

OAKLAND CITY COUNCIL

RESOLUTION No. 74736 C.M.S.

INTRODUCED BY COUNCILMEMBER _____

MPW

RESOLUTION UPHOLDING THE DECISION OF THE CITY PLANNING COMMISSION IN APPROVING THE APPLICATION OF THE OAKLAND ZOO FOR A MAJOR CONDITIONAL USE PERMIT, WITH MODIFIED CONDITIONS OF APPROVAL, FOR PART OF A MASTER PLAN TO IMPROVE THE FACILITIES AT THE ZOO LOCATED IN THE R-30 ONE-FAMILY RESIDENTIAL ZONE

WHEREAS, on or about February 3, 1997, the Oakland Zoo ("Applicant") filed an application for a conditional use permit (Zoning Case No. CM97-25; ER97-36) for a master plan to improve the facilities at the Zoo, located in the R-30 One Family Residential Zone; and

WHEREAS, thereafter, due notice of the application was given to all affected and interested parties, and

WHEREAS, on or about March 7, 1997, the City Planning Staff prepared and issued for public review and comment an Initial Study and proposed a Mitigated Negative Declaration ("IS/MND"); and

WHEREAS, no formal challenges to the IS/MND were received by City Planning during the public comment period, but a petition was filed objecting to the application; and

WHEREAS, after due notice was given, a public hearing on the application was held before the City Planning Commission on April 2, 1997; and

WHEREAS, after hearing testimony from the neighbors and the Executive Director of the Zoo, the Commission decided to separate the application into two parts: (a) the Center for Science and Environmental Education and Measure K funded improvements ("Center/Measure K Project"); and (b) other parts of the Master Plan, including without limitation the California 1820 Exhibit, California Interpretative Center, and Tram loop roadway ("California Exhibit Project"); and

WHEREAS, on April 16, 1997, after giving due consideration and making appropriate findings, the City Planning Commission voted to approve the IS/MND for the entire Master Plan and approve the Center/Measure K Project, deferring action on the California Exhibit Project until the neighbors and the Zoo had further opportunities to meet; and

WHEREAS, no appeal was lodged against the decision of the Planning Commission's approval of the Center/Measure K Project with the City Council; and

WHEREAS, on June 4, 1997, after giving due notice of the continued hearing and after giving due consideration and making appropriate findings, the City Planning Commission voted to approve the California Exhibit Project, relying on the previously approved IS/MND, subject to certain conditions of approval; and

WHEREAS, within the time provided therefor, William E. Noland et. al. ^{→ 635 - 5290} ("Appellant") lodged an appeal of the City Planning Commission's decision approving the California Exhibit Project with the City Council; and

WHEREAS, the Zoo and the neighbors have held a series of mediation sessions with Conciliation Forums of Oakland in order to work together to resolve planning and land use issues related to the California Exhibit Project; and

WHEREAS, the Zoo has proposed changes to the California Exhibit Project to address the concerns of the neighbors; and

WHEREAS, a Post-Mediation Agreement has been developed between the neighbors and the Zoo, addressing the planning and land use issues; and

WHEREAS, on December 4, 1998, the Zoo submitted to the Mayor and City Council a letter plus attachments which outlines the revisions to the Master Plan, conditions of approval and mitigation measures that the Zoo has proposed to address the concerns of the neighbors; and

WHEREAS, after giving due notice to the Appellant, all interested parties and the public, the California Exhibit Project appeal came before the City Council on or about December 8, 1998; and

WHEREAS, the Appellant, supporters of the application, those opposed to the California Exhibit Project and interested neutral parties were given ample opportunity to participate in the public hearing and were given a fair opportunity to submit relevant evidence to the City Council; and

WHEREAS, the public hearing on the appeal was closed by the City Council on December 8, 1998; and

WHEREAS, after closing the public hearing, the City Council, by a majority vote, adopted a motion upholding the City Planning Commission's approval of the California Exhibit Project, with the modified site plan, conditions of approval and mitigation measures, and directing the City Attorney to prepare a resolution with appropriate findings; and

WHEREAS, the resolution prepared by the City Attorney, at the direction of the City Council, came before the City Council on December 15, 1998; **Now, Therefore, Be It**

RESOLVED: Neither the Appellant nor other interested or affected parties filed a challenge/appeal to the IS/MND with the City Planning Commission, as required by the City's Environmental Review Regulations (Oakland Municipal Code § 17.158.220(C)), thereby waiving any ability or right to challenge the environmental determination at this time.

FURTHER RESOLVED: That, even assuming arguendo that the Appellant has not waived his ability to challenge the IS/MND, the City Council, having heard, considered and weighed all the evidence in the record presented on behalf of all parties and being fully informed of the application, the City Planning Commission's decisions and the appeals (including independently reviewing and analyzing the IS/MND, related technical studies, and staff reports) finds that the Appellant has not demonstrated a fair argument, based upon substantial evidence in the record, the California Exhibit Project may cause a significant effect on the environment.

FURTHER RESOLVED: That, prior to approving the California Exhibit Project, the City Council in the exercise of its independent judgment hereby affirms, adopts and incorporates herein by reference the Planning Commission's April 16, 1997 discussion, findings and decision to approve the IS/MND.

FURTHER RESOLVED: That, the City Council, having heard, considered and weighed all the evidence in the record presented on behalf of all parties and being fully informed of the application, the City Planning Commission's decision and the appeal, finds that the Appellant has not shown, by reliance on substantial evidence in the record or by the presentation of new evidence, that the City Planning Commission's June 4, 1997 decision approving the California Exhibit Project was made in error, that there was an abuse of discretion by the Commission or that the Commission's decision was not supported by evidence in the record. Accordingly, the appeal is denied, the Planning Commission's decision is upheld, and the application for a conditional use permit for the California Exhibit Project (as modified according to the revised site plan of November 6, 1998 prepared by Amphion Environmental Inc., attached hereto as Attachment A and hereby incorporated by reference) is approved, with modified conditions of approval and mitigation measures.

FURTHER RESOLVED: None of the Project modifications, mitigation measures or conditions of approval suggested in response to comments or concerns of

the neighbors are legally required to address any significant environmental impacts, but will further reduce less than significant impacts and therefore the IS/MND does not need to be revised or recirculated for further public comment.

FURTHER RESOLVED: That, in support of the City Council's decision to approve the California Exhibit Project as modified, the City Council adopts the findings in Exhibit B and the modified conditions of approval and mitigation measure in Exhibit C and D respectively, hereby incorporated by reference as if fully set forth in this resolution.

FURTHER RESOLVED: That, the City Council adopts the Mitigation Monitoring Program in Exhibit E, hereby incorporated by reference as if fully set forth in this resolution.

FURTHER RESOLVED That, the Master Plan approved by the Planning Commission, as modified herein, is consistent with and implements the more conceptual 1990 Master Plan (which was approved by the City Council).

FURTHER RESOLVED: That, the City Council finds and determines that this Resolution complies with CEQA and the Environmental Review Officer is directed to file a Notice of Determination with the County Clerk.

FURTHER RESOLVED: That, the record before this Council relating to this application and appeal includes, without limitation, the following:

1. the application, including all accompanying maps and papers;
2. all plans submitted by the Applicant and his representatives;
3. all staff reports, decision letters and other documentation and information produced by or on behalf of the City, and all notices relating to the application and attendant hearings;
4. all oral and written evidence received by the City staff, City Planning Commission and City Council before and during the public hearings on the application and appeals;
5. all matters of common knowledge and all official enactments and acts of the City, such as (a) the General Plan; (b) Oakland Municipal Code, including, without limitation, the Oakland real estate regulations; (c) Oakland Planning Code; (d) other applicable City policies and regulations; and, (e) all applicable state and federal laws, rules and regulations.

FURTHER RESOLVED: That, the custodians and locations of the documents or other materials which constitute the record of proceedings upon which the City Council's decision is based are respectively: (a) Community & Economic Development

Agency, Planning & Zoning Division, 250 Frank H. Ogawa Plaza, Oakland CA.; and (b) Office of the City Clerk, 1 Frank H. Ogawa Plaza, Oakland, CA..

