

15-186

2014



City of Manitowoc
Lincoln Park Zoo – Long Range
Plan

10/1/2014



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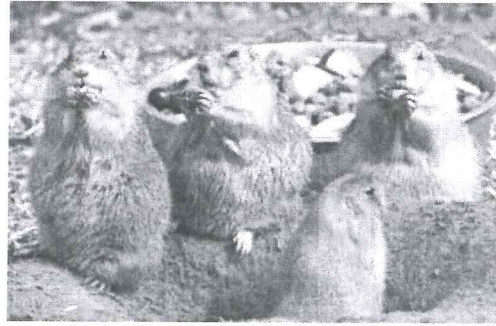
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Executive Summary

The purpose of this Long Range Plan for the Lincoln Park Zoo is to provide the City of Manitowoc Zoological Board, the Manitowoc Zoological Society, and City Staff with guidance for future projects and fundraising efforts relating to improvements and expansions to the zoo.



This Master Plan presents a unique opportunity to rethink and re-engineer infrastructure at the zoo while engaging and educating the public about sustainability. The function of this plan is to provide adequate infrastructure to meet the current and future needs of the Lincoln Park Zoo and to facilitate meeting the goals of the zoo.

Multiple planning sessions by staff took place during the summer and fall of 2014 in order to compile the information contained herein. Topics discussed included facilities, exhibits, and special events. Particular attention was given to the vision of how we would like the zoo to function and be laid out in the future, and how these amenities fit into that vision. Considerations taken into account included: visitor needs and convenience, safety, strengths and weaknesses of the zoo in its current configuration, physical space limitations and opportunities, and desires expressed by the community.

As an amenity that provides cultural, educational, and recreational opportunities, the creation of new and improved exhibits and programs will serve to provide guests with optimal experiences as well as elevating the Manitowoc Zoo to a prominent position as one of the best small zoos in the region. This fact, along with the Wisconsin Maritime Museum, the Rahr-West Art Museum, the Badger Carferry, the Aquatic Center, and the newly constructed mini-golf facility all serve to establish the City of Manitowoc as a destination, and thereby increases local commerce and improves the local economy.

Cost estimates were not prepared as part of this plan. The decision not to include costs was made primarily because of the variability in unit costs depending upon the effects that the particular year, and time of year, have in construction costs. The scope of the project also has a huge influence on cost, so depending on what is being constructed within the confines of a single project can have a significant effect. Finally, additional details on many of these exhibits are somewhat dynamic, and will only be finalized in the year prior to construction.

Please note: This document references and updates the following previous plans: *Long Range Plan, Manitowoc Lincoln Park Zoo, 2009 and Beyond* and *Manitowoc's Lincoln Park Zoo: Master Plan Report, McFadzean, Everly, and Associates, February 1, 1990.*

Mission Statement of the Zoo

The mission of the Lincoln Park Zoo is to maintain an ethical, high quality Municipal Zoo. Towards that end we will educate zoo visitors, provide the City of Manitowoc with a diverse array of North American native animals, along with a balance of exotic animals, and improve the living conditions and habitat for animals at the zoo.

Mission Statement of the Zoological Board

The Manitowoc Zoological Board is committed to providing the community with an animal oriented recreational and educational experience, which will promote environmental awareness and conservation.

It is the intent of the Zoo Board to formulate policies and plans which will provide for the health and welfare of animals, with meaningful exhibits that will entertain visitors, satisfy curiosities, and create a positive educational interaction between people and animals.

This goal will be accomplished through cooperative community input, dedication to excellence, economic awareness, innovative ideas, and the utmost integrity.

Purpose and Goals of the Lincoln Park Zoo

In recent years, the primary purpose of zoos in general has shifted from recreation to conservation and education. Both of these facets are accomplished by providing exhibits consisting primarily of the animal's natural habitat, and presented in such a way so as to demonstrate to visitors that animals and their habitats are mutually dependent upon one another. By extension, destroying habitat destroys the ability of the animal to survive. Natural habitat education conveyed through the exhibit helps strengthen understanding by the general public.

