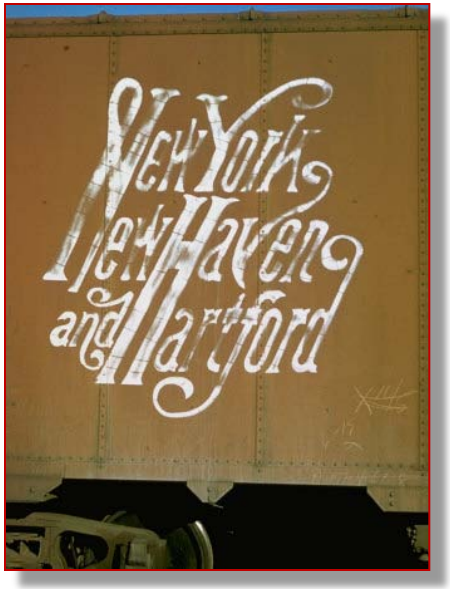
New Haven-Hartford-Springfield Rail Project

Gateway to New England

Program Update
August 2011

New Haven-Hartford-Springfield Rail Corridor

- **Glory Days: 1925-1955**
  - 22 trains/day in 1947
  - *Bankers Ltd* – 3-hour service to NYC
  - *Sleeper, parlor & grill cars on most trains*
  - *Connections to Boston, Albany & Montreal*
  - *Overnight to NYC, Pittsburgh & Washington*
- **Amtrak Today**
  - 6 daily round-trip Amtrak trains
    - 4 round-trip shuttles between New Haven and Springfield
    - Only 2 roundtrip trains (including the Vermonter) operate directly south of New Haven



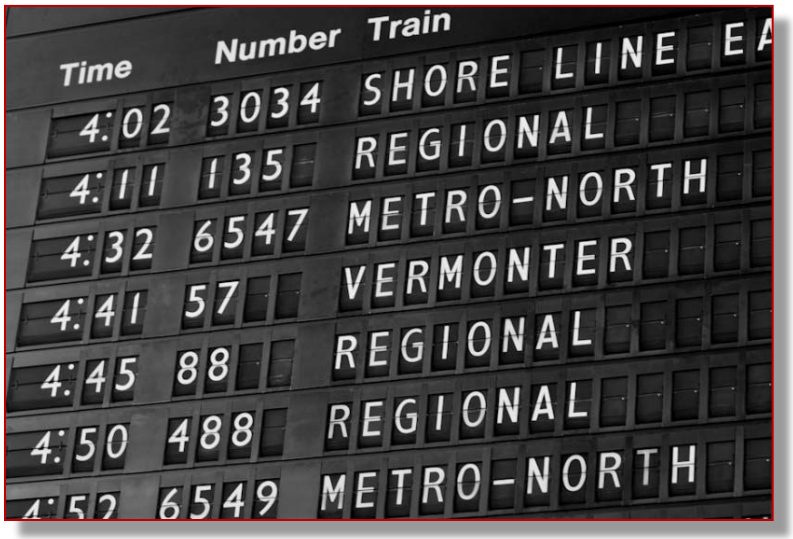
Rebirth of the New Haven-Hartford-Springfield Rail Corridor

- **Long-Term Vision:**
  - Up to 25 daily Amtrak & NHHS Regional round trip trains
  - 30-minute peak hour service
  - Hourly service during off-peak
  - High-speed express trains
  - Direct and connecting service at NHV to/from NYC, VT & MA
  - Reduced-price "commuter" fares honored on both Amtrak & Regional trains between NHHS stations
- **Future New Stations**
  - North Haven; Newington; West Hartford; Enfield
- **Vibrant Station Area Development**

Regional Vision

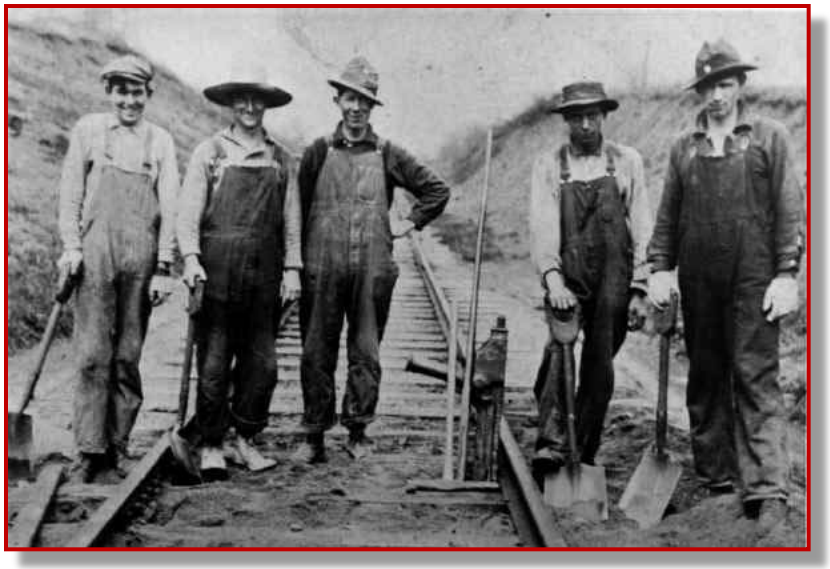
Making Connections

- Grand Central, Penn Station or Boston
  - Acela trains to NYP/BOS
  - Metro-North trains to Grand Central Terminal
- Expanded Service to Massachusetts/VT
  - Knowledge Corridor to Greenfield
  - Boston-Springfield-NHV-NYP via the Inland Route)
- Bus Shuttle to Bradley Airport at Windsor Locks
- Transfer to/from New Britain Busway at Hartford & Future Newington Station & West Hartford



The Team

- **Connecticut DOT**
  - Jim Redeker, Acting Commissioner
  - John Bernick, Project Manager
  - Mark Alexander, Environmental Planning
- **Program Management/Oversight**
  - Amtrak
  - Federal Railroad Administration
  - Federal Transit Administration
- **Permits**
  - Connecticut DEP
  - US Army Corps of Engineers



The Rail Corridor

- First Trains: 1844
- Length: 62 miles
- Tracks
  - 23.3 miles of double track
  - 38.7 miles of single track
- Bridges &Culverts: 180
  - Hartford Viaduct
  - Connecticut River
- At-Grade Crossings: 38 public
- Current Stations:
  - New Haven; Wallingford; Meriden; Berlin; Hartford; Windsor; Windsor Locks; Springfield

How We Got Here

- **2005 Implementation Plan for Commuter Rail Service**
  - Quantified benefits & costs of a start-up commuter rail service
- **2009 Draft Environmental Assessment**
  - Evaluated impacts of commuter rail along the NHHS corridor
  - Public meetings in 2008
- **2009 High-Speed Intercity Passenger Rail Program**
  - FRA establishes new program to upgrade rail corridors
  - Amtrak & CT develop robust NHHS operating plan with intercity & NHHS train service
  - NHHS to serve as Gateway for expanded Vermonter & Massachusetts service
  - Federal funding grants awarded in 2009 ($40 million); 2010 ($120.9 million) and 2011 ($30 million)
- **2011 Program "Kick-Off"**
  - Program Management Team & final design teams
  - New NHHS Environmental Assessment for high speed & intercity rail service

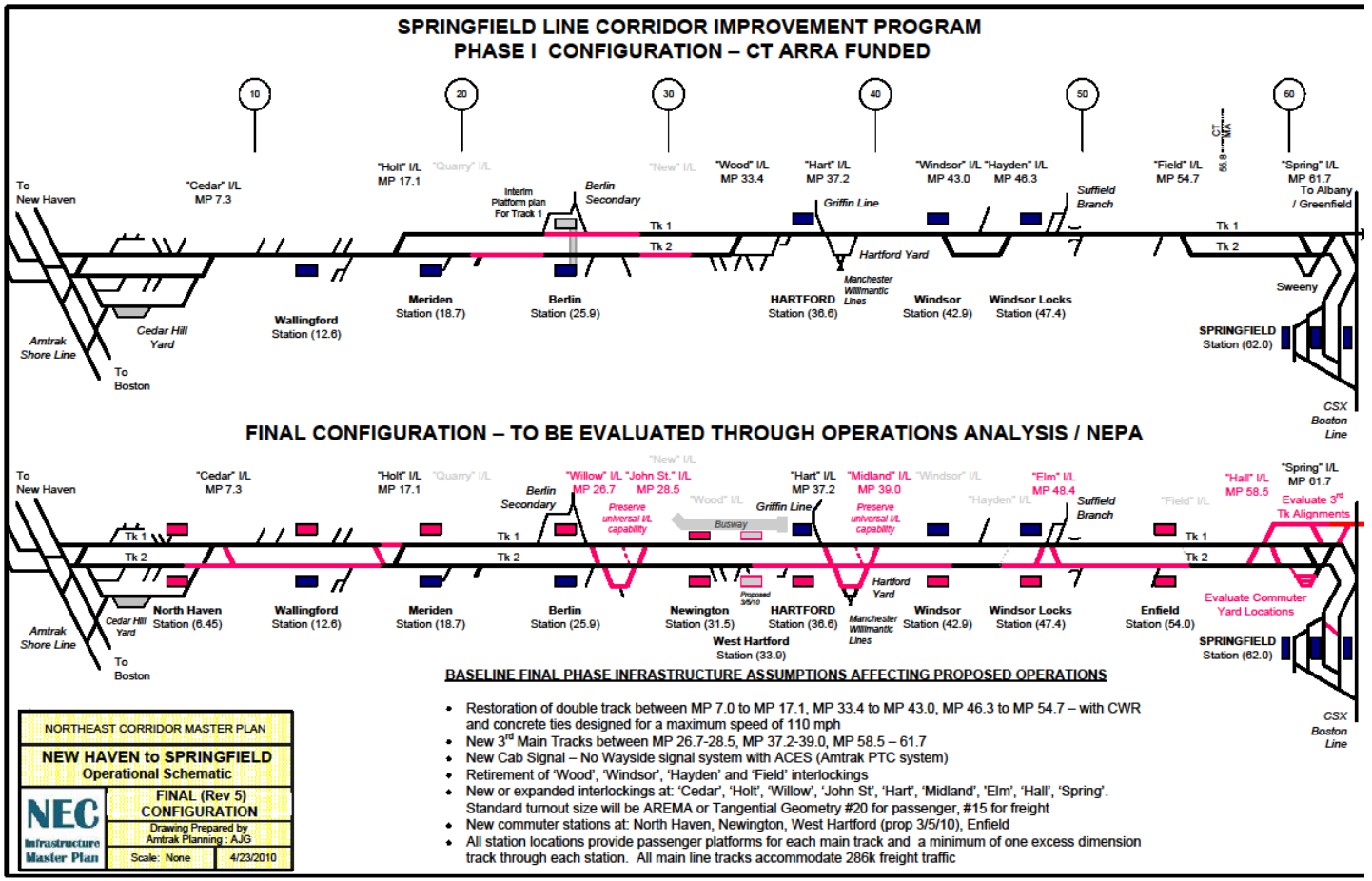
Program Scope:
Modernizing the Infrastructure & Service