FURTHER RESOLVED: That, the recitals contained in this resolution are true and correct and are an integral part of the City Council's decision.

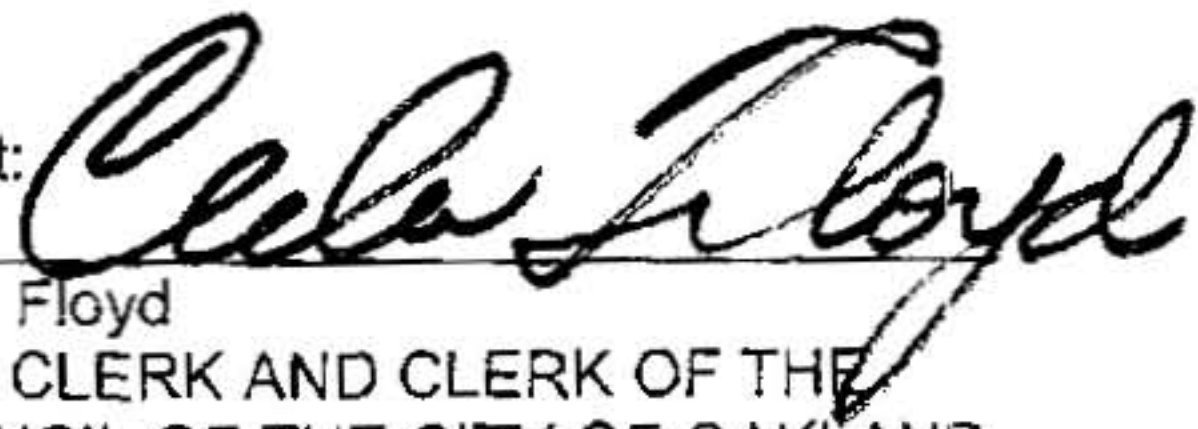
In Council, Oakland, California, DEC 15 1998, 1998

PASSED BY THE FOLLOWING VOTE:

AYES- BRUNNER, CHANG, DE LA FUENTE, MILEY, NADEL, REID, RUSSO,
SPEES, AND PRESIDENT HARRIS - 9

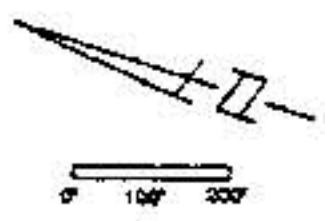
NOES- *None*
ABSENT- *None*
ABSTENTION- *None*

Attest:



Ceda Floyd
CITY CLERK AND CLERK OF THE
COUNCIL OF THE CITY OF OAKLAND,
CALIFORNIA

38-1



The
Oakland Zoo
 In Knowland Park

1996 Zoo Master Plan
 Prepared By Amphion Environmental Inc
 Revised 11/2008

FINDINGS ATTACHED TO AND MADE A PART OF ZONING CASE NO. CM97-25:

This proposal meets the required findings under Oakland Planning Code Section 17.134.050 (General Use Permit Criteria) as set forth below:

- (a) That the location, size, design, and operating characteristics of the proposed development will be compatible with and will not adversely affect the livability or appropriate development of abutting properties and the surrounding neighborhood, with consideration to be given to harmony in scale, bulk, coverage, and density; to the availability of civic facilities and utilities; to harmful effect, if any, upon desirable neighborhood character; to the generation of traffic and the capacity of surrounding streets; and to any other relevant impact of the development. With the changes to the tram road incorporated into the proposal, the Master Plan for the Oakland Zoo will be compatible with the abutting properties and the surrounding neighborhood. The proposed expansion will be of a small scale and minimal coverage, will continue the existing pattern of residential properties abutting a city zoological park, will improve the civic facilities of the Zoo, and will maintain the level of service of surrounding streets.

- (b) That the location, design, and site planning of the proposed development will provide a convenient and functional living, working, and shopping, or civic environment, and will be as attractive as the nature of the use and its location and setting warrant. The proposed Master Plan will provide a more convenient and functional civic environment by improving the existing Zoo facilities, enhancing the natural environment of the entire property and providing quality zoological experiences.

- (c) That the proposed development will enhance the successful operation of the surrounding area and its basic community functions, or will provide an essential service to the community or region. With its emphasis on native California flora and fauna and the conservation of both, the proposals within the Master Plan will provide an essential educational service to the region. The proposed improvements will enhance the Oakland Zoo which provides a unique civic resource available to Bay Area residents.

- (d) That the proposal conforms to all applicable design review criteria set forth in the DESIGN REVIEW PROCEDURE at Section 9304. The proposal conforms to all applicable design review criteria in that it is designed to maintain the current context of the Zoo facilities and landscape features. The proposal will be of a quality and character which both harmonizes and protects investments in the area.

- (e) That the proposal will conform in all significant respects with the Oakland General Plan and with any other applicable plan or development control map which has been adopted by the City Council. The proposed Master Plan conforms in all significant respects with the Oakland General Plan and the Zoning Regulations. The Illustrative Future Land Use Map of the Oakland General Plan identifies the property as Park, Recreation or Natural Area Watershed and the proposal conforms to this designation.

Exhibit C

MODIFICATIONS TO CONDITIONS OF APPROVAL ATTACHED TO AND MADE A
PART OF ZONING CASE NO. CM97-25

Modifications to the Planning Commission imposed Conditions of Approval are indicated in bold/underlined print for additions and ~~striketrough print~~ for deletions.

1. The project shall be constructed and operated in accordance with the authorized use as described in ~~this~~ the June 4, 1997 staff report to the Planning Commission, and according to ~~the site plan and elevations submitted on April 4, 1997,~~ and a revised site plan submitted on November 6, 1998; provided further, that the project incorporate the revisions listed below as conditions of approval.
2. Applicable mitigation measures included and agreed upon by the applicant in the Mitigated Negative Declaration for the Oakland Zoo Master Plan project (ER96-36) are made a part of this approval, incorporated as conditions of approval by this reference. These mitigation measures have been revised to incorporate changes from the post mediation agreement. The revised mitigation measures are made part of this approval and incorporated as conditions of approval by this reference (See Attachment A showing both original and revised mitigation measures).
3. These conditions of approval shall be reproduced on page one of any plans submitted for a building permit for this project.
4. The project is approved pursuant to the Planning Code only and shall comply with all other applicable codes and requirements imposed by other affected departments. Minor changes to approved plans may be approved administratively by the Director of City Planning; major changes shall be subject to review and approval at a new public hearing by the City Planning Commission. ~~The final design of the California Interpretive Center shall be submitted to and approved by the Zoning Administrator prior to issuance of building permits.~~ The Zoo will develop portions of the approved Master Plan in phases. These phased plans include a drainage plan, the tram road and the California 1820 exhibit.

Specifically, the California 1820 exhibits will include double barrier enclosures and night houses for predators. There will be no animal exhibits developed between the southern perimeter of the tram road and the abutting residences. The approved drainage plan will be constructed as part of the construction of the tram road. The final design of the phased plans shall be submitted to and approved by the Zoning Administrator prior to issuance of any permits for the specific phase of development. The process for City of Oakland review shall be as follows: (1) 30 calendar days prior to submitting final plans to the Zoning Administrator, the Zoo shall provide the said plans to both the KPHA and SHRA neighborhood associations; (2) The Zoo shall provide the City documentation of the delivery of said plans to the two neighborhood associations; (3) Upon receipt of said plans, the City shall notify the KPHA and SHRA neighborhood representatives on file with the City and request comments; (4) The neighborhood associations shall submit written comments within 10 days of the City provided notice; (5) A decision on the final phased plans shall be made by the Zoning Administrator no sooner than 10 calendar days from the date notice was sent to the neighborhood associations by the City. It is the responsibility of the KPHA and SHNA to keep representatives names current with the City. The Zoo will stake the center line of the tram road location 30 calendar days prior to submitting the final plan for the tram road to the Zoning administrator for review.

