Illinois Tollway

Open Roads for a Faster Future

STATUS REPORT
Congestion-Relief Program

Steve Gillen

Illinois Asphalt Pavement Association – March 12, 2007

Beginning Year 3 of Congestion-Relief Program

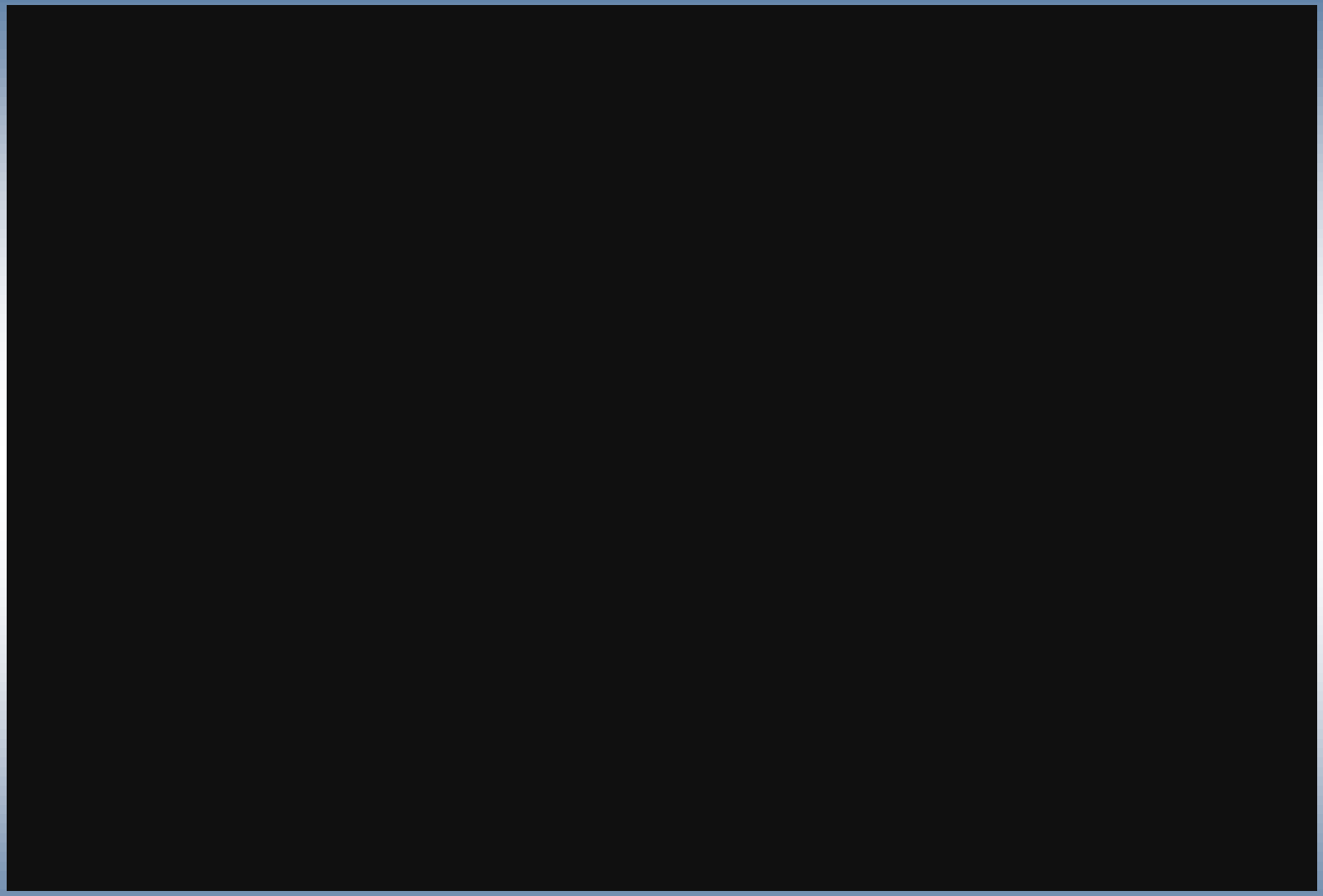
- Governor's $5.3 billion Congestion-Relief Program (CRP) to reduce travel times by:
  - **Rebuilding/Restoring** nearly the entire system
  - **Widening** many miles of major roads
  - Converting 20 barrier toll plazas to **Open Road Tolling**
  - Building 12.5 mile **extension of I-355** to serve fast-growing Will County

