



BOLTON GREENWAY EXTENSION

Bikeway Feasibility Study

Bolton, CT

January 29, 2015

Tonight's Agenda

- **Committee Members**
- **History and Overview**
- **Project Consultant – BSC Group**
- **Existing Conditions Assessment**
- **Feasibility Study and Preliminary Design**
- **Community Input**
 - Gather input from community members, users, etc.

Overview and History

- **Study and preliminary design for the Bolton Greenway Extension which will run along the Route 44 corridor from the west side of Quarry Road to the Coventry town line with a spur trail to the existing parking area at Indian Notch Park located along the west side of Tolland Road**
- **CT Department of Energy and Environmental Protection's (DEEP) Recreational Trails Program Grant**
- **Related Projects:**
 - The Connecticut Department of Transportation's State Project Number 12-96, the Charter Oak Greenway Extension from Highland Park in Manchester, CT to the existing parking area at Bolton Notch. The 2008 Route 44 Strategic Corridor Plan by Fitzgerald & Halliday
 - The 2013 Route 6 Hop River Corridor Transportation Study by Clough Harbor & Associates, LLP.
 - The 2010 Route 6 Hop River Corridor Economic and Development Strategy and Master Plan Study by LADA, PC.
 - The Connecticut Department of Transportation as a separate project from State Project Number 12-96 will be responsible for trail design from the existing Hop River Trail at Bolton Notch to the intersection of Route 44 and Quarry Road.

Bolton Greenway Extension Project Team



Kurt Prochorena - Project Director, Civil Engineer



Luke McCoy - Project Manager, Landscape Architect



Jesse Harris – Landscape Architect



Frank Vacca- Civil Engineer

Overview of BSC's In-House Services

- Civil Engineering
- Landscape Architecture
- Planning
- Transportation
- Land Surveying and GIS
- Environmental Sciences
- Structural Engineering
- Construction Administration



BSC Group's Experience

Bikeways, Streetscapes, Traffic, and Parking

- University of Connecticut Campus
- University of Connecticut, State Routes
- Trapelo Road/ Belmont Street
MassDOT/FHWA funded
- Lexington Hayden Avenue
- Neponset River Greenway
- Milton Neponset River Esplanade
- City of Boston
- Old Lyme Riverway Trail
- Old Lyme Route 156 Bike Way
- Town of Bolton Greenway Extension
- Familiarity with AASHTO and ConnDOT



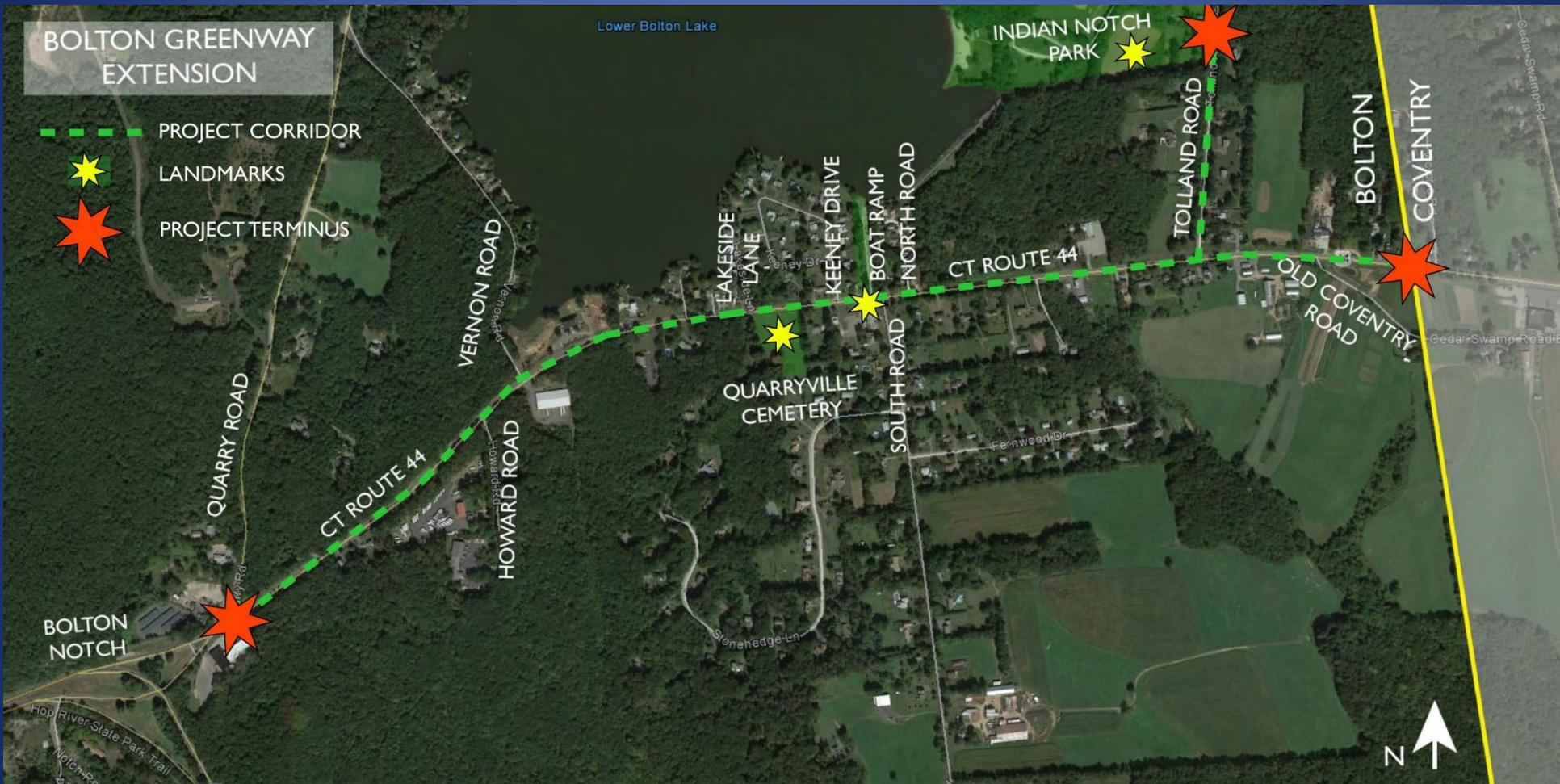
BSC Group's Experience

Bikeways, Streetscapes, Traffic, and Parking

- Route 31 Coventry (ConnDOT)
- Hillside Road, Glenbrook Road, Stadium Road, Uconn, Storrs
- Front Street District, Hartford
- Northwood Road
- Main Street Design District, Portland
- Sommersville Streetscape, Somers
- Providence Street, Putnam
- The Hartford Insurance Group, Hartford
- Lot 9 Parking Lot/King Hill Road
- Windham STEM School, Windham
- Sound View Beach/Hartford Avenue, Old Lyme



Study Area: BOLTON GREENWAY EXTENSION



BSC Group's Tasks:

- **Existing Conditions Assessment**

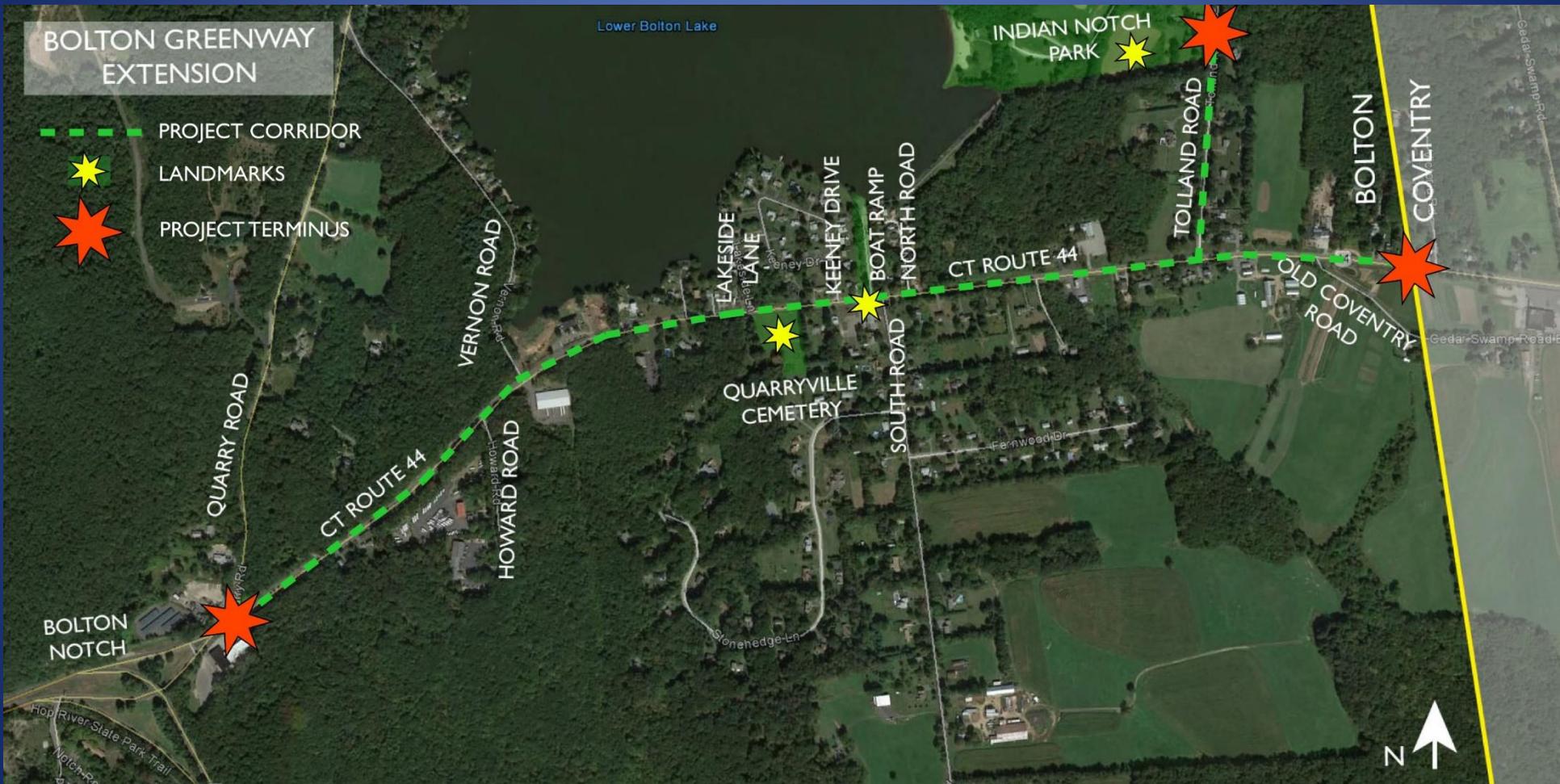
- Compile and review existing data
- Observe existing conditions and identify constraints and points of interest
- Prepare the “Existing Conditions Assessment”
- Prepare the “Bolton Greenway Extension Feasibility Report”

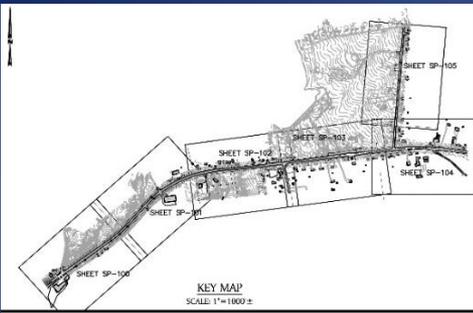
- **Preliminary Design.**

- Conceptually layout bike path/lane options
- Plan in accordance with AASHTO and ConnDOT Guidelines
- Collaboration with the Town of Bolton, ConnDOT, and other stakeholders
- Prepare a “Preliminary Design Report”

