



Getting the Best Value for your Building Dollar

How we can help!

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Industry Observation

- **An Owner can be his/her own worst enemy**
- **Owners have the ability to set the tone for each project and the potential for a successful outcome for all stakeholders**



FMI – CMAA 5th Annual Survey of Owners

Cost & Schedule Overruns

- Owners identify main causes to be:
 - Incomplete drawings
 - Poor Pre-planning process
 - Escalating cost of Materials
 - Lack of timely decisions
 - Excessive change orders



FMI – CMAA 5th Annual Survey of Owners

Our Mission

- Empower the Owner with Critical Information
 - To make better decisions
 - To be proactive
 - Save cost and time
 - Manage Risks

What we provide

- Beyond traditional CM Services
- Top down look from the Owners Viewpoint
- Objective advice
- Subject Matter Expertise

What Owners Can Control

- Opportunities and Choices
 - 30% cost & schedule difference
 - Project vs Program, Life-Cycle Costs
 - Standards
- Scope
 - Ancillary Scope, Scope Creep, Dark Scope
- Alignment
 - Scope, timing, stakeholders, contracts
- Organization
 - Delivery, Change Control, Communications
- Metrics & Reporting
 - Making business sense

Improving Program Governance

- Identify total scope and stake holders
- Create comprehensive framework for planning and executing
- Create standards, establish gating
- Align multiple projects and processes
- Set up metrics and reporting an Owner needs
- Monitor and audit

Creating a Framework for Planning, Executing & Reporting

- **Framework Components**
 - Comprehensive Scope Document
 - Enterprise Project Structure
 - Organization Breakdown Structure
 - Project Work Breakdown Structure
- **Processes**
- **Reporting**
- **Milestones & Metrics**

How we can help ...

- Supplement your in-house staff with expert knowledge and skills
- Help set up your Program Management Office
- Immediate ramp-up of critical scoping, planning, scheduling, risk management and communications tasks
- Help streamline your project delivery process for maximum benefits
- Provide the infrastructure and tools to take full advantage of information technology

Quick Start

- Master Program Schedule
- Design Management
- Organizational Assessment and Support
- Applying New Technologies in BIM and Project Controls

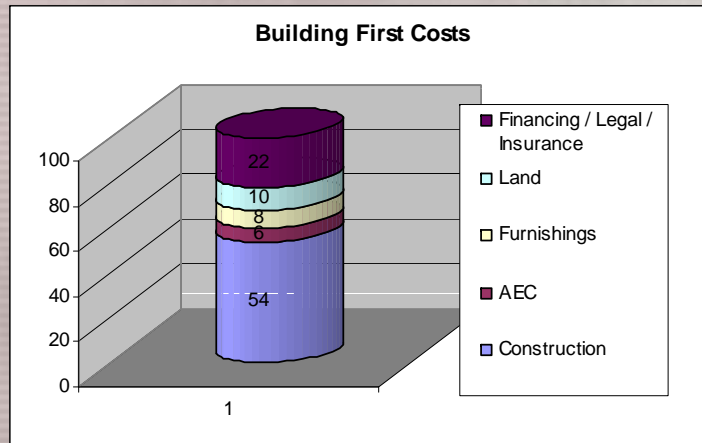
Who we are

- Working mainly with Owners
- Over 25 years of experience working on major capital expansion programs in the region
- Experienced in all facets of project delivery cycle
- Geared specifically to Facilities Construction

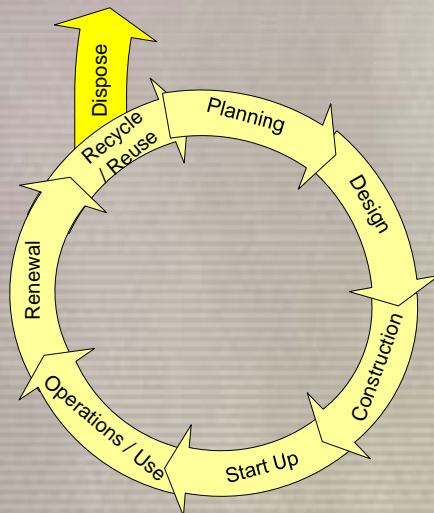
The background of the slide is a faded, sepia-toned photograph of a grand classical building. The building features a prominent portico with several tall, fluted columns supporting a heavy entablature. The perspective is from a low angle, looking up at the structure. The overall tone is historical and formal.

