

SECTION 01 33 00

SUBMISSION REQUIREMENT GUIDELINES

part 1 GENERAL

1.1 Overview

A. University Plans Review Process:

1. The process by which the Designer's schematic, design development, and construction documents and estimates are reviewed and approved is the University Plans Review Process. This occurs at or near the completion of each design phase and is handled by the University's Project Manager by distributing plans and specifications to the interested departments for review and comments. These comments, if any, are then transmitted to the Project Manager for consideration, response, and discussion with the Project Team prior to incorporation. The time required for this process will vary with the complexity of the project, but can ordinarily be expected to take two or three weeks for each stage. The number of sets of plans to be provided by the Designer is covered in the Owner/Architect or Owner/General Contractor Agreement.
2. The review stages are identified as follows:
 - a. 100% Schematic Design submissions
 - b. 100% Design Development submissions
 - c. 50% Construction Documents submissions
 - d. 100% Construction Documents submissions
3. The University Plans Review Process is the key administrative device used by staff to verify that the project is being designed in accordance with San Diego State University Facilities Design Guidelines. All deviations from these Guidelines shall be explicitly pointed out and discussed with the University's Project Manager prior to submittal for review, and that such deviations be approved in writing by the University's Project Team before incorporation into the project.

B. Presentation Format:

1. Drawings:
 - a. All drawings must have the following minimum identification in the lower right hand corner: Project name, SDSU project number, date (including current revision, if any), quad, building number and address (provided by SDSU) and the appropriate drawing number and drawing identifications (i.e., first floor elevations, etc.). The Designer may use a title block along the right hand margin, but the above minimum information must appear in the lower right hand corner of the sheet to aid in identification and retrieval of drawings from flat file cabinets.
 - b. The drawings shall be on the same size format, for each project. Maximum overall sheet size shall not exceed size E, 42 inch by 30 inch. Only standard, un-reduced sheet sizes D and E will be accepted, without prior approval of Project Manager.
2. Specifications shall follow the Construction Specifications Institute format and indexing.

The first page of each of Divisions 15, 16, and 17 shall be an index to that section. Use dividers to separate specification sections at least as follows:

- a. Legal (Invitation to Bid, Instruction to Bidders, Proposal, Agreement, General Conditions, Addenda, Etc.)
- b. Special Conditions, Construction
- c. Administration Procedures
- d. Architectural (Div. 1-14)
- e. Mechanical (Div. 15)
- f. Electrical (Div. 16)
- g. Communication Services (Div. 17)
3. Note: at least one copy of the specifications shall be submitted in loose, unbound, unpunched format, for ease of reproduction.
4. CAD (Computer Aided Design) submissions: Unless otherwise directed by the Project Manager, a set of drawings for all applicable disciplines shall also be submitted in CAD form. CAD Submittals are required for at least the 50% Construction Document, 100% Construction Document, and As-Built Record Drawing phases, but may not be required for the other design phases (as determined by the Project Manager).

C. Project Manual

1. The Project Manual serves as the repository of certain design submissions and other types of information about the project. The production of the Project Manual is the responsibility of the Designer. Sample information that should be included in the Project Manual is as follows:
 - a. MEPS Basis of Design Narratives with load requirements and distribution plan
 - b. Soils Report
 - c. Occupant Loads
 - d. Designed Floor Loading
 - e. Special Conditions Applicable to Future Renovation
- D. Auxiliary Materials: During the normal course of any project, the consultant often submits auxiliary material for the client's information and/or approval. Examples are sketches, overlays, catalog cuts, details, addenda, etc. Since the University handles many simultaneous projects, it is vital that such submitted material be adequately and uniquely identified. Each auxiliary item submitted must have the following minimum identification in the lower right-hand quadrant: Project title, Project Manager's name, SDSU project number, building name, date (including current revision, if any) and appropriate drawing or sketch number.

1.2 Schematic Design Submissions

A. General:

1. At the completion of this stage, the University gives the basic approval to the design from which all further work will flow. This involves, in addition to the Buildings and Grounds Maintenance Department, Utilities Division, the client Department, the University Committee on Land and Building Development, as well as others. Notice to Proceed to the next project phase is given by the Project Manager in order to provide for ease of review.

