

## **Workshop T6**

**Tuesday, October 28, 1:30–3:00 p.m. and 3:30–5:00 p.m.**

### **PROCURING AND CONTRACTING FOR LARGE CAPITAL PROJECTS**

**Presented by**



**Michael C. Loulakis**  
**President/CEO**  
**Capital Project Strategies, LLC**

Construction projects that combine large capital costs, long construction durations, and complex designs present unique and challenging risks for all participants. This is particularly true when one considers that front-end decisions in terms of delivering, procuring, and contracting for these projects frequently determine the overall success of the project. Applicable to public and private projects, this workshop provides strategies for avoiding some of the pitfalls associated with these decisions and setting the foundation for a successful project.

- Examines unique aspects of the different delivery system options, including design-build and public-private partnerships, and the factors in determining which system best suits the owner's needs on a project.
- Addresses best procurement and contracting practices, as well as common procurement and contracting challenges for owners, designers, and contractors on large projects.
- Reviews legislative requirements that influence large public projects.
- Examines the most significant risks and lessons learned that have been experienced on large projects, both domestically and internationally.

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- **Verification of Closure On Identified Construction Defects**
- **Reduced Insurance Premiums**
- **Building Exterior Consultation and Inspection**



**Construction Imaging and Archiving, Inc** was started by David Blackburn a developer who was sick and tired of facing the same problems that lead to construction defect litigation on some of his own developments so he decided to photographically document one of his own projects. His progress in successfully fighting against the litigious nature of the construction market was so successful that it provided the foundation for the services that Construction Imaging and Archiving currently offers. With it's patented software program and highly trained field technicians Construction Imaging and Archiving provides a wide array of services for the entire construction project from the pre-pour all the way through the wrap of the exterior identifying construction defects and verifying the appropriate action is taken to correct them. Construction Imaging and Archiving will securely store all documentation on the project until construction defect litigation no longer poses a threat on the project.

## Quality Assurance Risk Management

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Construction Imaging and Archiving, Inc was established to increase quality, communication, confidence and accountability, and thus reduce exposure to liability in the construction industry. It is our intent to work as a team to be leaders within the network of skilled construction consultants to achieve the highest level of finish at all levels of every project

with which we are involved. We aim to instill a sense of security and forge lifelong relationships with our valued clients by constantly upgrading our methods to deliver the unmatched quality our clients deserve.



**Construction Imaging & Archiving**

A division of Forensic Imaging and Archiving

**Michael C. Loulakis**  
**President/CEO**  
**Capital Project Strategies, LLC**

Mr. Loulakis is presenting Workshop T6, "Procuring and Contracting for Large Capital Projects," on Tuesday afternoon. He is the founder of Capital Project Strategies, LLC, a consulting firm specializing in providing procurement, contracting, risk management, and contract administration advice to those involved in the construction of both public and private sector projects. Prior to forming Capital Project Strategies, Mr. Loulakis had a 28-year career with Wickwire Gavin, a national construction law firm headquartered in the Washington, D.C., area, where he served as president and chairman until its merger with Akerman Senterfitt in 2006.

Mr. Loulakis is nationally recognized for his expertise in design-build, and he has played a leading role on some of the most visible and challenging design-build and public-private partnership (P3) projects in the country. He is currently representing the Metropolitan Washington Airport Authority, owner of the Dulles Corridor Rail Project, one of the largest and most complicated P3 projects being developed in the United States. He is also currently assisting the Virginia DOT in its P3 and design-build program and has provided contracting and procurement advice to the Southern Nevada Water Authority on the Lake Mead Tunnel. Mr. Loulakis has broad experience in contracting for the construction of domestic and international power, petrochemical, and process projects.

In addition to his client work on design-build, Mr. Loulakis has also been actively involved in the Design-Build Institute of America (DBIA). He was a member of its board of directors for 8 years and served as chairman of DBIA's Manual of Practice Committee. Mr. Loulakis had principal responsibility for drafting the DBIA Contracting Guide and DBIA's standard form design-build contracts and subcontracts.