5. ~~The proposed tram road shall be bermed and landscaped to provide visual screening from the abutting residential properties.~~
6. The applicant shall defend, indemnify, and hold harmless the City of Oakland, its agents, officers, and employees from any claim, action, or proceeding (including legal costs and attorney's fees) against the City of Oakland, its agents, officers or employees to attack, set aside, void or annul, an approval by the City of Oakland, the Office of Planning and Building, Planning Commission, or City Council. The City shall promptly notify the applicant of any claim; action or proceeding and the City shall cooperate fully in such defense. The City may elect, in its sole discretion; to participate in the defense of said claim, action, or proceeding.
7. The City Planning Commission reserves the right, after notice and public hearing, to alter Conditions of Approval or revoke this

conditional use permit if it is found that the approved activity is violating any of the Conditions of Approval or the provisions of the Zoning Regulations.

8. This permit shall become effective upon satisfactory compliance with the above conditions that are required within a one year time period. Any additional uses other than those approved with this permit will require a separate application and approval. Failure to exercise this approval ~~by June 4, 1998~~ within one year of approval by the City Council shall invalidate this approval, provided further, that upon written request the Director of City Planning may grant a one year extension of this date, with additional extensions subject to approval by the City Planning Commission.
9. ~~The applicant shall consult with all interested parties concerning the design and construction of the project, utilizing the services of a neutral third party facilitator as appropriate. All relevant factors, including but not limited to noise, traffic, drainage, and construction impacts, shall be considered in this consultation.~~
10. The applicant shall retain a consultant/engineer to pursue independent inspection of all attraction rides annually and shall make such inspection results available to the City upon request.
11. The perimeter fence will be located approximately as shown on the site plan submitted on November 6, 1998. The perimeter fence will be eight to ten feet (8-10') in height and painted black to minimize its visibility. In the locations where the perimeter fence crosses the two knolls (south of the CA 1820 Exhibit), the fence will be recessed in an engineered, graded swale thereby allowing neighbors an unobstructed view in all directions from the top of each knoll. The perimeter fence will be part of a phased plan or landscape plan and its exact location will be approved by the Zoning Administrator after a review following the same process as outlined in condition #4. The Zoo will stake the location of the perimeter fence (30) days prior to submittal of the final plan that includes the perimeter fence to the Zoning Administrator for review.

12. A landscaping and irrigation plan shall be submitted to and approved by the Zoning Administrator within one year of this approval and shall include a continuous landscaped buffer area that screens the main parking lot of the Zoo from the adjacent homes and is a minimum of 36 feet wide (except in the area adjacent to the Stella Street gate where the minimum width shall be 23 feet). The Zoo shall reevaluate the existing parking lot design to maximize the buffer area without decreasing the amount of parking particularly around the Stella Street gate. This landscape buffer shall be designed by a professional landscape architect. Installation of the landscape buffer shall be completed no later than April 2000 and shall be permanently maintained by the Zoo.

The proposed tram road shall be landscaped to shield the view of said tram road, to the maximum extent feasible as determined by the City Zoning Administrator, from the abutting residential properties, specifically the residents of lower Malcolm Street (e.g. Mark Street, Stella Street, Hellman Street, and Maggiora Drive). This landscaping shall consist of but not be limited to drought-tolerant-native trees and shrubs and fast-growing shrubs. The landscape and irrigation plan for the tram road will be developed in two phases and submitted to and approved by the Zoning Administrator. The first phase will be a landscape plan for those areas not affected by the grading for the tram road. This first phase of landscaping shall be installed at least 2 years before actual construction of the tram road commences and shall be permanently maintained by the Zoo. The second phase of landscaping within the areas graded for the tram road shall be developed in conjunction with the design of the tram road, including earthen berms for screening. The second phase of landscaping shall be installed within 90 days of the completed paving of the tram road. Review of the landscape plans shall follow the same process as outlined in condition #4.

13. As indicated on the revised site plan dated November 6, 1998, the Zoo shall relocate the Grizzly Bear enclosure from the River Exhibit to the Off-site Breeding area location. The Off-site Breeding area shall be relocated to the area on the Mesa behind the existing Off-site Breeding area.

14. The Zoo and the neighborhood associations will work with the City's Emergency Services Manager to educate area residents on the existing evacuation plan for the area and to develop any

additional procedures. The Zoo shall implement such procedures as determined by the City's Emergency Services Manager.

15. A signage plan shall be submitted to and approved by the Zoning Administrator and shall at a minimum include the following: (1) The Zoo shall install "No Backing In" signs for the parking spaces in the main parking lot that abut residential properties; (2) The Zoo shall install signs at the Sheldon Street gate (106th Ave. exit) advising visitors that they should use caution as they enter the residential area. These signs shall be installed in front of the exit gate to afford visitors time to read the signs prior to entering Sheldon Street; (3) The Zoo shall install a sign in the main parking lot advising exiting traffic that no trucks or buses shall use the 106th exit. The signage plan shall be approved and the signs installed within 2 months of the completion of changes to Zoo Drive that allow for two-way traffic.
16. The four emergency accesses located at Stella, Snowdown, Cameron and Ettrick shall only be used for emergency response and normal zoo maintenance activities. No construction trucks will use these accesses.
17. Noise from shuttle buses using the tram road is a matter of concern for residents living along the Zoo's southerly property line adjacent to the CA 1820 Exhibit. To provide the neighborhood associations with noise information and monitor the levels of noise generated by the tram the Zoo will undertake the following:
- (a) Prior to construction of the tram road, the Zoo's noise consultant in the presence of the representatives of KPHA and SHNA neighborhood associations, will take baseline noise readings at two points. The two points for noise readings will be along the property line that is south of the CA 1820 Exhibit and adjacent to the residential properties. These points will be agreed upon by the neighborhood representatives. These readings will establish a baseline noise condition that will be made available to the neighbors and will be submitted to the Zoning Administrator.

- (b) At least one month before commencement of daily operation of the tram, the Zoo in the presence of the two neighborhood representatives, will take noise readings of the tram with passengers traveling along its road at the same locations used for the baseline noise readings. The number of passengers will be determined by the Zoning Administrator based on the capacity of the tram model. The results of the tram operation noise readings will be submitted to the Zoning Administrator and will be made available to the neighbors.
- (c) If the operation of the tram increases the noise by more than 2 dBA over the baseline readings, the Zoo must mitigate so that the noise from the tram operation is 2 dBA or less.
- (d) If at any time a different model of tram is used for the CA 1820 Exhibit new noise readings must be taken. Two sets of noise readings will be measured, one establishing the current baseline noise condition and the other establishing the level of noise with the tram in operation. These readings will be made at the same locations, at the same time and day(s) of the week as established for the readings in #1 and #2 above. Any new model of tram used in the CA 1820 Exhibit must meet the same noise standards as #3 above which requires that the noise from the tram operation be 2 dBA or less.
- (e) After regular operation of the tram has begun two additional sets of noise readings will be taken by the Zoo's noise consultant in the presence of the two neighborhood representatives at the location selected under subsection (a). These noise readings will occur 6 months and 18 months after commencement of regular tram operation using the methodology presented under subsections (a) and (b). Any increase in noise over 2dBA will be mitigated by the Zoo.
- (f) Neighborhood concerns regarding noise that occur after the noise readings taken 18 months following the start of regular tram operation will be communicated to the appointed Zoo Liaison and the Zoo Neighborhood Committee. The Zoo Neighborhood Committee will review noise concerns and complaints and make recommendations on further actions. If the KPHA or SHNA neighborhood

organization finds that noise issues are not being adequately addressed by the Zoo Neighborhood Committee working with the Zoo, the complaint shall be brought to the City Planning Commission and a public hearing shall be held. The City Planning Commission will decide the disposition of the complaint.