EXISTING CONDITIONS ASSESSMENT

Study Area: BOLTON GREENWAY EXTENSION





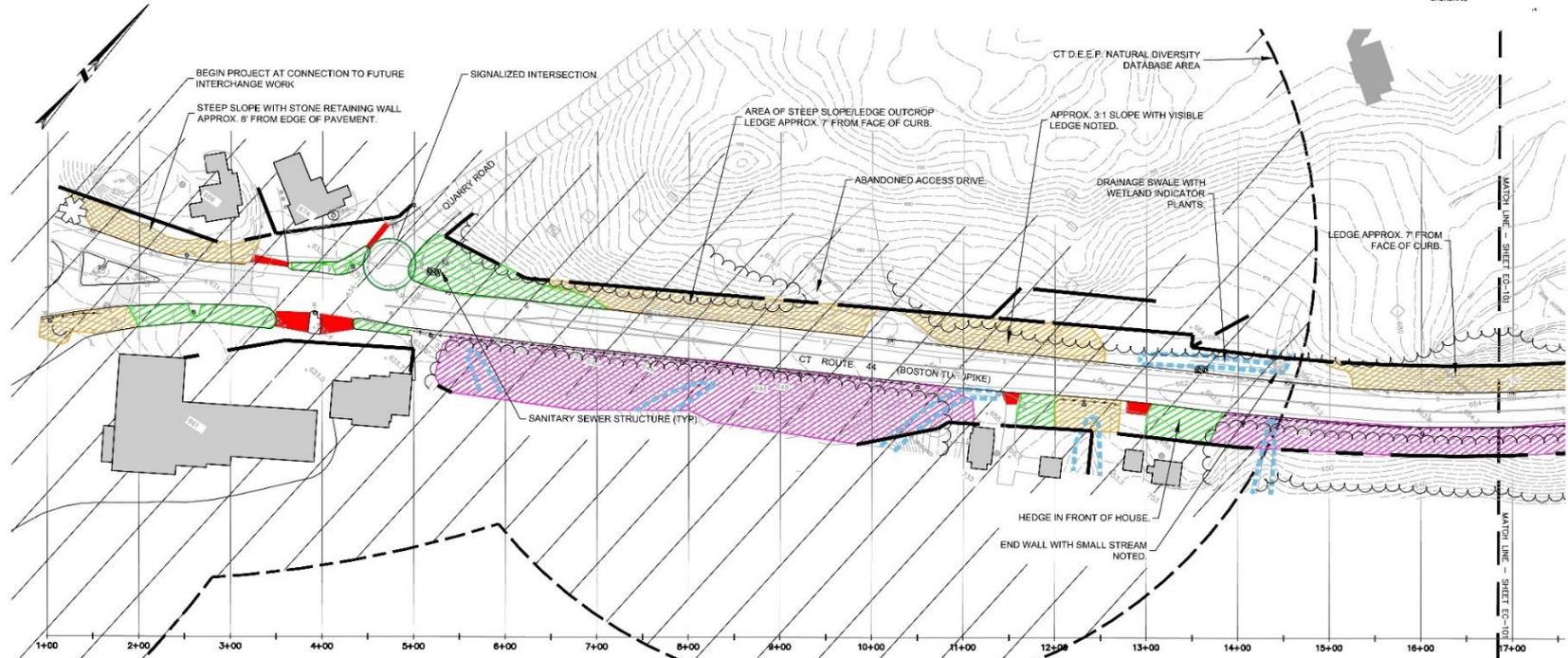
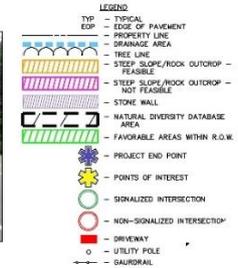
1+00 - Reduced Sight Lines at Beginning



4+00 - Quarry Road Intersection



7+00 - Ledge Outcrops



9+00 - Grade Becomes Less Steep



10+00 - Abandoned Access Road



13+00 - Drainage Swale with Wetland Indicator Plants

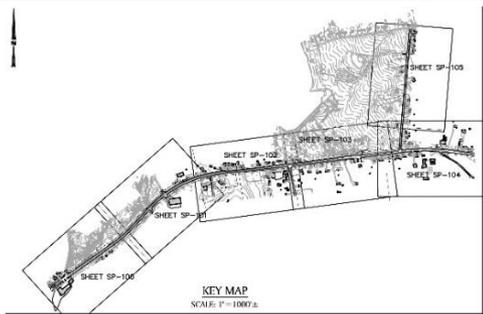


14+50 - Endwall at End of Drainage Swale



16+00 - Ledge Outcrops





18+25 - Ledge Outcrops



25+00 - Slope Down to Drainage Swale



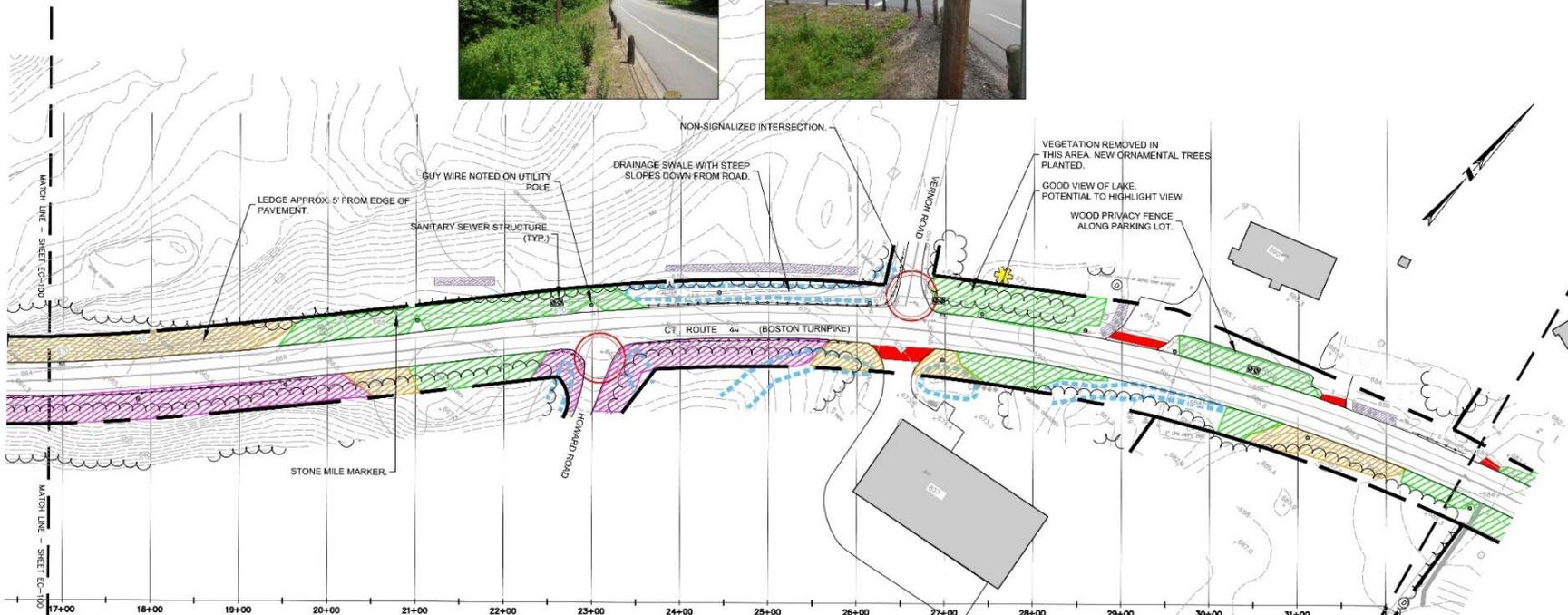
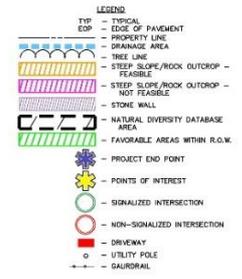
20+00 - Drainage Area



26+50 - Vernon Road Intersection



21+70 - Utility Pole



27+50 - Begin Lake Area



30+00 - Flat Area Adjacent to Road

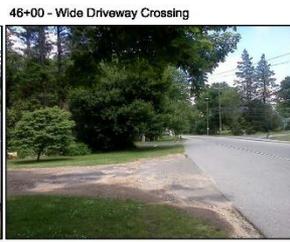
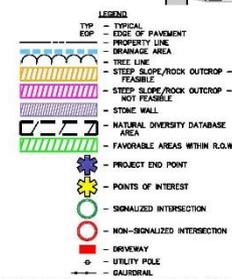
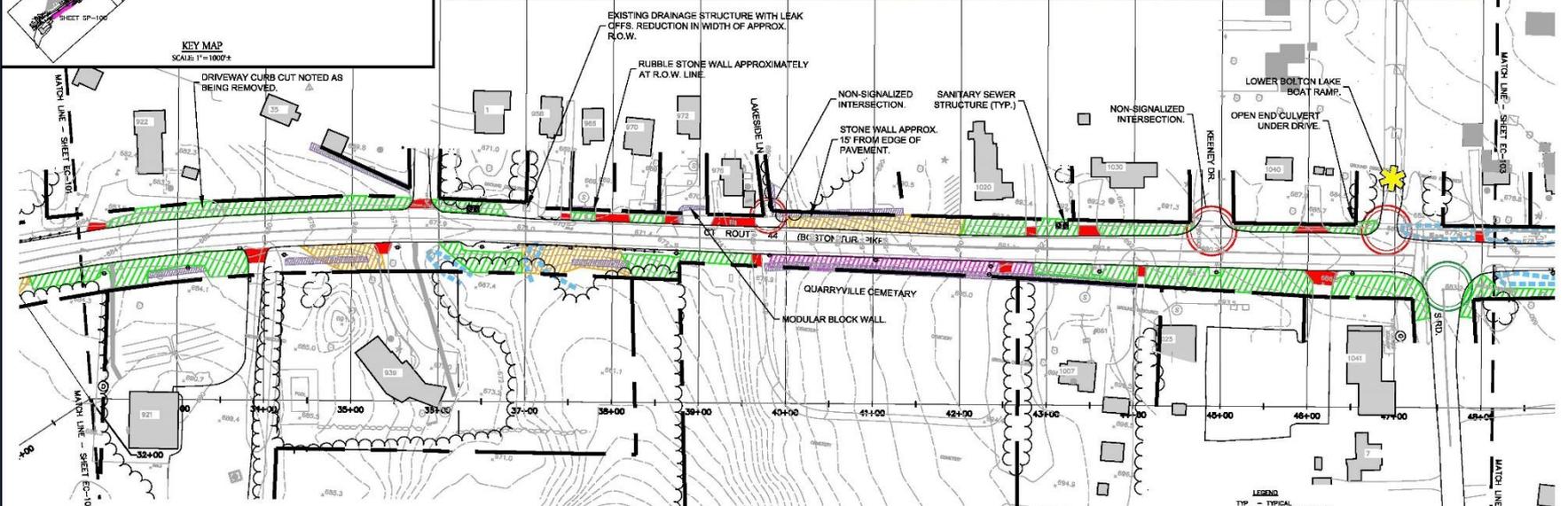
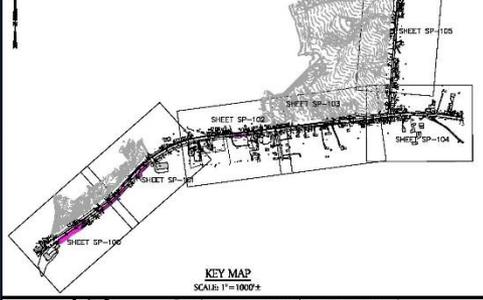


