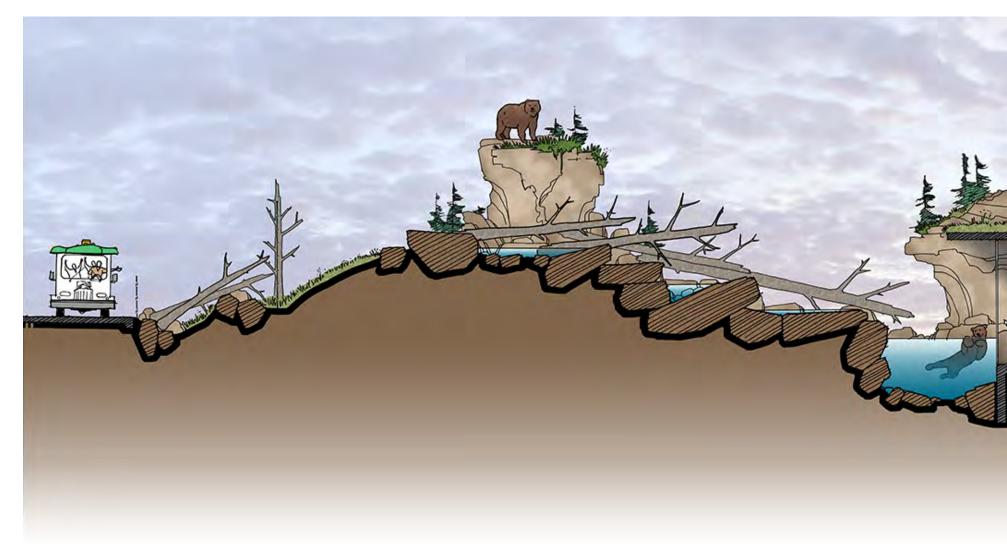
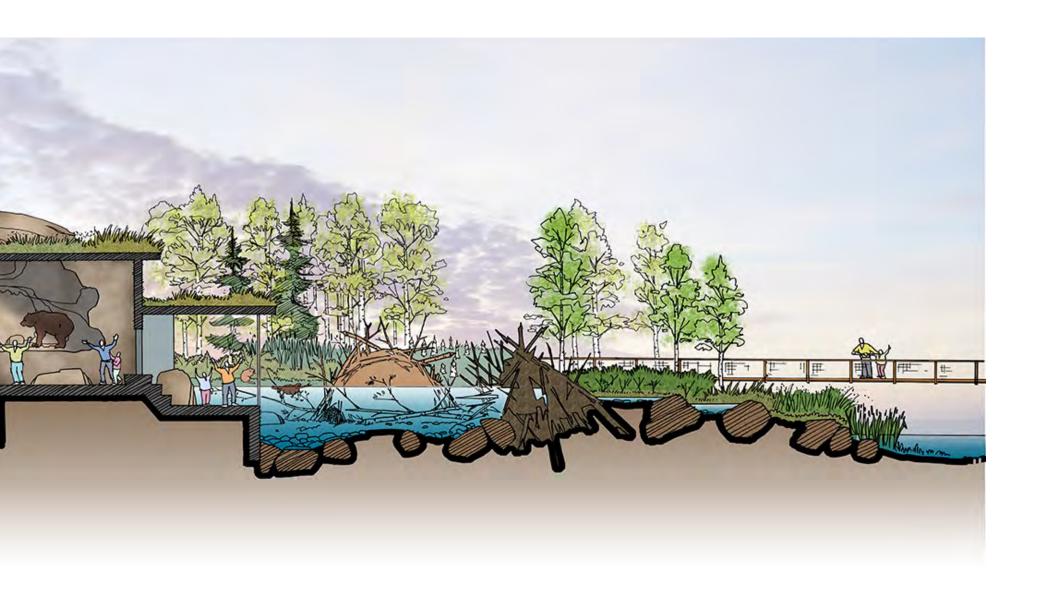
ZB11.3 - Attachment - Part 2







Toronto Zoo Bear and Beaver Display

TROPICAL AMERICAS

The existing "Americas Pavilion" and exhibits will be renovated to provide full accessibility and address energy efficiency while also narrowing the focus of the interpretation and exhibits to highlight the species and conservation imperatives of tropical South and Central America, particularly those species that have an evolutionary or seasonal migratory relationship with Canada. It will act as another intriguing indoor space where visitors can come nose-to-nose with diverse animals of our world in a climate-mediated space.

Currently, the "Americas" exterior exhibits have been spread across a considerable distance that makes for a long walk in the heat of summer, and lack of animals to view in the winter. Equally many of these existing exhibits do not provide the animals with suitable stimulating environments, choice or the expression of habitat values. At a suitable point in the future, these exhibits will be phased out and redeveloped in closer proximity to the renovated "Tropical Americas Pavilion" once the adjacent "Tundra Trek" is expanded.

Animals to be included will be selected based upon conservation value, spatial needs and the Zoo's ability to provide optimum care for them. Potential species could include tamarins and other small primates, jaguar, capybara, flamingo, reptiles, insects, rodents etc.



Leontopithecus rosalia - Golden Lion Tamarin



Jaguar



Toronto Zoo Keeper with Parrot

SITE

Animal Area
Building - New / Re-developed
Building - Existing
Service Area
Water - Existing

Water - New / Re-developed
Landscape - Themed
Landscape - Garden

Landscape - Mapped Vegetation
Landscape - Carolinian Forest

Landscape - Core Woods Rockwork

Existing Contour Lines
Site Boundary
View Lines

CIRCULATION

 Visitor - Plaza / Decision Making Point

Visitor - Gateways

Visitor Pathway - GeneralVisitor Pathway - Core Loop

Visitor Pathway - Precinct LoopVisitor Pathway - Trails

Service Road
Public Road

Gondola Route
Zoomobile Route

Zoomobile Station / Stop

Zoomobile Station / Stop
Zoomobile Winter Shuttle

Special Tour RouteShuttle to Overflow Lots

Shuttle Stop

Multiple-use Route
Parking - Visitor

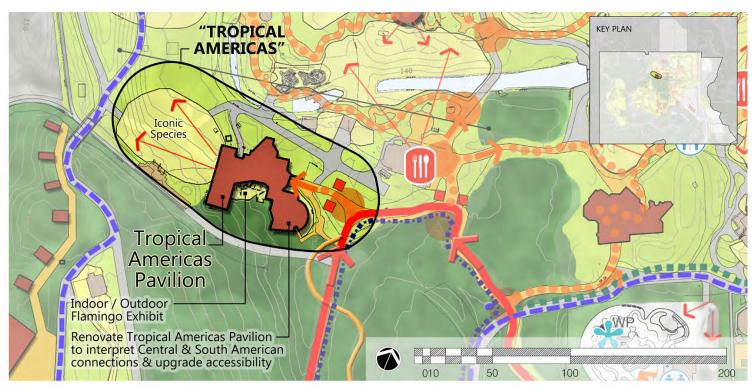
Parking - Bus

VISITOR AMENITIES

₩ Water Play Area ₩ Play Area

Washrooms

Food Retail











Master Plan - "Tropical Americas"

Toronto Zoo Master Plan

November 2016





Americas Pavilion: Future "Tropical Americas Pavilion"

The area around the existing Americas Pavilion is physically separated from both the "Pridelands" savanna habitats at the top of the hill as well as the adjacent "Tundra Trek" that will become part of the larger "Wilderness North" region. It would be difficult for it to act as a gateway experience to either area and will be considered on its own.

