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Office of the President

TO THE MEMBERS OF THE COMMITTEE ON GROUNDS AND BUILDINGS:

ITEM FOR INFORMATION

For the Meeting of January 18, 2005

EXECUTIVE SUMMARY

MAJOR CAPITAL PROJECTS IMPLEMENTATION REPORT, 2003-04 FISCAL YEAR

- The University's dollar value of active projects increased during 2003-04 by a net of $845 million. Between 1994-95 and 2003-04, the percentage of projects with schedule changes decreased from 60 percent to 53 percent this past year. The percentage of net budget augmentations has decreased from 6 percent in 1990-91 to 2.9 percent this past year.

- During the 2003-04 fiscal year, the University began to experience a significant increase in construction inflation initiated by the rapid escalation of key building materials. This increase, coupled with acceleration in overall construction market, has resulted in five-fold increase in the number of projects with bids that have exceeded there pre-bid targets compared to project bid performance two years ago. As a result, the University has implemented a number of systemwide and project level measures to simplify project design development and bid process.

- Campus financial and staff resources continue to be challenged by the scale and complexity of a capital program of $7.878 billion. Meeting this challenge requires continuous development of the University's project management capability effectively to manage complex University projects in this uncertain economic environment.

BACKGROUND

The University's dollar value of active projects increased during 2003-04 by a net of $845 million. Between 1994-95 and 2003-04, the percentage of projects with schedule changes decreased from 60 percent to 53 percent this past year. The percentage of net budget augmentations has decreased from 6 percent in 1990-91 to 2.9 percent this past year.

During the 2003-04 fiscal year, the University began to experience a significant increase in construction inflation initiated by the rapid escalation of key building materials. This increase, coupled with acceleration in overall construction market, has resulted in five-fold increase of the number of projects with bids that have exceeded their pre-bid targets compared to project bid performance two years ago. As a result, the University has implemented a number of systemwide and project level measures to simplify project design development and the bid process.

Campus financial and staff resources continue to be challenged by the scale and complexity of a capital program of $7.878 billion. Meeting this challenge requires continuous development of the University's project management capability effectively to manage complex University projects in this uncertain economic environment.

The Major Capital Projects Implementation Report, first presented in 1991, measures project delivery performance and identifies trends. This Report describes the aggregate status of major capital projects under way at the end of fiscal year 2003-04, and summarizes management initiatives and market conditions affecting project implementation.

The University's ability successfully to implement its capital program depends on numerous factors. Factors within University control include project management and delivery strategies, academic program changes, and budgeting-funding strategies. Factors beyond University control include the construction industry bid climate and market conditions, code changes, requirements of State and other funding sources, and weather delays. This report will also address trends in the current construction market.

It is important to note that many project budget and schedule changes are driven by circumstances intentional, necessary, and beneficial to the University's interests; for example, program changes, the logistics of multiple project phasing, and the incorporation of new funding opportunities. Because this mix of factors affects project delivery, simple indicators do not fully represent the complexity of factors affecting project implementation. Nonetheless, to assess the general condition of the program, to identify trends, and to develop initiatives to improve project delivery, two indicators are monitored: (1) project budget changes and (2) project schedule changes.

Status of the Capital Program

Major University capital project activity for fiscal year 2003-04 is shown in the summary table that follows. The compilation deals only with major capital projects, those over $400,000 project cost. All figures referring to either budget or schedule changes represent the cumulative change over a project's duration, which normally exceeds four years.

Summary of Major Capital Project Activity at Fiscal Year End 2003-2004

(1)	Total active projects	347
(2)	Total amount of original budgets	$7,644,213,000
(3)	Cumulative approved budget changes (adjusted for inflation)	$225,118,000
(4)	Total year-end budget (adjusted for inflation)	$7,869,330,000
(5)	Percent change from original budget	2.9%
(6)	Total year-end budget (including inflation)	$7,877,604,000
(7)	Projects with budget changes	88
(8)	Projects with schedule changes	185

Table 1 attached to this item provides campus-level detail for the above categories.

From fiscal year 2002-03 to fiscal year 2003-04, the net number of active projects increased by one, from 346 to 347. During this time, 58 projects with budgets totaling $304,468,000 filed Notices of Completion, while the total value of projects in design and construction (approved budgets) increased by a net of $845 million, from $7.024 billion to $7.869 billion (Figure 1). Projects related to enrollment growth, including housing, continue to be the major portion of projects in the program. Seismic improvements and renovation projects continue to represent a substantial component of the State-funded capital program.

The thirteen-year trend in the percentage of net project budget augmentations shows an overall reduction from 6 percent in fiscal year 1990-91 to 2.9 percent in fiscal year 2003-04 (Figure 2). From fiscal year 2002-03 to fiscal year 2003-04 the percentage of net project budget augmentations increased from 2.4 percent to 2.9 percent. The percentage of projects with schedule changes increased from 48.3 percent to 53.3 percent between 2002-03 and 2003-04 (Figure 3).

Conditions in the Construction Market

As discussed at the November 2004 meeting, the volatile conditions in the construction market have become an important issue that has affected several recent projects and is a trend that is anticipated to continue at least through the remainder of this year.