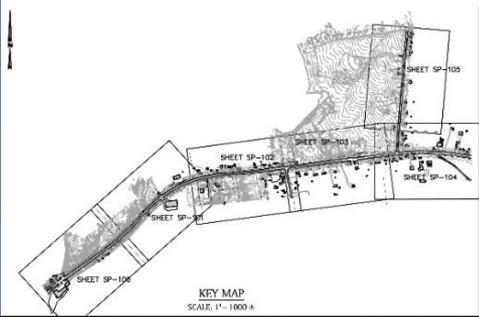
31+00 - Driveway Crossing with Stone Barrier



32+00 - Slope Down from Road







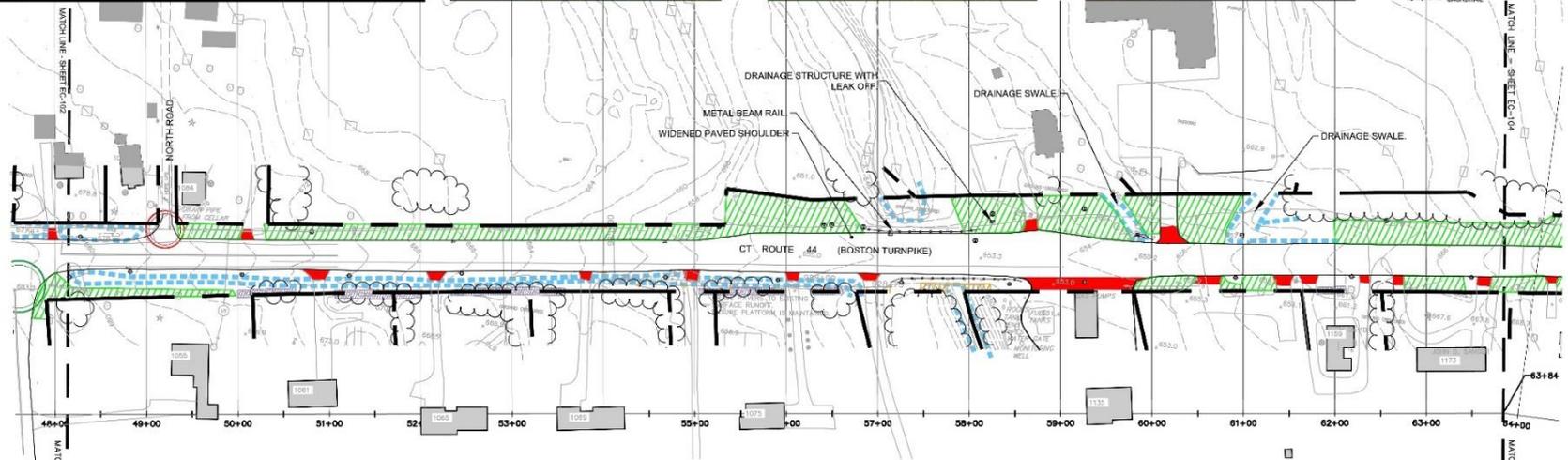
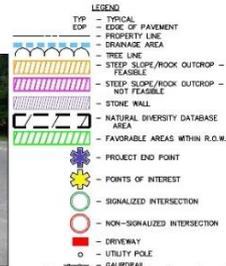
48+00 - Driveway Crossing



49+00 - North Road Intersection



50+00 - Obstacles at Driveway Crossing



51+00 - Open Space Adjacent to Road



55+00 - Begin Widened Shoulder



57+00 - Widened Shoulder at Ravine



58+50 - Driveway Crossing at End of Widened Shoulder



60+00 - Swale and Driveway Crossing

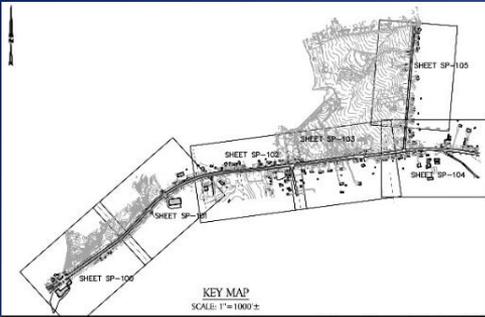


61+00 - Catch Basin at Swales and Woods



63+00 - Open Space Adjacent to Road





T 1+00 - Tolland Road Looking North at Intersection



T 2+00 - Tolland Road at Driveway Crossing



T 3+00 - Tolland Road Swale



64+00 - Open Space Adjacent to Road



66+00 - Tolland Road Intersection



67+00 - Open Space and Wide R.O.W.



67+75 - Driveway Crossing



68+75 - Driveway Crossing and Wet Area



70+00 - Drainage Swale with Wetland Indicator Plants



73+50 - Driveway Crossing and Plantings



74+50 - 76+00 - Access Drive



76+50 - Kennel Sign and Driveway Crossing



77+00 - Driveway Crossings



FEASIBILITY STUDY & PRELIMINARY DESIGN

FEASIBILITY STUDY & PRELIMINARY DESIGN

- **Bicycle Facilities in Bolton**
- **Option #1: Shared Use Side Path**
- **Option #2: Dedicated Bicycle Facilities**
- **Tolland Road Option: Marked Shared Roadway**



FEASIBILITY STUDY & PRELIMINARY DESIGN

Bicycle Facility : A Roadway Analyzed and Improved for the Use of Bicycles



**FEASIBILITY STUDY &
PRELIMINARY DESIGN**

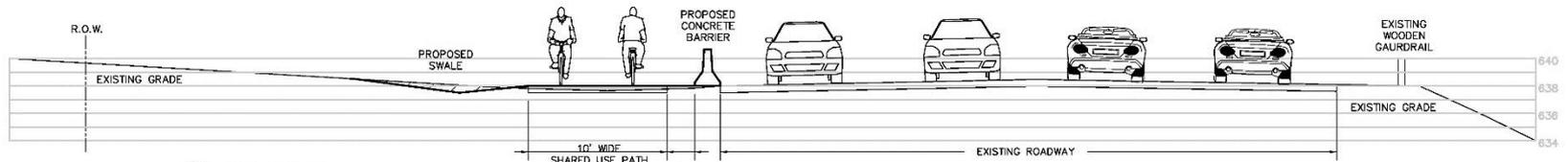
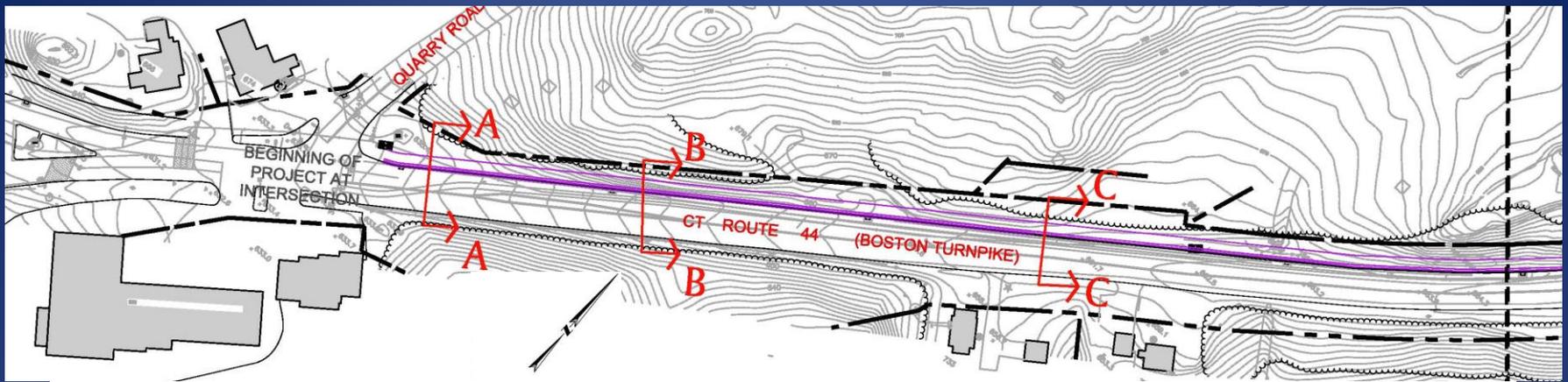
**Option #1: Shared Use Side Path
Route 44**

AASHTO and ConnDOT Design Guidelines

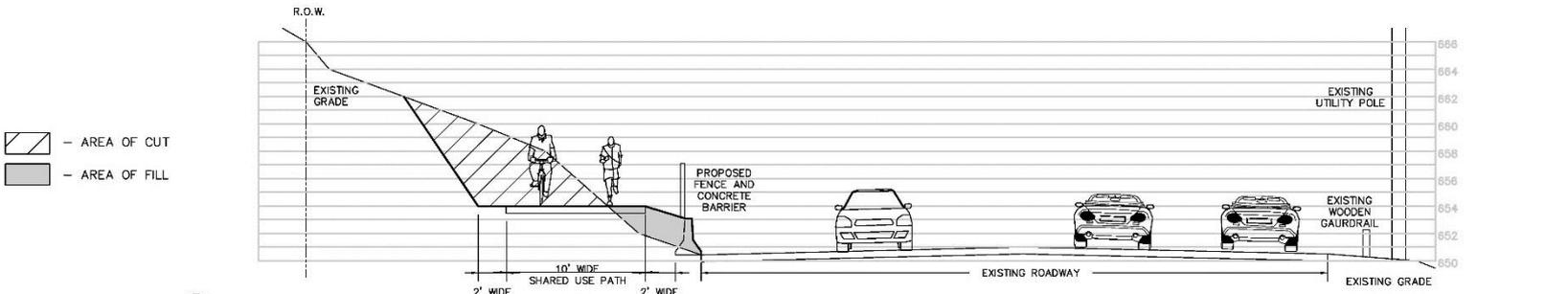
Shared Use Side Path (CT Route 44)



- Minimum 10' wide path
- Crashworthy barriers installed within 20' from outer lane marking
- Minimum 2' lateral offset from obstacles e.g. mailboxes, utility poles
- Maintain consistent path width and features
- Avoid excessive engineering to roadway features
- Follow existing road alignment
- Sufficient drainage area to prevent offsite storm water run-off.

