

BEFORE THE METRO COUNCIL

FOR THE PURPOSE OF AUTHORIZING THE) RESOLUTION NO. 11-4277
CHIEF OPERATING OFFICER TO BEGIN)
PROCURING THE DESIGN AND)
CONSTRUCTION OF THE NEW ZOO) Introduced by Acting Chief Operating Officer
ELEPHANT HABITAT AND ASSOCIATED) Daniel B. Cooper, with the concurrence of
INFRASTRUCTURE PRIOR TO COMPLETION) Council President Thomas Hughes
AND ADOPTION OF THE OREGON ZOO)
COMPREHENSIVE CAPITAL MASTER PLAN)

WHEREAS, at the General Election held on November 4, 2008, the Metro Area voters approved Oregon Zoo Bond Measure 26-96, entitled “Bonds to Protect Animal Health And Safety; Conserve and Recycle Water,” a major component of which is the construction of a new elephant habitat, which includes associated infrastructure work such as constructing a new perimeter service road, relocating the zoo train route and train snow shed, relocating birds of prey mews and upgrading utilities (the “New Elephant Habitat”); and

WHEREAS, in 2010, the Zoo launched the Oregon Zoo Comprehensive Capital Master Plan process, to ensure that the Oregon Zoo Bond Measure is implemented within budget, in a fashion that effectively integrates bond projects with existing exhibits, preserves opportunities for future non-bond funded projects and made the maximum use of existing and proposed infrastructure, which plan will be completed in September 2011, and presented to the Metro Council for review and adoption; and

WHEREAS, with the exception of the Oregon Zoo Veterinary Medical Center and Penguin Water Filtration projects, which were authorized for development prior to the completion of the Oregon Zoo Comprehensive Capital Master Plan, the Oregon Zoo Bond projects will be implemented as set forth in the Oregon Zoo Comprehensive Capital Master Plan; and

WHEREAS, in June 2011, Oregon Zoo Comprehensive Capital Master Plan consultant team substantially completed and delivered the New Elephant Habitat combined project cost estimate, including design and construction costs, which totals \$54 million, approximately half of the remaining bond funds; and


WHEREAS, the Oregon Zoo desires to begin the design phase of the New Elephant Habitat project as soon as possible, prior to the Metro Council’s adoption of the Oregon Zoo Comprehensive Capital Master Plan, so that construction may begin no later than in fiscal year 2012, and be completed by the end of fiscal year 2014, and accepting the New Elephant Habitat pre-design submittal via Metro Council resolution would allow staff to begin the process to procure the design team allowing design to beginning as early as August 2011; now therefore

BE IT RESOLVED that the Metro Council hereby:


Accepts and approves the New Elephant Habitat portion of the Oregon Zoo Comprehensive Capital Master Plan, attached hereto as Exhibit A, and authorizes the Chief Operating Officer to begin procuring design and construction of the new Zoo Elephant Habitat and Associated Infrastructure prior to completion and Metro Council adoption of the Oregon Zoo Comprehensive Capital Master Plan.

///

ADOPTED by the Metro Council this 30 day of June 2011.



Thomas Hughes, Council President



Approved as to Form:



Alison Kean Campbell, Acting Metro Attorney

Exhibit A to Resolution No. 11-4277

[Placeholder]

Oregon Zoo

**Comprehensive Capital
Master Plan**

Pre-Schematic Design Submittal for:
ASIAN ELEPHANTS AND WATER &
ENERGY SAVING MEASURES
AND RELATED PROJECTS

May 20, 2011

MASTER PLAN VISION

To provide a framework for the Master Plan work, Zoo leadership and staff, with the design team, developed a series of Master Plan Vision statements:

- » Be 'game changers' by implementing the \$125 Million bond responsibly and creatively, and by pushing the boundaries in exhibit design, sustainability and Conservation Education.
- » Establish a culture of animal welfare, sustainability and Conservation Education that is apparent and engaging for all stakeholders throughout every aspect of the zoo.
- » Develop enriched indoor/outdoor environments that provide choices for the animals to show they are intelligent, active, and thriving members of complex ecosystems.
- » Build a campus that pioneers innovative solutions at every level, enhancing Portland's reputation for sustainability and inspiring our guests to take personal meaningful action.
- » Create a cohesive physical and educational campus that is a valued model for our neighbors, Washington Park, our city and the world.
- » Pioneer holistic exhibits that highlight cultural legacy as well as the success and science of conservation programs.
- » Maximize revenue opportunities to sustain the Zoo's mission to support animal welfare, sustainability and Conservation Education.

1.0 Executive Summary

INTRODUCTION

The first phase of construction accomplishes the most substantial bond project, Asian Elephants, major sustainability efforts in the implementation of many Water & Energy Savings Measures, as well as a series of related projects, including the Train Relocation, new Service Road, new East Hub, Concert Lawn, and Wildlife Live. The remaining bond projects, the Conservation Discovery Zone, Polar Bear, Primates, Hippo, Condor, and additional Water & Energy Saving Measures are not included in this report, but are planned for subsequent phases.

The Zoo is approaching the implementation of the 2008 Bond in a game-changing way. Their priorities for the Master Plan and Bond Projects are to:

Protect animal health and safety

The Zoo's commitment to animal welfare will be obvious to the visitor in the new and expanded habitats which will engage the animals to show their intelligence and give them choices for an active and healthy life.

Increase access to conservation education

Visitor education about animal conservation will be provided through a mix of campus-wide and exhibit interpretive elements and engaging experiences. Flexible spaces for learning will be offered throughout the Zoo and within each animal exhibit.

Implement sustainability initiatives

The Zoo is passionate about reducing water and energy use; leveraging sunlight, animal waste, and storm water resources; and modeling sustainable practices to visitors. All of these goals will be evident in the new and expanded habitats and facilities.