1. Track & signal improvements
2. Bridge & drainage upgrades to accommodate double tracking
3. 38 At-grade crossing upgrades to enhance safety
4. Station enhancements & future new stations
5. New train equipment

Program Scope: Track Program

- **Purpose: capacity; reliability; safety**
- **Full Project Scope**
  - **44.5 miles of new double track and sidings**
  - **9 new interlockings so trains can switch tracks at high speed**
  - **Positive Train Control (PTC) for safe control of trains operations**

NHHS Line Requires Double Tracking For Capacity & Reliability



Program Scope: State of Good Repair

- Purpose: modernize & repair the basic facilities
- Full Project Scope
  - Upgrade/repair 180 bridges & culverts
  - Address century-old drainage issues
  - Rationalize unused sidings/switches
- Future Work: Repairs to Hartford Viaduct & Conn River Bridge

Program Scope: At-Grade Crossing Safety

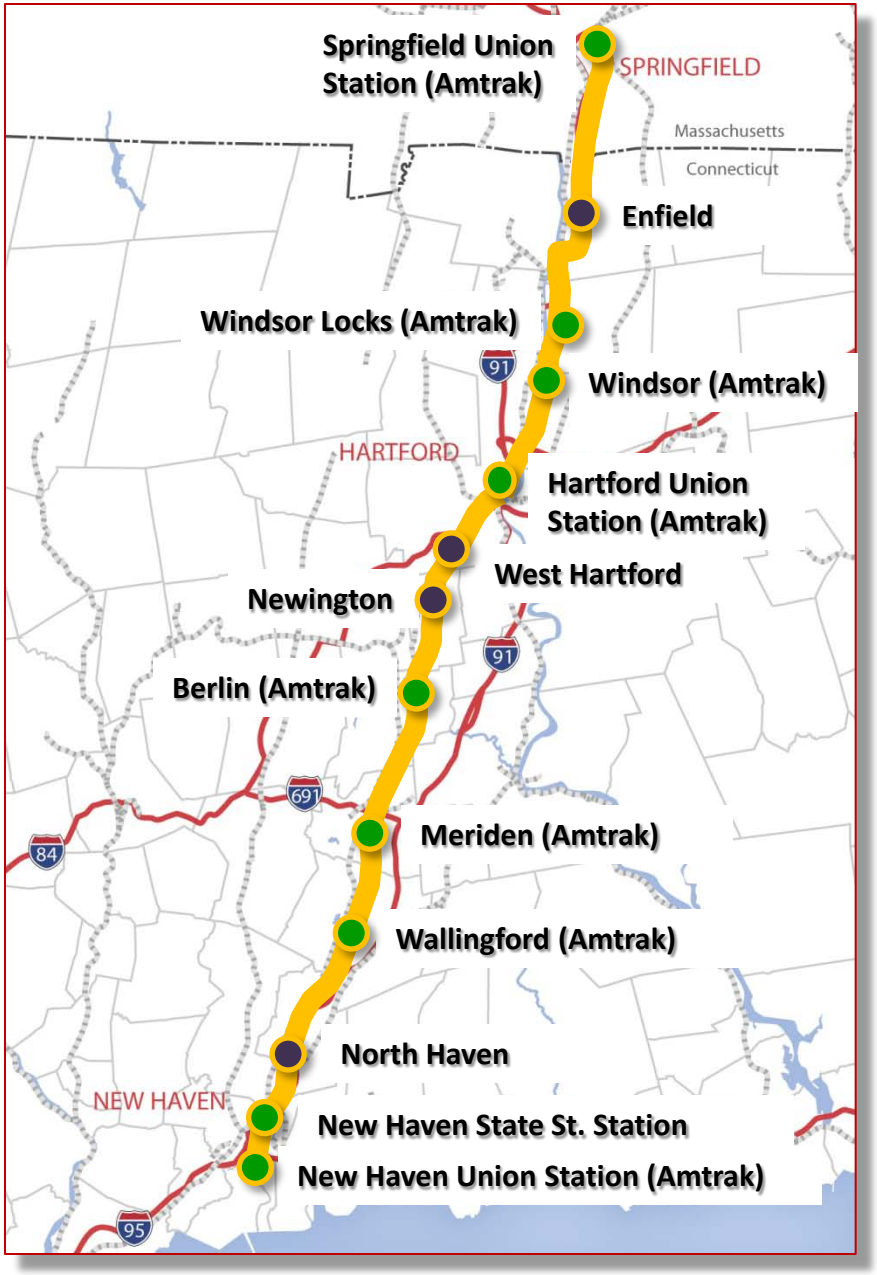
- **Purpose: Enhance at-grade crossing safety; meet current standards**
- **Full Project Scope**
  - **Provide quad-gate or "channelized" median dividers at all public crossing to maximize safety**
  - **Meet current road standards/turning requirements at crossings**
  - **Evaluate potential for Quiet Zone treatment**

Program Scope: Modernizing The Stations

- **Purpose: Enhance accessibility; speed boarding; stimulate local development**
- **Scope**
  - **High-level platforms on both sides of tracks; "up & over" access**
  - **Parking evaluation with the towns**
  - **Station relocation in coordination with the towns**
- **<u>Future</u> New Stations for NHHS train service**
  - **North Haven; Newington, West Hartford; and Enfield**
  - **Design in Phases 1 & 2; construction with additional funding**

NHHS Corridor

- Existing Stations
- New Stations



Program Scope: NHHS Trains

- Purpose: meet immediate equipment needs & plan for future procurement
- Scope
  - Continue use of Amtrak's four Springfield-New Haven "shuttle" train sets
  - Transfer Shore Line East train sets following delivery of M-8s
  - Plan future procurement of new equipment for expanded NHHS service
  - An additional Lay-over facility in Massachusetts to clean/store trains at night
- Develop "brand" for NHHS trains & stations

Current Funding Status

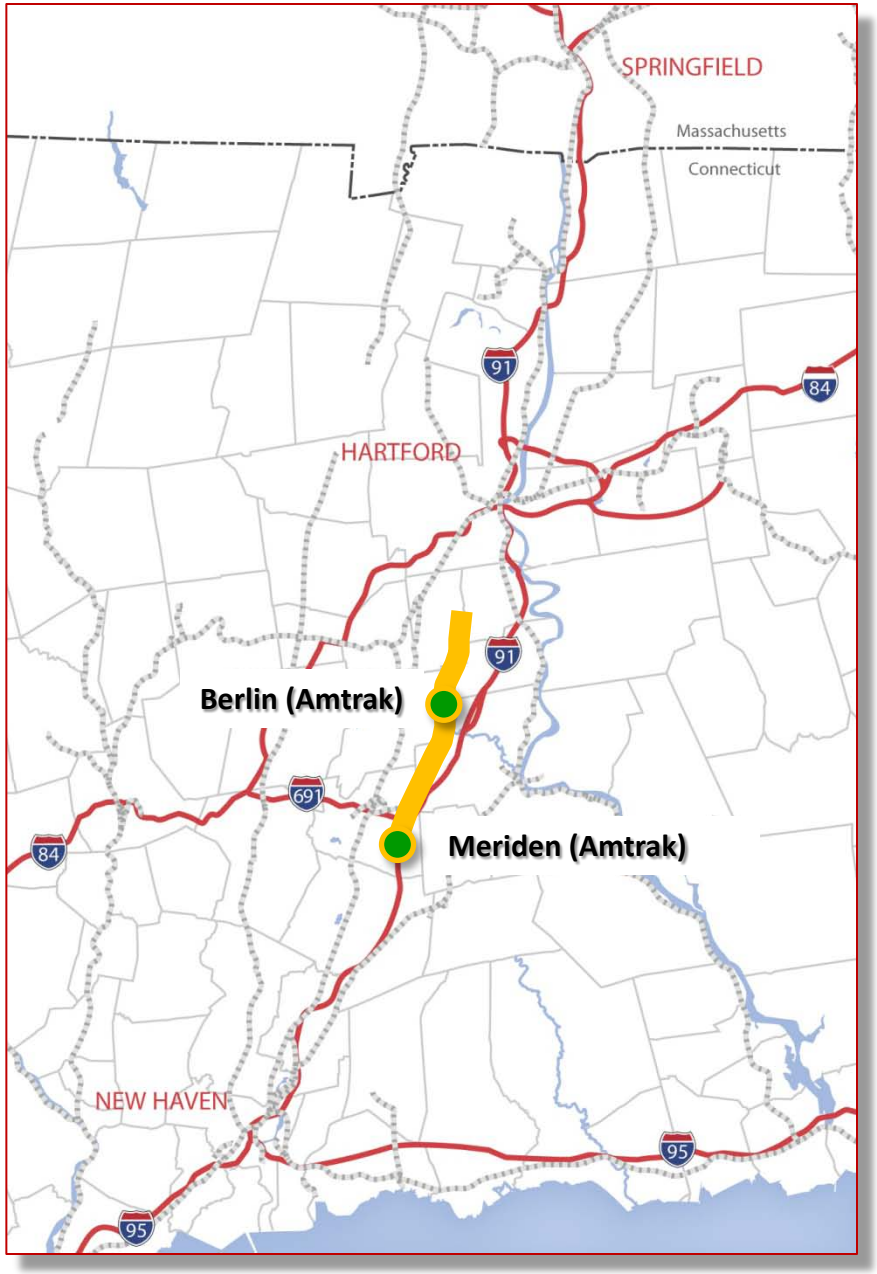
- **Preliminary Program Cost: $647 million**
  - **Does not include: new stations; new trains; Upgrades to the Connecticut River Bridge or Hartford Viaduct**
- **Funding Awards & Bond Proceeds Available to Date: $471 million**
  - **Meriden-Berlin: $40 million in Federal funding**
  - **New Haven-Hartford: $121 million in Federal funding**
  - **Hartford-Springfield: $30 million in Federal Funding**
  - **State Funding: $280 million in bond authority**
- **Additional Annual Funding Opportunities**
  - **Additional FRA funding under a continuing six-year HSR funding program**
  - **Other funding sources: FTA for new stations and regional trains**

