the interior exhibit/holding building will be a series of small mammal exhibits, a Restroom, Comfort Station, office space, and viewing into the adjacent Ratel habitat.

Included in African Alley will be canopy ropes course for additional revenue generation.
Living Rainforest
While visitors first see a few of the habitats in the Living Rainforest zone when they first walk in, this area is at the end of the intended circulation route through the zoo.

The major project within the Living Rainforest area is a major renovation of the current Primate Building. The western half of the building will be demolished and replaced with outdoor exhibits for Sloth, Tamarins, Maned Wolf, and Andean Bear.

All the new exhibits within the new Rainforest building will provide all-year viewing with both indoor and outdoor habitat spaces for Gibbons, Spider Monkey, and Tamarins. Also included in the Rainforest Building is a Bat habitat.

Once through the rainforest building, visitors will be able to spend more time engaging with Flamingo and Harpy Eagle before they leave the zoo.
**Implementation Strategy**

**Introduction**
Implementation of the master plan needs to follow a coordinated prescribed series of steps that will allow the Zoo to get re-accredited by AZA, minimize known liability issues, improve animal welfare and, amplify the visitor experience to better support the zoo’s mission.

**Return-on-Exhibit**
To intelligently develop the master plan and support an efficient implementation strategy, a custom tool called Return-on-Exhibit (ROE) was used. Built on a Return-on-Investment model developed by the amusement park industry, the tool takes into account the projected revenue potential compared to the capital investment (both time, dollars, and labor burden) needed to plan, design, build, and manage an exhibit. The findings of several ROE models prove that smaller, more frequent capital improvements have a higher return than multi-year developments with higher capital costs.

ROE served to help rank each potential master plan improvement contained in the master plan. In summary, smaller species that don’t require complicated life support systems, need expensive containment systems, can be exhibited year-round, didn’t have a long construction schedule and, can best take advantage of the zoo’s existing landscape, had a much higher return. Examples include, Lynx, Wolf, Otter, Ratel, Giraffe and Camel have a much higher ROE potential than Gorilla, Lion, Baboon, and Orangutan.

**Naming & Fundraising Opportunities**
Finding new revenue streams and implementing fundraising campaigns will be essential to the successful implementation of the master plan. A clear and intentional naming strategy will demonstrate to potential funders and donors that Utica Zoo has given thought to recognition and stewardship, and that this is something the Zoo takes seriously and approaches professionally. If everything from buildings to pavers to restroom doors are named, it doesn’t demonstrate a coherent naming strategy. Doing this creates the risk of signage pollution throughout the entire campus. However, it is recommended that all new exhibits, their holding buildings, new outdoor plazas, special event areas, and major outdoor interactive elements have a target value associated with them for fundraising purposes.

**Key Naming Opportunities**
- Anchor Exhibits & Holding Buildings
- Major Visitor Structures, e.g. Asian Temple
- Public Plazas & Realm Portals
- Special Event Areas & Buildings
- Play Areas
- Comfort Stations
- Rest Areas

**Implementation Strategy**
While this master plan demonstrates the maximum potential for Utica Zoo, the implementation strategy was designed with a 10-year horizon. Projects were selected for either a 1, 3, 5 & 10 year cycle. The remainder of the projects are beyond the 10 year mark.

Year 1 projects include: fixing ADA compliance on some of the pathways, renovate the existing Primate Building, and expand kid’s play opportunities.

Year 3 projects include: continue fixing ADA compliance, creating the Conservation Courtyard, create a new Entry & Gift Shop, expand the main parking area, and build the Adirondack Lodge at the terminus of North Trek.

Year 5 projects include: adding the Giraffe habitat at the beginning of Africa Alley, a new Special Events Center by Giraffe, adding the Discovery Center in Habitats & Havens, completely renovate Sea Lion, upgrading many exhibits in Habitats & Havens, adding a new Maintenance Building, and adding Black Bear & Timber Wolf to North Trek.

Year 10 projects include: adding major projects in Africa Alley and Asian Realm.
Implementation Strategy

1-year phase
3-year phase
5-year phase
10-year phase

Utica Zoo Master Plan 2016
Cost Introduction

To develop the cost opinions, the habitat area as drawn on the master plan was applied a rough square foot cost. The square foot costs came from a variety of sources including looking at recently completed projects at Utica Zoo, recent projects at other zoos, local labor costs, and the life & keeper safety requirements of each exhibit and associated holding building.