The education component is a facet of the Lincoln Park Zoo that staff feels particularly passionate about. The interaction between the zoo and various schools and other groups is critical to the success of the zoo and its mission statement. It is primarily through this component that this long range plan was designed to expand and enhance. Components of this plan account for the expansion of this program into a major focal point of the zoo.

That being said, a primary reason people visit zoos remains for the recreational aspect. Attending the zoo, and zoo events, is primarily a family activity. Visits to the zoo provide a great opportunity to be outside in nature and observe animals in a safe, natural environment.

The fact that this zoo is situated within Lincoln Park affords additional recreational opportunities. By constructing the exhibits contained within this plan and expanding the zoo, there is the potential for added synergies with other Lincoln Park activities and / or the establishment of new events to draw visitors.

An excellent opportunity for building community value exists with the Lincoln Park Zoo and its role in helping the City of Manitowoc in establishing itself as a tourist destination. Not only do local businesses benefit from tourist dollars spent in Manitowoc as the result of visits to the zoo, but it also adds tremendously to the sense of culturally valuable amenities the city is able to offer.



Planning Criteria

The following factors were considered for the development of this plan:

1. Quality of Exhibits
 - a. Animals & habitat native to Wisconsin
 - b. Visual continuity between exhibits
 - c. Interpretive signage describing each exhibit

2. Welfare of the Animals
 - a. Improvement in shelter and exhibit quality to benefit animal health & hygiene
 - b. Enhancement to animal care programs
 - c. Protection of animals regarding security measures

3. Quality of Experience for Visitors
 - a. Accessibility of buildings, walks, and pathways
 - b. Use of interpretive signage
 - c. An education center for demonstrations and school group programs
 - d. An entrance building with revenue generating facilities
 - e. Improvement in visitor services, e.g. food, gifts, restrooms, rest areas, shelters, and emergency plans
 - f. A simple and clear circulation plan

4. Maintenance Considerations
 - a. An improved plan to quickly address broken items, vandalism, etc.
 - b. Improvements to exterior service areas and access system
 - c. Improvements in interior service areas and operations
 - d. Establishment of new and more efficient staff maintenance programs

5. Economic Viability
 - a. Expansions and upgrades must be economically sustainable
 - b. Long term staffing and maintenance considerations
 - c. Construction phasing plan
 - d. Fundraising opportunities

Objectives

The primary objective of this plan is to outline a series of capital improvements that will provide the highest level of care for zoo animals, protect animal health and safety, increase access to conservation education, and provide the richest experience possible for zoo visitors.

This long range plan takes into account a specific limited amount of species for exhibits based upon the physical size and space limitations of the zoo as well as the approach of maintaining exhibits based upon species native to Wisconsin. It is our firm belief that fewer, smaller exhibits done very well carry more weight with the public as opposed to more numerous and/or larger exhibits done less well. This philosophy also is harmonious with the economic implications and educational objectives of the zoo. An additional benefit of limiting species to those native to Wisconsin is that these animals are better able to handle the cold winters, and therefore require less maintenance, less expensive housing, and less specialized medical care.

Exhibits are arranged so compatible animals are grouped together. In other words, visitors are given a sense as to how they congregate in the wild. This is done to educate the public on the relationships between species. Also, such groupings tend to produce healthier animals. Predators and prey relationships will also be expressed so visitors can observe how these dynamics affect natural habitats.

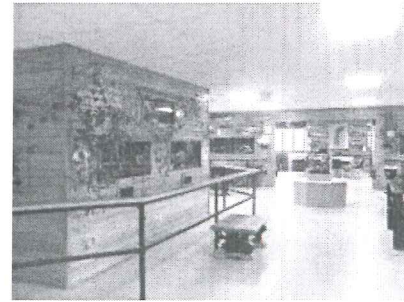
Exhibits will be designed by using, to the extent practicable, existing natural topography, vegetation, and open expanses. Messages will be conveyed regarding how visitors can help with animal preservation, health, and happiness.