By the Numbers

- **$2.6 billion awarded by end of 2006**
  - $1.98 in construction
  - $500 million in professional services
  - $120 million in other costs (utilities, right of way, misc.)
  - Program is 49% committed
- **Real benefits – real quick!**
  - Approximately $1 billion in completed work in 2006

CRP Accomplishments

- ***Open Road Tolling at 20 mainline plazas in less than two years***



CRP Accomplishments

Rebuild & Widen

- I-394 to 167th St.
- 31 lane miles
- $250 million

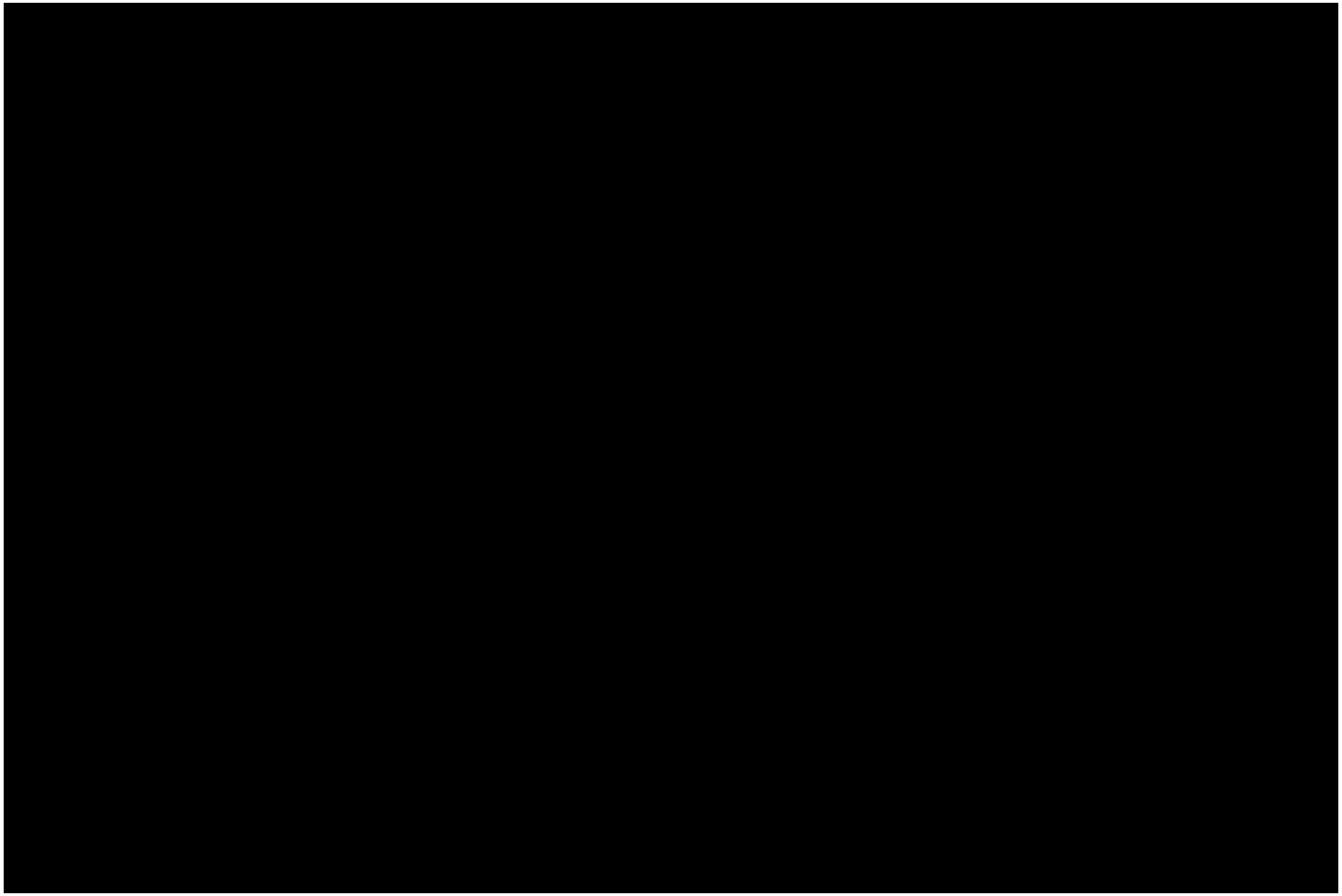
Rebuild & Widen

- IL 59 to Naperville Rd.
- 27.6 lane miles
- $57 million

Rubblization

- IL 251 to U.S. 30
- 124 lane miles
- $ 42 million

Rubblization Video



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CRP Accomplishments

South Extension Quickly Becoming a Reality

- All contracts underway, procured within budget & on schedule for 2007 completion
- 12.5 miles of new interstate in 3 years
- 3,900 full and part-time professional and construction staff
- 10.2 million cubic yards of earth work
- 410,000 cubic yards of concrete
- 230,000 tons of HMA

National Recognition

- #1 Top Road Project
- #6 Top Bridge Project

Des Plaines River Valley Bridge

I-55 Interchange

Looking Ahead

- **Additional $700 million to be awarded in 2007**
- **Nearly $1 billion in completed work expected in 2007**
  - I-355 South Extension
  - South Tri-State Phase II Advance Work
  - I-88 Rebuild & Widen Advance Work

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Pavement Basics

- Tollway historically has used jointed concrete pavement
- Many types of pavement being used and considered for CRP improvements
- Basic selection criteria include consideration of:
  - Current and Future Traffic Volume
  - Soil Conditions
  - Drainage and Environmental Issues
  - Maintenance of Traffic

Basic Pavement Types

- **Jointed Concrete**
  - 15-foot jointed sections (Industry norm)
  - Potential use of bituminous base course or adjust pavement design

- **Continuously Reinforced Concrete (CRC)**
  - Reinforced with steel throughout (no joints)
  - Generally most expensive initial cost and lowest life cycle maintenance cost
  - Best overall life cycle cost

- **Asphalt Pavement (Shoulders & Mainline)**
  - Initial cost generally cheaper than concrete
  - Cannot be poured during cold weather
