

OAKLAND ZOO IN KNOWLAND PARK MASTER PLAN
ADDENDUM TO MITIGATED NEGATIVE DECLARATION/INITIAL STUDY

PROJECT DESCRIPTION

Background

Previous Master Plan Approval

In 1997 the Oakland Zoo submitted an application to the City for a major conditional use permit for the Oakland Zoo in Knowland Park Master Plan (Master Plan) intended to allow development of certain improvements and programs at the Zoo over a period of twenty years (Zoning Case No. CM97-25). On April 16, 1997, the Oakland City Planning Commission adopted a Mitigated Negative Declaration for the Master Plan and approved part of the Master Plan. On June 4, 1997, the City Planning Commission approved the remainder of the Master Plan. On December 15, 1998, the City Council adopted Resolution No. 74736 C.M.S. upholding the City Planning Commission's June 4, 1997 decision approving the California 1820 Exhibit portion of the major conditional use permit, subject to certain conditions of approval. The conditions of approval reflected the terms of a Memorandum of Understanding entered into by the Zoo and various neighbors regarding several land use issues, including the location of the perimeter fence.

Final Fence Location Approval and Proposed Master Plan Modification

In 2009 the Zoo has applied for two approvals. First, pursuant to the provisions of Master Plan Condition of Approval No. 11 the Zoo has applied to the Zoning Administrator for approval of the precise location of the previously approved perimeter fence. The perimeter fence will be an eight-foot high black cyclone fence that will be approximately 6,350 linear feet. Second, the Zoo has applied for approval of certain modifications to the Master Plan, including revisions to the California 1820 area that reduce the overall development and relocation of the veterinary hospital to a site previously approved for the California 1820 River Exhibit. This addendum analyzes the potential for new or increased significant environmental impacts associated with these approvals beyond those impacts identified in the previous Mitigated Negative Declaration.

Paving of Overflow Parking Lot

The overflow parking lot was repaved in 2007. This parking lot was in poor condition – pavement was worn and cracked and there was no storm drain system. The absence of storm drains resulted in storm water sheeting across the parking lot with most of the runoff draining into the Zoo although some runoff drained to the slope above adjacent homes located to the southeast. Improvements to the overflow parking lot included repaving, curbing, lighting and storm drain inlets. Improvements to the parking lot were included in the Master Plan and evaluated in the Mitigated Negative Declaration. Subsequent to approval of the Master Plan, storm water runoff and water quality standards were revised. Consequently, the Addendum will assess the potential for new or increased significant drainage and water quality impacts associated with overflow parking lot improvements.

Recent Projects in the Surrounding Area

The immediate residential neighborhood surrounding the Zoo was built out when the Master Plan was approved and has changed little over the past ten year. However subsequent to approval of the Master Plan, two large development projects were proposed in southeast Oakland: Leona Quarry and Oak Knoll. The Leona Quarry project was approved in 2004 and consists of 477 single-family and multi-family residential units to be constructed in two phases. The site is the former Leona Quarry and is located about 2.5 miles northwest of the Zoo. The first phase of construction has been completed and includes 427 residential units. The Oak Knoll project is a mixed use project to be developed at the 183-acre decommissioned Naval Medical Center, which is located about 1.3 miles north of the Zoo. The Oak Knoll project proposes 960 single- and multi-family residential units, local-serving commercial development and parks and open space.

Setting

The Oakland Zoo in Knowland Park (Park) is located in south Oakland, east of Interstate 580 and adjacent to Anthony Chabot Regional Park. The Park totals approximately 525 acres of which approximately 42 acres comprise the Zoo.

Implementation of the Approved Master Plan

The Master Plan provides the guiding vision for the Zoo over a 20-year period. (The Zoo is now at the mid-point of the 20-year process.) The guiding vision is to:

- Make optimum use of the unique combination of historic and native Californian landscapes in Knowland Park.
- Balance fiscal prudence and bold new ideas, building an achievable vision of the future for the Oakland Zoo in Knowland Park to make the zoo and park one of the outstanding facilities of its kind in the world.

The Master Plan addressed three unique landscape environments at the Zoo: the Historic Park Landscape and Arboretum, the Zoological Park, and the area designated for the new California 1820 exhibit. The Master Plan identified a variety of elements to be built in each of these areas. The Master Plan improvements for each landscape environment are summarized below. **Table 1** identifies the specific elements described in the Master Plan and shows their status. **Figure 1** shows the approved Master Plan map. The status of each landscape environment is discussed below.

