

CALIFORNIA INSTITUTE OF TECHNOLOGY

CAPITAL CONSTRUCTION POLICY

SUMMARY AND OBJECTIVE:

The purpose of this policy is to ensure that Caltech's capital plan will maximize our progress towards research and academic goals in light of available resources. It establishes guidelines that should be followed prior to the commencement of capital construction at Caltech. Specifically this policy establishes guidelines related to the funding and the estimating of costs. It also formalizes the review and approval process and complies with applicable Board Committee Charters.

Investing in construction and major renovations is to be considered within Caltech's overall long-range budgetary plan as approved by the Board of Trustees. Each year, the Business and Finance Committee of the Board of Trustees approves a capital expenditures budget. In addition, the Buildings and Ground Committee of the Board of Trustees approves capital construction, significant building exterior or landscape modifications, and major renovation projects. No new construction project or major renovation with a project cost estimated to be \$3 million or greater should be initiated without formal review and approval. In addition, if during the course of construction/renovation, costs are anticipated to exceed a previously approved budget by the greater of: 10% of the total project cost, or \$500 thousand, "re-approval" shall be required. Facility and renewal projects below these established thresholds will be authorized by the Provost and/or the Vice President for Business and Finance in the normal course of the annual budget process.

Financing capital construction and major renovations can be challenging. The most desirable source of funds is gifts from donors. However, there are some occasions in which fundraising will fall short of total project cost. The decision to undertake a project not fully funded by gifts will depend upon the availability of other resources and the priority of the project among other Institute needs and initiatives.

DEFINITIONS:

"Capital construction" is defined as the construction of a new building or facility at Caltech for which the total cost exceeds \$3 million.

"Building exterior or landscape modification" is defined as work intended to change or update a building facade, restore the exterior of an historic campus property, or will make major modifications to the campus landscape. Such works may or may not have campus master plan implications. If the total cost of such work exceeds \$3 million, then procedures similar to those for capital construction will apply. However, if the project would result in a significant change in the campus master plan it should be brought to the board (through the Buildings and Grounds Committee for review and approval regardless of the cost of the project.

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“Major renovation” is defined as an upgrade to a building or facility that;

- materially increases the estimated useful life of that building or facility, and
- has estimated total costs exceeding \$3 million.

PROPOSAL:

A formal proposal, approved by the Provost and Vice President for Business and Finance (and Division Chair, if applicable), should include:

- A description of and justification for the project.
- A preliminary comprehensive cost estimate.
- A funding plan covering the full cost estimate.
- A plan for covering on-going building operation and maintenance costs.

These components are discussed below.

Description and Justification

The description and justification includes a definition of the scope of the project, estimated time to complete, and other information such as facility requirements, project design criteria, conceptual plan, and how the project achieves Caltech's programmatic goals. This should be prepared in consultation with the Architectural and Engineering Services (A&E) office.

Cost Estimate

A comprehensive cost estimate must be reviewed and approved for all capital construction and major renovation projects at Caltech. The cost estimate includes all relevant costs including, but not limited to, estimated costs for the following:

1. Architectural and engineering fees
2. Design and construction fees
3. Building construction
4. Tunnels (if required)
5. Parking structure (if required)
6. City and permit fees
7. Construction management support
8. Ancillary/infrastructure/site costs
9. Furniture
10. Equipment (“built-in” only, i.e. identify separate funding for “free-standing” equipment)
11. Construction contingency
12. Security costs
13. Communication/networking costs

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- 14. Landscaping
- 15. Dislocation/relocation costs

The cost estimate must include an escalation of all costs through the estimated project commencement date. Experience has demonstrated that the project commencement date is often delayed. Therefore the cost estimate must span a 3-year period and 3 separate estimates must be included. For example:

Commencement Date	Cost
January 2003 (original plan)	\$60M
January 2004 (if delayed one year)	\$64M
January 2005 (if delayed two years)	\$68M

This cost estimate, along with the project description, should be prepared by or in consultation with the A&E office.

Operating Costs

In addition to preparing an estimate for capital construction costs, a three-year estimate of the net budgetary impact must be separately determined. There must be an assessment of the costs (e.g. facilities, utilities and maintenance) and/or revenues (e.g., rent, research) of additional activities that may result. While such costs are not considered part of the capital construction cost they will become part of the Institute's operating budget and will be subject to review and approval as described below.

