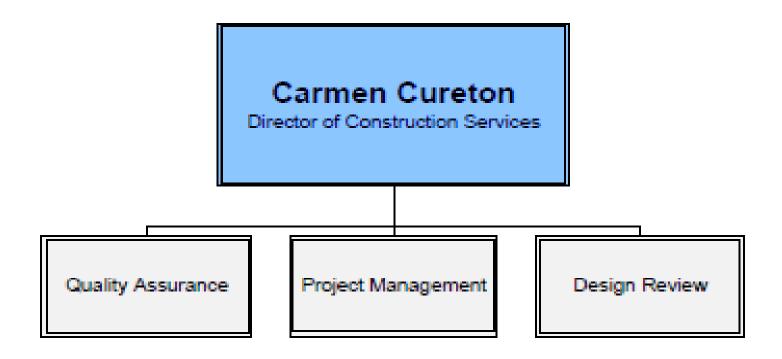


Project Management Organizational Chart



Ensuring State Agencies and Tax Payers of Georgia receive the Greatest Value for their Investment

Design Review Group

- Comprehensive Constructability Reviews
- Code and Life Safety Reviews
- Assuring Contract Documents are <u>Complete</u>



Reviews are conducted by a staff of Architects and Engineers

Quality Assurance Group

Monitors the daily progress of the project

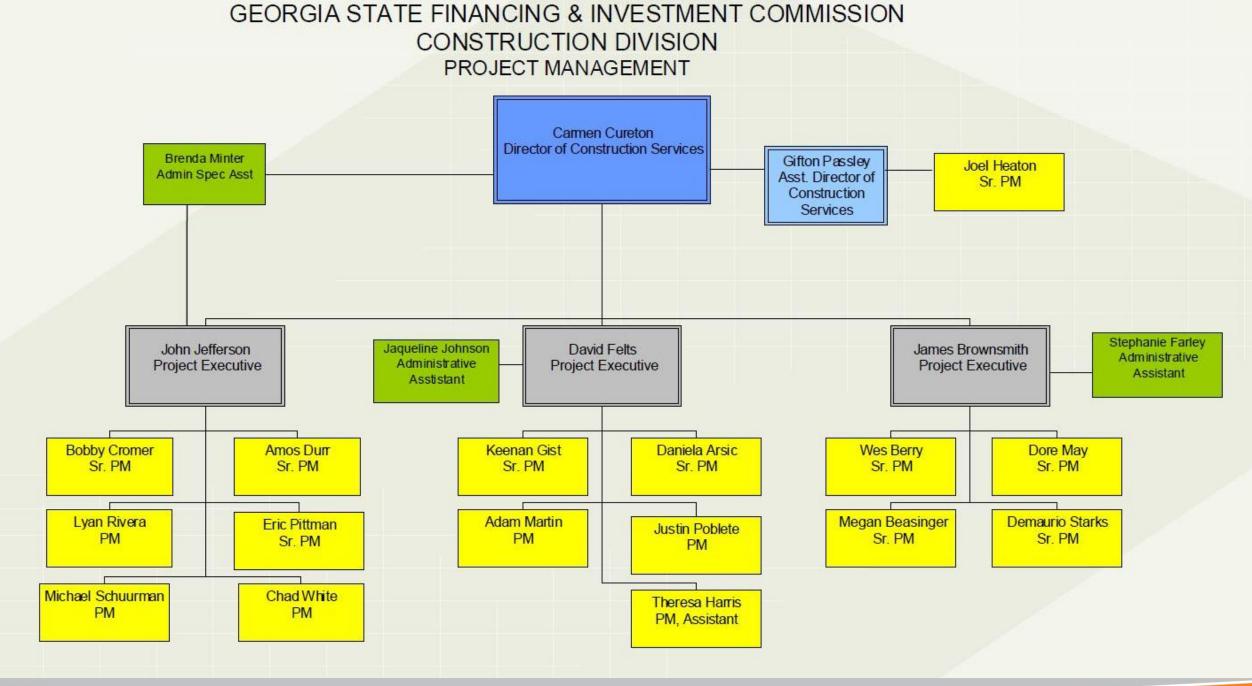
- Quality Inspections of Job Site Conditions
- Work Force Compliance
- Warranty Management