This Long Range Plan provides a road map for long term exhibit and site planning that creates a synergy of thematic elements and messages that support the zoo's mission. Long term planning is important to ensure work done to implement projects support future improvements and does not create expensive impediments. Given that components are integrally related, staff tested ideas and looked for opportunities to solve multiple problems with each decision that was made throughout the master plan process. Figure 1 presents a map of the current zoo while Figure 2 illustrates the results of this planning process.



Analysis of Existing Site Conditions

See Figure 1 for a map of the current zoo



1. Site Deficiencies & Challenges

- a. Directional signage starting at the freeway to direct visitors to the zoo needs to be upgraded and clarified
- b. Parking is not adequate
- c. The site is not optimally utilized in terms of space usage
- d. There are few visitor amenities, shelter, or sitting areas

2. Utilities

Upgrades are needed for water, sanitary, and stormwater in order to optimize the exhibits and provide adequate fire protection.

3. Existing Structures

For the most part existing structures are fine. The following is an analysis of suggested upgrades in order to increase safety and / or efficiency.

A. Bison Barn

- a. Bison exhibit fence – a certain spot along the fence bison are able to go up to the fence and visitors attempt to touch the bison. Ideas – reestablish current rocks and add more or replace rocks with buried phone posts with or without thick cables between posts.
- b. Bison floor drain – place a drain “canal” from the bison inside gate to the drain in the middle of the hallway floor. This eliminates zookeepers walking through urine when bison urinates in the barn. Replace heavy grate covering drain with a lighter version to eliminate the trip hazard.
- c. Grain bin – Current plastic barrels are being chewed through by squirrels, chipmunks, and rodents. Ideas - Replace the plastic barrels with water basin with secured lid to prevent animals from chewing through it. Currently wild animals are getting into the grain barrels, eating the grain and urinating/defecating in the grain. This could cause sickness in the zoo hoof stock.

- d. Sheep animal entrance to barn – dirt in front of the sheep entrance to the barn has eroded to the point it caused a huge drop off from the barn floor. Ideas – build up the dirt or install a ramp for easier access for the animals, especially the birds and to move manure barrels inside and out of the barn.
- e. Hay feeders – have metal hay feeders attached to the inside of the barn on the sheep and goat areas.
- f. Lighting – Improve the lighting throughout the bison barn. Currently there is one little light lighting up each area of the barn. Not enough light for vet visits or for cleaning and maintenance.

B. Bear Exhibit

- a. Bear den room – shrink the den room by adding a fence to split the room creating an animal area and a keeper area. This would separate the building in two if a bear would need to be quarantined. Half the building would consist of the modified den room with a separate outside exhibit door and the other half would consist of two pens and separate outside exhibit door. Plus this side would have access to a small yard that could be closed off from the main yard by closing the existing sliding gate.
- b. Bear yard door – remove the current latch and replace with a more secure bolt lock. Currently, if door is not closed tightly, the bear could get their nail in the door and rip it open.
- c. Maintenance gates – double gates on the maintenance gate to prevent animal escape when loading and unloading animals. Also, the maintenance gate needs to be realigned; difficult to almost impossible for one person to close.

C. Kitchen

- a. Renovations which would include a closed off kitchen area and two storage rooms. Other renovations ideas would be replacing the counter, adding cupboards, creating a food/enrichment storage area, and adding a washer/dryer.

D. Big Red Barn

- a. Floor drains – move drains from inside the pens to outside the pens for proper cleaning of the pens.
- b. Dumpster enclosures – An area to hide the manure barrels so they are not an eye sore out in the open.

E. Ed Center Exhibits

- a. African Tortoise Exhibit – Removing the rocks and sand and installing a sealed floor with a dimple to form a puddle for the tortoise to wade in and/or drink from. Plexi glass would be attached to the side of the planter shelf to keep the tortoise from damaging the wood. See NEW Zoo pictures.