The building itself is interesting and can be renovated to be fully accessible. The protected indoor setting supports a renewed vision for the care, display and interpretation of smaller Australian and neo-tropical species. In this way, another intriguing area can be developed that provides critical indoor space for visitors, displays smaller species in an environment conducive to their welfare, and interprets the big changes that the Earth has undergone, and continues to undergo, giving perspective and context for current changes that are happening around us.







Tropical Americas Pavilion

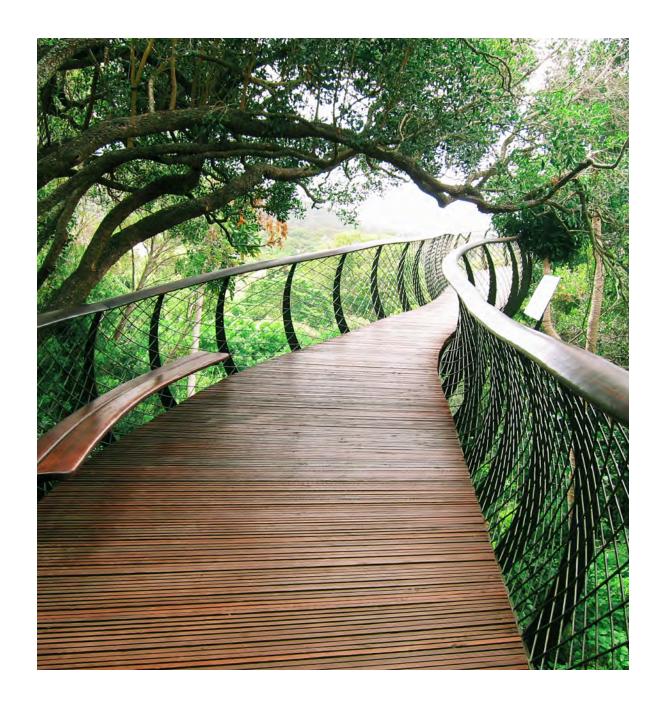
CAROLINIAN FOREST

The central, native forest core of the Zoo provides an area of calm and quiet, and a place where the free-ranging plants and animals that make their home in the Rouge River valley make their presence felt to all Zoo visitors.

To maintain the integrity of the forest, development within this area will be limited to weed management, interpretation, pavement repair and the development of an "accessible boardwalk' that winds its way gently through the trees, support on strategically-placed pilings that do not disturb the integrity of the forest floor.

Raven's Roost

"Raven's Roost" is a natural extension of the Carolinian Forest experience. Sitting amongst the trees along the ridgeline overlooking the Rouge Valley, "Raven's Roost" will become a year-round family and small-group 'glamping' retreat where they can gather to relax and learn more about the dynamics of the surrounding natural environment and the work that the Zoo is doing to support wildlife both here and around the world.





Animal Area Building - New / Re-developed Building - Existing Service Area

Water - Existing

Water - New / Re-developed Landscape - Themed

Landscape - Garden

Landscape - Mapped Vegetation

Landscape - Carolinian Forest Landscape - Core Woods Rockwork

Existing Contour Lines Site Boundary

View Lines

CIRCULATION

Visitor - Plaza / Decision Making Point

Visitor - Gateways

Visitor Pathway - General Visitor Pathway - Core Loop

···· Visitor Pathway - Precinct Loop

Visitor Pathway - Trails

 Service Road Public Road

Gondola Route --- Zoomobile Route

Zoomobile Station / Stop

--- Zoomobile Winter Shuttle ··· Special Tour Route

Shuttle to Overflow Lots

Shuttle Stop

 Multiple-use Route Parking - Visitor

Parking - Bus

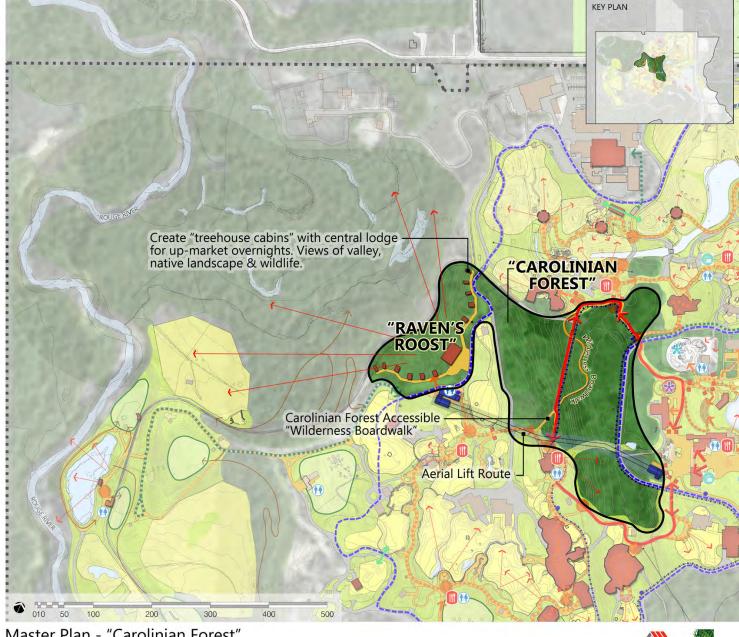
VISITOR AMENITIES

Water Play Area

* Play Area Washrooms

Food Retail





Master Plan - "Carolinian Forest"

Toronto Zoo Master Plan

November 2016





DISCOVERY ZONE AND SPECIAL ANIMAL AMBASSADORS

The existing "Discovery Zone" will be expanded to include more year-round, nature-based programs and activities to meet the needs of local parents and caregivers, as well as enhanced facilities for program animals and seasonal domesticated animals. Improvements will include the following:

- A relocated year-round carousel at the entry to the Discovery Zone.
- A 4-season indoor play and program space will provide a destination in all weather for a short visit or to complement a longer journey of discovery through the Zoo.
- Program animal holding and training space adjacent to the Waterside Amphitheatre.
- Outreach animal holding and care area.
- An expanded and updated water play area.
- A special events lawn and picnic area for families and group.