Create a cohesive zoo campus

The new bond projects will improve and clarify visitor circulation and experience by improving supporting amenities, such as the train, food venues, and signage, and organize the Zoo as a whole so that exhibits and adjacent spaces complement one another and tie into large areas representing areas of the globe with specific zoo species.

SCOPE

ASIAN ELEPHANTS

The greatly expanded elephant exhibit will allow the elephants more room to roam and supports the Zoo's vision for elephants to live in family herds, as they do in their native habitats. It allows for an evolution in the way the elephants use their space. The animals can now choose how and where they spend their time, with access to the northern "meadow" or the southern "meander" by means of an elephant trail linking the two. Visitors will have a rich variety of vantage points, as well as the opportunity to follow the elephants as they journey between habitats. The Forest Hall is a covered 'shelter' but open to allow the elephants to come and go as they wish. The new barn facility is substantially improved for elephant care and management.

WATER AND ENERGY SAVING MEASURES

The intent of the 'Water & Energy Saving Measures' bond project formally imbeds the zoo's commitment to sustainability into each of the bond projects. All projects will be designed to be as energy efficient as financially practical and to meet the requirements for a USGBC LEED Silver certification, or higher. Gold or Platinum certification should be evaluated as each design progresses to see if it can be achieved within the project budget. This first phase is a strong kick-off, proposing an infrastructure that can evolve smoothly with subsequent development. The new campus

geothermal, or "condenser," loop will allow the majority of large existing buildings to eliminate the need for heating by fossil fuels.

TRAIN RELOCATION

The Train is a beloved institution at the Zoo and a revenue generator. The current route through the zoo largely views back of house areas, and is occupying valuable land needed to expand the elephant exhibit. The new route has been designed to enhance views into animal exhibits and improve visitor safety by eliminated pedestrian track crossings.

A new Roundhouse at the existing train tunnel and platform is planned but must be funded by sources outside the bond. It will provide train engineers with improved and consolidated train storage and workspace, and visitors opportunities to view the internal workings of the railroad. A new event space on the roof will provide new catering opportunities for the Zoo.

SERVICE ROAD

The new perimeter service road tackles current service access problems, as identified by the Zoo, and allows construction vehicles to move around the site eliminating conflicts with visitor circulation. A new utility infrastructure will be installed under the road to support all bond projects.

CONCERT LAWN

The Concert Lawn project improves the use of this important revenue generator and highly used space on the campus, as well as contributing an important piece to the water and energy saving improvements.

WILDLIFE LIVE

The Wildlife Live building will be relocated to accommodate the expanded elephant exhibit and allow for reasonable grading for the new perimeter road at a geologically challenging edge of the site.



APPROACH

Animal welfare

The Oregon Zoo's top priority is the health and well-being of the animals. The bond allows for the current elephant habitat to be rebuilt to exceed AZA Standards for Elephant Management and Care. The concept for the new indoor and outdoor habitats is game-changing in the Zoo world. Here, animal care is focused on the elephant's choices and needs, and their social, behavioral, physical and psychological needs as matriarchal social groups. The Zoo hopes through their education programs, visitors will be inspired to care about elephant conservation world-wide.

Visitor experience

The Master Plan concepts include a strong central circulation path, referred to as the "Spine," with a series of "Hubs," defined as orientation and major visitor service locations. The spine/hub concept improves the currently convoluted visitor experience by providing a clearly defined circulation corridor. The East Hub is one of a series of major wayfinding locations. Signage will be placed such that a visitor can comfortably navigate to major exhibits, restrooms, food services, and re-establish a sense of direction on the zoo campus. Improvements in this area include new restrooms and a new event/picnic area capable of providing catering to private groups.

Safety and Operations

The new perimeter road will allow behind the scenes vehicular access for Zoo operations, emergency access and multi-year construction activities that will occur to build all of the bond projects. The separation of visitors and vehicular traffic to increase safety is a high priority for the Zoo. The rerouting of the train will also remove all of the dangerous pedestrian track crossings by elevating the train on a trestle above the visitor circulation path.

Interpretation

Interpretive elements and educational messages are strongly integrated into the visitor experience of the Elephant exhibit. Some of the elements act as important navigational tools for this large exhibit. Others provide a great range of visual and experiential compliments to the exhibits. The train component has interpretive elements that educate visitors about the Zoo Train, help streamline ticketing, and enrich the queuing experience.

Additional welcome, orientation and wayfinding master plan ideas, that might be considered for the first phase of construction, are included in the appendix.

