

PROCEDURES FOR DESIGN/CONSTRUCTION

1. Project Management

1.1. A university owner's representative is assigned to each project. The owner's representative is responsible for the development of the project with emphasis on management of academic department/program relations, external affairs, preparing regent and legislative reports, requests for legislative funding, project scheduling and the project budget.

1.2. Communication between the university and the A/E shall be directed through the owner's representative.

1.3. The A/E shall consult with the owner's representative throughout each design phase and construction. The reasons for such close consultation are as follows: to obtain necessary decisions; to review alternative design solutions; to verify project-specific predesign/program intent; to obtain detailed user requirements for systems and equipment; and to be informed of any issues that may affect the project, budget and schedule.

2. Building Users Committee: A Building Users Committee shall be established to help draft the building predesign/program and evaluate how well the predesign/program objectives are met by the project design. The committee also is involved in the decision process when deviations from the predesign/program are required. A representative from University Planning shall facilitate the committee during the Predesign and Programming Phase. The owner's representative shall facilitate the remainder of the project. Additional committee members may include representatives from the user groups directly affected by the project, university administrators and university services representatives.

3. Required Code Record Information: All projects require a code record. This record is to include a narrative and schematic plan. Although they can be combined on the same sheet(s), there may be cases when the narrative may need to stand alone such as requests for alternative methods and materials. Regardless of how the narrative and schematic plan are assembled, the following must be included in every required code record:

3.1. Narrative

- A. Facility information, including name of building, address and owner
- B. Designer's information, including name and address
- C. Design codes
- D. Calculations that show compliance for allowable area, height and stories
- E. Description of work such as new work, additional work or remodeling
- F. Occupancy classifications and Types of Construction

- G. Height and Number of Stories
- H. Extent of active fire-protection features, including sprinklers, standpipes, detection devices, alarms, smoke-control features, emergency power and lighting
- I. Proposed alternatives and/or modifications, including a complete justification for the proposed alternative/modification

3.2. Schematic Plan: Floor plans on maximum-sized sheets of 11 inches by 17 inches

- A. Orientation information, including scale, North arrow and legend of symbols
- B. General room layouts, including names of rooms that are fire-separated or of significance such as suites
- C. Distance to property lines, streets and buildings on same site when the building envelope is impacted by work within the project scope
- D. Rated walls, including area separations, occupancy separations, smoke barriers, corridors, horizontal exits, stair enclosures and exit passageways
- E. Occupancy classifications and Types of Construction (on floor plan)
- F. Exterior exits and Exit stairs
- G. Fire department connection and control panel
- H. Accessible entrances
- I. Elevators

3.3. For partial Building Remodels/Renovations, the code record must include a building plan(s) that indicate all areas effected by work in the project scope.

4. Standards Exceptions Process

All design and construction at the university must comply with the standards herein. However, there are instances when an exception to the university standards may be appropriate. If a project team would like an exception to the standards to be considered, the request must be submitted in accordance with the form Appendix BB, Request for Exception, Part 2. This appendix and any related documentation shall be submitted to the owner's representative. If the owner's representative allows the exception request to go forward, it will be forwarded to the Standards Exceptions Committee for consideration. Determination on exceptions requests made by the Exceptions Committee are final. Determinations by the committee can be appealed through a formal appeals process. No authority other than the Exceptions Committee can grant an exception.

5. Phases of Project Development

5.1. General Procedures

5.1.1. General procedures for each phase of project development are listed below. The A/E shall perform design phase services and provide design

phase submittals in accordance with the agreement between the owner and the architect.

5.1.2. To ensure that the proposed design complies with the University Standards and Procedures for Construction, include the completed Appendix BB - Compliance with Standards/Request for Exception/Log Sheet with each design phase submittal.

5.1.3. Distribute the design and construction documents for review and comment in accordance with Appendix X - Distribution of Drawings and Specifications to the university. Additional sets of bidding documents shall be furnished to the university as directed for review by other parties, including state and federal agencies. The A/E shall confirm with the owner's representative who is responsible for submittal to such agencies.

