



The New Document Review Process

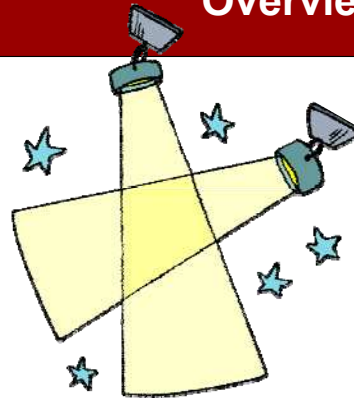
Brett Garrett

June 2010

Overview

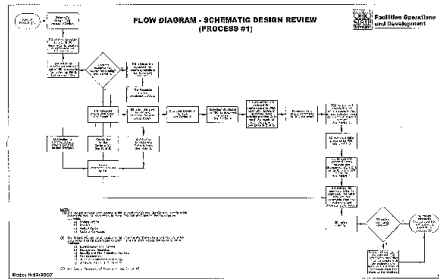
- The “Old” process
- Focus Group
- The New Process
 - Tools
- Questions/Answers

- Coming soon ...



The “Old” Process

- 25 steps
- Approximately 16 days to complete



Focus Group

- The Task ...
 - Update and refine the Document **Review** Process
(The “old” Document Review Process Handbook)
- The Focus Group
 - Gary Ash
 - Cihangir Calis
 - Charlie Conner
 - Cyndi Fout
 - Brett Garrett
 - Mark Scott
 - Bob Wajnryb
 - Bo Zhang
 - Pat Cuthbert



Focus Group

- Goals

- Review Process Timeline Enhancement

- Compression (Reduced 16 day process to 10 day process)
How? => Planning; Notification; A/E performance

- Clear Process Documentation

- Flow Charts
- Timelines
- Written process
- other Tools



- Consensus

- FDC Leadership; Key Customers
(e.g. utilities, operations, student life, med center, etc.)

Focus Group

- Key Concepts

- Why FDC does reviews:

- Ensure documents meet project needs
- Minimize field change costs
- Minimize operating costs
- Maximize project satisfaction
- Avoid “BIG” mistakes

- TSG supports Project Managers to deliver high quality, high impact, and timely projects

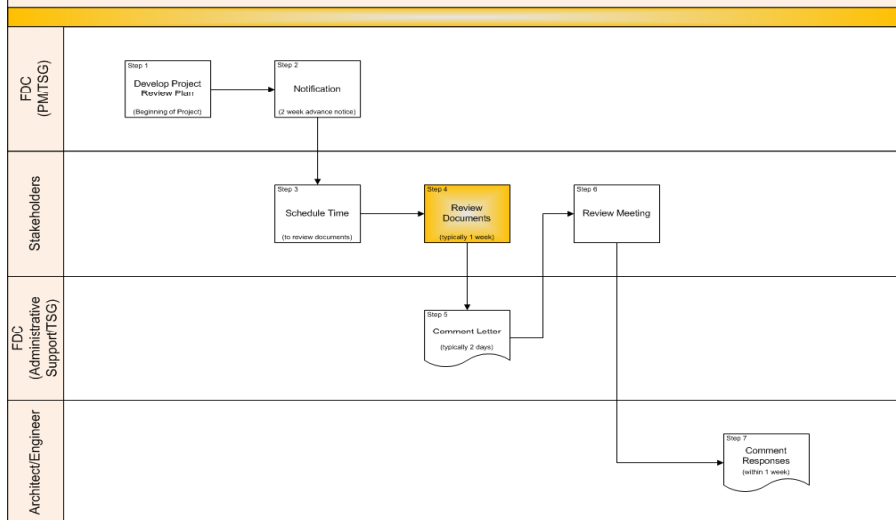
- Resource
- Advise

- PM is responsible for the project

- Authority to make decisions to keep things moving
 - The “final” say
- Communicate decisions with TSG