All cost opinions are shown as a range from low to high but, should not be considered final.

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Area (sf)</th>
<th>Cost Opinion</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA1</td>
<td>Wolf, Guenon, Birds</td>
<td>8,840</td>
<td>$442,000.00 – $530,400.00</td>
<td>10+</td>
</tr>
<tr>
<td>AA2</td>
<td>Giraffe, Gazelle</td>
<td>32,530</td>
<td>$2,439,750.00 – $2,927,700.00</td>
<td>5</td>
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<tr>
<td>AA3</td>
<td>Mixed Hoofstock, White Rhino, Ground Hornbill, Slatunga</td>
<td>53,360</td>
<td>$3,201,600.00 – $3,841,920.00</td>
<td>10</td>
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<tr>
<td>AA4</td>
<td>Gorilla</td>
<td>22,940</td>
<td>$9,176,000.00 – $11,011,200.00</td>
<td>10+</td>
</tr>
<tr>
<td>AA5</td>
<td>Ratel</td>
<td>1,560</td>
<td>$117,000.00 – $140,400.00</td>
<td>10+</td>
</tr>
<tr>
<td>AA6</td>
<td>Warthog</td>
<td>2,390</td>
<td>$179,250.00 – $215,100.00</td>
<td>10+</td>
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<tr>
<td>AA7</td>
<td>Zebra, Ostrich, Vulture</td>
<td>13,350</td>
<td>$1,001,250.00 – $1,201,500.00</td>
<td>10+</td>
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<tr>
<td>AA8</td>
<td>Lion</td>
<td>11,830</td>
<td>$2,661,750.00 – $3,194,100.00</td>
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<tr>
<td>AA9</td>
<td>Lemur</td>
<td>4,390</td>
<td>$658,500.00 – $790,200.00</td>
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<tr>
<td>AA10</td>
<td>Fossa</td>
<td>1,300</td>
<td>$162,500.00 – $195,000.00</td>
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<tr>
<td>AA11</td>
<td>Hyena, Bat-Eared Fox, Serval</td>
<td>5,230</td>
<td>$967,550.00 – $1,161,060.00</td>
<td>10+</td>
</tr>
<tr>
<td>AA12</td>
<td>Baboon, Ibex, Warthog, Pathways, Signage, Misc.</td>
<td>6,200</td>
<td>$775,000.00 – $930,000.00</td>
<td>10+</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Area (sf)</th>
<th>Cost Opinion</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>NT1</td>
<td>Freshwater Birds, Turtles</td>
<td>3,710</td>
<td>$278,250.00 – $333,900.00</td>
<td>10+</td>
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<tr>
<td>NT2</td>
<td>Bison, Pronghorn, Sandhill Crane, Ground Birds</td>
<td>46,620</td>
<td>$1,631,700.00 – $1,958,040.00</td>
<td>10+</td>
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<tr>
<td>NT3</td>
<td>Eagle</td>
<td>1,530</td>
<td>$191,250.00 – $229,500.00</td>
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<tr>
<td>NT4</td>
<td>Lynx</td>
<td>4,090</td>
<td>$306,750.00 – $368,100.00</td>
<td>10+</td>
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<tr>
<td>NT5</td>
<td>Arctic Fox</td>
<td>1,130</td>
<td>$84,750.00 – $101,700.00</td>
<td>10+</td>
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<tr>
<td>NT6</td>
<td>Porcupine</td>
<td>1,280</td>
<td>$44,800.00 – $53,760.00</td>
<td>10+</td>
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<tr>
<td>NT7</td>
<td>Rocky Mountain Goat</td>
<td>6,550</td>
<td>$982,500.00 – $1,179,000.00</td>
<td>10+</td>
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<tr>
<td>NT8</td>
<td>Black Bear, Timber Wolf</td>
<td>19,930</td>
<td>$1,195,800.00 – $1,434,960.00</td>
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</tr>
<tr>
<td>NT9</td>
<td>Owl</td>
<td>1,010</td>
<td>$35,350.00 – $42,420.00</td>
<td>10+</td>
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<tr>
<td>NT10</td>
<td>Reindeer</td>
<td>3,460</td>
<td>$173,000.00 – $207,600.00</td>
<td>10+</td>
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<tr>
<td>NT11</td>
<td>Turtle</td>
<td>1,250</td>
<td>$156,250.00 – $187,500.00</td>
<td>10+</td>
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<tr>
<td>NT12</td>
<td>Otter</td>
<td>3,230</td>
<td>$726,750.00 – $872,100.00</td>
<td>10+</td>
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<tr>
<td>NT13</td>
<td>Adirondack Lodge</td>
<td>6,500</td>
<td>$2,600,000.00 – $3,120,000.00</td>
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<tr>
<td></td>
<td>Pathways, Signage, Misc.</td>
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<td>$400,000.00 – $480,000.00</td>
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### Asian Realm