Arboretum

The Center for Science and Environmental Education is completed and offers a variety of educational programs for children and adults. Restrooms located within the riparian corridor were removed to facilitate the Arroyo Viejo Creek restoration element, which has been completed. The Arroyo Viejo Creek restoration element included the repair of in-stream locations, bank erosion and stability, removal of all non-native vegetation and re-planting of the entire corridor with native riparian plants. Arroyo Viejo Creek is used as an outdoor lab, offering educational opportunities to teach students about watersheds, environmental stewardship and science. Of necessity, the restoration efforts will be on-going to remove non-native plants, install native plants and maintain trails. New plantings have been installed and will continue to be installed over time as the Arboretum ages. The one-way access road from the Arboretum to the Zoo has been widened to 30-feet to accommodate two-way traffic and a bicycle/pedestrian lane, which has improved circulation. The picnic shelters and new restroom included in the original Master Plan were not constructed and the Zoo does not plan to construct these facilities, thereby increasing the amount of open space in the Arboretum.

Zoological Park

The majority of the elements approved in the Master Plan have been completed, including the various animal exhibits, as well as improvements to the Children's Zoo, Snow Building, Safari Restaurant and gift center. The rides have been renovated. The main and secondary entrances have been improved and the overflow parking lot has been re-paved, which has improved parking and circulation conditions at the Zoo. A proposed wall along the southerly boundary of the Zoo (adjacent to the main parking lot) was not constructed at the request of the neighbors and was replaced with a landscaped buffer approved by the neighbors. The prior Master Plan approval allows for other improvements and upgrades that are on-going to maintain the health and safety of the animals including exhibit enhancements, visitor access/flow and public safety. A trail that was included in the approved Master Plan and would have extended from the African Savanna to the center of the Zoo has not been constructed and the Zoo no longer plans to construct this trail.

California 1820

An area known as California 1820 encompassing a variety of activities and improvements was approved as part of the original Master Plan approval. This element of the Master Plan has not been implemented and is the primary focus of the modifications to the Master Plan. The original Master Plan called for locating California 1820 primarily in Upper Knowland Park on approximately 25 acres of undeveloped land. The central theme focused on regional extinction, featuring native California species present prior to the Gold Rush. Five ecological units would be highlighted by the exhibits: grassland, chaparral, oak woodland, riparian and canyon. The exhibits proposed in the original Master Plan included a River Exhibit, Grizzly Bear Exhibit, Canyon Exhibit, and Oak Woodland Exhibit. Other features included an off-site breeding area, California Interpretive Center, a loop road and shuttle bus system, paving the existing fire road and installing an eight-foot black cyclone perimeter fence around the entire California 1820 and Zoo.

The proposed changes to the Master Plan includes five modifications to the California 1820 element of the Master Plan: 1) substitution of an electric gondola people-moving system to replace the loop road and shuttle bus system; 2) relocation of the interpretive center; 3) elimination of two major areas of animal exhibits and visitor facilities (Canyon and River Exhibits); 4) relocation of existing veterinary hospital and construction of a new veterinary hospital located on the site of the formerly planned River Exhibit; and 5) construction of an overnight camping area. A more detailed description of the proposed changes to the Master Plan is provided below.

Final Location of the Fence

The original location of the fence as proposed in the Master Plan was modified in response to neighbor concerns. The modification to the fence location is discussed in the MOU and is shown in **Figure 2**. To maintain the Zoo's accreditation, the perimeter fence is required by the Association of Zoos and Aquariums. The fence is also required by the United States Department of Agriculture for the license to exhibit animals. All perimeter fences are required to be separate from all exhibit fencing. Construction of the perimeter fence is planned to begin in Fall 2009.

