

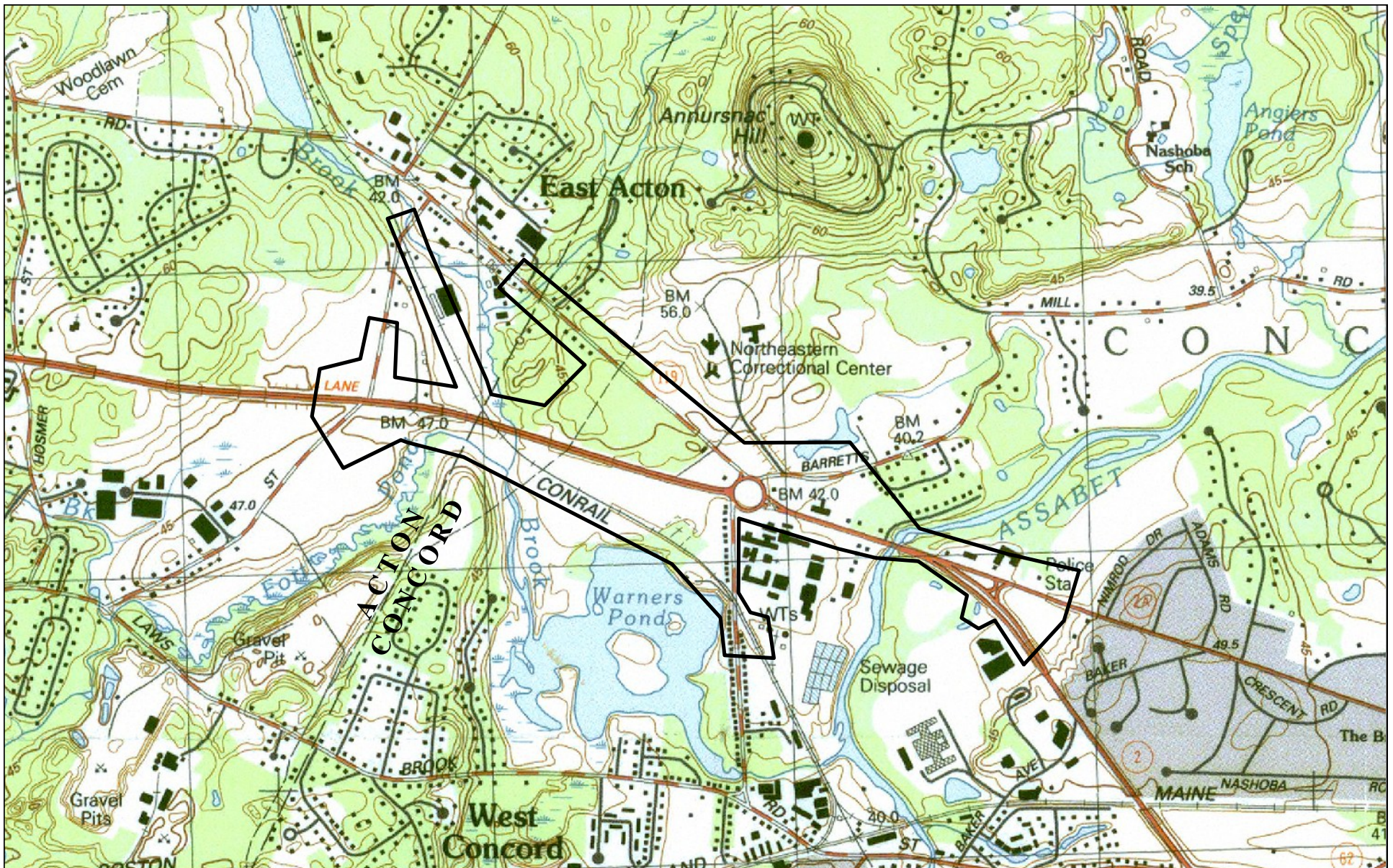
An aerial photograph of Concord High School and its surrounding area. The school is a large, multi-story building complex with a central courtyard. To the right of the school is a large parking lot filled with cars. The area is surrounded by green fields and trees. A road, likely Route 2, runs along the bottom and right side of the image. The text is overlaid in the center of the image.

**Concord Board of Selectmen
Presentation**

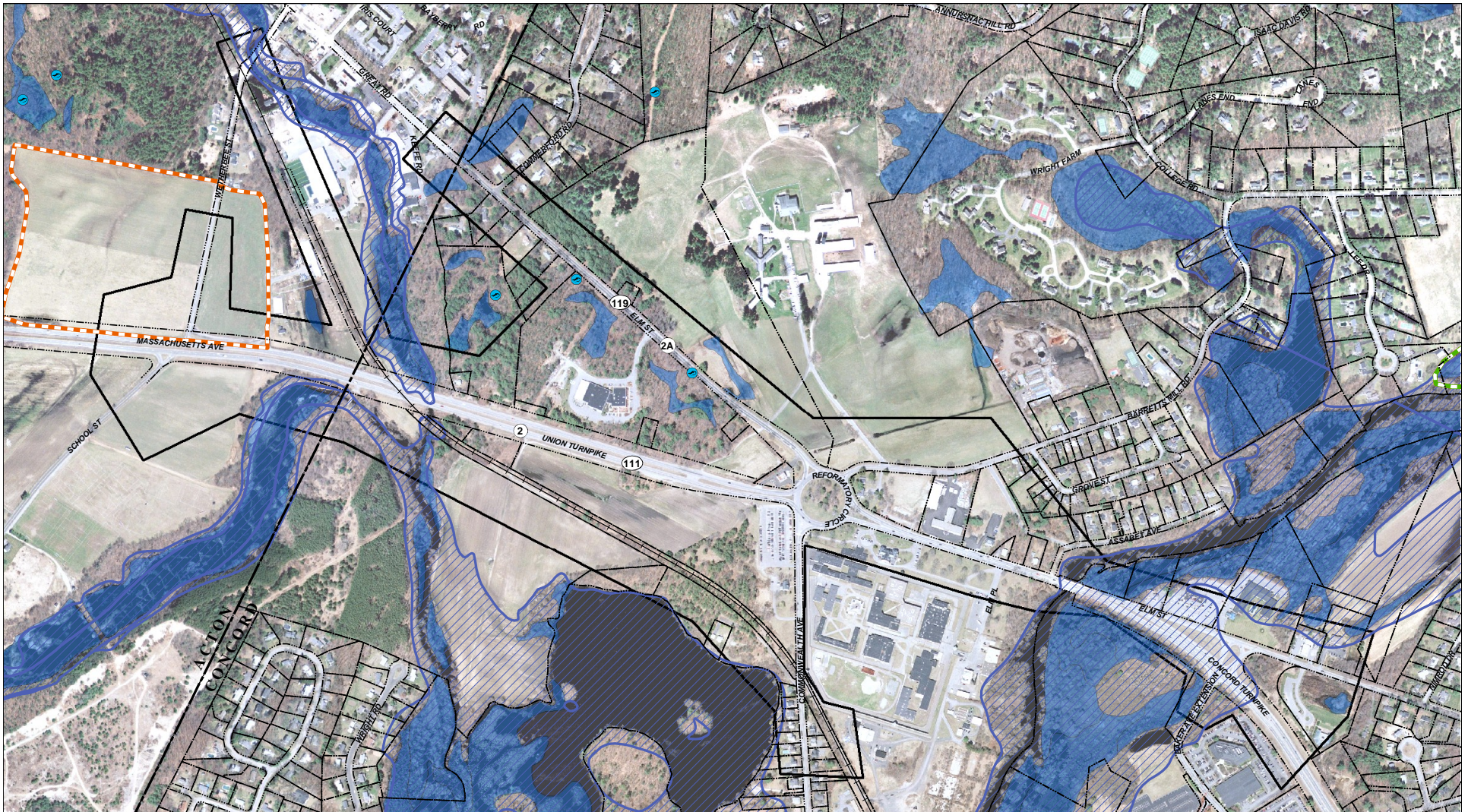
**Route 2 Reconstruction At The
Concord Rotary**

November 24, 2008

USGS Locus Map

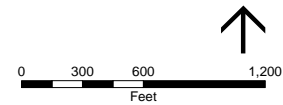


Existing Conditions



- Project Limits
- Parcels
- Abandoned Rail Line
- NHESP Certified Vernal Pools
- NHESP Estimated Habitats for Rare Wildlife
- NHESP Priority Habitats for Rare Species
- 100-Year Flood Zone
- Mass. DEP Wetlands

Aerial photo supplied by GlobeXplorer. Date of photo: 2007.