F. Aviary (current pheasant/quails)

- a. Exhibit Renovations - Renovate the exhibit by adding exhibit doors to the back of the exhibits, adding double gates (proper for bird exhibits), and removing the floors to the quail exhibits. Pheasants and quails would be replaced with smaller birds of prey species such as saw-whet owl, kestrel, merlin, etc.

G. Current Birds of Prey Exhibits

- a. Double gates – Proper to have double gates on bird exhibits to prevent birds from escaping.

H. Born Learning Trail

- a. Remove vegetation and weeds and plant hedges to prevent visitors from walking out of the wooded area from anywhere. Two areas to enter and exit which are on the ends of the trail.

I. Cat Exhibits

- a. Maintenance gates – double gates on the maintenance gate to prevent animal escape when loading and unloading animals.
- b. Exhibit perimeter fencing – Strengthen the mesh fencing possibly by weaving a wire to attach mesh sections together or placing a metal strip through the areas where the mesh sections attach and hog ringing the strips to the mesh for more strength. See North Carolina Zoo pictures.
- c. Cougar visitor observation stump – A sign needs to be added to the stump to keep visitors from climbing it and getting on top of the cougar exhibit. Also, small meshing should be added around the stump to keep visitors from trying to stick their fingers through the fence.

J. Animal information signs

- a. Signs are very thin and stick out enough that small kids are walking into the signs. Ideas - Possibly adding a decorative box under them, adding shrubs or rocks to make the signs more noticeable to zoo visitors. It was also suggested to place donation boxes under the signs for helping to feed the zoo animals.

K. Drive way

- a. Drive way inside the zoo could use a new layer of gravel before winter. Cement slab near observation deck is 3 inches above the existing gravel layer.

L. Other

- a. Exhibit windows – Install windows on all outside exhibits to dictate to zoo visitors where they are allowed to view the animals. This would also allow visitors to take photos without having the exhibit fence in the pictures. Having designated areas for view the animals also would keep visitors from going up to the fences and sticking their fingers through. Non-viewing areas would have the small mesh added to the fence or vegetation would not allow room for people to make their way to the exhibit fence. Animals also would feel more secure in the exhibit, giving them secluded areas away from visitors but still in the view of the visitors.

4. Topography / Hydrology

The zoo is approximately 16 feet higher at the entrance from Lincoln Park than it is near the Little Manitowoc River. Slopes are between 20% and 30%, which can be very challenging for habitat areas. There are issues currently with runoff due to water running down these steep slopes and causing erosion, ponding, and mud.



Long Range Plan

Every animal at the Lincoln Park Zoo should be able to go outdoors, breathe fresh air and experience wind, rain, snow, and sunshine. Every animal should be able to make choices about how to spend the day. Every animal should be able to live alone or in a family or social group appropriate to its species and sex, by choice, as it would in a wild habitat.

New habitats will be made from natural materials and open to the air and sky, with sheltered areas for colder seasons. Flooring will be natural soil, grass, or other well – drained, porous material. Animals will be able to look outside of their areas and see adjacent habitats, visitors, and other parts of the zoo. Each habitat is designed for flexibility to accommodate mating, pregnancy, the arrival and rearing of offspring (as appropriate), and a variety of social groupings for each species. Some animals prefer to live fairly solitary lives, some live in pairs, and some in large family groups. The new and renovated exhibits will accommodate these choices. Each habitat will also be a stimulating environment providing animals with daily opportunities for discovery, play, and problem solving.

The following are descriptions of amenities as shown on Figure 2.

Infrastructure

Parking and Picnic Areas: Along with new and expanded exhibits at the zoo, a rise in attendance will naturally follow. As such, parking and picnic facilities will need to be expanded.

In order to accommodate parking needs, allow for better visibility, and make for a more traditional and inviting zoo entrance, the main access point to the zoo will be constructed off of Reed Avenue. An asphalt paved entrance and parking lot should be constructed.

