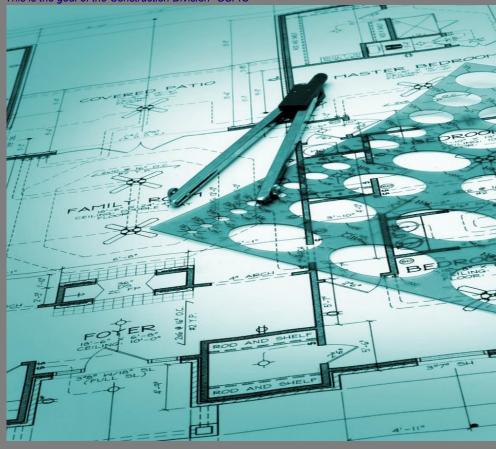
Design Review Group Process Guide

Georgia State Financing and Investment Commission

This Guide has been prepared to provide Fast, Friendly and Easy guidance to Design Professionals using the GSFIC Design Professional Contracts. This Guide along with the State Construction Manual and ongoing communication with the assigned GSFIC Project Manager and Authorized Representative of the Using Agency will result in projects being completed on time, on budget and of the highest quality. This is the goal of the Construction Division- GSFIC



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Note: This Process Guide is continually reviewed by the Design Review Group, Construction Services Department, and GSFIC Construction Division. Any suggestions or comments on items contained within or suggested additions may be addressed to Director, Design Review Group. Website links are only current to the date of publication and are subject to change without notice.

1.1 PURPOSE AND INTENT

Definitions of significant terms used in this guide are given below. These definitions are intended to be consistent with the definitions given in the various contracts used by the Georgia State Financing and Investment Commission (GSFIC). Abbreviations used in this guide are also defined below for convenience.

1.2 DEFINITIONS

- Commitment Letter. An inter-agency agreement between the GSFIC and a Using Agency defining the commitment to finance and administer the development of the project.
- <u>Construction Professional</u>. As used in the State Construction Manual, this is another name for the General Contractor (Design-Bid-Build delivery), Construction Manager/General Contractor -CM/GC (Construction Management delivery) or the Design-Builder (Design-Build delivery).
- <u>Design Professional.</u> The lead Design Professional in Responsible Charge is generally selected by the Using Agency for the production of construction documents (drawings and specifications) and the supervision of the construction of the project.
- Design Professional Contract. The agreement between the Owner and the Design Professional which defines the scope of services of the Design Professional during the duration of the project. The Design Professional Contract may be executed first with the Using Agency then "assigned" to the Construction Division, GSFIC for continuation and completion of the project.
- Owner. The term "Owner" means the entity of State government that has entered into the Contract with the Design Professional. In some projects, the Design Professional will be engaged by the Using Agency for the design phase and then the contract is assigned to the GSFIC for the construction phase.
- Special Inspections. Special Inspections is the monitoring of the materials and workmanship critical to the integrity of the building structure and site as required by the International Building Code. It is a review of the work of the contractors and their employees to ensure that the approved plans and specifications are being followed and that relevant codes and referenced standards are being observed. The Special Inspection process is a requirement of the Contract Administration phase of the Design Professional Contract.
- Using Agency. The state agency for which the project is being constructed.

1.3 ABBREVIATIONS

The following abbreviations are commonly used in the contract, guidelines and other documents used by the Georgia State Financing and Investment Commission.

<u>BMP</u>- Best Management Practices (Erosion, Sedimentation, Pollution Control)

CCO Component Change Order

<u>CCS</u> – Construction Compliance Specialist (GSFIC position)

<u>CD</u> - Construction Documents (Change Order)

CM/GC Construction Manager at Risk delivery method

<u>DB</u> - Design-Builder (Delivery Method)

DBB Design-Bid-Build delivery method

<u>DP</u> - Design Professional

EER - Environmental Effects Report (GEPA)

GEPA – Georgia Environmental Policy Act
GSFIC – Georgia State Financing and Investment Commission
GMP- Guaranteed Maximum Price (Change Order)

LIA - Local Issuing Authority (Land Disturbance Permitting)

SECTION TWO: DESIGN PROCESS

2.1 PURPOSE AND INTENT

SECTION TWO outlines those items of work that normally are required prior to and during the design of projects.

2.2 PRE-DESIGN (Items generally required before or concurrently with design start)

2.2.1 GSFIC Commitment Letter

If the project is funded by bonds, a Commitment Letter (inter-agency agreement) is required prior to commencement of any work. If the Using Agency desires to begin work in advance of a Commitment Letter, special authorization is required from GSFIC if such costs are to be reimbursed through future bond proceeds.

2.2.2. Plat of Boundary Line Survey from Using Agency

The Owner or Using Agency shall furnish complete information to the Design Professional regarding the legal boundaries, use and restrictions of the Project Site. The Owner is also responsible for ensuring legal title to the Project Site. Such information may be provided by a Plat of Boundary Line Survey or substitute information if a current Plan is deemed not necessary and the Design Professional concurs.

The Plat of Boundary Line Survey and supporting documents are reviewed by the State Properties Commission (SPC). A real properties record (RPR) number is assigned by the SPC and this number is shown on the Plat of Boundary Line Survey.

2.2.3 Site Investigations Report

The Site Investigations Report is a geotechnical investigation of the subsurface and its purpose is two-fold. First, the Design Professional relies on this information to design the foundations and related elements of the project structure. Second, if adverse subsurface conditions exist (rock, unsuitable soil, etc.), it is the Owner's policy that the Design Professional quantify these conditions to the extent practical and include this work in the specifications along with unit prices for adjusting the actual quantities at the conclusion of the work.

The Design Professional engages the Geotechnical Engineer following the procedures of Special Inspections and Testing (See 2.6.7). The Site Investigations Report is Form GSFIC-CS-406 and information from this Report is then provided in the Design Professional's Statement of Probable Construction Cost – Form GSFIC-CS-407. These Forms are available from the GSFIC Project Manager. The Design Professional shall engage the Geotechnical Engineer after the building site is selected and confirmed. The Geotechnical report and Stage One Statement of the Soil Engineer shall be completed immediately following the site selection. The services of the Geotechnical Engineer shall include attendance at design meetings which have any impact on the building and site designs. The Geotechnical Engineer's attendance will ensure boring locations are correct and allow discussion on recommendations from the Geotechnical report.

For Design-Bid-Build Delivery, the information addressing any unsuitable subsurface conditions is provided to the Owner's Project Manager for inclusion in the Supplementary General Requirements prior to issuance of bid documents. For CM/GC and Design-Build Delivery, if the Construction Contract has not been awarded, this

process is the same. But if the CM/GC or Design-Build contract has been awarded, then this information shall be communicated by Bulletin to the Construction Professional and the Owner shall incorporate this into the Contract by Change Order.

Again, the intent is to "bid" the specified estimated amount of unsuitable material and then to "adjust" the final cost based on specified unit prices. The Construction Professional (and subcontractors) are not to estimate or assume in their cost any unforeseen or adverse subsurface condition other than as specified by the Design Professional in the Contract Documents as a result of the Site Investigations Report and Survey of Building Site Conditions (e.g. utilities, foundations, etc.).

The Site Investigations Report (Stage One and Stage Two statements) must be completed prior to the preparation of any Component Change Order or Guaranteed Maximum Price Change Order which would involve site grading or otherwise be affected by this report.

2.2.4 Subsurface Geotechnical Report Furnished to Bidders

The Geotechnical reports obtained by the Design Professional are not intended for distribution to prospective contractors and subcontractors. However, it is the policy of the GSFIC that such information, if requested, should be made available with appropriate reservations. The following specimen language shall therefore be included in the specifications as applicable:

"Subsurface Investigation Report:

1. Soil and subsurface investigations were conducted at the site, the results of which are found in a report dated {insert date of report} prepared by {insert name and address of investigating firm}. This report is not a part of the Contract Documents. This report includes data concerning subsurface materials or conditions which are based upon soundings, test pits, test borings, or other means, which was obtained by the Design Professional for its use in designing the project. The accuracy or completeness of the data is not guaranteed; and therefore, the Construction Professional shall not rely on this information without independent verification.

2.2.5 GEPA Evaluation

The Georgia Environmental Policy Act (GEPA) is a state law designed to help state agencies conduct their projects "with awareness that they are stewards of air, land, water, plants, animals and environmental, historical and cultural resources." This is accomplished by completing environmental evaluations of each project or "proposed government action" as prescribed by the Act.

The first step in the GEPA evaluation process is for the Using Agency to make the determination that the proposed project qualifies as a "Proposed Governmental Action" under the Act. Most all State capital projects will fall under this requirement.

The second step in the GEPA evaluation process is for the Design Professional and Using Agency to determine if the proposed Project "could significantly adversely affect the quality of the environment." The GEPA Guidelines, referenced below, provide a convenient check list and discussion on making this determination. Upon completion of this step, the Using Agency then determines whether or not a GEFA "Environmental Effects Report" is required.

The third step is preparation of the Environmental Effects Report (EER). The EER will require a joint effort of the Design Professional and Using Agency and must address the following:

- The environmental impact of the project
- Alternatives to the Project, including "no action"
- Any adverse environmental effects which cannot be avoided
- Mitigation measures proposed to avoid or minimize the adverse

- impact of the Project
- The relationship between the value of the short term uses of the environment involved in the Project and the maintenance and enhancement of its long-term value.
- The effect of the Project on the quality and quantity of water supply
- The effect of the Project on the energy use or energy production.
- Any beneficial aspects of the Project, both short-term and longterm, and its economic advantages and disadvantages.

For descriptive guidelines on complying with GEPA, see the below website: https://epd.georgia.gov/document/document/georgia-environmental-policy-act/download

This link to "The Georgia Environmental Policy Act Guidelines" is further clarified as follows:

- The term "Responsible Government Official" shall mean the Using Agency Director or authorized representative of the Using Agency. The Construction Division, GSFIC shall not act in this capacity but will assist in the coordination of required documentation and review.
- The requirements to comply with GEPA and prepare an Environmental Effects Report/GEPA Evaluation are not to be confused with an Environmental Site Assessment (ESA) which is a separate study conducted at the time of site selection (See State Construction Manual Chapter 2.3 Section C8).

For Projects constructed for the Georgia Board of Regents (BOR), the Design Professional shall consult with the BOR Program Manager and/or the BOR Director of Environmental Affairs. For BOR Projects, see also:

https://www.usg.edu/building_project_procedures/idx.php

Building Project Procedures Manual: Real Estate & Facilities

https://www.usg.edu/building_project_procedures/chapter6/App6E.pdf

Appendix 6E, BOR GEPA Evaluations

Procedure to be used by Design Professionals in competing GEPA Evaluations.

2.2.6 Hazardous Materials

If the Design Professional designs any work which will involve the use or handling of hazardous materials such as flammable and combustible liquids, welding gases, fuel gas, dry cleaning fluids, and liquefied petroleum, the Design Professional MUST obtain copies of the regulations of the Hazardous Materials Division of the Office of the State Fire Marshal in order to design, specify, and supervise accordingly.

https://oci.georgia.gov/inspections-permits-plans/hazardous-materials/rules-and-regulations

2.2.7 Water Wells

The Water Wells Standards Act of 1985 (O.C.G.A. 12-5-120 *et seq.*) provides standards for siting, constructing, operating, maintaining, and abandoning wells and boreholes. The Act requires that individual and non-public wells must be located as far removed from known or potential sources of pollutants as possible. Licensing requirements for drilling contractors are established by the Act, as well a State Water Well Standards Advisory Council. The Council is authorized to adopt and amend rules and regulations that are reasonable to govern the licensing of well contractors. Compliance with the Water Wells Standards Act is required for all

activities that utilize well water and are enforceable under Georgia law. Notify the Owner's Project Manager if a well is to be drilled. The Design Professional will be required to contact the Department of Natural Resources and obtain all information and requirements to comply with the aforesaid law.

https://epd.georgia.gov/rules-laws-enforcement/existing-rules-and-corresponding-laws

2.2.8 Space Standards

The Georgia State Properties Commission has developed guidelines for allocation of net assignable space for various needs and tasks. These guidelines and instructions may be found at link below. In addition, Using Agencies may also have published guidelines on both design and space allocation standards. Compliance with such guidelines will be required for Agency review of each design phase. The Design Professional shall acquire and review such guidelines and standards to incorporate into the design. Any questions regarding compliance or interpretation of these guidelines should be addressed to the Using Agency.

www.gspc.georgia.gov.

