Tappan Zee Bridge / I-287 Corridor Study

Project Status Update
Stakeholder Committee Meeting
Agenda

• Process – SAFETEA-LU / NEPA
• Evaluation Criteria
• Alternatives
• Project Schedule
• Path Forward
Project Goals

- Improve mobility and accessibility
- Meet travel demand (include transit)
- Maintain infrastructure
- Improve safety and security
- Avoid/minimize/mitigate adverse impacts
- Provide cost-effective solutions
Project History

- Notice of Intent published in Dec. 2002
- Considerable work done to date
- August 10, 2005 SAFETEA-LU enacted (Reauthorization Federal Transportation Bill)
• Major modification of federal law governing the planning and implementation of surface transportation projects
• Section 6002 features a revised environmental review process
Purpose:

- Streamlines the environmental review process and expedites project delivery
- Focuses on early and frequent public involvement
- Limits the potential for project delays
Streamlining Features:

- **Formal Process of Identification and engagement of Participating and Cooperating Agencies**
  - Agencies must formally commit to the project
  - Coordination Plan Identifies roles and responsibilities of the involved agencies and public
  - Agencies and public comments need to be addressed and resolved
Public Involvement Features:

• Public Involvement and Agency review
  – Coordination Plan, Purpose and Need Statement, Range of Alternatives, and methodologies for evaluating alternatives
  – Agencies must adhere to rules and schedules of the NEPA review process
Limits Potential Delay:

• Agencies must settle on critical criteria in timely manner

• Agencies must adhere to prescribed timelines for reviews and comment periods
NEPA Process

Scoping → DEIS → FEIS → ROD
Reasons for Change

• Lead Agencies determined that a new Notice of Intent is needed for the following reasons:
  – Desire to adopt Section 6002
  – Need to narrow the range of Alternatives
  – Addition of NYSDOT as a co-lead agency
  – Necessary phasing of bridge, highway, transit improvements
Specific Project Issues

- Operating characteristics, service plans, station types/locations, etc. requires extensive additional detailed design effort

- Advancing transit designs and impact analyses requires extensive community input; must also meet community planning objectives
Specific Project Issues

- Affiliating the transit planning process with highway and bridge design negatively impacts the overall schedule.
- Every year of additional effort costs $100s Millions in escalation through inflation.
- Scope, complexity and cost all alternatives require a phased implementation.
- Federal transit funding applications require an iterative review process that negatively impacts the overall project schedule.
NEPA Strategy

- Requires an innovative approach addressing:
  - Project’s complex issues (coordination with local planning entities, funding and timing)
  - National average for New Starts Projects is approximately 8 years

Tiering Transit & Highway/Bridge elements accomplishes this strategy
DEIS document and FEIS document resulting in:

- **Transit Tier I ROD**
  - ROD (Tier 1) identifying the preferred transit mode, termini and alignment
  - Planning level scenario
  - Sets groundwork for future Tier 2 ROD for Transit

- **Highway/Bridge Tier 2 ROD**
  - ROD (Tier 2) will advance Bridge and Highway work
  - Accommodate reasonable improvements identified within the Tier 1 Transit Analysis
  - Address detailed transit needs and impacts in the Highway/Bridge Corridor

**Assured Advancement of Comprehensive Multi-Modal Project**

**Preserves potential New Starts funding opportunity**
**NEPA Tiered Approach**

### NEPA Activities
- Notice of Intent
- Scoping
- Technical Studies
- New Notice of Intent
- Scoping Update and Conclusion
- Technical Studies
- Transit Mode Selection
- Preferred Alternative Selection
- DEIS Publication
- Public Hearing
- FEIS Publication

### Anticipated NEPA Results
**Transit ROD (Tier 1 ROD)**
Planning level decision to select a transit mode in the Corridor; defining an Alignment and identifying impacts to the bridge design and construction. Based on a planning level study. Future Tier 2 ROD anticipated.

**Highway/Bridge ROD (Tier 2 ROD)**
Traditional NEPA decision disclosing impacts and mitigation for the Highway and Bridge improvements. It will include impacts and mitigation from the Transit ROD that impact Bridge design and construction. Based on more detailed analysis than Tier 1.

### Subsequent Activities
- Transit NEPA Evaluation
- Transit ROD (Tier 2 ROD)
- Transit Engineering Design and Construction
- Highway/Bridge Engineering Design and Construction

---

**Timeline**
- 2002
- Spring 2008
- Ongoing
- Spring 2009
- Summer 2009
- Fall 2009
- Late 2009

**NEPA Activities (2002-2009)**
- Spring 2010
- Subsequent Activities
Tiering Timeline from ROD

Tier 2
Highway/Bridge

1.5 year Design and Permitting

1.5 year Design and Permitting

4 year Construction

Pressure Event

Tier 2
Transit

2.5 year EIS

2.5 year Design and Permitting

3 year Construction

Pressure Event

Pressure Event

ROD

ROD
Evaluation of Alternatives

• Transit Mode Selection Criteria
• Bridge Rehab / Replace Evaluation Criteria
Transit Mode Criteria