Supporting Slides

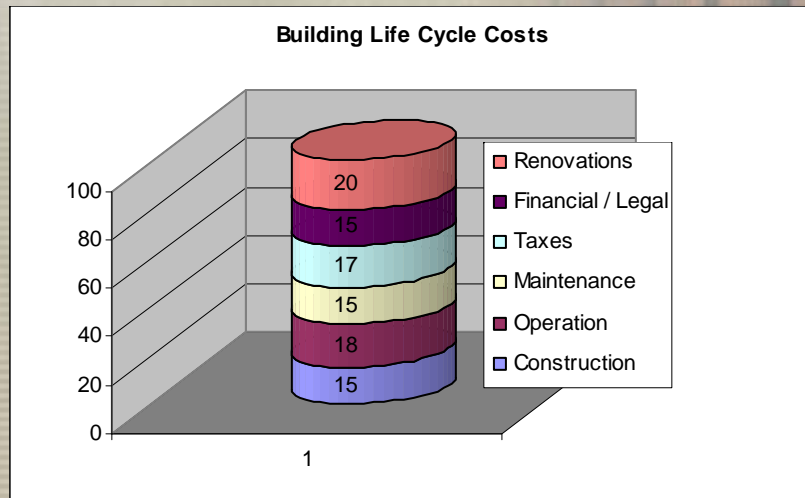
Construction Cost-Project Cost-Life Cycle Cost



- Project first costs are only about 15% of Life Cycle Costs
- For every dollar of First Cost additional 5.67 dollars are spent over the Building Life Cycle