2.2.9 Energy Efficiency and Sustainable Construction Standards for State Buildings

2.2.9.1 Applicability

In 2008, the State of Georgia adopted the Energy Efficiency and Sustainable Construction Act ("Energy Act"). The Energy Act applies to the construction, rehabilitation and maintenance of state-funded facilities that meet any one of the following criteria:

- 1) New construction building projects exceeding 10,000 square feet;
- 2) A renovation project that is more than 50 percent of the replacement value of the facility, as determined by the Department of Administrative Services Risk Management Division;
- 3) A change in occupancy:
- 4) Any roof replacement project exceeding 10,000 square feet; or
- 5) A commercial interior tenant fit-out project exceeding 10,000 square feet of leasable area where the state is intended to be the lessor of such property.

<u>Exception:</u> Any building, regardless of size, that does not have conditioned space as defined by ASHRAE or a state owned building that is on the historical registry or any local, county or municipal building.

2.2.9.2 If the Project is subject to the Energy Act, it must meet the following Mandatory Requirements

- 1) Commissioning: A professional engineer, design professional, or commissioning agent shall certify that the building project's systems for heating, ventilating, air conditioning, energy conservation, and water conservation are installed and working properly to ensure that each building project performs according to the building's overall environmental design intent and operational objectives.
- 2) Water-Use Reduction: All major facility projects shall be designed, constructed, and commissioned or modeled to achieve a 15 percent reduction in water use when compared to water use based on plumbing fixture selection in accordance with the Energy Policy Act of 1992. The Water-Use Reduction requirement should be taken into consideration with the Governor's Water Conservation Challenge. The Challenge commits all state agencies and authorities in Georgia to implement practices that help reduce water usage by 5% over the next two years and 2% annually thereafter through the year 2020. Reductions will

be calculated on a per square foot basis, using fiscal year 2007 as the baseline. Many of these reductions have already been superseded by the 2012 State Amendment to the IPC with a 20% reduction in water closet gal/flush to 1.28 gpf and a 50% reduction in urinal to 0.5 gpf. Also restrictions were put on showerheads, sink faucets and lavatory faucets for the first time.

Georgia-based Materials & Products: All major facility projects shall include Georgia products such that not less than 10 percent of all building materials used in a project are harvested, extracted, or manufactured in the State of Georgia where such products are commercially available.

2.2.9.3 Rating System

Georgia Peach Green Building Rating System establishes a rating and recognition program for building designs that exceed the minimum standards established in the Energy Act. The rating system is outlined at the link below under the heading "Publications".

https://www.dca.ga.gov/sites/default/files/energy-efficiency-and-sustainable-construction-standards-final.pdf

2.3 DRAWINGS

2.3.1 Drawings are to be prepared at an appropriate scale to accurately depict the relationships between existing/new building materials. This applies to plans, sections, and details. "Diagrammatic" and "not-to-scale" drawings are not acceptable and will be returned to the Design Professional for revision at no additional cost to GSFIC. Existing drawings and specifications should be used if available. However, to the extent practicable, existing features should be confirmed by accurate field measurements obtained in a reliable manner.

2.3.2 Plot Plan

The Construction Documents must include a Plot Plan designated as such on the drawing and consisting of ONE sheet only. All proposed work, including utilities and buildings, shall be sited on the Plot Plan to scale.

The Plot Plan shall be referenced to a Plat of Boundary Line Survey, if available, or substitute information regarding the proposed Project property as provided by the Owner and Using Agency. In the absence of a current Survey, the Design Professional must concur that the substitute property information provided by the Owner is sufficient to properly identify, locate and layout the proposed Project.

The Design Professional shall ensure the "work limits" lines shown on the Plot Plan do not extend beyond the property lines of the Using Agency as shown on the Plat of Boundary Line Survey or substitute property information. No work of the Construction Professional (including storing of materials or staging of any work) shall be permitted beyond the perimeter of the property unless easements, licenses, permits, or rights-of-way that have been obtained by the Using Agency and are shown on the property information and on the Plot Plan.

Certificate of Design Professional.

There must be written on the Plot Plan a Certificate of the Design Professional in the following language:

CERTIFICATE OF DESIGN PROFESSIONAL

"I certify (a) that this plot plan is correct and that it delineates the true, complete, and existing physical conditions on the site as described in the Survey of Building Site Conditions obtained by the Design Professional and as of the date of the present certificate, (b) that it shows boundaries and

distances which appear on the property information (Plat of Boundary Line Survey or substitute documents) provided by the Using Agency, (c) that no portion of the work shown on this plot plan extends beyond the boundaries of the site as described on the aforesaid property information except the following [insert the word "NONE" or insert a description of each exception including: (1) acknowledge receipt of copy of easement, rights-of-way, permit or license, and (2) acknowledge receipt of written consent of the Owner as, for example: "Laying of sewer line across property of John Doe pursuant to grant of rights-of-way dated (insert date) (copy of which grant of rights-of-way has been furnished to the Design Professional by the Using Agency) and accordance with written consent of the Owner dated (insert date)," or, as for another example: "Grading on the property of Richard Roe pursuant to grant of easement dated 11-10-06 (copy of which grant of easement has been furnished to the Design Professional by the Using Agency) and in accordance with written consent of the Owner dated 01-01-09"], (d) I certify that there is no work of any description required for completion of the Project which does not lie within the scope and boundaries of the Project and of any easements, licenses, permits, or rights-of-way listed hereinabove, and (e) I also certify that in the design of the work I have taken into consideration all restrictions, covenants, controls, easements, and rights-of-way shown on the Plat of Survey of Building Site Conditions."

2.3.3 Erosion, Sedimentation & Pollution Control Plan

Refer to the Georgia State Soil and Water Conservation Commission website below. At Documents; Plan Review Checklist – Stand Alone Projects. This Checklist provides information on completing the Erosion, Sedimentation & Pollution Control plans and the required certifications required of the Design Professional or Consultant preparing the plans.

www.gaswcc.georgia.gov

2.3.4 Construction Fencing

Construction fences are required on all projects administered by GSFIC for liability and loss prevention purposes. A minimum six foot high chain link fence and gates shall be shown within the limits of construction.

2.3.5 Fencing at Storm water Ponds

Permanent fencing at storm water detention or retention ponds is not required.

2.3.6 Specialty Electrical System One Line Diagrams (i.e. Fire Alarm, etc.)

When a project includes a fire alarm, security, or audio-visual system, a one-line diagram shall be provided on the drawings. The one-line diagram shall be complete with all devices, panels, and other required equipment.

2.3.7 Include project: "Gross" and "Net" areas based upon the methodology described in the State Construction Manual on ALL document submittals. This will be updated as the project design progresses.

2.4 SPECIFICATIONS

2.4.1 Project Manual Arrangement and Supplementary General Requirements

The Project Manual, when completed, shall be submitted electronically as a PDF file. The Front Cover of the Project Manual must bear the signatures and seals of all consultants and the Design Professional. The arrangement of the Project Manual book shall be as follows:

1. GSFIC Form of Contract (or actual contract if CM/GC)

- 2. General Requirements
- 3. GSFIC Supplementary General Requirements (see below)
- 4. Design Professional's Trade/Technical Specifications with no duplication of the General Requirements

General Requirements are provided by the GSFIC Project Manager. The Supplementary General Requirements is a section of the Contract Documents which amends or add project specific information to the General Requirements. Supplementary General Requirements are prepared by the Design Professional with input from the Using Agency and Owner. The Supplementary General Requirements will be issued to you for inclusion in the Project Manual prior to final completion. The Supplementary General Requirements include items that address:

- a) Special Conditions such as unit pricing or inclusion in bid for unsuitable soil, rock and ground water and similar potential changed conditions.
- b) Special security, access and scheduling requirements required by the Using Agency at the project site.
- c) Any special changes required of the General Requirements for this specific project.
- d) Any other special or unique conditions on this project other than technical specifications and drawing information.

2.4.2 Precision and Adequacy

Precision:

The Design Professional shall designate completely, definitely, and clearly the methods and materials for construction such that the Construction Professional can suitably and adequately prepare estimates and can obtain subcontractor and trade contractor/supplier bids.

Manufacturer's Recommendations.

When the Design Professional references a manufacturer's published recommendations as part of the specification, he must have a copy of the printed recommendations available for use by the Construction Professional and review by the Owner. References to such recommendations in the specifications shall include the name of the manufacturer and date of the publication. If there has been no publication of the recommendations, then the Design Professional is obliged to designate completely, definitely, and clearly the methods and materials for installation that are recommended.

In recognition of the fact the Construction Professional is allowed to choose from any one of the multiple specified manufacturers (See Trade Names below), this requirement for furnishing the actual manufacturer's recommendations for the product/system selected can be placed on the Construction Professional as a required submittal.

The Design Professional shall carefully review any references to the manufacturer's recommendations to ensure there is no conflict or disclaimer that would create a conflict with any other provision of the Contract Documents including warranty.

2.4.3 Options

As a general rule "Options" should not be provided in the trade sections of the contract documents. Do not confuse "Options" with "Alternates" which may be provided in the bid documents (Design-Bid-Build) or in the Component Change Order Documents (CM/GC and Design-Build) to which the Owner makes the final decision. In the event the Design Professional intends to provide two or more "Options" for the Construction Professional on a specific item of the work, all such

"Options" must be fully defined with definite, complete and accurate descriptions as with any other portion of the work.

2.4.4 Performance Specifications

The Design Professional is required to design the project and to designate completely, definitely, and clearly the Work that the Construction Professional is to perform. In most cases this will mean the specification of product or manufacturer names and model numbers (three required). However, as in the case of control systems, the Design Professional will define the performance of the system without the designation of individual members of the system. In the event the Design Professional uses this method, great care must be taken to ensure that the Design Professional meets his obligation of responsibility for design.

The Design Professional shall indicate in the Construction Documents when particular shop drawings will require the seal of a specialty consultant or where "Performance specifications" requiring design services to be performed by the Construction Professional are being proposed. The Design Professional shall not require the Construction Professional to provide professional services that constitute the practice of architecture or engineering in the Construction Documents except as may be required to complete the design intent as expressed by performance specifications requiring the seal of a specialty consultant; or, unless the Construction Professional requires such services to carry out responsibilities for construction means, methods, techniques, sequences, and procedures. If professional design services or certifications related to systems, materials, or equipment are specifically required of the Construction Professional by the Contract Documents, the Design Professional will specify all performance and design criteria that such services must satisfy. In any event, the Design Professional remains the designer of record for the Project and must certify compliance with all provisions of the Contract Documents.

Additionally, in the case of Fire Sprinkler and Fire Alarm Systems requiring the additional review and approval by a regulatory agency, these performance specifications, if used, and the subsequent shop drawings with the seal of a specialty consultant will also require the formal review from the applicable regulatory agency (See Section 3).

2.4.5 Trade Names

Where practical, the Design Professional should designate the physical properties of materials, products, or equipment and, where possible, use an ASTM number, a Commercial Standard, a Federal Specification number, or any recognized designation. Alternatively, the Design Professional may utilize manufacturer's trade names and model numbers to specify the material, product or equipment.

2.4.6 Specified Products and Manufacturers and Sole Source

When specifying trade names and model numbers, it is the policy of the Owner to promote competition among manufacturers and suppliers. When specifying trade names or brand names to identify parts and components of the Work, the Design Professional shall specify a minimum of three products that fulfill the design requirements and level of quality, such designations then become the only authorized and acceptable products for that element of the work. Under no circumstance should the Design Professional include the words "or equal" in any specification or drawing.