Exhibit D

OAKLAND ZOO IN KNOWLAND PARK MASTER PLAN UPDATE

MITIGATION MEASURES

(Modifications to the Mitigation Measures imposed by the Planning Commission are indicated in **Bold Type** for additions and ~~Strikethrough Print~~ for deletions)

EARTH MITIGATION MEASURES

- 1a) The geotechnical report prepared for the Center for Science and Environmental Education and the African Savanna Exhibit recommended the use of retaining walls, the creation of keyed and benched slopes, proper slope gradients, proper fill compaction, removal of expansive soils and the development of proper drainage facilities to reduce slope failure. These recommendations as well as any additional suggestions from the City of Oakland Building and Engineering Departments shall be adhered to.
- 1b) City of Oakland standards for engineering controls and slope stabilization outlined in the Oakland Grading Ordinance shall be adhered to prior to and during facility and roadway construction.
- 1c) Additional geotechnical studies shall be required prior to design and construction of the remaining proposed Master Plan buildings, roads and facilities.
- 1d) All proposed facilities shall be constructed in conformance with the Uniform Building Code and California Amendments, and incorporate specific engineering design recommendations from the geotechnical and soils reports.
- 1e) Close construction inspection, testing and quality control shall be performed by the proposed geotechnical engineer or engineering geologist to ensure that site grading plans and geotechnical recommendations criteria are adequate and appropriate.
- 2a) Facilities and infrastructure improvements should be designed to control runoff so that it is not directed over unprotected slopes. Drainage improvements shall be designed to adequately collect surface water runoff and convey it to the proper storm drain system. **A permanent storm drain shall be designed, installed, and maintained to catch water from the existing natural drainage pattern in Knowland Park above Stella Street. The water will be redirected to City storm drain system.**
- 2b) The construction contractor shall use water bars, temporary swales and culverts, mulch and jute netting, silt fences, straw bales and sediment traps to prevent surface water from eroding soil and transporting it to nearby creeks and natural drainages. These and other methods as outlined in the California Stormwater Best Management Practice Handbook, Construction Activity, shall be implemented to reduce erosion.
- 2c) Grading and construction activities shall be restricted to the dry season. Exposed surface areas shall be watered down, especially during construction, to reduce wind erosion.

- 2d) Erosion control methods and implementation procedures shall be monitored during construction and modified as conditions warrant.
- 3a) Mitigation Measures 2a - 2d shall be implemented.
- 4a) Implement the recommendations from the Harza report such as removal of expansive soils, clearing of rich compressible organic soils and use of appropriately engineered fill materials shall be adhered to for the development of the Center for Science and Education and the African Savanna Exhibit.
- 4b) Additional geotechnical and soils studies for the presence of expansive soils shall be required prior to design and construction of the remaining buildings, roads and facilities proposed by the Master Plan.
- 4c) New structures and facilities proposed by the Master Plan shall incorporate the recommendations of the additional geotechnical reports and any additional requirements from the City of Oakland.
- 5a) The geotechnical recommendations in the Harza report for the Center for Science and Environmental Education and the African Savanna Exhibit located within the Alquist Priolo Zone shall be incorporated into the final design and siting of these facilities. Geotechnical recommendations in the supplemental Kleinfelder report shall also be incorporated into the final design of the Center.
- 5b) Geotechnical evaluations shall be performed for each additional facility proposed by the Master Plan and recommendations to reduce seismic related hazards shall be incorporated into the design and siting of these new facilities.
- 5c) All proposed structures shall be designed and constructed in accordance with the Uniform Building Code and California Amendments. The interpretation of the applicability of the appropriate UBC standard for each proposed structure shall be determined by the Oakland Building and Engineering staff at the time of preliminary plan submittal.
- 5d) Proper earthquake-resistant techniques for securing indoor fixtures, machinery and furnishings within proposed structures shall be used during construction to minimize the risk of damage or injury from toppled objectives.
- 5e) The Zoo's Emergency Preparedness and Response Plan, and Animal Capture Plan shall be updated as proposed facilities are developed. The Zoo and Neighborhood (KPHA and SHRA) Associations will work together to educate the neighborhood about the Zoo's Emergency Preparedness and Response Plan and how it is implemented. This will be accomplished through written communication and a phone tree. The Zoo will provide a demonstration to the representatives of KPHA and SHRA of the safety of the animal enclosures in the case of a natural disaster.
- 5f) A balanced cut and fill grading plan shall be used for all project development so import and export of fill is minimized.

AIR MITIGATION MEASURE

8a) The following Basic Dust Control Measures shall be implemented at all construction sites:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose debris or require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.

WATER MITIGATION MEASURES

10a) Mitigation Measures 2a - 2d shall be implemented.

10b) The proposed Trail and picnic facilities shall be sited at least 100 feet away from the high water level of the creek.

10c) In the event of a proposed creek crossing and/or the need to access the creekbed during construction, proper permitting and noticing requirements of the Regional Water Quality Control Board, the California Department of Fish and Game and the U.S. Fish and Wildlife Department shall be followed.

10d) Project infrastructure improvements shall be designed and sited to adequately control and handle increased surface water runoff. These improvements shall be approved by the City of Oakland Engineering Department, the California Department of Fish and Game and the East Bay Municipal District.

10e) Proposed facilities and animal night houses shall be sited at least 100 feet away from drainage channels.

10f) In the event that drainage channels cannot be avoided, the project applicant shall comply with the appropriate notification, permitting and monitoring requirements of the Regional Water Quality Control Board, the California Department of Fish and Game, the U.S. Department of Fish and Wildlife, the City of Oakland, Alameda

11a) See Mitigation Measure 10e.

BIOTIC MITIGATION MEASURES

13a) The proposed Master Plan would include the implementation of a Habitat Enhancement Plan that would enhance oak woodlands, native grasslands, coastal scrub and riparian woodland, and remove eucalyptus, French broom and other exotic plants from the

California 1820 Exhibit area and Upper Knowland Park. The Habitat Enhancement Plan should include the following:

- An annual assessment of the species and distribution of invasive non-native weeds (examples of invasive species would include artichoke thistle, French broom, giant reed, German ivy, pampas grass, Algerian ivy, acacia and eucalyptus). The assessment would include a map and estimate of abundance of weeds.
- A management element for the control of each weedy species. Methods used for each species should be based on currently accepted best available practices, including hand-pulling, cutting followed by topical application of suitable herbicide, use of livestock, removal or burning of cut plant materials, and so on. The justification for the control methods used should be explained, and a tracking system maintained to document areas treated, methods used, and effectiveness of the result.
- A revegetation element for areas where heavy infestations of weeds comprise a significant portion of the existing vegetation. The riparian zone of lower Arroyo Viejo Creek, for example, is so dominated by non-natives that planting of indigenous tree and shrub species following the removal of weeds is needed to speed up the restoration process. This element would include a tracking system for areas treated, a record of the source and species of plant materials used, methods of installation and maintenance, and an assessment of the success of each effort.

13b) A Tree Protection and Revegetation Plan shall be prepared to protect, replace, and preserve trees on the project site. The Plan shall include the following:

- Native trees lost to development shall be replanted at a minimum ratio of 3:1. Non-native trees lost to development shall be replanted with native trees at a minimum ratio of 1:1.
- Every 10 years, prepare a census of trees qualifying for protection under the Oakland Tree Protection Ordinance within the project area. The census will document the condition of such trees, and recommend actions to extend the life and health of the trees. Recommended actions could include protective devices for reduction of vandalism, excessive treading by pedestrians or rubbing of bark, modification of drainage, erosion or sedimentation to protect trees, and modification of irrigation patterns to reduce pathogens. Recommendations and actions taken would be reported to the City of Oakland and the Department of Fish and Game.
- Protection of oaks in Upper Knowland Park outside of the developed areas of the Zoo will be addressed through the development of a management element for Upper Knowland Park. Since a close-canopy oak woodland is a "fire-safe" vegetation type and is visually pleasing, the maximum natural extent of oak woodland may be the management goal. Management practices needed to achieve and maintain oak woodland or forest are: a minimum of grazing livestock, especially during the dry months; few fires; and slope stability. Maintenance of oak woodland would dovetail with weed control measures discussed under Mitigation Measure 13a.