Toronto Zoo Keeper with Snake



SITE

Animal Area
Building - New / Re-developed
Building - Existing
Service Area

Water - Existing
Water - New / Re-developed

Landscape - Themed
Landscape - Garden
Landscape - Mapped Vegetation

Landscape - Mapped Vegetation
Landscape - Carolinian Forest
Landscape - Core Woods

Rockwork
Existing Contour Lines

Site Boundary
View Lines

CIRCULATION

Visitor - Plaza / Decision Making

Visitor - Gateways

Visitor Pathway - General
 Visitor Pathway - Core Loop

···· Visitor Pathway - Precinct Loop

Visitor Pathway - TrailsService Road

Public Road

Gondola Route
Zoomobile Route

Zoomobile Station / Stop

Zoomobile Winter ShuttleSpecial Tour Route

-- Shuttle to Overflow Lots

Shuttle StopMultiple-use Route

Parking - Visitor

Parking - Bus

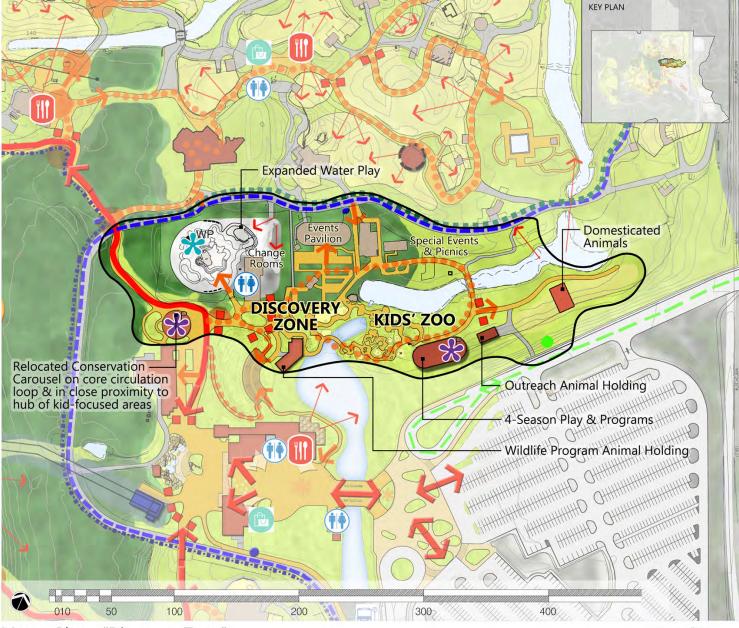
VISITOR AMENITIES

₩ Water Play Area

★ Play Area
 Washrooms

Food Retail





Master Plan - "Discovery Zone"

Toronto Zoo Master Plan

November 2016





"Kids Discovery"

Kids Discovery Indoor Play will be a new feature within the children's zone that acts as a play and learning space for young children, and a gathering space for their parents – especially on inclement days when everyone needs to get out of the house.

One option is for the Kids Zoo to be expanded to include Canadian heritage farm animals that are easily approachable by young children in a guided situation so that they have the opportunity to learn about care giving and care taking.

"Bugs!"

Invertebrates and other small creatures will be celebrated in this hugely interactive and engaging discovery and learning space space. Much like "Micropia" at the Artis Zoo in Amsterdam, and at London Zoo and Cincinnati Zoo's celebrated insect houses, visitors will be able to experience and go deeper in their appreciation for the diversity of the micro-world around us.

"Program Animals"

Animals used for outreach programs and Zoo presentations are key to delivering to visitors the Zoo's mission and message about care giving. Providing sufficient space for their year-round housing and training will ensure that staff are able to care for them in an exceptional manner.



Hymenopus coronatus - Pure White Orchid Mantis



Dolomedes plantarius - Fen Raft Spider



Zoo Kid with Bug





Toronto Zoo

WILDLIFE HEALTH CENTRE DESCRIPTION AND PURPOSE

In 2017, the Toronto Zoo will open its new state-of-the-art Wildlife Health Centre. This significant capital project is an investment in the well-being of the animals in our care as well as an ongoing commitment to scientific research in veterinary medicine, nutrition and reproductive technologies. Creating a facility of this size and scope is at the heart of our expanded vision and will further position the Toronto Zoo as a world leader in wildlife care and conservation.

The construction includes leading-edge sustainable construction techniques, materials and technology, designed to LEED silver standards. When complete, the Wildlife Health Centre will be one of the largest exotic animal medical facilities in Canada at approximately 50,000 square feet (4550 m²) of interior space –including the hospital, quarantine and research facilities. The Centre will be easy to maintain in a hygienic state and provide ample room for the treatment of animals, post-operative care and modern diagnostic and research equipment. Veterinary staff will now be able to handle larger species, such as gorillas and polar bears, at the Centre rather than in their habitats on-site.

In addition to the health care services, the Wildlife Health Centre is also home to the Zoo's reproductive physiology lab, numerous conservation breeding programs, turtle head start programs, Amphibian Rescue Centre (ARC), a veterinary residency program, high school coop programs and many research projects with universities, colleges, government and nongovernment agencies.

A viewing area for visitors on guided tours will provide a behind-the-scenes look into wildlife health practices and conservation research which will give visitors a more thorough understanding of the significant work being done at the Toronto Zoo to ensure the ongoing survival of so many of the worlds' most vulnerable species, particularly those native to Canada.





Wildlife Health Centre

WILD WOODS

As part of condensing the walk between the core offerings of the Zoo without diminishing the overall stay time of effect, the Master Plan envisions the Zoo's valley lands (former "Canadian Domain") being returned to uses that do not rely on day-to-day access by the Zoo's visitors. All Canadian Domain animal habitats would be moved into the new "Wilderness North". However the large meadow enclosures would be maintained to insure the breeding capability and herd health of a number of the Zoos' native herd species.

Thus the original Canadian Domain will transition into a value-added landscape for special group use and conservation education. Holding and shelters for the animals will be improved with an eye to being light on the land, and moving them to higher ground to insure safe retreat from high water in the Rouge River.

Overnight group wilderness camping and day camp areas will be developed in select areas that

stay out of prime habitat area and are light on the land. Trails and programs will be developed to insure that all of Toronto's children, and their families, have the opportunity to spend time in the woods and discover the value of the natural framework that surrounds the City.

Weston Pond will continue to be managed as a seasonal breeding area for a variety of wildlife including Trumpeter Swans.