Education

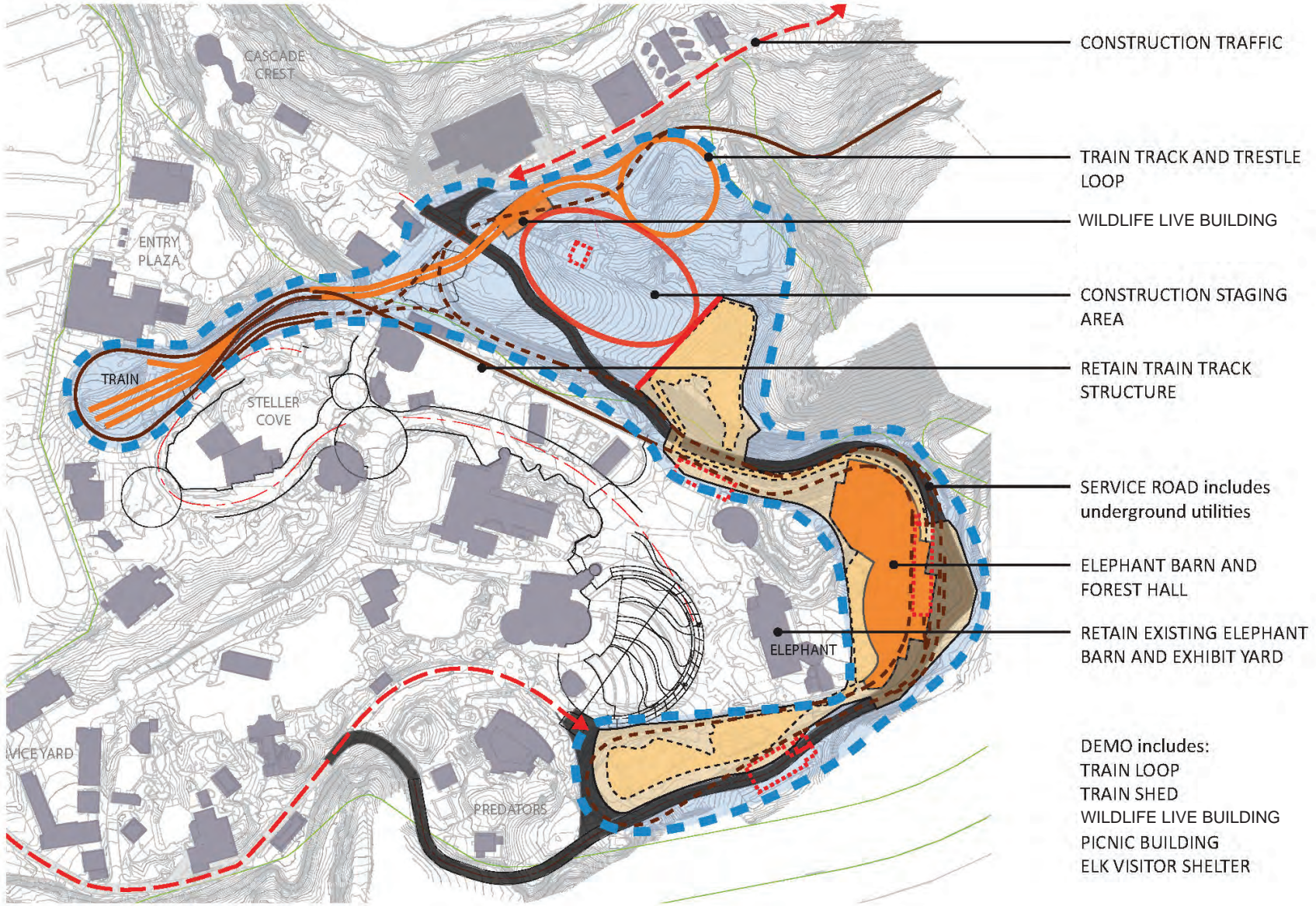
Multiple spaces are integrated into the exhibit design that can be used for education programs. The hilltop, as well as the elephant viewing platforms along the edge of the concert lawn, offer locations for the Zoo's education and camp programs. Pavilion structures can be added in a future phase.

Landscape

The landscape improvements fall broadly into two categories: major upgrades and improvements to the concert lawn, east hub and picnic area; and mitigation, restoration and landscape screening associated with the service road, the realigned train and the periphery of the elephant habitat. The latter category will be accomplished with native plantings and minimal irrigation; it is intended to enhance the visitor experience while providing habitat function and contributing to the larger ecosystem in which the Zoo is nested. The former category includes a terraced concert venue with sculpted seatwalls and stepped lawns, a boardwalk with overlook podiums that engages both the new elephant habitat and the concert venue, a picnic lawn and pavilion in close proximity to new restroom facilities and a large, flexible open space (east hub) that supports concert functions, wayfinding and exhibit interpretation.