13c) Although mitigations recommended by the Master Plan to minimize impacts to wildlife due to vehicle and pedestrian traffic would reduce potential impacts to less than significant, the

following mitigation measure would further reduce the impact. If feasible, the Shuttle Road should be a maximum of 15 feet in width with no curbs or gutters to reduce potential impacts to the Alameda whipsnake.

- 13d) To mitigate for the potential impacts to small vertebrates from construction of the viewing platforms, the platforms shall be constructed in the dry season (late summer/ fall), and native riparian species shall be planted in areas disturbed by construction activities and mitigation measures 2a - 2d included under the Earth section of this Initial Study shall be implemented.
- 14a) The Shuttle Road should be re-routed to avoid the robust monardella colony. A buffer of a minimum of 25 feet shall be established between any project soils disturbance and the existing colony.
- 14b) The Bison Exhibit boundary shall be revised to exclude the robust monardella colony; alternatively, the robust monardella shall be protected with a perimeter fence providing a 25-foot buffer around the colony.
- 14c) Obtain a Permit for Management of a rare or threatened species pursuant to Fish and Game Code Section 2081. The Management Permit will include all details of a Mitigation and Monitoring Plan which will be prepared by the East Bay Zoological Society. The Mitigation and Monitoring Plan will be subject to approval by the California Department of Fish and Game and the U. S. Fish and Wildlife Service. A summary of the measures to be incorporated into the Mitigation and Monitoring Plan are presented below.
- 14d) All removal of scrub or chaparral habitat shall be done by hand with axes or machetes. Chain saws could be used for larger shrubs.
- 14e) A biologist qualified to handle Alameda whipsnakes shall monitor all scrub or chaparral removal and all construction activities which may impact the Alameda whipsnake.
- 14f) Alameda whipsnake habitat shall be preserved in perpetuity on property owned by the East Bay Zoological Society and contiguous to the east of the California 1820 Exhibit area. Numerous large areas of scrub and/or chaparral habitat are present in the proposed mitigation area and these appear to provide an adequate amount of habitat to offset impacts within the project site. The amount of habitat preserved shall be in accordance with current requirements of the California Department of Fish and Game.
- 14g) To reduce the potential for mortality on the shuttle road to a level less than significant, a maximum speed of 10 miles per hour shall be required and shuttle drivers and personnel driving to the off-site breeding exhibit will be instructed to watch for and yield to all wildlife. The road shall also be a maximum of 15 feet in width with no curbs or gutters. Specially designed "snake crossings" under the shuttle road may also be required.
- 14h) Measures will be taken to prevent the spread of French broom on the site and to remove as much French broom from the site as possible in order to keep it from degrading higher quality whipsnake habitat.

- 14i) Prior to construction of the creek-viewing platforms, and construction of the Shuttle Road through woodland areas, surveys for nesting Cooper's hawks should be conducted. If no nests are present, construction can proceed. If a nest is present in the vicinity of the site for the viewing platforms, construction should be delayed until the young have fledged. Once the platforms and Shuttle Road are completed, their presence and the presence of hikers on the Trail would be considered a less than significant impact.
- 14j) During construction, dust control mitigation measures included in the Air Quality section of this Initial Study (8a) shall be implemented, which will reduce potential impacts to the air passages of San Francisco lacewings
- 15a) The operations and maintenance plan for the new exhibits shall include a weed management and control element. This should include monitoring the natural portions of Upper Knowland Park for infestations of non-native weeds, and implementation of control measures to prevent the weeds from degrading the natural vegetation.
- 16a) The Trail shall be constructed 100 feet from the creek bank and on the outer edges of the riparian vegetation. Streambed crossings shall consist of walkways constructed well above the banks. Creek viewing platforms located within the 100-foot buffer shall be located to minimize impacts to riparian vegetation. Disturbed riparian vegetation will be enhanced by removal of non-native species and planting and maintenance of indigenous species. Erosion control requirements contained in Ordinance No. 10312 would prevent sedimentation resulting from construction of the Trail and viewing platforms.

NOISE MITIGATION MEASURES

- 18a) Project contractors shall be required to implement noise control techniques to minimize disturbance to adjacent or nearby sensitive noise receptors during project construction in the vicinity of the southern Park boundary:
 - 1. The proposed solid wood or masonry fence along the southern Park boundary shall be constructed and completed prior to construction of proposed improvements to the main entrance parking lot and overflow parking lot.
 - 2. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and/or acoustically-attenuating shields or shrouds, wherever feasible and necessary) in order to minimize construction noise impacts. Construction equipment shall not generate noise levels above 75-80 dBA at 50 feet as listed in Table B-2 of Appendix B, or as required by City ordinance, in order to provide acceptable interior noise levels at nearby or adjacent residential receptors.
 - 3. Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the

exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment whenever feasible.

4. During project construction, truck operations shall be prohibited during the nighttime hours (8 p.m. to 7 a.m.) and the operation of heavy equipment shall be limited to 7:30 a.m. to 7:30 p.m., Monday through Saturday, to minimize potential disturbance of adjacent and nearby residential receptors.
5. Stationary noise sources shall be located as far from sensitive receptors as possible. If they must be located near existing receptors, they should be adequately muffled to the extent feasible and enclosed within temporary sheds.

When construction occurs along the section of the uphill loop road that extends along the southern Park boundary, residences to the south (which would be approximately 150 feet away) would be subject to noise peaks of 70 to 80 dBA, periodically exceeding the 70-dBA criterion. However, the short-term nature of these noise peaks (two to four weeks for construction of this 500-foot long section of the Shuttle Road) and implementation of noise control measures listed above would reduce potential impacts to a less-than-significant level. Residential receptors located 1,000 feet or more from the northern Park boundary would not be significantly affected by construction noise; at 1,000 feet, the intervening distance would be adequate to maintain construction noise peaks at or below the 70-dBA criteria.

TRANSPORTATION/CIRCULATION MITIGATION MEASURE

- 26a) Construction traffic shall only use existing improved public roads.
- 27a) ~~To prevent traffic from the Zoo parking lots from exiting onto Golf Links Road via Zoo Drive, appropriate traffic barriers and signage shall be installed.~~ To prevent heavy traffic from exiting the Zoo in one direction, traffic will be directed between Golf Links Road and 106th Avenue in order to balance the traffic flow. At no time will the Golf Links exit be closed to heavy traffic.

Exhibit E

OAKLAND ZOO IN KNOWLAND PARK MASTER PLAN UPDATE
MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST

Prepared for
City of Oakland

Prepared by
PLACEMAKERS
814 Solano Avenue
Albany, California 94706

December 1, 1998

1.0 INTRODUCTION

1.1 Background

Public Resources Code section 21081.6(a) requires all public agencies to adopt monitoring or reporting programs when they approve projects subject to Environmental Impact Reports (EIRs) or Negative Declarations that identify significant impacts (Mitigated Negative Declarations). The reporting or monitoring program must be adopted when a public agency makes its findings for EIRs and Mitigated Negative Declarations so that the program can be made a condition of project approval in order to mitigate significant effects on the environment. The program must be designed to ensure compliance during project implementation to mitigate or avoid significant environmental effects.

1.2 Purpose

This Monitoring and Reporting Program Checklist is designed to serve as a tool for the evaluation of project compliance with mitigation measures identified in the Mitigated Negative Declaration for the Oakland Zoo in Knowland Park Master Plan Update. This document will be used by the City of Oakland to verify inclusion of required project design features and ongoing mitigation measures. The Checklist serves as a summary so that the City, East Bay Zoological Society, other public agencies and the community can easily determine which measures have been complied with.

