Walpole - Charlestown

NH 12 Improvement Project

Public Informational Meeting #2
January 13, 2010
Tonight’s Agenda
(Don Lyford – Project Manager)

• Welcome and Introductions
• Summary of the Context Sensitive Solutions (CSS) Process
• Review Alternatives Considered by PAC
• Environmental Review Process
• Review Screening Results & Selection of Preferred Alternative
• Solicit Public Input (Comments & Questions)
• Next Steps
Project Overview
(Nate Miller – Planning Commission)

Project Area:
Main Street in North Walpole to NH 12A in South Charlestown (Approx 3 Miles)

Project Description:
- Reconstruct roadway
- Add shoulders, and
- Upgrade drainage

Concerns:
- Proximity to the Railroad
- Proximity to the River
- River Slope Stability
- Regional Importance of NH 12
Context Sensitive Solutions (CSS)

“A collaborative interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility.”

Key Principles of CSS:

- Consensus-Based (Can Everyone Live with the Solution?)
- Effective Community Outreach and Stakeholder Involvement
- Sound Engineering and Design
CSS Defined

Safety

Uniformity

Mobility

Historical and

Community

Values and

Environment
The Project Advisory Committee

Charlestown Selectboard | North Walpole Village Commissioners
Charlestown Planning Board | North Walpole Business
Charlestown Conservation Commission | Southwest RPC
Charlestown Economic Development Authority | TransCanada Corporation
Charlestown Businesses | Walpole Planning Board
Charlestown Town Officials | Walpole Selectboard
Connecticut River Joint Commissions | Upper Valley Lake Sunapee RPC
Fall Mountain Regional School District | Walpole Conservation Commission
New England Central Railroad | Walpole Town Officials
New Hampshire Dept. of Transportation | Other Citizens and Abutters

Roles of the Project Advisory Committee:

• Act as a Liaison between the Communities and NHDOT
• Provide Guidance for the Design Team
• Recommend a Preferred Alternative for Implementation
CSS Steps

WE ARE HERE → Preferred Alternative

Screen Alternatives
Brainstorm Alternatives
Screening Criteria
Vision Statement
Problem Statement
Public Workshop
Public Hearing

- WE ARE HERE
  - Public Workshop: December 12, 2007
  - Screening Criteria: September 08 thru September 09
  - Brainstorm Alternatives: October 14, 2009
  - Preferred Alternative: N/A

- Preferred Alternative: N/A
Problem Statement

“Route 12, the only highway between North Walpole and Charlestown, is too narrow, without shoulders and adequate guardrails. The highway's location, squeezed between the Connecticut River and the active New England Central rail line, and the roadway’s aging infrastructure present serious and unique safety concerns. The instability of the bank of the Connecticut River is a serious and immediate safety and environmental concern that threatens the roadway itself and the regional economy. Poor pavement condition and lack of sufficient roadway drainage cause hazardous and unsafe driving conditions. The combination of these factors hinders the ability of vehicles, cyclists, and pedestrians to safely and efficiently travel the corridor, and detracts from residents' ability to access the river and enjoy the scenic beauty of the Connecticut River Valley”.
Problem Statement - Summary

NH 12 Currently:

• Has Narrow Lanes
• Does not have Adequate Shoulders
• Has Inadequate Guardrails
• Is Squeezed between the Railroad and the River
• Has Aging Infrastructure and Drainage Problems
• Has History of Riverbank Instability
• Hinders Travel for Vehicles, Pedestrians, and Bicyclists,
• Detracts from Access to and Scenic Beauty of the River Valley
Vision Statement

“The Route 12 corridor will be safe, efficient, attractive, and environmentally sensitive, while adequately serving the needs of the motoring public, bicyclists, pedestrians and commercial traffic including rail service. Route 12 will be a wider road with adequate shoulders, appropriate guardrails, and safe passage for bicyclists and pedestrians, while providing better access and parking to enjoy the river. This project will realistically maximize the limited space available for the various modes of transportation, while preserving and enhancing the scenic qualities of the area for travelers and residents.”
NH 12 Should:

- Be Safe, Efficient, Attractive, and Environmentally Sensitive
- Serve the Needs of All Modes of Travel including Rail Service
- Be Wider with Adequate Shoulders and Guardrail
- Have Safe Passage for Bicyclists and Pedestrians
- Have Improved Access To and Parking For the River, and
- Preserve and Enhance the Scenic Qualities of the Area
Screening Criteria