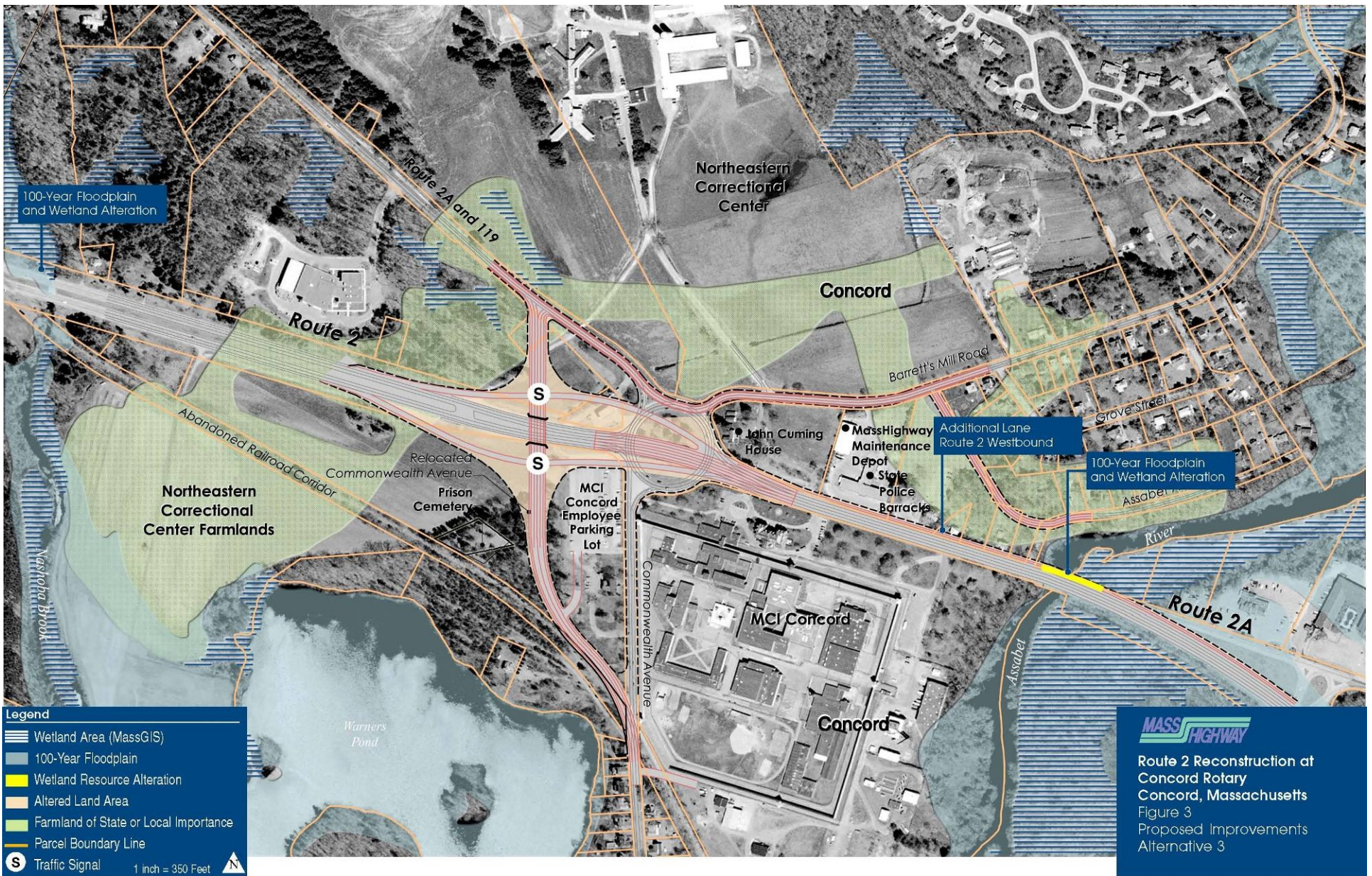
Route 2 Reconstruction at the Concord Rotary

**Compiled
Existing Conditions**

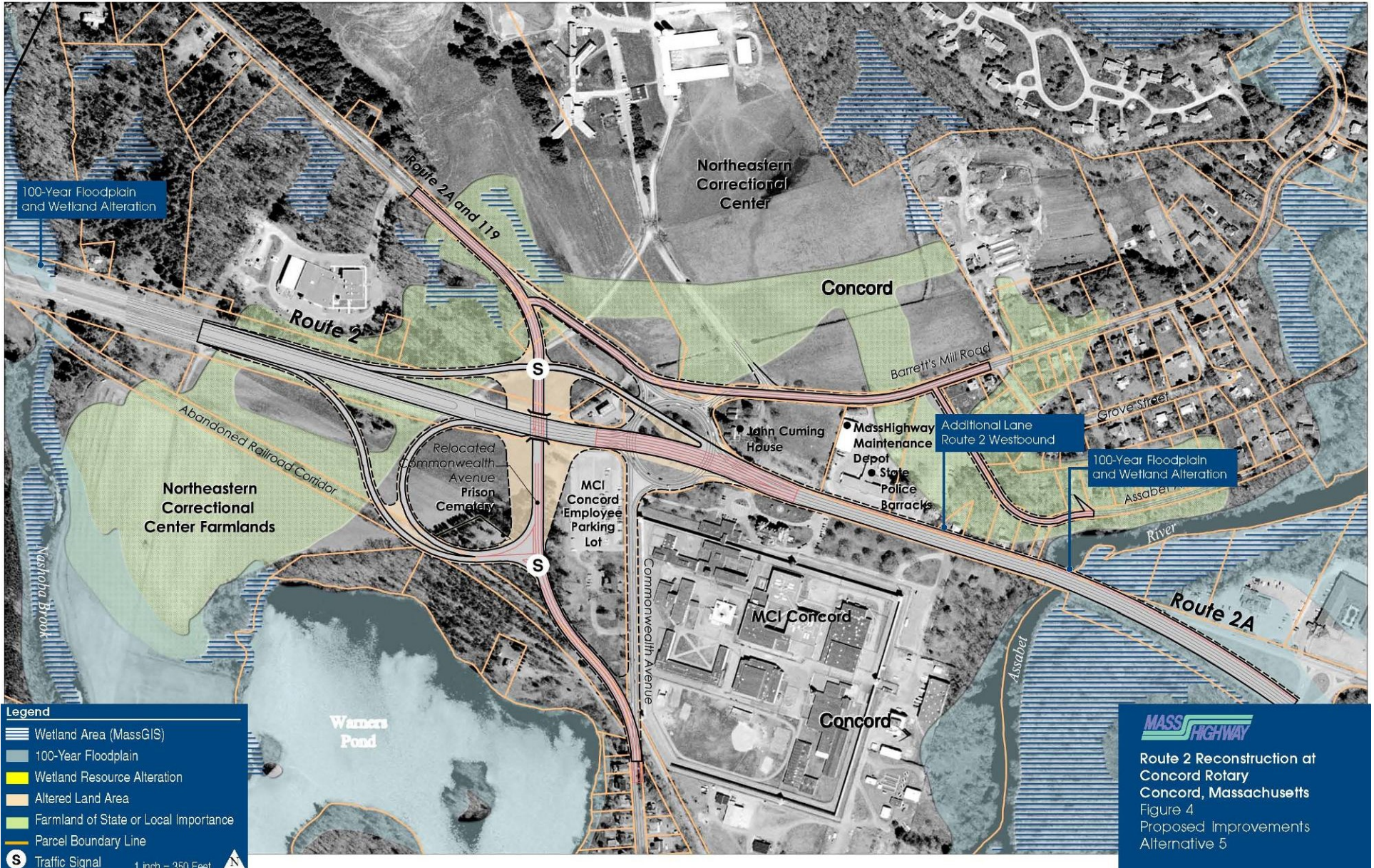
November 13, 2008

- ANRAD currently filed with Concord Natural Resources Commission
- Recent Public Hearing on November 19th
- Completed field adjustments on November 21
- Hearing Continued to incorporate recommendations of Town staff (December 17th)
- ORAD anticipated in December or January