During the bidding phase of Design-Bid-Build projects and prior to the issuance of GMP Change Order during the preconstruction phase of CM/GC and Design-Build projects preceding the, the Design Professional shall consider additional products of manufacturers as requested by bidders or Construction Professionals (See Section 4.9), which products after approval then become part of the specifications. After the award of the Construction Agreement (Design-Bid-Build) or execution of the GMP Change Order (CM/GC, Design- Build), no further substitutions of specified products are allowable.

If the Design Professional determines that it is necessary to name a sole source or sole brand, the Design Professional must complete the Sole Source Justification Form located in e-Builder and submit it to the Owner.

2.4.7 Warranties and Guarantees

The Design Professional shall not include any language in the specifications regarding warranties and guarantees that would diminish or conflict with the provisions of the Construction Agreement. The only warranties in the trade specifications should be extended warranties or manufacturer's warranties. An "extended" warranty would be any guarantee that extends beyond a period of five years following the date of Material Completion. Extended warranty requirements most often relate to HVAC and Electrical equipment, refrigeration, roof systems, paint and coatings, and similar items. The Design Professional should consider whether other extended warranties are appropriate for the Project.

Such extended warranties shall be provided by the Construction Professional to the Design Professional and Owner as part of the Documents and Deliverables required at Material Completion and shall provide for the direct enforcement by the Owner.

2.4.8 Carpet Testing

Carpet Testing is not included in the General Requirements and must be specified by the Design Professional in the trade sections as more fully described in Section 2.6.8.

2.4.9 HVAC and Systems Start-up and Testing

The Design Professional must carefully coordinate the provisions in trade specifications regarding system start-up, testing, training of staff and related services. The General Requirements provide the general obligations of the Construction Professional. The trade specifications may expand and further clarify this General Requirement but must not conflict or diminish the effect of this Section.

The design should utilize the latest SMACNA HVAC systems duct design manual. The duct shall be sized in accordance with ASHRAE/ACCA Manuals D and Q duct design (equal friction, static regain, or t-design). Design should take into consideration good flow to negate minimum damper adjustment during the test and balance phase and avoid high velocity and friction factors which could increase operating costs.

The Test and Balance (TAB) requirements of the specifications shall include 100% of the HVAC controls and equipment. Cubic feet per minute (CFM) shall be measured at the diffusers, grills, across coils and along with the Wet Bulb/Dry Bulb temperatures. Note, recommended velocity ranges should not be exceeded.

Further, if a Commissioning Authority is engaged on this Project, the duties and responsibilities of the Commissioning Authority may not reduce, alter or conflict with the basic requirements of the General Requirements of the Construction Contract and the Basic Services of the Design Professional.

2.4.10 Pre-installation Meetings

Special meetings with the Construction Professional, Design Professional and applicable subcontractors, suppliers and design consultants may be called by the Construction Professional as he deems appropriate. The Design Professional shall provide requirements within the trade sections of the Specifications for mandatory pre-installation meetings for the following general areas of work:

- Concrete
- Roofing

- Waterproofing
- Steel
- Masonry
- Storefront / Curtain wall / Glazing
- Special Construction
- Any Phased Work
- Other trade and specialty systems as deemed necessary by Design Professional or Using Agency

2.5 COORDINATION OF WORK

2.5.1 Work "By Others"

As a general rule, the Design Professional shall show no work on the drawings or specifications that is to be performed by anyone other than the Construction Professional. Exceptions to this rule may include the following:

- a) Work to be performed by public and private utility companies to enter the Project work limits and connect to the Project. Note: Such authorization may require a Revocable License Agreement issued by the Owner to the respective utility company and specific work limits for this utility company shall be clearly delineated on the Revocable License Agreement and the drawings.
- b) Any "Separate Contracts" for work contracted by the Owner pursuant to a scope item of the Program which is not practical or desired to be performed by the Construction Professional (e.g., Communications equipment, existing campus-wide security, and energy management systems, etc.).
- c) Installation of any "Owner Procured" Furniture, Fixtures and Equipment if such installation is scheduled prior to the Material Completion Date (not recommended).
- d) Work performed, or being performed, by a previous phase of the Project. In such case, the work should be completed prior to the commencement of construction on the subsequent Project and the drawings should reflect the "as completed" conditions.

2.5.2 Power Utility Coordination

The Design Professional shall consult with the Using Agency to determine the initial parameters regarding provision of electrical utility service. Depending on the projected service loads of the Project, location of the Project in Georgia and existence of current electrical service agreements and utility infrastructure at the Project site, the choice of electrical power may be provided by:

- Georgia Power Company
- Local EMC
- Municipal Power Company
- Existing Using Agency Distribution System

In most major projects, a "negotiation" must take place between the Using Agency and the respective utility provider to determine the agreement as to any infrastructure and metering costs associated with the construction of the utility's facilities to service the Project (including provision of temporary construction power). In most cases, the utility company will provide all of its work at no cost in return for the future revenues from energy consumption by the Using Agency.

After an initial agreement has been finalized for the provision of electrical service to the Project, the Design Professional's Electrical Engineer shall then communicate with the applicable power utility for the coordination of required service and connections. Provision of any required primary feeder system, service transformers, and metering requirements shall then be described in the contract documents with definition of who performs (utility or Construction Professional).

When the primary distribution system is privately owned and maintained by a campus system, the Design Professional shall at a minimum contact and meet with the physical plant office, presenting a site plan and calculations including anticipated connected and demand loads before construction documents are completed.

When the public utility is Georgia Power Company, it is recommended their current edition "Blue-Book" be reviewed. An electronic copy can be found at

https://www.georgiapower.com/content/dam/georgia-power/pdfs/business-pdfs/blue-book-2017.pdf

2.5.3 Utility Connection Fees

Most projects require connection to municipal and private utilities with required permit fees, tap-in fees, water meter fees, etc. The Contract Documents should address the payment of these fees to avoid any confusion or delay to the project. As a general rule, the Construction Professional should be required by the Contract Documents to "arrange for and pay" the required fees to complete the utility connections. The Design Professional shall determine the cost of such fee for each specific utility connection and include this information on the Contract Documents either (a) On the drawings, (b) In the technical specifications or (c) In the Supplementary General Requirements – preferred. In the case of Design-Bid-Build projects, this will allow all bidders to include this amount in their bids and avoid multiple contacts with the utility companies.

As an alternative, the costs of utility connections could be specified as "by the Owner" but that is not recommended for coordination and risk of delay reasons.

In the event the utility connection is a significant cost (e.g. \$75,000+); the Design Professional shall consult with the Owner to determine the best method to address this item. The GSFIC Project Manager shall be made aware of impact fees as soon as possible. This matter shall be addressed on a case-to-case basis.

In the event utility connections are not available at the property boundary, the Design Professional shall consult with the Owner to determine the best method to address this item.

2.6 INSPECTIONS AND TESTING REQUIREMENTS IN SPECIFICATIONS

2.6.1 General

This Section of the Process Guide highlights subjects pertaining to specific inspection or testing requirements to conform to codes or GSFIC policy but is not inclusive of all prudent inspection and testing requirements as may be required or recommended by the Design Professional. The Design Professional shall ensure the specifications adequately provide information on all such required inspections and testing to be performed during the Construction Phase and/or comply with requirements directly as required. Specifications shall coordinate with the language provided in the General Requirements of the Construction Agreements entitled "Inspections of Work" and "Testing." These referenced sections define terms of how inspections and testing is performed and who is responsible for costs and retesting.

2.6.2 Authorities Having Jurisdiction

Generally, local code enforcing authorities have no authority on state projects. Exceptions include specific areas where the State has delegated code enforcement to a local jurisdiction such as with Land Disturbance Permitting and Food Service Permitting. In order to avoid problems during the construction phase, the Design Professional should avoid using the term "Authority Having Jurisdiction" in specifications but specifically name the proper authority such as: the State Fire Marshal, the Department of Labor, the Department of Human Resources, or in the

2.6.3 Building Official, Special Inspections and Required Code Inspections

For most State agencies and authorities, there is no designated "Building Official" as defined in the International Building Code with Georgia Amendments. The Design Professional, with its consultants, is responsible for "required inspections" as listed in the applicable Building Codes as "Building Official," "Authority Having Jurisdiction," or "Required" inspections - regardless of whether or not a "Building Official" has been designated by the Using Agency. The intent of this provision is to ensure these original Codes referenced inspections are in fact performed even though the Georgia Amendments to said codes have eliminated certain sections where these "Building Official inspections" were described. The Design Professional shall have no additional powers of a "Building Official" including "interpretations" of the codes.

The Design Professional shall coordinate all "Special Inspections" as required by the code. See also other "Special Inspections" in Section 2.6.7.

2.6.4 State Fire Marshal Inspections

The General Requirements of the Construction Agreements, specified under the Section entitled "Inspection of Work", describes the requirements for Fire Marshal Inspections. These requirements place the responsibility on the Construction Professional to request inspections at specified intervals. These requests are made directly to the State Fire Marshal in writing with notice also to the Owner and Design Professional. Generally, no further specification language is required by the Design Professional on this subject except as described below.

2.6.4.1 Fire Alarm System Testing Requirements

The National Fire Alarm Code, NFPA 72-2002, Sections 10.4.1.1, 10.4.1.2.1.1, and 10.4.1.2.1.4 requires Initial Acceptance Testing for new systems and Functional Testing for existing system additions or modifications. The Design Professional shall include in the specifications a requirement for the Construction Professional and Fire Protection Trade/Subcontractor to complete and execute the *Inspection and Testing Form* (Figure 10.6.2.3 of the referenced Code Sections). No other forms or affidavits are acceptable. Further, ensure all specification language on this topic is coordinated with the General Requirements provisions titled "Inspections of the Work" and "Fire Marshal Inspections."

Note, in the event the Owner intends to engage a separate firm to perform Building Commissioning, such contract shall specifically exclude commissioning of the fire alarm system due to the extensive requirements and comprehensive methods already prescribed by NFPA 72 Chapter 10 as a Code minimum.

2.6.4.2 Fire Alarm System Design and the Georgia Accessibility Code/ ADAAG

The installed Fire Alarm System shall meet the current requirements of the Georgia Accessibility Code and Americans with Disabilities Act (ADA) in addition to the National Fire Alarm Code (NFPA 72). If the Georgia Accessibility Code or ADA Accessibility Guidelines (ADAAG) exception of "equivalent facilitation" is being used for deviations by the Design Professional*, a detailed description and calculations shall be provided to the Office of the State Fire Marshal (See Section 3.3.2.5 below) to clearly show evidence of providing substantially equivalent or greater access to and usability of the facility.

*Note: If the Fire Alarm System Design is specified as a "Performance Specification", the Design Professional must comply with this requirement of the Process Guide and Code and carefully coordinate the "approval" of

any "equivalent facilitation" proposed by the Construction Professional and Trade Contractor with the Owner and State Fire Marshal in preparing the required design and shop drawings

2.6.4.3 Fire Sprinkler System Testing and Inspection requirements

The Standard for Installation of Sprinkler Systems, NFPA 13, 2019 edition, requires system acceptance tests for new systems and modifications to existing systems. NFPA 13, chapter 16, System Acceptance, indicates the acceptance requirements and documents needed for the fire sprinkler systems. NFPA 13, chapter 18, System Inspecting, Testing and Maintenance references NFPA 25 for further details on procedures. NFPA 25, the Standard for the Inspection, Testing and Maintenance of Water Based Fire Protection Systems, 2011 edition, provides the testing requirements for water-based fire protection systems. The Rules and Regulations of the Safety Fire Commissioner Chapter 120-3-3, Rules and Regulations for the State Minimum Fire Safety Standards, provides modifications to the NFPA standards and provides specific tagging instructions/requirements for new or existing fire sprinkler systems. NFPA 24, the Standard for the Installation of Underground Private Fire Service Mains and their Appurtenances, 2010 edition, chapter 10, and section 10.10 indicated the acceptance tests required for the underground fire supply piping

2.6.5 Other Regulatory Agency Inspections.

The General Requirements of the Construction Agreements do not specify instructions to the Construction Professional on requesting and scheduling other inspections from applicable regulatory agencies. The Design Professional therefore must include language in the trade sections of the Specifications describing the procedures for requesting, scheduling, and conducting any inspections as required by applicable regulatory agencies. Contact your GSFIC Project Manager for a copy of Form GSFIC-CS-410 Regulatory Agency Approval Checklist for a list of typical items requiring regulatory agency review and approval.