Screening Criteria Include Questions on Topics Including:

- Access
- Aesthetics
- Economic Vitality
- Environmental Issues
- Implementation
- Mobility
- Quality of Life
- Safety

Used to systematically rate each option based on 5 choices:

Excellent / Good / Adequate / Poor / Very Poor

Helps the PAC determine if an option is “Reasonable” or “Unreasonable”
### Alternative Screening Criteria

**Walpole-Charlestown, 14747 NH Route 12 Context Sensitive Solutions**

<table>
<thead>
<tr>
<th>Mobility - Opt #1 - Do Nothing</th>
<th>Very Poor</th>
<th>Poor</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the alternative improve the mobility of passenger vehicles between Charlestown and Walpole?</td>
<td>T</td>
<td></td>
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<tr>
<td>Would the alternative improve the mobility of commercial vehicles between Charlestown and Walpole?</td>
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<tr>
<td>Would the alternative facilitate commercial rail travel along the New England Central Railroad?</td>
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<td></td>
<td></td>
<td>X</td>
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</tr>
<tr>
<td>Would the alternative improve the mobility of cyclists and pedestrians between Charlestown and Walpole?</td>
<td>X</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality of Life - Opt #1 - Do Nothing</th>
<th>Very Poor</th>
<th>Poor</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the alternative enhance the quality of life for those who live, work, and recreate along the Route 12 Corridor in South Charlestown and North Walpole?</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety - Opt #1 - Do Nothing</th>
<th>Very Poor</th>
<th>Poor</th>
<th>Adequate</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the alternative improve safety for automobiles traveling Route 12?</td>
<td>T</td>
<td></td>
<td></td>
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<tr>
<td>Would the alternative improve safety for commercial vehicles traveling Route 12?</td>
<td>T</td>
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</tr>
<tr>
<td>Would the alternative improve safety for pedestrians traveling Route 12?</td>
<td>T</td>
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</tr>
<tr>
<td>Would the alternative improve safety for bicyclists traveling Route 12?</td>
<td>T</td>
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</tr>
<tr>
<td>Would the alternative reduce conflicts between different modes of transportation?</td>
<td>X</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall - Opt #1 - Do Nothing</th>
<th>Unreasonable</th>
<th>Reasonable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the alternative address the problems identified in the Problem Statement and reflect the long-term vision outlined in the Vision Statement?</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

**Option #1 - Do Nothing**
Alternatives Considered

Option #1 – Do Nothing
Option #2 – Railroad as Control – Impact River
Option #3 – River as Control – Impact Railroad
Option #4 – New Highway east of Railroad
  #4A – The Other side of the Tracks
  #4B – Hillside Alternative
  #4C – Hillside Alternative with Bridge back to Church Street
Option #5 – On Line Option with Geotechnical Measures

Continued next slide…………..
Alternatives (continued)

Option #322: Hybrid of Options #2 and #3 with Railroad Relocation in the South

Component #322A: Option #322 with NH 12 / NH 12A Intersection Reconfiguration

*Option #323: Hybrid of Options #2 and #3 with Railroad Relocation in the South and the North

Component #323A: Option #323 with NH 12 / NH 12A Intersection Reconfiguration

*Project Advisory Committee’s Preferred Alternative
Existing Conditions
(C.R. Willeke – Design Engineer)
Railroad is Close

Guardrail is outdated
River is Close
Narrow Pavement
Slope Stability Concerns
Active RR and Ledge Outcrops
Narrow for Bicycles and Pedestrians
Options

- The Project Advisory Committee (PAC) came up with options to address the vision for the corridor.
- The NHDOT developed engineered concepts to illustrate and review the various options with the PAC.
- Option #1 – “Do Nothing” is considered thru the review process.
Option #2
Avoid Railroad Widen Toward River
**Option #2**
Avoid Railroad Widen Toward River
(approximately $14 million)

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Does not affect RR operations</td>
<td>• Significant slope fills into river</td>
</tr>
<tr>
<td>• Less business impacts</td>
<td>• Strong resistance from resource agencies</td>
</tr>
<tr>
<td>• Less residential impacts</td>
<td>• Large environmental impact to river</td>
</tr>
</tbody>
</table>