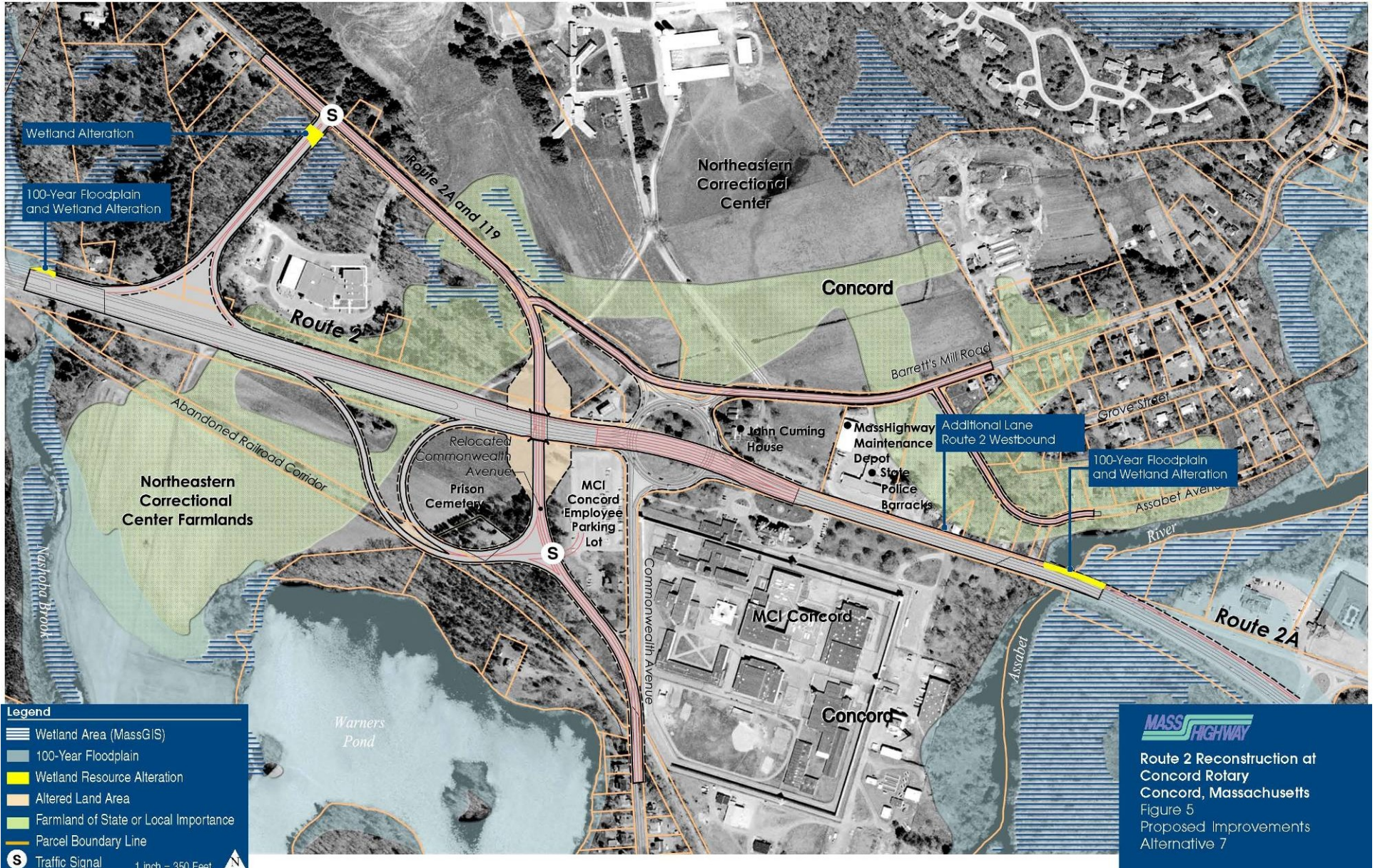
Original ENF Alternative 3



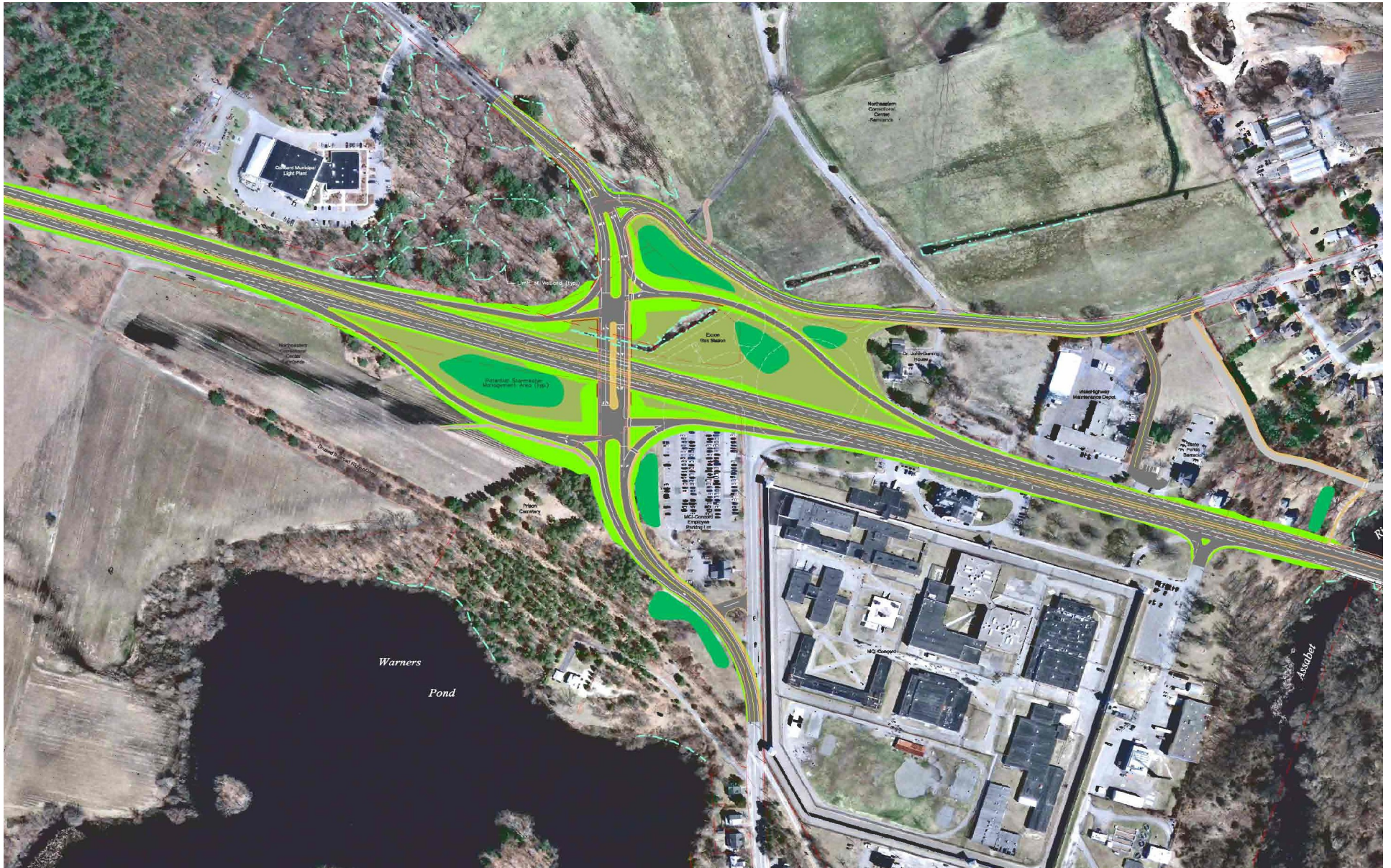
Original ENF Alternative 5



Original ENF Alternative 7



Alternative 3 Refined



Alternative 3 & 5 Refined



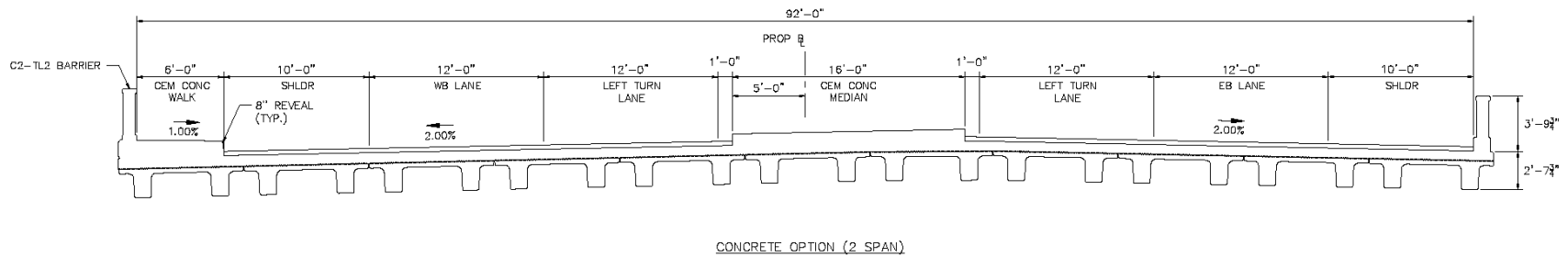
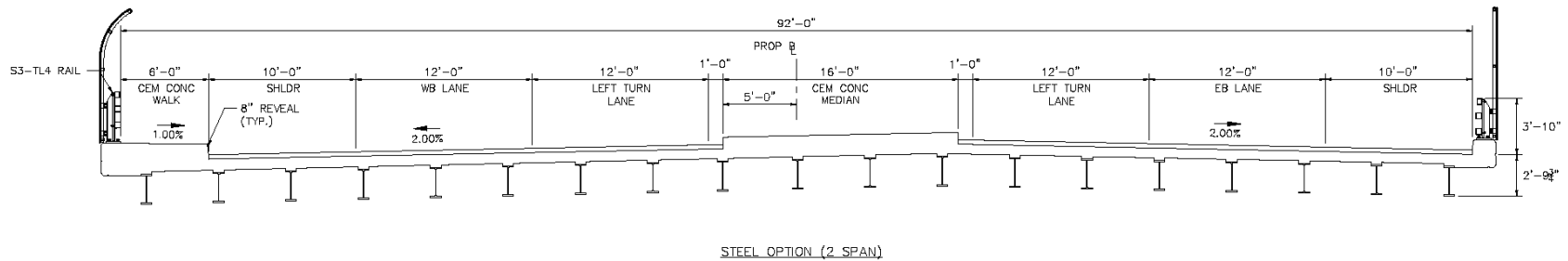
