



TH29 - Managing Fast-Track Construction Documents

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Learning Objectives:

Upon completing this program, the participant should know how to:

1. Be aware of special contract provisions relating to the risks of fast-track construction.
2. Plan document production with the Owner and Construction Manager.
3. Identify code considerations and permitting for projects with multiple work packages.
4. Organize drawings and specifications for multiple work packages.
5. Issue and track documents.



The Challenges

- **The number of projects with multiple work packages is increasing.**
 - Reduce project time to save financing costs.
 - Reduce project time to allow Owner earlier use of the project to improve income and reduce costs.



The Challenges - *continued*

- Duration of design and construction are relatively fixed for a given size and complexity.
- Alternative solutions:
 - Multiple shifts for design and construction.
 - Overlapping design and construction periods with *fast-track* construction.



The Challenges – *continued*

- Neither AIA nor CSI have standardized recommended procedures.
 - *The Architect's Handbook of Professional Practice* contains Section 13.4, "Managing Fast-Track Projects" that is a valuable and lengthy discussion of issues, but does not include specific recommendations for practice.



Definitions

- Work Package: Partial sets of Contract Documents issued under seal for permitting and construction.
- Pricing Package: Unsealed documents distributed for preliminary pricing.
- Early Release Packages: Limited number of Work Packages, usually for site preparation and selective demolition.



Definitions – *continued*

- CMC: Construction Manager – Constructor ('at risk' CM), effectively the same as a general contractor.
- CMA: Construction Manager – Advisor, where Owner holds trade contracts directly and CMA is paid a stipulated professional fee.
 - Both types of CM are responsible for dividing the work of the Contract Documents into subcontracts or trade contracts, and scheduling the work of those contracts.



Owner Trade-Offs

- Higher design fees.
- Inefficiencies in constructing from incomplete documents result in higher construction costs.
- Construction installed in an early work package may be modified or even removed in a subsequent package.
- More change orders.
- Timely Owner decisions are more critical.



Owner Trade-Offs - *continued*

- Early decisions limit Owner options as work progresses.
- Early product decisions may limit price competition.
- Owner changes during construction are more costly than during design.
- Design decisions made out of normal sequence.



Inherent and Unavoidable Risks to Owner

- Design will proceed on the basis of incomplete information and assumptions.
- Project will proceed with only limited comments from code enforcement agencies until construction is nearly complete.
- Value analysis will affect the project schedule.
- Some elements may be constructed before Owner's approval of final design that increase cost.
- Subcontractors may bid on the basis of incomplete documents and request change orders for additional money when sealed documents are issued.



Risks for Design Team

- Additional liability and time offset larger fees.
- Larger production teams may be needed to meet the schedule.
- More time for planning and coordination must be budgeted.
- Potential claims by Owner for unnecessary work.
- Potential claims by Contractor for delay damages.



Guarding Against Potential Owner Claims

- Full discussions of inherent risks.
- Discussion of the phrase "Guaranteed Maximum Price" [GMP].
- Discussion of use of Program Manager.
- Specific provisions in the Owner-Architect Agreement.
- Continuous, timely, and responsive communications.



Guarding Against Potential Contractor Claims

- Detailed records of agreements on content of each work package.
- Timely and responsive contract administration.
- Documentation of decisions and issues.
- Continuous, timely, and responsive communications with the Owner.



Other Risks From Contractor

- Excessive number of Requests for Information [RFIs].
- RFIs for work that has not been designed.
- Value Analysis after work package has been issued.
- Excessive number of substitution requests.
- Errors in estimating that require re-design when subcontract bids are higher than anticipated.



Code Considerations

- International Building Code section 106.3.3 "Phased approval" authorizes *but does not require* the building official to issue permits for portions of a project.
- Determine whether local amendments modify or even delete this section.
- Fast-track projects affect cost and scheduling of code enforcement agencies to perform their work.
- Determine what code information is to be provided with each work package.
- Prepare Design Development documents to demonstrate overall compliance so that building officials can evaluate the planned final construction.