2.0 MITIGATION MONITORING PROGRAM CHECKLIST

The Mitigation Monitoring and Reporting Checklist is proposed for monitoring the implementation of the mitigation measures contained in the Mitigated Negative Declaration and listed in the attached checklist. The City of Oakland should implement the monitoring program as follows:

- CEDA is responsible for coordination of the monitoring program including the monitoring checklist.
- Each responsible individual or agency will be responsible for determining whether the mitigation measures contained within the checklist have been complied with. Once all mitigation measures have been complied with, the responsible individual or agency should submit a completed checklist to CEDA.
- If a responsible individual or agency determines that a non-compliance has occurred, a written notice should be delivered to CEDA describing the non-compliance and requiring compliance within a specified period of time. If non-compliance still exists at the expiration of the specified period of time, construction may be halted and fines may be imposed at the discretion of the City of Oakland.
- Prior to issuance of grading or building permits, CEDA should review the checklist to ensure that all mitigation measures included in the monitoring checklist have been complied with.

**OAKLAND ZOO IN KNOWLAND PARK MASTER PLAN UPDATE
MITIGATION MONITORING AND REPORTING PROGRAM CHECKLIST**

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings:							
EARTH							
1a) The geotechnical report prepared for the Center for Science and Environmental Education and the African Savanna Exhibit recommended the use of retaining walls, the creation of keyed and benched slopes, proper slope gradients, proper fill compaction, removal of expansive soils and the development of proper drainage facilities to reduce slope failure. These recommendations as well as any additional suggestions from the City of Oakland Building and Engineering Departments shall be adhered to.	One-time	Project Civil Engineer	Engineering Departments	Sign-off prior to issuance of grading permit.			
1b) City of Oakland standards for engineering controls and slope stabilization outlined in the Oakland Grading Ordinance shall be adhered to prior to and during facility and roadway construction.	One time (For each applicable project covered under the Master Plan)	Project Civil Engineer	Engineering Department	Sign-off prior to issuance of grading permits.			
1c) Additional geotechnical studies shall be required prior to design and construction of the remaining proposed Master Plan buildings, roads and facilities.	One-time (For each applicable project covered under the Master Plan)	Project Geotechnical Engineer	Engineering Department	Geotechnical Reports	All geotechnical evaluations completed prior to approval of final construction drawings		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
EARTH (cont.)							
1d) All proposed facilities shall be constructed in conformance with the Uniform Building Code and California Amendments, and incorporate specific engineering design recommendations from the geotechnical and soils reports.	One-time (For each applicable project covered under the Master Plan)	Project Architect	Building Department	Sign-off prior to issuance of building permits.			
2a) Facilities and infrastructure improvements should be designed to control runoff so that it is not directed over unprotected slopes. Drainage improvements shall be designed to adequately collect surface water runoff and convey it to the proper drain system.	One-time	Project Civil Engineer	Building and Engineering Departments	Sign-off prior to issuance of grading and building permits			
3a) Mitigation Measures 2a - 2d shall be implemented.	One-time	Project Civil Engineer	Building and Engineering Departments	Sign-off prior to issuance of grading and building permits			
4a) Implement the recommendations from the Harza report such as removal of expansive soils, clearing of rich compressible organic soils and use of appropriately engineered fill materials shall be adhered to for the development of the Center for Science and Environmental Education and the African Savanna Exhibit.	One-time	Project Civil Engineer Project Architect	Engineering and Building Departments	Sign-off prior to issuance of grading and building permits.			

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
EARTH (cont.)							
4b) Additional geotechnical and soils studies for the presence of expansive soils shall be required prior to design and construction of the remaining buildings, roads and facilities proposed by the Master Plan.	One-time (For each applicable project covered under the Master Plan)	Project Geotechnical Engineer Project Architect Project Civil Engineer	Building and Engineering Departments	Sign-off prior to issuance of grading and building permits.	All geotechnical evaluations completed prior to approval of final construction drawings.		
4c) New structures and facilities proposed by the Master Plan shall incorporate the recommendations of the additional geotechnical reports and any additional requirements from the City of Oakland.	One-time (For each applicable project covered under the Master Plan)	Project Architect Project Civil Engineer	Building and Engineering Departments	Sign-off prior to issuance of building permits.	All geotechnical evaluations completed prior to approval of final construction drawings.		
5a) The geotechnical recommendations in the Harza report for the Center for Science and Environmental Education and the African Savanna Exhibit located within the Alquist Priolo Zone shall be incorporated into the final design and siting of these facilities. Geotechnical recommendations in the supplemental Kleinfelder report shall also be incorporated into the final design of the Center.	One-time	Project Architect	Building Department	Sign-off prior to issuance of building permits.			
5b) Geotechnical evaluations shall be performed for each additional facility proposed by the Master Plan and recommendations to reduce seismic related hazards shall be incorporated into the design and siting of these new facilities.	One-time (For each applicable project covered under the Master Plan)	Project Architect Project Civil Engineer	Building and Engineering Departments	Sign-off prior to issuance of grading and building permits.	All geotechnical evaluations completed prior to approval of final construction drawings.		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
EARTH (cont.)							
5c) All proposed structures shall be designed and constructed in accordance with the Uniform Building Code and California Amendments. The interpretation of the applicability of the appropriate UBC standard for each proposed structure shall be determined by the Oakland Building and Engineering staff at the time of preliminary plan submittal.	One-time (For each applicable project covered under the Master Plan)	Project Architect Project Civil Engineer	Building and Engineering Departments	Sign-off prior to issuance of building permits.			
5d) Proper earthquake resistant techniques for securing indoor fixtures, machinery and furnishing within proposed structures shall be used during construction to minimize the risk of damage or injury from toppled objects.	One time	Project Architect	Building Department	Approve plans and sign-off prior to issuance of building permits.			
5f) A balanced cut and fill grading plan shall be used for all project development.	One-time for each project	Project Civil Engineer	Engineering and Building Departments	Sign-off on grading plans prior to issuance of grading permit.			
WATER							
10a) Mitigation Measures 2a - 2d shall be implemented.	On-going	Construction Contractor	Engineering and Building Departments	Weekly site visits			
10b) The proposed Trail and picnic facilities shall be sited at least 100 feet away from the high water level of the creek.	One time	Project Civil Engineer Project Landscape Architect	CDFG Engineering and Building Departments	Sign-off prior to issuance of grading and building permits.	CDFG to review plans to confirm adequate setback for trail and picnic facilities. Approved setback to be shown on final construction drawings.		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
WATER (cont.)							
10c) In the event of a proposed creek crossing and/or the need to access the creekbed during construction, proper permitting and noticing requirements of the Regional Water Quality Control Board, the California Department of Fish and Game and the U.S. Fish and Wildlife Department shall be followed.	One-time	EBZS Project Biologist	CDFG	Streambed Alteration Agreement (Sections 1601-1603)	Depending on extent of creek encroachment, coordination with the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) may be necessary.		
10d) Project infrastructure improvements shall be designed and sited to adequately control and handle increased surface water runoff. These improvements shall be approved by the City of Oakland Engineering Department, the California Department of Fish and Game and the East Bay Municipal District.	One-time (For each applicable project covered under the Master Plan)	Project Civil Engineer	Engineering Department	Sign-off prior to issuance of grading and building permits.			
10e) Proposed facilities and animal night houses shall be sited at least 100 feet away from drainage channels.	One-time (For each applicable project covered under the Master Plan)	Project Architect Project Civil Engineer	Engineering and Building Departments	Sign-off prior to issuance of grading permits.			
10f) In the event that drainage channels cannot be avoided, the project applicant shall comply with the appropriate notification, permitting and monitoring requirements of the Regional Water Quality Control Board, the California Department of Fish and Game, the U.S. Department of Fish and Wildlife, the City of Oakland, Alameda County, and the East Bay Municipal District.	One-time (For each applicable project covered under the Master Plan)	EBZS Project Biologist	If permits required: USACE, RWQCB, CDFG	If required, Section 404 permit (USACE), Section 401 Water Quality Certification (RWQCB), Section 1601 Permit (CDFG).	Grading permits not to be issued until agreements with all responsible agencies finalized.		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/Special instructions	Initials	Date
Prior to final Design/Preparation of Construction Drawings: (cont.)							
BIOTIC							
<p>13a) The proposed Master Plan would include the implementation of a Habitat Enhancement Plan that would enhance oak woodlands, native grasslands, coastal scrub and riparian woodland, and remove eucalyptus, French broom and other exotic plants from the California 1820 Exhibit area and Upper Knowland Park. The Habitat Enhancement Plan should include the following:</p> <ul style="list-style-type: none"> An annual assessment of the species and distribution of invasive non-native weeds (examples of invasive species would include artichoke thistle, French broom, giant reed, German ivy, pampas grass, Algerian ivy, acacia and eucalyptus). The assessment would include a map and estimate of abundance of weeds. A management element for the control of each weedy species. Methods used for each species should be based on currently accepted best available practices, including hand-pulling, cutting followed by topical application of suitable herbicide, use of livestock, removal or burning of cut plant materials, and so on. The justification for the control methods used should be explained, and a tracking system maintained to document areas treated, methods used, and effectiveness of the result. 	On going	EBZS Project Biologist	CDFG	Habitat Enhancement Plan Site visits as specified by Project Biologist and CDFG, maps, updated data base, annual reports.	Copy of Habitat Enhancement Plan submitted to CEDA.		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
BIOTIC (cont.)							
<ul style="list-style-type: none"> A revegetation element for areas where heavy infestations of weeds comprise a significant portion of the existing vegetation. The riparian zone of lower Arroyo Viejo Creek, for example, is so dominated by non-natives that planting of indigenous tree and shrub species following the removal of weeds is needed to speed up the restoration process. This element would include a tracking system for areas treated, a record of the source and species of plant materials used, methods of installation and maintenance, and an assessment of the success of each effort. 							
<p>13b) A Tree Protection and Revegetation Plan shall be prepared to protect, replace, and preserve trees on the project site. The Plan shall include the following:</p> <ul style="list-style-type: none"> Native trees lost to development shall be replanted at a minimum ratio of 3:1. Non-native trees lost to development shall be replanted with native trees at a ratio of 1:1. Every 10 years, prepare a census of trees qualifying for protection under the Oakland Tree Protection Ordinance within the project area. The census will document the condition of such trees, and recommend actions to extend the life and health of the trees. Recommended 	On-going	EBZS Project Biologist	Parks and Recreation	Tree Protection and Revegetation Plan Site visits	Copy of Tree Protection and Revegetation Plan to CEIDA.		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
BIOTIC (cont.)							
<p>actions could include protective devices for reduction of vandalism, excessive treading by pedestrians or rubbing of bark, modification of drainage, erosion or sedimentation to protect trees, and modification of irrigation patterns to reduce pathogens. Recommendations and actions taken would be reported to the City of Oakland and the Department of Fish and Game.</p> <ul style="list-style-type: none"> Protection of oaks in Upper Knowland Park outside of the developed areas of the Zoo will be addressed through the development of a management element for Upper Knowland Park. Since a close-canopy oak woodland is a "fire-safe" vegetation type and is visually pleasing, the maximum natural extent of oak woodland may be the management goal. Management practices needed to achieve and maintain oak woodland or forest are: a minimum of grazing livestock, especially during the dry months; few fires; and slope stability. Maintenance of oak woodland would dovetail with weed control measures discussed under Mitigation Measure 13a. 							