*Determined “Unreasonable” by PAC during screening process*
Option #3
River as Control – Relocate Railroad

"River as Control - Relocate Railroad"

CUT SECTION

Walpole - Charlestown
State Project # 14747
Federal Project # X-A000(487)
Option #3
River as Control – Relocate Railroad
(approximately $15-$20 million)

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Avoids River Impacts</td>
<td>• Right-of-Way costs for new RR Corridor</td>
</tr>
<tr>
<td>• Utilizes stable RR location</td>
<td>• Engineering &amp; Construction costs for new RR track</td>
</tr>
<tr>
<td>• Allows for phased construction</td>
<td>• Large cuts into hillside for new RR facility</td>
</tr>
</tbody>
</table>

*Determined “Reasonable” by PAC during screening process*
Option #4
Realign Highway to the East of the Tracks (approximately $15-$20 million)

**PROS**
- Avoids River Impacts
- Avoids RR Operations

**CONS**
- Business, Residential, and Community Impacts
- Right-of-Way cost for new Highway Corridor
- Large amount of earthwork along hillside for new highway facility
- Access issues for Meany’s Cove residents

*3 Variations:*

- 4A, 4B, & 4C

*Determined “Unreasonable” by PAC during screening process*
Option #4A and 4B
Use Main Street as NH 12
Option #4C
Has New Bridge to Church Street
Option #4A
The Other Side of the Tracks
Option #4B & 4C
Hillside Alternative
Option #4 (a, b, and c)
North End Treatment
Option #5
On Line w/Geotechnical Measures
**Option #5**

**On Line with Geotechnical Measures**

(approximately $23-$25 million)

<table>
<thead>
<tr>
<th>PROS</th>
<th>CONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoids River Impacts</td>
<td>Most Expensive Option</td>
</tr>
<tr>
<td>Avoids RR Operations</td>
<td>Difficult to Construct</td>
</tr>
<tr>
<td></td>
<td>Alternating One Way Traffic</td>
</tr>
</tbody>
</table>

*Determined “Unreasonable” by PAC during screening process*
Project Segments – Hybrid Options

Three Project Segments:
- Southern Segment (Len-Tex up to Houses)
- Middle Segment (Houses and Cove)
- Northern Segment (River and NH 12A Overpass)

Hybrid Option: 322 (Opt #3 – Opt #2 – Opt #2) (South – Middle – North)

Hybrid Option: 323 (Opt #3 – Opt #2 – Opt #3) (South – Middle – North)

Both Hybrid Options are the same in the Southern and Middle Segments
Project Segments – Hybrid Options
Southern Segment

OPTION 323
SOUTHERN SEGMENT

SHIFT RAILROAD EASTERNLY

EXISTING

PROPOSED

NH 12

CONNECTICUT RIVER COVE

WALPOLE - CHARLESTOWN STATE PROJECT # 14747
FEDERAL PROJECT# X-A080(487)
**Middle Segment**

<table>
<thead>
<tr>
<th>OPTION 323</th>
<th>MIDDLE SEGMENT</th>
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<tr>
<td>350</td>
<td>350</td>
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**IMPACT COVE AREA**

<table>
<thead>
<tr>
<th>PROPOSED NH 12</th>
<th>325</th>
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</table>

**MEANY'S COVE**

<table>
<thead>
<tr>
<th>EXISTING RAILROAD</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>EXISTING GROUND</th>
<th>4</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>4</th>
<th>12'</th>
<th>12'</th>
<th>4</th>
</tr>
</thead>
</table>

275 300 350

**1083+00**

**WALPOLE - CHARLESTOWN**

**STATE PROJECT # 14747**

**FEDERAL PROJECT # X-A000(487)**
Residential Area
Cove Area
## Option 322 – North Segment

<table>
<thead>
<tr>
<th>OPTION #322</th>
<th>NORTHERN SEGMENT</th>
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</thead>
<tbody>
<tr>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td>IMPACT RIVER</td>
<td></td>
</tr>
<tr>
<td>325</td>
<td>325</td>
</tr>
<tr>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>275</td>
<td></td>
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<tr>
<td>5105+00</td>
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</tbody>
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**WALPOLE - CHARLESTOWN**  
**STATE PROJECT # 14747**  
**FEDERAL PROJECT# X-A000(487)**
Option 322
(approximately $15-$20 million)

