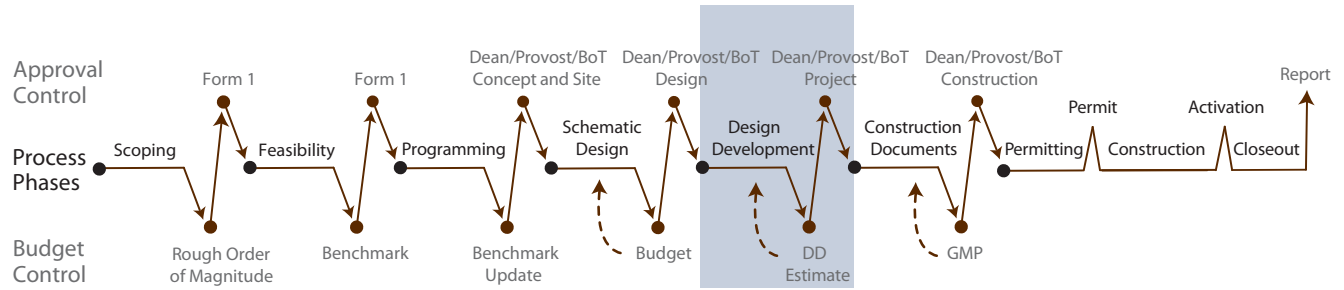


DESIGN DEVELOPMENT



Prepare Design Development (DD) documents to a level that allows detailed design and coordination as outlined in the schematic design documents.

In the DD phase, the drawings are developed to a level of detail necessary to prepare a clear, coordinated description of all aspects of the project. Major project elements, including equipment, fire protection, mechanical, electrical, structural, telecommunications, and plumbing systems, are designed and coordinated through enlarged scale drawings and detailed elevations and plans. The project manager and general contractor may engage design/build subs to ensure well-coordinated drawings and cost estimates.

The design team calculates capital and life cycle costs for individual sustainability components, and considers costs and savings in relation to performance to ensure informed decisions. It is crucial that the design team fully details these features and integrates them into the project design. The schedule should allow adequate time for implementing activities that may lead to a more sustainable and coordinated project, such as demolition, waste diversion, commissioning and project turnover for successful maintenance.

The DD phase is not an opportunity to add scope. The goal is to refine what was designed in SD. Additions to scope in this phase will likely require reduction or elimination of other scope elements, and delay the schedule. Additional review and approval by university management and possibly the BoT may also be required.

Design and construction costs associated with all project elements should be clarified. The project team is focused on integrating all program requirements into the design in order to provide the contractor with the information necessary to complete a comprehensive project DD estimate. **If the DD estimate is not consistent with the budget set at SD, then scope and budget realignment is required.**

DPM summarizes the completed DD documents, DD estimate, Funding Agreement (for renovations), and schedule and presents them to the Board of Trustees for Project Approval.

>> Resources for the Design Development phase, including checklists and form templates, are online at: http://lbre.stanford.edu/dpm/PDP_Process

TASKS

Project Controls & Logistics

| | |
|-------------------|--|
| Budget | Reconcile DD budget with 100% SD budget |
| Funding | Review Funding Plan/requirements |
| Schedule | Review/update project baseline schedule |
| Internal reviews | Send DD drawings to project team for review |
| Board of Trustees | Prepare Project Approval report/presentation |
| Logistics | Update preliminary site logistics plan |
| Administration | Select design/build subcontractors |
| Jurisdictional | Prepare jurisdictional update with DD plans |
| Outreach | Refine community outreach plan |

Building Program

| | |
|-----------------|---|
| School/Dept(s) | Finalize furniture, keying/access control, telecom, A/V & signage plans |
| Exterior/Site | Develop 100% DD package based on approved SD drawings |
| O&M/MEP | Develop 100% DD package based on approved SD drawings |
| Life safety/ADA | Develop 100% DD package based on approved SD drawings |
| Structural | Incorporate peer review comments in DD plans |

Sustainability

Verify that design continues to meet or exceed sustainability goals; update life cycle cost analyses; identify additional opportunities for reuse, recycling, and salvage. Develop system-specific commissioning plans.

DELIVERABLES

- 100% DD documents
- DD construction estimate
- DD project budget (reconciled to design approval)
- Project schedule
- Value of components for early approval (demolition, steel, skin, etc.)
- Board of Trustees report/presentation

APPROVALS

- Vice President, LBRE
- Dean/Department and/or user representative
- President/Provost
- Board of Trustees—Project Approval