2.6.6 Building Commissioning

The General Requirements of the Construction Agreements include language requiring the coordination of the Construction Professional with a Commissioning Authority (if engaged). A Commissioning Authority may be engaged by the Owner either as a direct contract, a part of the Construction Professional agreement or as an additional service to the Design Professional. In any event, the engagement of a Commissioning Authority will not reduce or eliminate any requirement of the Construction Professional and Design Professional to perform, inspect or verify completion of any of the building systems as required by the General Requirements (See Construction Agreements Section 6 "Operation of Building Systems", "Operation and Maintenance Training" and other references to equipment start up and operation) and any normal and customary requirements placed in the Specifications by the Design Professional.

Please see the Energy Efficiency and Sustainable Construction Act of 2008 (codified in O.C.G.A. § 50-8-18) and the GSFIC Commissioning Guide for State of Georgia requirements for commissioning. The Act becomes effective July 1, 2010 and requires basic commissioning on all new buildings, most renovation projects, and most roof replacements.

2.6.7 Special Inspections

This Section describes the responsibilities of the Design Professional in administering the Special Inspections Program. Note that on Design-Build delivery methods, the Owner, not the Design Professional, engages these services. On all other delivery methods, the Design Professional administers this Program. The Design Professional shall carefully review the General Requirements language

pertaining to "Inspections of the Work" and supplement this language in the trade specifications, where required, to accommodate the requirements of the Special Inspections Program.

The requirements contained within the <u>International Building Code Chapter 17 -, Structural Tests and Special Inspection with Georgia Amendments</u> will be strictly enforced on all projects. If the Design Professional contends that specific Special Inspections are not warranted, he shall petition the Owner (Attn: GSFIC Project Manager) in writing providing sufficient justification to review such request. All decisions to waive specific requirements of Chapter 17 shall be confirmed by the Owner in writing to the Design Professional.

The Design Professional is contractually obligated to fulfill the role of the Building Official in respect to code required and special inspections. The Design Professional shall:

Prepare the Special Inspection Program.

With the assistance of the Structural Engineer of Record, the Design Professional shall prepare and submit to the Owner during completion of Construction Documents (See Section 3.3.4 Submittals) the Statement of Special Inspections, which shall include the Schedule of Special Inspection Services. These documents shall list items for which Special Inspection is required. They should also list the Special Inspector, his agents and their duties. For additional assistance see GSFIC Special Inspection Guidelines. (Go to Link below)

http://gsfic.georgia.gov/documents/special-inspections-guidelines

Engage the Special Inspector(s).

Except for projects utilizing a Design-Build delivery system, to which the Owner engages the Special Inspection Services, the Design Professional is responsible for engaging the Special Inspector(s), its agents and any testing agencies required for the Special Inspection Program.

Refer to Sections 1 and 3 of the Design Professional contract and <u>GSFIC GUIDELINES FOR DESIGN PROFESSIONALS FOR SELECTING SPECIAL INSPECTIONS</u>, <u>MATERIAL TESTING</u>, <u>GEOTECHNICAL</u>, <u>AND/OR RELATED SERVICES</u>

(Go to Link below)

http://gsfic.georgia.gov/sites/gsfic.georgia.gov/files/GuidelinesDesignProfessionals.pdf

2.6.8 Carpet Specification and Manufacturer's Certifications

2.6.8.1 Carpet Flame Spread and Surface Burning Characteristics:

In preparing the carpet specifications the DESIGN PROFESSIONAL shall ensure that carpet and carpet-like interior floor finishes shall comply with ASTM D 2859, Standard Test Method for Flammability of Finished Textile Floor Covering Materials and NFPA 253, Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source (which is also ASTM E 648).

Carpet that is used on surfaces other than the floor shall meet the requirements for surface burning characteristic tests in accordance with ASTM E 84, Standard Method of Test of Surface Burning Characteristics of Building Materials (which is also NFPA 255).

The CONTRACTOR shall obtain results for the above-mentioned tests from the carpet manufacturer and be ready to present these results when requested.

2.6.8.2 Carpet Construction Testing

Testing for conformity with *Carpet Construction Specifications* shall include tests for carpet density, gauge, pile yarn weight, pile thickness, total thickness and fiber identification and shall be in accordance with subsection 2.6.8.1.

It is our policy that all carpet delivered to the site shall be tested prior to being installed. The following is specimen language the DESIGN PROFESSIONAL is to include in the trade section for carpeting to define carpet testing:

TESTING OF CARPET

In order to prove compliance with the carpet construction specifications prescribed in the contract documents, the carpet shall be tested by an independent carpet-testing laboratory selected by the Design Professional. The CONTRACTOR shall notify the DESIGN PROFESSIONAL when the carpet has been suitably stored at the job site. The CONTRACTOR shall remove a test sample from the carpet as selected by the Design Professional. The test sample for compliance with the carpet construction shall be one piece of carpet measuring either:

- (a) six or one-half feet by twelve feet or (b) seven feet by seven feet. The test sample shall be accompanied by . . .
 - (1) An affidavit of an officer of the manufacturer of the carpet in accordance with the specimen prescribed herein below.
 - (2) A satisfactory report of investigation of surface burning characteristics as prescribed herein below.

The DESIGN PROFESSIONAL shall deliver the test sample to the testing laboratory selected for testing for compliance with the carpet construction specifications. Neither the installation of the carpet nor any preparatory operations for the aforesaid installation shall proceed until (a) the results of the test on the carpet construction have been received from the testing laboratory and approved in writing by the DESIGN PROFESSIONAL and (b) a satisfactory report from the Southwest Research Institute, 6220 Culebra Road, San Antonio, Texas, 78228¹, Commercial Testing Company Inc., 1215 South Hamilton Street, PO Box 985, Dalton, Georgia 30720, or other approved organization has been delivered to the DESIGN PROFESSIONAL by the CONTRACTOR as prescribed herein below. The CONTRACTOR shall allow forty days from the date of delivery of (a) the test sample, (b) the affidavit, and (c) the report of investigation by him to the DESIGN PROFESSIONAL for the receipt of the results of the tests for compliance with carpet construction specifications. The CONTRACTOR shall provide a sufficient amount of carpeting (a) to allow for the specified testing of the carpet and (b) for carpet installation.

To be "satisfactory" a report of investigation of surface burning characteristics must indicate that the carpet meets or exceeds each of the above criteria.

NOTE: GSFIC will not process any carpet invoice prior to receipt of favorable test results.

2.6.9 BMP Testing

The Design Professional shall ensure the required testing of BMPs as stipulated in the Erosion Control Checklist (including requirements for testing within seven (7) days of installation) are incorporated into the trade specifications and are part

2.7 MISCELLANEOUS REQUIREMENTS

2.7.1 Loose Equipment and Furnishings

Unless otherwise stipulated in the Program (Exhibit A to Design Professional Contract), as a general rule, the Design Professional is only required to design and specify in the Construction Documents "Fixed Equipment" and furnishings that require structural or fixed utility connections to the building.

"Loose Equipment" is defined as such items as furniture, artwork, administrative equipment, maintenance equipment etc., that can be delivered to a dock and placed in the building by operating personnel.

There are practical exceptions to this general rule:

- Kitchen equipment is both fixed and loose. It may be advisable to procure such equipment (except expendables) through one source (contractor or vendor).
- Fixed equipment such as laboratory, kitchen, and maintenance equipment can be procured by the agency as loose equipment then connected and installed to the facility by the building contractor or separate contractor provided that arrangements are coordinated in the both the Design and Construction Documents for such installation.
- Loose equipment can be included in the Construction Documents and provided to the agency at Material Completion of the project, but generally the cost will be higher due to inability to exercise discounts on State-wide contracts and the Construction Professional's overhead and profit.

2.7.2 Reroofing projects

The Design Professional is expected to obtain existing building drawings and specification, if available. The Design Professional is expected to take field measurements in order to accurately describe the correct project layout including, but not limited to the following: overall building footprint, relative roof elevations in order to determine if sufficient slope exists for the roof to drain properly, or to determine if an alternate approach will be required. Provide new insulation that will comply, on average, with the currently adopted energy code. Provide locations and sizes of existing or new equipment, provide overflow drainage if none exists, determine if the existing roof structure can carry any additional loads to be imposed by the reroofing project. Take any measurements to determine if the flashing, coping, curbs, cants, and other roof appurtenances can be correctly constructed and obtain a completed roof system warranty. The methodology for obtaining the necessary information is at the discretion of the Design Professional as long as it is accurate, e.g., scalable laser scans, drone images, field measurements taken with a tape measure, or any other methodology that provides accurate information. The Design Review Group would also recommend a number of existing roof cores be taken to determine the type, thickness, and character of the existing roof system. Fastener pull-out test(s) are also recommended to determine the strength and integrity of the existing roof decking material. In some cases, it may be advisable to perform an infrared scan to determine the extent of significant water intrusion into the existing roof system. All of this existing condition information should be utilized to determine the best solution for the conditions of the project. Testing to confirm replacement roof system performance should be performed by a 3rd party testing firm with the demonstrated capability to perform such roof system testing. The direct cost for this testing will be paid by GSFIC as a pass-thru expense to the

testing agency who is to be selected and contracted with the Design Professional. No Fire Marshal submittal is required for reroofing projects UNLESS a change is being made to roof access.

2.7.3 Record Documents

Record Documents are to be compiled throughout the course of construction. They are to include changes made to the construction documents and include: supplemental information issued by the Design Professional, changes incorporated into the project by change order, RFI responses, delegated design submittals prepared by others required in the construction documents, as-built marked-up drawings provided by the contractor or sub-contractor(s). Record Documents are to be signed, sealed, dated, and labelled: "Record Documents". Disclaimers by the Design Professional of Record indicating the Design Professional is relying on information provided by others is acceptable. The purpose of Record Documents is to provide the Owner with the best possible information reflecting the completed project to the extent practicable.

2.8 PROCUREMENT ELEMENTS

Procurement-Inclusive Phases where DP Involvement Occurs

Phase 1: Planning – Need

Identification/Pre-

Solicitation Assistance

Phase 2: Advertisement –

Solicitation

Preparation/Solicitation

Process

Phase 3: Contracting –

Evaluation/Award

Phase 4: Contract Administration

Phase 5: Closeout

The Procurement Process is an integral part of the work to be completed by the Design Professional. The DP's involvement depends on the type of construction delivery method used.

In those cases where pre-qualification is desired, the DP may be required to work with the Procurement Representative to develop prequalification criteria and determine whether those qualifications have been met.

GSFIC Used Project Delivery Options Design-Bid-Build (DBB)

- PM hands off to Bid Manager
- 2. Bid Manager manages the bid process.
- 3. DP assists in Pre-Bid Conferences
- 4. DP Prepares Bid Addenda for Procurement Distribution/Management
- 5. DP Attends and Records Bid Opening
- 6. DP Provides Minutes

Construction Manager/General Contractor (CM/GC)

- 1. The DP will work with the CM/GC to incorporate design suggestions.
- The DP will prepare priced design packages that will be used to construct certain critical elements of the work.
- 3. The Owner with DP assistance will use an early award construction packages process for

the component change orders (CCO) e.g., Site Foundation, Steel, GMP, and Construction Documents.

- 4. The DP will provide project specific info for the CM/GC solicitation document.
- 5. The DP will help the owner coordinate bid addenda.
- 6. The DP may participate as resource for CM Selection.