SITE

Animal Area Building - New / Re-developed Building - Existing

Service Area Water - Existing

Water - New / Re-developed Landscape - Themed

Landscape - Garden Landscape - Mapped Vegetation

Landscape - Carolinian Forest Landscape - Core Woods

Rockwork **Existing Contour Lines**

Site Boundary View Lines

CIRCULATION

Visitor - Plaza / Decision Making Point

Visitor - Gateways

Visitor Pathway - General Visitor Pathway - Core Loop

···· Visitor Pathway - Precinct Loop

Visitor Pathway - Trails Service Road

Public Road Gondola Route

--- Zoomobile Route

 Zoomobile Station / Stop --- Zoomobile Winter Shuttle

··· Special Tour Route

Shuttle to Overflow Lots

Shuttle Stop

Multiple-use Route
Parking - Visitor

Parking - Bus

VISITOR AMENITIES

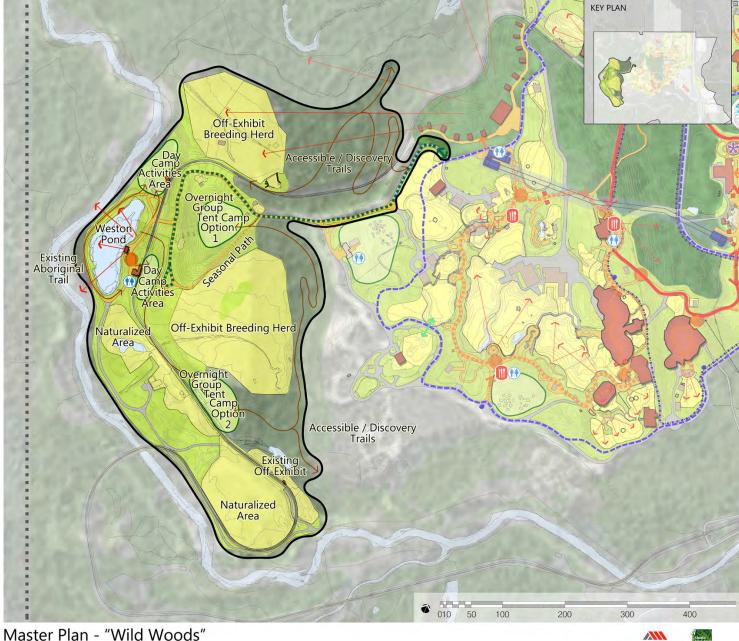
Water Play Area

* Play Area Washrooms

Food

Retail





Toronto Zoo Master Plan

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EAST CAMPUS

- Festival
- Browse Demonstration

FESTIVAL

On the east side of Meadowvale Road, overlooking the Little Rouge Creek valley, stands an iconic structure that symbolizes the recent past of human use of the surrounding landscape: The Red Barn. Currently used for off-exhibit breeding of many of the Zoo's smaller conservation breeding species, it sees no public use, but holds a dominant position on the ridgeline.

The Master Plan envisions the relocation of the conservation breeding functions to the north of Finch Road and the possible future redevelopment of the Red Barn and its immediate area as a native plant horticulture and education centre that can serve as a beautiful locus for learning, functions and events, including seasonal farmers' markets and fairs that spread into the adjacent parking areas, providing yet another reason for the community to visit and become aware of the partnership between the RNUP and the Toronto Zoo.

As a horticultural facility it could celebrate the rich agricultural history of the Rouge Valley, as well as the diverse matrix of native plants and

those horticultural varieties that exist in peace with the natives and provide additional color, diversity and food sources for pollinators and other native wildlife.

This area would be connected to the Zoo and the entry to the RNUP by a shuttle that runs among the various main and overflow parking areas, and potentially even an overpass from the main parking area at the entry to the Zoo.

The transformation of this area is not included in the master plan implementation schedule. Details would need to be determined following discussions with RNUP about joint festival area.

BROWSE DEMONSTRATION

At Toronto Zoo browse is now recognized as an essential dietary and welfare item for many wildlife species. Some browse products are purposely farmed outdoors and some area preserved for winter feeding. Others are collected from lawns and / or forested areas or grown in gardens or greenhouses, pavilions,, or staff office areas and some are purchased. The demand for browse is

high and variable, but for some wildlife species, particularly invertebrate and mammalian browsers, more specialized species of browse and areas to grow these area required.

A small browse demonstration area is proposed beside the future Biogas facility in Parking Lot 4. The use of browse offers some important educational opportunities:

- A small browse plantation is animal welfare orientated and could promote visitors understanding through demonstrations, complimented by visitor assisted browse feeding on site.
- An opportunity exists for us to demonstrate how specialized animal food (e.g. medicinal plants, vegetables, etc.) can be propagated in a greenhouse with heat generated as a biproduct from a biogas facility using zoo-poorecycling into biogas digest. This would show how both food and energy can be generated from waste diversion.

SITE

Animal Area Building - New / Re-developed Building - Existing

Service Area

Water - Existing Water - New / Re-developed

Landscape - Themed Landscape - Garden

Landscape - Mapped Vegetation Landscape - Carolinian Forest

Landscape - Core Woods Rockwork

Existing Contour Lines ---- Site Boundary View Lines

CIRCULATION

Visitor - Plaza / Decision Making Point

Visitor - Gateways

Visitor Pathway - General

Visitor Pathway - Core Loop
 Visitor Pathway - Precinct Loop

Visitor Pathway - Trails

Service Road Public Road

Gondola Route Zoomobile Route

Zoomobile Station / Stop

Zoomobile Winter Shuttle

··· Special Tour Route Shuttle to Overflow Lots

Shuttle Stop

Multiple-use Route

Parking - Visitor

Parking - Bus

VISITOR AMENITIES

Water Play Area

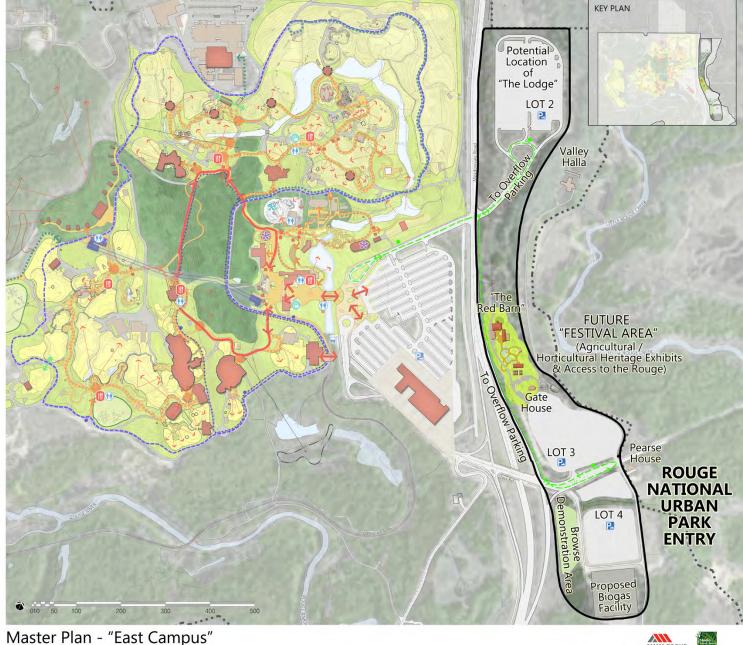
* Play Area

Washrooms Food

0

Retail





Toronto Zoo Master Plan

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CONSERVATION BREEDING AREA

• Off Exhibit Breeding Area

A portion of the acreage north of Finch Road and opposite the Operations Complex is envisioned as the future home of a world class centre for the Zoo's endangered species ex-situ breeding programs, replacing the existing remote facilities in the Red Barn.