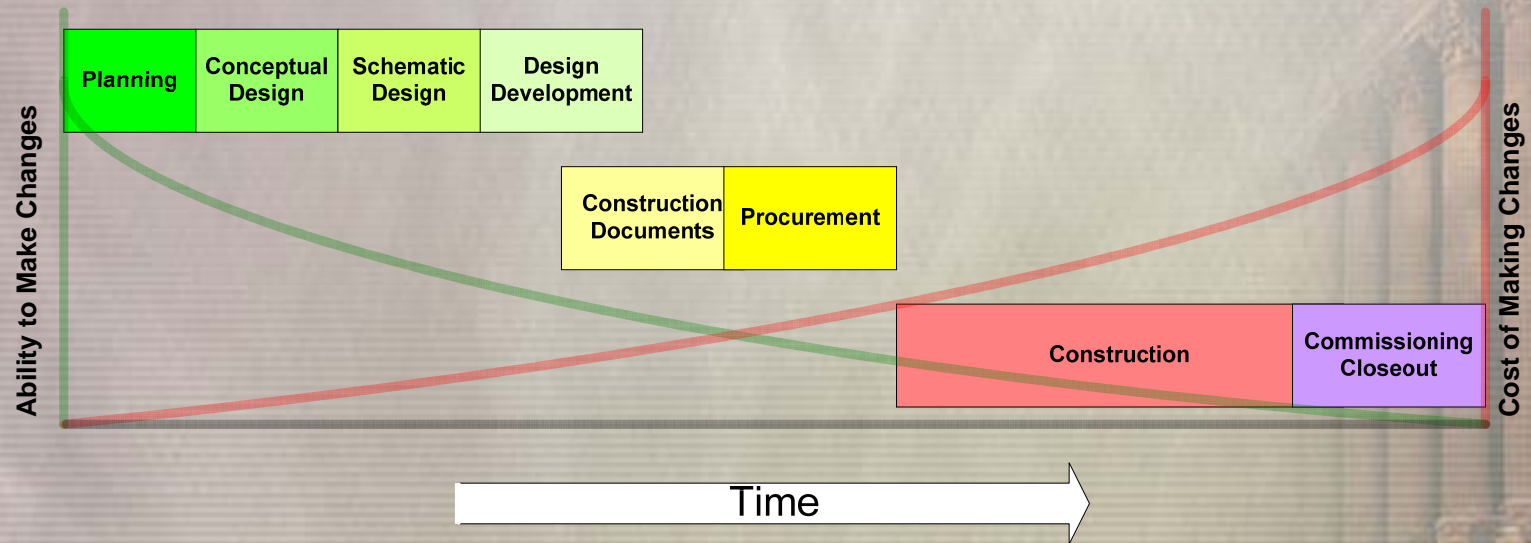


Facility Life-Cycle

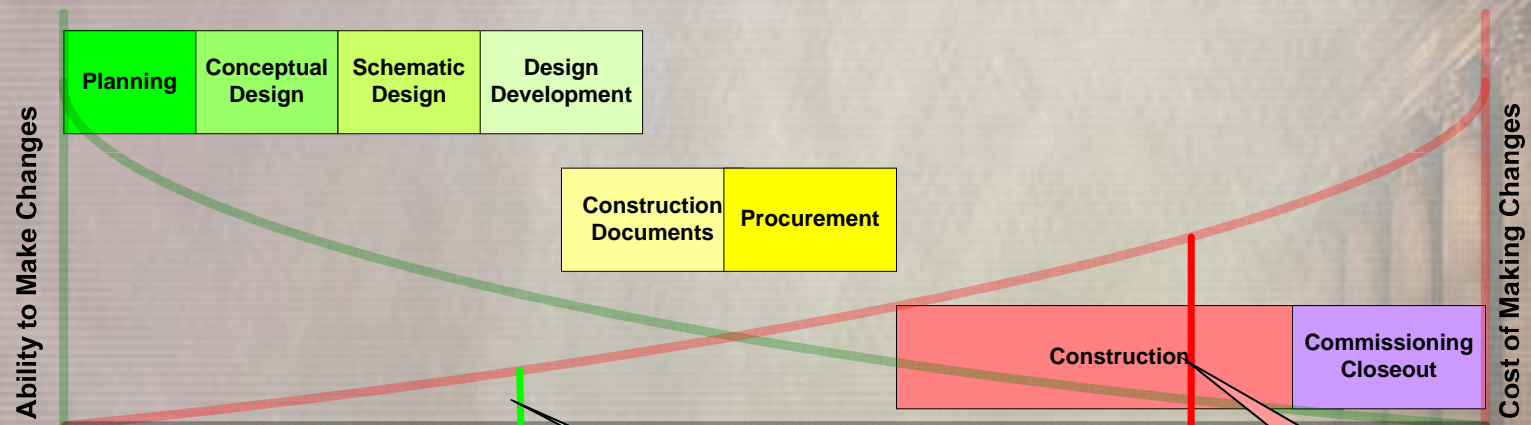


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Project Delivery Phases – Cost of Making Changes