Design-Build (D-B)

- 1. The DP will be asked to prepare design criteria for the project.
- 2. The DP may be asked to participate in D-B firms" selection process.
- 3. The DP will participate in D-B firm negotiation process as needed.

Note: Each of the standard contracts used by GSFIC will make specific reference to procurement methods and expectations to be satisfied by the Design Professional. Please reference your contract and contact the Procurement Services Director if you have questions about the intent or implementation of any pertinent clause.

SECTION THREE: Design Review Process

3.1 PURPOSE AND INTENT

Section Three describes the Design Review Process and information about required submittals. Projected review time frames shall be correlated with the Preliminary Design and Construction Schedule of the Design Professional Contract. For CM/GC and Design-Build delivery methods, this schedule is then eventually incorporated into the Overall Project Schedule prepared by the Construction Professional. It is critically important that review time frames are accurately represented in the Overall Construction Schedule to avoid potential of a delay claim.

Comments made during the GSFIC reviews must be addressed by the Design Professional. The intent is that all comments are closed before a Design/Bid/Build Advertisement for Bid, RFQ for Best Value delivery method or any component change order for the GM/GC delivery method.

3.2 REVIEW AGENCIES

3.2.1 Using Agency

Throughout the design process and at the completion of each major design phase, the Design Professional shall obtain the approval of the Using Agency. Such review and approval shall be in addition to other agency review requirements as described in this section and in the Design Professional Contract. The primary purpose and scope of the Using Agency review shall be to confirm acceptability of the design as interpreted from the Program and any special design criteria as established by the Using Agency.

3.2.2 GSFIC Construction Services - Design Review Group

The Design Review Group within GSFIC"s Construction Services Division performs Constructability and Code Compliance reviews of all projects prior to (a) Advertisement for bids (Design-Bid-Build) or (b) Issuance of a Notice to Proceed for Construction Phase Services (CM/GC or Design-Build). Constructability reviews check for conformance with GSFIC policies and guidelines, completeness, coordination of documents and code compliance.

Design review services are in addition to Using Agency review. It should be noted that Design Review Group review is not a substitute, nor should it replace the

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3.2.2.1 Structural Calculations

During the course of our reviews, Design Review Group may ask for structural calculations to demonstrate/confirm member sizes/forces/loads are correct and supported correctly and are code compliant. These will be provided, upon request, to DRG for our information at no additional expense.

3.2.3 State Fire Marshal

The Office of the Insurance and Safety Fire Commissioner (State Fire Marshal) reviews all State projects for compliance with Life Safety Codes and issues all construction permits on State projects. The State Fire Marshal delegates review of certain State projects to the GSFIC; however, all transmittals and issuance of permits flow through the Office of the Insurance and Safety Fire Commissioner. The areas of review include: Overall compliance with the applicable Life Safety and related adopted NFPA Codes, Fire Sprinkler Systems and Fire Alarm Systems (including ADA equivalencies).

3.2.4 Georgia Department of Natural Resources (DNR)

There are multiple environmental compliance requirements on most capital projects. Contract your GSFIC Project Manager for assistance in identifying and coordinating requirements for:

- Georgia Environmental Policy Act (GEPA) evaluations
- Erosion, Sedimentation & Pollution Control Plan
- Notice of Intent Land Disturbance Permits
- National Pollution Discharge Elimination Systems (NPDES) Permits
- Air Quality Permits
- Underground Storage Tanks

Additional "environmental" requirements and guidelines may be found at the Georgia Soil and Water Conservation Commission, and Georgia Environmental Facilities Authority sites below:

https://gefa.georgia.gov/

3.2.5 Other Agencies

Contact your GSFIC Project Manager or GSFIC Construction Services for assistance in identifying other required regulatory agencies. Form GSFIC-CS-410 has been prepared to assist Design Professionals with this information; however, it remains the primary responsibility of the Design Professional to comply with all regulatory rules, codes and regulations pertaining to the Project.

3.2.6 Transmittal Letter

All submittals shall be accompanied by a Transmittal Letter including the GSFIC project name and number, the name of the Using Agency, the identification of the submittal (e.g., Design Development, GMP, etc.), the action requested, and the Design Professional's name, e-mail address and phone number. All Transmittal Letters (less enclosure) should also be copied to the GSFIC Project Manager.

3.3 REVIEW PROCEDURES

3.3.1 Drawing Submittal

On GSFIC managed projects ONLY, a Preliminary FM submittal is NOT required for the following reasons: The Architectural reviewer assigned to the project for constructability review will also be performing the life safety/code compliance review at the same time. The Architectural reviewer will issue code comments at

the same time their constructability comments are issued. For example, while performing an SD review, the architectural reviewer will be looking at code/life safety issues and comment accordingly. This would also be true during a DD review. Once the project gets to the point where construction needs to begin and needs a Site Letter, Shell Permit or Construction Permit, a formal FM submittal needs to be made requesting one of these 3 authorizations to begin construction through Citizenserve and a corresponding FM process in e-Builder. We would request that the formal FM submittal be made AFTER receipt of constructability comments so these comments can be incorporated into the set(s) that will be released for construction. (The only exception would be in a year where codes are going to change, we would need to do a Preliminary review and would issue a letter "locking in" the current codes before the change to new codes. This generally happens every other code cycle which is once every 6 years.)

3.3.2 Using Agency

The Using Agency must review and approve all designs to ascertain compliance with the Owner/Using Agency's Program and any special design criteria as established by the Using Agency. Review times vary from agency to agency.

and the Design Professional must coordinate with the Using Agency Project Representative or GSFIC Project Manager the notice requirements and projected review times for each phase of design. Be aware of potential delays in scheduling executive or board approval of major documents due to meeting and travel schedules of the agency officials.

In order to expedite the review process, it is customary for the Design Professional to initiate the review process concurrently with all applicable review agencies. This is particularly important in the CM/GC and Design-Build delivery method in regard to prompt processing of Component Change Order Construction Documents.

3.3.3 State Fire Marshal

For all State projects, the State Fire Marshal's Office is responsible for the review of construction documents for compliance with state minimum standards for fire safety, life safety, and accessibility, issuing Construction Permits and issuing Certificates of Occupancy for those types of buildings listed in O.C.G.A. § 25-2-13. Further, the State Fire Marshal's Office has deputized some members of the GSFIC Design Review Group to review plans and specifications and issue Construction Permits for State projects; however, all submissions and transmittal letters must be directed to the State Fire Marshal's Office.

The Design Professional must incorporate all conditions of approval on the construction permit into the project manual within thirty days of the date on the permit.

As a service to Design Professionals, the State Fire Marshal's Office will perform preliminary Fire Marshal reviews of schematic plans and issue written comments to assist in the completion of design. This is encouraged for large or complex projects to avoid delays in issuing the final approval and construction permits. Design Professionals should submit electronic copies of schematic plans to the State Fire Marshal's Office Citizenserve portal and mark the request as "Preliminary Review". Drawings submitted for a preliminary review are not required to be signed and sealed.

For the design/bid/build delivery method, the Design Professional should submit electronic copies of 100% complete construction documents to the State Fire Marshal's Office Citizenserve portal. For CM/GC and Design-Build delivery methods, if site grading and other construction phase services are to commence in advance of the completed construction documents, the State Fire Marshal's Office will consider the issuance of two intermediate construction permits:

 Authorization to Begin Site Grading and Foundation/Utility Operations Letter Shell Only Construction Permit

When the construction documents are 100% complete, request a Construction Permit (Final) from the State Fire Marshal's Office. Note: The State Fire Marshal's Office issues Construction Permits only for new buildings and new additions to existing buildings. Contract documents for renovations and buildouts of existing buildings are reviewed and stamped approved, but Construction Permits are NOT issued.

State Fire Marshal Submittal Instructions

Authorization to Begin Subsurface Site Approval Letter

- Submit electronic copies of signed and sealed civil drawings and Life Safety plans (see 3.3.2.1 for minimum requirements) to the State Fire Marshal's Office
- Citizenserve portal. Submit adequate building elevations and sections to review project (not required to be signed and sealed)

Shell Only Approval Letter

- Submit electronic copies of signed and sealed Civil, Structural and Life Safety plans (see 3.3.2.2 for minimum requirements) to the State Fire Marshal's Office Citizenserve portal.
- Submit adequate building elevations and sections to review project (not required to be signed and sealed)

Construction Permit (Final)

 Submit electronic copies of 100% complete construction documents (see 3.3.2.3 for requirements) to the State Fire Marshal's Office Citizenserve portal.

All contract documents must be submitted to the State Fire Marshal's Office Citizenserve portal. All submitted documents are forwarded from the Fire Marshal's Office to Deputized State Inspectors at GSFIC Design Review Group for review and then sent back to the Fire Marshal's Office for distribution and filing. The Design Professional can download the approved contract documents from Citizenserve once they are notified of completion. Reminder: State law requires that a complete set of approved plans and specifications be maintained on the construction site. Submit all documents to:

https://oci.georgia.gov/inspections-permits-plans

For further information, visit

https://oci.georgia.gov/

The time required for review will vary due to the size and complexity of the project; however, projects will be reviewed within a maximum of thirty (30) business days.

Reminder: During the Construction Phase of a project, the State Fire Marshal is required to review and approve the shop drawings for the fire sprinkler system. Regardless of whether or not the fire sprinkler system is fully designed in the Construction Documents or issued as a Performance Specification for final design by the Fire Protection trade/sub-contractor, the State of Georgia Fire Protection and Safety Code requires the submission of final shop drawings and other design information by the trade/sub-contractor.

3.3.3.1 Minimum submittal requirements for Authorization to Begin Site Grading and Utility Operations Letter

(<u>Note</u>: Work authorized by this letter is limited to demolition, site grading, utility excavation/installation/relocation, foundation excavation and related site preparation work.)

- 1. Signed and sealed 100% complete civil drawings and specifications.
- 2. Signed and sealed Life Safety Plan(s) to include the following:
 - · Applicable codes and editions
 - Occupancy classification
 - Construction type and allowable square footage
 - Actual square footage per floor
 - Maximum travel distances
 - Common paths of travel (if any)
 - Dead-end corridors (if any)
 - Occupant loads
 - Exit capacity and remoteness
 - Fire-ratings of any vertical opening enclosures, horizontal exits, occupancy separations, and fire walls
 - Fire wall locations and details (if any)
 - Smoke barriers (if any)
 - Communicating spaces (if any)
 - Fire separation distances and exterior wall fire-ratings (if required)
 - State if the building is sprinkled (NFPA 13 or 13R)
 - Submit adequate elevations and sections to review project (these drawings would be submitted for reference and not required to be signed and sealed)

The following statement shall be on the cover sheet of drawings submitted for an Authorization to Begin Site Grading and Foundation/Utility Operations Letter

"To the best of my knowledge, information and belief, the plans, specifications and addenda comply with the applicable building codes in effect at the time of issuance for construction."

Signature of Design Professional

Date

Note: For additions, include the same information for the existing structure.

3.3.3.2 Minimum submittal requirements for Shell Only Construction Permit

(Work authorized by the Shell Only Construction Permit is limited to foundations and superstructure work in addition to site preparation work (demolition, site grading, utility excavation/installation/relocation and related site preparation work).

- 1. Signed and sealed 100% complete civil drawings and specifications.
- 2. Signed and sealed 100% complete structural drawings and specifications.
- 3. Signed and sealed Life Safety Plan(s) to include the following:
 - Applicable codes and editions
 - Occupancy classification
 - Construction type and allowable square footage
 - Actual square footage per floor
 - Maximum travel distances
 - Common paths of travel (if any)
 - Dead-end corridors (if any)
 - Occupant loads
 - Exit capacity and remoteness.
 - Fire-ratings of any vertical opening enclosures, horizontal exits, occupancy separations
 - Fire wall locations and details (if any)
 - Smoke barriers (if any) Communicating spaces (if any)
 - Fire separation distances and exterior wall fire-ratings (if required)
 - State if the building is sprinkled (NFPA 13 or 13R)
- 4. Smoke control analysis (atriums)
- 5. Life safety evaluation (smoke-protected assembly seating)
- 6. Submit adequate elevations and sections to review project (these drawings would be submitted for reference).