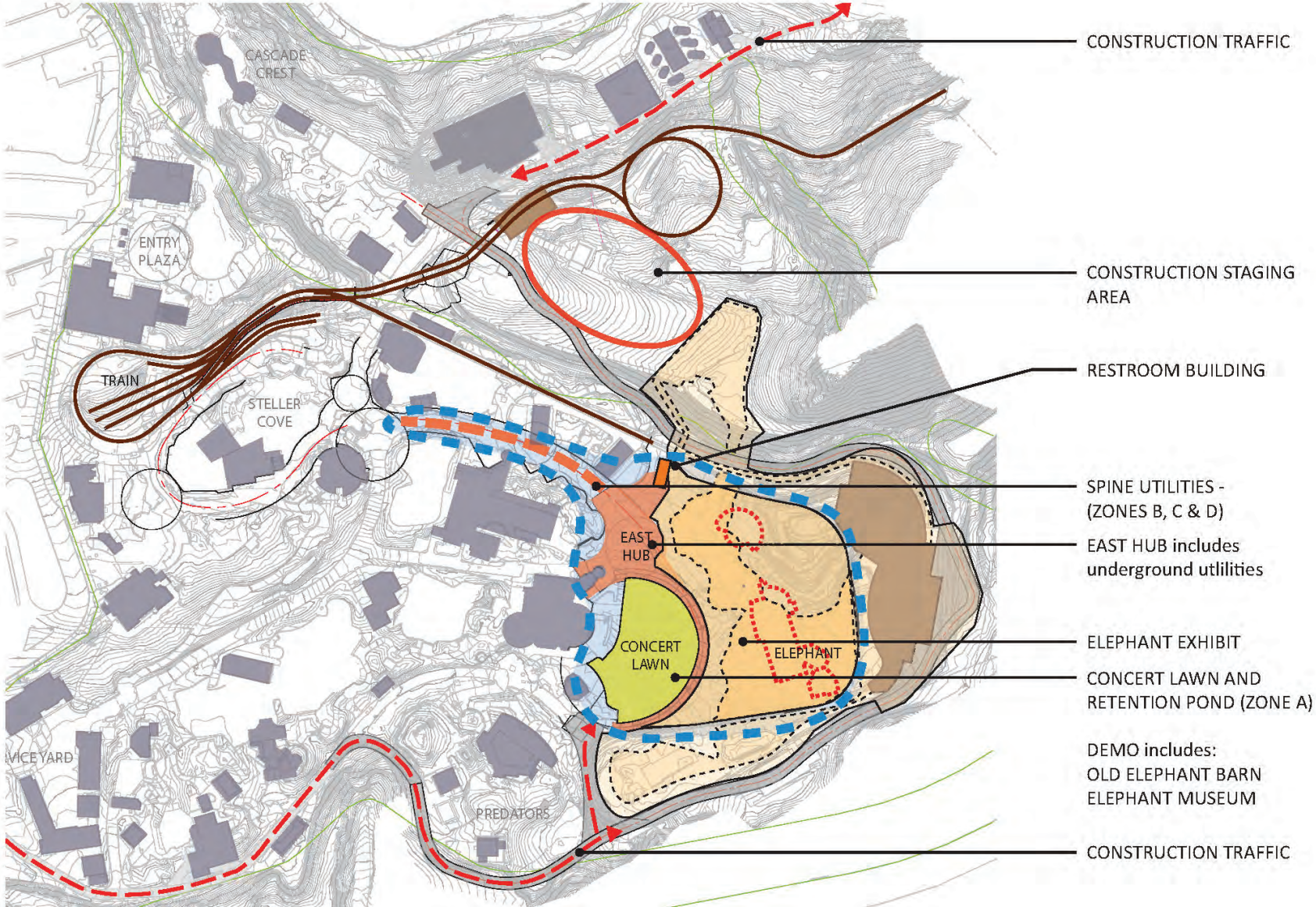
BOND PROJECT PHASING

PHASE 1A - ELEPHANTS



BOND PROJECT PHASING

PHASE 1B - ELEPHANTS



BUDGET AND IMPLEMENTATION

The total construction budget for this scope of work is \$37,100,000. The proposed construction sequencing is shown on the following pages and is expected to take approximately 18 months, with construction starting in the first quarter of 2012, pending approval of a conditional use amendment and environmental review. A detailed estimate will be included in the final printing of this report.

Phase 1 - Bond Project Scope

Description	Estimate	Alternates	Revised Estimate	Comments
Elephant Exhibit	\$ 32,300,000	\$ (2,300,000)	\$ 30,000,000	Bunker View; 1 less Enrichment tower; 1 less stall; etc.
Perimeter Service Road	\$ 800,000		\$ 800,000	Utilities covered in Water & Energy Savings
Toilets and Support	\$ 600,000		\$ 600,000	1,200 gsf building
Water & Energy Savings				
Concert Lawn/Zone A	\$ 1,400,000		\$ 1,400,000	Water storage; Surface treatment and utilities at perimeter of elephant habitat
Spine/Zone B	\$ 450,000		\$ 450,000	Finishes around concert lawn and pavilion platforms - includes electrical
Spine Zone C & D	\$ 350,000		\$ 350,000	Utilities and pavement patched to meet existing grade
Other Projects				
Birds of Prey	\$ 500,000		\$ 500,000	5,000 GSF Replacement
Railroad Relocation	\$ 5,900,000	\$ (2,900,000)	\$ 3,000,000	Add alternates 1, 2 and 3 = \$2.9 million
Total	\$ 42,300,000	\$ (5,200,000)	\$ 37,100,000	

General Contractor Mark-ups Included in Estimate 37%

General Conditions
 Overhead and Profit
 Bonds and Insurance
 Design Contingency
 CMGC Contingency

SOFT COST SUMMARY

Item #	Service or Contract	Approximate % of Const. Cost	Contract Value of Cost
1	Bldg. Permit & SDC	1.50%	\$1,135,000
2	SDC - in above	0.00%	\$0
3	Advertising & Printing	0.05%	\$38,000
4	Abatement	0.50%	\$378,000
5	Animal relocation	0.00%	\$0
6	Fund raising expenses	0.00%	\$0
7	Surveying	0.10%	\$76,000
8	Structural Inspections	0.20%	\$151,000
9	Geotechnical Inspections	0.20%	\$151,000
10	Telecom	1.00%	\$757,000
11	Moving expenses/storage	0.20%	\$151,000
12	Commissioning	0.25%	\$189,000
13	Architect/Engineer	14.00%	\$10,591,000
14	Furnishings	4.00%	\$3,026,000
15	Fixed equipment	2.00%	\$1,513,000
16	Utility Connections	0.40%	\$303,000
17	Management costs	2.00%	\$1,513,000
18	Project Contingency	15.00%	\$11,348,000
19	Owner cost estimator	0.00%	\$0
20	Percent for art	1.00%	\$757,000
21	Interpretive	3.00%	\$2,270,000
22		0.00%	\$0
Subtotal		45.4%	\$34,347,000
Construction Cost			75,653,000
			\$110,000,000

Assumptions and Clarifications:

- 10 Cost includes cabling and equipment related to Telecom infrastructure
- 18 Includes both construction and soft cost contingencies.

