Stage III, Construction Documents / Revised Construction Documents

The Stage III, construction documents are an extension of the Stage II, preliminary plan submission and must provide a complete description of the contemplated construction. Construction documents must be signed, sealed, dated, and submitted for written approval to the Office of Plans and Construction by a Florida-registered architect and/or Florida-registered professional engineer. These documents must consist of work related to civil, structural, mechanical, and electrical engineering, fire protection, lightning protection, landscape architecture and all architectural work.

Submission Requirements (first 3 items not required if submitted at Stage I or II):

- A completed <u>Project Review Application (PRA)</u>.
- An initial application of fee of \$2,000.00 (see Fees and Payments).
- If the project will create a new licensed facility, a completed New Facility Form.
- A transmittal which includes the facility name, project ID number (if assigned), a list of the attachments included in the submission,
- A listing of outstanding comments and a brief description of the response including the sheet/page modified in response (Revised CDs only)
- For revisions to construction documents, only those sheets and pages which have undergone revision should be included in the submission.

The following list of documents and information is presented to assist in the production of construction documents. It is not intended to be all-inclusive list and it may be necessary to include additional information to demonstrate compliance with applicable rules, codes, and standards. Please see the Florida Building Code – Building Section 107 and the FGI Guidelines series for additional information:

Vicinity Map

 For new facility construction, provide a vicinity map showing the major local highway intersections.

General Project Documentation

• Functional Program and Functional Program Executive Summary. These documents are prepared prior to the start of the design process and should provide clear directions to the design team regarding the intent of the project. Their inclusion in the stage III submission is necessary for the review team to understand the design intent in order to ensure that the final design is consistent with the intended function and use of the proposed physical plant. This is critical in determining the application of the correct physical plant standards. A project narrative may be submitted in lieu of a formal functional program for small projects which do not change the function of spaces or systems involved in the project, such as equipment change outs and system modernization projects.

Architectural Plans

- Scaled floor plans, 1/8-inch scale minimum, showing door swings, windows, case work and mill work, fixed equipment, and plumbing fixtures. Indicate the function of each space.
- A large-scale plan of typical new bedrooms with a tabulation of gross and net square footage of each bedroom. Tabulate the size of the bedroom window glass.
- Typical large-scale interior and exterior wall sections to include typical rated fire and fire/smoke barriers and a typical corridor partition.
- All exterior building elevations.
- Equipment which is not included in the construction contract that requires mechanical or electrical service connections or construction modifications shall be identified to assure coordination with the architectural, mechanical, and electrical phases of construction.
- If the project is located in an occupied facility, final phasing plans indicating how the project is to be separated from all occupied areas during the various phase of construction.
- Typical large-scale details of all typical interior and exterior walls and smoke barriers, horizontal exits and exit passageways assemblies.
- Comprehensive ceiling plans that show all utilities, lighting fixtures, smoke detectors, ventilation devices, sprinkler head locations and fire-rated ceiling suspension member locations where applicable.
- Floor/ceiling and roof/ceiling assembly descriptions for all conditions.
- Details and other instructions to the contractor on the construction documents describing
 the techniques to be used to seal floor construction penetrations necessary to prevent
 smoke migration from floor to floor during a fire.

Life Safety Plans

- Life safety plans must include the following:
 - Single-sheet floor plans depicting required fire and smoke compartmentation, all means
 of egress and all exit signs. If smoke compartmentation is required, depict, and provide
 the dimension for the longest path of travel in each smoke compartment to the door(s)
 accessing the nearest adjoining smoke compartment, calculate the total area of the
 smoke compartment in square feet, and tabulate exit inches.
 - All sprinklered areas.
 - All fire extinguishers.
 - All fire alarm devices and pull station locations.
- If the project is an addition, or conversion of an existing building, fully developed life safety plans must be submitted.
- If the project is a renovation in an existing building, life safety plans of the floor being renovated, and the required exit egress floor(s) must be submitted.
- When demolition or construction in and around occupied buildings will be undertaken, a
 life safety plan indicating temporary egress, and detailed phasing plans indicating how the
 area(s) to be demolished or constructed will be separated from all occupied areas must be
 submitted.