2. Graphic material for presentations (plans, elevations, renderings, flow diagrams, etc.) should be temporarily affixed to 30 inch by 40 inch rigid, light-weight boards in a demountable manner. It is important that drawings not be permanently affixed to such boards so as to permit their subsequent permanent filing. Because of customary orientation with campus maps, site plans should be presented with north pointing up. Floor plans shall follow orientation of the site plan. Each drawing should also contain appropriate title information (name of project, scale, date, etc.). Colors and exterior materials should be identified to permit staff evaluation as to design intent and compatibility with the overall campus scheme.

B. Minimum Submission Data

1. Title Page: The information listed below, shall be shown on the title page of the drawings.
 - a. Type of Construction
 - b. Occupancy Classification
 - c. Applicable Building Codes:
 - i. Architectural
 - ii. Structural
 - iii. Mechanical
 - iv. Electrical
 - v. Plumbing
 - vi. Other
2. Floor plans, typical cross sections, elevations, and general site development should be drawn at a scale which, in the Designer's opinion, most appropriately describes the design intent (1/8 inch or 1/16 inch is suggested). These should be so arranged so that each drawing is complete unto itself without the need to match two or more adjoining drawings.
3. A utility site plan at a scale of 1 inch equals 40 feet is required, with all connections to existing campus lines shown thereon.
4. A campus site plan, indicating relationships between existing campus features and the new development. This site plan should indicate accurately all significant existing features of the site, including buildings, trees, paths, roads, etc.
5. An eye level color rendering representing the most typical exterior view and character sketches necessary to describe the project. Exact requirements should be discussed with the University's Project Manager.
6. Written description of subsurface investigation results (if available), structural systems, and mechanical and electrical utilities.
7. Descriptive information of unusual design characteristics not documented elsewhere.
8. Outline specification for project as follows:
 - a. Outline/Table of Contents for Architectural Sections (Div. 1-14).
 - b. Outline/Table of Contents for Mechanical sections (Div. 15).
 - c. Outline/Table of Contents for Electrical (Div. 16).
 - d. Communications (IT and telephone)
 - e. Fire Protection
9. Tabulation of building areas--net and gross square feet.
10. Statement of Probable Construction Costs.
11. Project Summary Statement. This is a brief review of the entire project and can be used by

SDSU in preparing press releases, briefing sessions, summaries for the Board of Trustees, and for other similar purposes. Normally a two or three page statement will be sufficient. Although the Designer will determine the content of the Summary Statement to assure that it conforms to the above, items to be covered should include the following:

- a. Purpose of the project and key design elements incorporated to achieve the intended purpose, special site considerations and building areas.
 - b. Outline of materials and any special methods of construction to be employed (prefabricated elements, long lead time pre-ordering, etc.). Include exterior and interior finishes, construction techniques, mechanical and electrical systems, and site work. Describe any unique building systems to be employed, energy conservation methods contemplated, special maintenance requirements (window washing, wall and floor maintenance, etc.), etc.
 - c. Description of construction operations (such as phased construction), special temporary or permanent traffic routing, utility provisions, and overall project schedule. Include any other special project features not otherwise noted.
12. Schematic diagrams of mechanical systems, including air distribution, piping, and control systems.
 13. Electrical single-line distribution diagrams.
 14. Schematic data for lighting systems.
 15. Design calculations for mechanical, plumbing and electrical systems. For specific requirements, refer to the appropriate mechanical and electrical sections of these Guidelines.
 16. Basis of Design
 17. MEP Quick Guide Comments Form
 18. Outline Commissioning Strategy Plan (if applicable)
 19. Facility Design Specifications – itemize all differences which takes exception from SDSU’s Facility Design Guideline.

1.3 Design Development Submissions

A. Minimum Submission Data:

1. Architectural and structural drawings indicating foundation and structural requirements, floor plans, room finishes, elevations, cross sections, fixed equipment layout, and others should be drawn to the scale of the final working drawings.
2. A utility site plan at a scale of 1 inch equals 40 feet is required with all connections to campus sources shown.
3. Mechanical:
 - a. Plumbing
 - b. HVAC
 - c. Special Process Piping: Special Process Piping Systems)
 - d. Site drawings, showing extent of all utility systems (sewer, domestic water, storm, etc.), with preliminary sizing information.
 - e. Design calculations for mechanical and plumbing systems. For specific requirements, refer to the appropriate mechanical and plumbing sections of these Guidelines.
 - f. Repetitive areas may be presented as typical bays or floors.
4. Electrical:

- a. Preliminary drawings, including plans and diagrams that indicate types of fixtures (fluorescent, compact fluorescent, etc.) and locations, primary and secondary switch gear, sizes and locations of power and lighting distribution panels. Special systems, i.e., public address systems, fire alarm, smoke detection, television, etc. can be indicated in the specifications and by notes on the drawings.
- b. Site drawings, indicating extent of exterior lighting and power distribution systems, including connections to campus sources, with preliminary sizing information. Refer also to Section 26 56 00: Exterior Lighting
- c. Lighting: refer to Section 26 51 00: Interior Lighting.
- d. Design calculations for electrical systems. For specific requirements, refer to the appropriate sections of these Guidelines.
- e. Repetitive areas can be presented as typical bays or floors.
5. Fire protection: Preliminary drawing and specifications, including plans, riser diagrams, locations of sprinklers, fixtures, and major equipment, control diagrams, etc. Automatic Fire Sprinkler Systems, Section 21 13 00 and Fire Alarm Section 28 31 00.
6. Site Development drawings indicating all exterior appurtenances (for example: bike racks, pathways, parking, patios, benches, etc.) within the project envelope.
7. Structural calculations appropriate to the design phase. Boring data or knowledgeable information of sub-surface conditions within the project envelope.
8. Updated outline or program specifications, indicating special systems, fixed equipment requirements, and extent and type of all systems.
9. Updated tabulation of Building Areas
10. Statement of Probable Construction Costs
11. Annotated Basis of Design
12. MEP Quick Guide Comments Form
13. Final Commissioning Strategy Plan (if applicable)
14. List Any Deviations from the Facility Design Specifications

1.4 Construction Documents Submissions

A. General:

1. 50% Construction Documents review is intended to provide the University with an opportunity to check the progress of work during this phase and correct any errors or deficiencies before work has progressed to near completion. The University's Project Manager will work with the Designer or General Contractor to establish the schedule and scope of this review as appropriate for each project.
2. 100% Construction Documents review is intended to provide the University with a final comprehensive review of construction documents prior to issue for bidding or for determining a Guaranteed Maximum Price or Lump Sum Price. Consequently, review comments on the 100% CD submission shall be addressed and appropriate changes incorporated into the final construction documents before they are issued.

B. Minimum Submission Data:

1. Standard Contract Documents: Standard Contract Documents shall be assembled and bound

at the front of the specifications; they will be developed and provided by the University's Procurement Office.

- a. Cover sheet (include SDSU project name and number, date)
 - b. Index
 - c. Invitation to Bid, to be dated and signed by Owner), including addenda
 - d. Instructions to Bidders,
 - e. Proposal Sheet(s)
 - f. Agreement
 - g. General Conditions
 - h. Special Conditions for Construction Contracts BY PROCUREMENT.
2. Complete drawings and specifications for all disciplines. For specific submittal requirements, refer to the appropriate sections of these Standards.
 3. Tabulation of Areas
 4. For budgetary and planning purposes, areas of site development should be summarized on the landscape drawings to include:
 - a. Lawn area (total square feet)
 - b. Ground cover area
 - c. Shrub area
 - d. Total perimeter of all lawn area
 - e. Total number of trees
 - f. Total number of shrubs
 - g. Parking lot area, excluding any planting islands
 - h. Total hard-surface, or patio areas
 - i. Total irrigated and non-irrigated landscaped area, excluding roads, buildings, and hard-surface areas
 5. Finish Schedules: Designer shall provide one blank column on the finish schedule subtitled "SDSU Room Number". This column should be adjacent to the architect's room number or space name, and will be used by the University for identifying space allocated to various departments or personnel.

1.5 Bid Period Submissions

- A. General: The Designer, in joint consultation with the University's Project Manager, Procurement, and the Construction Manager, shall select a list of bidders from the University's file of pre-qualified bidders, plus any other bidders the Architect may recommend. Upon joint agreement on the list of bidders, the University's Procurement Office will issue invitations to the approved bidders.
- B. Addenda: Addenda shall be placed at the front of the specifications, designed and numbered for incorporation into the appropriate drawings or specification sections.
- C. Post-Bid Submissions: The University's Project Manager shall submit a summary resulting from the bid opening, analyze same, and submit pertinent recommendations for review and approval.

1.6 Construction Contract Award Submissions

- A. General: The Designer shall prepare and furnish to SDSU eight (8) copies of the stamped drawings and nine (9) sets of bound contract documents, including specifications fully prepared for execution.