  - Higher life-cycle maintenance costs

Tollway uses IDOT D1 sub-grade aggregate (recycled materials)

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Pavement Selection

- **GOAL:**

Most cost effective design to achieve 30-year pavement life with minimum disruption to traffic.

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Optimizing Structural Materials

- **High-Performance Concrete**
  - Micro silica added to reduce corrosion
  - Used on mainline and high-traffic bridge decks
  - More expensive initially but lower life cycle and maintenance costs
  - Incorporating IDOT specs for cold- and hot-weather usage

- **Quick-Curing Concrete**
  - High traffic volume areas
  - 3 hour vs. multi-day/week cure time
  - More expensive
  - Used for emergency repairs

Optimizing PCC Pavement Materials

?

- Original PCC pavement is already recycled, where can more be found and stored?
- Few if any changes

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Optimizing HMA Pavement Materials

- **Go Greener with most all mixes**

1. Using existing RAP in no or low load mixes
2. Using fractionated RAP in mainline mixes
3. Using Ground Tire Rubber (GTR) modifiers in mainline SMA mixes

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Studies to Optimize HMA Materials

Analysis of:

- GTR modified mixes
  - Dense graded surface mixes
  - SMA surface mixes
  - Open graded friction course mixes
- Shoulder and stabilized sub-base HMA mixes using increased RAP content as it exists today
- Shoulder and mainline full depth HMA mixes with higher contents of fractionated RAP
- Mainline SMA mixes using imported trap rock, GTR modifiers, fractionated fine graded RAP and no fibers

"A" Quality Stone

- **Use it to benefit both the contractor and Tollway**
  - **Existing Tollway overlays and shoulders with premium stone for easier RAP processing**

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Future HMA Needs by the Tollway

- More than 2,400,000 tons for mainline shoulders
- More than 900,000 tons for mainline SMA's
- More than 1,500,000 tons for mainline binder courses
- More than 900,000 tons for stabilized sub-bases
- More for temporary pavements & ramps
- More for future rehabilitation projects
- More space to be provided for RAP processing and storage

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More HMA In Place of PCC?