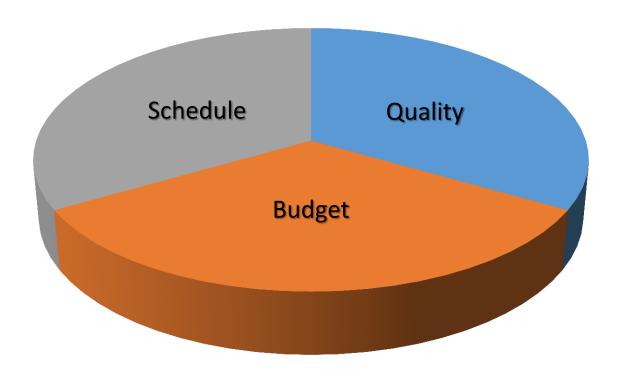


Project Managers Leaders of our GSFIC Construction Team

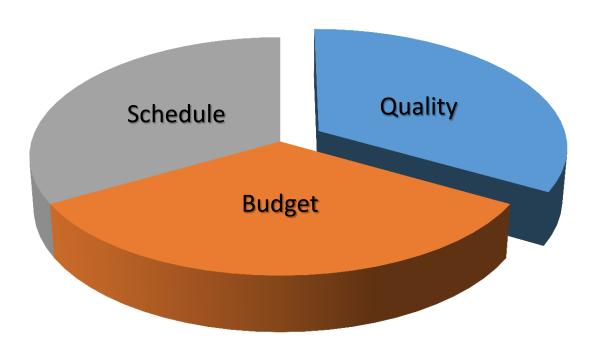


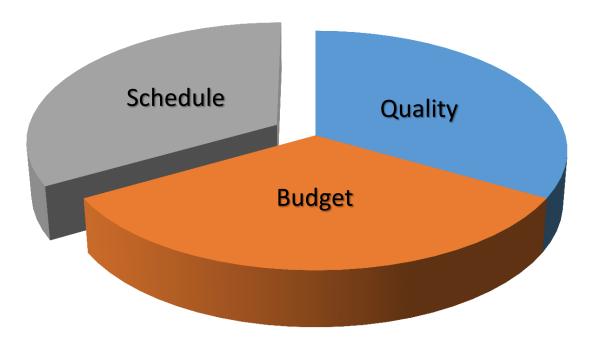
From Programming Thru Final Completion











Team Approach

It takes a Team Effort to meet Design & Construction Challenges

- Using Agencies
- Program Managers
- Design Professionals
- Construction Professionals
- Commissioning Agents
- Materials Testing and Special Inspections Firms
- Design Review Group
- Quality Assurance
- Project Management



We also must rely on our Business Partners like all of you around the room. We appreciate your attendance today.

Team Approach?



Expectations and Best Practices

- GSFIC Project Managers
- Design Professionals
- Construction Professionals
- Special Inspections
- Commissioning Agents
- Program Managers



GSFIC Project Manager Role – Design

Design Phase

- Assist the Using Agency/Program Manager in developing the project's program
- Keep all stakeholders focused on the Stated Cost Limitation and Schedule
- Assure each phase of design work (SD, DD, CCO, CD) meets the minimum requirements for GSFIC's Design Review Group
- Assist in reconciliation of budget estimates
- Approve payment invoices

GSFIC Project Manager Role – Pre-Construction

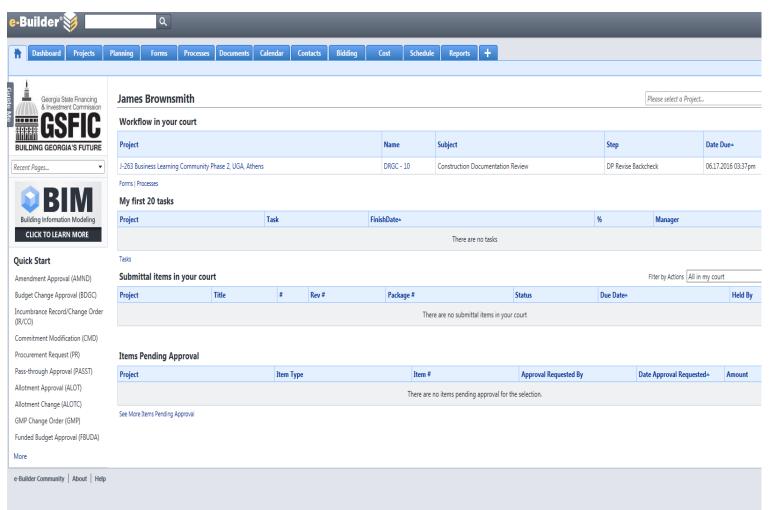
- Engage with DP, Using and Tenant agencies
- Procure and coordinate consultants
- Budget, schedule, issues
- Pre-Bid Conference (DBB)
- Pre-Interview Site Visit (CM/GC and DB)
- Thorough review of milestone pricing and GMP documents (CM/GC)
- Assist with obtaining all required permits