The following statement shall be on the cover sheet of drawings submitted for a Shell Only Construction Permit

"To the best of my knowledge, information and belief, the plans, specifications and addenda comply with the applicable building codes in effect at the time of issuance for construction."

Signature of Design Professional

Date

Note: For additions, include the same information for the existing structure.

3.3.3.3 Minimum submittal requirements for Construction Permit (Final)

 Signed and sealed 100% complete contract documents (drawings and specifications). All drawings must be labeled as 100% complete.

<u>Reminder:</u> Requests for a Construction Permit (Final) are required of all projects regardless of the delivery method.

The following statement shall be on the cover sheet of drawings submitted for a Construction Permit (Final).

"To the best of my knowledge, information and belief, the plans, specifications and addenda comply with the applicable building codes in effect at the time of issuance for construction."

Signature of Design Professional

Date

3.3.3.4 Fire Sprinkler Systems Design/Shop Drawing Review

The State of Georgia Fire Protection and Safety Codes requires the trade/sub-contractor who installs the work to hold a Certificate of Competency (CC) as issued by the State Fire Marshal's Office. This requirement is stated in the General Requirements of the Construction Documents but may be repeated in the trade section of the specifications for emphasis. The Codes further require the submission of shop drawings and related documentation from the trade/sub-contractor for water-based fire protection systems, if specified, regardless of whether or not such systems were fully designed by the Design Professional. Shop Drawings must be submitted electronically for review to the State Fire Marshal's Office Citizenserve portal. This requirement is not stated in the General Requirements and must be provided by the Design Professional in the trade specifications.

Specifically, the Design Professional shall include language in the trade specification for water-based fire protection systems that provides for:

- The Certificate of Competency of the fire sprinkler trade/subcontractor shall be submitted to the Construction Professional, Design Professional and Owner as required by the General Requirements.
- The fire sprinkler trade/sub-contractor shall submit the required documentation and obtain approval <u>directly</u> from the State Fire Marshal's Office for all work related to the water-based fire protection system. This submittal shall be made within 30 days after the Notice to Proceed is issued to the Construction Contractor.
- Submittal shall consist of an electronic set of sealed shop drawings, hydraulic calculations, technical data, and Owner's Information Certificate to the State Fire Marshal's Office Citizenserve portal.
- After approval by the State Fire Marshal's Office, the fire sprinkler trade/sub-contractor shall then submit the approved documents to the Construction Professional and Design Professional for final review and approval as a regular Shop Drawing submittal.

- Fire sprinkler system design requirements are dictated by NFPA 13, the Standard for the Installation of Sprinkler Systems, Current adopted edition, and the Georgia Amendments found in The Rules and Regulations of the Safety Fire Commissioner chapter 120-3-3, Rules and Regulations for the State Minimum Fire Safety Standards. In NFPA 13, chapter 14, there is a detailed description of the required information concerning "working drawings and hydraulic calculations" that must be included in the design and submittal of drawings. The Georgia Amendments include additional requirements as well. The "Owners Certificate" found in NFPA 13, figure A.14.1(b) is one of the additional requirements.
- Note, the Design Professional cannot make any changes to the shop drawing submittal approved by the State Fire Marshal that would adversely affect or compromise said approval. In the event any such conflicts occur (e.g. conflict of sprinkler grid with ceiling/lighting grid), the Design Professional, Owner and Construction Professional should confer and discuss possible remedies to such situation which may include a revision and re-submission of the documents by the trade/sub-contractor.

3.3.3.5 Fire Alarm System Review

If the Fire Alarm System is shown on the Construction Documents as a Performance Specification, Shop Drawings, when submitted by the Construction Professional shall be submitted electronically for review to the State Fire Marshal's Office Citizenserve portal as an addendum to original submittal. The Design Professional shall include instructions to the Construction Professional in the specific trade section.

3.3.4. GSFIC Constructability and Code Compliance Reviews- General

All projects, in which the construction phase will be administered by GSFIC, are required to have Constructability and Code Compliance reviews. Specific requirements for the three project delivery methods; Design-Bid-Build, CM/GC, and Design Build, are addressed below. Review comments will be sent directly to the Design Professional with copies to the GSFIC Project Manager, GSFIC Project Executive and the GSFIC project files via the e-Builder program.

GSFIC utilizes the construction management software program e-Builder as its solution to manage the entire project lifecycle; the program provides GSFIC with a central tracking and controls system.

A project account is automatically set up for every project on the GSFIC design review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications to this site in a logical sequence of events in the construction process.

https://app.e-

builder.net/www/index.aspx?ReturnUrl=%2fda2%2fHome%2findex.aspx

For all projects where BIM is required it will be in addition to all current design submission requirements set forth in the Design Professionals contract and the Design Review Process Guide. Such projects shall comply with the requirements of the GSFIC BIM Guide located at the GSFIC website (see link below).

http://gsfic.georgia.gov/document/publication/building-information-modeling-bimguide/download

Although acquisition of the required NPDES and Land Disturbance Permits are the responsibility of the Construction Professional and issued through the Department of Natural Resources and Local Issuing Authority, the design documents including

the Erosion, Sedimentation & Pollution Control Plan must comply with all applicable regulatory requirements. The GSFIC Design Review Group will provide advance review of this documentation during the design phase. All such requirements must be completed at the completion of final Construction Documents.

To facilitate response from the Design Professional, an electronic version of the GSFIC Comment Review Form will be sent via the e-Builder program, and the Design Professional is required to provide a written response to each comment indicating how each comment is to be addressed in the final construction documents. Review comments are color coded as follows:

BLACK text indicates a constructability issue, incomplete, or incorrect item.

BLUE text indicates a code related comment.

RED text indicates a critical comment.

On the Comment Review Form, the Design Professional shall provide his responses only in the column labeled: "DP Responses". GSFIC requests that Design Professionals clearly identify where changes have or will be made in the construction documents (i.e., drawing and detail number, or specification section and Section). Responses to Schematic Design Documents and Design Development Documents may refer to the incorporation of such changes in the final Construction Documents (or CCO/GMP Construction Documents) but otherwise such responses as "will comply" are not acceptable.

GSFIC requests the Design Professional return the completed Comment Review Form promptly to the Design Review Group. Responses to items that are deemed to be unacceptable to the Design Review Group will be highlighted in YELLOW and noted as OPEN.

After review of the final Construction Documents (including CCO/GMP Construction Documents) and the Design Professional's incorporation of such comments in revised drawings and specifications, the Design Review Group will perform a Back Check to confirm final review. Once all outstanding comments have been addressed, GSFIC will notify the Design Professional through e-Builder that the Back Check review process is complete and that final construction documents can be distributed.

Submittal Requirements for Constructability and Code Compliance reviews:

All project submittals, including geotechnical reports, hydrology study, etc., are uploaded electronically through the web portal-based e-Builder program. Contact the Design Review Group or the GSFIC Project Manager for login information and instructions.

Specific guidelines on GSFIC Review procedures for each delivery type are provided below:

3.3.4.1 Design-Bid-Build (DBB) Delivery Method

General. The DBB Delivery Method requires complete approval of documents prior to the advertisement for bids for general contractors. Accordingly, the completion of all design and program requirements, regulatory agency requirements, Using Agency final reviews and other matters are of utmost importance. Refer to Form GSFIC-CS-411 Construction Documents Completion Checklist available from the GSFIC Project Manager for further details.

Schematic Design Documents Review.

1. A project account is automatically set up for every project on GSFIC

- Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications to e-Builder.
- 2. Submit electronic drawings to the State Fire Marshal's Office Citizenserve portal for Life Safety/Accessibility Preliminary Review.
- 3. Submit drawings as required to other applicable Regulatory Agencies (See Section 2.6.5)

Design Development Documents Review.

- A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications to e-Builder.
- 2. Submit Form GSFIC-CS-406 Site Investigations Report.
- 3. Submit Environmental Effects Report (EER) or statement if not applicable (See Section 2.2.5).
- 4. Submit drawings as required to other applicable Regulatory Agencies (See Section 2.6.5)

Construction Documents

- A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications to e-Builder.
- Submit electronic sets of sealed drawings and specifications to the State Fire Marshal's Office Citizenserve portal for Life Safety / Accessibility Review
- 3. Submit drawings as required to other applicable Regulatory Agencies (See Form GSFIC-CS-410) and specifically documents required to attain the Land Disturbance permits (Erosion, Sedimentation and Pollution Control Plan) through Department of Natural Resources.
- 4. Submit Statement of Special Inspections Form GSFIC-CS-432 with attached proposed Schedule of Special Inspection Services (See Section 2.6.7).

Back Check of Construction Documents

 A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications to e-Builder. Corrected drawings, specifications, and response to GSFIC Design Review Group review comments shall be included.

NOTE: Contact the lead reviewer at GSFIC Design Review Group for approval to submit only the corrected pages in lieu of complete sets of drawings and specifications.

Please Note: If all comments made during the Construction Document review have not been satisfactorily addressed after a Back Check review a meeting may be called at the GSFIC office. Attendance will be required by the Design Professional and all consulting engineers with outstanding comments.

Bid Documents

After satisfactory completion of the Back Check, the Design Professional shall prepare and submit the final Bid Documents. The GSFIC requires one set of Contract (Bid) Documents signed and sealed by the Design Professional and all major consultants. An additional set may be required by the Using Agency.

Drawings must be fully completed with all references to "Not for Construction" removed. The Front Cover of the specification must bear the signatures and seals of all consultants and the Design Professional. All drawings must be sealed and signed by all engineering disciplines.

Refer to Form GSFIC-CS-411 CONSTRUCTION DOCUMENTS

COMPLETION CHECKLIST which is provided to the Design Professional by the GSFIC Project Manager after approval of the Construction Documents under cover of Form Letter GSFIC-CS-421. These documents provide specific information on preparation of Bid Documents to include:

- Alternates
- Supplementary General Requirements Correlation Review
- Property matters
- Budget
- Bidding Procedures

The final Bid Document set for GSFIC shall be delivered to the GSFIC Project Manager, Project Management Group, Construction Services Department. The GSFIC Project Manager shall then complete requirements for transmittal of Project to the Procurement Department for the bidding and award phase.

The Design Professional will be contacted by the Procurement Department and furnished instructions for coordinating the bidding and award phase.

Addenda, Bulletins, Change Orders

After the Bid Documents have been completed, dated, stamped, and sealed, all future changes must be confirmed by a published and numbered Addendum issued by the Design Professional. The GSFIC Procurement Department will provide specific instructions to the Design Professional (Form GSFIC-PS-303) regarding transmittal of Addenda to prospective bidders, the Using Agency and GSFIC.

Bidders may receive two types of addenda. Standard Addenda (identified as Standard Addenda A-1, Standard Addenda A-2, etc.) are issued only by the Owner and are reserved for making changes to the General Requirements, Supplementary General Requirements and Bid Requirements. Addenda (identified as Addendum No. 1, Addendum No. 2, etc.) are issued by the Design Professional and are used to (a) Correct discovered errors and omissions in the bid documents, (b) approve the addition of a manufacturer's product (see Paragraph 9 (d) Instructions to

Bidders in the Contract Documents), or (c) to clarify items in the bidding documents.

Addenda must be approved by the GSFIC Project Manager prior to issuance to bidders. Depending on the nature of the correction or changed condition and its effect on the prior approval of the plans and specifications by the GSFIC, Using Agency and applicable regulatory agencies, both the GSFIC and Design Professional should carefully coordinate and communicate these activities to avoid a postponement of the proposed bid opening date.

Bidders must acknowledge receipt of all Standard Addenda and Addenda on their Proposal Form submitted at bid opening. Failure to acknowledge these addenda may result in rejection of their proposal. Accordingly, it is extremely important the Design Professional keeps an accurate record of all persons, firms and agencies who have received bidding documents (including GSFIC, Using Agency, regulatory agencies, etc.) and that all parties receive copies of issued addenda.