In addition, a protected browse propagation area is proposed in close proximity to the Zoo Operations Complex as part of the Zoo's approach to providing the highest level of care for the animals in its care.



Marmota vancouverensis - Vancouver Island Marmot



SITE

Animal Area Building - New / Re-developed Building - Existing

Service Area Water - Existing

Water - New / Re-developed

Landscape - Themed Landscape - Garden

Landscape - Mapped Vegetation

Landscape - Carolinian Forest Landscape - Core Woods Rockwork

Existing Contour Lines Site Boundary

View Lines

CIRCULATION

Visitor - Plaza / Decision Making

Visitor - Gateways

Visitor Pathway - General Visitor Pathway - Core Loop

···· Visitor Pathway - Precinct Loop

Visitor Pathway - Trails Service Road

Public Road

Gondola Route --- Zoomobile Route

Zoomobile Station / Stop

--- Zoomobile Winter Shuttle ··· Special Tour Route

Shuttle to Overflow Lots

Shuttle Stop

Multiple-use Route
Parking - Visitor

Parking - Bus

VISITOR AMENITIES

Water Play Area

* Play Area Washrooms

Food Retail







Toronto Zoo Master Plan

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OPERATIONAL SUPPORT AREA

Back-of-house areas will continue to be investigated for obvious efficiency, circulation and capacity opportunities as the plan unfolds. Key components that have been currently identified include making best use of the new Wildlife Health Centre, the addition of a new food services storage and logistics building, and the renovation of the existing food services area into a shared warehouse for Retail store, and Zoo Supplies.



FIGURE 17



Animal Area Building - New / Re-developed Building - Existing

Service Area

Water - Existing Water - New / Re-developed

Landscape - Themed Landscape - Garden

Landscape - Mapped Vegetation

Landscape - Carolinian Forest Landscape - Core Woods

Rockwork **Existing Contour Lines**

Site Boundary View Lines

CIRCULATION

Visitor - Plaza / Decision Making

• Visitor - Gateways

Visitor Pathway - General Visitor Pathway - Core Loop

···· Visitor Pathway - Precinct Loop

Visitor Pathway - Trails Service Road

Public Road Gondola Route

--- Zoomobile Route

 Zoomobile Station / Stop --- Zoomobile Winter Shuttle

··· Special Tour Route

Shuttle to Overflow Lots

Shuttle Stop

Multiple-use Route
Parking - Visitor

Parking - Bus

VISITOR AMENITIES

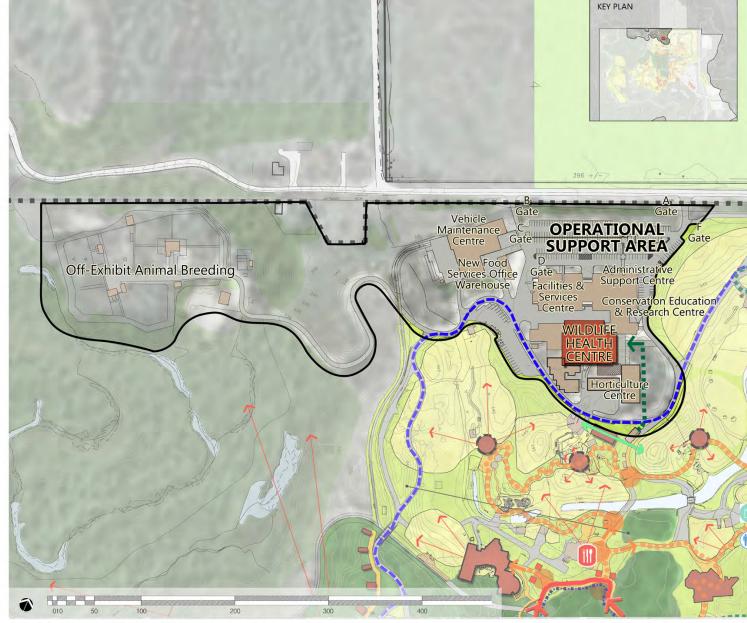
Water Play Area

* Play Area Washrooms

Food

Retail





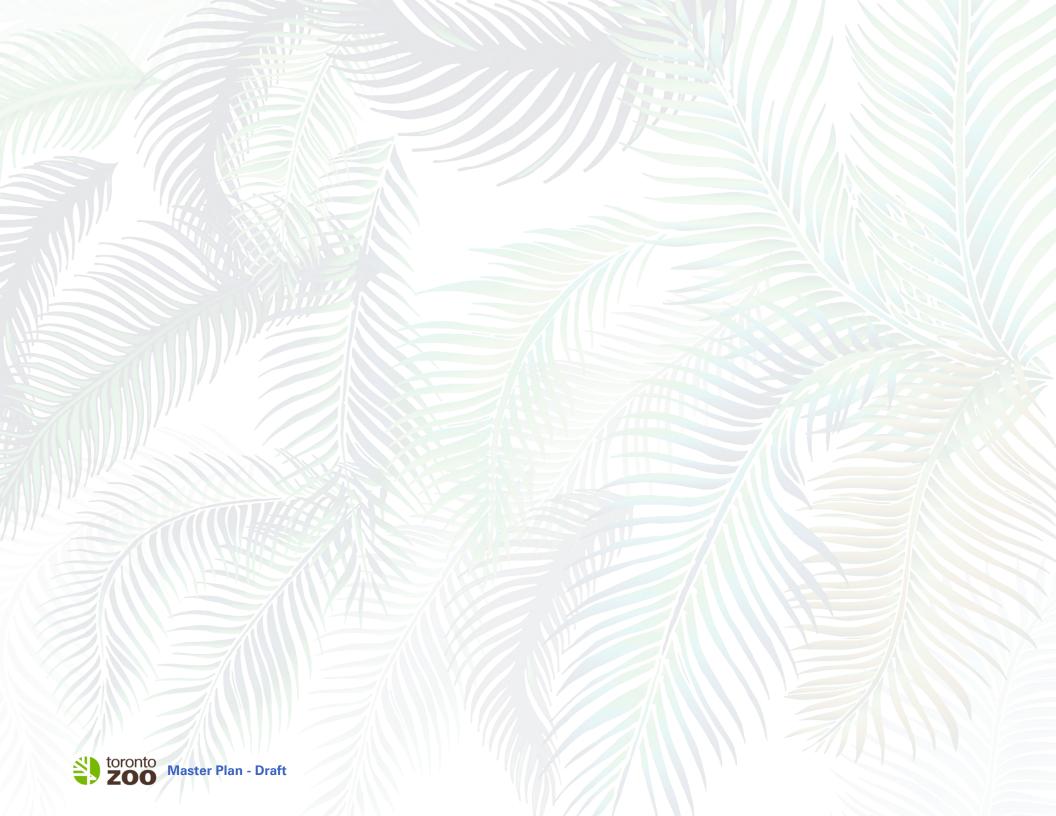
Master Plan - "Operational Support Area"