Phasing NHHS Improvements

- Phase 1 Meriden-Newington
- Phase 2 New Haven-Hartford
- Phase 3 Hartford-Springfield
- Phase 4 Regional Rail Upgrades – FTA Funding Sources
- Phase 5 Ongoing State-of-Good-Repair Program

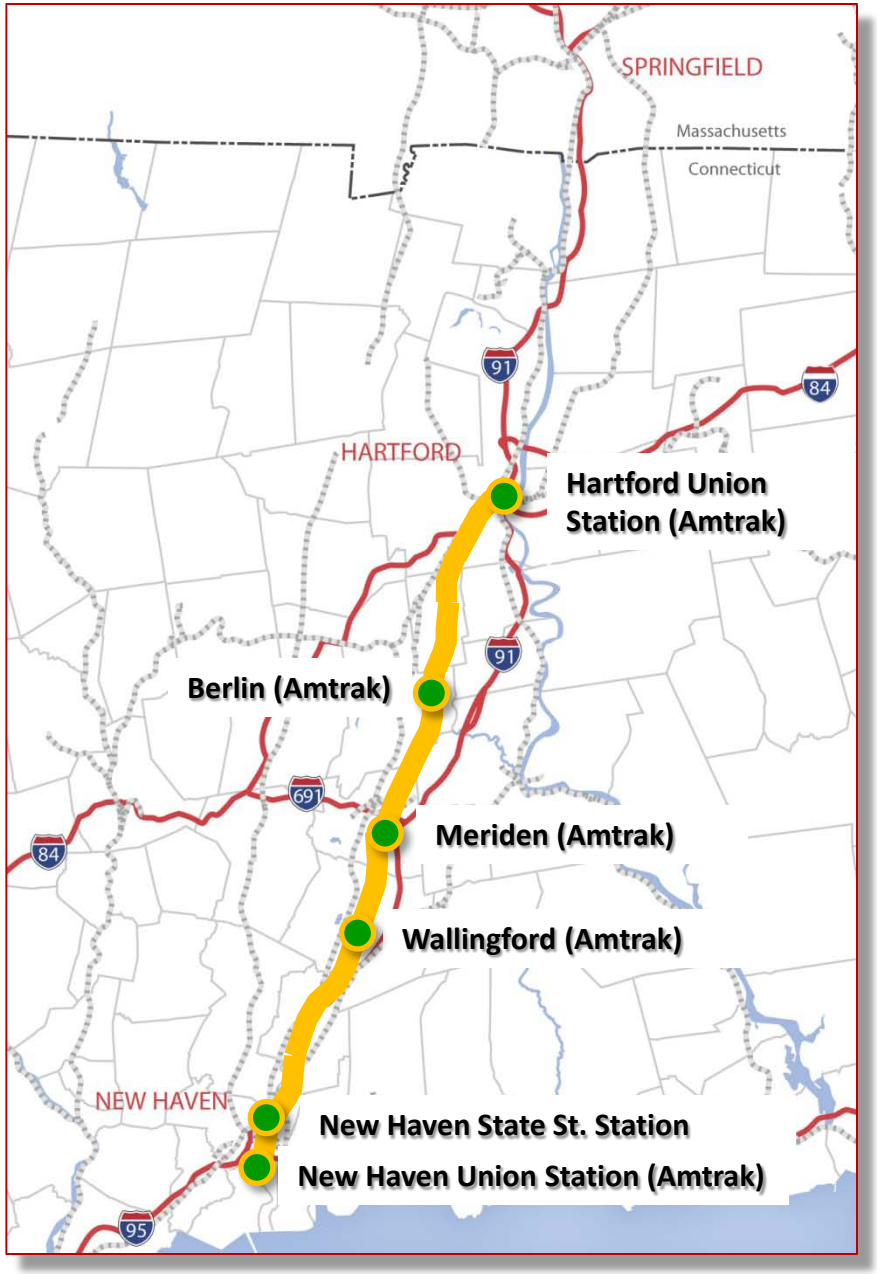
Phasing NHHS Improvements

- **Phase 1 Meriden-Newington**
  - **Adds 10.2 miles of second track between Meriden and Newington**
  - **Cost: $60 million**
    - **$40 million Federal;**
    - **$20 million State)**
    - **Funding fully obligated**



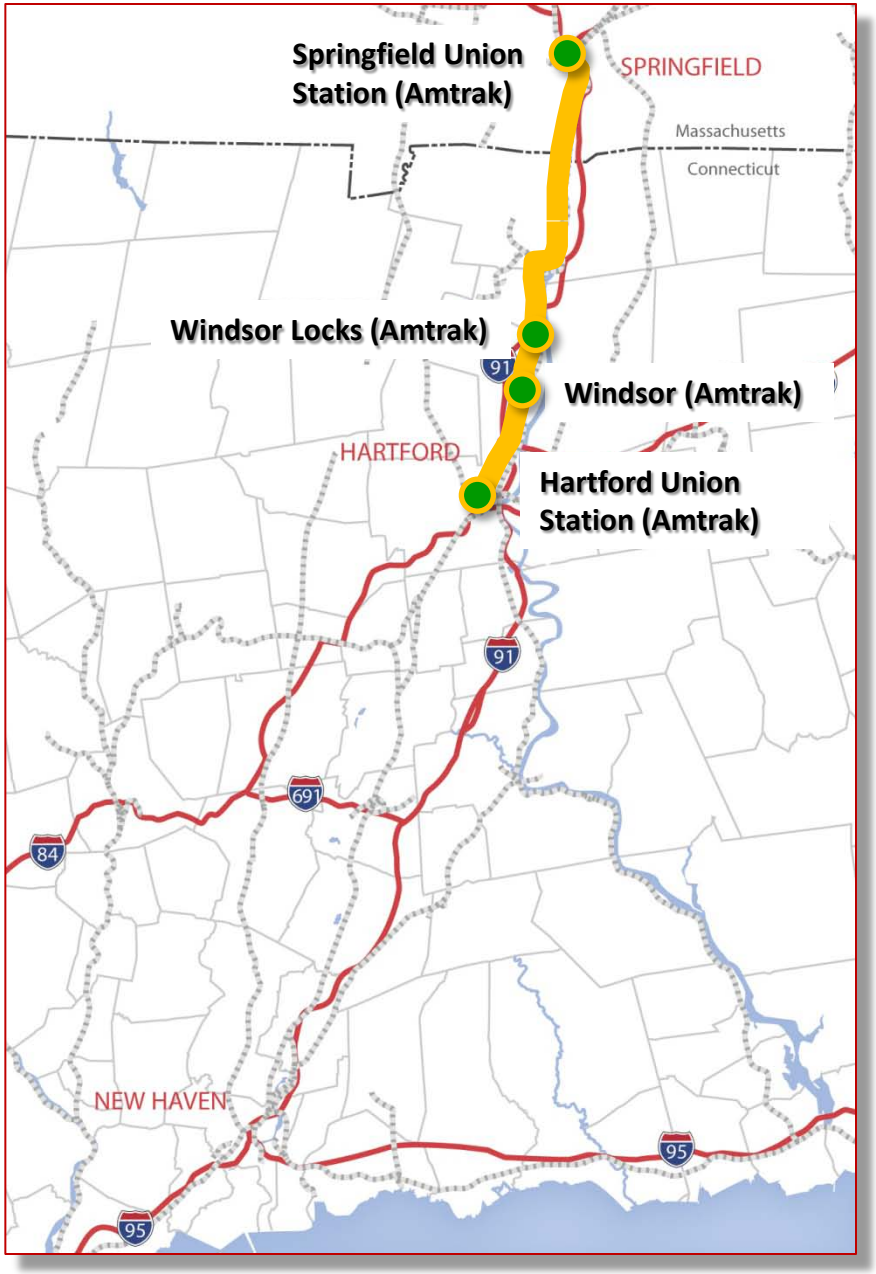
Phasing NHHS Improvements

- **Phase 2 New Haven-Hartford**
  - Adds all new track, signal, bridge and station infrastructure for additional service between new Haven and Hartford
  - Adds new service during peak morning/evening rush hour
  - Cost: $262 million
    - $121 Federal
    - $141 State
    - Fully funded