He is a highly acclaimed speaker and author on project delivery. Among his publications is a series of books he began writing in 1995 titled *Design-Build Lessons Learned*, where Mr. Loulakis reviews all of the caselaw in a given year affecting design-build relationships. He is also the coauthor of *Construction Management: Law & Practice* and author of an interactive CD-ROM program titled *Construction Project Delivery Systems: Evaluating the Owner's Alternatives*, produced and distributed by A/E/C Training Technologies. Mr. Loulakis also writes on design build liability legal trends for IRMI.com.

He received a bachelor of science degree, *magna cum laude*, in Civil Engineering from Tufts University in 1976 and a juris doctor degree from Boston University School of Law in 1979.

## **Notes**

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## **Procuring and Contracting for Large Capital Projects: *What Can You Expect Now?***

**Michael C. Loulakis, Esq.  
President  
Capital Project Strategies, LLC**

**Workshop T6  
October 28, 2008**

### **The Contracting Environment for Big Projects: 2003 to Early 2008**

- Superheated demand for E&C services
  - Oil and gas sector
  - Transportation and public/private partnerships
  - Licensors of technology
- Strong financial performance by major E&C contractors
  - Lots of opportunity to make money
  - Financial markets finally took notice
- Substantial increase in the size and complexity of projects
  - From “mega-projects” to “elephant-projects”
  - Bundling what were once considered discrete projects into a single procurement
- Commodity price volatility and labor shortages

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## The Impact on Private Sector CAPEX Procurement and Contracting

- Contractors in the driver's seat and not hesitating to take control
- Private sector owners struggled to respond:
  - On the defensive, driven by need to build quickly and capture competent support
  - Impacted by inadequate and inexperienced project support staff
  - Uncertain as to how to respond to the non-performing contractor
  - Profound changes in:
    - Project delivery strategies
    - Supply chain management
    - Contract terms and conditions

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## The Impact on Public Sector Procurement and Contracting

- Legislative changes (PPP and design-build) made it easier to authorize large projects
- Design-bid-build no longer the "norm"
  - Owners struggle with appropriate best practices
  - Concern over price/technical tradeoffs for selection of contractors
- Owners much more reliant on private sector for managing their projects
  - Project management consultants
  - Staff augmentation and integrated owner teams
- Contract terms become very similar to large private sector projects (e.g., limitations of liability)

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## The Contracting Environment for Big Projects: Where Are We Right Now?

- Uncharted territory
  - Collapses of commodity and credit markets
  - Project cancellations
  - Recession/depression at hand
  - Pending election and impact on infrastructure and tax policies
- Contracts currently under negotiation do not seem to reflect the “bottom falling out” scenario
  - Projects still have inherent procurement and execution risks
    - Geopolitical, currency, commodity prices, labor availability, subcontractor performance
    - Contract guarantees and performance obligations
    - Financing risks
  - Contractors still negotiating in the paradigm of past 5 years
  - Impact of years of unbalanced contractual risk allocation
- Mistrust and skepticism

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## Typical Risks Identified in 10K Filings: The E&C Contractor’s Perspective on Risk

- Revenue, cash flow and earnings may fluctuate
- New work and liquidity may be adversely affected by bonding capacity
- Intense competition
- Failure to accurately estimate costs or perform on fixed price contracts
- Commodity and labor pricing
- Foreign exchange risks
- FCPA
- Exposure to E&O, product liability and warranty claims
- Litigation and claims that could impact earnings and financial conditions
- Potential inability to fully realize the revenue value of backlog
- Political and economic conditions

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## Agenda for Today's Presentation

- Changes in Construction Project Delivery Systems
- Procurement Issues for the Large Project
- Contracting and Risk Allocation – What is the Current Template for Contract Terms?
- Contract Execution Challenges in Today's Market