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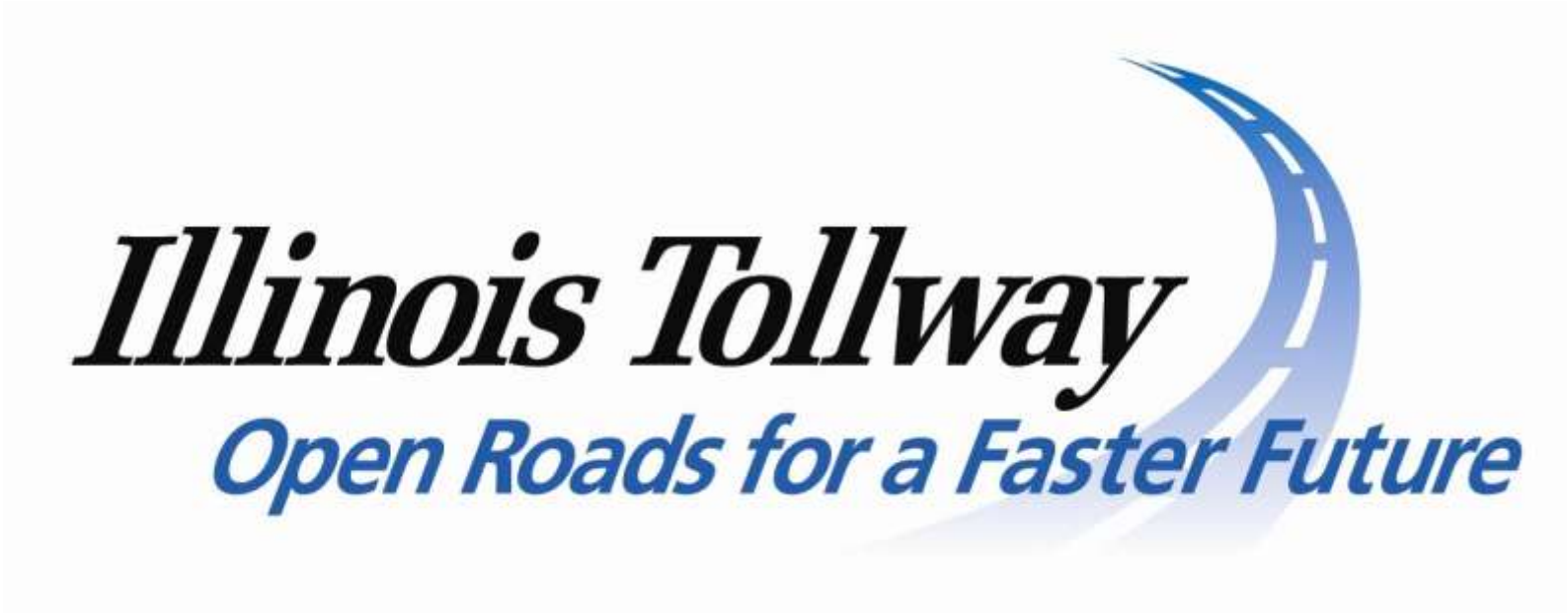

QUESTIONS?

Getting Tollway Construction Information

- **Construction Section – illinoistollway.com -** for details by road
- **1-800-TOLL-FYI -** daily lane closure info
- **Roadway & overhead signs, including DMS**
- **More info on travel times & incidents**
  - Dynamic message signs (DMS)
  - gcmtravel.com
- **Sign up for E-mail updates**
  - Traffic – nbc5.com
  - Construction – illinoistollway.com

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THANK YOU

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