

FLORIDA GULF COAST UNIVERSITY

GENERAL DESIGN AND CONSTRUCTION GUIDELINES

Revised: April 2018

The guidelines described in this document are for design professionals and for both in-house and outside construction personnel. They are presented to assist the professional with the design, construction, and management of building projects at the Florida Gulf Coast University, by familiarizing them with University design and construction policies and preferences. The design professional shall incorporate applicable portions of this guide into the project drawings and specifications unless specifically relieved of particular provisions by the University Director of Facilities Planning.

The information contained in this document is intended to be based upon sound architectural and engineering principles as well as the University's years of experience in these fields. However, these guidelines are neither completely inclusive nor totally exclusive. If a situation develops which is contradictory to these guidelines or, if the design professional can demonstrate a more advantageous solution, the University will welcome requests for modifications, upon approval by the Director of Facilities Planning.

TYPICAL PROJECT REVIEW REQUIREMENTS:

The following information shall be submitted during the course of project design for review by Facilities Planning staff and approved by the Director of Facilities Planning:

Facility Program

- 1) Text document defining project goals and objectives
- 2) Other information required by Director of Facilities Planning

Conceptual Design

- 1) Design concept narrative and drawings to define and explain design intent
- 2) Other information required by Director of Facilities Planning.

Schematic Design

- 1) Drawings needed to define design intent included site plan, floor plan(s), roof plan, exterior, elevations, building sections
- 2) Design narrative generally defining proposed structural, mechanical, electrical and plumbing systems.
- 3) Other information as needed to communicate design intent

Design Development

- 1) 50% and 100% DDs for review
- 2) Shall include further development based on approved Schematic Design documents
- 3) Outline specification for all major facility components and building service systems.

- 4) The Architect/Engineer shall advise the Owner of any adjustments to the preliminary cost estimate presented during Schematic Design.
- 5) The Construction Manager shall also advise the Owner of any adjustments to the preliminary cost presented during schematic design.
- 6) Room numbering scheme will be determined by Facilities Planning.

Construction Documents

- Shall be based on approved Design Development documents.
 - 1) 50% complete Construction Documents—
 - 2) The drawings and specifications shall be developed with significantly more detail of architectural, structural, civil and MEP systems, including but not limited to building sections, finish schedules, and important details.
 - 3) A preliminary board of sample finishes shall be submitted to the Owner for approval.
 - 4) The Architect and the Construction Manager shall update the preliminary cost estimate presented at the conclusion of Design Development.
 - 5) Approval Required by Director of Facilities Planning.

- 100% complete Construction Documents—
 - 1) Shall be based on approved 50% Contract Documents.
 - 2) All architectural, structural, civil, and MEP system drawings shall be 100% complete and ready for the Construction Manager to trade contractor bid the project., and ready to submit for permit plan review.
 - 3) The Project Manual/specifications shall be 100% complete, and ready to submit for permit plan review. A total of five (5) signed and sealed sets will be required.
 - 4) The Project Manual will include the following FGCU front-end documents:
 - a. General Conditions of the Contract for Construction
 - b. Building Permit Application
 - c. Assignment of Antitrust Claims Form
 - d. Hazardous Waste Controls Guideline (To be used for Required Green Book at Closeout)
 - e. Certificate of Partial Payment Form
 - f. Construction Contract Change Order Form
 - g. Construction Contract Change Order Justification Form
 - h. Certificate of Substantial Completion Form
 - i. Certificate of Occupancy Form
 - j. Certificate of Contract Completion Form
 - k. Affidavit of Contract Completion
 - l. Affidavit of Licensed Subcontractors
 - 5) Specifications will adhere to the following FGCU Standards:
 - a. Academic & Event Technology Product and Placement Standards
 - b. Carpet Standards
 - c. Door Hardware
 - d. Voice and Data Design Standards
 - e. Master Plant List
 - f. Construction IEQ
 - g. MEP Guidelines
 - h. Mechanical Design Criteria

- i. Interior Paint Specifications
 - j. Outdoor Lighting Fixture Specifications
 - k. Exterior Paint Specifications
 - l. Code Blue System Specifications
- 6) A board of sample finish materials shall be complete and ready for final approval.
- 7) Electronic copies of all AutoCAD files and corresponding PDFs shall be provided for all drawing sheets and specifications.

LIFE SAFETY and BUILDING CODE ANALYSIS REQUIREMENTS:

- 1) Display square footage for each room and corridor and exterior spaces under roof.
- 2) For all classrooms, labs, conference rooms, meeting rooms, etc., display AS-DESIGNED AND MAXIMUM occupant loads for each room.
- 3) Display MAXIMUM occupant egress capacity at each stair, exit, corridor, etc.
- 4) Provide Occupancies, Exit Requirements, and Plumbing Fixture counts in table format.