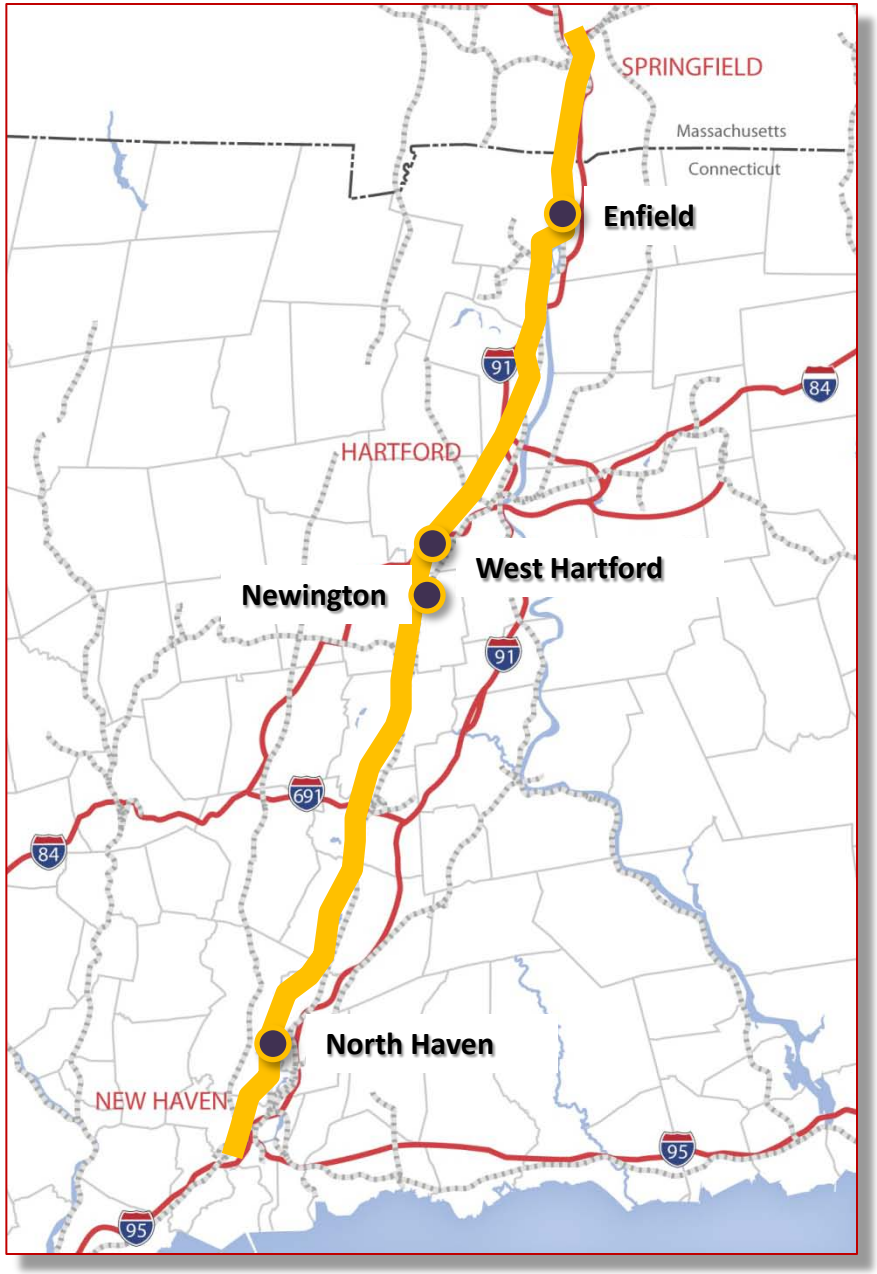
Phasing NHHS Improvements

- **Phase 3 Hartford-Springfield**
  - Extends track, signal, bridge and station improvements to Springfield
  - Provides capacity for up to 50 trains/day
  - Cost: $324 million
    - $227 million Federal
    - $97 million State
    - $30 million in Federal funding awarded to-date



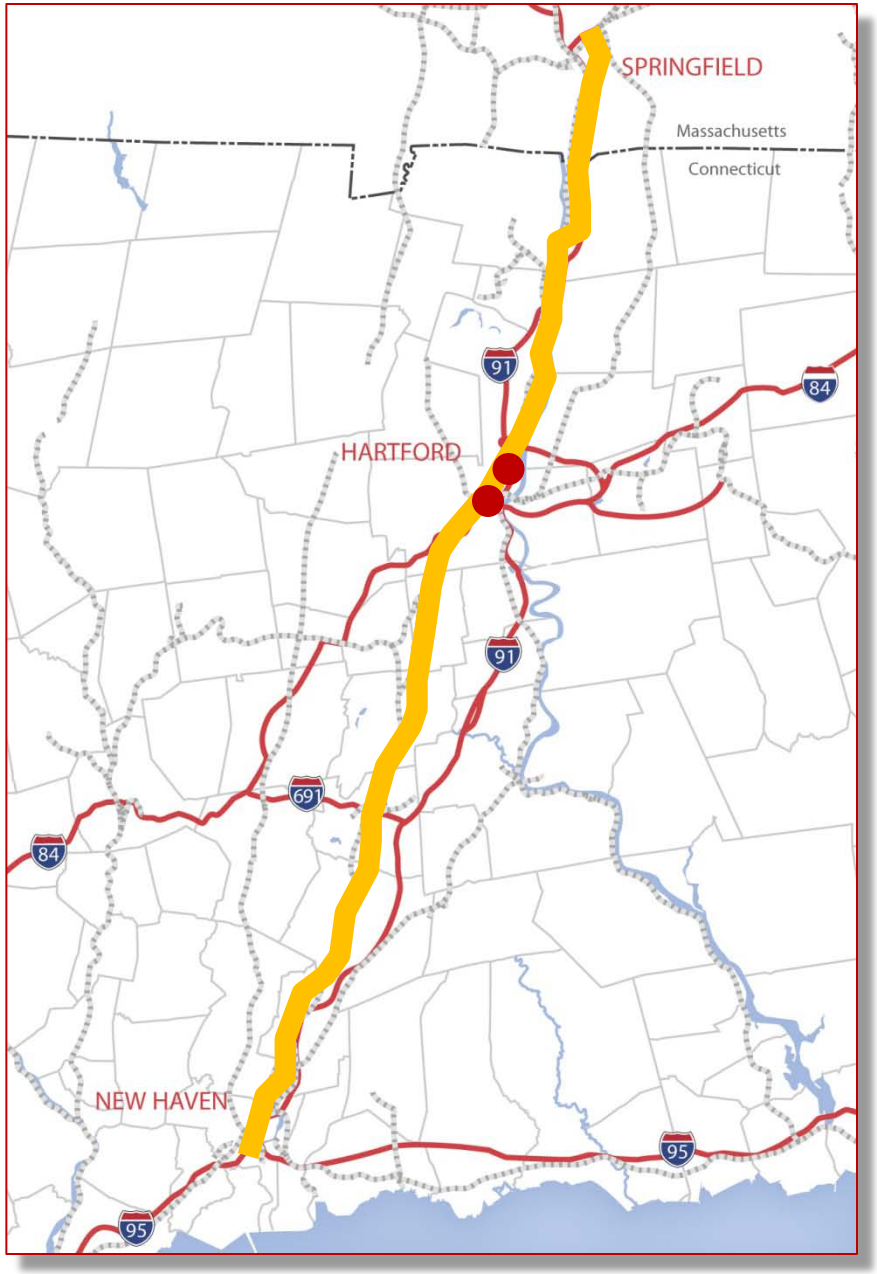
Phasing NHHS Improvements

- Phase 4 Regional Rail Upgrades – FTA Funding Sources
  - Constructs four new NHHS stations (North Haven; Newington; West Hartford; Enfield)
  - New train equipment
  - Efforts underway to secure FTA funding



Phasing NHHS Improvements

- **Phase 5 Ongoing State-of-Good-Repair Program**
  - **Repair Hartford Viaduct and Connecticut River Bridge**
  - **Upgrade other structures and facilities as required**



Why Make the Investment?

- **Fast, Convenient Regional Transportation**
  - Connects/integrates regional transportation across New England
  - More frequent service
  - Faster service
- **Creates Engine For Local Economic & Station Area Development**
  - Construction-related & long-term job growth
  - Provides the connections to livable communities along the rail line

- **Establishes An Interconnected Public Transportation System for Connecticut's Future**
  - Metro North – Shoreline East
  - Amtrak – Local bus services
  - Busway – Bradley International Airport

Significant Regional Service Expansion

New Haven-Hartford-Springfield Service	Round-Trip Train Frequencies 2010	Round-Trip Train Frequencies 2030
• NHHS Regional	0	10
• Amtrak	6	15
Total	**6**	**25**
– NHHS Shuttle	4	14
– Springfield-WAS	1	1
– St. Albans-WAS	1	1
– White River Junction / Bellow Falls / Greenfield-New Haven	0	5
– BOS-Springfield WAS	0	3
– BOS-NHV	0	1

Significant Trip Time Improvements

Station	Best Amtrak Trip Time to NYP (Serving all Amtrak stations) 2010 (Train 141)	Best Amtrak Trip Time to NYP (Serving all Amtrak stations) 2030 (Train141)
Hartford CT	2:43	2:10
Springfield MA	3:20	2:49
White River Junction VT	7:36	5:32
Greenfield MA	--	3:49

Significant Regional Benefits Transportation Alternatives, Jobs & the Environment

- **Transportation**
  - Ridership: 1.26 million new annual trips by 2030
  - Service to NYC
  - Express bus connection at Bradley
  - 1.15 million car trips diverted to rail by 2030
- **New Jobs**
  - Approximately 13,000 construction and related jobs
- **Environment**
  - Over 3.2 million gallons/year of fuel saved Over 25,000 metric tons less carbon/year
- **Transit-Oriented Development at Stations**

Near-Term Schedule

1. **Finalize Phase 1 & 2 Service Plan**
   - **Develop the operating plan**
   - **Scope the improvements**
2. **Execute FRA Grants**
3. **Apply for additional Phase 3 Funding**
4. **Complete NHHS Environmental Assessment**
5. **Initiate Engineering for Infrastructure Upgrades Required for Phase 1 & 2 Service**
6. **Complete design: 2014**
7. **Launch Service: 2016**

Schedule

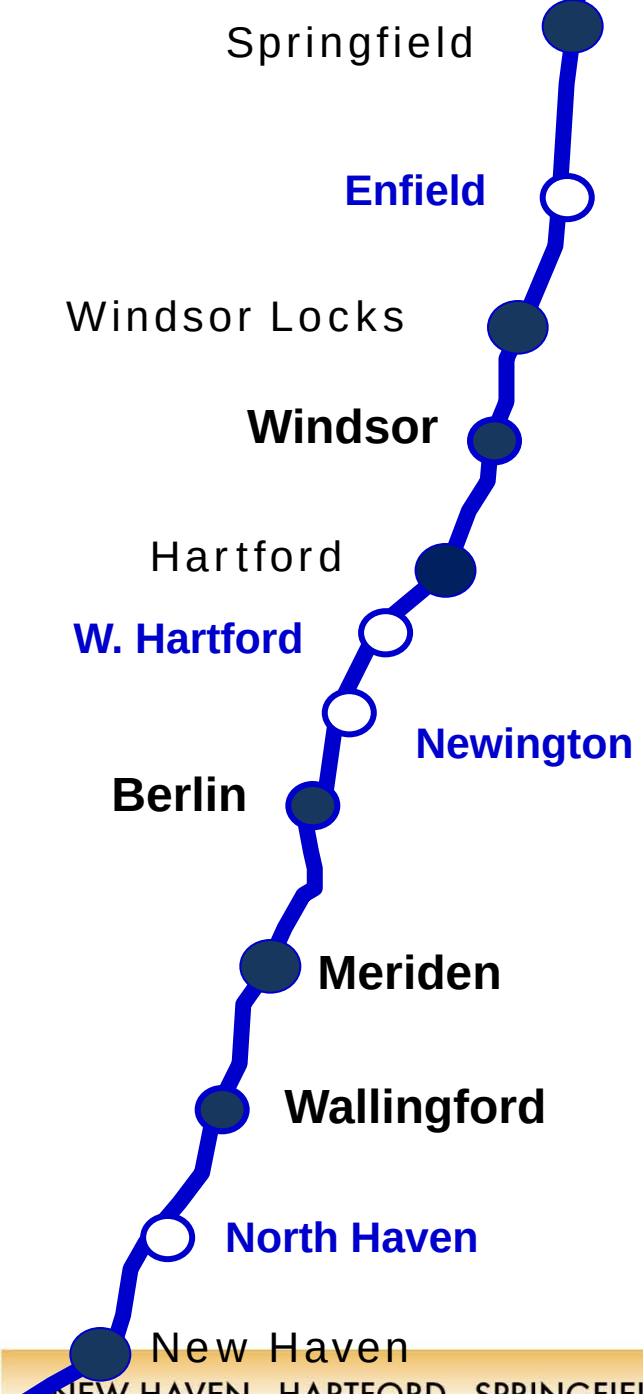
TASK	2011	2012	2013	2014	2015	2016
Finalize Phase 1 & 2 Service Plan	✓					
• Develop Operating Plan	✓					
• Scope Improvements	✓					
Apply for Phase 3 Funding	✓	✓				
Complete Environmental Assessment	✓					
Initiate Engineering for upgrades Required for Phase 1 & 2 Service	✓					
Complete Design	▬	▬	▬			
Construction				▬	▬	▬
Launch Service						★