DESIGN TEAM

SRG PARTNERSHIP, INC., Architects

Jon Schleuning, FAIA, Principal In Charge
Hussain Mirza, AIA, Project Manager
Jocelyn Bates, AIA, Assistant Project Manager
Emily Dawson, AIA, Project Architect
Jennifer Gentry, Project Assistant
Bryan Higgins, AIA, Project Architect

CLR DESIGN, Zoo Designers

Gary Lee, AIA, Senior Principal
Greg Dykstra, AIA, Principal In Charge
Gregg Leicester, ASLA, Project Manager
Larry Dame, Exhibit Designer

ATELIER DREISEITL, Landscape Architects

Gerhard Hauber, Landscape Architect, Stormwater Mgmt
Eric Bode, ASLA, Principal In Charge
Nathan Hilmer

MAIN STREET DESIGN, INC., Interpretive Design

J. Tevere MacFadyen, Principal, Senior Interpretive Planner
Penny Perez, Senior Exhibit Designer

TJP ENGINEERING, Life Support

Terri Johnson, PE

PAE CONSULTING ENGINEERS, Mechanical and Electrical

Paul Schwer, PE, Mechanical Engineer
Scott Bevan, PE, Electrical Engineer
Tim Elley

KPFF CONSULTING ENGINEERS, Civil

Paul Dedyo, PE
Evan Eykelbosch, PE
Pete Miller, PE

EQUILIBRIUM, Structural

Ed Quesenberry, SE, Principal

THE BOOKIN GROUP, Land Use Planning

Beverly Bookin, AICP, Planner
Rebecca Woods, Associate Planner

RIDER LEVETT BUCKNALL, Cost Estimators

Graham Roy, Principal
Billy O'Donovan

ORCA CONSULTING, LLC, Operations and Revenue Analysis

Greg Emmers
John Moss
Melanie Simon

STAFF REPORT

IN CONSIDERATION OF RESOLUTION NO. 11-4277, FOR THE PURPOSE OF AUTHORIZING THE CHIEF OPERATING OFFICER TO BEGIN PROCURING THE DESIGN AND CONSTRUCTION OF THE NEW ZOO ELEPHANT HABITAT AND ASSOCIATED INFRASTRUCTURE PRIOR TO COMPLETION AND ADOPTION OF THE OREGON ZOO COMPREHENSIVE CAPITAL MASTER PLAN

Date: June 14, 2011

Prepared by: Craig Stroud 503 220-2451

BACKGROUND

At the February 1, 2011 Metro Council work session, the Oregon Zoo Bond Program presented a fast-tracked approach for the New Elephant Habitat project. That approach focused early design attention on concepts to expand the elephant habitat, the largest scope of the Oregon Zoo Bond Program improvements, to maintain construction momentum and to allow staff to move forward on land use approvals with City of Portland staff. The Metro Council supported the staff recommendation to expand the current elephant habitat along the Oregon Zoo campus's eastern edge to meet the bond commitment, as well as remove the Oregon Zoo train campus loop and construct a perimeter service road to implement bond project improvements. With Metro Council support, staff worked with the Oregon Zoo Comprehensive Capital Master Plan team to finalize schematic designs for those projects.

Since that time, the master plan consultant team has made substantial progress on the overall bond project planning. The schematic designs for elephants, polar bears, and the conservation discovery zone, the projects of greatest cost and scope, are nearly finished and the remaining designs are close behind.

The master plan team presented their first allocation of estimated soft costs (design, permits, contingency, etc.) and direct construction costs for all the bond projects in early April 2011 to Oregon Zoo management and the Oregon Zoo Bond Advisory Group (OZBAG). The team presented refined scopes and cost estimates to OZBAG and the Oregon Zoo Bond Citizens' Oversight Committee in early June 2011. The June 2011 OZBAG presentation included project scopes and cost estimates totaling the \$110 million of remaining bond funds (see Attachment 1 for abridged version).¹

The master plan schedule calls for delivery of all bond project scopes, schedule, and budget information in a comprehensive draft at the end of July 2011. The package will then be reviewed by stakeholders, including the Metro Council, through Aug. 2011. Bond program staff plans to return to the Metro Council in Sept. 2011 to seek adoption of the comprehensive complete package of bond improvements via Metro Council resolution.

¹ The veterinary medical center project, penguin filtration project, comprehensive capital master planning, land use approval, administrative, other minor improvement projects are forecast to expend approximately \$15 million of the \$125 million of authorized bonds.

Elephant Habitat, Train, Wildlife Live Mews, and Perimeter Road Project

The master plan consultant team has substantially completed and delivered the elephant habitat, train relocation, wild life live mews relocation, and perimeter service road pre-schematic design submittal.² The combined project cost estimate, including design and construction costs, totals \$54 million. This is approximately half of the remaining bond funds. The elephant habitat improvements represent approximately \$44 million of this amount, with the remaining improvements totaling \$10 million. It was always expected that the elephant habitat expansion would be the most costly and complicated bond improvement given the built-out condition of the Oregon Zoo campus, the commitment in the bond to expand the habitat to six acres, and the complex habitat needs of these majestic and powerful animals.

Staff believes the design work for all remaining bond projects has progressed adequately to allow this project to continue moving ahead without introducing substantial budget risk to the remaining bond projects. If circumstances arise that require the reallocation of funds across the remaining bond projects, that information would be known by July 2011 and this project could still be incorporated into any reallocation of funds. Any changes to this project could be incorporated into the forthcoming complete package of bond improvements expected to be proposed to the Metro Council for acceptance via council resolution in Sept. 2011.

Accepting the new elephant habitat, train, wildlife live, and perimeter road project design submittal via Metro Council resolution would allow staff to begin the Request for Proposal (RFP) process to hire the design team to complete project design through construction documents.

ANALYSIS/INFORMATION

1. **Known Opposition:** None known.
2. **Legal Antecedents:** Ballot Measure No. 26-96: Bonds to Protect Animal Health and Safety; Conserve, recycle water
3. **Anticipated Effects:** Accepting the New Elephant Habitat, train, wildlife live, and perimeter road project design submittal via resolution would allow staff to begin the Requests for Proposals process to hire the design team to complete project design through construction documents.
4. **Budget Impacts:** This resolution earmarks \$54 million of the remaining bond funds to design and construct the elephant habitat, train relocation, wild life live mews relocation, and perimeter service road project.