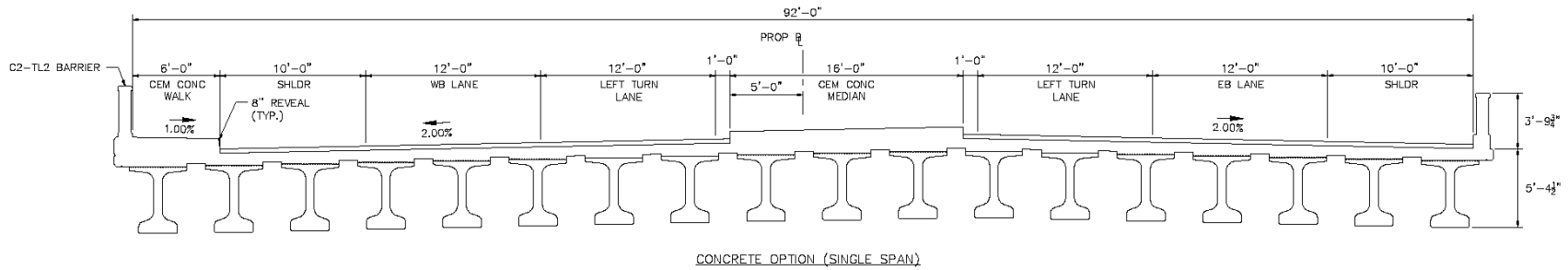
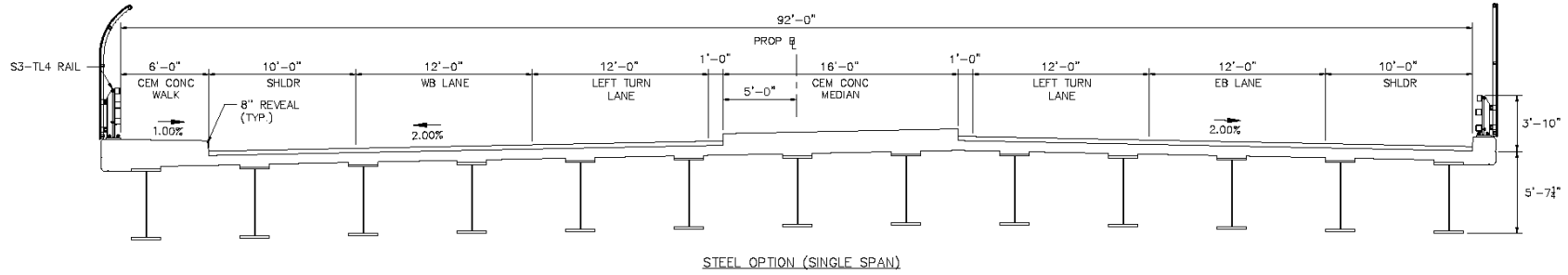
Refined Alternative 5



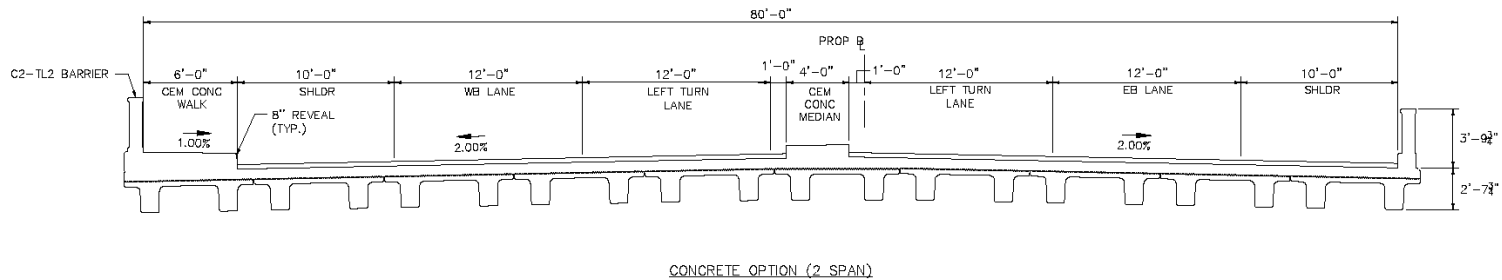
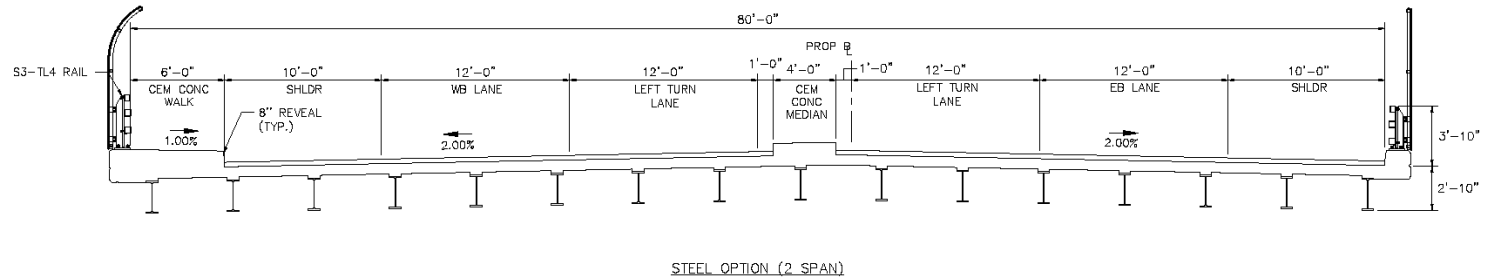
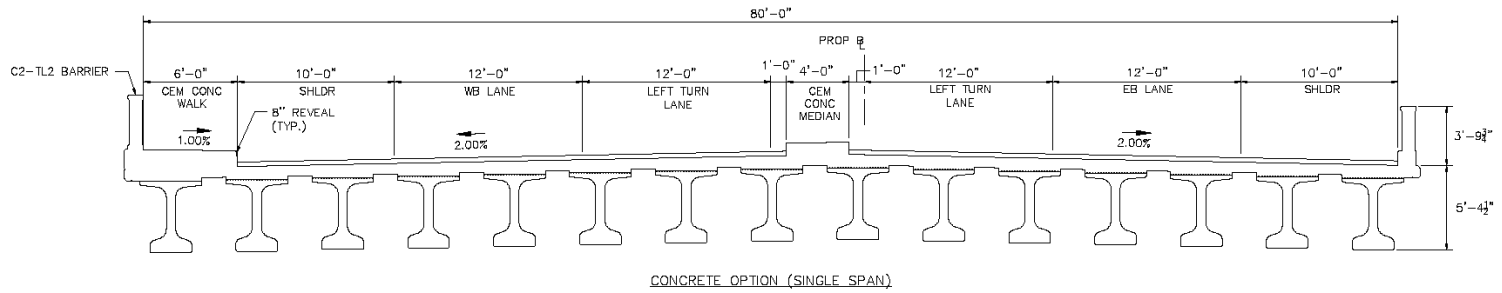
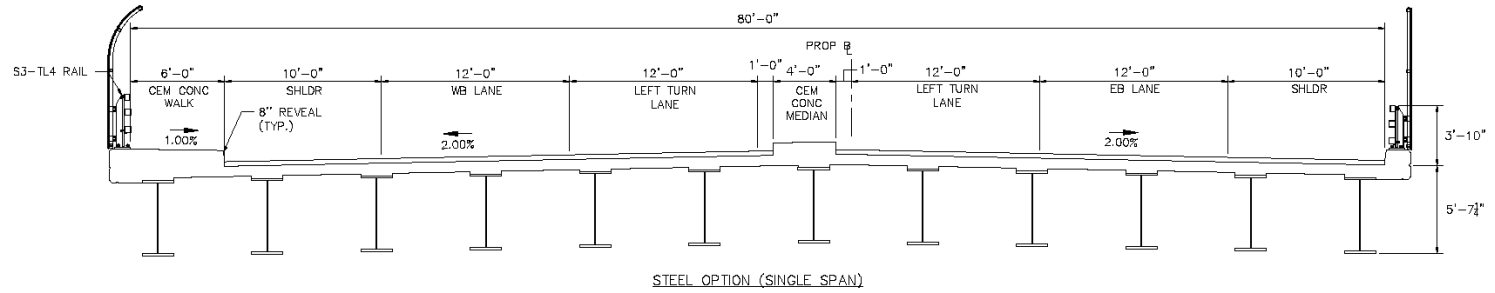
Refined Alternative 3