Working With Our Partners To Advance The Project

- **Amtrak Partnership**
  - Engineering/construction agreements
  - Coordinated service plan & connections
  - Honoring commuter fares
- **Massachusetts & Vermont**
  - Coordinating environmental studies
  - Developing regional support
- **Freight Railroads**
  - Avoiding impacts on existing operations
  - Scheduling trains to maximize reliability of passenger service
- **Our Towns & Cities**
  - Optimizing station area development
  - Addressing at-grade crossing concerns
  - Planning for construction

Proactive Public Involvement Process

- **Regular Stakeholder Meetings**
  - Towns
  - Adjacent property owners
  - Institutional stakeholders
- **Continuous Public Outreach**
  - Up-to-date, interactive website
  - Project updates
  - Project specific issues: crossings; stations
  - Newsletter & Email blasts
  - Website comment forum
  - Multi-lingual information
- **At Your Service**
  - CT staff/PMT available for questions, updates, heads-up, complaints
- **Outreach Tailored for Each Town**



Coordination With Towns & Regions

Group Briefings

- Regular meetings with towns
- Held at DOT or other central location

Individual Meetings

- Separately with each town on local issues

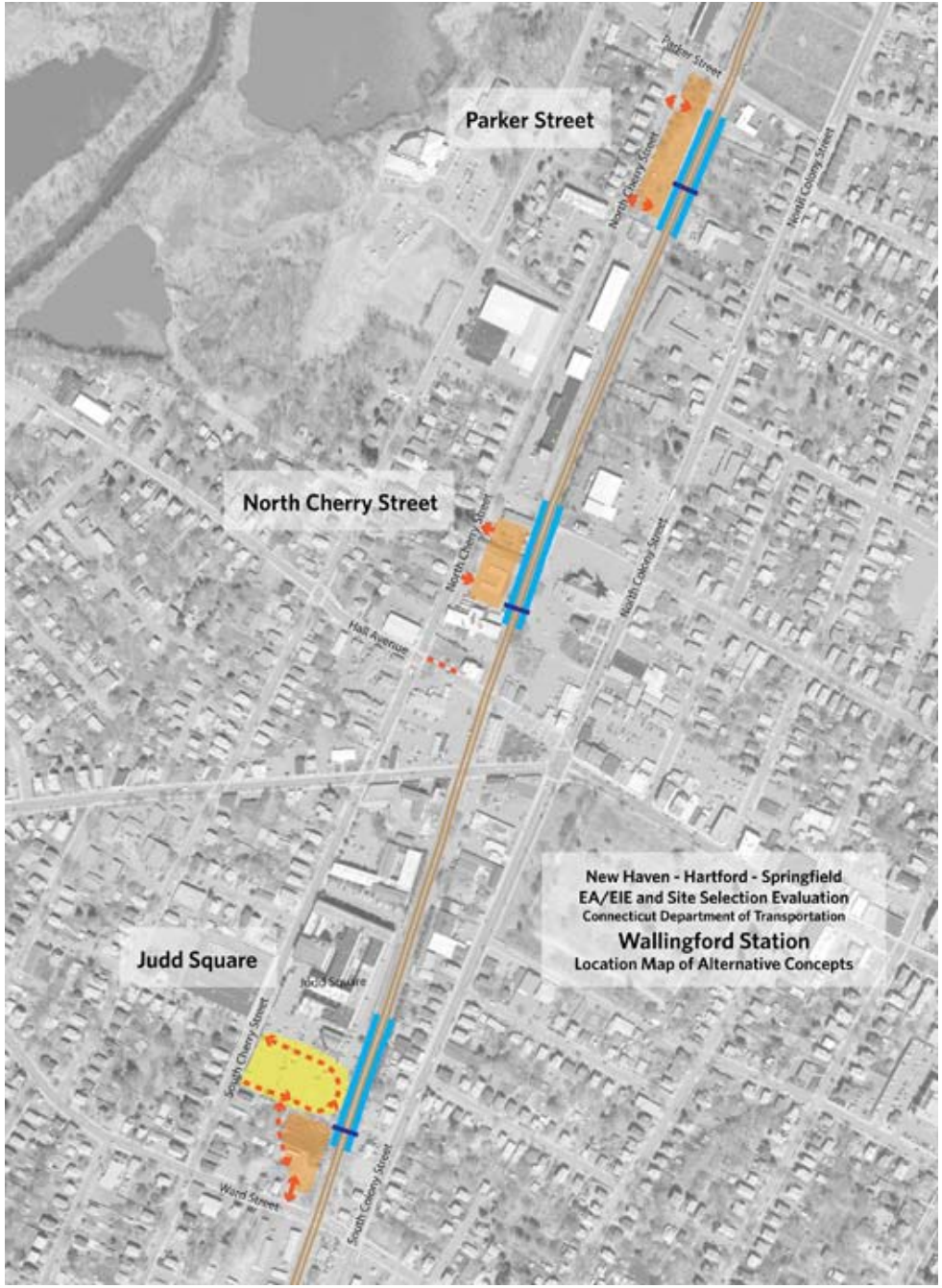
Board or Council Briefings

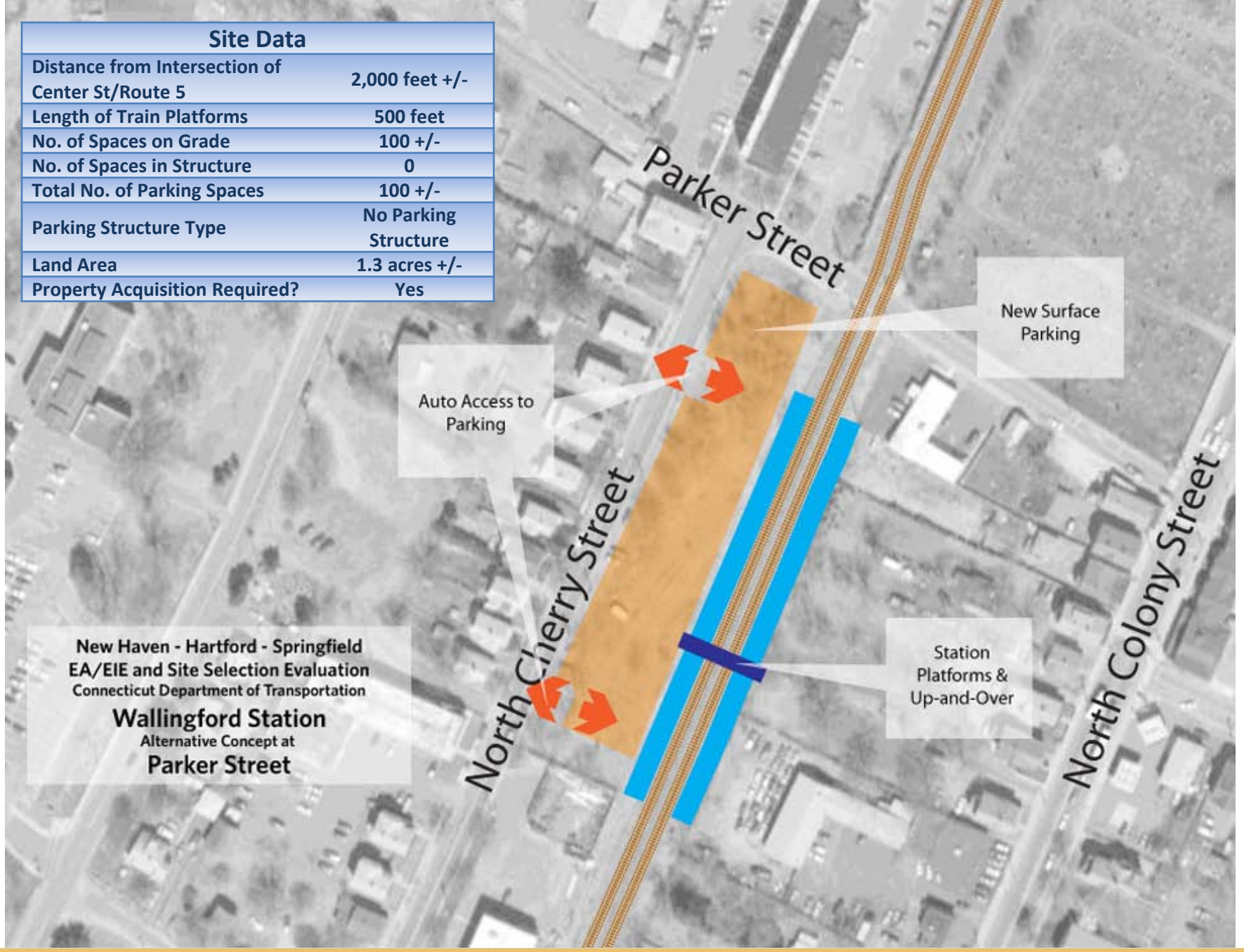
- Regional board and town council briefings as requested

Wallingford Station

Site Selection

August 4, 2011


Parker Street
North Cherry Street
Judd Square
Hall Avenue
South Cherry Street
Ward Street
South Colony Street
North Colony Street
New Haven - Hartford - Springfield
EA/EIE and Site Selection Evaluation
Connecticut Department of Transportation
Wallingford Station
Location Map of Alternative Concepts



