Illinois Department of Transportation
Traffic Signal - Railroad Interconnects

October 25, 1995
Fox River Grove, Illinois

Minimum Preemption Time = ? Seconds

March 20, 2001 Purdue University, Indiana
Illinois Department of Transportation
Traffic Signal - Railroad Interconnects

Engineering Report:

MPT Table:

<table>
<thead>
<tr>
<th>Table 3.1 Recommended Timing</th>
<th>Time Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay</td>
<td>1</td>
</tr>
<tr>
<td>Minimum Green (sec)</td>
<td>1</td>
</tr>
<tr>
<td>Yellow Interval (sec)</td>
<td>4.5</td>
</tr>
<tr>
<td>All-Red Interval (sec)</td>
<td>1.5</td>
</tr>
<tr>
<td>Time Before E, R3 Receives the Green Interval (sec)</td>
<td>6</td>
</tr>
<tr>
<td>Track Clearance (sec)</td>
<td>17</td>
</tr>
<tr>
<td>Min. All Warning Time Required (sec)</td>
<td>29</td>
</tr>
</tbody>
</table>

Statewide Interconnect Locations

- State Highway Locations - 215
- Local Road Locations - 39
Traffic Signal Improvements

- New controller cabinets with railroad preempt features
- Track Clearance Green Re-service Feature
- Supervised Interconnect Circuit

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Traffic Signal Improvements

- New controller cabinets with railroad preempt features
- Track Clearance Green Re-service Feature
- Supervised Interconnect Circuit
- Presignals where short storage distance
- Security / Preempt Data Verification
- Remote Monitoring
Measures to Mitigate Higher Warning Times

Median Barriers above 35 sec MPT
**Measures to Mitigate Higher Warning Times**

- Median Barriers above 35 sec MPT
- Grade Crossing Predictors (CWT controllers)
- Studying Advance Preemption
- Video Enforcement
- Flashers on DO NOT STOP ON TRACKS signs

**Advance Preemption Study**

- Participation by Major Railroads
- Minutes of the Meetings Available on Web:
  - [http://cee.ce.uiuc.edu/tol](http://cee.ce.uiuc.edu/tol)
  - Password: palatinesudy
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**Typical Cost of Improvements**

- Railroad Crossing Warning Devices Improvements
  - $150 K per track (90% IDOT Share)

- Traffic Signal Improvements
  - $20 K* (100% IDOT Share)

  * Non-Presignal location

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**Interconnect Improvements Time Line**

- Completed Filing Petitions with the ICC
  - June 30, 1999

- ICC Orders / Agreements On File
  - January 1, 2000

- Crossing & Traffic Signal Construction Complete
  - Dec 31, 2002

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The End