- Acceptable traffic operations at the reconfigured rotary under both Alternative 3 and 5 / three traffic signals (Barrett's Mill Road, Route 2 WB ramps, Route 2 EB ramps)
- A wider Commonwealth Avenue bridge is proposed under Alternative 3 to account for a potential 2nd left turn lane
- Improvements will bring traffic back to Route 2 and reduce diversion onto the local street network
- Examples during 2030 AM peak hour:
 - Hosmer Street (Acton): approximately 300 fewer trips
 - School Street (Acton): approximately 160 fewer trips
 - Route 62 @ Route 2: approx. 100 fewer trips
 - ORNAC @ Route 2: approx. 100 fewer trips
 - Sudbury Road @ Route 2: approx. 50 fewer trips

Commonwealth Avenue Bridge – Alt 3



Commonwealth Avenue Bridge – Alt 5

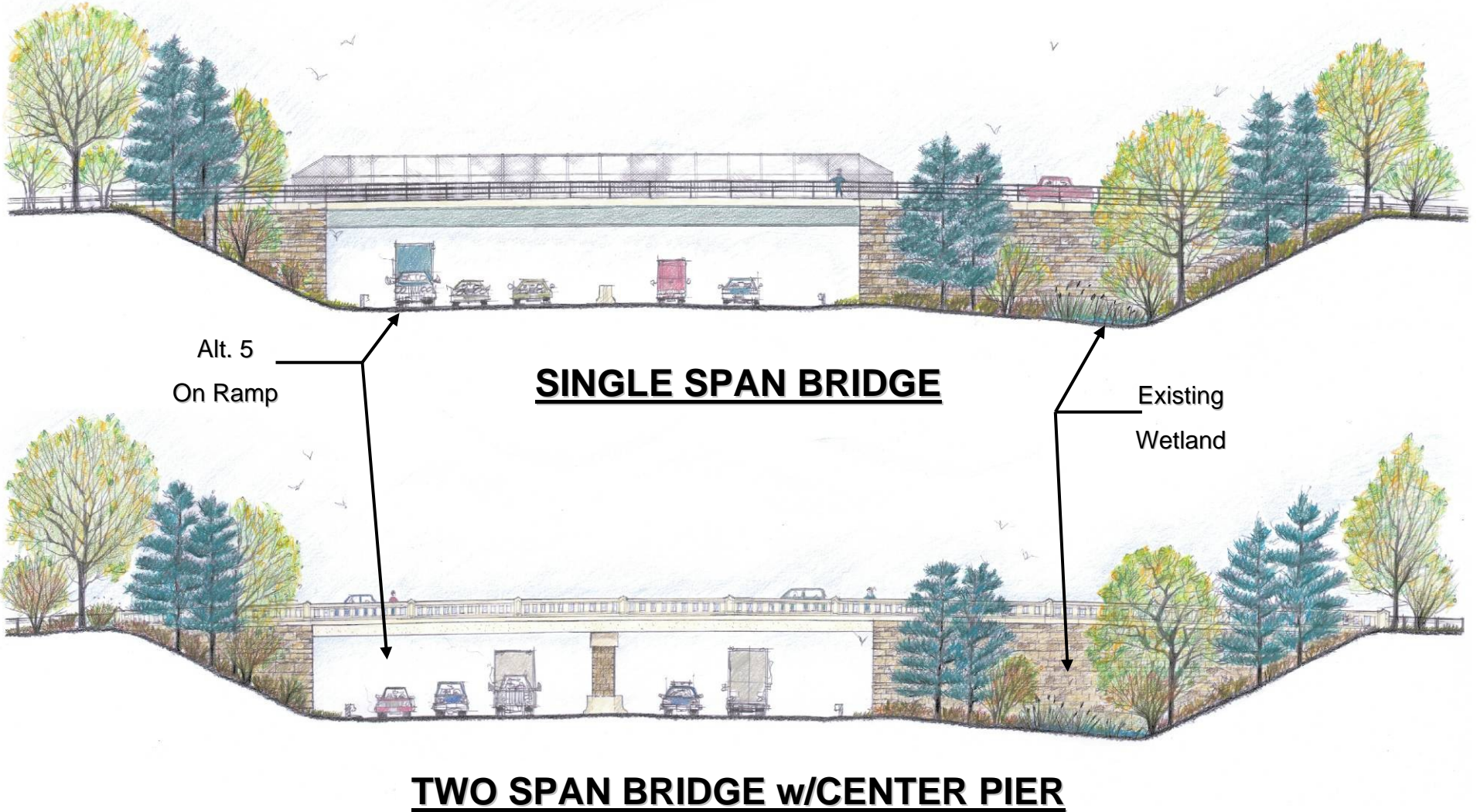


Commonwealth Avenue Bridge Elevations