Mechanical Engineering Plans

- Single-sheet floor plans with a one-line diagram of the ventilating system with relative pressures of each space. Provide a written description and drawings of the anticipated smoke control system, passive or active, and a sequence of operation correlated with the life safety plans.
- The general location of all fire and smoke dampers, all duct smoke detectors and fire stats.
- If the building is equipped with fire sprinklers, indicate the location of the sprinkler system risers and the point of connection for the fire sprinkler system. State the method of design for the existing and new fire sprinkler systems.
- The locations of all plumbing fixtures and other items of equipment requiring plumbing services and/or gas services.
- The locations of any fume, radiological or chemical hoods.
- The locations of all medical gas outlets, piping distribution risers, terminals, alarm panel(s), low pressure emergency oxygen connection, isolation/zone valve(s), and gas source location(s).
- The locations and relative size of major items of mechanical equipment such as chillers, air handling units, fire pumps, medical gas storage, boilers, vacuum pumps, air compressors and fuel storage vessels.
- The locations of hazardous areas and the volume of products to be contained therein.
- The location of fire pump, standpipes, and sprinkler riser(s).
- Plans including fire and smoke control plans.
- All items of owner furnished equipment requiring mechanical services.
- A clear and concise narrative control sequence of operations for each item of mechanical equipment including, but not limited to, air conditioning, heating, ventilation, medical gas, plumbing, fire protection and any interconnection of the equipment of the systems. See FBC
- Mechanical engineering drawings shall depict completely the systems to be utilized, whether new or existing, from the point of system origination to termination.
- A tabular schedule giving the required air flow (as computed from the information contained on the ventilation rate table) in cubic feet per minute (cfm) for supply, return, exhaust, outdoor, and ventilation air for each space, as applicable, shown on the architectural documents. The schedule shall also contain the HVAC system design air flow rates and the resulting space relative pressures. The schedule or portion of the schedule as applicable shall be placed on each floor plan drawing sheet containing the spaces depicted on the drawing.
- HVAC new work plans should be submitted with color-coded ducts according to the following convention:
 - Supply Blue
 - o Return Green
 - General Exhaust Pink / Dedicated Exhaust Red
 - Outdoor Purple

Fire Protection Drawings

 System layout documents as defined by the Department of Business and Professional Regulation in rule 61G15-32.002, F.A.C., where applicable, that shall include the existing system as necessary to define the new work. These documents shall be signed and sealed by a Florida-registered professional engineer.

Electrical Engineering Drawings

- A one-line diagram of normal and essential electrical power systems showing service transformers and entrances, switchboards, transfer switches, distribution feeders and over-current devices, panel boards and step-down transformers. The diagram shall include a preliminary listing and description of new and existing, normal, and emergency loads, preliminary estimates of available short-circuit current and all new equipment and existing equipment serving any new equipment, short-circuit and withstand ratings of existing equipment serving new loads and any new or revised grounding requirements.
- Show fire alarm zones and correlate with the life safety plan.
- Plans describing complete power, lighting, alarm, communications and lightning protection systems and power system study.
- A power study that shall include a fault study complete with calculations to demonstrate that over-current devices, transfer switches, switchboards, panel boards, motor controls, transformers and feeders are adequately sized to safely withstand available phase-tophase and phase-to-ground faults. The study shall also include an analysis of generator performance under fault conditions and a coordination study resulting in the tabulation of settings for all over-current device adjustable trips, time delays, relays, and ground fault coordination. This must be provided for all new equipment and existing equipment serving any new equipment.
 - Power studies for renovations of existing distribution systems shall include only new equipment and existing equipment upstream to the normal and emergency sources of the new equipment.
 - Renovations involving only branch circuit panel boards without modifications to the feeder do not require a full power study; instead, the power study shall be limited to the calculation of new and existing loads of the branch circuit panel.

Structural engineering plans, schedules, and details.

• Plans and specifications necessary to document the structural information specified in the Florida Building Code – Building Section 107 and Section 1603.

If the project involves construction activities in an occupied building the following must be included:

Infection Risk Control, Interim Life Safety, and Continuity of Services

- An infection control risk assessment (ICRA) and infection control risk mitigation recommendations (ICRMRs). The ICRMRs must be incorporated into the construction documents. See FGI Guidelines for additional information.
- Interim life safety measures (ILSMs) needed to mitigate temporary life safety deficiencies created during the project must be depicted and described in sufficient detail. Temporary
- Phasing plans and a description of the sequence of construction as needed to describe how required services will be maintained through the project construction. ICRMRs and ILSMs must also be depicted in phasing plans.