

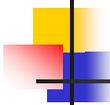


Construction Management (CM)@Risk

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State Construction Office
Florida Department of Transportation (FDOT)

July 29, 2008

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CM@Risk Agenda

- Agenda
 - CM@Risk What is it?
 - CM@Risk Contract Structure
 - CM@Risk Process
 - CM@Risk Advantages
 - CM@Risk Project Selection Criteria
 - CM@Risk FDOT Projects

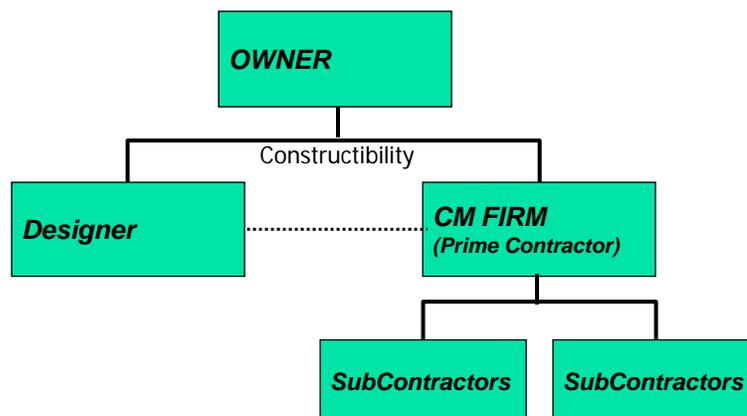
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CM@Risk

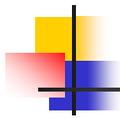
- CM@Risk is an integrated team approach that applies modern management techniques in the planning, design, and construction of a project in order to control time and cost, and to increase the quality and value of the project for the owner.
- Team= owner (Department), the architect/engineer and the construction manager (CM)
- Transportation or building project

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CM@Risk Contract Structure



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CM@Risk Process

- District hires Designer
- District hires CM Firm used standard consultant selection process
 - Early in the design phase, 15% plans
 - Negotiated CM fee
 - CM Fee during Design Phase: 1-1.5% of Construction Cost
 - CM Fee during Construction Phase: 4-8% of Construction Cost

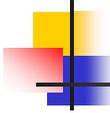
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CM@Risk Process (continued)

- CM Firm provides construction input throughout design development to minimize risks and improve the schedule
- Construction components for a project may or may not be added by Supplemental Agreement (i.e. Sanibel Island and Toll Plaza, Lee County)

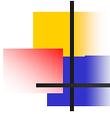
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CM@Risk Process (continued)

- FDOT Prepares and Manages the Design
 - Constructability reviews by CM during design to optimize the design and control costs
 - CM has no Direct Control over the Design
- CM selected thru Professional Services
 - Limited to Quality Contractors
 - Qualification Based Selection
 - Historical Performance of the Contractors is considered

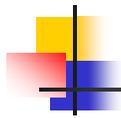
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CM@Risk Process (continued)

- CM Firm Responsible for Construction
 - Guaranteed Maximum Price (GMP) – The Department pays only for cost of the work, up to GMP.
 - Generally prohibit self-perform
 - Enhanced control of subcontractor selection

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CM@Risk Process (continued)

- The role of the CM is to represent the interests of the owner in all phases of the project.
- The CM is to perform value engineering, cost estimates, and schedule and budget recommendations during the preconstruction phase to assist in determining the best value based on the budget.

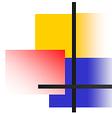
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CM@Risk Process (continued)

- The CM may provide suggestions for alternate designs, construction materials, and processes.
- The Department will maintain final approval of all proposed changes.

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CM@Risk Process (continued)

- During the design phase, usually about 60% plans, the CM will submit a GMP for acceptance by the Owner/ Department.
- The CM warrants that the project will be built not to exceed the GMP and assumes the risk by holding all of the subcontracts to perform the work.

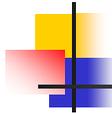
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CM@Risk Advantages

- Time
 - Eliminates Bidding and Contract Execution Time
 - Bidding Prior to Completion of Design
 - Flexibility to Re-Bid
 - Procure materials early
 - Reduction in Time Overruns
 - Contractor participation can speed up design
 - Construction can begin prior to: right-of-way clear, all permits issued, utilities identified or finalized

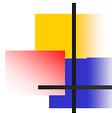
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CM@Risk Advantages

- Cost
 - Approximately Same Costs (Based on Risk)
 - Requires CM Fee
 - Claims Reduced, Reduced Cost Overruns
- Risk
 - Construction Contract between CM and subcontractors
 - Shifted from Owner/Department to CM Firm; subletting the construction work
 - Reduce Quantity Risk

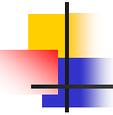
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CM@Risk Advantages (continued)

- Innovation
 - Excellent Use of Contractor and Designer Linkage
- Technical
 - Qualifications Based Selection of Best Contractor
 - Allows for Significant Changes During Construction

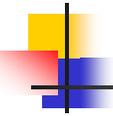
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CM@Risk is NOT a standard practice

- Section 337.025 Florida Statutes was further expanded to include all project types as part of the innovative practices package and the Department is required to comply with the \$120 million annual contracting monetary cap.

