Construction Management Scan

Implementation Program

Steven D. DeWitt, PE
Director Of Construction
North Carolina Department of Transportation
Presentation Overview

• Scan Refresher
• A Changing View of CM
• Implementation Activities
• AASHTO SOC Involvement
• What Else?
Scan Objective

• International CM Procedures
• Focus Toward Ensuring Project Delivery
• Contract Compliance
• Quality Assurance
Scan Objective

- International CM Procedures
- **Focus Toward Ensuring Project Delivery**
- Contract Compliance
- Quality Assurance
Where Did We Go?

**Toronto, Canada**
- Ontario Ministry of Transport
- Ontario Road Builder's Association

**Munich, Germany**
- Bavarian Road Ministry

**Cologne, Germany**
- Westfalen Road Ministry

**Manchester, England**
- Highways Agency

**Edinburgh, Scotland**
- Scottish Executive

**The Hague, The Netherlands**
- Ministry of Transport
- Finnish Road Administration
Recommendations

• Align Goals
• Risk Management
• Alternative Delivery Methods
• Qualifications
  – Rating Process
  – Procurement Process
Recommendations

• Early Contractor Involvement
• Alternate Bids/Designs
• Contractor Quality Management
• Alternative Contract Payment
• Warranties & Life-Cycle

Setting Projects up for Success...
A Changing View...

• What is Project Delivery?
• What Is CM?
• Why The Change?
“Old” Definition of Project Delivery

If We Can Get a Project to the Letting We Will be Successful

- **Immense Pressure** to Award Contracts Within a Given Timeline “No Matter What”
- Preconstruction Schedule Delays are Unacceptable
- Do “Whatever it Takes” to Get the Project to Letting
“New” Definition of Project Delivery

If We Can Get a Project Open to the Public We Will be Successful

• A Delayed Letting Does Not Necessarily Mean Delayed Completion

• Delays During Construction are Unacceptable

• Do “Whatever it Takes” During Preconstruction to Ensure We Have Focused on Completion and Beyond
“Old” Definition of CM

“Typical DOT Process”

Managing the Physical Construction of a Project After Award of a Contract to Ensure Quality, Safety, Cost, and Schedule Performance Expectations are Met Through Contract Administration Processes.
“New” Definition of CM

The totality of activities that address the management and technology aspects of highway construction, conducted during the planning, design, construction, and post-construction phases of a project for the purpose of achieving scope, quality level, cost, schedule and other project performance objectives.
Why The Change?

• Design-Build?
• Alternative Contracting?
• Claims?
• Added Work?
• Public, Legislative, Etc. Pressures

A Changing Transportation World…

20th Century Organizational Concepts

Trying to Adapt to 21st Century Issues.
Project Development & Implementation

I am sure this will work!

I guess this is what they meant. I am sure they can build it this way!

I can't build this! Who the #$&%$ dreamed this up!

I can’t believe they left this %$#’en piece of *$&% for me to live with!

Planning

Bridge To New Island

Design

Bridge To No Wheland

Construction

Bridge To Nowhere

Operations

Typical DOT “Silo” Approach
The Role of The CM
Expert Technical Group

• Implement Scan Findings – Yes!
• However...
  - The Mission is Larger
  - Catalyst For Change
    • Preconstruction
    • Post Construction
Construction Management
Expert Technical Group

Planning & Design
Safety
Staffing
MOT
Changes
Training
Payments
Quality
Schedule
Materials
Etc…

Maintenance & Operations

Process Improvement

Project Scoping
Project Bidding
Project Complete
Project Post-Construction Analysis
CM is Still About...

Construction

- Contract Administration
- Quality Assurance
- Quality Control
- Contract Provisions
- Training
- Experience
- Communication
- Etc...
There May be a Change of Who or How...

However, Density is Still Density, it is Still Critical, and We Must Understand it, Assure it, and Hold Contractors Accountable.
Focus on ...

• New Definition of Project Delivery
• New Definition of CM
• Setting Projects up for Success
CMETG
Membership & Resources

**Membership**
- AASHTO
- FHWA
- AGC/ARTBA
- ACEC
- Academia

**Funding**
- International Programs
- FHWA
Implementation Tasks

• Scan Report
• ETG
• ETG Tasks
  - Research
  - Reports
  - Training – Workshops, Courses
• International CM Conference
• Continued Evolution...
Implementation Tasks

• Risk Guidelines
  - Complete
  - Ready for Marketing

• Alternate Payments Methods
  - Complete
  - Ready For Marketing
Implementation Tasks

• Best-Value Procurement
  - Complete
  - Ready for Implementation

• Alternate Bidding Practices
  - Underway

• Enhanced Prequalification Rating Process
  - Underway
What Else?

• AASHTO Resolution
• Cradle to Grave PM?
  - Do We Evolve From CM to True PM?
• Partners
  - PS Workgroup
  - SHRP II Renewal
  - TRB
  - Highways for Life
• PPPs, Toll Road Development, Etc.
Questions?
Implementation Tasks

- Best-Value Research
  - Complete
  - Ready for Implementation

- Alternate Payments
  - Complete
  - Ready for Distribution
Recommendations

• Develop Risk Assessment and Allocation Techniques
• Strategically Apply Alternative Delivery Methods
• Enhance Qualification Rating Processes
• Use Qualifications in Procurement
• Pilot Early Contractor Involvement
Recommendations

- Allow Alternate Bids/Designs in Procurement
- Conduct Pre-Proposal Meetings
- Apply More Contractor Quality Management
- Use Appropriate Alternative Contract Payment Methods
- Work Toward Warranties and Life Cycle Responsibility
Construction Management is...

• How Much Things Change
• What Technology Brings
• How We Procure Contracts
• Who Has Responsibility
• What the Workload is
• Who the Contractor is
• What the Public Demands
• What “Wacky” Stuff Raleigh Dreams up...