Funding Plan

As mentioned above, the most desirable source of funds is gifts from donors. However, there are some occasions in which fundraising will fall short of total project cost. Therefore, a comprehensive funding plan must be prepared for all capital construction and major renovation projects at Caltech. The plan must identify funding for all capital construction costs, including escalation. Building construction and major renovations fall into one of three categories: research, administrative, academic, or auxiliary. Each type is discussed below.

Research Buildings

Often there is insufficient external funding to pay for the entire cost of a building intended for research. However, in some instances, a research building may contribute to an increase in the Institute's indirect research revenue. The Vice President for Business and Finance and Provost (with approval of the Board of Trustees) may provide a "loan" from the endowment to fund the shortfall if there is a sufficient expected increase in total indirect cost recovery revenues. A special reserve from such revenues may be set aside to be used to "pay back"

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part of the cost of building such facility. Such requests will be examined on an individual basis as the indirect cost rate averages common costs among all researchers and the overall impact on recovery must be examined carefully.

Administrative or Academic Buildings

Due to the fact that there are virtually no revenue streams for this type of construction, funding from gifts or other institutional funds must be obtained. If a funding stream is identified, the Institute may consider issuing debt to fund the project on a short-term basis. A proposal, including a payback analysis, should be prepared and submitted to the Vice President for Business and Finance.

Auxiliary Buildings

Building projects related to an auxiliary enterprise (e.g., housing, parking, dining) may have the availability of a future revenue stream. In these cases, it may benefit the Institute to issue debt to fund such projects if it is determined that a user fee may be imposed or incremental revenue may result.

Example - Construction of new student dorms using debt with increase in housing fee to service the debt:

Cost of Construction	\$50M
Interest rate on bonds issued	4%
Repayment period	30 yrs
Total debt service per year	\$3.7M
Number of students to pay increased housing fee	900
Increase in annual housing fee rate - per student	\$4.1K

Sources of Funding:

The above examples use the indirect cost rate or debt as possible sources of funding. Other sources of funding may include one or more of the following:

Types of Funding

Gifts, Confirmed Pledges
Grants
Bank Financing (long and short term)
Endowment
General Budget
Designated Funds

Resources/Support Offices*

Development & Alumni Relations
Office of Sponsored Research
Financial Services**
Treasurer or Financial Services
Provost or VP for Business & Finance
Provost or VP for Business & Finance

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General guidelines regarding funding sources are as follows:

- Gift pledges must be committed to be completed by the end of the capital construction to be considered part of the funding. In rare situations, the Vice President for Business & Finance may use other sources of funding to bridge timing issues related to pledge receipts.
- If debt/bank financing is to be utilized, the proposal must identify and commit the source of future revenue streams to repay the principal and interest on the debt. For example, debt incurred to fund a project to build new student housing could be repaid with increased room charges to students.

* In appropriate consultation with and approval by relevant Board Committees.

** For more information on the types of debt/bank financing that could be considered, please see the Institute Financing Policy dated July 14, 1998.

REVIEW AND APPROVAL PROCESS:

The formal proposal, as approved and described above, must be submitted to the Office of Financial Services ("OFS"). OFS will test the cash flow and financial implications of the project to determine its affordability and feasibility in the context of other Institute priorities and resources. Related financial issues, including the impact on recovery of indirect costs, will also be analyzed. In addition, if applicable, OFS will determine the impact of debt financing on the Institute's debt rating and with Development & Alumni Relations to determine the feasibility of fundraising.

The President, Provost, and Vice President for Business and Finance will review the complete formal proposal in light of the goals and priorities for the Institute and will make a timely recommendation to the Business and Finance Committee and the Buildings and Grounds Committee for appropriate approvals.

COMMENCEMENT OF CONSTRUCTION:

Subject to the review and approval process described above, capital construction may commence when cash in hand equals or exceeds 50% of estimated total capital construction costs. If all cash is not in hand, there must be a plan, approved by the Provost and Vice President for Business and Finance, to collect the balance of the remaining sources of funds before the end of construction.