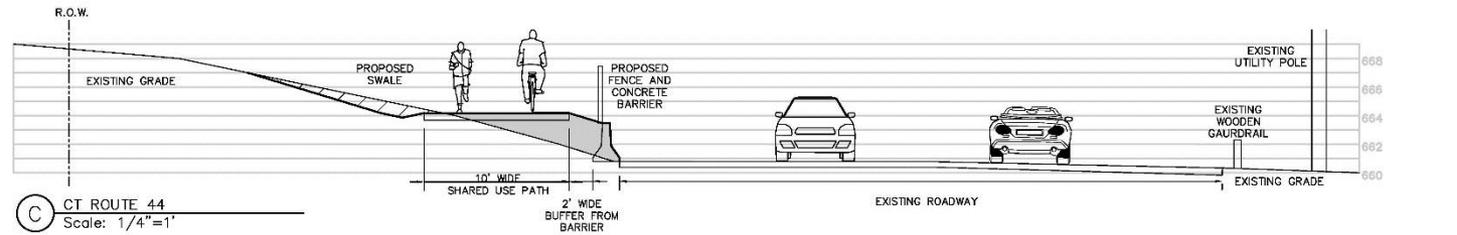


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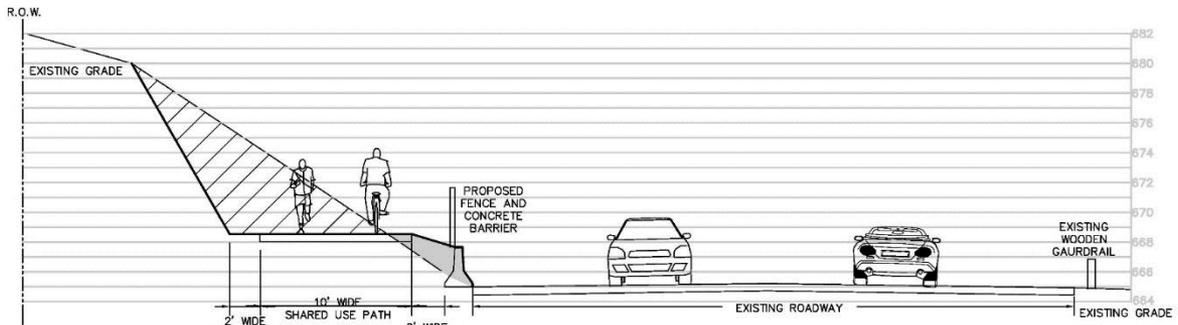
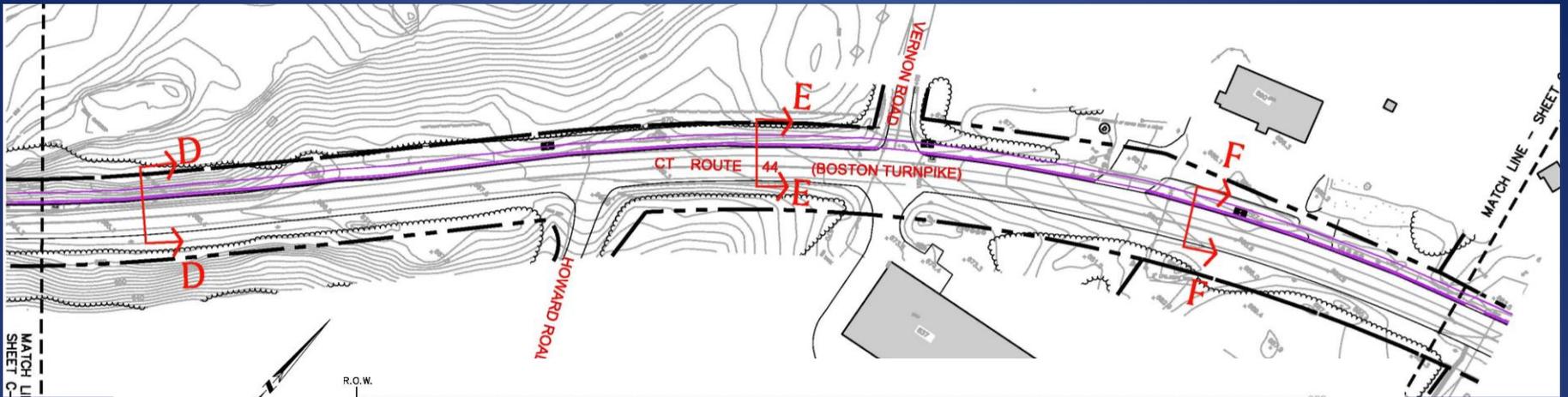


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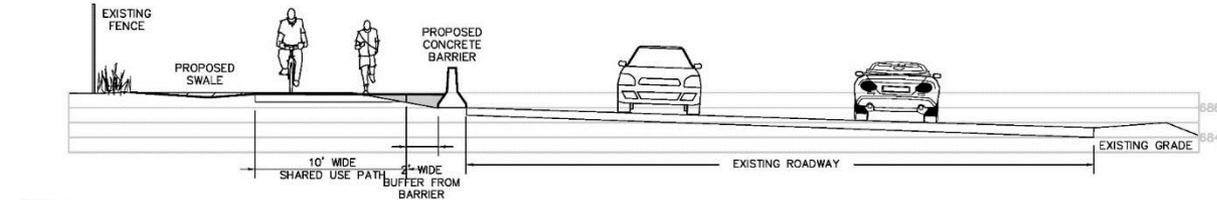
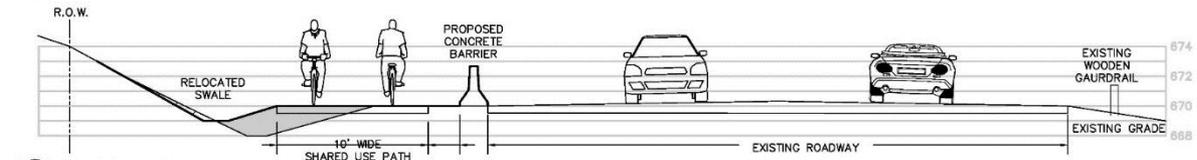
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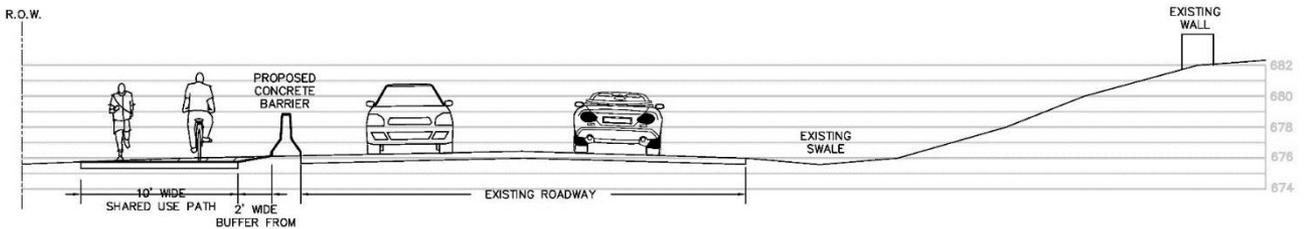
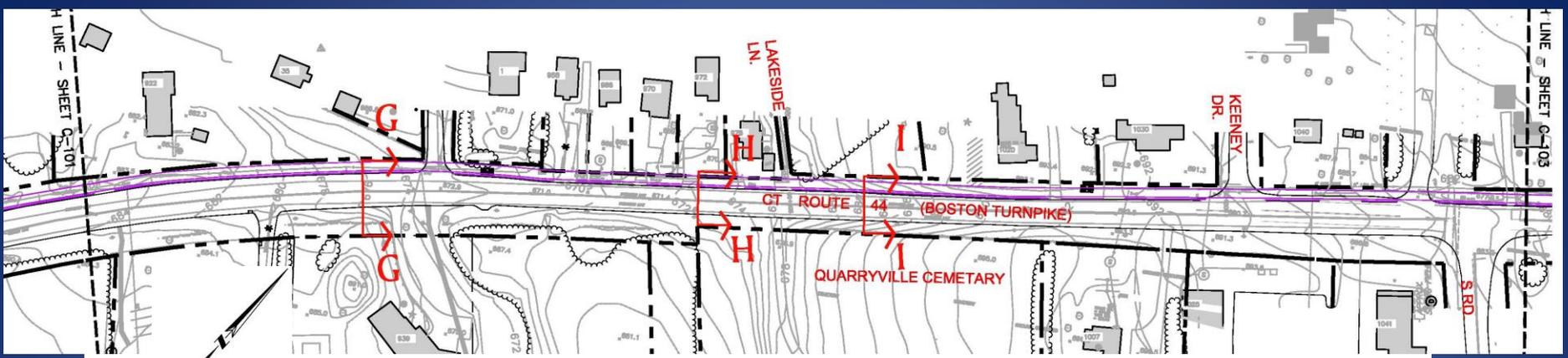


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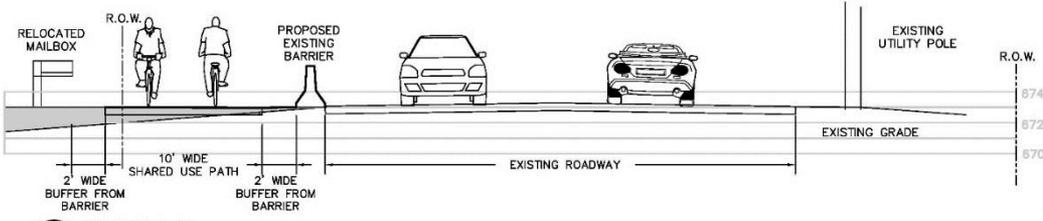
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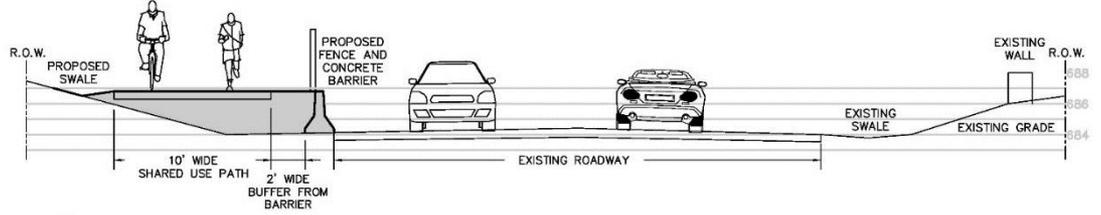