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## Changes in Project Delivery Strategies: Private Sector Owners

- Lump sum turnkey/EPC is no longer a “no-brainer”
  - Reduced pool of interested bidders
  - Risk premiums are substantial
  - Percentage of fixed price work for major E&C firms is low
- Complexity and dollar value of projects dictate rethinking of delivery structure
  - Break-up into bite size pieces
  - Use of PMC as manager
  - EPCM
  - Multiple delivery approaches (LSTK, cost-plus, target pricing)
- Using lessons from other industries
  - Award fee contracts (Pentagon Renovation)
  - Integrated Project Delivery and Alliancing

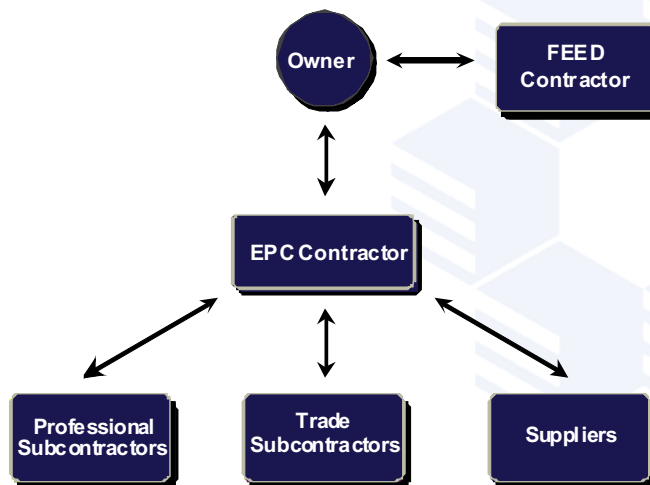
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## How Are Private Sector Owners Being Impacted by Changes in Project Delivery?

- FEED contractors are able to heavily influence end game
  - They know Owner's need for speed
  - They see Owner as a captive client
- Reimbursable, no risk, contracting approaches have become the norm
- Regular (and fairly ineffective) use of Letters of Intent
- Owners undertaking responsibility for handling interface responsibilities

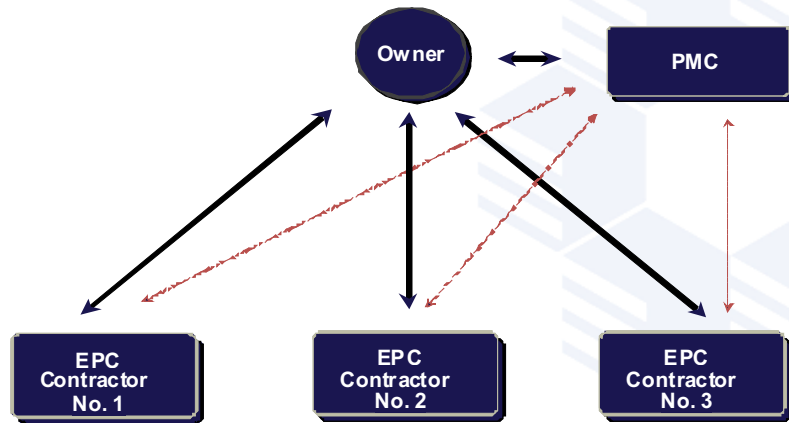
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## EPC Contracting