The entrance from the park itself will also be maintained. The existing parking lot will be reconstructed at the time the park road itself is rebuilt.

A large picnic area in combination with a potential stormwater treatment pond complete with a fountain is proposed to be constructed just east of the newly constructed whitetail deer exhibit. This picnic area can be constructed with minimal expense but would provide a nice area for visitors to rest, gather, and refresh themselves. It is suggested that picnic tables and benches be

placed in this area. In addition, benches should also be placed in various locations around the zoo. These benches and picnic tables could be used as part of a fundraising program.

A second gate shall be placed at the entrance off of Reed Avenue to match the one at the Lincoln Park entrance. This gate, while chosen largely for its aesthetics and reflection of the theme of the zoo, is also necessary to secure the zoo and site. Upon construction, this gate will also function as the main entrance to the zoo.

Buildings & Grounds

Concession Stand & Gift Shop: As with many other zoos, this operation could be staffed by volunteers. Revenues could be quite substantial. Placing this by the entrance to the zoo could also be combined with an additional donation tube to further increase revenue. Success of these types of operations is usually predicated upon the uniqueness of the items available for sale, and how they are associated with the zoo itself. This is a unique opportunity to tie the gift item to the interpretive message goal of the zoo with offerings such as books on nature and wildlife, birdfeeders, mugs and apparel with the zoo logo and other messages, and children's activity books, among others.

Open Shelter & Restrooms: The shelter provides an area for people to congregate, rest, picnic, and use restroom facilities.

Open Deck / Classroom: This proposed area involves the conversion and renovation of the current wolf building into a place for staff to conduct educational offerings, classes, and seminars. This will be a building where zoo visitors and education program participants can learn about the zoo's conservation programs and about environmental conservation in general. The structure is proposed to be an area for school children to gather for zoo orientation and for the public to congregate for animal demonstrations and talks.

Event & Education Classroom (EEC): We are looking at taking the present wolf building and exhibit and converting it into a section of the zoo focused on visitor contact. The building and pens would be rehabilitated into areas that would house education animals that would be used specifically for education programs and outreach. Such animals may include a parrot, skunk, raccoon or porcupine, snake, lizard and insect species. The building will be expanded to include an area for on-site education programs as well as be available for rent to the public for meetings and parties. A portion of the exhibit would be transformed into an open deck area and amphitheater in order to bring education programming outside during the summer months.

Butterfly Garden: The Lincoln Park Zoological Society has been working on developing a butterfly garden to educate the public on how urban areas can be used to help butterflies and other pollinators. They have arranged a collection of plantings that will grow into a lovely place to gather. This area links together the other Zoo Society interests; the gazebo and the secret garden.

Secret Garden: This will be an area for young children to go and participate in sensory activities. Included in this area will be a sand box, large tires and interactive games that will introduce young ones to nature. This ties very well into the born learning trail which is located immediately adjacent. The Secret Garden will also be a wonderful place for visitors to gather and picnic on the nearby tables and benches.

Exhibits

Walk Through Bird Exhibit: This exhibit replaces the old white-tailed deer exhibit and current sandhill crane exhibit and corner pond. Visitors would walk through double gates to enter exhibit on one end by walking onto an elevated, wooden walkway. The exhibit would house native marsh bird species and waterfowl species that could possibly be observed on the Little Maniwoc River; marsh bird examples such as sandhill cranes, American white pelican, great blue heron, and duck species examples such as golden eye ducks, wood ducks, and redhead ducks. After learning about the variety of bird species, visitors would continue walking through another set of double gates. Once through the exhibit, visitors have the option to walk out onto a platform that looks over the Little Maniwoc River. This gives the visitors an opportunity to see what marsh birds and waterfowl they can see on the river. On the river, osprey platforms would be installed for nesting opportunities. This exhibit would draw in bird enthusiasts. The zoo would acquire birds from wildlife rehabilitators, sanctuaries, and zoos.