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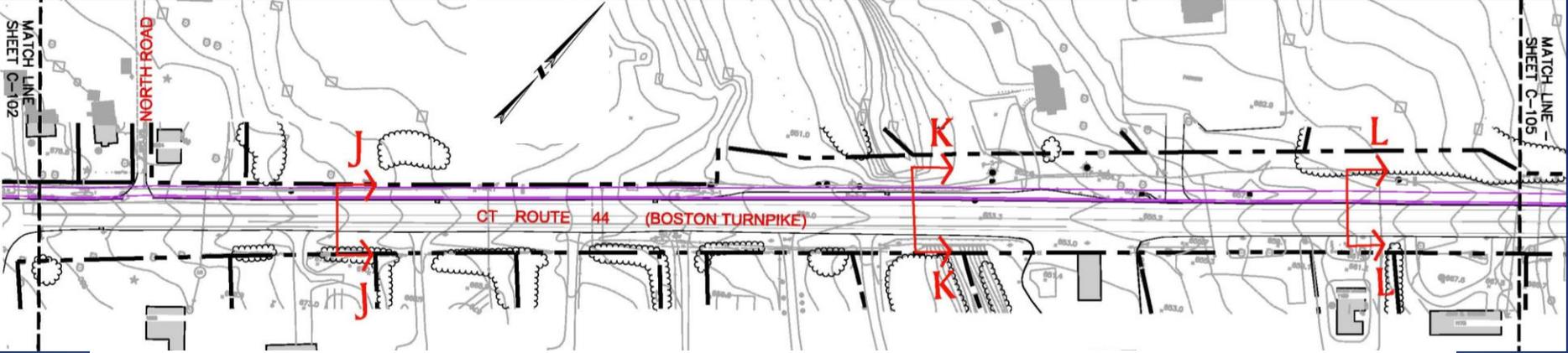
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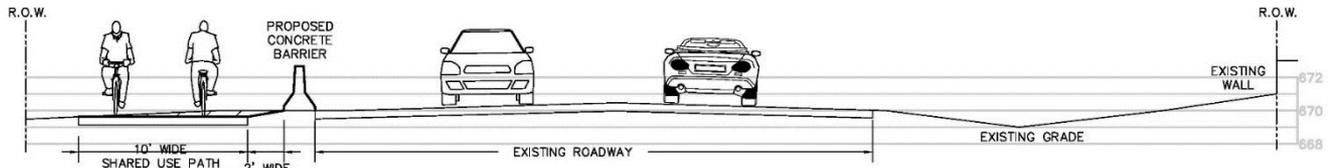
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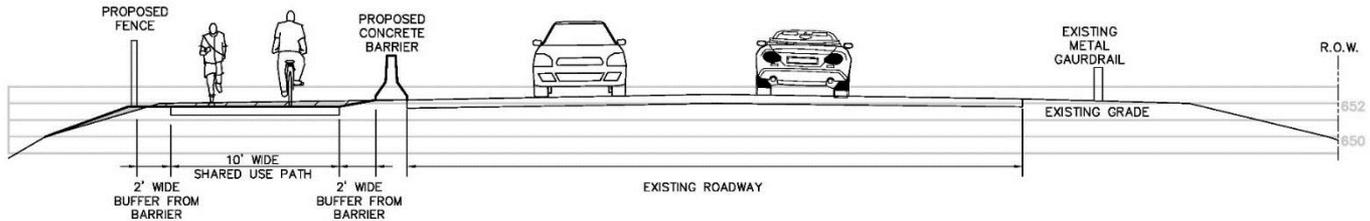
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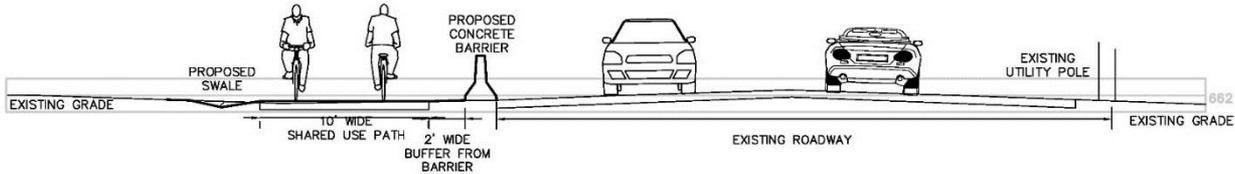
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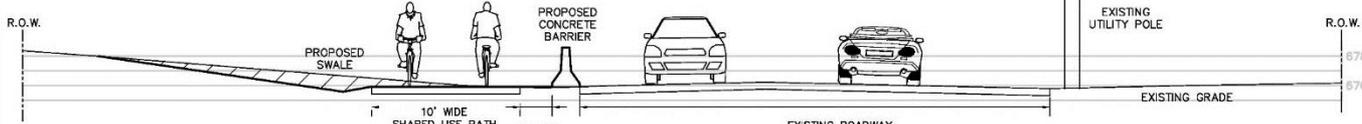
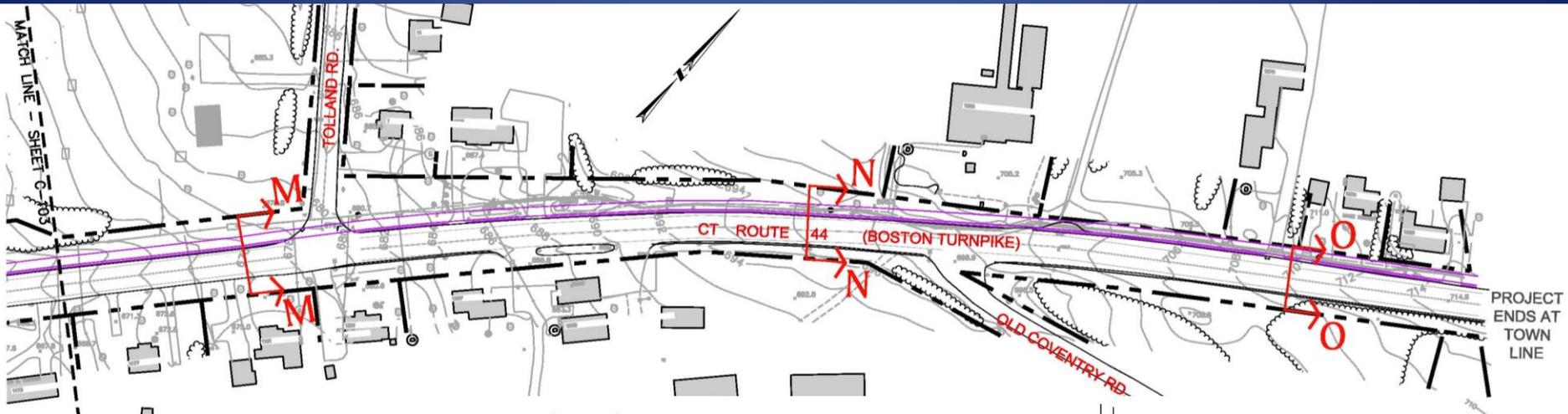
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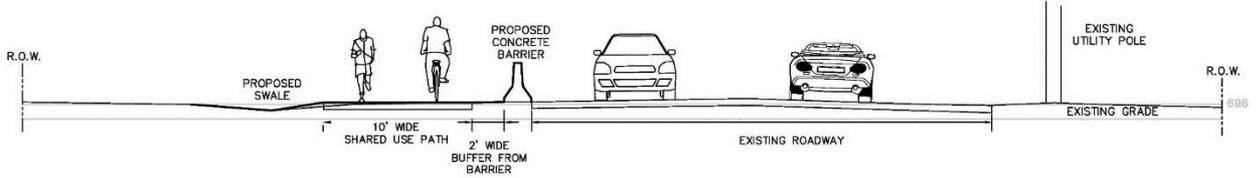
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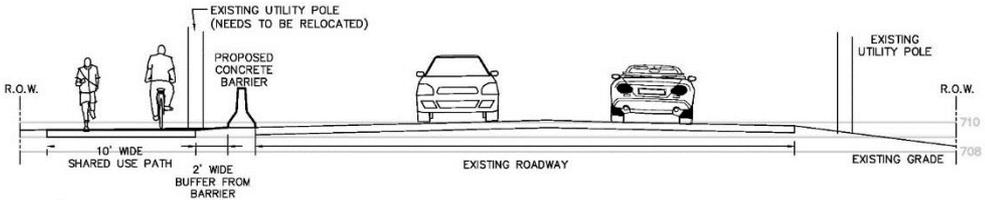


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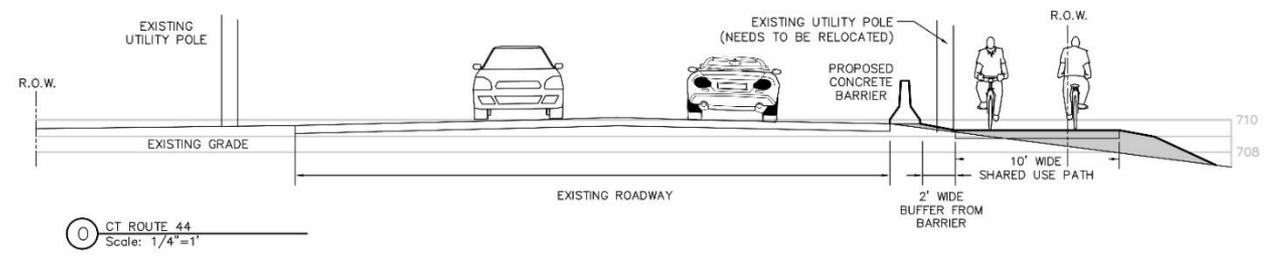
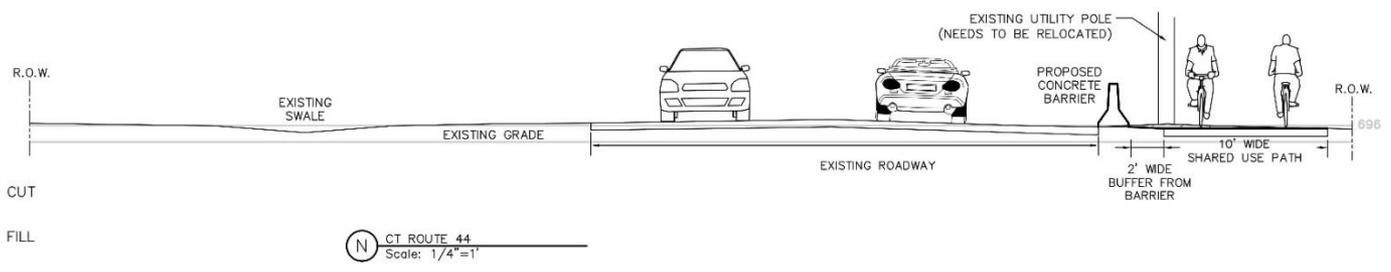
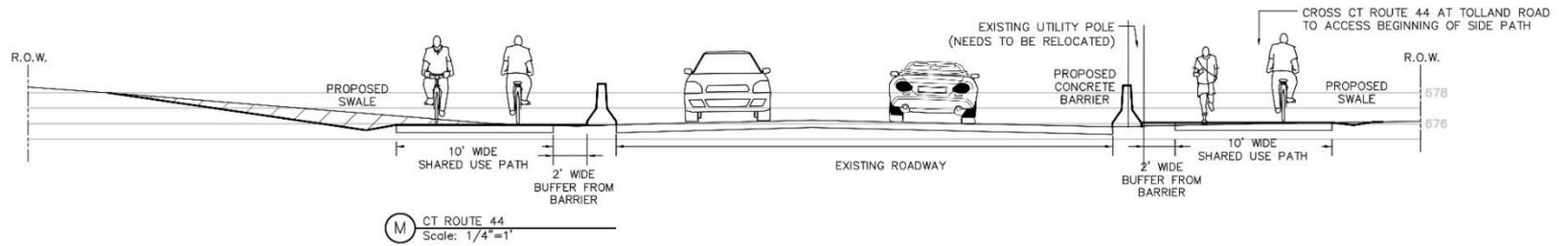
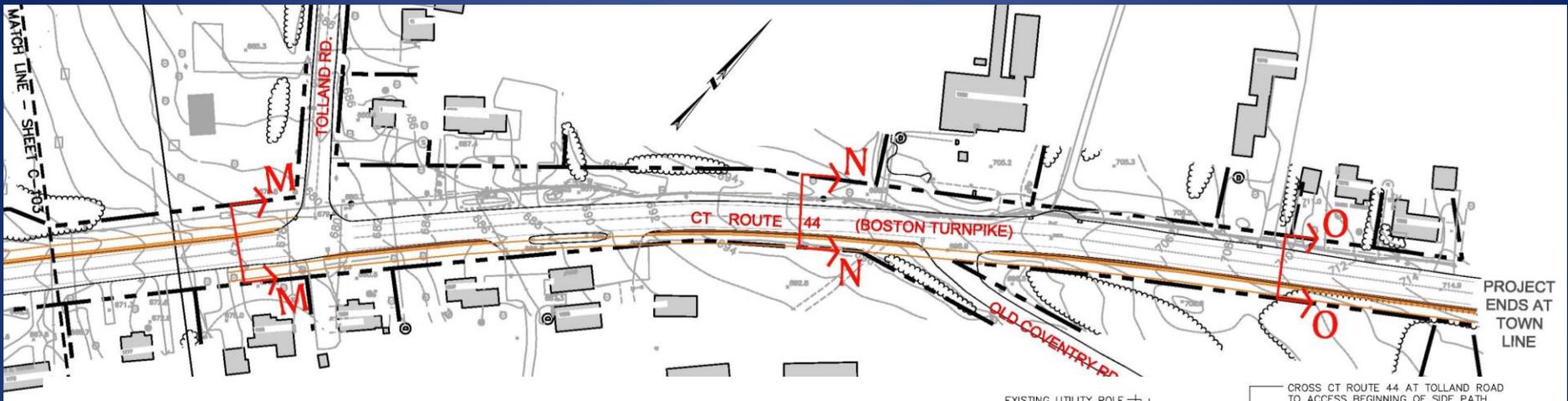