Toronto Zoo Master Plan

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VALUE-ADDED EXPERIENCES

The Zoo has the opportunity to develop multiple value-added experiences that will, when appropriately placed, well-planned and well-executed, provide options for further revenue generation.

WETLAND WALK

A guided walk and significant learning experience will be provided to introduce visitors to Canadian species with a focus on some of the wetland habitat and species that currently are or historically were native to the Rouge River and riparian system. Local species will include Canadian Otter (which was extirpated as recently as the 1950's), birds, turtles, amphibians as well as a rich palette of native plant species. The local species and habitat will provide a preferred introduction to the Rouge National Urban Park for many visitors from outside of Canada and opportunities for shared learning and funding with Parks Canada should be explored. Restoration efforts and funding should also be pursued that will support this tour being marketed as an in depth and first class experience to a range of visitors that the Zoo has identified as representing an expanded market.

The walk will be primarily boardwalk with shoreline sections for viewing of diverse plant communities and larger animals such as moose that require a more discrete viewing public. In addition to the native wetland experience, a "constructed wetland" using biotechnologies such as the Living Machine will provide an expanded experience and could be branded as a half day or full day intensive offering. The paid tour and learning experiences also provide a self-funding mechanism for the necessary fundamental work of bringing the waterways and wetlands to functional level that is appropriate to the Zoo's conservation mandate and brand.







FOOD & REFRESHMENT

A variety of dining options throughout the Zoo provide great food and views. They present food choices and packaging that are consistent with the Zoo's messaging and mission, and highlight Canadian fare and/or feature menus. Dining facilities range in size, style and seasonality, including:

- Fine dining / upscale café / beer and wine garden at the Entry;
- Family dining restaurant (existing Savanna Snack Bar / future "Canopy Café") open yearround with the capacity for large groups in thematically appropriate surroundings;
- Area specific, themed cafés with sheltered seating ("Caribou Café", "Grizzly Café", "Waterworks Café");
- Seasonal food trucks that can be moved offsite when not in use (rather than presenting visitors with the look and feel of being closed) ("Lion Overlook", Entry);
- Catered dining and events, made possible with sufficient on-site commissary capacity.

OVERNIGHT STAYS

- Group camping continues to be offered for the Serengeti Bush Camp in a new, more private location with dedicated facilities adjacent to "Pridelands", as well as potentially two new camping areas designated within "Wild Woods". The eventual number of areas and facilities will be determined through a market demand study as the Rouge River National Urban Park comes on-line. Each camp area would be located in a unique setting and have a light footprint on the land that could easily dismantled or the season or as demand dictates. They would provide unique opportunities for individuals and groups to come together to enjoy the outdoors, learning about wildlife and sharing wild places respectfully and responsibly.
- High-end glamping in "Raven's Roost" provides luxury treetop cabins for rent, featuring stunning views over the valley in a unique, Canadian Carolinian forest canopy experience. A group dining area will provide meals and a place to gather after an evening experience of going behind the scenes to meet the animals.

- A potential new lodge and conference center located east of Meadowvale Road within the overflow parking area would have ridge top views of the valley and across to the conservation herds. The lodge actualized through outside investment, but benefits from close proximity and association with the Zoo and a uniquely Canadian experience in the Rouge National Urban Park. Animal exhibits, such as a Great Lakes fish tank, quality theming and unique dining experiences augment the ambience of the facilities.
- The full costing is not used in the programming as Toronto Zoo would look to partner with an external hotelier to provide the facilities.







Great Food, Excellent Views, Consistent with Mission, Messaging and Story

GROUP GATHERING

Several types of rentable group gathering areas have been envisioned by the Master Plan:

- Group Picnic Areas
- Meeting / Function Rooms
- Birthday Party Rooms
- Changing Exhibits and Special Events

Each of these areas provides not only a regular revenue stream for the Zoo, but also, by virtue of their siting and association with the Zoo as a leading conservation organization, will attract families and groups who are drawn by the Zoo's mission and motivated by a desire to support it.

Group Picnic Areas:

Pridelands Picnic Area

 Adjacent to the existing Simba Safari Lodge and washrooms, it can host large groups in close proximity to the Savanna animals.

Discovery Picnic Area

 Located within the Children's Zoo, it can host school groups and special events in close proximity to washrooms and shelter.

Meeting / Function Rooms:

Waterside Restaurant – 2nd Floor:

 Located immediately adjacent to the Entry Plaza, the 2nd floor can host meetings of up to 200 people in a divisable space overlooking the Entry Lake. In addition, the downstairs restaurant is easily rentable for evening functions.

The Red Barn:

 On the far side of Meadowvale, the Red Barn can be developed to create several medium-sized rooms with adjacent outdoor spaces to host meetings of up to 50 people and weddings.

Birthday Party Rooms:

Birthday Party Rooms:

 Two party rooms and associated washrooms will be located in the Discovery Learning Centre. Party rooms provide rental opportunities for birthdays, weddings, and other events. Close proximity between the Carousel, "Bugs!" and "Kids Discovery" Indoor Play space create opportunities for fun-filled events that can be enjoyed year round.

Changing Exhibits and Special Events:

A new HVAC-equipped "sports tent" enclosure will be erected and will host everything from changing exhibits to Zoo fund-raisers, day camps and special events



Northwest Trek Wildlife Park, Eatonville, Washington

Special Small Group Tours

ADVENTURES

Select activities are enabled through appropriate rides that do not diminish visitor or animal experience of the exhibits, and through adventure play, such as the Eco-adventure tree-top trekking tour and zip line taking Zoo guests deeper into the Rouge Valley. Tree-top experiences area renowned for creating very little footprint in the natural environment, allowing the guests taking the tour to gain a greater appreciation for the environment. The tours have the ability to educate while also being environmentally friendly.