FILE REQUIREMENTS:

- 1) Provide a complete set of AutoCAD and PDF files including each drawing sheet in the final set of construction documents. Each drawing sheet file shall be all-inclusive with bound Xreferences and without external links.
- 2) Provide a clean AutoCAD base floor plan (no Xreferences) per building floor, with a dedicated layer that includes only the following items:
 - a. Polylines following the perimeter of each room.
 - b. Polyline following the perimeter of the floor.
 - c. Room numbers for each room and corridor.

PERMITTING

- 1) The site engineering aspects of the project will be submitted by the project civil engineering consultant to the South Florida Water Management District for their review and approval.
- 2) Upon written plan review approval by the Building Code Official and Fire Code Official, Facilities Planning will issue a Building Permit.
- 3) Where applicable, the Lee County Health Department approval shall also be obtained.
- 4) Note: There is no cost to the Construction Manager or General Contractor to obtain a Building Permit.
- 5) The following documents are required prior to issuance of a Notice to Proceed: Building Permit, site plan approvals from applicable state and federal agencies, Payment Bond and Certificate of Insurance.

SITE PLANNING GUIDELINES

- 1) The general location of new FGCU campus buildings shall be consistent with the current Campus Master Plan and related site permit approvals with the US Army Corps of Engineers and the South Florida Water Management District.
- 2) Proposed buildings must have the appearance of being the "front" of the building, with each facade oriented and linked to surrounding campus buildings or features. Several design techniques have been utilized in campus construction to relate new buildings to the surrounding environment and avoid a "back-of-the-building" presentation of any facade. A/E firms undertaking the design of campus facilities should examine the following techniques, which appear on campus, and incorporate them into architectural and site design when appropriate.
- 3) The following criteria should be reviewed for every major project:
 - a. Overall, the building site, orientation and linkage should seek to preserve and maintain open spaces; provide access for emergency service and disabled persons' vehicles; and respect adjacencies to other facilities and the natural environment. Building sites should carefully consider the creation of quadrangles and the relationship to existing buildings and pedestrian pathways to create pleasant and functional open spaces.
 - b. When planning site utility projects for the FGCU campus, designers shall coordinate with Lee County Utilities for the site water and sanitary sewer design, and Florida Power & Light for electrical site and building needs, and appropriate FGCU staff for telecommunications.
 - c. Electrical and telecommunication lines shall be located underground. The location of transformers or meters of any type on any power pole or hung on the outside of any building is not recommended. These utilities should be placed at grade within the building or in an exterior location screened from public view. Any above-grade utility equipment such as electrical transformers that cannot be reasonably located underground, should be screened from view.
 - d. Service areas and loading docks must be sensitive to pedestrian movements and safety, and shall be screened from public view. Any required loading docks should be recessed entirely within the building and closed off with rolling overhead doors or other appropriate screens compatible with the building exterior.
 - e. Parking accommodations are not always required for a project. However, when parking is provided, service vehicles must have access and disabled parking and visitor drop off areas shall also be provided. When parking is provided off-site, the project site design must include well developed pedestrian and bicycle amenities linked to the larger non-vehicular circulation network. Bicycle storage racks are to be provided on site in accordance with these guidelines.
 - f. Accessible routes from parking to building entrances shall be provided as required by State law.
 - g. Pedestrian access to buildings must be coordinated with the established network and the location of existing and proposed pedestrian crossings and roadway areas.

- h. Sites for various outdoor uses are designated in the current Campus Master Plan. If possible, the building site and design of a building should create an opportunity for small open spaces, and/or exterior courtyard areas.

CAMPUS SAFETY AND SECURITY:

- 1) Emergency access shall be provided to a new building for a minimum of 50% of a building's length at two sides to allow access for emergency and fire fighting vehicles.
- 2) Natural Surveillance: A design concept directed primarily at keeping intruders easily observable such as features that maximize visibility of people, parking areas and building entrances, pedestrian-friendly sidewalks and streets; and adequate nighttime lighting.
- 3) Natural Access Control: A design concept directed primarily at decreasing crime opportunity by denying access to crime targets and creating in offenders a perception of risk.
- 4) Refer to Code Blue System.

LEED CERTIFICATION:

- 1) LEED, or *Leadership in Energy & Environmental Design*, is a green building certification program that recognizes best-in-class building strategies and practices. Florida Gulf Coast University has committed to achieving a Silver Certification or higher on all newly constructed buildings.
- 2) LEED-certified buildings are resource efficient. They use less water and energy and reduce greenhouse gas emissions. As an added bonus, they save money.
- 3) Certification is based on credits received when modifications and improvements are made in the following areas of design and construction:
 - a. Sustainable Sites – Encourages prevention of construction pollution, protection or restoration of habitats, open spaces and places of respite, efficient management of rainwater, reduction of heat islands and light pollution.
 - b. Water Efficiency – Encourages conservation through reduction of indoor and outdoor water use and building-level water metering.
 - c. Energy & Atmosphere – Requires a minimum energy performance and encourages optimal performance through building-level energy metering, management of refrigerants, the use renewable sources, and potential use of green power and carbon offsets.
 - d. Material & Resources – Encourages the storage and collection of recyclables, proper planning for, and management of waste, the use of renewable and regional raw materials.
 - e. Indoor Environmental Quality – Requires a minimum indoor air quality performance while encouraging optimal quality. Encourages green cleaning, thermal comfort, daylight and quality views, and integrated pest management.
 - f. Innovation – Encourages design teams to achieve exceptional performance for all of the above, as well as additional categories not specifically addressed.