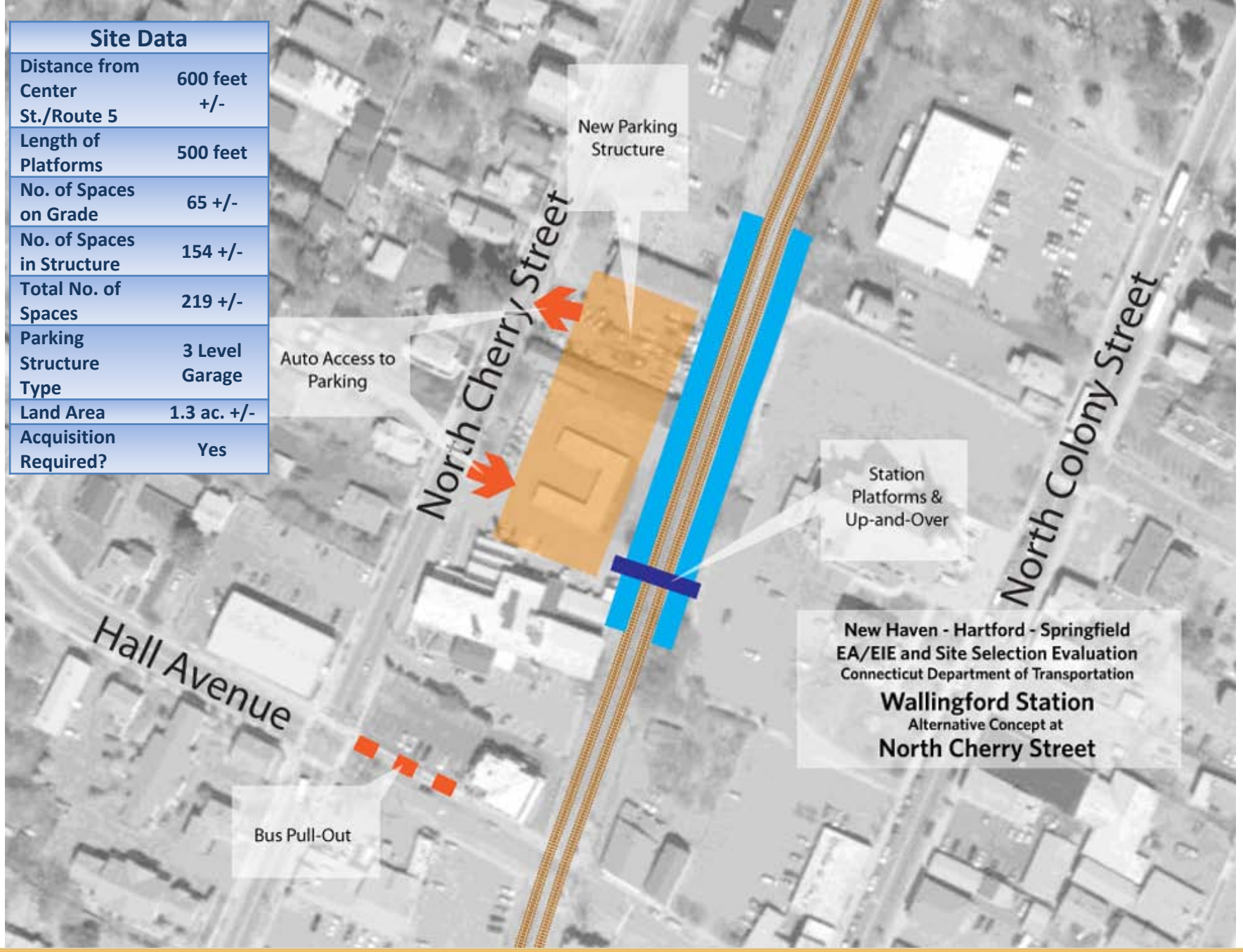
Site Data	
Distance from Intersection of Center St/Route 5	2,000 feet +/-
Length of Train Platforms	500 feet
No. of Spaces on Grade	100 +/-
No. of Spaces in Structure	0
Total No. of Parking Spaces	100 +/-
Parking Structure Type	No Parking Structure
Land Area	1.3 acres +/-
Property Acquisition Required?	Yes

New Haven - Hartford - Springfield
EA/EIE and Site Selection Evaluation
Connecticut Department of Transportation

Wallingford Station

Alternative Concept at

Parker Street



Site Data	
Distance from Center St./Route 5	600 feet +/-
Length of Platforms	500 feet
No. of Spaces on Grade	65 +/-
No. of Spaces in Structure	154 +/-
Total No. of Spaces	219 +/-
Parking Structure Type	3 Level Garage
Land Area	1.3 ac. +/-
Acquisition Required?	Yes

Site Data	
Distance from Center St/ Rt 5	1,400 feet +/-
Length of Platforms	500 feet
No. of Spaces on Grade	96 +/-
No. of Spaces in Structure	95 +/-
Total No. of Spaces	191 +/-
Parking Structure Type	Parking Deck
Land Area	1.5 acres +/-
Acquisition Required?	Yes

NHHS Line Site Selection Evaluation Progress Meeting

CTDOT

AMTRAK

Study Area

- Intersections – 10 total
  - Signalized - 8
  - Un-signalized -2
- At-grade crossings -4

No Build and Build Conditions

- No Build - based on existing station location with “existing” rail service
- Build - based on potential station location with “improved” rail service

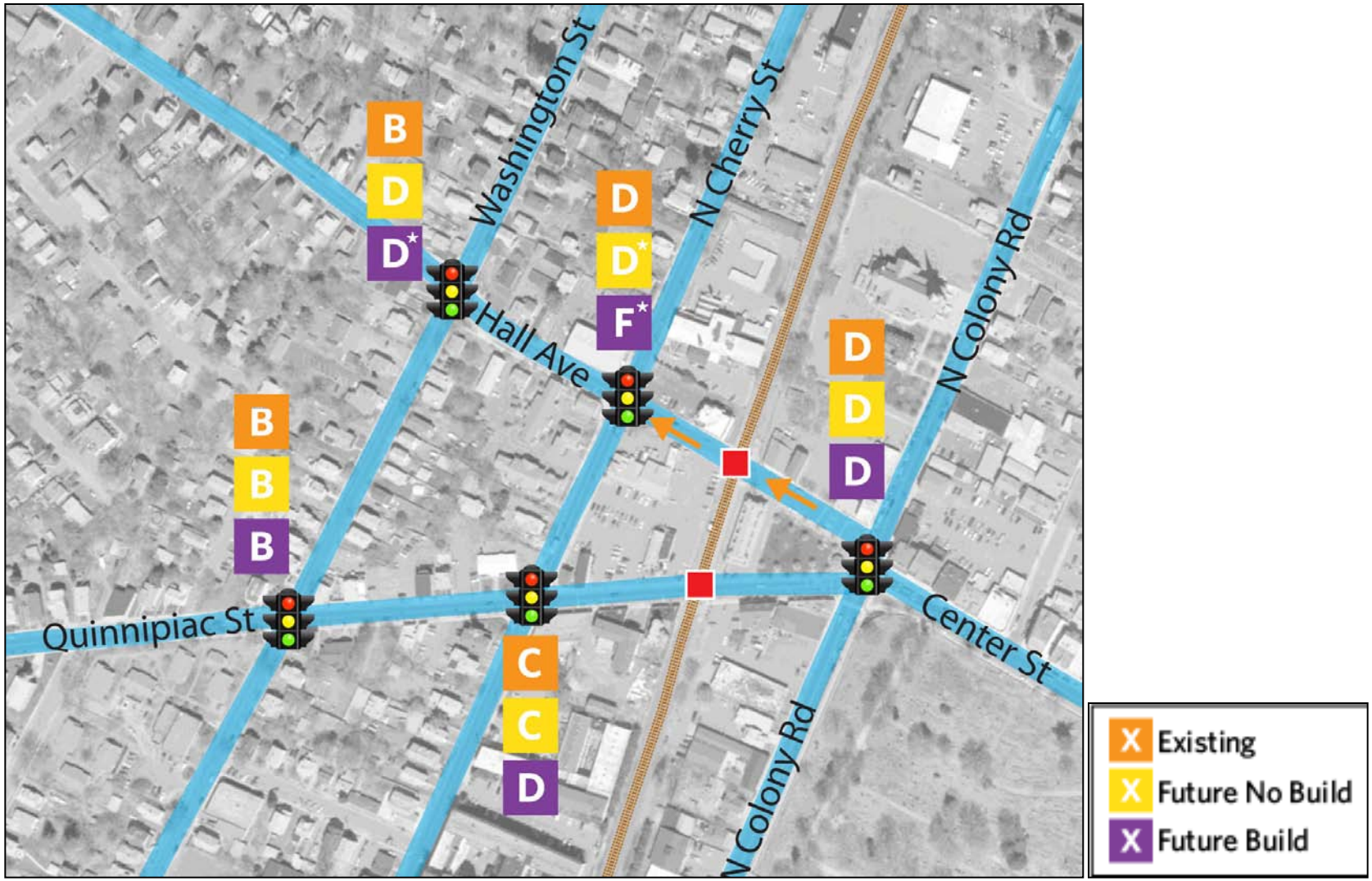
What will the traffic analysis do?

- Intersection delays, segment delays, queues, VMT and VHT without railroad pre-emption (Gates open)
- Intersection delays, segment delays, queues, VMT and VHT with railroad pre-emption (Gates closed)
    - Results will vary based on length of train and station stops times
- Identify hot spots and problem areas for mitigation
- Visual presentation of traffic operations