Front-End Planning



Time

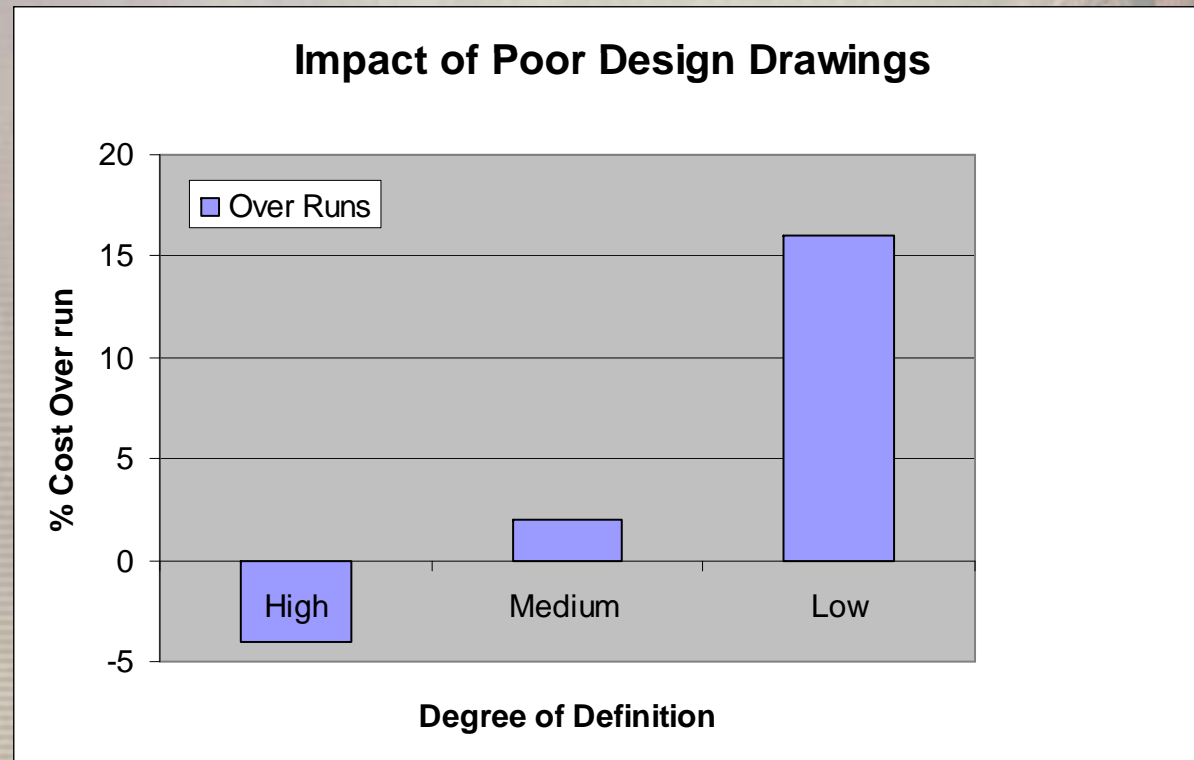
Risk Management

A change here

Which should have been made here

Savings attributed to thorough concept definition

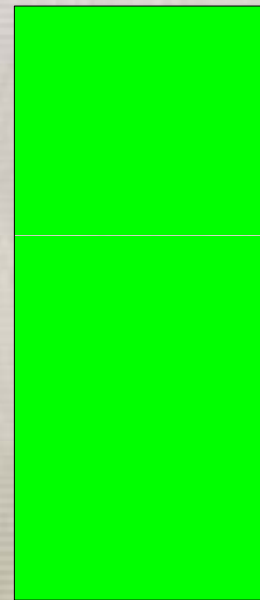
- Study Sample – 62 projects (CII)
- Metric – Final TPC / Estimated TPC
- Findings



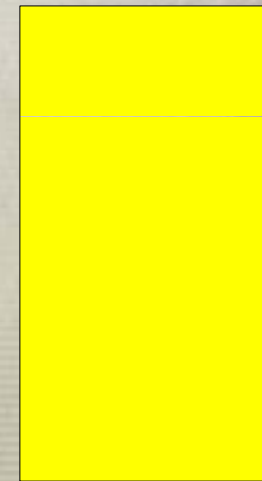
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Owners Fail to Track Total Project Scope