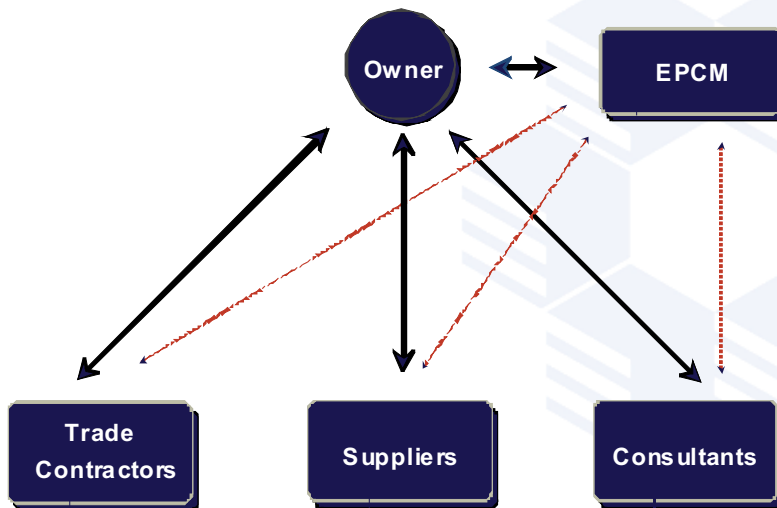
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## Multiple Prime EPC Contracting



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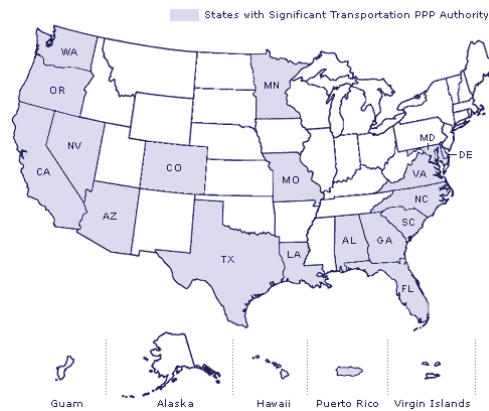
## EPCM: Single Project



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## States with Significant Transportation PPP authority



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## Changes in Project Delivery Strategies: Public Sector Owners

- Major change in use of innovative project delivery through legislative changes
  - Design-Build
  - At-Risk Construction Management
  - Public-Private Partnerships
    - Solicited proposals
    - Unsolicited proposals
    - Use of design-build and at-risk CM within a PPP procurement
- Using lessons from private sector
  - Bundling of services to obtain single point of responsibility
  - Qualifications-based selection
- Public owners struggle with how to do the “right thing” – or even determining what the “right thing” is

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## PPP (Potential Political Problems)



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## What is the Right Delivery System for the Project?

- Formal goal-setting process is critical
  - Each system has benefits and challenges
  - Need to be in a position to support your conclusions
  - Facilitated process similar to risk assessment approaches
- Key questions to consider:
  - How will the interface risks be handled?
    - How much interface risk can the Owner tolerate?
    - How will the Owner and its team to manage that interface risk?
  - When will the contractor be introduced to the project?
  - Who will perform the initial/baseline design?
- Need to understand the dynamics of the marketplace in terms of project delivery

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- **Procurement Issues for the Large Project**
- Contracting and Risk Allocation – What is the Current Template for Contract Terms?
- Contract Execution Challenges in Today's Market

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## Private Sector: Changes in Supply Chain Management

- The move to centralized procurement departments
- FEED work designed around Owner's preferred vendors
- Liberal use of novation agreements and PO assignments
- Contractor resistance to assuming risk of vendor performance
  - Reneging on early agreements to assume PO contracts
  - Delaying formal executions until the risk period has passed
  - "You wanted them, so you're stuck with them."
- Need for private sector owners to be pragmatic in terms of what they are really getting from controlling this procurement
- "With control, comes responsibility"

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## Public Sector Procurement Challenges: Generally

- Major political issues are generally present
  - Do we need the project?
  - Is there a better way to spend public's money?
  - Is there another alternative that is preferred?
- Pragmatics involving the pool of qualified candidates for developing project
  - Limited group of players
  - Limited tolerance for risk
- Robustness of private sector E&C market
- Strong public distrust over perceived “non-competitive” selection processes
  - “Optics” may not look great to those who are not familiar with construction
  - Backlash from Big Dig

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## Public Sector Procurement Challenges: Transparency and Public Thirst for Information