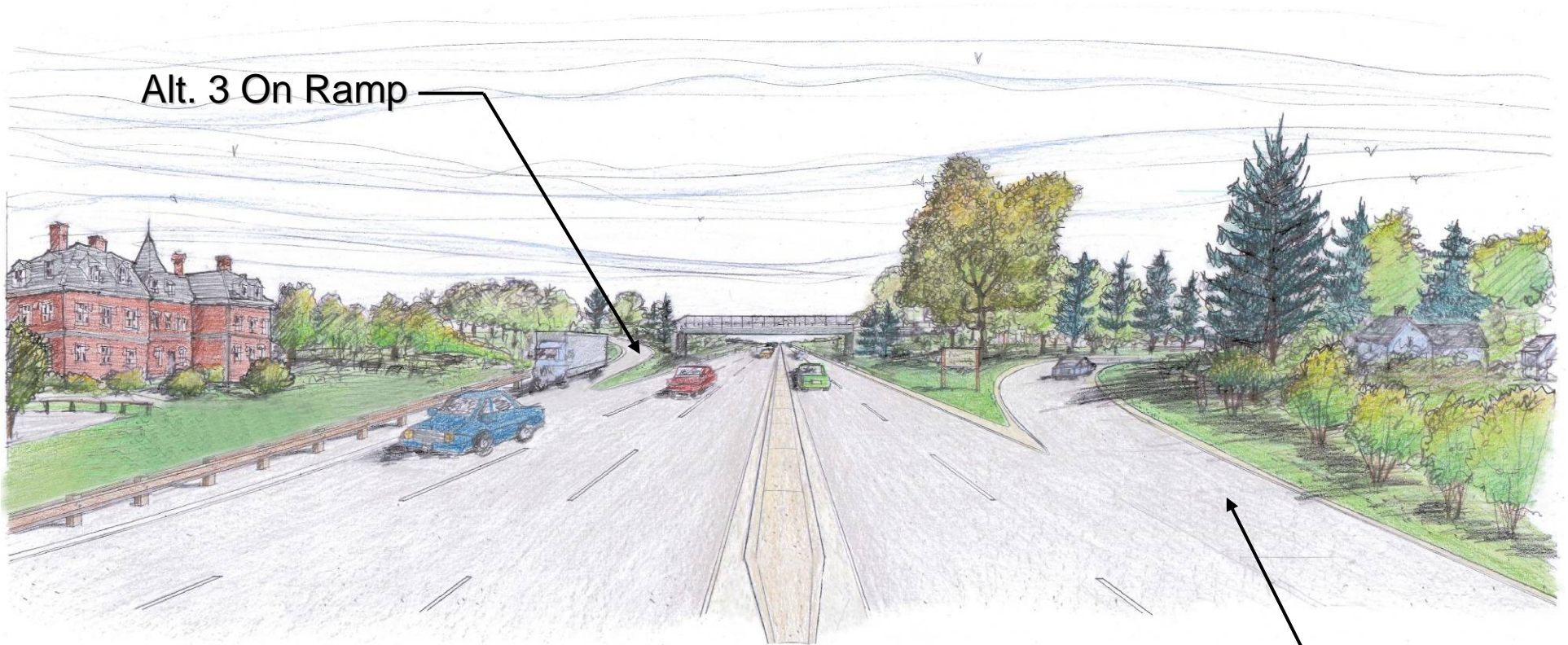
← TO WEST CONCORD

Views Are Looking West From In Front Of Prison

TO ROUTE 2A →



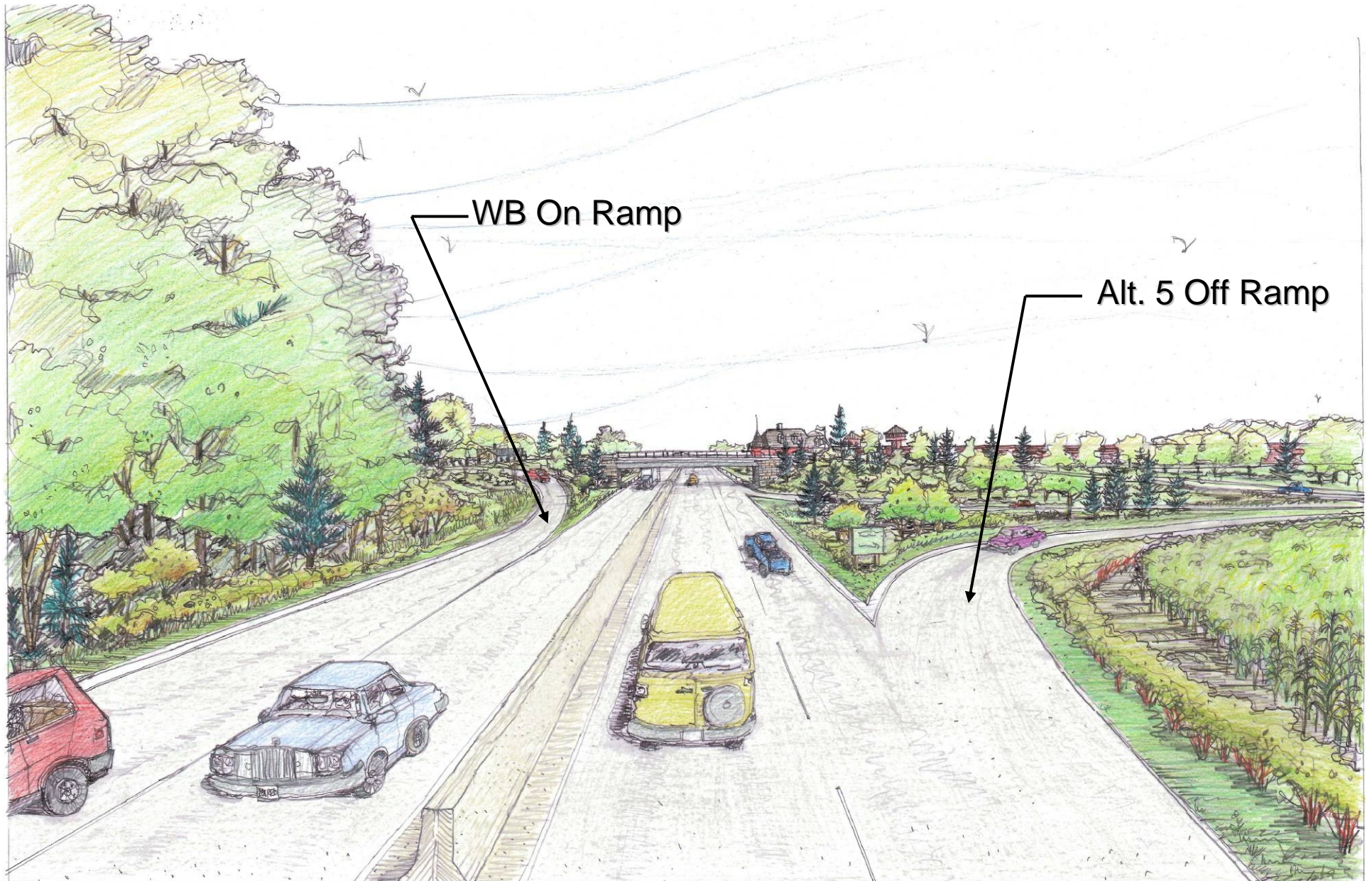
Refined Alternative 3 Looking West



Alt. 3 On Ramp

Off Ramp to Route 2A

Refined Alternative 5 Looking East



Refined Alternative 3



Refined Alternative 5



Summary of Selected Environmental Impacts

Individual Components	Wetlands	100-Ft Wetland Buffer	New Disturbed Areas	Farmland Soils	Active Ag	New Impervious
	(sq. ft.)	(sq. ft.)	(sq. ft.)	(sq. ft.)	(sq. ft.)	(sq. ft.)
Alt. 3	1,481	195,264	66,882	396,248	70,469	283,988
Alt 5	1,169	191,247	63,746	393,219	111,575	291,165
Alt 7	26,218	283,891	136,019	615,728	122,535	372,470
Baker Ave	0	173,526	1,766	12,925	0	63,468
Bike Over	1,303	153,699	10,306	295,498	0	1,790
Bike Under	578	131,027	4,221	296,881	981	4,510

