TH 36
Highways for Life

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Project Location

Mpls
Project Description
Corridor Background

- 4-Lane Urban Highway
- Commuter Link
- AADT = 57,000
- 3 Signals
- Gateway Trail
Project Background

- Improve Safety
  - Ped Bridge
  - Trail
- Improve Capacity
  - Convert to freeway
  - Interchanges
Project Challenges

• Limited $$

• Traffic Disruption

• Safety

• Public Buy-in
New Idea!!!

- Close TH 36 During Reconstruction
- Detour Traffic to alternative routes
- Are we CRAZY!!
Construction Office Concerns

- Travel Time Study
- Re-Open 1 Lane in Each Direction ASAP
- Un-Weave the Weave
How do we do this?

• Public Buy-in
• Business Impacts
• Congestion
• Construction Efficiency
HFL Performance Goals

• Safety: workzone, worker, facility

• Construction Congestion: Faster, fewer delays

• Quality: Smoothness, noise, user satisfaction
How Long Will it Take?

• 2+ Years w/o closure
• 3-6 Months w/closure
• Constructability Review
  – One-on-one
  – 5 Potential Contractors
Market Research

- Residents/Commuters/Businesses

- Pre-Construction Survey
  - Prefer 2-years construction vs 5 month closure

- Post-Construction Survey
• Residents
  – In favor of construction
  – Likely to be moderately supportive of either
  – Higher percentage preferred 5 month closure

• Through commuters
  – In favor of construction
  – Likely to be moderately supportive of either
    • Slightly more favorable to 2 year off peak delays
  – Split 50-50
• I694/35E Users
  – Slightly more favorable reaction to 2-year non-peak delays
  – Split 50-50

• Businesses
  – More favorable to 2-year non-peak delays
    • More likely to react negatively to 5-month closure
  – Higher percentage preferred 2-year non-peak delays
5 Month Closure
Reasons for Stated Preference

- Just get it done and over
- Prefer 5 months of inconvenience
- Save money/cheaper
- Traffic will find alternate routes
- Less chance of injury/ safer

[Bar chart showing preferences among residents, commuters, and I-694/I-35E users]

- Residents (N=224)
- Commuters (N=197)
- I-694/I-35E (N=104)

Why do you say that?
**Reasons for Stated Preference**

**2 Year Off Peak Delays**

- **Still able to drive on**
  - Residents (146)
  - Commuters (182)
  - I-694/I-35E (94)

- **Question alternate routes**
  - Residents
  - Commuters
  - I-694/I-35E

- **Less inconvenient**
  - Residents
  - Commuters
  - I-694/I-35E

- **Traffic detoured through residential areas**
  - Residents
  - Commuters
  - I-694/I-35E

- **Rerouted too long/ difficult**
  - Residents
  - Commuters
  - I-694/I-35E

**Why do you say that?**
Biggest Impacts

• Early Coordination

• “Detour Days”

• “Open for Business – Surviving and Thriving During Construction” Workshop
Where will the Traffic Go?

- 1/3 Rule
- Local road System
- EB Detour
- WB Detour
Pre-Construction: October 25, 2006
During Construction: June 26, 2007
Post Construction: June 27, 2008
HOW MANY TRIPS WENT LOCAL?

Westbound AM Peak Hour

- 876 Vehicles needed detour
- 245 went to County Road C (#4)
- 204 went to County Road B (#11)
- 51% of traffic
HOW MANY TRIPS WENT LOCAL?

Eastbound PM Peak Hour

- 1,279 Vehicles needed detour
- 163 went to County Road C (#3)
- 346 went to County Road B (#13)
- 40% of traffic
HOW MANY TRIPS WENT LOCAL?

– Not all increase traffic from Detour
– Access closures are redirecting traffic (10-20%)
– AM Peak probably 32-42% (vs 50%)
– PM Peak probably 20-30% (vs 40%)
AFTER CONSTRUCTION LOCAL TRAFFIC
Local Trips Summary

- Slight decrease in local trips
- Increase in trips on TH 36 due to improvements
- 1/3 rule to local streets applied
- Heavy commercial traffic on local street

County B experienced 76 heavy commercial vehicles in peak hours and 86 heavy commercial vehicles in a day
TRAFFIC IMPACTS TO THE STATE TRUNK HIGHWAY SYSTEM
Where will the Traffic Go?

- 1/3 Rule
- Local road System
- EB Detour
- WB Detour
Planning for Detour

• Improve I-94
• Log pre-existing travel times
• Intersection Improvements
• Police Officers at 4-way Stops
## Detours / Alternative Routes

<table>
<thead>
<tr>
<th>Time Period</th>
<th>TH 36</th>
<th>I-694</th>
<th>I-94</th>
<th>CR C</th>
<th>CR B</th>
<th>Other Routes</th>
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<tbody>
<tr>
<td>6-10 AM</td>
<td>-9740</td>
<td>+3120</td>
<td>+2900</td>
<td>+1300</td>
<td>+2380</td>
<td>+40</td>
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<tr>
<td>2-9 PM</td>
<td>-20050</td>
<td>+5400</td>
<td>+3650</td>
<td>+2060</td>
<td>+3250</td>
<td>+6590</td>
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</tbody>
</table>

- **694/35E Under Construction**
- **Minimal impact to travel times and speeds on detour routes**
Freeway / Detour Summary

- Not everyone followed the signed detours.
- Preferred to deal with shorter routes even though there were construction and signal delays.
- No major traffic impacts on detour routes.
Travel Time Systems

• Goal – Provide travel times for WB TH 36 Traffic on detour routes

• Challenge – Implementing reliable data into the RTMC
REDUCING IMPACTS

BY REDUCING

CONSTRUCTION TIME
Accelerated Construction

- **A+B Contracting**
  - Open to 2 Lanes of Traffic
  - Bid Between 145 and 210 Days
  - RUC = $15,000 per Day

- Awarded Contract – 195 Days
- Range of Bids – 145 to 195 Days
Accelerated Construction

- Lane Rental

- “No Excuse Bonus”
  - Open to 1 Lane of Traffic
  - 145 Days = $350,000
  - Addition $75,000 for every 5 days earlier
  - Capped at $650,000
Post Closure Market Research

- 92% Residents
- 84% Businesses
- 89% Commuters
- Faster, Safer and Lower Cost
- “Biggest non-event of the year”
Lessons Learned

• Early Discussion (1+ Year)
• Cost Savings ~ 15%
• Time Savings ~ 1+ Year
• Start Detour on Tuesday
• No closure during winter months
Moving Forward

• Closing interchanges “no big deal” anymore
• Full road closures – more receptive
• $$ is driving everything
• Tools for full closure:
  – Innovative Contracting
  – Very Early Coordination
  – ITS Systems
• Are we utilizing full closures too much?
Special Thanks

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Steve Kordosky – Mn/DOT Project Manager

Questions?