- Fear by contractors of what information will be disclosed to public and competitors
- Pragmatics of dealing with FOIA
  - Broad rights as a matter of law to withhold information
  - Limited rights to withhold as a matter of politics and policy
- Challenges of negotiating on the front page of the newspaper

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## Public Sector Procurement Challenges: Implementing an Effective Selection Process

- Many agencies have yet to develop standard PPP contracts or RFP templates
- Agencies have difficulty in assessing their key differentiators
  - First phase shortlist vs. second phase detail
  - Inexperience in assessing financial components of deal, particularly when competing proposals offer very different financial models
  - Inability to value proposals if agency decides to use agency funds
- Use of stipends is varied
- Statutory authority may be prescriptive, but incomplete
- Conflict of interest policies are still in flux

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## Public Sector Procurement Challenges: Dealing with Funding Partners/ Stakeholders

- Every major project will have several interested agencies
- Challenges in determining how the capital funding partner will be influenced by the partner who will live with the project
  - Aesthetics
  - O&M
  - User-friendliness, needs and wants
- Some permit agencies are stretched beyond capacity and capabilities
- Some agencies are struggling to evaluate project “metrics” under new delivery system approaches
- There are challenges in getting multiple stakeholders to speak with one voice (who is the boss?)

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## Public Sector Procurement Challenges: Estimates vs. Final Contract Pricing

- Owner is heavily reliant on contractor's estimates vs. comfort of competitive bids
- Practical challenges in gaining access to and understanding contractor's financial information
  - JV partners hold secrets from each other
  - Risk, contingency and fee numbers are not necessarily clear
  - Fear of liability for defective cost and pricing data
- Challenges when design is performed by developer vs. agency's designer
  - Ability to move forward with the project without the design-builder can be illusory
  - GMP approach for facility projects under CMAR approach has some strong benefits

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## Public Sector Procurement Challenges: Estimates vs. Final Contract Pricing (cont'd)

- Key Issues:
  - Ability to reasonably price scope that will be designed and constructed several years from execution of DB contract
  - Ability to ultimately agree upon a price

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## Public Sector Procurement Challenges: Subcontractor Pricing and Involvement

- Subcontractor involvement can be a major political issue
  - GMP approaches
  - Use of competitive processes at subcontractor level
  - Determining which subcontractors will be subject to competition
- Handling risks of design that will be developed late in process
  - Undefined scope
  - “Vapor” projects from subcontractor perspective
  - Use of allowances
  - Procurement vs. performance risk
- Escalation and inflation assumptions

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## Public Sector Procurement Challenges: Implementing a Bonding Program

- Contractor and bonding communities are struggling to deal with:
  - Long-term “guarantees” of performance
  - Large bond amounts for values that include design, construction and financing
  - Bond statutes that require 100% performance and payment bonds
- Variety of approaches being taken to address pragmatics:
  - Reducing bond amounts to maximum of \$250-500 million
  - Ensuring that the surety can be involved in the default process
  - Reducing bond amounts at substantial completion
  - Shifting classic “warranty” items outside of bond coverage
  - Overall contract liability limits in dollars and time
- Payment bond public policy issues

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## Public Sector Procurement Challenges: Funding Uncertainty and Delays

- Major challenges if the funding sources are uncertain at time the process starts
  - Agency needs to be realistic in assessing capital sources
  - Developer needs to have both patience and potentially available capital to nurture project
- Approaches that have been used to mitigate this risk include:
  - Not putting head in sand regarding capital constraints
  - Astute lobbying
  - Limited release of work to keep project moving
  - Substantial pre-planning to ensure that the project is perceived as being well-conceived
- Creation of a “Plan B” and “Plan C”

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## Public Sector Procurement Challenges: Lessons Learned for Successful Implementation

- Is there political will and are there political champions?
- Is there a regulatory framework and, if so, is it clear and well-designed?
- Does the government need the project?
- Will public leadership (both staff and elected) support the project?
- Does the agency have a strong history of success?
- Does the project really work and make financial sense?