- Only part of the scope is tracked in project metrics

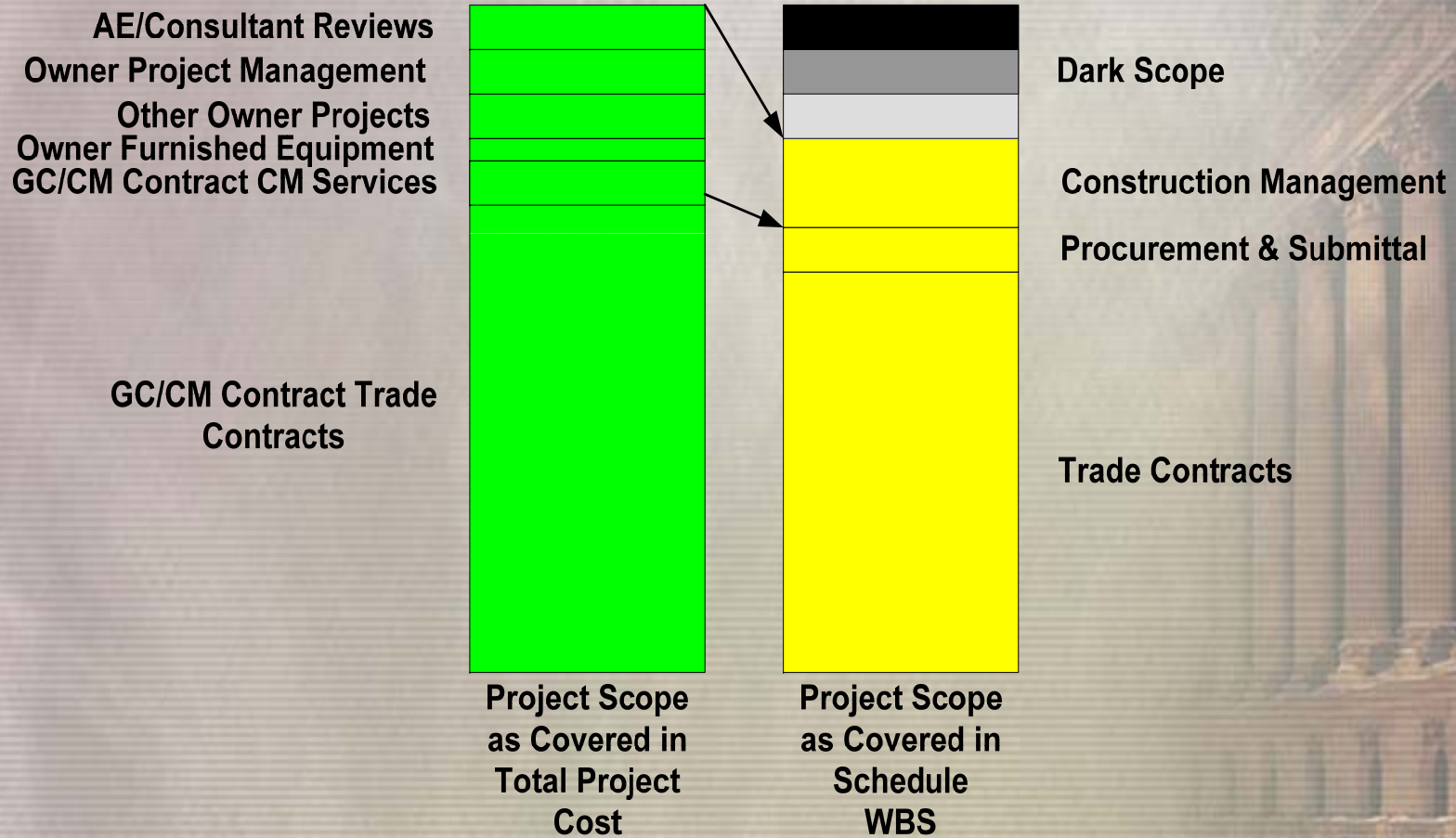


**Project Scope
as Covered in
Total Project
Cost**



**Project Scope
as Covered in
Schedule
WBS**

Mismatches in Cost Scope and Schedule Scope

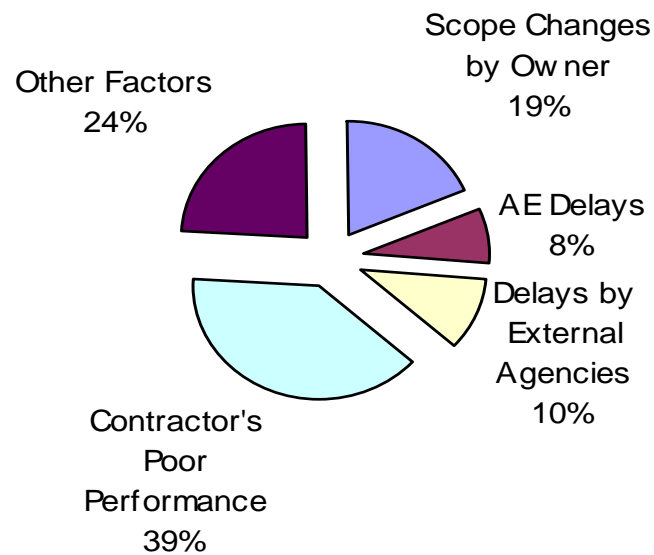


(Mis)Alignment of Responsibilities

- Bilateral Contracts in a multi-lateral framework
- Stakeholder participation
- Communications - Lost in translation