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O CT ROUTE 44
Scale: 1/4"=1'



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Before



After - Shared Use Side Path



Before



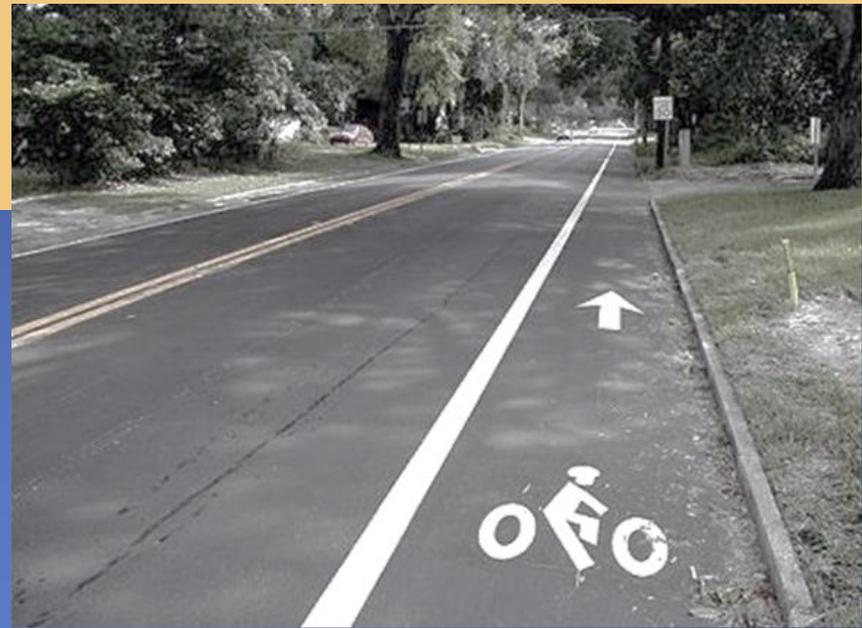
After - Shared Use Side Path



**FEASIBILITY STUDY &
PRELIMINARY DESIGN**

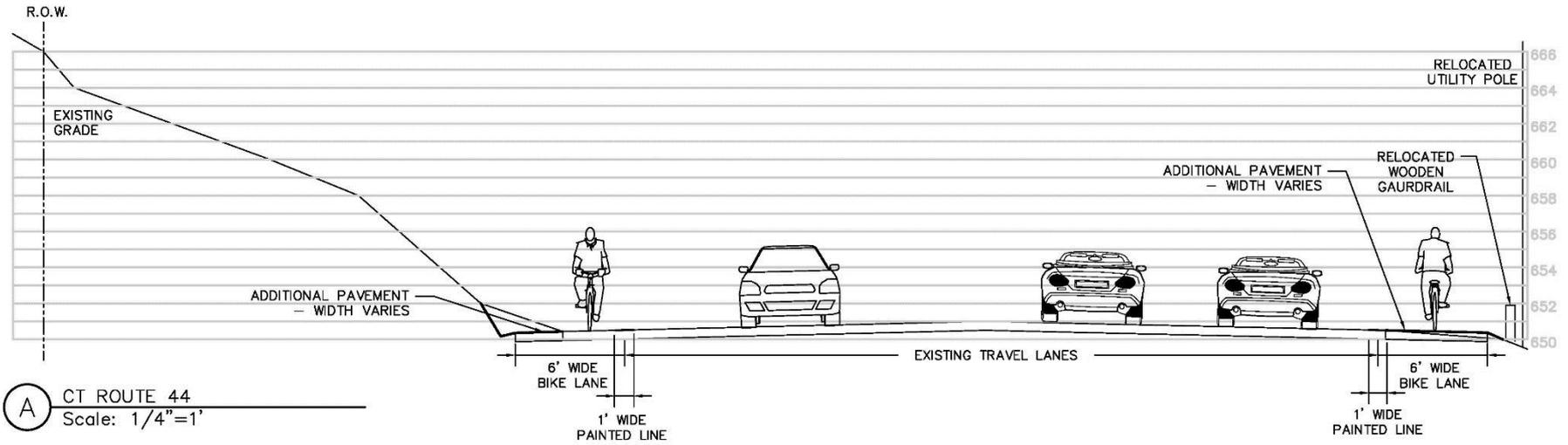
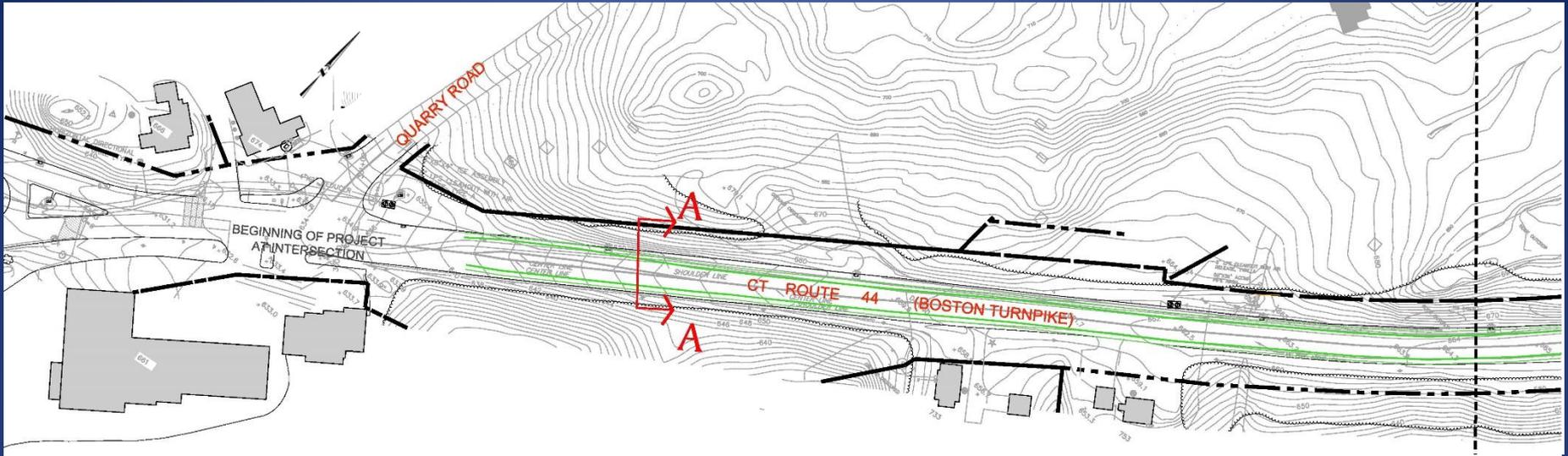
**Option #2: Dedicated Bike Lane
Route 44**