GIFTS

A primary Zoo gift shop located at the Zoo's entry/exit does not require visitors to exit through it, but is so inviting that they cannot help but to stop at the end of their visit to commemorate an excellent day. A garden gift shop and café associated with the Park facilities on the east side of Meadowvale Road appeals to avid or budding gardeners and some of the senior community. It expands the retail product line the Zoo can provide while encouraging sustainable gardening and wildlife-friendly products, such as bat boxes.

PROGRAMS & EVENTS

Paid programs, classes, lectures and events take place throughout the Zoo, supported by new and updated facilities. They are consistent with the Zoo's messaging and mission, and help to support co-aligned Parks programs.









Toronto Zoo Gift Shop

SITE CIRCULATION

Pedestrian circulation will be redeveloped to create fully accessible routes throughout the Zoo. This has been mandated to occur by 2025, but it is also in the best interest of the Zoo as it considers the needs of not only the disabled community, but also the needs of both young families and senior citizens. The accessible Core Loop will circulate from the Entry to link up the Indo-Malaya Pavilion, the African Rainforest Pavilion, the Gorilla Café, the Carolinian Forest Walk, the Caribou Café, Kids Discovery Zone and back to the Entry. Individual exhibit precinct loops will encompass 20-30 minute walks and include the future "Orang Forest", "Gorilla Forest", "Pridelands", "Wilderness North", "Kids Discovery" and "Bugs!".

Additionally, accessible trails, as well as challenge trails will be developed through the forested hillslope above the Rouge River, linking the various ponds together for guided hikes and bird watching, as well as access to "Wolf Woods".

Visitor-focused vehicular transportation will be organized to provide the following options:

- Remote Parking and Facilities Transport Route: roofed tram service that operates to link visitors arriving at remote parking spaces with the Entry, as well as visitors who wish to gain easy access to the Red Barn area, the Rouge, or the future Lodge on the east side of Meadowvale Road.
- Carolinian Forest Treetops Transport Route: Should the need be determined, an aerial gondola link between a "transportation hub" adjacent to the Orientation Plaza and the Twiga Retail Store & Snack Bar could be established to provide an easy way to divide up a visit and get back to the Entry. Interpretation in the gondolas could provide information on the nature and care of the central and surrounding Carolinian forest that from the backdrop and framework for the Zoo. This route is potentially capable of being extended across Meadowvale Road to connect with the proposed Festival Area to supplement the Zoo Parking Shuttle loop.
- Summer Zoo Transport Route: combination ride / transportation linkage that provides

- Zoo-wide back-of-house / alternative views of animals and their habitats, and interpretation about what is going on at the Zoo.
- Winter Zoo Transport Route: a new route that would cover the Core Zoo Area during winter holidays and weekends, and keep visitors from having to walk too far in inclement conditions. It would require a link from the "Gorilla Forest" entry along the east side of the building to connect up with the Giraffe Service Access Road. Additionally, it would require that the Tram Bridge become an allweather vehicular circulation link.
- Conservation Breeding Herds: Up-Close: Safari-style vehicle for special group excursion for close-ups and feeding of the Zoo's conservation herds.
- "Wolf Woods" Transport Route: Tram route to take special groups and their equipment up and down the slope that leads to "Wolf Woods" from the upper tablelands.

Each of these could be evaluated for whether they are "free" services with the costs included in the price of admission or "value-added" services that can be selected and paid for separately.

LEGEND Operational SITE Support Area Animal Area "CANADIAN WILDERNESS" Building - New / Re-developed Building - Existing "Wilderness North" Service Area Water - Existing "TUNDRA TREK" ZOOMOBILE STATION Water - New / Re-developed "Tropical Landscape - Themed Tour Landscape - Garden THE LODGE SHUTTLE STOP Americas" Conservation Landscape - Mapped Vegetation Herds Landscape - Carolinian Forest Landscape - Core Woods "ASIAN HIGHLANDS" Canada SPECIAL EXHIBITS Pavilion ZOÓMOBILE STATION Rockwork **Existing Contour Lines** --- Site Boundary arolinian 'Discovery Zone" PRIDELANDS PRIDELANDS PRIDELANDS CIRCULATION Visitor - Plaza / Decision Making FUTURE THE RED BARN SHUTTLE STOP "GORILLA Reverse LIFT Point FOREST" MAIN ZOOMOBILE · Visitor - Gateways AFRICAN RAINFOREST Visitor Pathway - General Path Route Visitor Pathway - Core Loop "Across the Equator" ···· Visitor Pathway - Precinct Loop RHINO PRIDELANDS" "Wild Woods" Visitor Pathway - Trails RIDGE" Service Road Oceania Pavilion Public Road Gondola Route East ... ORANGUTAN FOREST ZOOMOBILE STATION Zoomobile Route SIMBA SAFARI ZOOMOBILE STATION Zoomobile Station / Stop Campus Zoomobile Winter Shuttle African-Rainforest RNUP SHUTTLE STOP Special Tour Route Shuttle to Overflow Lots Pavilion Shuttle Stop Multiple-use Route Parking - Visitor Parking - Bus **VISITOR AMENITIES** Water Play Area * Play Area Washrooms Food Retail toronto Master Plan - Circulation Plan 010 50 Toronto Zoo Master Plan November 2016

TOURS & TRANSPORTATION

- The Zoomobile tour continues to run on a modified route that provides for excellent views and experiences while minimizing overlap with other general circulation routes. A shortened loop can provide key connections without the back-of-house and exhibit tours. During the off season allowing for a weather protected visit to the Zoo and a connection to the major pavilions.
- Special tours provide guided access for small groups to experience certain highlighted areas, such as the conservation herds or the Wildlife Health Centre. Staff give behind-the-scenes information and interpretation, and perhaps facilitate interactive animal experiences, such as feeding conservation herd hoofstock.
- An aerial lift from the Zoo entry up the forested slope to the top of the tablelands takes advantage of an existing clear corridor through the trees. It gives visitors an enjoyable ride as they travel easily and directly to the gateway to some of the "must see" animals in the Zoo's African Rainforest and "Pridelands" as well as an expedited return to the Front Entrance.
- A Zoo Shuttle provides easy loop transportation from remote parking locations, overflow parking, the Festival Area and the future Lodge to the front door of the Zoo. It would run on a regular schedule throughout the peak season







SITE

Animal Area Building - New / Re-developed Building - Existing Service Area Water - Existing

Water - New / Re-developed Landscape - Themed Landscape - Garden

Landscape - Mapped Vegetation Landscape - Carolinian Forest Landscape - Core Woods