Major Players causing Project Delays/Overruns

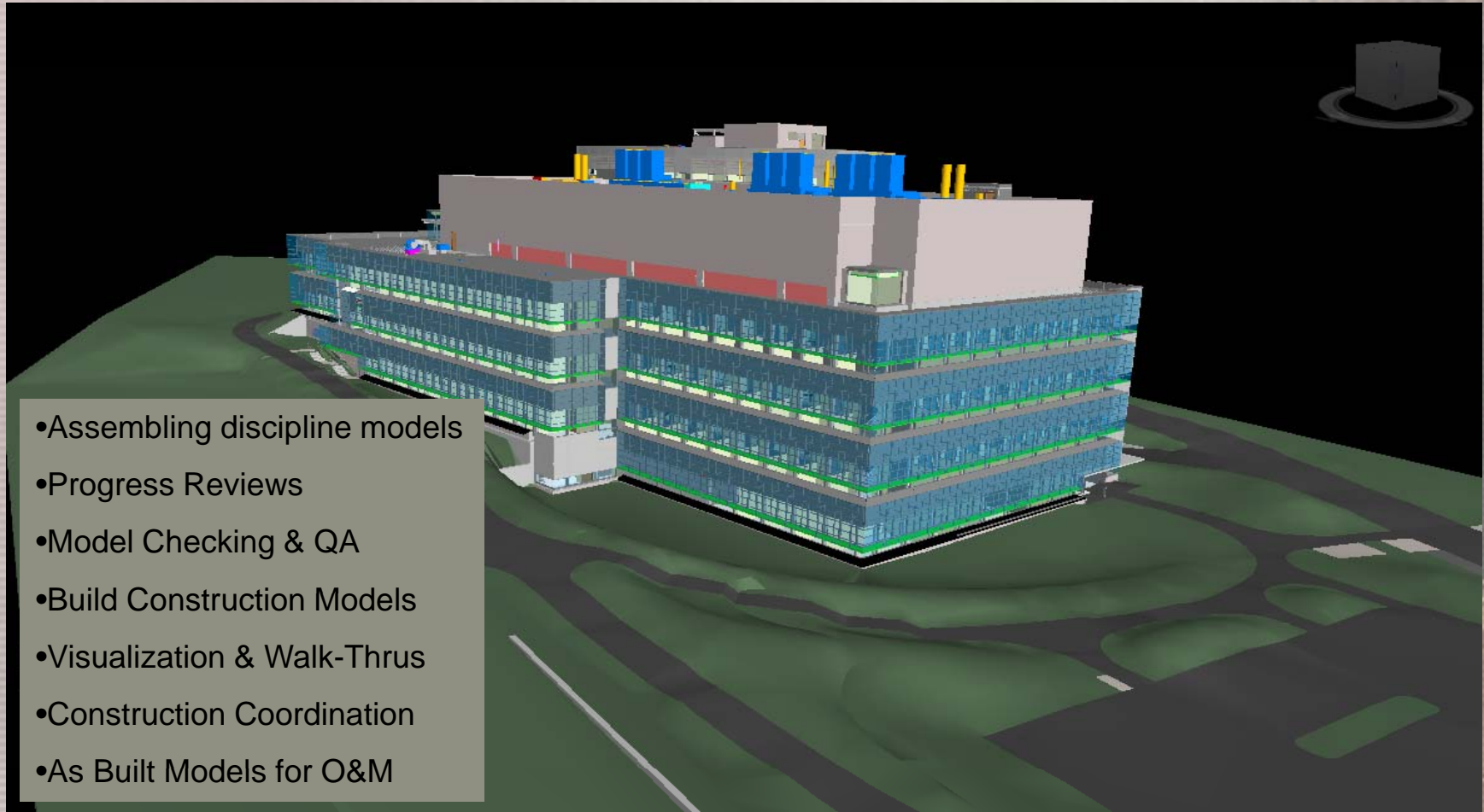
Factors Causing Cost / Schedule Overruns



Cost of Rework

- Project rework costs average 12.4% of TPC
 - 80% caused by Errors & Omissions in Design Documents
 - 20% caused by poor construction practices
- 50% of construction change orders caused by errors in design documents directly related to uncoordinated drawings
- Change orders cost 0.8 to 3.4% of TPC
- Discipline interface review of documents during design costs 0.1% of TPC
- Payback ratio - \$8 to \$34 for every dollar spent