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- Changes in Construction Project Delivery Systems
- Procurement Issues for the Large Project
- **Contracting and Risk Allocation – What is the Current Template for Contract Terms?**
- Contract Execution Challenges in Today's Market

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## Changes in Contract Terms and Conditions

- Owner legal and procurement departments are being challenged
  - Little bargaining power
  - History of failure to implement appropriate risk allocation
  - Inattention to pragmatic details of contracting and project controls
- Contractors are flexing their muscles
  - Major shifting of risk back to Owner – with some of the shift being inappropriate
  - “If you can't negotiate a clean risk transfer, then muddle the language up.”
- Contractors are adept at finding contractual “off-ramps” to avoid liability
- The price of risk – contingency is visible

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## **The Deadly Dozen: Major Contract Terms Now in Play**

1. Scope of Work
2. Site Conditions
3. Owner Rights of Approval
4. Payment and Guarantees
5. Dealing with Other Project Contractors
6. Changes

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## **The Deadly Dozen: Major Contract Terms Now in Play**

7. Project Controls
8. Time Extensions
9. Force Majeure
10. Delay-Related Damages
11. Limitations of Liability
12. Warranty

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## Scope of Work

- Pushing back on single point of responsibility “wraps”
  - Standards of care and performance
    - Tied into FEED package requirements
    - Rejection of fitness for purpose language
  - “Reasonably inferable from the contract documents”
- Refusal to accept liability for FEED package errors caused by affiliated companies
- Mechanical completion as “deliverable” vs. commercial operation and successful performance test

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## Site Conditions

- Expectations that “classic” Type 1 and Type 2 remedies available
- Expectations that go beyond “classic” remedies:
  - “Contractor familiar with local area would not have prudently expected conditions ...”
  - Not charged with errors in reference data performed during FEED
  - Full recovery for any condition
- Unwillingness to accept responsibility for performing hazardous waste remediation
- Significant premium for assumption of risk

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## Owner Rights of Design Review and Approval

- Limiting Owner's rights to review intellectual property of contractor
- Limiting Owner's time to review design submittals
  - Short durations for review
  - Critical path delays
- Limiting Owner's remedy if Owner failed to reject a deficient design

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## Payment and Guarantees

- Cash flow neutrality
  - Mobilization payments
  - No cash retainage and limited LOC retainage
- Limited ability to hold back payment
  - "Undisputed" backcharges
  - Requirement to go through disputes process before holding back money
- Payment processes
  - Milestone payments favorable to contractor
  - Frequency of payment has increased
- Performance Bond and Guarantee terms are more favorable to contractor
  - Lower values
  - Processes that make it difficult to "trigger" rights

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## Dealing with Other Project Contractors

- Interface responsibility
  - Owner will be responsible for scheduling and coordination
  - Contractor will provide “reasonable cooperation”
- Contractor will not:
  - bear costs from interferences of other contractors
  - modify its schedule to assist the sequencing and work of other contractors
  - look to other contractors for recovery
  - indemnify owner from impacts to other contractors
- Note the execution risk here – this is one of the major “off-ramps” that contractors have

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## Changes

- Contractors trying to substantially “gut” this critical Owner right
  - Minor changes
  - Right to order disputed work
  - Right to make changes without agreement to compensation
- Commercial terms for implementing changes:
  - Advance payment
  - Contractual pricing mechanisms and markups favorable to contractor
- Refusal to let owner direct acceleration or increase in work force

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## Project Controls

- Contractors are trying to shield Owner from knowing true status of project
  - Agreement upon baseline schedules
  - Access to electronic schedules
  - Access to project cost records (even on reimbursable contracts)
  - Access to disputes or problems
- Owners are failing to recognize their duties to develop overall project schedules
- Notice requirements are conflicting and clumsy
- Definitional challenges
  - Float
  - Critical path