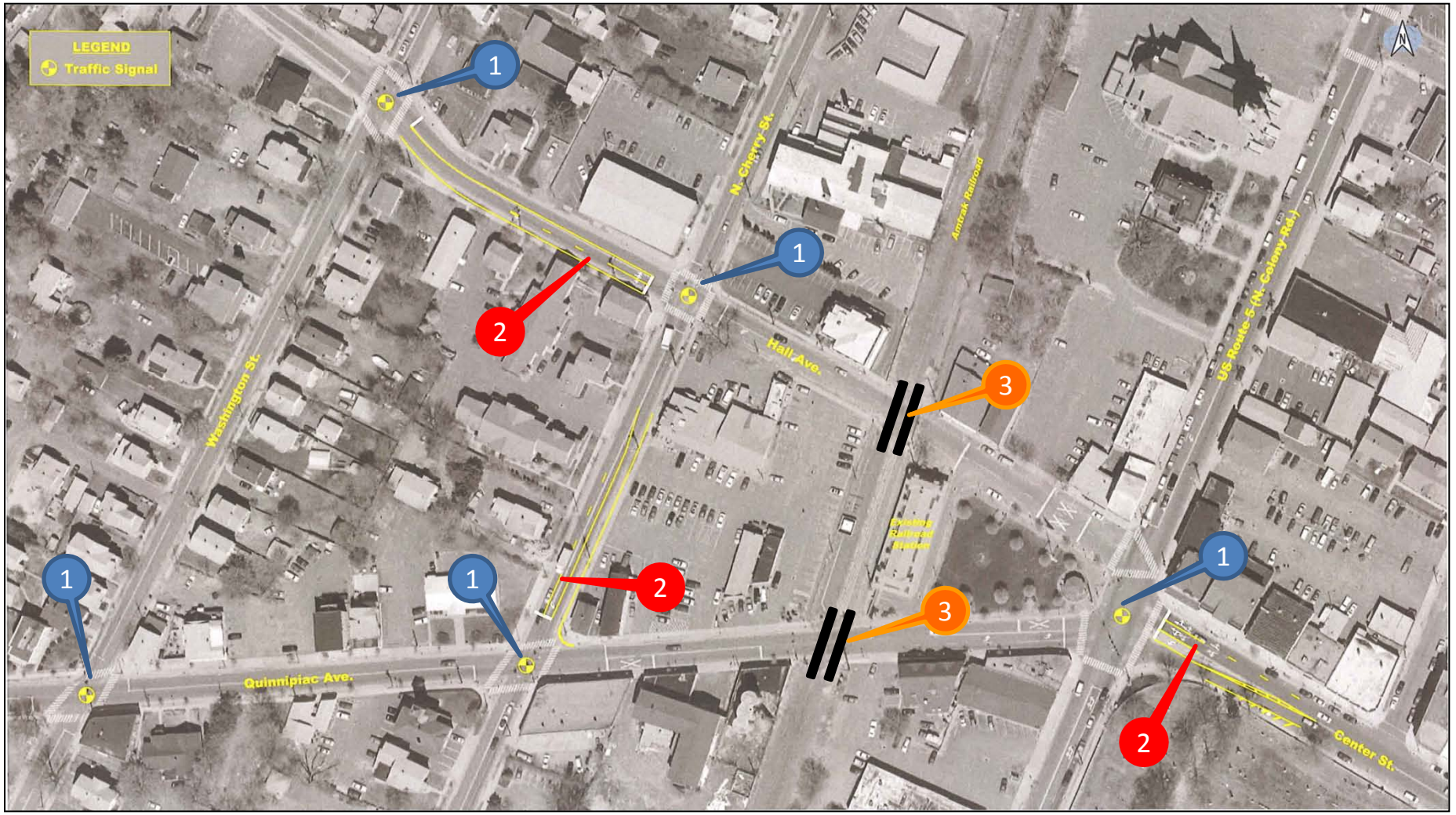
Analysis of No-Build and Build Conditions

- 2030 No-Build AM and PM peak conditions
- 2030 Build AM and PM peak conditions
- 2030 Build AM and PM peak conditions with Improvements
- Following analysis presents results for PM Peak condition

Traffic Analysis Results – Downtown



Proposed Traffic Improvements - Downtown



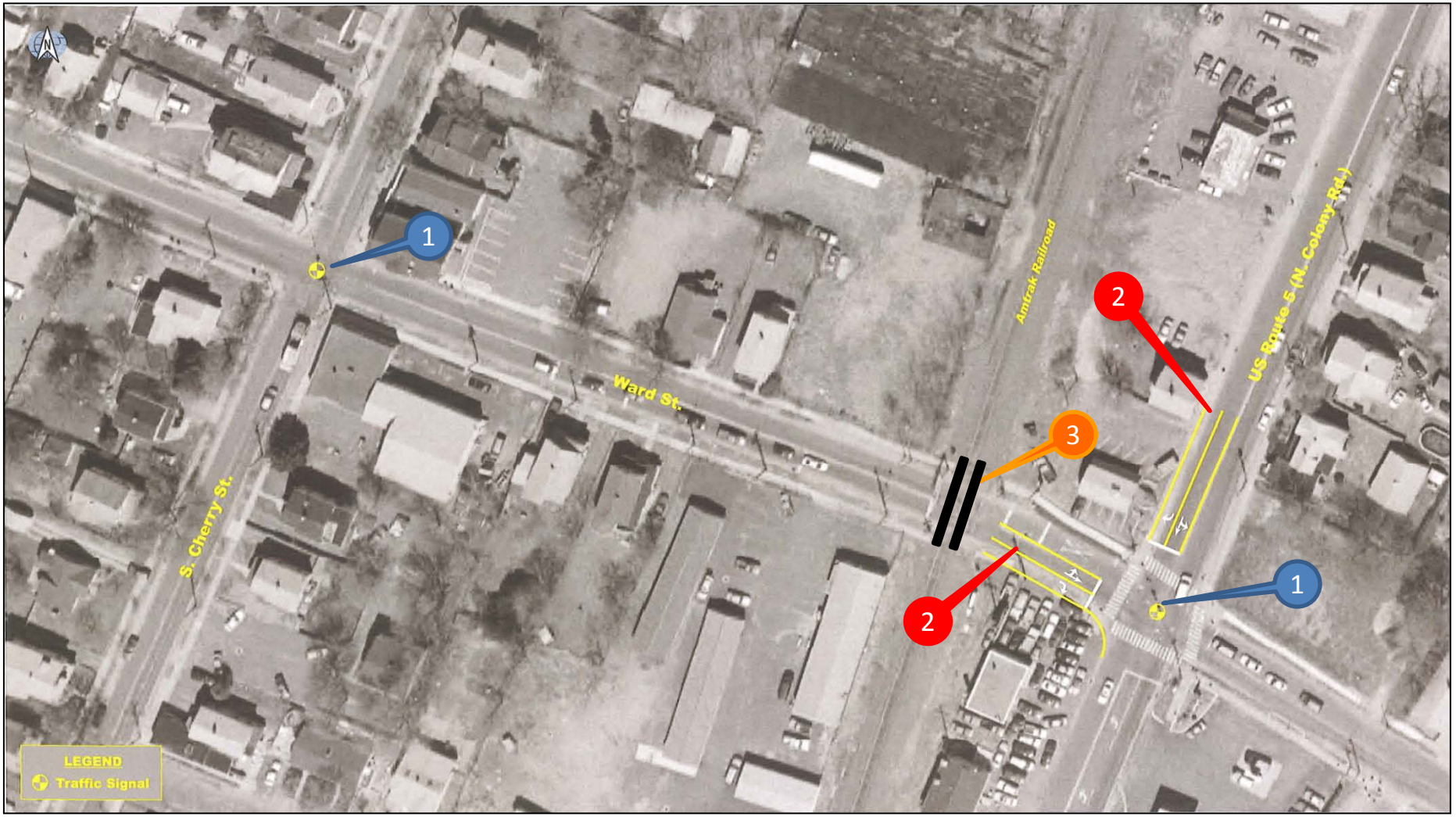
1. Optimize traffic signal timings
2. Geometric Improvements
3. Safety Improvements

Traffic Analysis Results – Downtown

Traffic Analysis Results – Ward Street

X Existing
X Future No Build
X Future Build

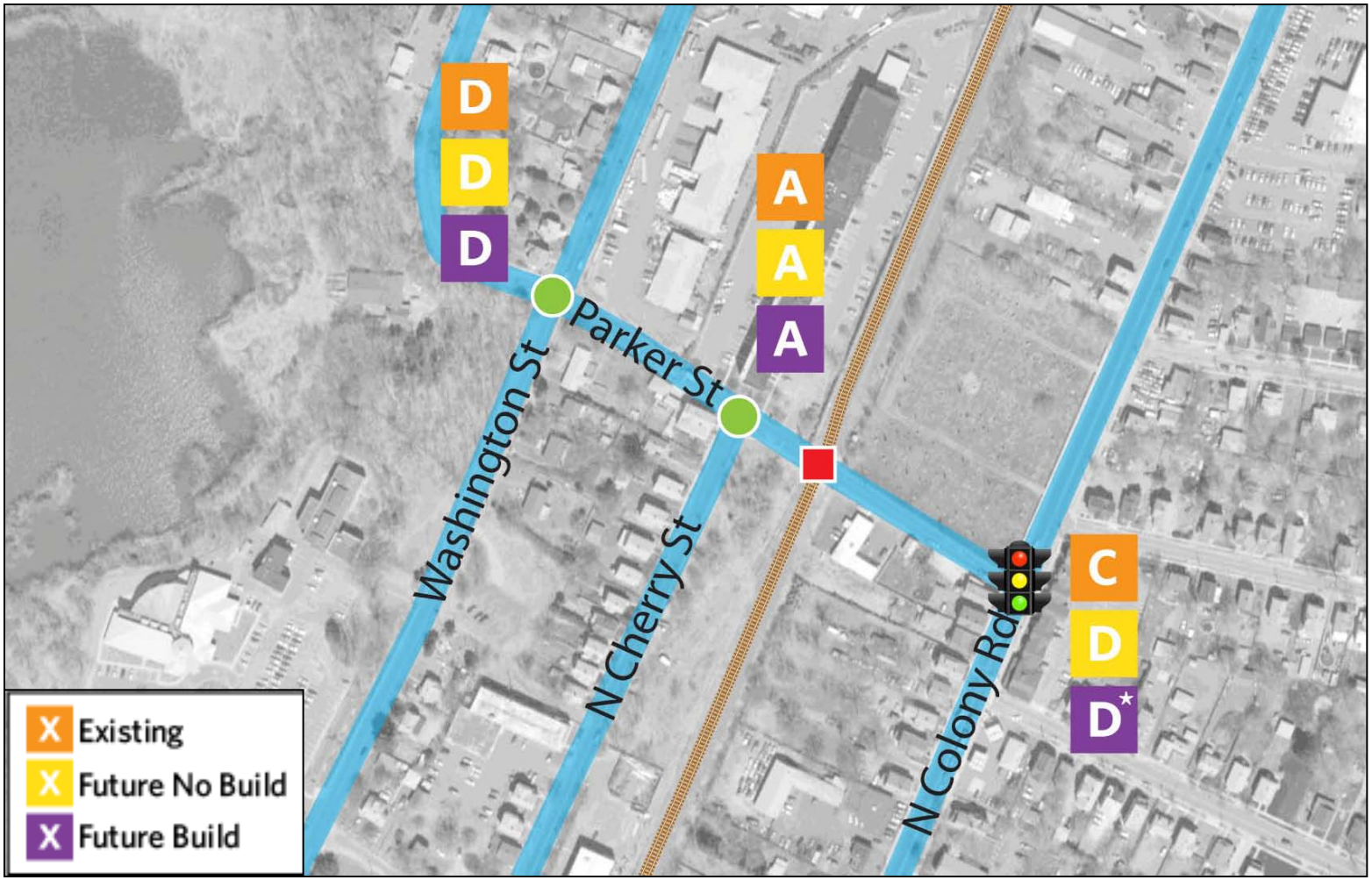
Proposed Traffic Improvements - Ward Street