GSFIC Project Manager Role – Construction Phase

- Issue Proceed Order and organizes project kickoff meeting
- Attends OAC, Commissioning and pre-installation meetings
- Change orders, Notices of Non-Compliance, RFIs, schedule, budget, contingency, submittals, meeting minutes, field reports, quality issues, pay applications, invoices, amendments, e-Builder
- Communicate, communicate, communicate
- Closeout process

e-Builder - Enterprise Project Management System

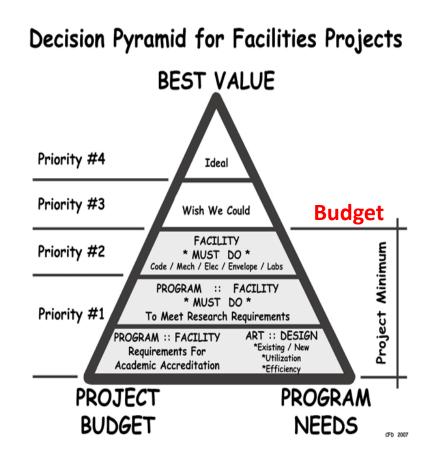


- Procurement and contracts
- Design Review
- Proceed orders
- Incumbrance Records (change orders)
- Requests for information (RFI's)
- Submittals
- Notices of Non-Compliance
- Filing of Project Documentation
- Contract amendments for consultants
- GMP and CCO approvals
- Project Schedules
- Budget management
- Meeting minutes and Field reports
- Pay Applications and Invoices
- Project closeout and warranty

GSFIC Expectations of Design Professionals

Programming Phase

- Lead the way
- Listen to the End Users and Agency
- Speak up if you believe the project is going over budget
- Communicate with the GSFIC Project Manager



GSFIC Expectations of Design Professionals

Design Phase (SD/DD/CD):

- Set a realistic design schedule
- Follow the Process Guide
- Resolve code questions
- Respond to Design Review Group comments
- Provide solutions and alternatives
- Communicate with the GSFIC Project Manager
- Speak up if you believe the project is going over budget



GSFIC Expectations of Design Professionals



Construction Phase:

- The Design Professional is the "Building Official"
- Work with the GC/CM/DB to prioritize and respond timely
 - Submittals
 - RFIs
 - Pay Applications
 - Incumbrance Records (change orders)
- Plan ahead for OAC meetings, cover-up inspections, preinstallation conferences, coordination with the CxA

GSFIC Expectations of Construction Professionals

Who is the Owner?

- Owner (GSFIC) vs. Using Agency vs. Tenant Agency vs. End User
- GSFIC is the contract holder and decision making authority

Communication, Communication, Communication!

- Respect the chain of command
- Notifications
- Keep us in the loop always

Contract

- Read, read, read!
- New CM/GC Contract vs. DBB vs. DB vs. Small Contracts (SCAR)

GSFIC Expectations of Construction Professionals

Proactive

- Pre-Construction expectations
- Subcontractor management
- Closeout management "Begin with the end in mind"

Actively engaged

- From Pre-Con until Final Completion (not just Material Completion)
- Respectful and professional working relationship throughout

GSFIC Expectations of Construction Professionals

Minimize Disturbance to End User

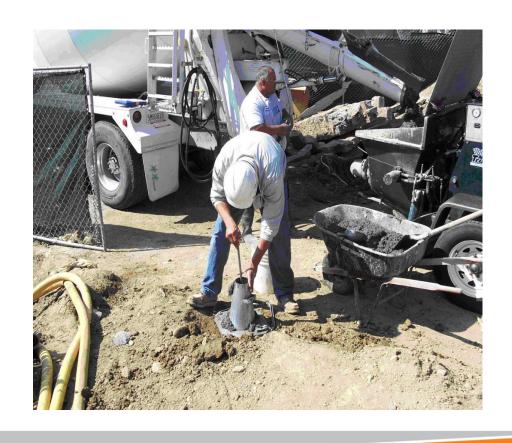
Agency should maintain normal operations