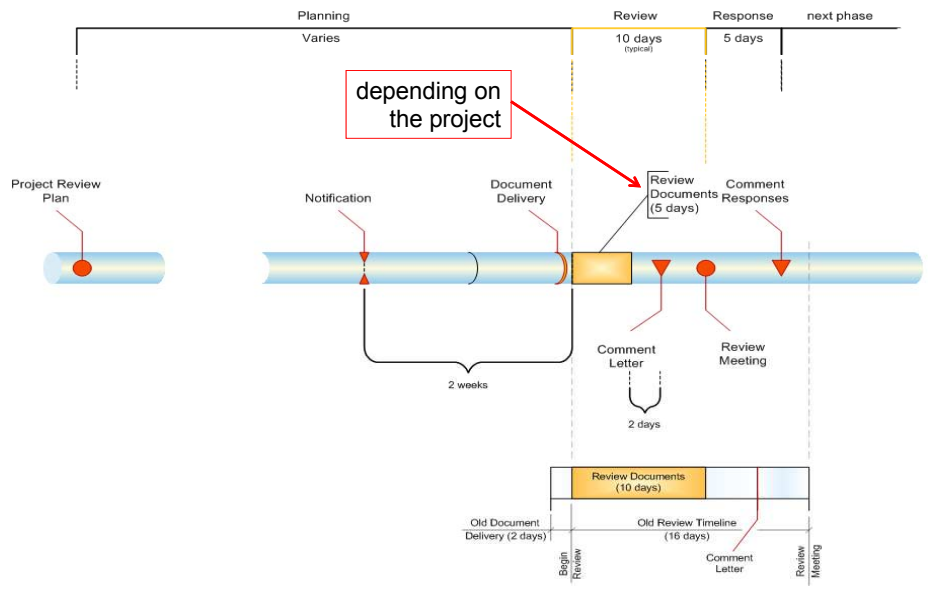
The New Process

Exhibit 1 ~ Document Review Process Flow Chart



=> use this document in conjunction with the Process Review Timeline
 => 1 day = 1 business day
 => 1 week = 5 business days

The New Process



The New Process

- Tools
 - Review Plan
 - Submittal Expectations
 - Roles and Responsibilities
 - Small Project Review

- Familiar Tools
 - Document Review Notification
 - Document Distribution Memo
 - Comment Review Letter



The New Process

Project Name: _____
 Project Number: _____
 Budget: _____

Review Phases:

<input type="checkbox"/>	aS	Study (50-80% draft)
<input type="checkbox"/>	IS	Study (final draft)
<input type="checkbox"/>	SD	Schematic Design
<input type="checkbox"/>	SD/DD	Schematic Design/Design Development
<input type="checkbox"/>	DD	Design Development
<input type="checkbox"/>	CD	Construction Documents

other comments: _____

Scope Considerations

Description	Yes	No	Comment
Administrative Priority			
Civil/Site			
Code Intensive			
Electrical (below 600v)			
"Hard" completion date			
High Voltage (above 600v)			
HVAC/Plumbing			
Laboratory			
Other			
Special Systems			
Structural			
Utilities			

Project Review Plan

Task	Timeframe/Duration	Comment
Project Review Plan*	Early in the process	
Notification	2 weeks before delivery	
Schedule Time	Before document delivery	
Document Delivery	<1day/min before review>	
Page Turn Orientation	Early in the review period	If appropriate
Review	<5day/min>	
Comment Letter	<2day/min after review>	
Review Meeting	<3day after letter>	
A/E Comment Responses**	5 days	

* Plan to be developed with TSG Representative during the development of the baseline schedule (after the A/E contract is issued, before design begins)
 ** Netline phase milestone

TSG Representative _____ Date _____ Project Manager _____ Date _____

- Changes to this plan to be immediately communicated to all appropriate stakeholders
 - 1 day = 1 business day
 - 1 week = 5 business days

- Review Plan
 - Identify project name, number, and budget
 - Discuss with TSG Representative
 - 15 min conversation
 - Number/types of reviews
 - Scope Considerations
 - Task duration
 - Sign-off
 - Copy for PM and TSG Representative
 - Provide with notification request

 - Changes to this plan need to be discussed with TSG Representative
 - PM to communicate changes to all appropriate stakeholders

The New Process

Schematic Design	Design Development	Construction Documents
Documents to be approximately 30% complete with 90% of design concepts determined	Documents to be approximately 60% complete with 90% of design concepts determined	Documents to be 100% complete, checked, and ready to be used for building
Site plan	Site plan	Site plan
Floor plans	Process Manual	Process Manual
Elevations	Site plan Survey drawing (if applicable) Utility notification notices Hydraulic calculations	Code information
Building sections	Structural Report	Program of Requirements database
Equipment Furniture Layouts	Payment calculations	Renderings
Historic diagrams	Site specific related information	Model
Program of Requirements database	Site Landscaping plan	Civil structural HVAC plumbing fire protection, and electrical calculations
Estimate	Estimate	Estimate
Lifecycle cost analysis	Lifecycle cost analysis	Lifecycle cost analysis
Floor area and volume calculations	Floor plans	Green Build Policy requirements
Construction cost estimate	Roof area	Final narrative
Outline specifications Electrical service and other appropriate line diagrams	Elevations	
Utility Request Form	Sections through the building	
System narrative description	Equipment and furniture layout	
Model of application	Site plan	
Letter describing conceptual design elements life cycle analysis	Plumbing System Floor plans	
Green Build Policy Narrative for HVAC Plumbing Electrical HVAC one-line diagrams	Major HVAC system design calculations Heat loss gain calculations Minimum supply air quality calculations	
	Thermal stress analysis (if applicable)	
	Program of Requirements database	
	Green Build Policy outline	
	Electrical submittal Fixtures and equipment Quantities Foot candle levels Unit costs Riser diagrams Panel switch schedule Clearance information (e.g. between transformers, etc.) Major electrical system design calculations	
	Structural/Environmental calculations	

