Innovative Contracting / Highways for Life

TH 36 Through North St. Paul

12th Annual Minnesota Pavement Conference
Thursday, February 14th, 2008

Tom Ravn, Acting State Construction Engineer
Presentation Overview

- Constructability Review
- A+B Bidding
- Lane Rental
- Locked Incentive Date
Constructability Review

- **One-on-One Meetings**
  - Worked with AGC to identify list of contractors
  - Open to other contractors

- **Informal information sharing meetings**

- **Industry input on:**
  - “How Fast Can You Build It?”
  - “How Should Construction be Staged?”
  - “What are the cost impacts with acceleration?”
Acceleration Techniques

- **A+B Bidding**
  - Factors Cost (A) + Time (B) into the bid

- **Lane Rental**
  - Minimizes disruptions to traffic
  - Effective scheduling of resources

- **Incentives**
  - Monetary Incentives for Early Completion
A+B Bidding

- Lowest Combination of Cost + Time

- A = Cost of the Project

- B = Time Component
  - Days of Construction * Road User Cost

- History with A+B Bidding
  - 15% Time Savings at Bidding
  - 35% Time Savings with Incentive Clauses
TH 36 A+B Bidding

- **Time Factors**
  - Road User Cost (RUC) = $15,000 per Day
  - Allowable Times = 145 to 210 Days

- **Bid Results – Cost**
  - 6 Bidders
  - $27.6 to $32.7 Million

- **Bid Result - Time**
  - Time Ranged from 145 Days to 195 Days
Valley Creek Road Interchange

Innovative Strategies

- **A+B Bidding**
  - 145 Max
  - 100 Bid
  - 104 Actual

- **Lane Rentals**
  - Minimized Impacts on I-494

- **Incentives**
  - $100,000 Max
Other A + B Projects

TH 10 at Hanson Road

- **Bid #1**
  - A = $16.95 million
  - B = 135 Days
- **Bid #2**
  - A = $16.98 million
  - B = 100 Days

TH 10 in Detroit Lakes

- Allowable Bid Range (534 to 869 Days)
- 3 Bids Near Minimum
- 3 Bids Near Maximum
- Winning Bid – Lowest “A” and Lowest “B”
Lane Rental

- **How Does It Work?**
  - Hourly Charge to Temporary Lane Closures ($400 per hour)
  - Hourly Charge for Ramp Closures ($300 per hour)

- **Bidding Lane Rental**
  - Contractors Bid Estimated Number of Hours for Closure
    - “Lane Rental Working Fund”
  - Dollars subtracted from Lane Rental Working Fund
    - Excess $ at end = Incentive ($30,000 max)
    - Overrun = Disincentive
Lane Rental

Why Lane Rental?
- Minimize Traffic Impacts Prior to Full Closure
- Minimize Traffic Impacts After Full Closure
- Public Perception
  - “Why is there a lane closure up, but nothing is happening”
- Better Subcontractor Coordination
Lane Rental Projects

2006 Projects

• Valley Creek Road
• Metro Pavement Marking
• I-35 District 1

2007 Projects

• TH 10 Detroit Lakes (Detour Method)
• TH 36 (Full Closure)
• I-394 / I-94 Bridge Rehabilitation
Locked Incentive Dates

a.k.a “No Excuse Bonus”

How is it Different?

- Time extensions allow normal incentives to be paid past the anticipated date
- LID – If you want the incentive, you must meet the date.
- LID – Waive all claims
Locked Incentive Date

TH 36 – Metro
- 145 Day Closure
- $350,000 for completing work within 145 Days
- Additional $75,000 for every 5 days early
- $650,000 max

TH 10 – D4
- Obligation - Open TH 59 by June 29, 2008
- LID - $300,000 if work is completed on or before December 1, 2007.

I-35W Bridge, Metro
- A+B - $7,000,000 lump sum
- Additional $2M for every 10 days early
- $27,000,000 max (100 days)
Thank You

Questions?

tom.ravn@dot.state.mn.us