RECOMMENDED ACTION

Metro Council approve the elephant habitat, train relocation, wild life live mews relocation, and perimeter service road project via resolution to enable staff to hire design consultants.

² Submittal titled, "Asian Elephants and Water & Energy Saving Measures and Related Projects" and dated May 20, 2011.

Attachment 1

Attachment 1 to Staff Report
Resolution No. 11-4277



OREGON ZOO
A SERVICE OF METRO

COMPREHENSIVE CAPITAL MASTER PLAN

OZBAG PRESENTATION

06.06.11

SRG + clr + ATELIER DREISEITL

Main Street Design KPFF PAE Equilibrium

Abridged for 6/28/2011 Council Work Session and 6/30/2011 Meeting








BOND PROJECT PHASING

SOFT COST SUMMARY


Item #	Service or Contract	Approximate % of Const. Cost	Contract Value of Cost
1	Bldg. Permit & SDC	1.50%	\$1,135,000
2	SDC - in above	0.00%	\$0
3	Advertising & Printing	0.05%	\$38,000
4	Abatement	0.50%	\$378,000
5	Animal relocation	0.00%	\$0
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15	Fixed equipment	2.00%	\$1,513,000
16	Utility Connections	0.40%	\$303,000
17	Management costs	2.00%	\$1,513,000
18	Project Contingency	15.00%	\$11,348,000
19	Owner cost estimator	0.00%	\$0
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22		0.00%	\$0
Subtotal		45.4%	\$34,347,000
Construction Cost			75,653,000
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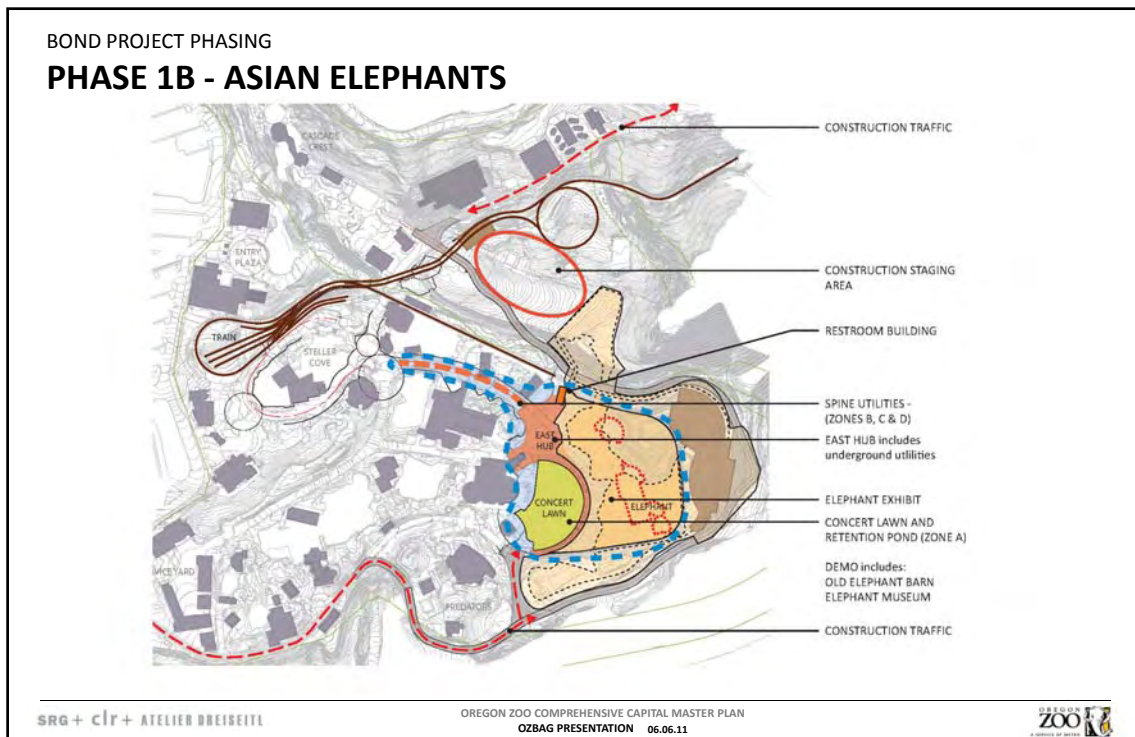
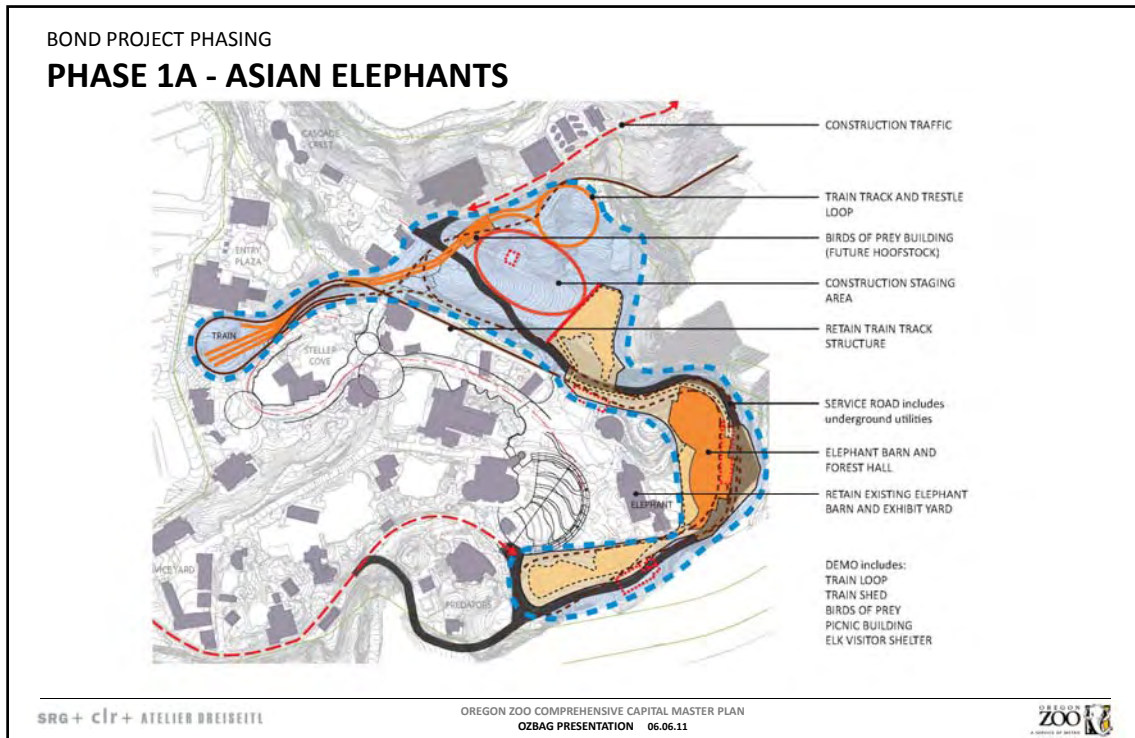
Assumptions and Clarifications:

