Walpole - Charlestown

NH 12 Improvement Project

Public Informational Meeting

April 29, 2009
Looking at Main St in N. Walpole

Original Project Limits
“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 River and the Railroad
- Has Aging Infrastructure and Drainage Problems
- Has History of Riverbank Instability
- Hinders Travel for Vehicles, Pedestrians, and Bicyclists, and
- Detracts from Access to and Scenic Beauty of the River Valley
NH 12 Northern Limit
NH 12 @ NH 12A Overpass

Walpole – Charlestown NH 12 Improvement Project
Oversize Load
Narrow for Bicycles and Pedestrians
Steep Ledge Slopes
Grade Differential
2 Sets of Tracks
Ledge Outcrop
Slope Stability Concerns
NH 12 Adjacent to River
NH 12 Southern Limit of Work
Vision Statement
4-9-08

“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.”
Vision Statement

Summary

**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
Preliminary Alternatives

- Option #1 – Maintain Existing Condition
- Option #2 - Hold Railroad as control and widen westerly toward river
- Option #3 - Hold River as control and widen easterly toward railroad
- Option #4 - Relocate NH 12 easterly to “the other side of the tracks”
  - 4A - Close to Railroad, Similar Profile as RR
  - 4B – Hillside Alternative (More Balanced Cuts and Fills)
  - 4C – Hillside with new Bridge over RR near Len-Tex
- Option #5 – Online Alternative with Geotechnical Measures
Option #2

“Railroad As Control - Widen Towards River”

FILL SECTION

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Option #2 - Highlights

- Northern Limit near NH 12A, Southern Limit near Len-Tex,
- Significant slope fills into Connecticut River,
- Strong resistance from Resource Agencies due to river impacts,
- Relatively less business and residential impacts,
- Most likely less archeological impacts than other alternatives,
- Affects the railroad right-of-way but not the track operations,
- No cost estimate yet, but most likely less costly than other alternatives.
Option #3

"River as Control - Relocate Railroad"

CUT SECTION

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Walpole - Charlestown
State Project # 14747
Federal Project # X-A000(487)
Option #3

"River as Control - Relocate Railroad"

RETAINING WALL SECTION

Walpole - Charlestown
State Project # 147+47
Federal Project # X-A000(487)
Option #3 - Highlights

- Northern Limit near NH 12A, Southern Limit near Len-Tex,
- Utilizes stability of railroad location,
- Relocates railroad easterly,
- Allows for phased construction,
- Avoids river impacts, Likely has archeological impacts,
- Has right-of-way costs for new railroad corridor,
- Has engineering and construction costs for new rail,
- Has large cuts into hillside for railroad corridor,
- Has ledge blasting near an active railroad line, and
- Preliminary Cost Estimate = $15 - $20 Million.
Option #4 – Other Side of the Tracks

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Option #4 - Highlights

- Northern Limit Extended, Southern Limit: several options,
- Has new Roadway alignment east of the tracks,
- Avoids river impacts,
- Likely has archeological impacts,
- Has right-of-way costs for new highway corridor,
- Affects railroad drainage system,
- Has even larger cuts into hillside for highway corridor,
- Has ledge blasting near an active railroad line,
- Affects access for residents along NH 12,
- Preliminary Cost Estimate = $15 - $20 Million.
Option #4A

OPTION #4A
OTHER SIDE OF THE TRACKS

Walpole – Charlestown NH 12 Improvement Project
Option #4A - Highlights

- Has alignment similar to railroad,
- Is as close to railroad as possible to minimize cut slopes,
- Is within railroad right-of-way but not track or service road,
- Has unbalanced cuts and fills,
- Uses Old State Road in Charlestown,
- Uses Main Street in North Walpole,
- Affects Len-Tex building located east of railroad,
- Preliminary Cost Estimate = $15 - $20 Million.
Option #4A - Charlestown
Option #4A - Walpole
Option #4B – Cut Section
Option #4B – Fill Section

Walpole – Charlestown NH 12 Improvement Project
Option #4B – Town Line Section
Option #4B - Highlights

- Uses hillside alignment to minimize railroad right-of-way impacts,
- Has more balanced cuts and fills,
- Still has large cuts due to terrain,
- Affects property and access near Old State Road in Charlestown,
- Uses Main Street in North Walpole,
- Affects Len-Tex building located east of railroad,
- Preliminary Cost Estimate = $15 - $20 Million
Option #4B - Charlestown
Option #4C - Highlights

- Includes new bridge over railroad,
- Impacts Len-Tex property near Church Street,
- Has skewed bridge,
- Has horizontal curve on bridge,
- Has retaining wall to avoid Len-Tex Building
- Is near slope stability area of concern, and
- Avoids sending NH 12 traffic onto Main Street.
Main Street in North Walpole

- Wider than Church Street (existing NH 12),
- NH 12 access at each end of Main Street,
- Two Underpasses (Russell St and North Main St),
- Fire & Police use underpasses to cut response time and avoid trains,
- Russell Street Underpass results in deficient geometry (Down Up Road),
- Historic Homes and Middle School, and
- Drainage and Sidewalk have areas in marginal condition
Down Up Road – Russell St
Russell Street Under RR

Walpole – Charlestown NH 12 Improvement Project
Down Up Road
Down Up Road
Len-Tex
Main Street Underpass Approach
Option #5

OPTION #5
"On-Line Alternative"

RETAINING WALL SECTION

River

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Option #5 - Highlights

- Online option with retaining walls along riverside,
- Avoids impacts to river,
- Minimizes impacts to railroad,
- Is difficult to construct,
- Would involve alternating one way traffic,
- Preliminary Cost Estimate = $23 - $25 Million
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