1. Optimize traffic signal timings
2. Geometric Improvements
3. Safety Improvements

Traffic Analysis Results – Ward Street

Traffic Analysis Results – Parker Street

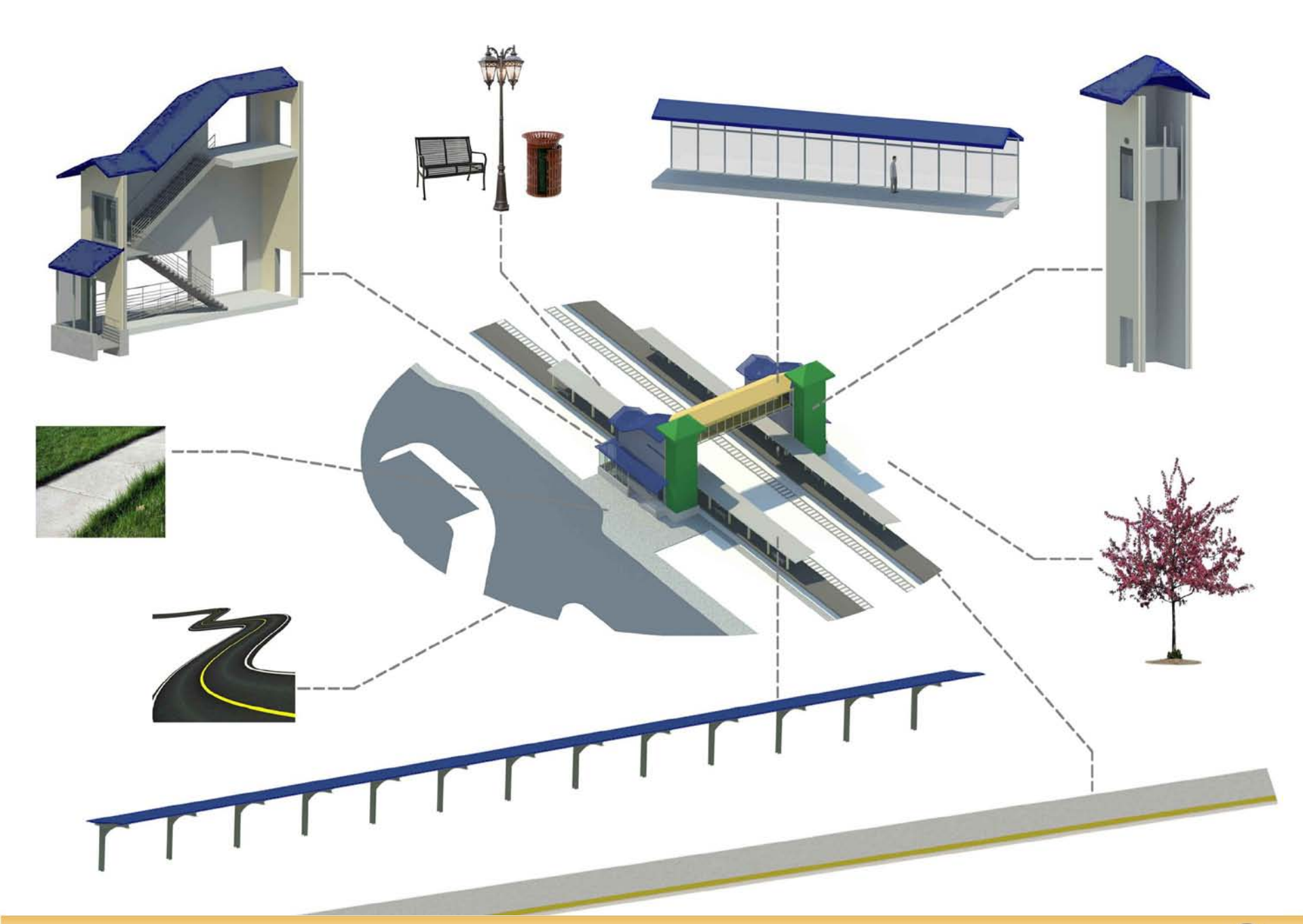


Traffic Analysis Results – Parker Street

Wallingford Station

Station Design Elements

August 4, 2011













Woodstock

RAVINGTON



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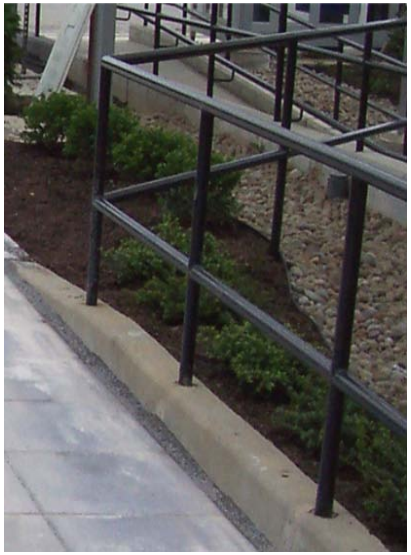
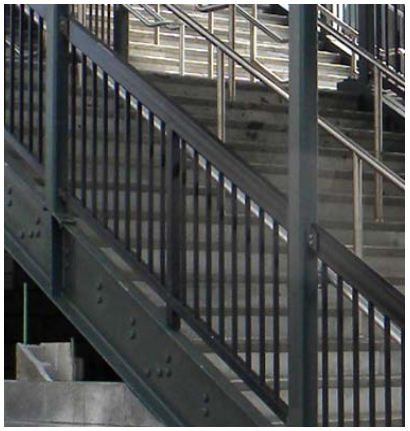
Track H1
Track H2

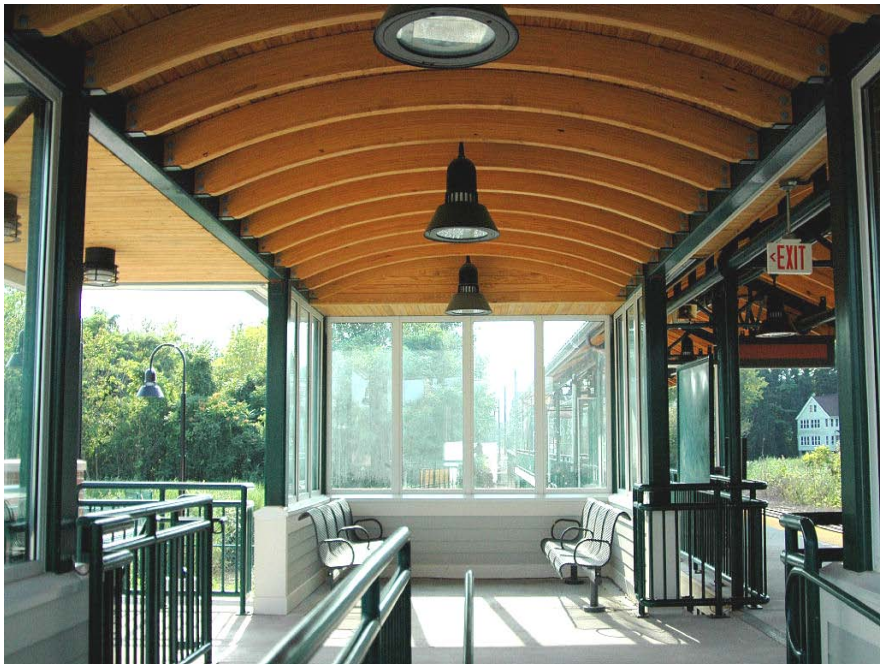

All Trains






Glas


Branford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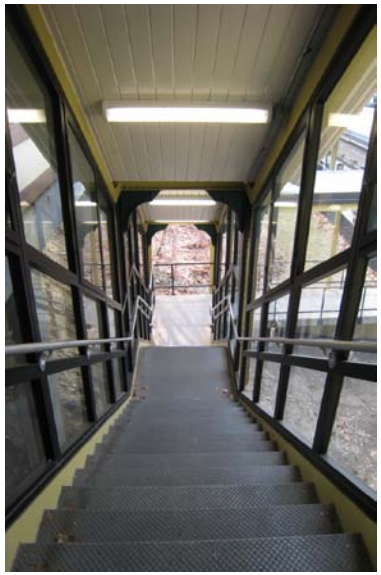


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GUILFORD


Guilford


EXIT

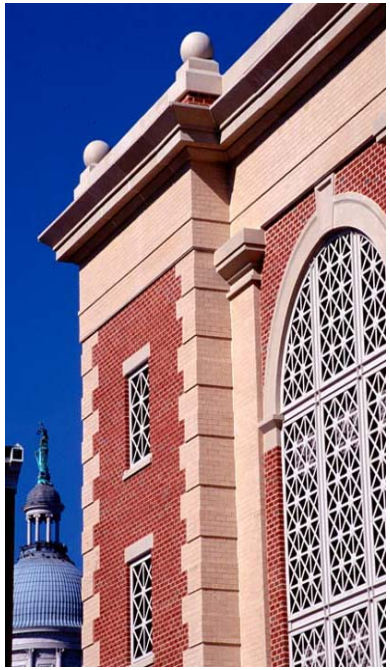

GUILFORD


2038


Harrison Station


South Amboy Station


To New York, Track 3




LADLE PARKING
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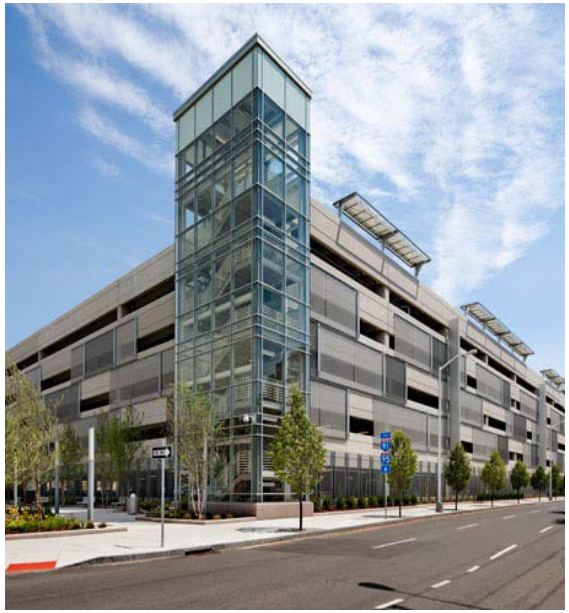


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