AASHTO and ConnDOT Design Guidelines

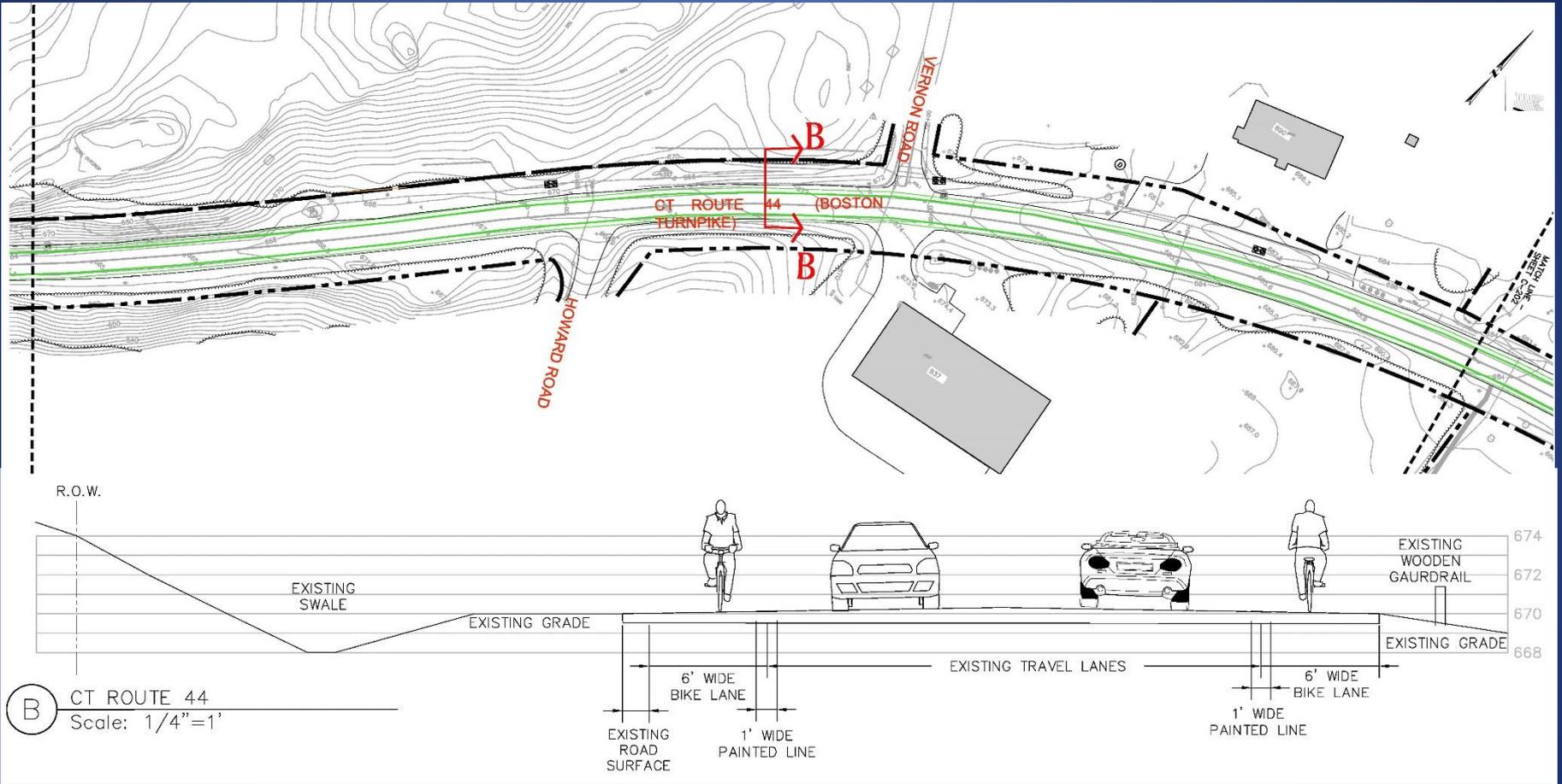


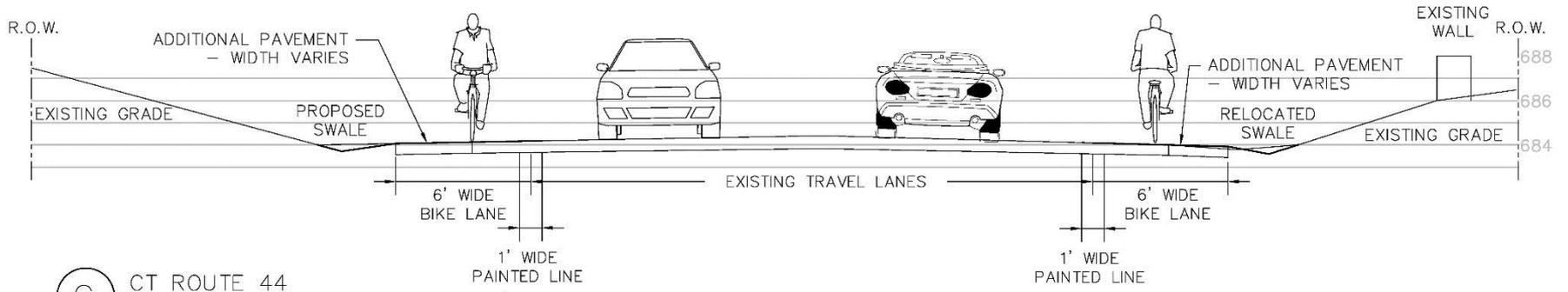
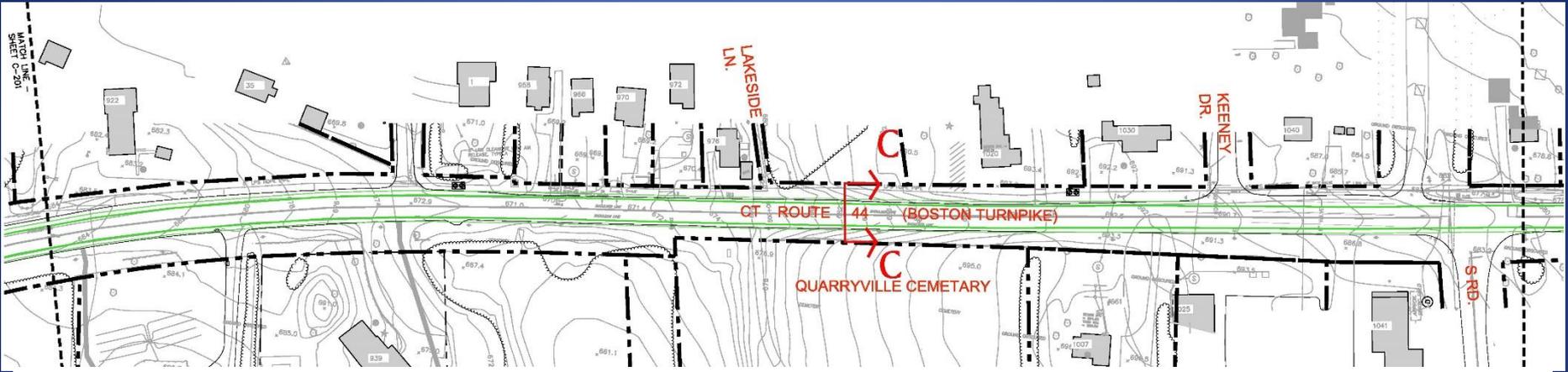
Dedicated Bike Lane (CT Route 44)

- Eastbound and Westbound lanes required
- Recommended 6' wide lane Bike Lane on existing roadway
- 1' wide painted lane marking between bike lane and travel lane
- Bike Lane symbol and direction arrow required
- Avoid excessive disturbance outside roadway
- Follow existing road alignment
- Sufficient drainage area to prevent offsite storm water run-off

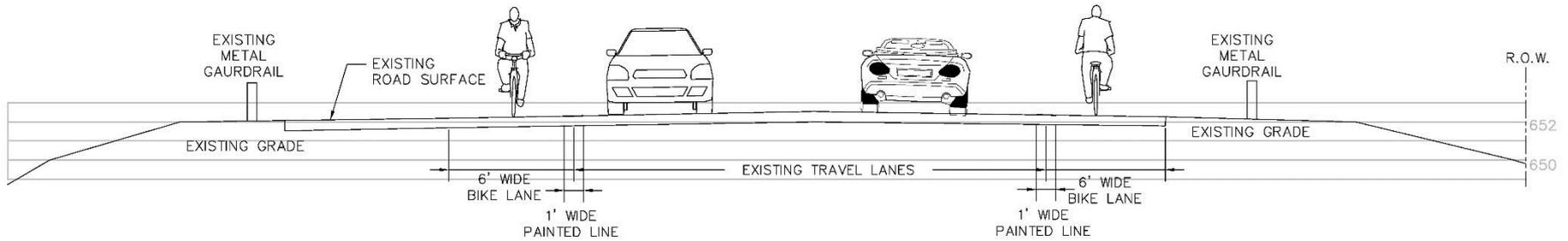
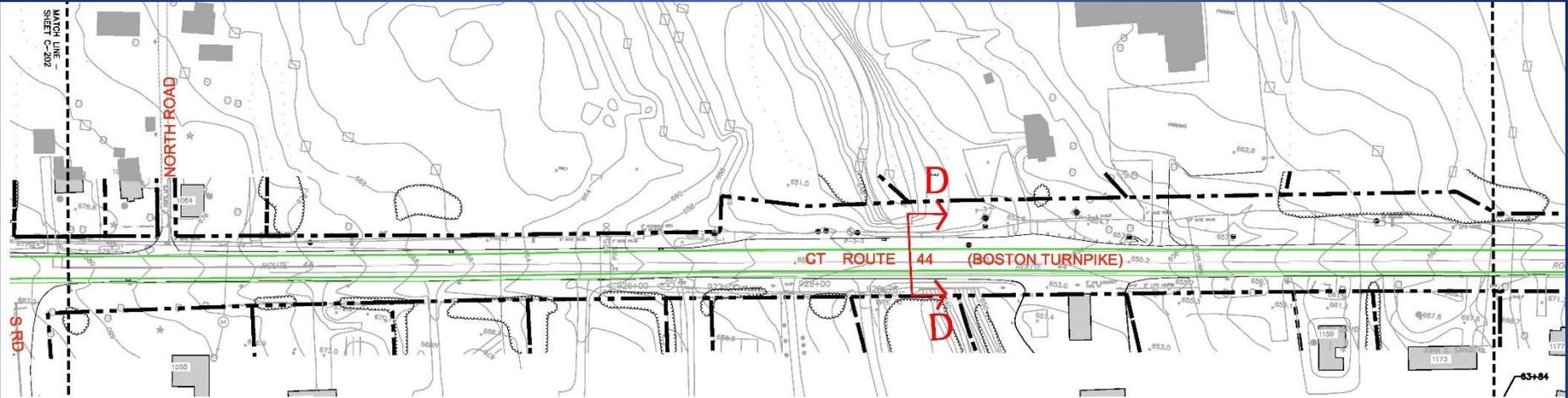


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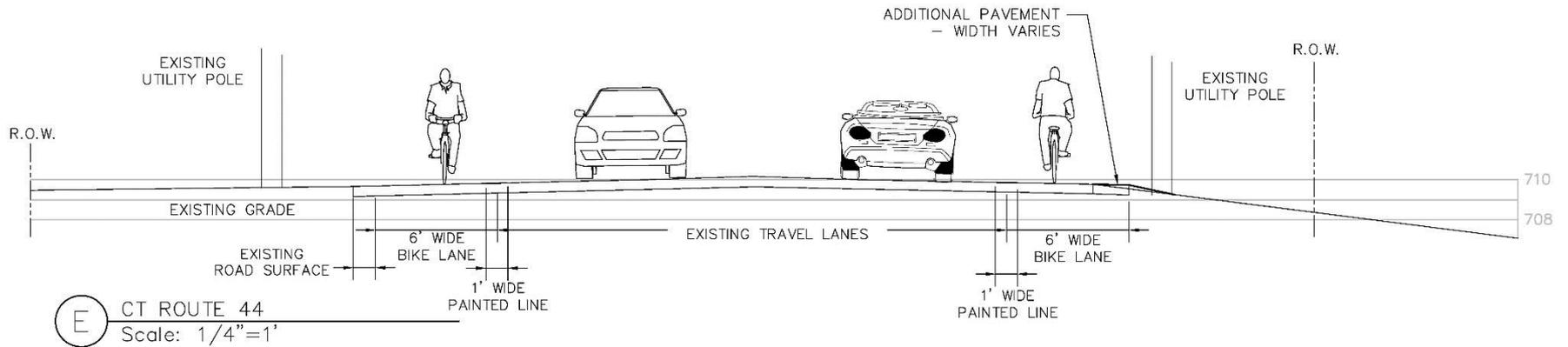
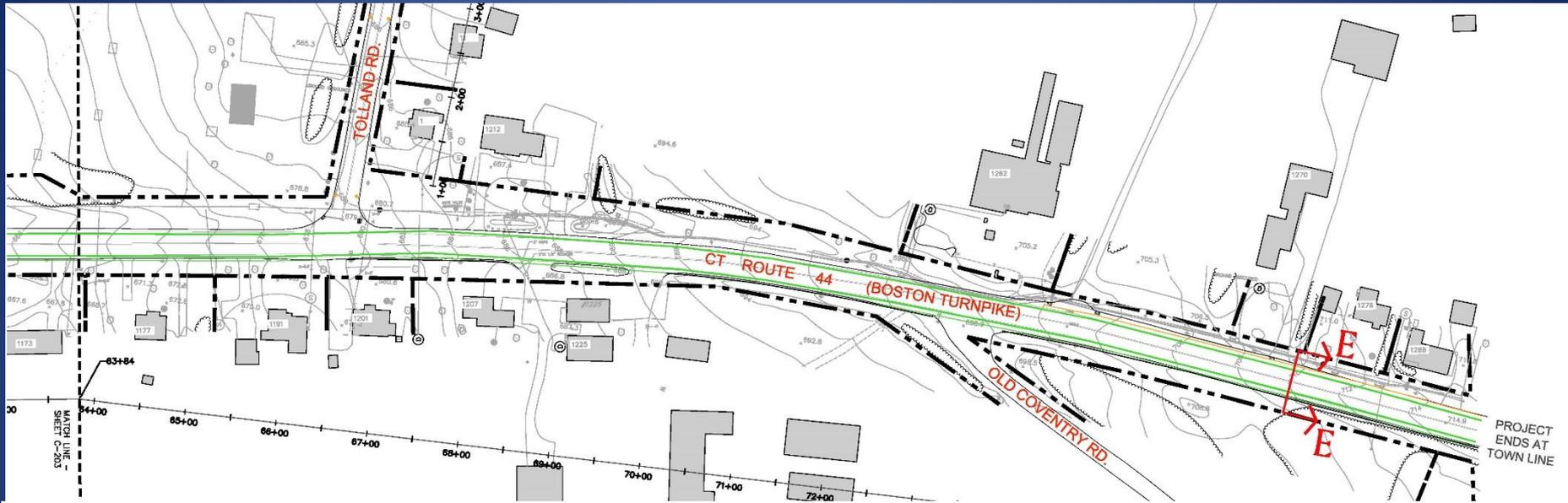