Design Contract Considerations

- State anticipated number of work packages.
- Owner agrees to have Contractor perform value analysis before work packages are released for construction.
- Reviewing value analysis and substitution proposals should be an additional service, because there is no way to quantify them in advance.
- Commitment by Owner to provide sufficient contingency amounts for changes and for modifications to in-place construction.
- Acknowledgement that pricing on the basis of incomplete documents may increase when sealed documents are issued.



Contract Considerations - *continued*

- Acknowledgement that pricing on the basis of incomplete documents may increase when sealed documents are issued.
- State relative risks and the fact that there are no benefits to the Architect.
- Define what is meant by the term "fast-track."
- Owner agrees that it will pay construction costs due to inefficiencies not solely attributable to neglect.
- Owner indemnifies Architect against claims relating to fast-track construction not solely attributable to neglect.



Early Planning: Owner, Architect, Contractor

- Budget, contingencies, schedule.
- Sequence and content of work packages based on critical path.
- Procedures for value analysis and substitutions.
- Discussion as to whether Owner will allow use of incomplete work package documents for bidding subcontracts.
- Discussions with code enforcement agencies.
- Inclusion of requirements relating to fast-track procedures in the Owner's General Conditions.



Basic Methods of Document Organization

- **Cumulative Documents**
 - Information is added in the form of new and revised documents until there is a final, complete set of Contract Documents.
- **Stand-Alone Work Packages**
 - Each Work Package is treated like a separate project.
 - Information that does not relate to the current Work Package is not shown, deleted, or screened back.
 - Revisions to documents in each Work Package are tracked separately.
 - Documents for each Work Package that have the same number and title are tracked separately.



Disadvantages of Stand-Alone Work Packages

- Number of documents is increased, and tracking revisions is more complex.
- More risk of errors in document management.
- Increased work effort for design team to not show portions of work under development.
- Increased work effort for contract administration.
- Liability implications of multiple versions of sealed drawings with differing content.



Document Management Objectives

- Drawings and specifications indicate what is and what is not issued for construction, including a written description of Work Package content.
- Clear and consistent record of when each document was distributed and for coordination, review, and preliminary pricing.
- Clear and consistent record of when each document was issued under seal, including revisions.



Document Management Objectives

- Up-to-date list of latest version of each document.
- Each Work Package is clearly identified:
 - Number
 - Name
 - Date



Drawings

- Cumulative Drawing List is in tabular format that identifies each sheet, the most current version, and changes from the previous Drawing List.
 - An alternative is a matrix that lists all work packages and indicates which work packages each sheet has been issued with.
- Revisions from previous issue are indicated with clouds and assigned a revision number.
- Superseded drawings are marked 'VOID' and filed for reference.



Specifications

- Cumulative Table of Contents is in tabular format that identifies each section, the most current version, and changes from the previous Table of Contents.
- Section 01 00 00 – Summary should include an article with special requirements relating to the fast-track method.
- Individual specification sections have current issue date, but not the work package identification.



Specifications - *continued*

- Revisions are assigned a number and date and tracked with strike-through and underline formatting.
- When there are additional revisions, the revisions to date are accepted and new revisions are tracked.
- Organize content of specification sections to minimize revisions in subsequent packages.
 - Example: Instead of a single glazing section consider dividing requirements into exterior and interior glazing.



Document Manager

- Tracks progress of each document during development against project production plan.
- Keeps Owner, Contractor, and design team updated on the status of all documents, whether or not they have been issued.
- Arranges for Work Package documents to be sealed.
- Assembles Contract Documents for each Work Package or other deliverable for the Contract Administration team to issue.



Additional Recommendations

- Issue Drawings and Specifications for second and subsequent Work Packages by Addendum.
- Consider distributing drawings and specifications electronically in PDF files.
- Make use of integrated project database software, such as Newforma, and BIM software for tracking documents instead of using manual Excel or CAD lists.



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Conclusion

- Fast-track projects are becoming increasingly common and may become the normative type of project delivery.
- Many practitioners do not have standard office procedures for contracts, production, and contract administration for fast-track projects.
- Fast-track projects require careful planning for production and management of Contract Documents.
- Implementation of BIM must include provisions for document management.



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Thank You for Attending!
Any Questions?

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