Purpose

• Compilation of criteria to help select mode or modes
• Update analyses from Stage 1
  – 2035 vs 2025
  – Other projects like ARC
• Test some new options based on public comments
Level 3 Transit Mode Evaluation Criteria

• Transportation
  – Transit Ridership
  – Roadway Congestion
  – Capacity
  – Travel Time

• Environmental
  – Land Use, Transit Oriented Development
  – Wetlands, Parkland, Historic/Archaeological

• Cost
  – Capitol Costs
  – Operating Costs
  – Costs per passengers/passenger mile
  – Benefit savings
Major Markets

- Orange
- Rockland
- New York City
- Cross Corridor
- Connecticut
- Westchester

Suffern

TAPPAN ZEE BRIDGE/I-287 ENVIRONMENTAL REVIEW
Bridge Rehab/Replacement Evaluation Criteria

- Environmental
- Transportation
- Cost Effectiveness
- Engineering
  - Structural Integrity
  - Vulnerability
  - Seismic
  - Redundancy
  - Emergency response
  - Navigation
  - Construction impacts
  - Life span
Existing Bridge
Rehabilitation

Alternative 2
Rehabilitate Tappan Zee Bridge with TDM/TSM Measures

TMD / TSM Measures
- Congestion Pricing
- Enhance Existing Metro North Programs
- Enhance Existing Easy Street Vanpool Program
- HOV Priority Lanes at Exit Plaza
- Enhance Real Time Driver Information
- Enhance Real Time Transit Information
- Comprehensive Incident Management Program
- Ramp Metering with HOV Priority Access
- Commercial Vehicle Programs

Figure 8-2 - Bridge Rehabilitation with TDM/TSM Measures
Rehabilitation Options
Replacement Options
Finalize Bridge Process

• Develop details of options
• Develop cost estimates
• Evaluate options against criteria
• Solicit input from various sources
• Report in DEIS
Alternatives/Options
Under Consideration
Option 3A
Full Corridor BRT

With an enhanced service plan, additional stations, extended bus lanes on Westchester Ave., and busway connection to Port Chester Station
Option 3B
Full Corridor BRT

Dedicated busway in Westchester
Alternative 4B
Manhattan Bound CRT with LRT in Westchester

Suffern
- HOT Lanes
- Climbing Lanes

Port Chester
- Existing Station Tarrytown
- LRT
- Westchester
- New TZ Transfer Station
- Hudson Line
- Manhattan Bound CRT

Rockland
Alternative 4C
Manhattan Bound CRT with BRT in Westchester

Suffern

HOT Lanes
Climbing Lanes

Rockland

HOT Lanes
Climbing Lanes

Tarrytown

Existing Station

Westchester

New TZ Transfer Station

Manhattan Bound CRT

Port Chester

Exclusive Lanes

BRT

Hudson River

Hudson Line

New York State Department of Transportation
Metro-North Railroad
Thruway Authority
Option 4D
Manhattan Bound CRT
with full corridor BRT

Suffern

HOT Lanes
Climbing Lanes

Rockland

Tarrytown

Replace

Existing Station

Exclusive Lanes

Port Chester

Westchester

HOT 6
BRT

BRT

Manhattan Bound CRT

Hudson Line

New York State
Department of Transportation
Metro-North Railroad
Thruway Authority
Path Forward...

- Project Initiation letter to FHWA and FTA
- Reissue NOI to redefine agency roles and responsibilities, trigger Section 6002, and introduce Tiering
- Identify and invite Cooperating and Participating Agencies
- Update Project Coordination Plan to reflect SAFETEA-LU 6002
Path Forward Cont...

- Distribute Scoping Update Packet
- Address agency and public comments:
  - Scoping Update Summary Report
  - Level 3 Transit Mode Analysis
  - Bridge Rehab/Replacement Criteria
- Select transit mode(s) for evaluation in DEIS
- Complete DEIS per project schedule
Outcomes

• Guarantees a multimodal solution
• Ensures transit is developed properly with extensive community involvement
• Ensures critical work on bridge starts sooner, mitigating cost escalations
• Ensures earlier completion and implementation of the complete project
## Project Milestones

<table>
<thead>
<tr>
<th>Milestones 2008</th>
<th>Milestones 2009</th>
<th>Milestones 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1 Publish NOI</td>
<td>M6 Select Preferred Alternative</td>
<td>F Publish FEIS</td>
</tr>
<tr>
<td>M2 Scoping Meetings</td>
<td>D Publish DEIS</td>
<td>R ROD</td>
</tr>
<tr>
<td>M3 Scoping Summary Report</td>
<td>M8 Public Hearings</td>
<td></td>
</tr>
<tr>
<td>M4 Announce Preferred Transit Mode(s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M5 Open House: Final Alternatives in DEIS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2008

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2009

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>M6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 2010

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>