



Milwaukee County

ATTACHMENT A.1 Zoo Humboldt Penguin Exhibit Enhancement

A. GENERAL PROJECT DESCRIPTION

The Milwaukee County Zoo is seeking Architecture and Engineering services for the Humboldt Penguin Exhibit Enhancement Project. Milwaukee is considered a four-season tourist destination. Seasonal visitation numbers for Milwaukee differ by only three percent from summer to winter. Revitalizing and updating the Milwaukee County Zoo's entrance experience will inspire our visitors' connection to nature and increase year-round Zoo attendance and regional tourism.

B. OVERALL PROJECT GOALS

The Overall Goals of this project are to facilitate, articulate and further the primary missions and visions of the Zoo established in the 2013 Master Plan, which are:

- Become the fun, family, educational, regional attraction, and destination of choice in the Midwest.
- Enhance and continue to be recognized for wildlife and conservation efforts.
- Continued excellence in animal care and to meet and exceed AZA animal care standards.

C. MAJOR COMPONENTS of the COMPOUND

Renovations would include: an expanded public viewing area to increase guest engagement with the species; alignment of the exhibit with current exhibit design standards.

- Upgrades to the water filtration system, indoor holding, and nesting areas, enhancing the Zoo's ability to care for this colony
- The redesigned exhibit will provide the opportunity for a nose-to-nose animal interaction for visitors of all ages, creating meaningful connections between guests and the Zoo's penguins.
- Renovations would create operational efficiencies by incorporating
 - State-of-the-art filtration
 - Reducing water waste
 - Expanding holding facilities to be more accessible for staff.

See Attachment A.3 – Milwaukee County – Humboldt Penguin Enhancement Charter

D. Design Basis

This renovation shall support the following exhibit animals, visitors, zoo staff, animal keepers, and their required activities to maintain the exhibit and to care for the exhibit animals:

- On-site staff – one (1) keeper
- Appropriately sized pool
- Considerations of potential increase size of colony
- ADA requirements for the behind-the-scenes viewing area
- Service vehicle spacing
- Food delivery
- Zoo operated multi-cart touring trailer traveling around the outdoor exhibits.
- Support staff and grounds keepers. Number to be determined.
- Number of visitors vary, depending on the season. Peak season (Spring / Summer) visitors to be in the hundreds, with continuous traffic at the outdoor exhibits.

- During peak season (Spring / Summer) visitors' groups usually consist of children. Large school groups are not uncommon.
- Visitor experience space.
- Non-architectural artifacts, objects and/or fixtures such as graphics, displays, and retail carts etc. may require spatial accommodations at unspecific locations.
- Cognizant of Zoo operations
- Design to or above and beyond AZA standards

E. PRINCIPAL DESIGN CONCEPTS

Additionally, several ideas reflecting Owner's expectations pertaining to physical characteristics, functions and performance for the facility are to serve as the principal design concepts. They are:

1. Exhibits-Driven-Design: The natural history, biological and welfare needs of the animals define the characteristics of the facilities that support them.
2. Habitat-exhibit Integration: Where the animals live and where they will be viewed are one and the same. Considerations must be made to ensure welfare and security while maximizing visibility.
3. Whole Life Exhibit: All the activities of the animal are presented to the public.
4. Protected Contact: Shared space and physical contact between keepers and animals will be minimal. Any points of contact must be designed to insure the health and safety of both people and animals.
5. Narrative Exhibit: The presentation of the animals in an environment and or structured manner that suggests messages about the animals' natural history, adaptations, behaviors, habits, etc. to form a "Narrative".
6. Designated Viewing: Public viewing spaces will be designed harmoniously with habitat design both to encourage animal visibility in designated locations and to highlight those locations for public viewing.
7. Cohesive Multi-Activity Settings: The fusion of settings for exhibit viewing, structured visitor programs, social gatherings and interpretive materials displays.
8. Structured Operations and Support Systems: Analytically visualized and prescribed efficiency-focus systems and procedures.
9. Invisible Statement Architecture: An architecture that expresses the exhibit functions of the facility, distinguished from common place animal exhibit motifs, yet presented as a faint background, allowing the animals to take center stage.
10. "High Impact" Approach to Sustainability: Selective in pursuing sustainability objectives, focusing on high impact applications.
11. Bird Collision Abatement: Where practicable, materials should be utilized that reduce the potential of fatal collision of migratory birds against windows, doorways, and other transparent exhibit barriers.
12. USDA Regulations for Animal Husbandry: Care of animals at the facility is regulated by USDA. The design shall be conducive to exceeding USDA standards.
13. Applicable Building and Site Development Codes: The project is located within the City of Milwaukee in the State of Wisconsin. Building and site development regulations of both governments apply.

F. SITE INFORMATION and SITE DESIGN CRITERIA

The exhibit will be renovated to account for the below scope requirements:

1. Expand water feature 20 feet from current area towards the front entrance
 - a. Nose-to-nose viewing required
 - b. Glass replacement to be considered for optimum viewing
2. Upgrade water filtration system
 - a. Adequate maintenance access
 - b. Improve efficiency, reduce chemical usage
3. Water tempering system upgrades
4. Additional shade
5. Additional rock features throughout the exhibit
6. Walkway/bridge connecting the current rock system to the new rock feature
7. Rubberized walkway for animals
8. Geothermal loop under the exhibit – to be considered
9. Overhead lighting - to be considered.

G. OPERATIONS SUPPORT and STAFF WORK AREA ELEMENTS

1. Relocation of keeper's space
2. External building that connects to the existing exhibit
 - a. Preference to indoor connection
 - b. Additional pool area within Keeper's space
 - i. 5'x8', 3' deep pool area

H. EXHIBIT VIEWING SUPPORT AND ENHANCEMENT ELEMENTS

1. What is now labeled as nose-to-nose, is a feeding area; this is an intimate area separate from the public. This is guided and blocked from general view.
2. Planter to the plan will need to be adjusted to allow pedestrians to view and pass as needed.

I. SUSTAINABILITY DESIGN CONSIDERATIONS

While a highly sustainable product is a desirable goal, it is an expressed expectation that the pursuit of such a result does not incur substantial cost increase in design effort and or construction. The pursuit shall therefore be selective and focus on "high impact" applications. The following systems or practices may be considered in total or in part, and may also be supplemented with additional options:

1. Enhanced Storm water management systems such as subsurface infiltration system, etc.
2. Water conservation systems and or practices
3. Energy conservation systems and equipment such as heat recovery system, etc.
4. Renewable Energy systems for heating and cooling such as geothermal system, etc.
5. Renewable Energy Systems for Electrical power supply such as photovoltaic system and power storage equipment, etc.
6. Natural Ventilation.
7. Natural Lighting.