- Submittal Expectations
 - Meet with A/E to determine document delivery date
 - To occur for each phase
 - Line out items that don't apply
 - "check" items that are required
 - Use this form for each phase and file electronically
 - If the A/E does not deliver a complete submittal, it could result in a delay



The New Process

Roles and Responsibilities:

- **Everyone**
 - o Schedule time to complete review responsibilities by the time identified in the review notification
 - o Provide written comments by the comment due date (see exhibit 9)
 - o Write professional comments
 - Comments should be clear, concise, directive, and professional
- **Administrative Support**
 - o Issue project review notification upon Project Manager's (PM) request (see exhibit 4)
 - o Track and distribute Facilities Design and Construction (FDC) review documents (timeframe provided by the Review Plan)
 - o Assemble review comments (timeframe provided by the Review Plan)
 - Check for spelling, grammar, and syntax
 - Minimize duplicate comments
- **Architect/Engineer**
 - o Properly complete the Document Distribution memo (see exhibit 7)
 - Confirm that all items are distributed in accordance to the memo
 - o Ensure the functionality of the design and that all components of the deliverables are properly coordinated, thoroughly checked for errors, and are complete for every phase submittal
 - o Clearly identify new, missing, or changed information
 - o Properly respond to all previous comments and resolve any issues prior to the next phase submittal
 - o Identify any needed Building Design Standard (BDS) variances/waivers
- **Project Manager**
 - o Develop Project Review Plan with the Technical Services Group (TSG) Representative (see exhibit 3 and 8)
 - o Ensure all appropriate Stakeholders have an opportunity for review and that the correct items are identified for their review
 - o Work with Administrative Support to issue review notification (see exhibit 4)
 - o Ensure that documents delivered by the A/E are appropriate for the phase submittal (see exhibit 5)
 - o Review documents to ensure that the project scope aligns with the Program of Requirements (POR) and customer needs are met
 - o Ensure that the construction documents properly address the scope of work
 - o Direct the A/E to follow and meet all applicable codes, BDS, and accepted architectural/engineering practice
 - o Obtain any needed BDS variances/waiver

- Roles and Responsibilities
 - Everyone
 - Schedule time to perform the review
 - Provide comments by the due date
 - Project Managers
 - Develop a Project Review Plan
 - Ensure all appropriate Stakeholders are included in the review
 - Ensure the project scope aligns with the customer needs
 - Stakeholders
 - Review information that is relevant to their area of responsibility
 - Technical Services Group
 - Ensure documents meet the defined scope of work
 - Review for Constructability, Maintainability, etc.
 - Review for Code/ BDS compliance



The New Process

Project Name: _____
 Project Number: _____
 Budget: _____

Guidelines to consider No formal project review:

- If the total project budget is not over \$50,000
- If contracted labor for the project is not over \$25,000
- If the project is not a significant upgrade or does not need to be engineered
- If a permit/inspection is not required
- If there is Project Manager (PM) and Technical Service Group representative (TSG) approval

B No formal review required; justification: _____

Guidelines to consider a Small project review:

- If the project is shown on five (5") drawing sheets
- If an Architect Engineer is required to develop documents
- If sealed plans are required
- If the project is a significant upgrade or needs to be engineered
- If a permit/inspection is required
- If there is PM and TSG approval

B Small Project Review; justification: _____

Small Project Review Plan

Task	Timeframe/Duration	Comment
Project Review Plan*	Early in the process	
Notification-Schedule Time	2 weeks before review meeting	
Review Documents-Review Meeting	<2 hours>	
Comment Letters- A/E Comment Responses**	5 days	

* Plan to be developed with TSG Representative during the development of the baseline schedule (after the A/E contract is issued; before design begins)
 ** Netlink phase milestone

TSG Representative _____ Date _____ Project Manager _____ Date _____

- Changes to this plan to be immediately communicated to all appropriate stakeholders
- 1 day = 1 business day
- 1 week = 5 business days

• Small Project Review

- If the "standard" review process/plan does not apply due to project size and/or simplicity
- Identify project name, number, and budget
- Discuss with TSG Representative
 - 15 min conversation
 - Sign-off
- Copy for PM and TSG Representative
- 2 week meeting notification required
- Other process modifications provided with the tool



The New Process

• Keys to Success:

- Plan
- Notification
- Ensuring the A/E provides complete submittals on the agreed upon dates/times

• When things don't go as planned:

- Talk with your TSG Representative
- Delays may occur
 - Milestones may be adjusted

• Other items to note:

- A/E comment responses to be received within 5 days
- Design acceptance form to be issued with comment responses



Questions/Answers



Coming Soon ...

- Back Check Process
 - Goals:
 - Clearly identify steps and roles
 - Consensus
 - Being considered:
 - Plan
 - At the end of the CD review meeting
 - » Identify “show stopper” comments
 - » Determine if an intermediate review is required
 - » Determine amount of time needed to complete the back check (no less than 2 days)
 - Notification
 - A/E performance
 - LEED Training Session
 - Identify PM responsibilities