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Area of Habitat (SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AR1</td>
<td>Emu, Wallaby, Kookaburra</td>
<td></td>
</tr>
<tr>
<td>AR2</td>
<td>Aviary (Birds, Peacocks, Turtles, Red Crowned Crane)</td>
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</tr>
<tr>
<td>AR3</td>
<td>Binturong</td>
<td></td>
</tr>
<tr>
<td>AR4</td>
<td>Eagle Owl</td>
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</tr>
<tr>
<td>AR5</td>
<td>Asian Temple (Chinese Alligator, Birds, Reptiles, Invertebrates)</td>
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</tr>
<tr>
<td>AR6</td>
<td>Red Panda, Muntjac Deer</td>
<td></td>
</tr>
<tr>
<td>AR7</td>
<td>Warty Pig, Pere David</td>
<td></td>
</tr>
<tr>
<td>AR8</td>
<td>Camel</td>
<td></td>
</tr>
<tr>
<td>AR9</td>
<td>Urial</td>
<td></td>
</tr>
<tr>
<td>AR10</td>
<td>Orangutan, Tapir, Siamang</td>
<td></td>
</tr>
<tr>
<td>AR11</td>
<td>Tiger</td>
<td></td>
</tr>
<tr>
<td>AR12</td>
<td>Tiger (Holding)</td>
<td></td>
</tr>
<tr>
<td>AR13</td>
<td>Snow Leopard</td>
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### Living Rainforest

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Area of Habitat (SF)</th>
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<tbody>
<tr>
<td>LR1</td>
<td>Harpy Eagle</td>
<td></td>
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<tr>
<td>LR2</td>
<td>Flamingo</td>
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<tr>
<td>LR3</td>
<td>Capybara, Squirrel Monkey</td>
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<tr>
<td>LR4</td>
<td>Rainforest Building (Gibbons, Tamarins, Bats, Invertebrates, Reptiles)</td>
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### Habitats & Havens

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Area of Habitat (SF)</th>
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<tbody>
<tr>
<td>HH1</td>
<td>Fox</td>
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<tr>
<td>HH2</td>
<td>Sea Lion</td>
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<tr>
<td>HH3</td>
<td>Petting Zone (Goats, Sheep, Cattle)</td>
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<tr>
<td>HH4</td>
<td>Sulcata Tortoise</td>
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<td>HH5</td>
<td>Wetland Habitat (Beaver, Ducks, Turtles)</td>
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<tr>
<td>HH6</td>
<td>&quot;In Your Backyard&quot; (Raccoon, Skunk, Snakes)</td>
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<tr>
<td>HH7</td>
<td>Conservation Center (Invertebrates, Reptiles, Small Mammals)</td>
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<td>HH8</td>
<td>Play Areas</td>
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<td>HH9</td>
<td>Pathways, Signage, Misc.</td>
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### Entry, Parking & Core Zoo

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<thead>
<tr>
<th>Name</th>
<th>Area of Habitat (SF)</th>
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<tr>
<td>New Entry &amp; Parking</td>
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<tr>
<td>Conservation Campus</td>
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<td>Maintenance Building</td>
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<tr>
<td>Upgrades to Admin</td>
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<tr>
<td>Special Events Center</td>
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</table>

### Summary Cost per Phase

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Description</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>Year 1</td>
<td></td>
<td>1,447,000.00</td>
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<tr>
<td>Year 3</td>
<td></td>
<td>8,700,000.00</td>
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<tr>
<td>Year 5</td>
<td></td>
<td>10,256,450.00</td>
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<td>Year 10</td>
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<td>12,820,350.00</td>
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<tr>
<td>Year 10+</td>
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<td>29,983,600.00</td>
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| Total Master Plan Cost Opinion | $ 63,207,400.00 | $ 75,848,880.00 |