Otter: This exhibit would be located off the Reed Avenue zoo entrance and house river otters. The back side of the exhibit would face Reed Avenue with the zoo name on it; large enough to see from the road.

White Tailed Deer: This new exhibit is located in the wooded area behind the playground, running from the edge of the old exhibits over to the Big Red Barn fence line. The exhibit is a larger, wooded area to house a large herd. It will have a safety area for separating the buck from the main area when needed and a chute for easier vet care without having to administer anesthesia. This exhibit will house a white-tailed deer herd and wild turkeys.

Wolf: The exhibit will be relocated across the sidewalk from the current wolf exhibit. In place of a building it will have a fenced in holding area for the wolves. The exhibit can cover the rest of the wooded area next to the new white-tailed deer exhibit and expand down towards the Reed Avenue driveway.

Small Animal Exhibits: These can be located in the "old zoo exhibit" area down towards the Reed Avenue driveway. Depending on future construction of other exhibits, 1-3 small animal exhibits can be created.

Sheltered Animal Pens: The education animal housing that would be located in the current wolf building. The education animal collection should be housed separate from the zoo animal collection to prevent the spread of diseases and to prevent education center exhibits from being empty during an Outreach Program (offsite programs).

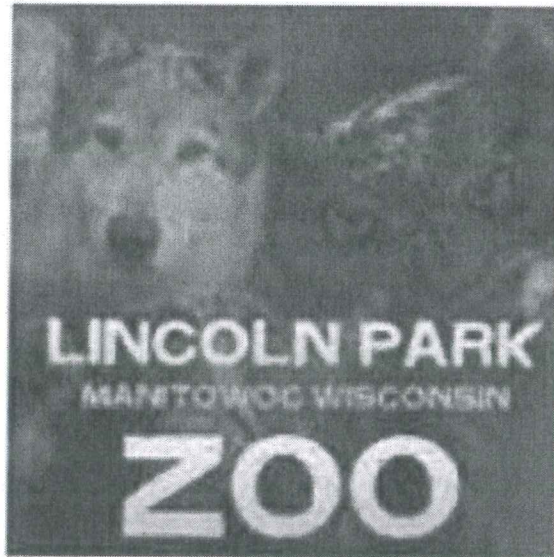
Lynx Exhibit: This would be located on the south side of the original wolf exhibit, across from the prairie dog exhibit. This exhibit would house a pair of Canada lynx from the AZA Species Survival Program. The SSP Canada Lynx allows breeding to help keep viable captive population.

Born Learning Trail: The trail is located in the wooded area across from the Dall's sheep and pygmy goat exhibits. The Born Learning Trail provides young children with an opportunity to become active and have fun out in nature.

Conclusion

This Master Plan for the City of Manitowoc Lincoln Park Zoo is a long range planning document meant to describe adequate infrastructure needed to meet the current and future needs of the zoo, while at the same time striving to facilitate meeting the goals of the zoo. These goals of providing opportunities to visitors for recreation, conservation, and education, can be accomplished by providing exhibits consisting primarily of the animal's natural habitat, presented in such a way so as to demonstrate to visitors that animals and their habitats are mutually dependent upon one another. This document provides a guideline for expansions and improvements to the zoo to not only meet these goals, but also to help establish the zoo, and the City of Manitowoc as a whole, as a destination for families to visit, learn, and enjoy.

In order to be most effective, this plan should be viewed as a "living document." The plan should be reviewed periodically to ensure that it still fits within the Mission Statement of the Zoo, and adjustments can be made as warranted.