Rockwork **Existing Contour Lines** Site Boundary View Lines

CIRCULATION

Visitor - Plaza / Decision Making

· Visitor - Gateways Visitor Pathway - General

Visitor Pathway - Core Loop

Visitor Pathway - Precinct Loop Visitor Pathway - Trails

Service Road **Public Road**

Gondola Route --- Zoomobile Route

Zoomobile Station / Stop

Zoomobile Winter Shuttle Special Tour Route

Shuttle to Overflow Lots

Shuttle Stop

 Multiple-use Route Parking - Visitor

Parking - Bus

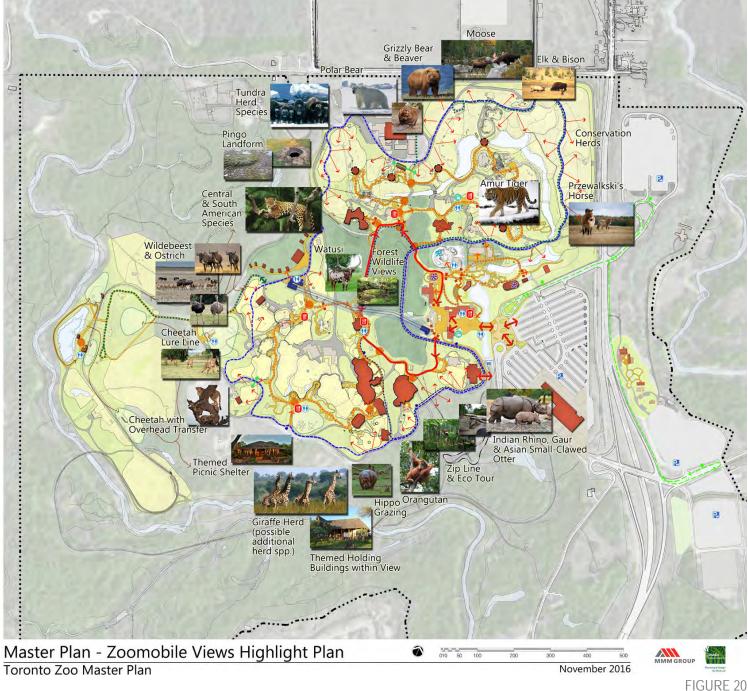
VISITOR AMENITIES

Water Play Area

Play Area Washrooms

Food 0 Retail





PARKING

In addition to minimizing the parking footprint the Zoo will green that footprint. All new parking will be designed and constructed to the Toronto Green Standard or a higher Toronto Zoo standard. An objective will be a more natural water and temperature regime which will be achieved by the extensive use of porous pavement and bioswales.

Parking will be provided for Zoo visitors, with the potential for future Rouge National Urban Park (RNUP) visitors. Current (2016) capacity provides sufficient parking for all but peak days for Zoo visitors. During peak use, the challenge becomes one of traffic, vehicles waiting for passenger pickup, and expectations management. With the addition of RNUP visitors and/or the removal of any parking spaces for the development of an education centre or lodge, this problem would be exacerbated and could trigger the requirement for a parking structure to minimize the walking distance for Zoo guests.

Primary visitor parking will remain located west of Meadowvale Road, close to the Entrance Plaza, proposed restaurant, Learning Centre and Rouge National Urban Park Shared Use facility.

Parking on the east side of Meadowvale Road is currently configured in two major areas. A large paved lot is located in the north with an entrance drive located directly opposite from the driveway to the Arrival/Departure Plaza. The master plan considers this lot to be a potential redevelopment location for a boutique lodge. Existing parking that would be displaced may be replaced with a parking structure in the main lot. Because the area is already paved, there would be minimal disruption to natural systems. A business feasibility study should be developed that takes into consideration the business model for the lodge as a turn key operation in the context of the business model of the Zoo. Prior to that, a review of regulatory requirements including setback dimension from top of bank, local species inventories, geotechnical and servicing constraints would need to be undertaken.

Two smaller overflow parking areas are located south of the Red Barn and west of Pearse House in the proposed Festival Area. These are currently

primarily overflow parking or dedicated to the users of the existing buildings. A series of discrete, appropriately scaled parking areas that are conducive and sympathetic to a pedestrian scaled use of should be considered for this area. The parking locations should be developed using permeable surfaces and clearly defined stalls that maximize the efficiency and minimize the per car footprint. Deciduous, native species trees should be planted to shade the vehicles and provide trans evaporative cooling through the leaf canopy. Whenever feasible, the trees should be grown from seed local to the Rouge River riparian zone. The layout of stalls and trees designed such that exposure of the vehicles to southern and western sun is minimized.



ENTRANCE PARKING CONCEPT

HABITAT PLAN

WETLAND & WATER

The waterways and wetlands of the Zoo offer an extraordinary opportunity to connect past and present Toronto Zoo and Rouge National Urban Park wildlife and habitat conservation and experience. As recently as the mid 1950's River Otter (Lontra canadensis) was present in the Rouge River. A resilient , playful and intelligent species, otter will make a re-appearance as a signature species in the redesigned Entrance Plaza. They are however, extremely intolerant of pollution, and this provides an excellent learning opportunity to make connections the history of the Rouge River, the wild species and habitat that traditionally occupied it and the impact of humans on those species and habitat.

Restoration of the Zoo's waterways and wetlands will provide better links between conservation, ecology, visitor experience and water quality. In addition to the Canadian species exhibits such as the Otter exhibit, opportunities will be provided to make connections with the restaurant, a possible wetland walk, bird watching and stormwater re-use technologies such as Living Machines.

STORM WATER

Shallow groundwater around the perimeter of the site flows laterally in a general southerly direction and in response to the contours of the river bank.

Much of the exhibit portion of the site drains to a series of ponds and swales constructed along the perimeter of the site. The parking lot drains to perimeter swales. Based on a visual review of the maps and a physical review of the most readily accessible portions of the site, it appears that the swales discharge to a stormwater management pond located at the south portion of the site west of Meadowvale Road and into storm sewers. We infer that the stormwater pond was originally constructed for erosion and sediment control during the construction of the Zoo when the ground was bare, stripped of vegetation and there was a high risk of sediment wash-off during rainstorms. The majority of the site is now stable with little risk of sediment wash-off during storms, however the animal holding areas and other areas, especially those that are paved, continue to require stormwater management.

Currently there is a stormwater management pond south of the bank on the west side of the main parking lot. We have not evaluated the condition or performance of this pond. It should be monitored for sediment build-up and its current capacity for active storage confirmed. There are a series of smaller ponds and streams on the site that have visible water quality issues Based on discussions with zoo staff, we understand that strategies are under consideration to address these and other storm water quality issues. A Zoo Waterway Quality Study was commissioned in 2004 and the Master Plan will take the recommendations from that study into account.

All storm sewers and the entire Zoo property drains into the Rouge River. The eastern storm facilities outlet into the on-site ponds located within the Zoo properties, which in turn convey flows to the Rouge River. The western portion of the site nearest to the Rouge River discharges directly into the Rouge River or into a small tributary leading to the Rouge River.