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- 18 Includes both construction and soft cost contingencies.

SRG + clr + ATELIER DREISEITL

OREGON ZOO COMPREHENSIVE CAPITAL MASTER PLAN
OZBAG PRESENTATION 06.06.11





BOND PROJECT PHASING

PHASE 1 - ASIAN ELEPHANTS

Phase 1 - Bond Project Scope

Description	Estimate	Alternates	Revised Estimate	Comments
Elephant Exhibit	\$ 32,300,000	\$ (2,300,000)	\$ 30,000,000	Bunker View; 1 less Enrichment tower; 1 less stall; etc.
Perimeter Service Road	\$ 800,000		\$ 800,000	Utilities covered in Water & Energy Savings
Toilets and Support	\$ 600,000		\$ 600,000	1,200 gsf building
Water & Energy Savings				
Concert Lawn/Zone A	\$ 1,400,000		\$ 1,400,000	Water storage; Surface treatment and utilities at perimeter of elephant habitat
Spine/Zone B	\$ 450,000		\$ 450,000	Finishes around concert lawn and pavilion platforms - includes electrical
Spine Zone C & D	\$ 350,000		\$ 350,000	Utilities and pavement patched to meet existing grade
Other Projects				
Birds of Prey	\$ 500,000		\$ 500,000	5,000 GSF Replacement
Railroad Relocation	\$ 5,900,000	\$ (2,900,000)	\$ 3,000,000	Add alternates 1, 2 and 3 = \$2.9 million
Total	\$ 42,300,000	\$ (5,200,000)	\$ 37,100,000	

General Contractor Mark-ups Included in Estimate

General Conditions	12%
Overhead and Profit	5%
Bonds and Insurance	2.50%
Design Contingency	15%
CMGC Contingency	2.50%

BOND PROJECT PHASING

PHASE 2 - CONSERVATION DISCOVERY ZONE



Attachment 1

BOND PROJECT PHASING

PHASE 2 - CONSERVATION DISCOVERY ZONE

Phase 2 - Bond Project Scope

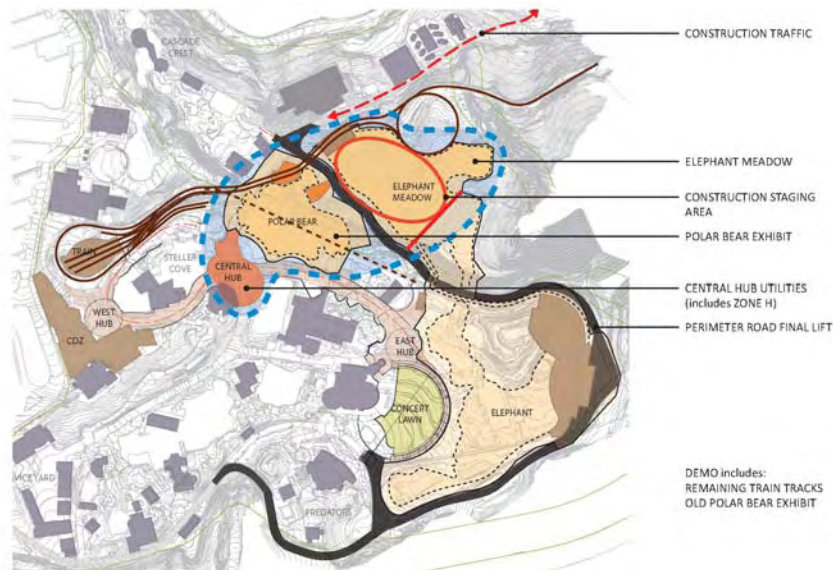
Description	Estimate	Alternates	Revised Estimate	Comments
Conservation Discovery Zone	\$ 8,400,000	\$ (1,307,000)	\$ 7,093,000	Reduce gross floor area; shell some space with minimal finishes; Green roof;
Water & Energy Savings				
Spine/Zone G, F and E	\$ 400,000	\$ -	\$ 400,000	Utilities and pavement patched to meet existing grade.
Photo-Voltaics at CDZ		\$ 800,000		PV array may be identified as an add alternative
Total	\$ 8,800,000	\$ (507,000)	\$ 7,493,000	