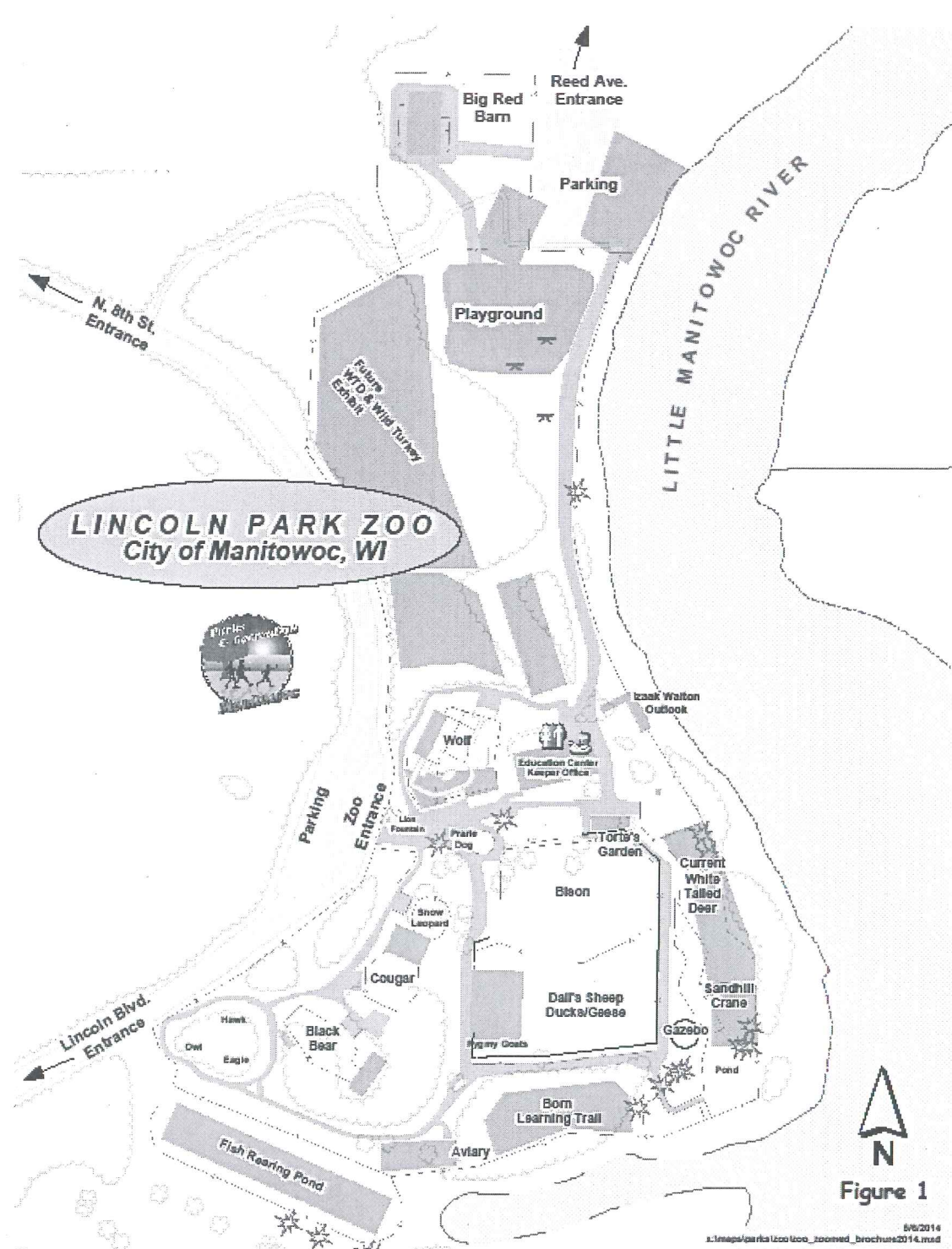


Figure 1

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REED AVE



Figure 2

Lincoln Park Zoo
City of Manitowoc, WI

DISCLAIMER: Maps and associated data are believed to be accurate, but are not guaranteed. This information is not intended for legal, survey, or other related uses. Please obtain the original recorded documents for legal or survey information.

Map Prepared by
City of Manitowoc Engineering Department
Map No. 2 - 10/2014
3/2015, 2016, 2017

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