TABLE 1: MASTER PLAN STATUS

Element	Status
<i>Arboretum</i>	
Center for Science and Environmental Education	Completed in 1999
Three new picnic shelters	Eliminated from Master Plan
Removal of exiting restrooms from riparian corridor	Completed in 2000
Arroyo Viejo Creek restoration	Completed in 2007
Widen existing one-way access road to 30 feet to accommodate two-way traffic and bicycle/pedestrian lane	Completed 2000
Pedestrian hiking trail connecting meadow with Upper Knowland Park	Eliminated from Master Plan
New plantings installed as Arboretum ages	On-going
<i>Zoo</i>	
African Savanna: new trail extending from existing elephant exhibit to center of Zoo; new exhibits along this trail include warthog, green monkeys, hyena; overlooks to view lions, impala, grater kudu and baboon exhibits.	Exhibits completed 1998 New trail eliminated from Master Plan
African Village: new restroom; food service and cultural hut adjacent to existing elephant exhibit	Completed 1998
Tropical Rainforest: new dense plantings for existing exhibits along trails; interactive displays/interpretive exhibits	On-going
Improved Safari Restaurant and gift center	Completed 2001
Improved main entrance including landscaping, new ticket booth, signage and banners	Completed 2001
New squirrel monkey and tiger exhibits	Completed 2002
Rides renovation	Completed 2003
Wall along southerly boundary across main parking area to screen parking from adjacent residences and provide a sound barrier. A landscaped buffer replaced the wall in response to neighborhood request as specified in MOU	Completed 2004
Children's Zoo improvements and upgrades	Completed 2005
Improved secondary entrance including landscaping, new ticket booth, signage and banners	Completed 2005
Replaced paving in existing overflow parking lots	Completed 2007
Snow Building: improvements including upgraded kitchen and hall facilities	Completed 2008
Australian Walk About: new home for existing wallabies, wallaroos, large flightless emus	Completion Spring/Summer 2009
Other improvements and upgrades to Zoo	On-going

<i>California 1820</i>	
Canyon Exhibit: featuring golden eagle, jaguar, bald eagle, white tailed deer, bobcat, great horned owl, walk-through aviary and California reptile	This element is proposed for elimination from the Master Plan. The exhibit is approximately 9 acres in size
River Exhibit: featuring river otter, great blue heron, sandhill crane and other animal species	This element is proposed for elimination from the Master Plan. The exhibit is approximately 3.7 acres in size
Oak Woodland Exhibit: featuring American bison, cougar, barn owl and grey wolf	This element remains
California Interpretive Center – viewing platform and interpretive exhibits	This element remains
Off-site breeding area	No set implementation date
Paving existing fire road	Completion in 2009/2010
Loop road and shuttle bus system	This element is proposed for elimination from the Master Plan. The loop road comprises approximately 5.7 acres
Perimeter fence	Fall 2009

Proposed Changes to Master Plan

The Master Plan acknowledges that plans change over time, particularly with a 20-year planning horizon. Since approval of the Master Plan ten years ago, the Zoo has chosen to eliminate several elements included in the Master Plan and is proposing to add three new elements that were not included in the Master Plan. The proposed changes are to the California 1820 area and would include the elimination of the Canyon and River Exhibits, the construction of an all electric gondola transportation system that would replace the loop road and shuttle bus system, the construction of a new veterinary hospital and the construction of an overnight camping area. **Figure 2** shows the proposed changes to the Master Plan map. The proposed changes would reduce the area of land disturbance previously approved under the Master Plan by approximately 2.05 acres (see **Table 2**). The proposed changes to the Master Plan are described below.

TABLE 2: COMPARISON OF APPROVED CALIFORNIA 1820 AND PROPOSED CHANGES TO CALIFORNIA 1820 RENAMED CA!

Approved California 1820 Element of Master Plan	Acreage	Proposed Changes to Approved California 1820 Element of Master Plan (Renamed CA!)	Acreage
Canyon Exhibit	3.3	Canyon Exhibit eliminated	0.00
River Exhibit	3.7	Veterinary Medical Hospital	0.85
Oak Woodland Exhibit	9.86	Oak Woodland Exhibit	9.86
California Interpretive Center	0.23	California Interpretive Center	0.23
Off-site Breeding Area	.54	Off-site Breeding Area	0
Paving Existing Fire Road	2.41	Paving Existing Fire Road	2.41
Loop Road and Shuttle Bus System	5.7	Gondola Transportation System	0.02
Perimeter Fence	2.9	Perimeter Fence	2.9
		Overnight Camping Area	0.36
		Additional Exhibit Area	9.29
		Fire Access Road	0.67
Total	28.64	Total	26.59

