SCHEMATIC DESIGN

Prepare Schematic Design (SD) documents to a level that allows scope, budget, and schedule to be set.

During this phase, the core group develops project goals and measurement criteria, which serve as a road map to define successful outcomes. It is imperative that the project team understand the importance of this phase, as the core team must commit to project parameters, including scope, schedule, and budget. The project manager should foster an informed decision making process and evaluate input from various university stakeholders.

On Stanford projects, the SD package is developed beyond industry standard, in order to provide a true representation of the scope and allow the project manager to fully assess project budget, schedule, and risks. The success of the project ultimately will be measured against the scope, budget, and schedule defined in the SD package.

Key sustainability features are defined in SD. Design options are analyzed in order to meet sustainability goals. Tools such as LCCA are employed by the project team to inform and facilitate optimal building performance.

The project team further defines the design requirements developed in the Programming phase (per the Concept and Site Approval). The project manager is responsible for developing the entire project budget, including all construction and soft costs. The consultant group develops the SD package with input from the university team; this should provide the project manager and contractor/cost estimator (when applicable) with sufficient information to develop a budget. The internal university technical team members provide budgets for Stanford direct costs, such as utility connections, ITS infrastructure, etc.

The project manager, working with LBRE, creates a report and presentation for the Board of Trustees summarizing information from the SD documents, budget, schedule, and Funding Plan. LBRE presents an overview of the project—including design, budget, schedule, and risks—to the Board of Trustees for Design Approval. Changes to the project scope, schedule, or budget after this step in the process are strongly discouraged and ultimately may not be achievable.

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

Tasks

**Project Controls & Logistics**

- **Budget**: Obtain contractor line item budget based on 100% SD drawings; develop final project budget
- **Funding**: Review Funding Plan and requirements
- **Schedule**: Establish project baseline schedule
- **Internal reviews**: Prepares stakeholder reviews
- **Board of Trustees**: Prepare Design Approval presentation
- **Logistics**: Finalize preliminary site logistics plan
- **Jurisdictional**: Complete Architecture and Site Approval (ASA) package, preliminary jurisdictional review
- **Outreach**: Define community outreach plan

**Building Program**

- **School/Dept(s)**: Confirm SD meets Programming Report
- **Exterior/Site**: Develop 100% SD plans as required for ASA and BoT Design Approval
- **O&M/MEP**: Select and define specific building systems
- **Life safety/ADA**: Select and define specific building systems
- **Structural**: Perform a peer review of preliminary design

**Sustainability**

Verify design meets sustainability goals, perform applicable life cycle cost analyses, and identify opportunities for reuse, recycling, and salvage; develop a preliminary commissioning plan

**Deliverables**

- 100% SD documents
- Project budget (reconciled to benchmark)
- LCCA/sustainability report(s)
- Project schedule
- Board of Trustees report/presentation, presentation materials
- Santa Clara County ASA submittal package (if required)
- Funding Agreement

**Approvals**

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