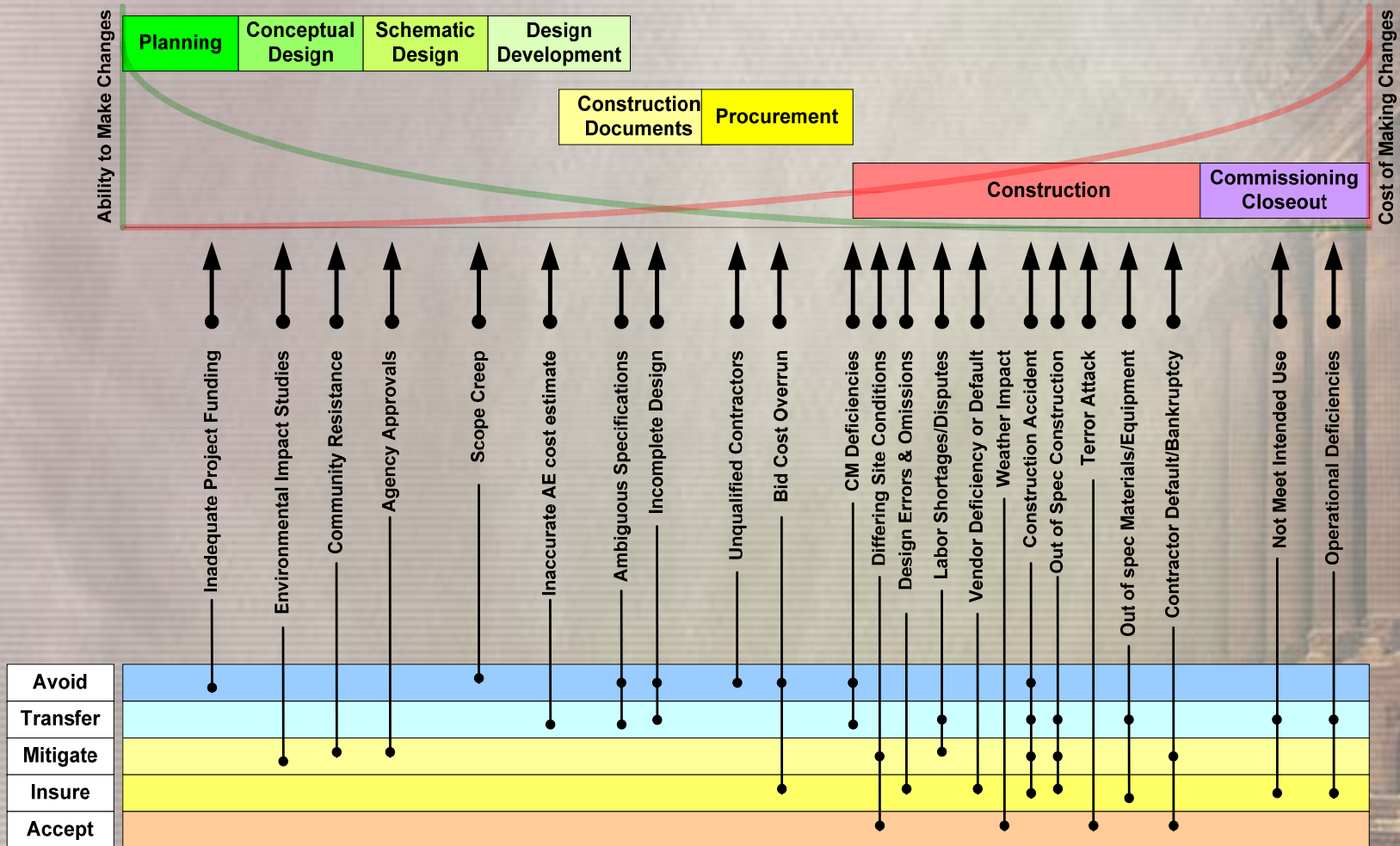
BIM - Model Management through Design and Construction



- Assembling discipline models
- Progress Reviews
- Model Checking & QA
- Build Construction Models
- Visualization & Walk-Thrus
- Construction Coordination
- As Built Models for O&M

Alignment and Control

Continuous Efforts to Manage Risks



Seeking to be a member of your core team

Basu Technology, Inc.

Abhi Basu

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We would be happy to come in and present
to you specific ways we can save you
money