Former River Exhibit/Proposed Veterinary Medical Hospital

The originally approved River Exhibit covered approximately 3.7 acres. The proposed Veterinary Medical Hospital would be located on approximately one acre of this site. The hospital would be one and one-half levels and range in height from 18 to 29 feet, total 17,123 square feet and have a 13,883 square-foot footprint. Hospital building materials include primarily concrete masonry units and stained rough-sawn plywood siding with vertical battens. Accent areas will be painted concrete fiberboard and wood slats. The windows will be aluminum. The main roofing material will be asphalt/composite shingles; outdoor animal holding areas will be covered with clear polycarbonate roofing. Earth tone colors will be used for the building. Two split mechanical units – one ten-ton unit and one 15-ton external condensing unit – will be mounted on the ground on the northwest corner of the building. An emergency back-up generator is also planned. Strict protocols exist for any generation of bio-hazardous materials or hazardous chemicals. Native trees would be planted to screen the hospital from the parking lot and disturbed slope areas would be revegetated with native grasses and low growing native plants.

The new hospital will become a model veterinary care center for best practices in animal care by incorporating green and sustainable construction. The facility will be the first LEED certified facility of its kind in the state of California and will be designed with multiple energy saving and water conservation features, will incorporate sustainable building materials and will create a healthy indoor environment, both for Zoo staff and the rehabilitating animal occupants. The Veterinary Medical Hospital will enable animal research and teaching opportunities with the University of California at Davis School of Veterinary Medicine, participation in the International Species Information System and partnership opportunities for other facilities and institutions in Northern California. The current hospital was built in 1960 when the Zoo had one part-time veterinarian. Now the Zoo is home to more than 650 animals and the professional staff includes two full-time veterinarians and two technicians. As the Zoo continues to grow with new exhibits and animals, the scope of veterinary services will increase. The proposed Veterinary Medical Hospital will provide for standard diagnosis, treatment, housing and quarantine for most sizes and species of animals. It is a critical component for maintain the Zoo's dedication to best practices in animal management. With elimination of the River Exhibit, approximately 2.7 acres will remain undisturbed open space.

Former Canyon Exhibit/Proposed Open Space

The originally approved Canyon Exhibit covered approximately nine acres. Under the proposed modifications to the Master Plan, these nine acres will remain undisturbed open space.

Former Loop Road and Shuttle Bus System/Proposed Gondola Transportation System

The originally approved Loop Road covered approximately 5.7 acres. Due to the steepness of the terrain, construction of the loop road would require significant grading. With the proposed elimination of the road, approximately 78 protected trees (both native and non-native) would be saved.

The proposed Gondola Transportation System consists of: (1) Eight support structures. Seven of the structures would range in height from 22 to 39 feet, and one structure located in a ravine would be 62 feet; (2) a cable system; (3) a lower terminal located in the Zoo near the camel exhibit; and (4) an upper terminal located at the California Interpretive Center. The eight support structures would each have a base that would be a maximum of 12 feet by 12 feet in size which would represent a total of about 1,152 square feet or 0.02 acre of disturbance. The support structures and cars would be matte-finish and forest green or earth tone in color. The lower portions of the support structures would be screened with tall plantings.

Former California 1820/Proposed CA!

The originally approved California 1820 has been renamed CA! and includes the changes described above and relocation of the Interpretive Center. The Interpretive Center has been moved several hundred feet northwest of its original location and sited to allow existing topography to reduce visibility. Other key aspects of the originally approved exhibit will remain. Exhibits of animals native to California have not changed: tule elk, grizzly bear, bison, eagle, black bear, cougar, jaguar, wolf and California waterfowl. Botanical displays and cultural displays of native California people also will remain as originally approved.

Overnight Camping Area.

A secluded overnight camping area is proposed west of California! and is a new element and consists of eleven fixed platform tents and a composting toilet system on approximately 0.36 acre. The overnight camping area is designed to be in a wooded setting, remote and invisible from surrounding viewpoints. Camping activities are for youth groups and family groups attended and facilitated by Oakland Zoo staff.

Project Phasing and Construction Schedule

The proposed changes would be constructed in two phases. Phase 1 would consist of the construction of the Veterinary Medical Hospital. Construction is proposed to start in October 2009 with completion in September 2010. Phase 2 would include the construction of the CA!, paving of the existing fire road and construction of the overnight camping area. Construction is proposed to start in 2010/2011 and will be phased in over time with completion anticipated in 2014.



The
Oakland Zoo
in Knowland Park

1996 Zoo Master Plan

Prepared By Aruphan Environmental Inc

FORM 11/82/28