Baker Avenue Conceptual Plan

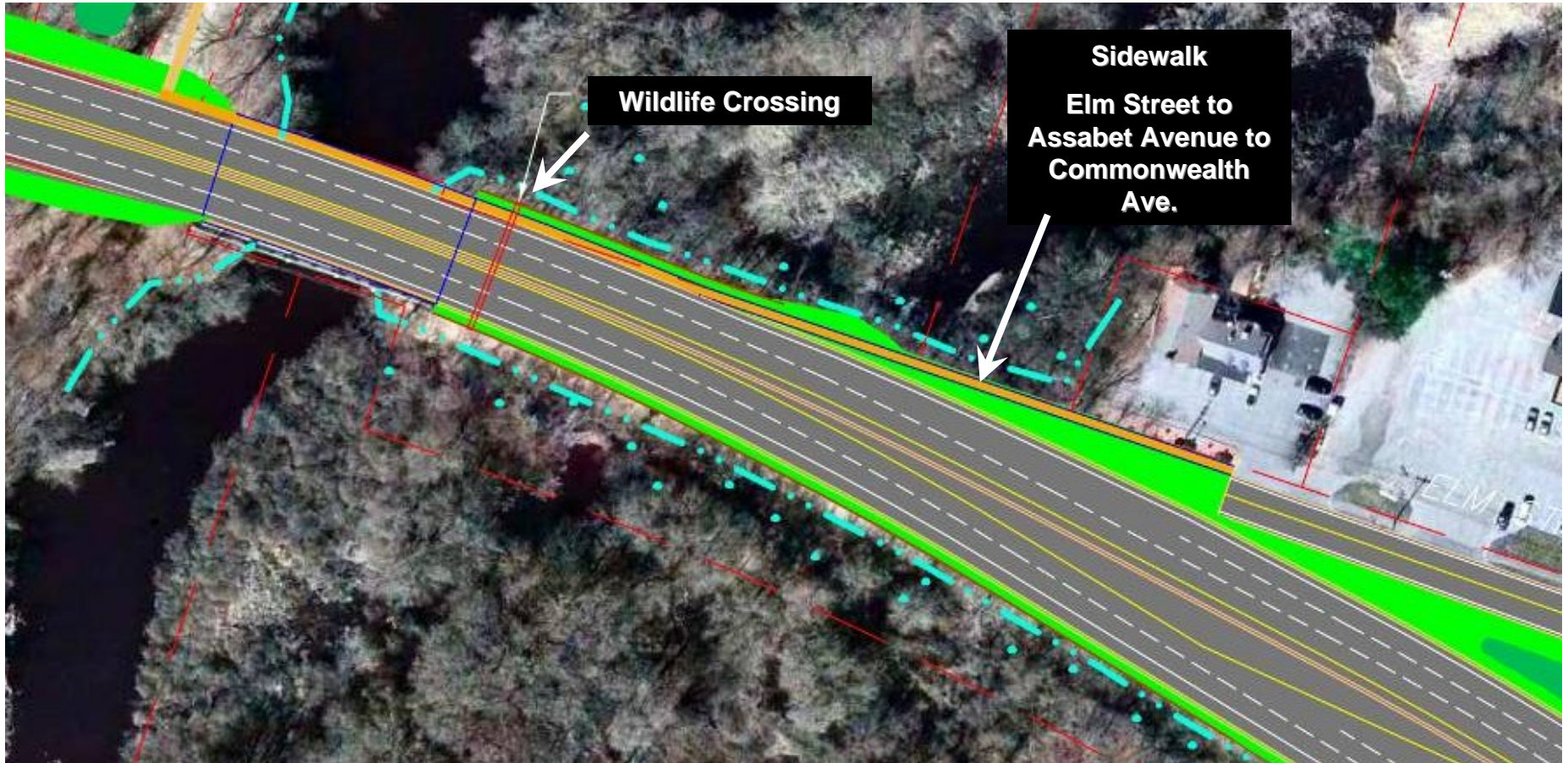


Route 2 Assabet River Bridge Downstream Elevation



ENF Alternatives widened the bridge
to add a third lane westbound

Baker Avenue Conceptual Plan



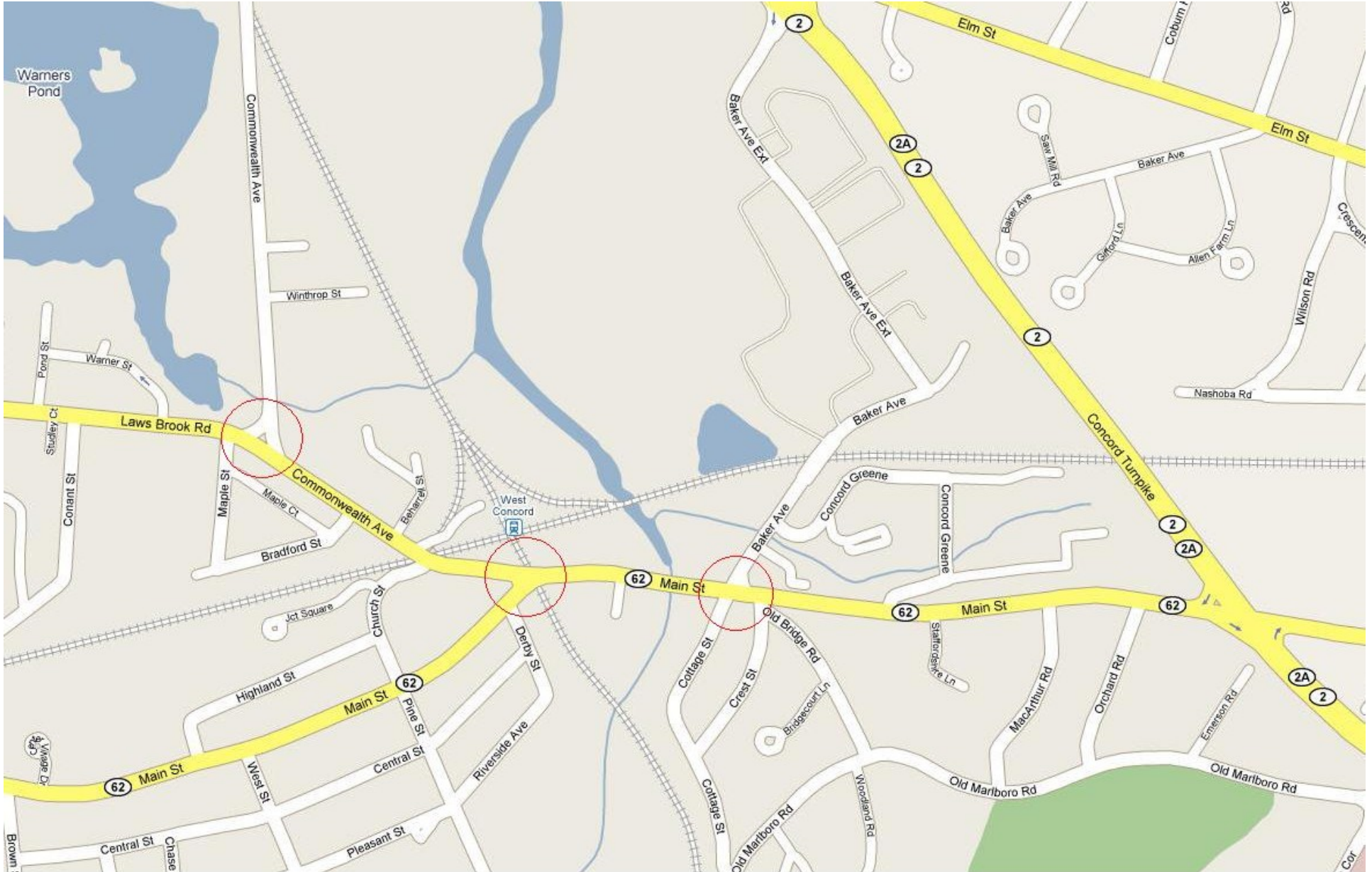
Sidewalk Limits



- Existing conditions – 460 left turns onto Elm Street during AM peak hour
- 2030 No-Build conditions – 578 left turns onto Elm Street forecasted for AM peak hour
- Left turn storage insufficient today / both existing and future conditions without the Rotary reconstruction warrant the double left turn configuration

- Holding to four lanes on bridge / near theoretical capacity for two-lane flow in each direction
- Some modest widening required to accommodate median and shoulders
- Field visits with Park Service, Corps and Natural Heritage
- Meeting last week with River Stewardship Council
- Structural testing on going

West Concord Intersections



West Concord Intersections

- Traffic counts taken in October, 2008 at:
 - School Street/Laws Brook Road (Acton)
 - Laws Brook Rd./Commonwealth Avenue
 - Commonwealth Ave./Main Street (Rt.62)
 - Main Street (Rt.62)/Baker Ave.
- Traffic counts being incorporated into network for LOS and queuing analysis comparison with and without the Rotary reconstruction

West Concord Travel Time & Diversion

- Springtime O&D study EB AM peak hour
 - traffic turning right from Rt.2 to Hosmer
 - traffic turning right from Rt.2 to School
 - 27% of vehicles turning off Rr.2 are cut-through vehicles
- Travel time studies from Route 27 in Acton to Sudbury Road
 - Route 2 only (5.25 mi.): 16 min. 51 sec.
 - Route 2 with West Concord cut-through (5.5 mi.): 13 min. 4 sec.
- West Concord cut-through “TODAY” saves 3 min. 47 sec.
- In the future conditions, travel time savings from project will more than offset time “saved” by cut-through vehicles