From 2002 through 2003, the economy was rebounding from a short recession and construction material costs as a whole were quite weak, with few materials making any pricing gains and the cost of many materials actually falling. During this period, both the public sector and housing

construction markets were strong, but the commercial construction markets were weak. Contractor margins were very low during this period.

At the end of 2003, significant events occurred simultaneously that had a serious impact on the construction industry. The commercial construction market sector finally rebounded, which initiated an increase in contractor margins from previously depressed levels. Lumber prices continued to go up, and global demand in the steel market created a shortage in scrap metal – a component in the manufacturing of structural steel – resulting in a shortage of structural steel and significant increases in price. Shortages in cement were seen in the marketplace and resulted in increased pricing.

At the beginning of 2004, the shortages had a dramatic impact on market forces that effectively shifted from what had been a buyer's and owner's market, to a seller's and contractor's market. In the first quarter, steel prices jumped between 20 percent and 60 percent and were being quoted only 30 days out. At the same time, plywood prices were up 41 percent, lumber 15 percent, ductile iron pipe 17 percent, and copper tubing 16 percent on an annual basis. In the second quarter of 2004, the cost of plywood was up 48 percent, lumber 28 percent, gypsum 9 percent, ductile iron pipe 35 percent, and pvc 9 percent on an annual basis. Structural steel prices had declined in the global market but not within US market. The Engineering News-Record (ENR) Material Cost Index reflects the material cost of steel, lumber, and cement. The index started the year near a 1 percent annual growth level and is currently at near a 25 percent increase on an annual basis.

Per the ENR index, basic construction inflation was 3 percent at the beginning of 2004 and currently is at almost 10 percent. Similar inflation levels are expected to continue into 2005. The supply of cement is still limited and is rationed in some locations. Steel costs are expected to remain high until foreign steel reenters the US market place. All construction markets, particularly public works and housing, remain strong.

At a recent UC Project Management Institute Forum on this subject, several large general contractors substantiated the noted conditions about the current market place and added that many subcontractors and their workers have many more job opportunities and elected to work on non-University projects. These contractors gave a variety of reasons for not bidding on University work, but in general they indicated that other work environments were less restrictive from the subcontractor's point of view in terms of quality control, inspections, oversight, and administration. It was also the opinion of these general contractors that the potential exists for labor prices to increase through the next rounds of labor collective bargaining agreements. In both of the ENR indexes, the Construction Cost Index and the Building Cost Index, the labor component is significant. It represents 80 percent and 64 percent of the index, respectively. Any significant increase to labor rates will have a significant impact on these indices.

At this time, it is hard to project realistic construction inflation rates over the next year and beyond, given that the construction market continues to be very volatile and remains a seller's market. Certainly world events and the overall economy, including the value of the dollar, will be as much of a factor as anything in the continuation of current conditions and trends. Generally, there is agreement that the construction market demand will remain strong for the coming year, construction spending will increase slightly, and the escalation of construction costs will ease slightly.

Initiatives Related to Cost Management and Project Delivery

The scale of the University's capital program and student enrollment increases continues to challenge the University to improve short- and long-range planning and implementation processes.

During the past year, the Committee on Grounds and Buildings continued to focus its attention on long-term planning, urban design, and development issues. The Irvine, Santa Barbara, Santa Cruz, and San Francisco campuses presented and discussed their visions for guiding long-term campus physical development. Other campuses will make presentations through the summer of 2005. Work has also continued at the campuses on updates to Long Range Development Plans, with approval of the UC Davis LRDP in November 2003 and UC San Diego in September 2004.

In addition, during 2003-04 the University did the following:

- Continued to address a shortage of student housing through the expansion of housing bed count, adding approximately 2,490 beds by fall 2004.

- Continued construction of the new campus in Merced, scheduled to open in fall 2005.

- Continued to support the development of campus project management capabilities by expanding the range, scope, and frequency of training programs and courses for campus personnel through the UC Project Management Institute, which served 388 attendees with 17 programs. The range of topics has been expanded to include specialized presentation for the new mandated labor compliance program, the newly funded Energy Efficiency partnership program, and UC's CM at Risk contract method.

- Expanded use of alternative project delivery methods such as Construction Management at Risk and Design-Build during fiscal year 2003-04. Construction Management at Risk, in particular, is being used by a majority of the campuses on a wide variety of projects types, including sophisticated laboratory buildings, classroom buildings and housing.

- Responded to the dramatic change in the construction market by implementing systemwide and project-specific measures such as establishing a Capital Bid Response

Team, modifying the bid process to make it more attractive to the construction community, and using benchmarking and add alternates for projects early in design.

- Continued to respond to the ongoing effects of the energy crisis with initiatives to conserve energy. The Regents' directive of July 17, 2003 to improve energy efficiency and sustainability in the planning, financing, design, construction, and operation of all capital projects formed the basis for the Presidential Policy for Green Building Design and Clean Energy Standards issued in June 2004. A related report describing the progress on this new policy for the last year is being presented to the Committee on Grounds and Buildings at its January meeting.

(Attachment)