Transparency

- No surprises with budget, quality, schedule
- Fairness help us to be your advocate
- Present clear backup (pay apps, change orders, CCO/GMP bids, CM contingency)

Special Inspections & Construction Materials Testing

- Geotechnical Services
- Schedule of Special Inspection Services
- Send Qualified Technicians & Inspectors
- Timely inspections and communications
- Reporting
 - Report deficiencies immediately
 - Discrepancy Log
 - Final Report of Special Inspections



Commissioning (Cx)

- Owner's Project Requirements (OPR)
- Design and Submittal Reviews
- Basic Cx required on most new construction and renovation projects
- Enhanced Cx optional often includes building envelope



Commissioning (Cx)

- GSFIC COMMISSIONING GUIDE http://gsfic.georgia.gov
- Kickoff / Partnering meeting
- Communicate deficiencies daily
- Deficiency Log
- Oversee tenant agency personnel training



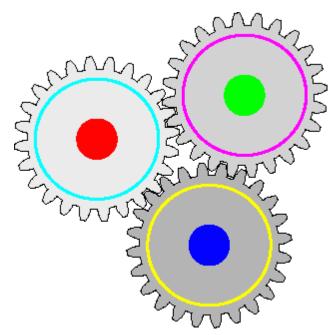
Commissioning (Cx)

- Submit Final Cx Report Executive summary and all relevant information
- Post-occupancy verification (no later than 10 months after MC)
- Coordinate or witness deferred seasonal test and balance
- Involvement during warranty phase



Construction Services – Process and expectations

- Package approvals (CM/GC & DB)
- General Conditions & General Requirements (CM/GC & DB)
- Self-performance (CM/GC & DB)
- Off-site stored materials
- Schedule milestones
- Contingency
- Change orders
- Weather delays
- Notice of non-compliance (NNC)
- Invoicing and pay applications



Construction Services – Package Deliveries

Component Change Orders GMP Change Order 100% CD Change Order

CM/GC and DB Contracts, N/A to DBB Contracts

- Site Letter/Shell letter issued by SFM
 - Land Disturbance Permit
 - Site Certification
 - At least 3 bids

- Typically at 80% CDs
 - At least 3 bids
- Need Shell letter to begin foundations or structure
- Our expectation is \$0
- Construction Permit issued by SFM

ALL:

- -Closure of all GSFIC Design Review Group comments
- Are we in line with overall budget?

- Minimize budgets
- Minimize clarifications

General Conditions (GCs) and General Requirements (GRs)

- Old contracts
- Contracts Alliance Committee
- New CM/GC re-write issued Q1 2016
- GCs vs. GRs
- Billing backup for GCs & GRs

Self-Performance

New CM/GC Contract (rolled out Q1 2016)

- Prior approval required for direct Performance at GMP Change Order
- When Trade Contractors are over budget
- When Trade Contractor defaults

DB Contract (current version, update forthcoming)

- When Trade Contractors are over budget
- When Trade Contractor defaults
- Other compelling circumstances

DBB Contract

No prior approval required nor is any necessary

Off-Site Stored Materials

New CM/GC contract (rolled out Q1 2016)

- Approval required prior to issuance of GMP Change Order
 - Off-Site Stored Materials Agreement
 - Storage location provided to GSFIC and clearly labeled "Property of the Georgia State Financing & Investment Commission"
 - Bill of Sale
 - Insurance and Protection
 - GSFIC may inspect at any time

Current DB and DBB contracts

Off-site storage not allowable but will mirror new CM/GC contract in near future



Schedule – New Contractual Milestones

- 1. Design Coordination Meetings
- Component Construction Documents and Construction Documents receipt and approval
- Submittal of Component Change
 Orders and GMP Change Order
- 4. Construction Start
 - a. Submittal Schedule
 - b. Fire Alarm Shop Drawings
 - c. Fire Protection Shop Drawings
- 5. NPDES Stabilization
- 6. Foundations Completion
- 7. Under-Slab Utilities
- 8. Slab Completion
- 9. Structural Top Out