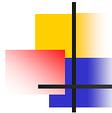
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CM@Risk is NOT a standard practice

- As a result, all projects must have approval from Central Office.
- All requests should be sent to the State Construction Office for the Chief Engineer's approval
- On Federally funded projects, the Department must have specific authorization from Federal Highway Administration (FHWA), Special Experimental Projects (SEP)-14.

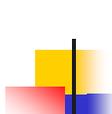
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CM@Risk Project Selection

- In selecting a project delivery method, owners need to gauge the level of complexity and uniqueness and innovation approaches of a project and maintain in control of the project.
- No single project delivery strategy is appropriate for all projects and there are some key factors to consider:

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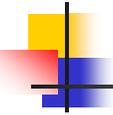


CM@Risk Project Selection

(continued)

- Size of Project
 - The more complex and costly a project, the greater the need for professional management and advice
- Owner Capabilities
 - Assess in-house capabilities in evaluating project procurement methods and construction management or use a General Engineering Consultant

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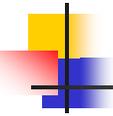
CM@Risk Project Selection

(continued)

■ Time Consideration

- If the project needs to be constructed in a compressed timeframe, methods adaptable to fast-track construction of components can be considered, but weighed against increased cost and risk of fast tracking.
- An unrealistic schedule should not be used on a CM@Risk project. This can drive up the cost.

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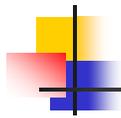
CM@Risk Project Selection

(continued)

■ Likelihood of Changes

- If the scope of work cannot be defined adequately upfront or if requirements are likely to change considerably during the project, this factor should be evaluated against potential cost of such changes.
- CM can negotiate better prices subject to owner's approval and changes can be done in a timely manner to reduce delay claims.

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CM@Risk Types of Projects

- Buildings/Vertical construction projects where construction methods and specifications vary between professionals (i.e. architect and construction trades).
- Projects with limiting budgets threaten the delivery of the project and where CM alternatives can help contain the costs.

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CM@Risk Types of Projects

(continued)

- Projects that allow for innovative funding scenarios (i.e. Value Engineering Change Proposals)
- Complex construction projects where construction input will be most beneficial during the early phases of design.

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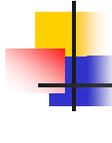


CM@Risk Types of Projects

(continued)

- Major Projects where there is a good balance of risk to reward. Project has significant utility relocations and can be investigated by the CM and the CM can provide insight in the design.
- Corridor Projects
- Bridge Rehabilitation (Bascule)
- Unusual or out-of-the ordinary projects, use of new technology; ITS

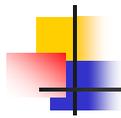
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CM@Risk FDOT Projects

- I-75 Welcome Center in Hamilton County
- I-10 Rest Areas in Madison County
- Miami Intermodal Center
- Bascule Bridge Rehabilitations – SR 814/Atlantic Blvd. & SR-5/Parker Bridge
- Improving I-75 Northbound and Southbound Rest Areas, Pasco County
- Several Local Agencies

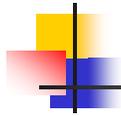
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CM@Risk FDOT Projects

- I-75 Welcome Center in Hamilton County
- Selected CM Firm in late 2003
- Contract amount \$13.1 million
- Completed in late 2006
- Project was constructed under budget by \$198,842 or 1.5%

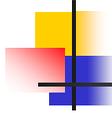
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CM@Risk FDOT Projects

- I-10 Rest Areas in Madison County
- Selected CM Firm in late 2003
- Contract amount \$6.9 million
- Completed in mid 2006
- Project was constructed under budget by \$47,557 or 0.7%

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CM@Risk FDOT Projects

- Miami Intermodal Center (MIC) -There are to be six GMP's for the project and currently on GMP number five:

GMP No. 1 Water, Sewer & Pump Stations & RCC Foundations **\$17,090,551.00**
2/20/2006 (completion date)

GMP No. 2 RCC Tunnel, MTAR Roads, Transit Access Roads, MIC/MIA Station Foundations, Utility Relocation, T-1 Wall Sheet Piling, 24" Force Main & Tri Rail Parking Lot **\$29,134,018.00 10/23/2007**

GMP No. 3 Tri Rail Station & MIC/MIA Connector Guideway Foundation **\$6,124,971.00 7/28/2006**

GMP No. 4A RCC & MTAR Bridges & Ramps **\$325,495,831.00 7/15/2009**

GMP No. 5 MIC/MIA Station & MTAR Drainage Pump Station **\$40,961,042.00 2/25/2010**

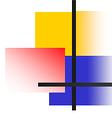
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CM@Risk

- The Department plans to use this CM@Risk for appropriate type projects. Project selection should be coordinated with the State Construction Office.
- CM@RISK should not be considered on the following types of projects: Milling and Resurfacing, Guardrail, Signing, Landscaping, Lighting, Signalization, and Sidewalks

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The logo consists of a vertical line with a yellow square above it, a red square to the left, and a blue square below it. The text "CM@Risk" is positioned to the right of this graphic.

CM@Risk

- The Department has plans to develop CM@Risk Guidelines.
- Additional information can be found on the State Construction Office website:

<http://www.dot.state.fl.us/construction/CONSTADM/CM@Risk/CM@Risk%20Main.htm>