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
BIOCIC (cont.)							
13c) Although mitigations recommended by the Master Plan to minimize impacts to wildlife due to vehicle and pedestrian traffic would reduce potential impacts to less than significant, the following mitigation measure would further reduce the impact. If feasible, the Shuttle Road should be a maximum of 15 feet in width with no curbs or gutters to reduce potential impacts to the Alameda whipsnake.	One-time	Project Civil Engineer	Building Department	Sign-off prior to issuance of building permit.			
14a) The Shuttle Road should be re-routed to avoid the robust monardella colony. A buffer of a minimum of 25 feet shall be established between any project soils disturbance and the existing colony.	One-time	Project Civil Engineer Project Biologist	CEDA Engineering and Building Departments	Sign-off prior to issuance of grading and building permits. Site visit	Revised drawing showing rerouted Shuttle Road submitted to CEDA. Prior to construction, robust monardella colony to be staked (including 25-foot buffer) to confirm the colony will be avoided.		
14b) The Bison Exhibit boundary shall be revised to exclude the robust monardella colony; alternatively, the robust monardella shall be protected with a perimeter fence providing a 25 foot buffer around the colony.	One-time	EBZS Project Biologist	CEDA	Written confirmation provided by Project Biologist.			
14c) Obtain a Permit for Management of a rare or threatened species pursuant to Fish and Game Code Section 2081. The Management Permit will include all details of a Mitigation and Monitoring Plan which will be prepared by the East Bay Zoological Society. The	One-time	EBZS Project Biologist)	CDFG	Section 2081 Permit	Copy of Streambed Alteration Agreement submitted to CEDA.		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Final Design/Preparation of Construction Drawings: (cont.)							
BIOTIC (cont.)							
Mitigation and Monitoring Plan will be subject to approval by the California Department of Fish and Game and the U.S. Fish and Wildlife Service. A summary of the measures to be incorporated into the Mitigation and Monitoring Plan are presented below.							
14) Alameda whipsnake habitat shall be preserved in perpetuity on property owned by the East Bay Zoological Society and contiguous to the east of the California 1820 Exhibit area. Numerous large areas of scrub and/or chaparral habitat are present in the proposed mitigation area and these appear to provide an adequate amount of habitat to offset impacts within the project site. The amount of habitat preserved shall be in accordance with current requirements of the California Department of Fish and Game.	One-time	EBZS Project Biologist	CDFG	Section 2081 Permit			
16a) The Trail shall be constructed 100 feet from the creek bank and on the outer edges of the riparian vegetation. Streambed crossings shall consist of walkways constructed well above the banks. Creek viewing platforms located within the 100-foot buffer shall be located to minimize impacts to riparian vegetation. Disturbed riparian vegetation will be enhanced by removal of non-native species and planting and maintenance of indigenous species. Erosion control requirements contained in Ordinance No. 10312 would prevent sedimentation resulting from construction of the Trail and viewing platforms.	One-time	Project Civil Engineer Project Landscape Architect	CDFG Engineering and Building Departments	Sign-off prior to issuance of grading and building permits.	CDFG to review plans to confirm adequate distance for setback. Approved setback to be shown on final construction drawings.		

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Commencement of Grading/During Grading:							
EARTH							
2b) The construction contractor shall use water basins, temporary swales and culverts, mulch and jute netting, silt fences, straw bales and sediment traps to prevent surface water from eroding soil and transporting it to nearby creeks and natural drainages. These and other methods as outlined in the California Stormwater Best Management Practice Handbook, Construction Activity, shall be implemented to reduce erosion.	On-going	Construction Contractor	Engineering and Building Departments	Weekly site visits			
2c) Grading and construction activities shall be restricted to the dry season. Exposed surface areas shall be watered down, especially during construction to reduce wind erosion.	On-going	Construction Contractor	Engineering and Building Departments	Weekly site visits			
2d) Erosion control methods and implementation procedures shall be monitored during construction and modified as conditions warrant.	On-going	Construction Contractor	Engineering and Building Departments	Weekly site visits			
AIR							
8a) The following Basic Dust Control Measures shall be implemented at all construction sites: <ul style="list-style-type: none"> • Water all active construction areas at least twice daily. • Cover all trucks hauling soil, sand, and other loose debris or require all trucks to maintain at least two feet of freeboard. • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas at construction sites. 	On-going	Project Contractor	CEDA	Weekly site visit			

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Commencement of Grading/During Grading: (cont.)							
AIR (cont.)							
<ul style="list-style-type: none"> Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets. 							
BIOTIC							
14d) All removal of scrub or chaparral habitat shall be done by hand with axes or machetes. Chain saws could be used for larger shrubs.	On going (for California 1820 Exhibit)	Project Biologist	CDFG	Site visits scheduled per terms of Section 2081 Permit.			
14e) A biologist qualified to handle Alameda whipsnakes shall monitor all scrub or chaparral removal and all construction activities which may impact the Alameda whipsnake.	On going (for California 1820 Exhibit)	Project Biologist	CDFG	Site visits scheduled per terms of Section 2081 Permit.			
14i) Prior to construction of the creek-viewing platforms, and construction of the Shuttle Road through woodland areas, surveys for nesting Cooper's hawks should be conducted. If no nests are present, construction can proceed. If a nest is present in the vicinity of the site for the viewing platforms, construction should be delayed until the young have fledged. Once the platforms and Shuttle Road are completed, their presence and the presence of hikers on the Trail would be considered a less than significant impact.	One-time	Project Biologist	CDFG Engineering and Building Departments	Biological Survey Prior to issuance of grading and building permits.			