- 10. Dry-ln
- 11. Metal Stud Wall Completion
- 12. Rough-In Completion
- 13. Drywall Completion
- 14. Equipment Installation
- 15. Permanent Power
- 16. Systems Operations
- 17. Finishes
- 18. 80% Completion Inspection
- 19. Commissioning
- 20. 100% Completion Inspection
- 21. Equipment Training
- 22. Material Completion Date
- 23. Interim Punchlist Completion
- 24. Final Completion Date



Schedule – Protocols

- Milestones
 - Can not change without Change Order
 - Missing a milestone by more than 7 days requires a Recovery Schedule
- Notice of Non-Compliance for failure to maintain schedule
 - Provide Recovery Schedule within 7 days
- If on schedule, retainage may be frozen at or greater than 50% complete
- GSFIC requires electronic schedule in native format
- Design schedules- Include GSFIC Design Review Group review times

CM/Design Contingency

- 8-10% included in SD estimate
- 5% included in DD estimate
- 2-3% CM included at GMP (no design contingency)
- Allowable uses of contingency in contract
- Owner contingency



Change order protocol

- e-Builder Process
- Incumbrance Records (IRs)
- Provide complete cost breakdowns
- Force Accounts
- Markups per the contract
- Timeliness
- Schedule Impact?



Weather delays

- Has it rained greater than ½"?
- Did weather event impact Critical Path activity?
- Contract prescribes anticipated number of weather days per month
- Record impact days
- CCS must concur and sign daily weather log
- Submit Weather Log with Pay Application for DP Approval on a monthly basis
- IR should be generated to extend schedule accordingly



Notice of Non-Compliance (NNC)

- DON'T BE AFRAID
- Record of work not in accordance with drawings or specifications
- If work in place isn't correct:
 - Correct
 - Provide Credit

DP and Consultant Invoicing

- Attach Backup
- Enter Invoice Amount in e-Builder
- Special Inspections Invoice GSFIC Directly



Pay Applications

- Schedule of Values (SOV) must be approved
- The values invoiced must be entered into the Excel template
- Provide backup
- Subsequent Pay Applications

Schedule of Values (what should be detailed)

- Design Bid Build Projects
 - SOV should be for the entire project
- CM/GC and DB Projects
 - The initial SOV includes only the pre-construction services
 - Additional SOV items are added as part of the CCO, GMP

Billing for Stored Materials

Documentation for Stored Materials is attached at the line item where they are billed

Consent of Surety

New GSFIC Policy in lieu of 2-party check

Retainage

- At Material Completion 100% of the project (including retainage) is due and payable
- The following values are withheld until the work is complete:
 - Punchlist (200%)
 - Permitted Incomplete Work
 - Seasonal Test and Balance (Summer and Winter)

Retainage Release in e-Builder

• Redistribution of Retainage

Payment Affidavit

- Latest contract requirement (combines Statutory and Non-Influence Affidavits)
- Attached to all Applications for Payment that include a release of Retainage

Construction Services — Closeout

Material vs. Substantial Completion

Definition of Material Completion:

- Building is suitable for owner use
- Requires complete operation of all building systems and includes commissioning
- All Work is complete with exception of <u>Minor Items (Punchlist) or Permitted</u> <u>Incomplete</u> Work

Construction Services — Closeout

Pre-Requisites for Material Completion: (e-Builder Closeout Process)

- Notice of Readiness
- Initial Punchlist
- Commissioning
- Fire Alarm Testing (80% and 100%)
- State Fire Marshal issues Certificate of Occupancy
- Operational Permits
- Training
- Operations & Maintenance Manuals
- Initial Test and Balance report
- Perform Final Cleanup

Construction Services — Closeout

Day of Material Completion

- Who needs to attend?
 - GSFIC Representative(s) to include CCS
 - Design Team including major consultants
 - Using Agency Representative(s)
 - Construction Professional team
 - Major Subcontractors to accompany DP consultants

Construction Services – Closeout

After Material Completion

- Final Punchlist documented as a Notice of Non-Compliance
- Scheduling Punchlist work
- Contractor has 30 days to complete Punchlist
- Interim inspection once Punchlist items are completed
- Seasonal Test and Balancing of HVAC Systems

Georgia Peach Green Building Rating System

GSFIC administers the Peach Program and chairs the Peach Review Committee.