5.1.4. Allow 10 business days (unless otherwise directed by the owner's representative) in the project schedule for the proper university representative to review the design and construction documents. The university shall provide written review comments to the A/E. The A/E shall respond to review comments in writing.

5.1.5. For projects that include a commissioning agent, the A/E, the commissioning agent and the university shall work together at each phase so that the contract documents clearly define the contractor's participation in the commissioning process. See Division 1, Section 01650 - Commissioning.

5.1.6. Provide all documents in accordance with Appendix AA - Electronic Submittal Standards.

5.1.7. The A/E shall not obligate the university in contract documents without prior written approval from the owner's representative.

5.2. Predesign/Program Phase

5.2.1. The project-specific Predesign/Program Phase shall establish design objectives, design guidelines, required facilities, utility infrastructure requirements, space allocations, preliminary budget, schedule and other essential elements. See Appendix JJ - Predesign Outline for Capital Projects.

5.2.2. Certain elements that relate primarily to operations of the facility are identified in the Predesign/Program Information. The project-specific Predesign/Program Phase is in addition to the requirements in the Predesign/Program Phase Information. The more stringent requirements shall take precedence.

5.2.3. University Planning and the designated user group representative shall review and approve changes that the A/E recommends about the project-specific Predesign/Program Phase. Adjustments to the Predesign/Program Phase may be necessary to conform to project objectives, budget or schedule constraints.

5.2.4. The A/E is not required to engage in detailed surveys or analysis to determine basic predesign/program requirements unless retained specifically to do so.

5.2.5. The A/E agreement shall specify and detail the specific format and content when an A/E is contracted to complete the Predesign/Program Phase.

5.3. Schematic Design Phase

5.3.1. The A/E shall prepare a schematic design that illustrates the general design solution that is proposed in response to predesign/program requirements.

5.3.2. The A/E shall reference the Owner-Architect Agreement for Schematic Design Phase Submittal Requirements.

5.4. Design Development Phase

5.4.1. The A/E shall prepare design development documents only after the university has directed the A/E to do so. The design development documents shall be an extension of the schematic design.

5.4.2. The A/E shall reference the Owner-Architect Agreement for Design Development Phase Submittal Requirements.

5.5. Construction Documents Phase

5.5.1. After the Design Development Phase is completed and approved, and when the owner's representative gives direction in writing to proceed, the A/E shall proceed with the development of the construction documents.

5.5.2. The A/E shall reference the Owner-Architect Agreement for Construction Documents Phase Requirements.

5.6. Construction Administration Phase

5.6.1. PROHIBITED: An increase in the scope of the project, construction cost or completion time without the written approval of the owner's representative via a change order.

5.6.2. The Construction Administrative Phase begins on the date of Notice to Proceed and ends when the 12-month project warranty period expires.

5.6.3. The A/E shall prepare and issue change orders for changes that the university authorizes. Include changes that affect contract price or completion time in a written change order. Also, include significant changes or substitutions that do not require a change in contract time or price in a change order.

5.6.4. The A/E shall maintain and provide Appendix CC - Change Log.

5.6.4.1. The A/E shall forward the change log to the contractor on a monthly basis. The contractor shall confirm that change items are marked on the project record documents and return the updated change log to the A/E with each Contractor Application for Payment. See Division 1, Section 01700 - Contract Closeout.

5.6.4.2. The contractor shall submit the change log to the owner's representative with each Contractor Application for Payment.

5.6.5. Two months before the 12-month warranty period expires, the A/E shall:

- A. Conduct a project warranty walk-through
- B. Conduct a facility operations and performance meeting
- C. Provide meeting minutes that include a written summary of findings that require the contractor to take corrective action

6. Special Procedures for Projects Funded by Grants: Certain university projects are financed in part by granting agencies such as the federal government. In these cases, the administration and procedures may vary. The owner's representative shall provide guidance to the A/E in these cases.

**End of Procedures for Design/Construction
University of Minnesota Facilities Management
November 2002**