



SELLWOOD BRIDGE REPLACEMENT PROJECT

Construction Update
Briefing on CM/GC
January 25, 2011

SELLWOOD BRIDGE

Project

MULTNOMAH COUNTY

BRIEFING OUTLINE

- ✓ WHY CM/GC
- ✓ ACHIEVING GOALS WITH CM/GC
- ✓ LESSONS LEARNED/STRATEGY
- ✓ CM/GC SELECTION
- ✓ GOING FORWARD

WHY CM/GC

- ✓ TECHNICAL CHALLENGES
- ✓ LOW BID EXEMPTION FINDINGS
- ✓ STAFF RECOMMENDATIONS
- ✓ CM/GC APPROACH

TECHNICAL CHALLENGES

- Limited in-water work windows
- Technical complexity
 - Traffic management and phasing
 - Landslide stabilization
 - Bridge construction phasing
 - In-water foundations
- Environmental compliance

LOW BID EXEMPTION FINDINGS

- Constrained financial resources
- Funding uncertainty
- Need for cost savings
- Heightened public/traffic safety concerns
- Complexities require special expertise

STAFF RECOMMENDATION

CM/GC

- County control over design
- Increase early budget confidence
- Potential to advance schedule
- Adaptable to change
- How matters: quality, equity, sustainability
- Proactively manage risk

CM/GC APPROACH

- Pre-construction services by CM/GC
 - March 2011 - June 2012
 - Concurrent with final design
 - Optimize approach to construction
 - Manage to budget
 - Negotiate construction contract
- Construction
 - In-water July 2012
 - Completed 2016

ACHIEVING GOALS WITH CM/GC

- ✓ SUSTAINABLE PRACTICES
- ✓ SOCIAL EQUITY
- ✓ REDUCING COST

SUSTAINABLE PRACTICES

- Valued in selection process
- Proven ideas integrated into bridge construction
- Minimize in-water impacts
- Environmental stewardship - conservation
- Use of clean diesel
- Avoiding landfills

SOCIAL EQUITY

- Diversity plan valued in selection process
- Previous/future commitment - development, training, outreach, mentoring
- Project specific subcontracting plan
- Measuring and monitoring against goals to be established
- Local economic development opportunities

REDUCING COST

- On-going value engineering (VE)
- Design and constructability reviews - formal and over the shoulder
- Optimized schedule - early procurements and work packages, coordinated design
- Optimized construction approach - phasing, means/methods, bridge structure, materials

LESSONS LEARNED STRATEGY

- ✓ DESIGN-CONSTRUCTION INTERFACE
- ✓ OBTAINING BEST VALUE
- ✓ HIRING THE CM/GC
- ✓ PROACTIVE RISK MANAGEMENT
- ✓ OPEN BOOK COST REVIEW PROCESS
- ✓ EARLY OFF RAMP

DESIGN-CONSTRUCTION INTERFACE

- **Lesson learned:** Manage A/E design deliverables to support CM/GC development of construction pricing
- **Strategy:** Establish/enforce realistic design deliverable milestones as basis for construction pricing
 - Include in A/E contract
 - Assure adequate A/E work plan to support schedule
 - Emphasize schedule importance with financial penalties

OBTAINING BEST VALUE

- **Lesson learned:** Develop pricing strategy to obtain best value for least cost
- **Strategy:** Authorize early pre-construction tasks to develop construction pricing and to obtain early pricing confidence
 - Cost estimates due at 30%, 60%, 90%, and final
 - Construction expert independent cost review
 - Informed, progressive price buildup
 - County approves subcontracting plan
 - Negotiate/allocate risk costs
 - Focus on final cost to complete

HIRING THE CM/GC

- **Lessons learned:**
 - Interview Proposers
 - Require subcontracting plan up front
 - Assure PM continuity
 - Define preconstruction services scope of work
 - Clearly define fee
- **Strategy:** address in RFP process

PROACTIVE RISK MANAGEMENT

- **Lesson learned:** identify risks and clearly define who carries costs for the risks
- **Strategy:** develop early risk management plan
 - Conduct full team risk assessment workshop
 - Estimate cost of exposures
 - Clearly allocate
 - Budget for risk/contingency potentials
 - Monitor continuously as team

OPEN BOOK COST REVIEW PROCESS

- **Lesson learned:** Open book review requires contractor cooperation and transparency
- **Strategy:**
 - Open book review expressly required by
 - Contract
 - CM/GC General Provisions
 - Initiate open book review process at initial 30% design to confirm process will be transparent

EARLY OFF RAMP

- **Lesson learned:** Once major construction starts, termination of CM/GC may be infeasible
- **Strategy:** structure process to allow timely off ramp to bid work, if necessary
 - County has right to terminate CM/GC contract
 - At its discretion
 - For public convenience
 - If unable to negotiate acceptable price
 - If advantageous to County to do so
 - County may re-procure using any method

CM/GC SELECTION

- ✓ Criteria
- ✓ Current Status

CRITERIA

- Qualifications
 - Corporate: financial, safety, bonding
 - Proposer Experience
 - Organization and Key Personnel
 - Project Approach
 - Sustainable Practices
 - Diversity Plan
- Pricing

CURRENT CM/GC PROCUREMENT STATUS

- 5 proposals received
- Evaluations underway
- Execute contract by early March 2011

GOING FORWARD

- Key Schedule Milestones
- FHWA Reporting
- One Mindset

KEY SCHEDULE MILESTONES

- Execute CM/GC NTP in March 2011
- Receive A/E deliverables for CM/GC pricing
 - June 2011: 60% foundations, 30% overall
 - Sept 2011: 90% foundations, 60% bridge
 - Jan 2012: 100% foundations, 90% bridge, 60% overall
- Construction cost estimate based on each deliverable
- Know construction price by March 2012

FHWA REPORTING

- County received FHWA SEP-14 approval
- National FHWA interest in CM/GC as delivery method for major bridge/transportation project
- Requires initial, annual and final reports
- Measures include cost/time savings, impacts, quality, other significant factors

PROJECT APPROACH

- Project first mindset
- Collaborative team
- Co-located key personnel
- Cost transparency
- Schedule focus