BFRT Over/Under



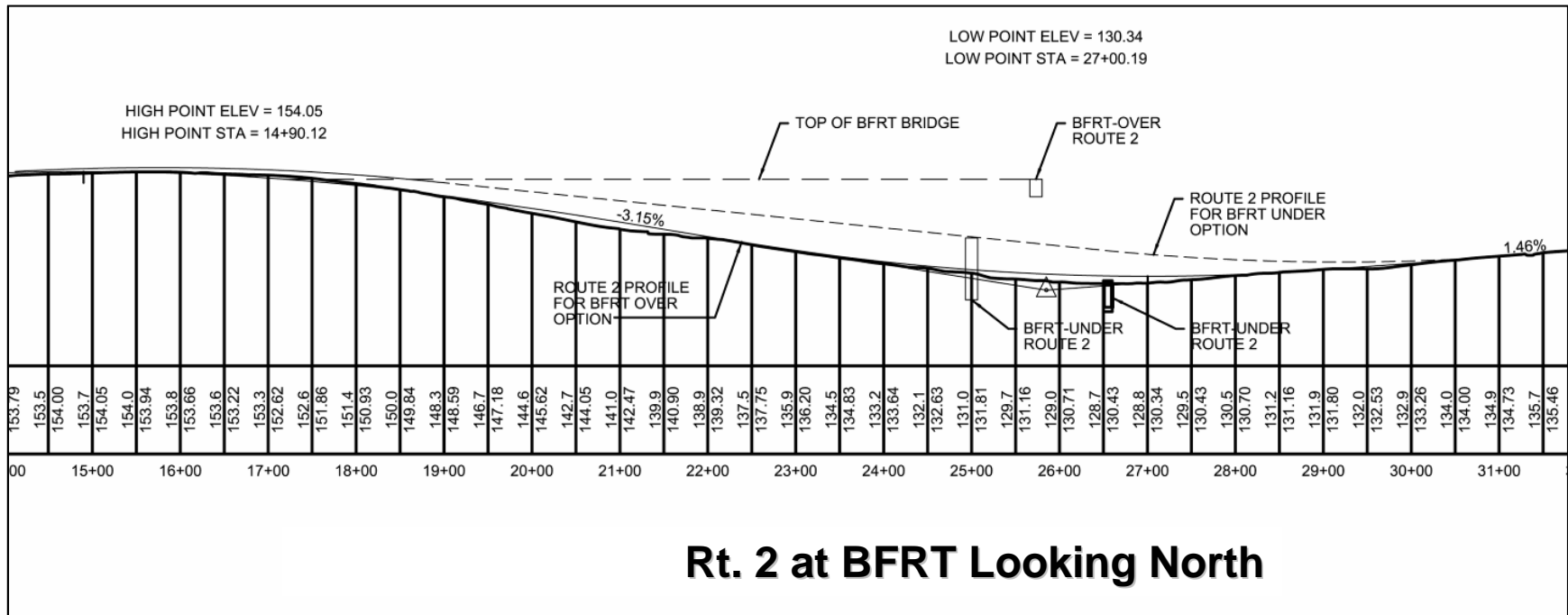
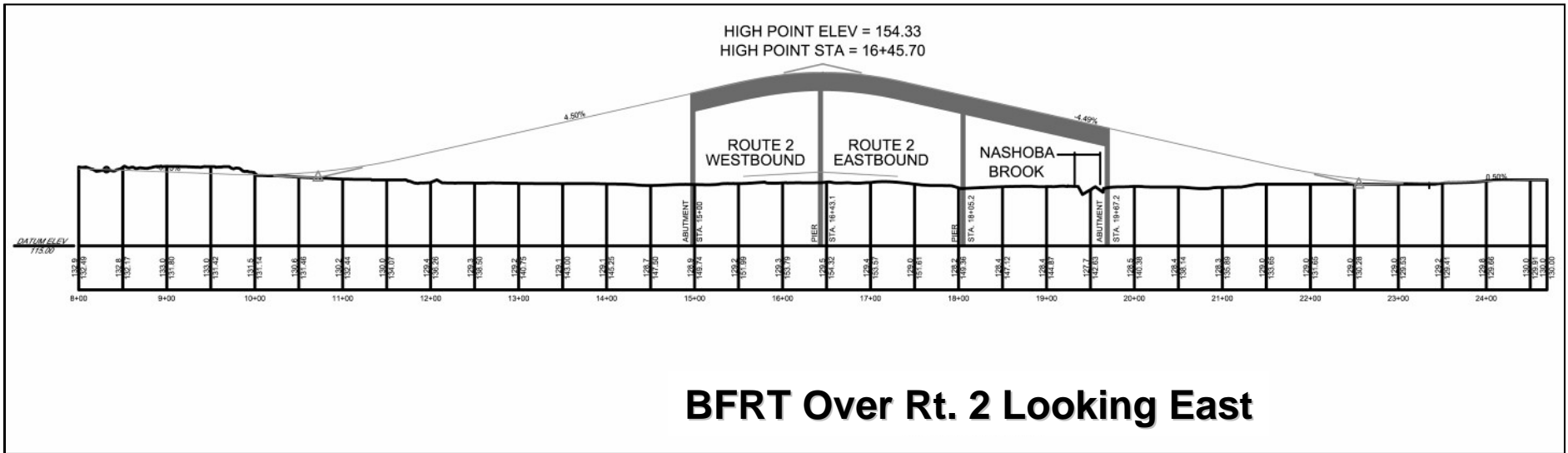
Route 2 Nashoba Brook Bridge Downstream Elevation



Nashoba Brook Railroad Bridge Downstream of Route 2



Bruce Freeman Rail Trail Elevations



Route 2 Looking East at BFRT Crossing



Existing Route 2 Wildlife Crossing

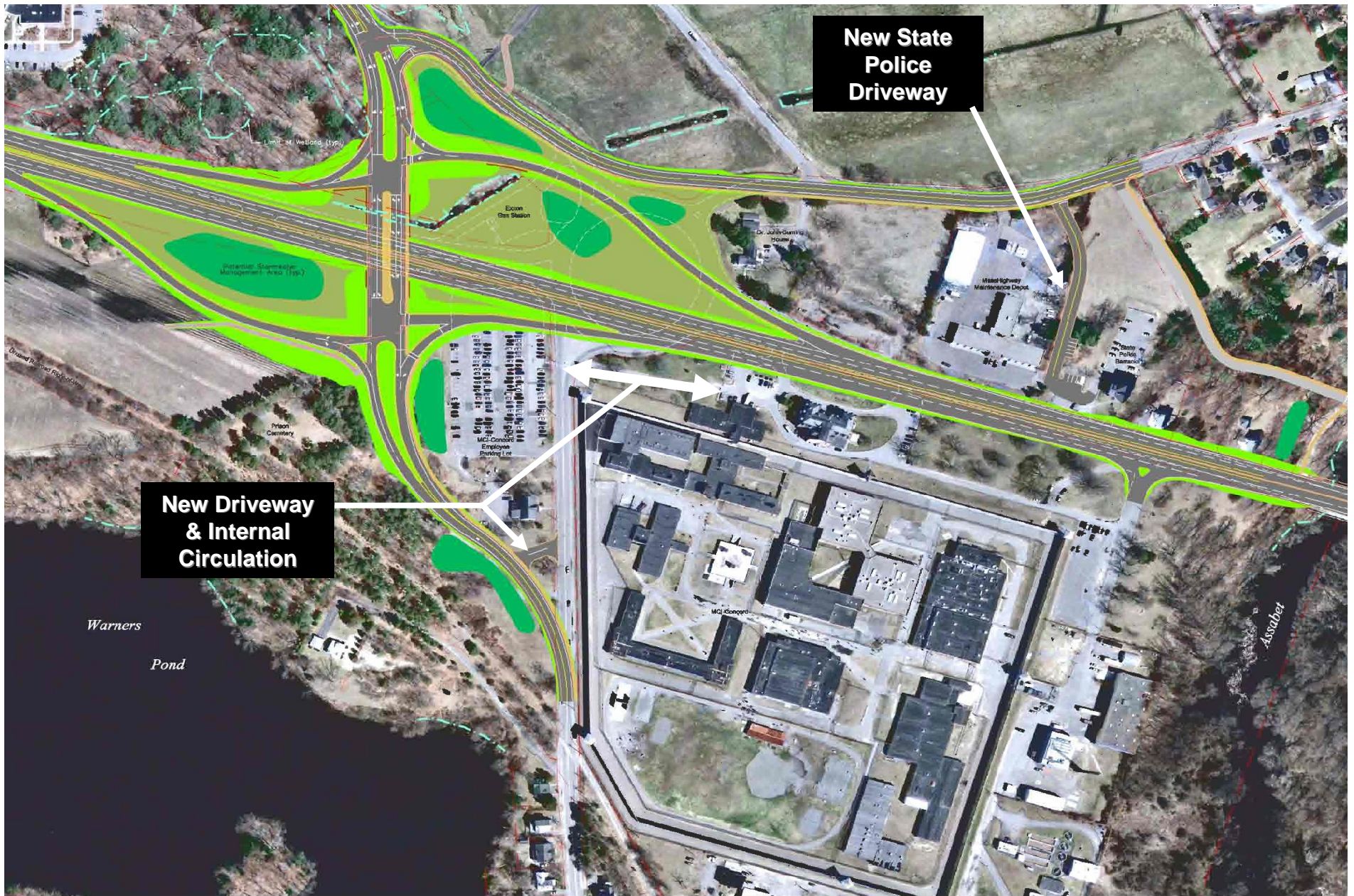


Summary of Selected Environmental Impacts

Individual Components	Wetlands	100-Ft Wetland Buffer	New Disturbed Areas	Farmland Soils	Active Ag	New Impervious
	(sq. ft.)	(sq. ft.)	(sq. ft.)	(sq. ft.)	(sq. ft.)	(sq. ft.)
Alt. 3	1,481	195,264	66,882	396,248	70,469	283,988
Alt 5	1,169	191,247	63,746	393,219	111,575	291,165
Alt 7	26,218	283,891	136,019	615,728	122,535	372,470
Baker Ave	0	173,526	1,766	12,925	0	63,468
Bike Over	1,303	153,699	10,306	295,498	0	1,790
Bike Under	578	131,027	4,221	296,881	981	4,510

- Shovel pit sampling is ongoing / areas in the woods and farm field near the prison cemetery, and behind the gas station have been completed;
- Ground-penetrating radar in cemetery area has been completed / no evidence of burials outside of the cemetery tree-line boundary

MCI-Concord, State Police, Maint. Depot



Coordination with Other Institutions

- Northeast Correctional Center
- State Police
- MassHighway Depot
- Concord Municipal Light Plant
- Concord Police and Fire

- Two public open house meetings, multiple meetings with stakeholders and community staff, multiple meetings with affected agencies
- Follow-up meetings with Acton and Concord Boards of Selectmen
- EA/EIR Public Meeting – 2009
- 25% Design Public Hearing – 2009

**Concord Board of Selectmen
Presentation
November, 2008**

**Route 2 Reconstruction At The
Concord Rotary**

Questions

<http://route2concordrotary.mhd.state.ma.us>