Serves as a Technical Resource and provide Guidance Documents for Peach submittals.

Prepare Peach Certificates for the Governor and State Property Officer Signatures.

Manage the purchase of Plaque Art Work Design for respective project.

georgiapeach@docs.e-builder.net

Design Impact Checklist





The Georgia Peach Green Building Rating System:

Energy Efficiency and Sustainable Construction Standards for State Buildings In Accordance with the Energy Efficiency and Sustainable Construction Act of 2008 (O.C.G.A. § 50-8-18).

The Act includes a rating system entitled the Georgia Peach Green Building Rating System. Similar to the *LEED* rating system, the Peach rating encourages additional sustainable strategies for enhanced efficiency and conservation and promotes the use of *Georgia-based products*.

The rating system point scale consists of two major components: basic requirements (which are mandatory) and incentives (which are optional). The "Total Point Certification Level" earned will qualify the project for Peach ratings. The Peach ratings are from one Peach (minimum possible points) to four Peaches (maximum possible points). The project and agency will be recognized for energy efficiency and sustainable construction achievements.

Rating System Point Scale

The Energy Efficiency and Sustainable Construction Standards for State Buildings' Georgia Peach Green Building ratings are awarded according to the following scale:

- Category Requirement Incentive
- Commissioning Fundamental Commissioning 10 pts.
- Water Use Reduction 15% 2-20 pts.
- Georgia Based Materials & Products 10% 2-20 pts.
- Energy Modeling & Life Cycle Cost Analysis None 5-50 pts.

Total Point Certification Level

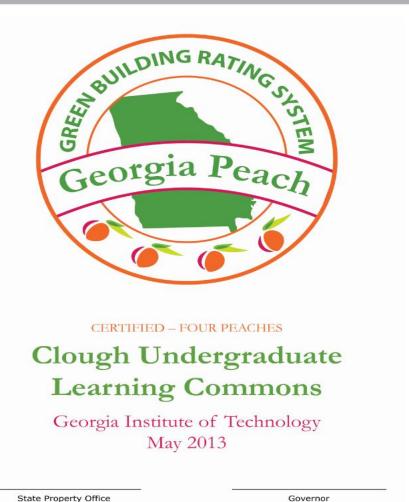


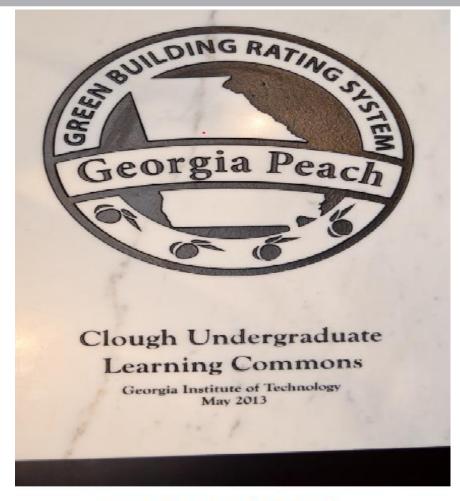


Georgia Peach Green Building Rating System



Georgia Peach Green Building Rating System





GEORGIA MARBLE

Construction Services — Wrap-Up

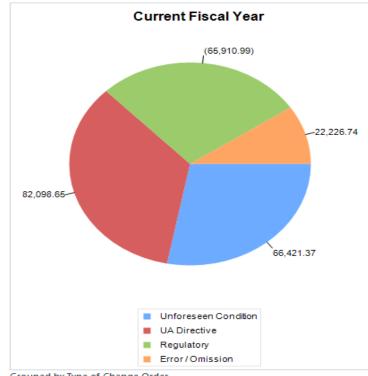
Performance Evaluation/Benchmark of a successful project team

• e-Builder benchmarks



- RFI response time
- Amount of Design back checks and durations
- Errors and Omissions change orders
- Change Order processing durations
- Number of Non-Compliance Orders
- Subcontractor Claims
- Schedule Delays (Design and Construction)

Approved Change Orders (in Dollars)



Grouped by Type of Change Order

Questions??