During the bidding phase and prior to award of a construction contract, no bulletins or change orders are allowed. Any changes to the bidding documents are processed as (pre-bid) Addenda. In the event a further

change is required in the bidding documents after bids are received but prior to award, such changes are processed as a (post-bid) Addenda issued only to the GSFIC and specific party identified by the GSFIC (i.e., proposed General Contractor) and Using Agency.

Addenda:

1. Submit a copy of pre-bid addenda to the GSFIC Procurement Services Department ATTN: Bidding Manager at least 10 working days prior to the bid opening date. Review and approval by the GSFIC and Using Agency will be coordinated by the GSFIC Procurement Services Department. However, the Design Professional remains responsible for securing the approvals of any applicable regulatory agency which is a prerequisite to Owner approval.

Change Orders:

Change Orders are processed by the Owner after the award of a construction contract. The GSFIC Project Manager shall coordinate all internal reviews of Change Orders with the Design Review Group. However, the Design Professional remains responsible for securing the approvals of any applicable regulatory agency which is a prerequisite to Owner approval.

Bulletins:

Bulletins issued to the Construction Professional shall also be copied to the Owner addressed to the GSFIC Project Manager. Any questions regarding Bulletins will be addressed by the GSFIC Project Manager.

3.3.4.2 Construction Manager at Risk (CM/GC) and Design-Build

General. Both the CM/GC and Design-Build Delivery Methods provide for the commencement of construction services simultaneous with the completion of the design of the Project. Accordingly, the numbers and sequences of submittals for Owner, Using Agency and regulatory agency reviews are critically important to advancement of the Overall Project Schedule- one of the primary reasons for using this delivery method. However, it is important to point out the same level of review and approval is required by the Owner, Using Agency and applicable regulatory agencies as is provided under the Design-bid-build delivery method.

In the Design-Build agreement, the Design Professional acts as the "Architect of Record" within the Design-Build agreement and coordinates review and approval of design documents accordingly.

Therefore, the Design Professional shall prepare and arrange for the Owner, Using Agency, and applicable regulatory agency reviews of (1) Schematic Design, (2) Design Development and (3) Construction Documents as described and defined in the Design Professional Contract or Design-Build Contract. And in addition, the Design Professional shall prepare and arrange these same reviews for all separate construction documents prepared for (4) Component Change Orders and (5) the Guaranteed Maximum Price (GMP) Change Order.

The CM/GC and Design-Build delivery methods allow for the CM/GC to commence construction phase services and to eventually propose a GMP Change Order with partially complete documents. However, all documents provided to the Construction Professional for construction must be stamped and sealed by the Design Professional (even if incomplete). Further, these documents (CCO, GMP CO) must comply with all design and program requirements, regulatory agency requirements, Using Agency final reviews and other matters. Refer to Form GSFIC-CS-411 Construction Documents Completion Checklist available from the GSFIC Project Manager for further details. As a practicable matter, these reviews must be coordinated quickly and simultaneously with all parties to achieve the overall intent of the CM/GC or Design-Build delivery method and accelerated Overall Project Schedule.

Schematic Design Documents Review.

 A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic

- drawings and specifications and may be asked, based on size and complexity of project to submit 1 hard copy set of drawings and specifications to the design review group for each phase of the project.
- 2. Submit drawings as required to other applicable Regulatory Agencies (See Section 2.6.5)

Design Development Documents Review.

- A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications and may be asked, based on size and complexity of project to submit 1 hard copy set of drawings and specifications to the design review group for each phase of the project.
- 2. Submit Form GSFIC-CS-406 Site Investigations Report.
- 3. Submit Environmental Effects Report (EER) or statement if not applicable.
- 4. Submit drawings as required to other applicable Regulatory Agencies (See Section 2.6.5)

Component Construction Documents (CCO Change Order Documents) and Guaranteed Maximum Price Construction Documents (GMP Change Order Documents):

- A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications and simultaneously submit 1 hard copy set of drawings and specifications to the design review group for each phase of the project.
- 2. Refer to Section 3.3.2 of this Process Guide for the Fire Marshal submittal requirements.
- 3. Submit drawings as required to other applicable Regulatory Agencies (See Form GSFIC-CS-410) and specifically documents required to attain the Land Disturbance permits (Erosion, Sedimentation and Pollution Control Plan) through Department of Natural Resources
- 4. Submit Statement of Special Inspections Form GSFIC-CS-432 with attached proposed Schedule of Special Inspection Services (See Section 2.6.7).
- 5. 100% GMP construction documents must include all component change order drawings and all clouds must be removed.

Back Check of Construction Documents

1. A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications and simultaneously submit 1 hard copy set of drawings and specifications to the design review group for each phase of the project. Corrected drawings, specifications, and response to GSFIC Design Review Group review comments shall be included.

NOTE: Contact the lead reviewer at GSFIC Design Review Group for approval to submit only the corrected pages in lieu of complete sets of drawings and specifications.

If all comments made during the Construction Document review have not been satisfactorily addressed after a Back Check review a meeting may be called at the GSFIC office. Attendance will be required by the Design Professional and all consulting engineers with outstanding comments.

Construction Documents (CD Change Order Documents)

1. A project account is automatically set up for every project on GSFIC GSFIC-CS-430 (01-31-14) (04-28-23)

- Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications for each phase of the project.
- Submit electronic sets of sealed drawings and specifications to the State Fire Marshal's Office Citizenserve portal for Life Safety / Accessibility Review.
- 3. Submit drawings as required to other applicable Regulatory Agencies (See Form GSFIC-CS-410) and specifically documents required to attain the Land Disturbance permits (Erosion, Sedimentation and Pollution Control Plan) through Department of Natural Resources.

Back Check of Construction Documents

 A project account is automatically set up for every project on GSFIC Design Review e-Builder program portal at the onset of the design review process. The design professional is required to upload electronic drawings and specifications and simultaneously submit 1 hard copy set of drawings and specifications to the design review group for each phase of the project.

Note: Contact the lead reviewer at GSFIC Design Review Group for approval to submit only the corrected pages in lieu of complete sets of drawings and specifications.

If all comments made during the Construction Document review have not been satisfactorily addressed after a Back Check review a meeting may be called at the GSFIC office. Attendance will be required by the Design Professional and all consulting engineers with outstanding comments.

Addenda, Bulletins, Revised Drawings, Supplemental Drawings, Change Orders

In the CM/GC and Design-Build delivery methods, changes and additions to construction documents are incorporated into the respective agreements through bulletins, supplemental drawings and revised drawings which then are incorporated into subsequent Component Construction Documents, GMP Construction Documents and the final Construction Documents (CD Change Order).

Change Orders are generally only issued after execution of the GMP Change Order except in rare cases where a change is necessary to a Component Change Order.

In all cases where a change or addition is made to the construction documents being provided to the Construction Professional, such documents shall be provided to the Owner, Using Agency, and applicable regulatory agency for review. The Design Professional and GSFIC Project Manager shall coordinate the receipt and transmittal of such documents to the respective parties of the Owner, Using Agency, and applicable regulatory agency to accomplish said review and, where required, approval by the appropriate parties.

Other Regulatory Agencies

The Design Professional shall refer to Form GSFIC-CS-410 Regulatory Agency Approval Checklist, available from the GSFIC Project Manager, in addition to a review of applicable codes and regulations to determine which additional regulatory agencies must review the Construction Documents. Each of these regulatory agencies may have a specific form and procedure for requesting and obtaining approval. Review times will vary according to the regulatory agency and complexity of the project. It is strongly advised to identify and contact each of the required regulatory agencies at the very start of a project to avert any potential delays to approval or start of construction. If any difficulties are encountered with

regulatory agencies, the GSFIC Project Manager should be advised and consulted.

3.4 ADDITIONAL SUBMITTALS

- **3.4.1** Required Submittals- In addition to the items outlined above, the Design Professional shall provide directly or make available to the Construction Professional any requirements for documentation or permit application required by a Regulatory Agency (See Form GSFIC-CS-410) as part of a permit application, plans approval or otherwise.
- **3.4.2** Supplemental Submittals- Additional submittals may be required to address specific questions or concerns during the Design Review Process. The applicable Regulatory Agencies or the GSFIC Design Review Group may request such information as deemed prudent and necessary for Owner review.

SECTION FOUR: Construction Process

4.1 PURPOSE AND INTENT

Section Four describes the processes required by GSFIC during the construction phase of a project. The purpose and intent of this section is to provide requirements which shall be made a part of the technical specifications and/or drawings. This section also includes information on GSFIC processes which the Design Professional shall adhere to during the construction phase of a project.

4.2 CONSTRUCTION PHASE DEFINED

During the bidding phase, the Design Professional is engaged in reviewing and approving alternate products, issuing addenda and assisting the Owner in evaluating the bids within the GSFIC e-Builder Bidding module.

For Design-Bid- Build Projects, the Construction Phase begins with the award of the Construction Contract, issuance of the Proceed Order (Notice to proceed) and authorization from the Owner to the Design Professional to commence Construction Phase Services.

For Construction Management (CM/GC) and Design-Build Projects, the Construction Phase begins with the issuance of the first Component Change Order (CCO) for construction phase services.

4.3 COMMUNICATION CHANNELS

The Construction Professional is directed in the Construction Agreement regarding communications, meetings, submittals and teamwork/partnering with the Project Team consisting of the Owner, Using Agency, Design Professional and Construction Professional. The Owner will assign a Project Manager to promote these teamwork objectives. It is critically important to the success of any project that the Design Professional, Construction Professional and Owner's representatives (Project Manager, Contract Compliance Specialist and Using Agency Authorized Representative) maintain and promote positive and effective communication (written, electronic and verbal) among the Project Team Members. The Owner's Project Manager should be copied on all communication and correspondence related to the Project.

4.4 EVALUATIONS OF THE WORK BY DESIGN PROFESSIONAL AND CONSULTANTS

The Design Professional Contract describes the services required of the Design Professional and Consultants during the Construction phase of the Project. The frequency and content of site evaluations of the work are the responsibility of the Design Professional and shall be performed as necessary to:

 Confirm the Work complies with the Contract Documents and applicable codes (including acceptance of written reports of inspections by regulatory agencies)

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- Perform other inspections as stipulated in the Contract Documents
- Inspect Work prior to covering
- Certify Work for Applications for Payment
- Certify Work for Material Completion
- Certify Work for Final Completion.

The Design Professional Contract also provides that the Design Professional and consultants shall contact the Owner's Contract Compliance Specialist and CM/GC at each Site visit and shall maintain a log of all its visits by discipline; and that written reports of field observations and evaluations shall be provided to the Construction Professional and Owner within seven (7) days of any Site visit.

4.4.1 Required Code Inspections

<u>Building Official Inspections</u>. In addition to regular site visits, evaluations and observation of the Work, the Design Professional shall perform inspections as identified in the applicable Building Codes as "Building Official," "Authority Having Jurisdiction," or "required" inspections. The Design Professional shall refer any requests for code variances to the Owner. The inspections performed by the Design Professional, or consultants, and coordinated by notification from the Construction Professional shall include (but not be limited to) all inspections required by the applicable codes and as further described below:

4.4.1.1 General Construction:

- <u>Footing and Foundation inspection.</u> Footing and foundation inspections shall be made after excavations for footings to be constructed are complete and any required reinforcing steel is in place.
- Concrete slab and under-floor inspection. Concrete slab and under-floor inspections shall be made after in-slab or underfloor reinforcing steel and building service equipment, conduit, piping accessories and other ancillary equipment items are in place, but before any concrete is placed or floor sheathing installed, including the sub-floor.
- <u>Frame inspection.</u> Framing inspections shall be made after the roof deck or sheathing, all framing, fire-blocking and bracing are in place and pipes, chimneys and vents to be concealed are complete and the rough electrical, plumbing, heating wires, pipes and ducts are approved.
- <u>Lath and gypsum board inspection (Fire Rated Walls).</u> Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Inspection of joints and penetrations in fire-resistance-rated assemblies shall be inspected prior to concealing.