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## Time Extensions

- Major challenge for Owner in today's contracting environment
- Clause may only require Contractor to show "impact"
  - Critical path not defined or wrongly defined
  - Float goes to benefit of Contractor
  - Time impact analysis and burdens of proof not identified clearly
- Recovery schedules – only if Contractor agrees
- Remedies for delays in Notice to Proceed are severe (day-for-day time extensions or even more)

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## Force Majeure

- “Any event beyond reasonable control of contractor”
  - Weather (except for weather that constitutes a force majeure)?
  - Subcontractors and vendors?
  - Labor and material shortages?
- Comparison of force majeure delay to other excusable delays
  - Critical path?
  - Concurrent delays?
  - Notice?
  - Pricing for delay?
- Ability to terminate contract for prolonged FM

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## Delay-Related Damages

- Contractor right to recover money for delays
  - Clear and well-established
  - No damages for delay basically dead
- Owner’s liquidated damages remedies have commercially changed
  - Low dollar values
  - Low caps on liability
  - Inability to hold back LDs from progress payments unless the LDs are undisputed
  - Inability to go after guarantors unless LDs are undisputed

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## Limitations of Liability

- Owner's overall contract remedies have been severely changed
  - Low LOL caps
  - Carve-outs are being eliminated:
    - insurance
    - cost to complete
    - indemnity
- Broad waivers of consequential damages that may impact insurance coverage
- All remedies extinguishing after a designated period of time (2 years)

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## Warranty

- Contractors are limiting warranty rights:
  - Work is being performed per "recognized good engineering" practices and applicable law
  - No warranty that processes will work or designated availability/output
  - Hesitancy to perform "root cause" analysis
  - Proof by Owner that problem was not caused by poor operation and maintenance
- Shorter periods of warranty
- Reperformance of defective work as "sole and exclusive" remedy

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## Unique Public Sector Contracting Issues

- Escrow Bid Documents
- Sovereign immunity
- Appropriations and cash flow curves
- Terminations for convenience
- Limitations of liability
- Indemnity arrangements
- Changes within the structure of the contractor/developer both during and after the selection process

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## Contract Execution Issues: Contractor Non-Performance

- How to handle the failure of a contractor to perform on a large project
  - Termination for default vs. Termination for convenience
  - Assessing accountability for delay
  - Reprourement of the operations and maintenance
- Owner control over supply chain as a classic contractor defense
- Owner failing to have a “what happens if” strategy

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## Contract Execution Issues: Managing the PMC/Owner Relationship

- Owners do not have the horsepower to handle their traditional duties in procuring and administering projects
- Key questions:
  - What does the owner expect its consultants to do (can they make decisions or are they captive to owner’s decisions)?
  - Does the PMC have the ability to effectively match up with the E&C contractor’s personnel, particularly in project controls?
  - Who will be the “commercial director” for the owner?
- Techniques to mitigate the challenges:
  - Partnering sessions within the PMC/owner team
  - Staffing with the best available personnel – integrated teams

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## **Contract Execution Issues: Keeping up with Project Controls**

- Major failing by both public and private sector owners
  - Owners generally pay lip service to the importance of being proactive in monitoring
  - Skill sets of project teams lacking
- Ability of contractors to shield owners from full information on project status
- Hesitancy on owners to ask tough questions and enforce contract rights
- Places owner in difficult position when claim or problem arises

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## **Conclusions:**

- Vital for Owner teams to thoughtfully consider:
  - Project risk assessments
  - Contract language that is clear, practical and enforceable
  - Use of a delivery system that matches its tolerance for risk
  - Project control regime during project execution
- Vital for Contractors to recognize:
  - The economy and current market conditions may not justify the risk profiles they have come to expect
  - The pressure on legislatures to get value may begin a shift to the “old predictable” low bid procurement systems

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## Further information:

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## Procuring and Contracting for Large Capital Projects: *What Can You Expect Now?*

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