**PROS**
- Avoids river and instability area in southern segment
- Avoids large cuts and RR relocation in middle segment
- Avoids RR and wetland impacts in northern segment

**CONS**
- Requires RR relocation in southern segment
- Alignment moves closer to homes in middle segment
- Sliver impacts to cove in middle segment
- Impacts river in northern segment
- Narrower Typical under NH 12A

* Determined “Reasonable” by PAC during screening process
NH12A Westerly Bridge Pier

Limits
Westerly
Shift of
Highway
Option 323 – North Segment

OPTION #323
NORTHERN SEGMENT

RELOCATE RAILROAD EAST
WETLAND IMPACT AREA

CONNECTICUT RIVER

WALPOLE - CHARLESTOWN
STATE PROJECT # 14747
FEDERAL PROJECT# X-A000(487)
**Option 323**  
(approximately $15-$20 million)

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<th>PROS</th>
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<td>• Avoids river and instability area in southern segment</td>
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<tr>
<td>• Avoids large cuts and RR relocation in middle segment</td>
<td>• Alignment moves closer to homes in middle segment</td>
</tr>
<tr>
<td>• Avoids river impacts in northern segment</td>
<td>• Sliver impacts to cove in middle segment</td>
</tr>
<tr>
<td>• Enables 12-4 typical under NH 12A</td>
<td>• Impacts RR and wetlands in northern segment</td>
</tr>
</tbody>
</table>

* Determined to be “Reasonable” and to be the “Preferred Alternative” by PAC during screening process
Wetland
Stone Retaining Wall
NH 12 A Easterly Bridge Pier

Existing Space Enables Easterly Shift of RR
Component 322A and 323A
Component #322A and #323A
NH 12/ NH 12A Intersection Reconfiguration

**PROS**
- Can be applied to either Hybrid Option (322 or 323)
- Avoids alignment going under NH 12A
- Creates possible space for river access and/or parking

**CONS**
- Impacts farm land and fields near intersection
- Adds additional costs
- Near geometric limits for horizontal curvature

* Determined “Reasonable” by PAC during screening process
Environmental Review Process
(Jon Evans – Bureau of Environment)

Roles of the Bureau of Environment:

• Evaluate the potential impacts the project will have on the surrounding natural, cultural, social, and economic environments,

• Coordinate and receive input from the Federal, State, and Local resource agencies and organizations, public officials, and private citizens, and

• Prepare and/or obtain the necessary environmental documentation and permits.
Environmental Review Process
(continued)

Cultural Resources:

• Historic Structures at least 50 years old
• Archaeological Resources
• Section 106 of the National Historic Preservation Act
  – Consulting Parties: Allows owners of historic properties or agencies with a direct interest in cultural resources to take on an advisory role known as a Consulting Party
  – Written Request sent to Jamie Sikora of Federal Highway Administration NH Division
Screening Criteria
(Nate Miller – Planning Commission)

Screening Criteria Include Questions on Topics Including:

• Access
• Aesthetics
• Economic Vitality
• Environmental Issues
• Implementation
• Mobility
• Quality of Life
• Safety

Helps the PAC determine if an option is “Reasonable” or “Unreasonable”

Used to systematically rate each option based on 5 choices:
Excellent / Good / Adequate / Poor / Very Poor
Summary of Screening Process

Unreasonable Alternatives:

- Option #1 – Do Nothing
- Option #2 – Railroad as Control – Impact River
- Option #4A – The Other side of the Tracks
- Option #4B – Hillside Alternative
- Option #4C – Hillside with Bridge back to Church St
- Option #5 – Online with Geotechnical Measures
Summary of Screening Process (continued)

Reasonable Alternatives:
- Option #3 – River as Control – Impact Railroad
- Option #322 – Hybrid with RR Relocation in South
- Component #322A – NH 12 / NH 12A Intersection Reconfiguration
- *Option #323 – Hybrid with RR Relocation in North and South
- Component #323A – NH 12 / NH 12A Intersection Reconfiguration

*Project Advisory Committee’s Preferred Alternative
Comments and Questions?
Next Steps…

• Review design with railroad company and develop environmental documentation
• Conduct formal public hearing (2010)
• Final design and permitting (2010 / 2011)
• Initial construction begins (2012)
• Current construction funds are approximately $13 million
End of Slide Show

Thank You