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Before



After – Dedicated Bike Lane



Before



After– Dedicated Bike Lane



**FEASIBILITY STUDY &
PRELIMINARY DESIGN**

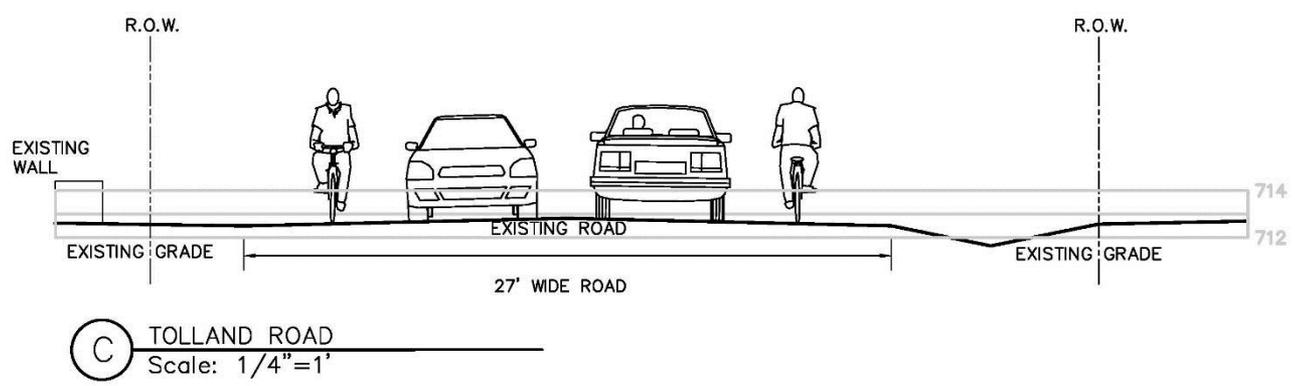
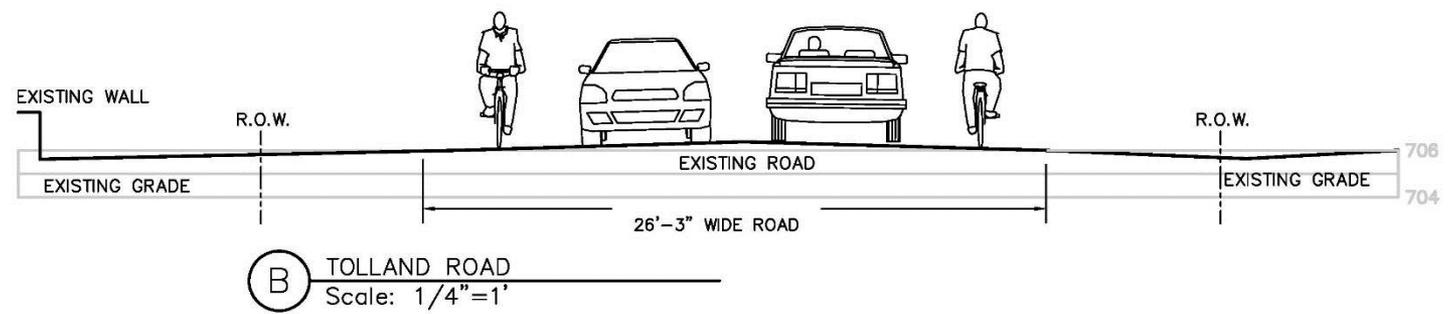
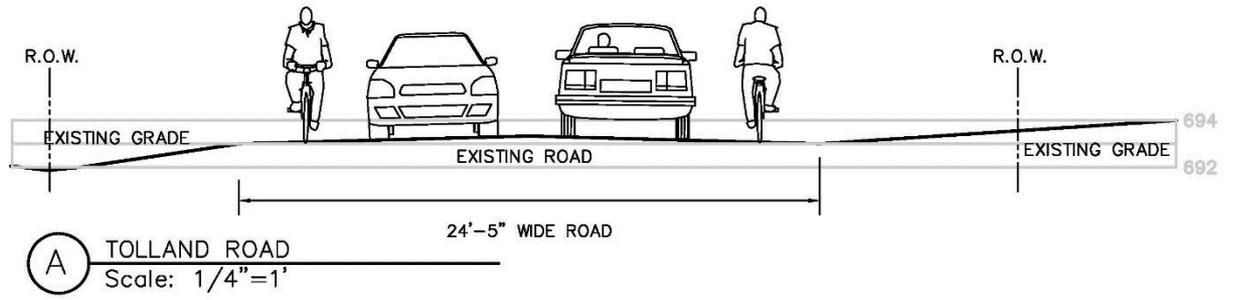
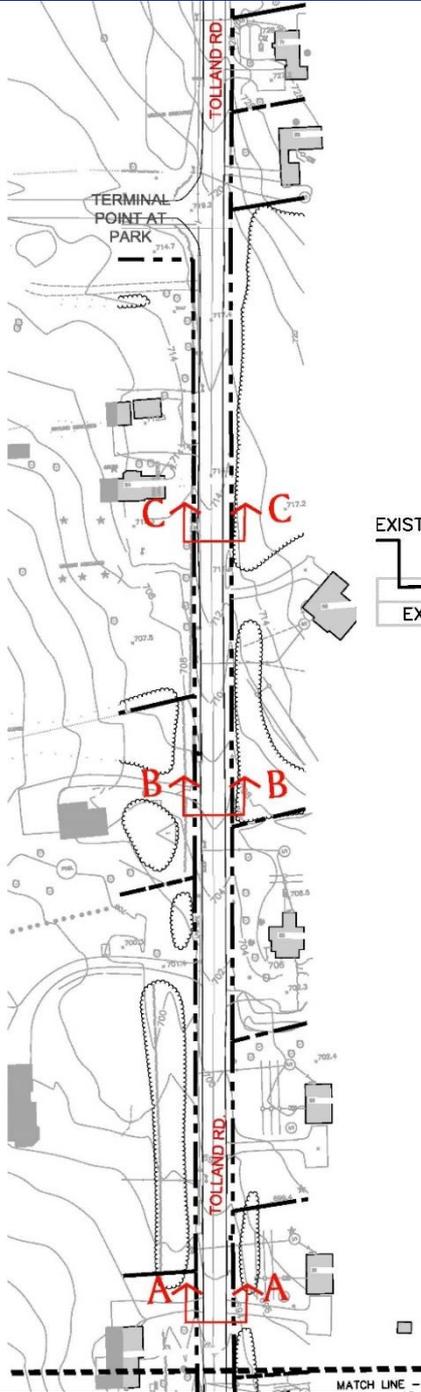
**Marked Shared Lanes/Sharrows
Tolland Road**

AASHTO and ConnDOT Design Guidelines

Marked Shared Lanes / Sharrow (Tolland Road)



- 14' wide lanes – ideal situation, allows for vehicular passing
- Minimum 2' lateral offset from obstacles e.g. mailboxes, utility poles
- Use shared lane markings and “Share the Road” signage
- Sufficient drainage area to prevent offsite storm water run-off



Before



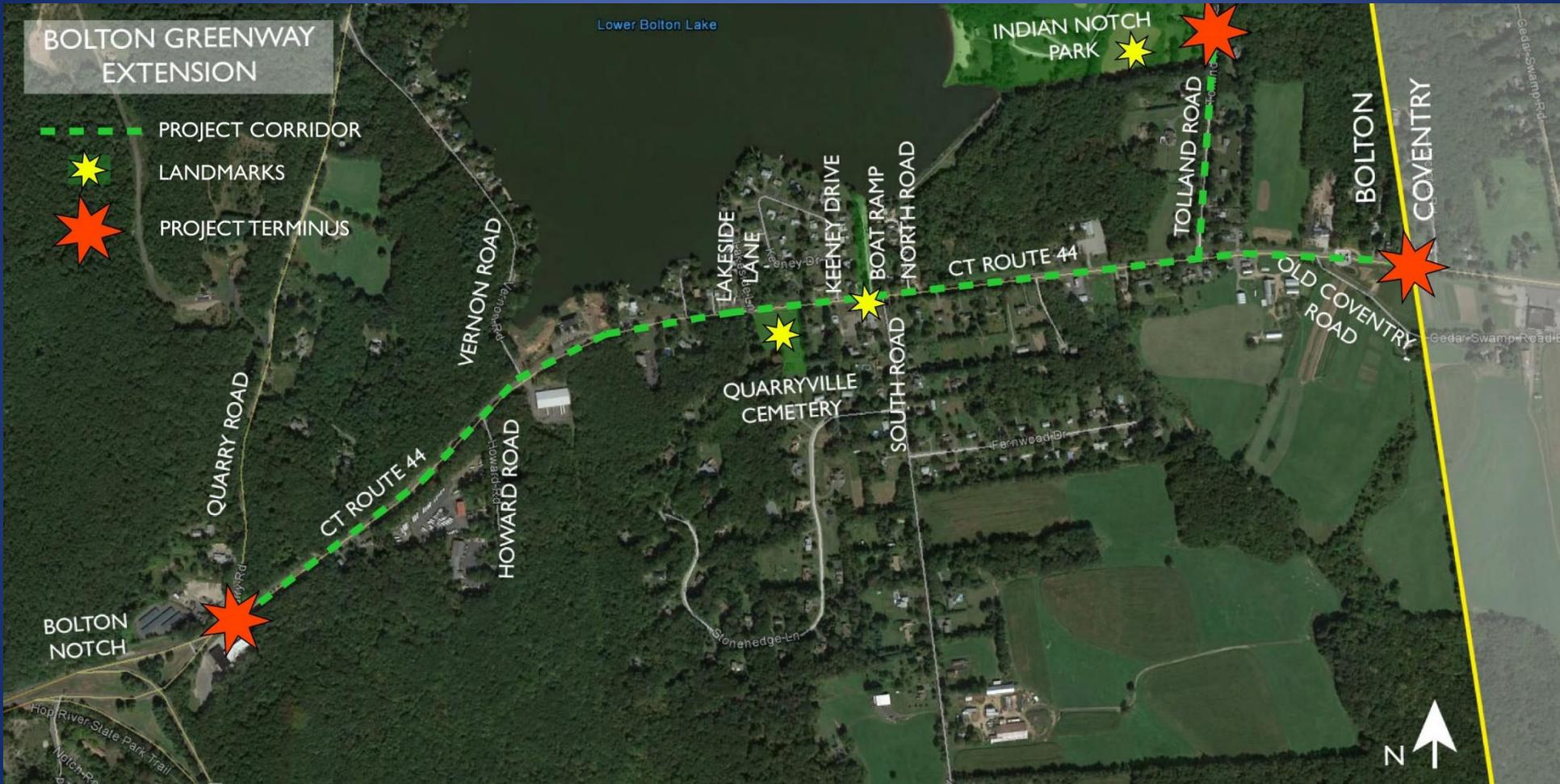
After— Shared Lanes



Next Steps

- **Community Input**
- **Prepare Preliminary Design Plans and Cost Estimate based on Input Received**
- **Meet with Connecticut Department of Transportation (CTDOT) to Review Preliminary Design Plans and Cost Estimate**
- **Prepare a Final Preliminary Design Report for the Town's Use for Project Funding**

Community Input



Community Input

- **Email Question or comments to:**
Patrice L. Carson, AICP
Director of Community Development
patrice.carson@boltonct.org
- **Please submit questions/comments by
February 13, 2015**