- Energy efficiency inspections. Inspections shall be made to determine compliance with Section 713 of the International Building Code with Georgia Amendments Chapter 13 and shall include, but not be limited to, inspections for: envelope insulation *R* and *U* value, duct system *R* value, and HVAC and water-heating equipment efficiency.
- Special Inspections. The Design Professional shall verify the required special inspections as required by Section 1704 of the International Building Code with Georgia Amendments (see Section 1.1.2.5 of the General Requirement – Construction Agreement) review and assimilate the final report of special inspections with the Design Professional's Certificate of Material Completion.

- **4.4.1.2** Electrical <u>and Telecommunications Inspections.</u> Inspections shall be made of electrical and telecommunications systems to confirm compliance with the National Electrical Code with Georgia Amendments (NFPA 70) and include but are not limited to:
 - <u>Underground Inspection</u>: Electrical and telecommunication systems after underground components are installed and bedded in trenches or ditches and prior to placement of backfill.
 - <u>In-Slab Rough-in</u>: Electrical and telecommunication systems installed in slabs prior to placement of concrete.
 - Wall and Ceiling Rough-in: Electrical and telecommunication systems installed in walls and above ceilings prior to cover-up.
 - Power Distribution Equipment: Electrical switchgear, switchboards, distribution panels, branch circuit panels, automatic transfer switches, dry-type transformers, and motor control centers after all components are in-place but before covers are installed.
 - <u>Wiring Devices and Methods</u>: Electrical feeder and branch circuit wiring, devices, and device operation.
 - <u>Emergency Systems</u>: Electrical emergency systems and device operation.
 - <u>Lighting control systems</u>: Lighting control systems and device operation.
 - <u>Labeling</u>: Electrical system identification and warning labeling.
- 4.4.1.3 Fire Alarm System Inspections. Testing and inspection of completed systems shall be performed in compliance with NFPA 72, National Fire Alarm Code, and NFPA 101, Life Safety Code, per the most current adopted State of Georgia edition and amendment(s). Prior to requesting final approval of the installation, the installing contractor, shall furnish a written statement stating that the system has been installed in accordance with approved plans and tested in accordance with the manufacturer's specifications and the appropriate NFPA requirements. Completion of NFPA 72 form "Record of Completion" shall be submitted along with the written statement. Testing and inspection of the system for final approval shall be conducted in the presence of the owner, or his representative(s), and the Design Professional to verify compliant installation.
- **4.4.1.4** Mechanical <u>Inspections.</u> Required inspections shall be made of mechanical systems to confirm compliance with the International Mechanical Code with Georgia Amendments and include but are not limited to:
 - <u>Underground Inspections:</u> after underground piping is installed and bedded in trenches or ditches and prior to placement of backfill.
 - Rough-in Inspection: After walls, floors, roof framing, fire blocking, bracing, ductwork, piping, and other components of the mechanical system to be concealed in the completed structure are complete prior to installation of wall or ceiling membranes.
 - <u>Pressure Tests</u>: Witness all required pressure testing of below grade and above grade piping.
- **4.4.1.5** <u>Plumbing Inspections</u>. Required inspections shall be made of plumbing systems to confirm compliance with the International Plumbing Code with Georgia Amendments and include but are not limited to:

- <u>Underground Inspection</u>: After underground piping is installed and bedded in trenches or ditches and prior to placement of backfill.
- Rough-in Inspection and testing: After walls, floors, roof framing, fire blocking, draft-stopping, bracing, sanitary, storm, and water distribution piping, and other components of the plumbing system to be concealed in the completed structure are complete prior to installation of wall and ceiling membranes.
- <u>Pressure Tests</u>: Witness all required pressure testing of below grade and above grade piping.
- **4.4.1.6** Fuel <u>Gas Inspections.</u> Required inspections shall be made of Fuel Gas systems to confirm compliance with the International Fuel Gas Code with Georgia Amendments and include but are not limited to:
 - <u>Underground Inspection</u>: After underground piping is installed and bedded in trenches or ditches and prior to placement of backfill.
 - Rough-in Inspection and testing: After walls, floors, roof framing, fire blocking, draft-stopping, bracing, and other components of the fuel gas piping system are complete prior to installation of wall or ceiling membranes.
 - <u>Pressure Tests</u>: Witness all required pressure testing of below grade and above grade piping.
- 4.4.1.7 Fire Sprinkler System Inspections. Testing and inspection of completed systems shall be performed in compliance with NFPA 13, NFPA 25 and NFPA 101, Life Safety Code, per the most current adopted State of Georgia edition and amendment(s). Prior to requesting final approval of the installation, the installing contractor, shall furnish a written statement stating that the system has been installed in accordance with approved plans and tested in accordance with the manufacturer's specifications and the appropriate NFPA requirements. Completion of Hydrostatic Test papers shall be submitted along with the written statement. Testing and inspection of the system for final approval shall be conducted in the presence of the owner, or his representative(s), and the Design Professional to verify compliant installation.

4.4.2 SPECIAL INSPECTIONS

- 4.4.2.1 Special Inspections (General): Refer to Section 2.6.7 and see GSFIC Special Inspection Guidelines for guidance on coordinating Special Inspections during the Construction Phase. The Design Professional is responsible for managing and coordinating the efforts of the various Special Inspectors or agents. The Design Professional may designate a single Special Inspector to oversee the process on his behalf; however, the Design Professional remains the primary contact for GSFIC and is responsible for the collection and distribution of required forms and reports.
- **4.4.2.2** Final Report of Special Inspections: Prior to issuing the Design Professional's Certificate of Material Completion, the Design Professional shall obtain and review the Final Report of Special Inspections.

4.4.3 OTHER TESTS AND INSPECTIONS

The Design Professional shall ensure all other tests and inspections as required by the Contract Documents, applicable codes and other requirements

are performed. Examples include:

- Carpet Testing (See Section 2.6.8.2)
- BMP Installation within seven (7) days after initial construction operations (Erosion, Sedimentation & Pollution Control Plan)
- HVAC Test and Balance

4.5 CHANGE ORDERS

All Change Orders are issued by the Owner using the GSFIC e-Builder process. Requests for Change Orders may be initiated by the Design Professional, Construction Professional or Owner. Change Orders are used to amend the Construction Agreement whenever there is a changed condition as to the Contract Documents (scope), Contract Time (Material Completion Date) or Contract Sum (compensation).

Most commonly, such change orders fall under one of these three categories:

- 1. Governmental -Changes in applicable codes or requirements of regulatory agencies.
- 2. Errors and Omissions Defects in the plans and specifications
- 3. Unforeseen job site conditions Hidden or subsurface conditions not discernible to the Construction Professional at contract execution

Change Orders are also issued to provide for interim payment of a Force Account Authorization or to confirm final contract adjustments for "allowances". Most common "allowances" are in respect to unsuitable soils, pile foundations, rock removal and similar sub-surface (indeterminate quantity items).

Change Orders are also issued to confirm settlement of a Claim, for acceptance of a Non-Compliance Order and other matters.

It is the policy of the Owner to issue Change Orders promptly for any bone-fide cause. Change Order requests should not be delayed, deferred, or "grouped". The Design Professional is required to provide the necessary design documents for each Change Order and to recommend to the Owner whether the adjustments to the Construction Agreement (including cost and any time extension) are reasonable and appropriate.

4.6 NOTICES OF NON-COMPLIANCE

The Design Professional issues Notices of Non-Compliance whenever the work deviates from the Construction Documents. As a practical matter, such observations and documentation of contract deviations are noted on field reports from periodic inspections and in most cases are resolved timely by the Construction Professional. The more formal "Notice of Non-Compliance" should be used whenever the scope of the deviation is significant, may result in further damage or safety concern, represents a significant cost impact to the Owner or similar concern where it is in all parties' interests to notify, document and follow-through with required corrections.

Notices of Non-Compliance are also issued by the Design Professional if the Construction Professional falls behind schedule or fails to complete a plan of corrective action regarding a breach of the schedule.

Finally, the inspections for Material Completion resulting in a "Punch list" are all conformed to a final Notice of Non-Compliance.

If the Construction Professional fails to correct a Notice of Non-Compliance within the stipulated correction period, the Design Professional may recommend, and the Owner may reduce the amount in question from the Construction Professional's Application for Payment.

4.7 REQUESTS FOR INFORMATION (RFI)

In accordance with the Construction Agreements, the Construction Professional may request clarification for any item of the Construction Documents. Requests for Information must be promptly addressed by the Design Professional within the time stipulated in both the Design Professional and Construction Agreements to avoid exposing the Owner to claims for delay. Periodic meeting with the Owner, Design Professional and Construction Professional (OAC Meetings) should have the RFI Submittal Log as a standing agenda item.

If an RFI discloses the need for a Change Order, the Design Professional shall promptly notify the Owner's Project Manager to commence the Change Order Process.

4.8 SHOP DRAWINGS AND SUBMITTALS

The Construction Professional is required to submit a Shop Drawing and Submittal Schedule for review and approval by the Design Professional as one of the Preconstruction requirements. Once approved, the Shop Drawing and Submittal Schedule must be closely administered by both Construction Professional and Design Professional.

Shop Drawings are not to be used to correct errors or omissions in the contract documents. If an error or omission exists, a Change Order should be used to correct the deficiency.

Any element of the work that the Design Professional issues as a "Performance Specification" requiring the stamp and seal of a specialty design architect or engineer must be carefully reviewed during the Shop Drawing Submittal Process. The Design Professional remains responsible for the complete design of the project and certification at Material Completion all work has been constructed in accordance with the Construction Documents and in accordance with all applicable and designated codes. This requirement applies additionally to elements of the fire alarm and fire sprinkler systems which require pre-approval from the State Fire Marshal.

4.9 APPROVAL OF SUBSTITUTE PRODUCTS (CM/GC AND DESIGN-BUILD)

On CM/GC and Design-Build Projects, if proposed Trade Contractors and Trade Suppliers request authorization to propose and install products of manufactures different from those described in the approved plans and specifications (Component Construction Documents or GMP Change Order Documents), the Design Professional shall coordinate with the Construction Professional to approve substitute products as follows:

- a. <u>During CM/GC procurement of a Component</u>. If bidders (Trade Contractors/Trade Suppliers) to the CM/GC request a substitute product, the CM/GC shall coordinate the Request for Information (RFI) to the Design Professional, the result of which shall be communicated to all prospective bidders. If approved, the Design Professional shall include this additional product in the final Construction Documents.
- b. During CM/GC procurement of the Work after GMP, but before Construction Documents Change Order. If bidders (Trade Contractors/Trade Suppliers) to the CM/GC request a substitute product, the CM/GC shall coordinate the request of this information in an RFI to the Design Professional the result of which shall be communicated to all prospective bidders for that element of the Work. If approved, the Design Professional shall include this additional product in the final Construction Documents.
- c. <u>After execution of the Construction Documents Change Order.</u> Requests by the CM/GC for a substitute product will be reviewed by the Design Professional and if approved will be confirmed by a Change Order to the CM/GC Contract.

APPENDIX A

Schematic Design Check List of Utilities

(To Accompany Schematic Design Documents) Project Number Date:								
Project Name			Institution					
Architect								
NOTE: ALL SPACES MUST BE COMPLETED	Communications Copper	Communications Fiber	Electric	Water	Sanitary Sewer	Storm Sewer	H.W. or Stream	Chilled Water
Who owns utility lines on campus?								
Does Utility exist where shown on plans?								
If not, when will Utility be installed and by whom?								
Is point of project connection to Utility off Regents=s property?**								
Must Utility be moved out of way of building?								
Who will move Utility?								
Is existing Utility adequate (of sufficient capacity) for project—see below								
** Such as in	adjacent right-of-wa	ay, on private prope	erty, etc.					
Remarks:								
Approved:		President's De	esignee:					
		Director of Pla	ant Opera	ations:				
		Architect				ate		

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