General Contractor Mark-ups Included in Estimate

General Conditions	12%
Overhead and Profit	5%
Bonds and Insurance	2.50%
Design Contingency	15%

BOND PROJECT PHASING

PHASE 3 - POLAR BEARS



BOND PROJECT PHASING

PHASE 3 - POLAR BEARS

Phase 3 - Bond Project Scope

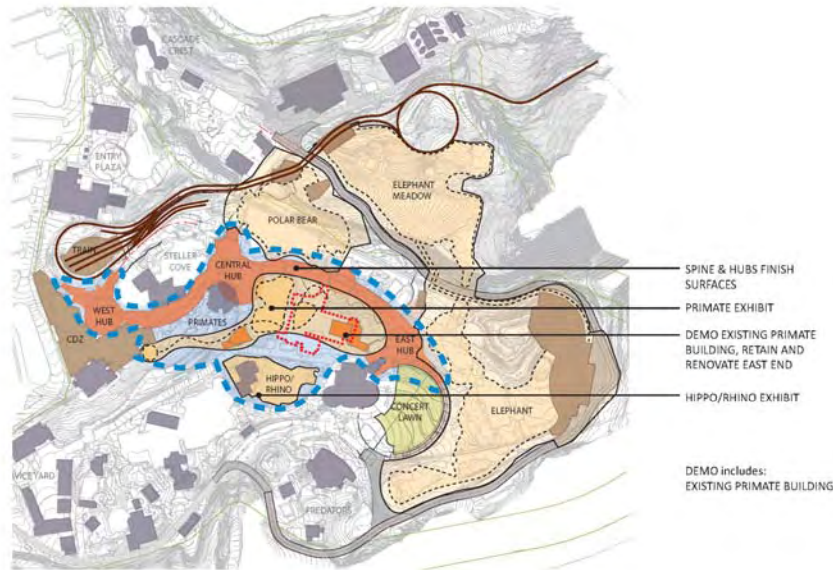
Description	Estimate	Alternates	Revised Estimate	Comments
Polar Bear	\$ 14,500,000	\$ (500,000)	\$ 14,000,000	Elephant Meadow habitat cost should be moved into this phase
Water & Energy Savings Zone H	\$ 60,000	\$ -	\$ 60,000	Connect electrical infrastructure to north perimeter road
Total	\$ 14,560,000	\$ (500,000)	\$ 14,060,000	

General Contractor Mark-ups Included in Estimate

General Conditions	12%
Overhead and Profit	5%
Bonds and Insurance	2.50%
Design Contingency	15%
CMGC Contingency	2.50%

BOND PROJECT PHASING

PHASE 4 – PRIMATES & HIPPO/RHINO



Attachment 1

BOND PROJECT PHASING

PHASE 4 – PRIMATES & HIPPO/RHINO

Phase 4 - Bond Project Scope

Description	Estimate	Alternates	Revised Estimate	Comments
Primates	\$ 7,000,000	\$ -	\$ 7,000,000	Mandrill and Chimp habitat only. Full build-out is \$20 million
Hippo/Rhino	\$ 1,000,000	\$ -	\$ 1,000,000	Minimal existing habitat/Holding modification
Water & Energy Savings				
Spine Zones B, C, D, E, F and G	\$ 2,500,000	\$ -	\$ 2,500,000	Spine Finishes - Concrete and asphalt paving; Terraces; curbs; Low walls; Site furniture etc.
Total	\$ 10,500,000	\$ -	\$ 10,500,000	

General Contractor Mark-ups Included in Estimate

General Conditions	12%
Overhead and Profit	5%
Bonds and Insurance	2.50%
Design Contingency	15%
CMGC Contingency	2.50%

BOND PROJECT PHASING

PHASE 5 - CONDOR



BOND PROJECT PHASING

PHASE 5 - CONDOR

Phase 5 - Bond Project Scope

Description	Estimate	Alternates	Revised Estimate	Comments
Condor (Phase 1)	\$ 2,500,000	\$ (1,000,000)	\$ 1,500,000	Holding Building and 5,000 SF habitat. Total buildout is \$2.5 million
Total	\$ 2,500,000	\$ (1,000,000)	\$ 1,500,000	

General Contractor Mark-ups Included in Estimate

General Conditions	12%
Overhead and Profit	5%
Bonds and Insurance	2.50%
Design Contingency	15%

BOND PROJECT PHASING

SUMMARY OF BOND FUND ALLOCATION

Item #	Service or Contract	Total Construction Cost	Total Including 45.4% Soft Cost
1	Elephant Exhibit	\$ 30,000,000	\$ 43,620,000
2	Conservation Discovery Zone	\$ 7,093,000	\$ 10,313,222
3	Polar Bear Exhibit	\$ 14,000,000	\$ 20,356,000
4	Primates Exhibit	\$ 7,000,000	\$ 10,178,000
5	Hippo/Rhino Exhibit	\$ 1,000,000	\$ 1,454,000
6	Condor Exhibit	\$ 1,500,000	\$ 2,181,000
7	Water & Energy Savings/Infrastructure	\$ 5,160,000	\$ 7,502,640
8	Off Site Elephants Habitat	\$ 5,000,000	\$ 7,270,000
9	Birds of Prey Relocation	\$ 500,000	\$ 727,000
10	Train Relocation	\$ 3,000,000	\$ 4,362,000
11	Perimeter Access Road	\$ 800,000	\$ 1,163,200
12	Replacement Toilets/Support	\$ 600,000	\$ 872,400
	Subtotal	\$ 75,653,000	\$ 109,999,000

Bond Projects are in Bold. Other projects are necessary for constructing the Bond Projects