- g. Regional Priority – Encourages focus on local environmental priorities by addressing geographically specific environmental, social equity, and public health priorities.

OWNER DIRECT PURCHASE PROGRAM:

The Owner Direct Purchase (ODP) Program allows FGCU to realize sales tax savings on construction materials for major construction projects. The Construction Manager, General Contractor and trade contractors shall assist Facilities Planning to realize cost savings through this program.

OWNER PROVIDED/ OWNER INSTALLED EQUIPMENT:

- 1) Podiums in Academic Classrooms, Lecture Halls and Laboratories as noted.
- 2) Office and Cubicle furniture, Classroom tables and chairs, Lecture Hall chairs, Faculty Lounge furniture, Student Lounge furniture, and Corridor/ Study area furniture.
- 3) Door mats
- 4) Trash containers for restrooms, classrooms and corridors.
- 5) Non-code required interior room signage.

CLOSEOUT DOCUMENTS:

As soon as practical after completion of a construction project and within 90 days from Substantial Completion, the Construction Manager shall provide as a package to FGCU Facilities Planning, the following closeout material as applicable to the project.

- 1) **Transmittal** documenting submission of closeout material.
- 2) Complete **Table of Contents** indicating all materials being submitted and listing all purposely omitted items as Not Applicable (or NA) to the project.
- 3) **100% Construction Drawings** from all disciplines involved with the project. Provide one (1) full size hard copy set of drawings. Digital drawings shall be provided in both PDF and AutoCAD file formats on disk(s) or thumb drive.
- 4) **As-Built Record Drawings** showing all field modifications performed during construction. Provide one (1) full size hard copy set of drawings. Digital drawings shall be provided in PDF file format (and AutoCAD file format when available) on disk(s) or thumb drive.
- 5) If not incorporated into the drawing set, provide **Specifications** or **Project Manual** including any revisions made by addenda. Provide one (1) hard copy set and one (1) digital copy in PDF format on disk(s) or thumb drive.
- 6) Copies of standard Construction Administration documents are listed below. Provide one (1) hard copy in 3-ring binder format and a digital copy in PDF format on disk(s) or thumb drive. The binder copy(s) will be archived in the University Plan Room.
 - a. **Addenda**
 - b. Architect's Supplemental Instructions (**ASIs**)
 - c. Change Orders (**COs**)

- d. Proposal Requests (**PRs**)
 - e. Requests for Information (**RFIs**)
 - f. Approved copies of all **Product Submittals**
 - g. **Substitution Requests**
- 7) **Operation and Maintenance Manuals** - Cut Sheets and Warranty Information for all equipment including HVAC and electrical. Provide one (1) hard copy in 3-ring binder format and a digital copy in PDF format on disk(s) or thumb drive. The binder copy will be transmitted to Physical Plant.
- 8) **Operation and Maintenance Manuals** - Cut Sheets and Warranty Information for all Kitchen Appliances and Foodservice Equipment, if applicable. Provide two (2) hard copies in 3-ring binder format and a digital copy in PDF format on disk(s) or thumb drive. One (1) copy of this material will be transmitted to Physical Plant and one (1) copy will be transmitted to Dining Services.
- 9) Provide a **Building Finish Schedule** separate from the drawings. Schedule to including exterior and interior finishes with essential specs. Describe finish type, manufacturer, model numbers, colors, etc. Include glazing, storefront frame color and metal roof color.
- 10) CM or GC shall provide a **List of Subcontractors**, contact Information, and construction division served by each.
- 11) Copy of all **Inspection Reports** including:
- a. **Building** inspections
 - b. **Fire** inspections
 - c. **Geotechnical** reports, if applicable
 - d. **Structural** inspections
 - e. **Threshold** inspections, if applicable
- 12) Copy of **Insurance Certificate of Liability** and Bonds Required.
- 13) Copy of **Certificate of Substantial Completion** with **Punch List** attached.
- 14) Copy of **Certificate of Occupancy**, if applicable.
- 15) Return of the original **State Fire Marshal approved construction documents** (stamped with the red SFM stamp) that were required to be on the job site during construction.
- 16) Return of the original **approved construction documents** (stamped and signed by the **Building Code Compliance and Plan Review** consultant) that were required to be on the job site during construction.
- 17) **Summary of Project Waste** for jobs requiring use of a construction waste dumpster. This should include signage posted, method of keeping the public away from the dumpster, what is placed in the dumpster, where the waste ultimately goes, what is recycled, percentage of recycling, and haul/pickup tickets. Format this report in the same outline/topic headers shown in the Hazardous Waste Controls & Green Book document, attached.