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/Special instructions	Initials	Date
Prior to Commencement of Grading/During Grading: (cont.)							
BIO/TIC (cont.)							
14j) During construction, dust control mitigation measures included in the Air Quality section of this Initial Study (8a) shall be implemented, which will reduce potential impacts to the air passages of San Francisco lacerwings.	On-going	Project Contractor	CEDA	Weekly site visit	Refer to Measure 8a.		
NOISE							
18a) Project contractors shall be required to implement noise control techniques to minimize disturbance to adjacent or nearby sensitive noise receptors during project construction in the vicinity of the southern Park boundary: 1. The proposed solid wood or masonry fence along the southern Park boundary shall be constructed and completed prior to construction of proposed improvements to the main entrance parking lot and overflow parking lot. 2. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and/or acoustically-attenuating shields or shrouds, wherever feasible and necessary) in order to minimize construction noise impacts. Construction equipment shall not generate noise levels above 75-80 dBA at 50 feet as listed in Table B-2 of	On-going	Project Contractor	CEDA	Weekly site visit			

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Commencement of Grading/During Grading: (cont.)							
NOISE: (cont.)							
Appendix B, or as required by City ordinance, in order to provide acceptable interior noise levels at nearby or adjacent residential receptors.							
3. Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment whenever feasible.							
4. During project construction, truck operations shall be prohibited during the nighttime hours (8 p.m. to 7 a.m.) and the operation of heavy equipment shall be limited to 7:30 a.m. to 7:30 p.m., Monday through Saturday, to minimize potential disturbance of adjacent and nearby residential receptors.							

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
Prior to Commencement of Grading/During Grading: (cont.)							
NOISE (cont.)							
5. Stationary noise sources shall be located as far from sensitive receptors as possible. If they must be located near existing receptors, they should be adequately muffled to the extent feasible and enclosed within temporary sheds.							
TRANSPORTATION/CIRCULATION							
26a) Construction traffic shall only use existing improved public roads.	On-going	Project Contractor	CEDA	Weekly site visit			
During Construction/Post Construction:							
EARTH							
1e) Close construction inspection, testing and quality control shall be performed by the proposed geotechnical engineer or engineering geologist to ensure that site grading plans and geotechnical recommendations criteria are adequate and appropriate.	On-going (For each applicable project covered under the Master Plan)	Project Geotechnical Engineer	Engineering Department	Site visits at times to be specified by Project Geotechnical Engineer.	Project Geotechnical Engineer to confirm adequacy of geotechnical recommendations in field and coordinate with Engineering Department if modifications are required.		
5e) The Zoo's Emergency Preparedness and Response Plan, and Animal Capture Plan shall be updated as proposed facilities are developed. The Zoo and Neighborhood (KPHA and SHRA) Associations will work together to educate the neighborhood about the Zoo's Emergency Preparedness	On-going (For each applicable project covered under the Master Plan)	East Bay Zoological Society (EBZS)	CEDA	Review and approval of updated plan.			

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
<i>During Construction/Post Construction: (cont.)</i>							
<i>EARTH (cont.)</i>							
Response Plan and how it is implemented. This will be accomplished through written communication and a phone tree. The Zoo will demonstrate to the representatives of KPIA and SIRA the safety of the animal enclosures in the case of a natural disaster.							
<i>BIOLOGY</i>							
13d) To mitigate for the potential impacts to small vertebrates from construction of the viewing platforms, the platforms shall be constructed in the dry season (late summer/fall), and native riparian species shall be planted in areas disturbed by construction activities.	One-time	EBZS Project Contractor	Building Department	Sign-off prior to issuance of building permit. Site visit	Copy of Streambed Alteration Agreement submitted to Building Department with final construction drawings to confirm revegetation plan is in compliance with Agreement.		
14g) To reduce the potential for mortality on the shuttle road to a level less than significant, a maximum speed of 10 miles per hour shall be required and shuttle drivers and personnel driving to the off-site breeding exhibit will be instructed to watch for and yield to all wildlife. The road shall also be a maximum of 15 feet in width with no curbs or gutters. Specially designed "snake crossings" under the shuttle road may also be required.	One-time	EBZS Project Civil Engineer	CDFG	Written policy and guidelines. Construction drawings for shuttle road (if snake crossings are required as part of Section 2081 Permit.			

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/Special instructions	Initials	Date
During Construction/Post Construction: (cont.)							
BIOLOGICAL (cont.)							
14b) Measures will be taken to prevent the spread of French broom on the site and to remove as much French broom from the site as possible in order to keep it from degrading higher quality whipsnake habitat.	On-going	EBZS Project Biologist	CDFG	Section 2081 Permit			
15a) The operations and maintenance plan for the new exhibits shall include a weed management and control element. This should include monitoring the natural portions of Upper Knowland Park for infestations of non-native weeds, and implementation of control measures to prevent the weeds from degrading the natural vegetation.	On-going	EBZS	Park and Recreation	Habitat Enhancement Plan Site visit	Site visit schedule to be determined by Park and Recreation.		
NOISE							
18a) Project contractors shall be required to implement noise control techniques to minimize disturbance to adjacent or nearby sensitive noise receptors during project construction in the vicinity of the southern Park boundary: 1. The proposed solid wood or masonry fence along the southern Park boundary shall be constructed and completed prior to construction of proposed improvements to the main entrance parking lot and overflow parking lot. 2. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine	On-going	Project Contractor	CEDA	Weekly site visit			

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
During Construction/Post Construction: (cont.)							
NOISE (cont.)							
<p>enclosures and/or acoustically-attenuating shields or shrouds, wherever feasible and necessary) in order to minimize construction noise impacts. Construction equipment shall not generate noise levels above 75-80 dBA at 50 feet as listed in Table B-2 of Appendix B, or as required by City ordinance, in order to provide acceptable interior noise levels at nearby or adjacent residential receptors.</p> <p>3. Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically-powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used such as drilling rather than impact equipment whenever feasible.</p> <p>4. During project construction, truck operations shall be prohibited during the nighttime hours (8 p.m. to 7 a.m.) and the operation of heavy equipment shall</p>							

MEASURE	One-time or On-going	Responsible for Implementation	Responsible for Verification	Form of Verification	Comments/ Special instructions	Initials	Date
During Construction/Post Construction: (cont.)							
NOISE (cont.)							
<p>be limited to 7:30 a.m. to 7:30 p.m., Monday through Saturday, to minimize potential disturbance of adjacent and nearby residential receptors.</p> <p>5. Stationary noise sources shall be located as far from sensitive receptors as possible. If they must be located near existing receptors, they should be adequately muffled to the extent feasible and enclosed within temporary sheds.</p>							
TRANSPORTATION/CIRCULATION							
26a) Construction traffic shall only use existing improved public roads.	On-going	Project Contractor	CEDA	Weekly site visit			
27a) To prevent traffic from the Zoo parking lots from exiting onto Golf Links Road via Zoo Drive, appropriate traffic barriers and signage shall be installed.	On-going	EBZS	CEDA	Site visit			