1.7 As-Built Record Drawings

A. General:

1. The agreement for professional services with the Architect or Engineer requires the submission of record drawings reflecting as-built conditions.
2. The principal purpose of the as-built record drawings is to provide the University with a permanent record of actual construction to facilitate troubleshooting and to provide for the potential of future building alterations. We recognize that change orders and field directives result in actual construction that is somewhat at variance with the executable set of Construction Documents.
3. The Architect or Engineer, in his or her administration of the Construction Contract, is the logical focal point and repository for this as-built information. The Construction Contract requires the Contractor to record all changes to drawings and specifications as they occur, and to deliver these as-built drawings and specifications in both electronic and hard copy format to the Designer upon completion of the work. This information is the Designer's principal source of information in revising drawings and specifications for the record set. In addition, shop drawings, field notes, change orders, correspondence, and the Designer's own set of drawings will provide auxiliary information.
4. At the conclusion of construction, all changes shall be incorporated on the tracings by the Architect or Engineer and noted with a designation showing it as "as-built", or other appropriate notation. The specifications shall be annotated to show the actual selected products that are incorporated into the project, particularly where a choice of two or more products was permitted.
5. General Contractor shall include as part of the Project Dossier a set of the final structural, mechanical, and electrical calculations that were prepared during the design phase. Submitted material should be clearly marked "as-built" and dated.

1.8 Operating and Maintenance Manuals

A. General:

1. This Article contains the general requirements for operating and maintenance manuals to be submitted, reviewed, and approved well in advance of Owner occupancy. The manuals and other supporting material listed herein must contain accurate as-built data, drawings, charts, etc. on each operating system to permit SDSU maintenance personnel to take over maintenance with written instructions sufficient to insure operations and maintenance in accordance with manufacturers' specifications. It is the responsibility of the Architect/Engineer to incorporate the applicable provisions of these Standards into the

- Project Specifications or other contract documents, and to ensure that the Contractor complies with the Specifications, including the incorporation of these changes in design and specifications during construction into the as-built documents.
2. Description of Systems: In accordance with the sample Project Dossier, the General Contractor shall include in the Project Dossier descriptions of the design intent of the building systems (HVAC, Electrical, and others as applicable) and the principles of their operation in a manner to permit prompt initial understanding of the systems by qualified University maintenance personnel. These descriptions shall include flowcharts, riser diagrams, zone control layouts, and other visual aids showing the components and their relationship to the entire system.
 3. Copies in Electronic format (pdf) shall be part of the submitted package.
- B. Manuals of Systems Components to be specified by Designer: The General Contractor shall specify as applicable to the particular designed system the following information:
1. Manufacturers' printed installation and operating instructions. This shall be the technical specifications and instructions, not "sales" brochures and promotional material. Instructions shall include all modes of operation in sufficient detail to be readily understood by SDSU maintenance personnel.
 2. Complete identification in the manuals of the actual equipment installed as described in the manufacturers' instructions, including dimensional drawings, model, type, size, capacity, performance parameters such as curves, efficiencies, power requirements, operating ranges, etc. NOTE: In cases of multiple installation of identical equipment, only one manual submitted for the identical equipment is necessary, but serial numbers of the several pieces of equipment shall be listed.
 3. Names, addresses, telephone numbers, "person to contact" (if known) of subcontractors, their suppliers, manufacturers' representatives, available service facilities and normal channels of supply.
 4. Detailed parts list showing manufacturers' parts numbers and such other identification as necessary to facilitate procurement of spare or renewal parts and Owner-Manufacturer communications.
 5. Manufacturers' maintenance instructions shall include schedules showing proper time intervals for lubrication, adjustment, and calibration or checking. Contractor shall consolidate manufacturers' schedules with a single master schedule of required maintenance. This requirement is for the Contractor's as well as the Owner's protection to insure proper early maintenance during the warranty period.
- C. Submission of Operating and Maintenance Manuals: Contractor shall submit to Project Manager no later than the seventy-five percent (75%) completion date of the HVAC systems as shown on Payment Requests, four sets of manuals (or if deemed prudent, a draft set of manuals) for review. The University's Project Manager will circulate the document to the appropriate University personnel for their comments and recommendations, and upon receipt shall return them to the Designer, who will then secure the required corrections and transmit three (3) completed sets to the University's Project Manager before a Certificate of Substantial Completion is issued.

END OF SECTION