



Segment 3—Rutland to Hudson

March 2021

Mass Central Rail Trail Feasibility Study I-495 Hudson to Belchertown

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Background

The Massachusetts Central Railroad (MCRR) originally ran from Boston west 104 miles to Northampton. The vision for the Mass Central Rail Trail (MCRT) is to convert as much of the original 104-mile rail corridor as possible to an east-west, off-road, shared use path/greenway connecting Northampton to Boston.

The MCRT has been identified as a high priority for the Commonwealth's trail and greenway system in numerous visions and statewide planning documents, including the Massachusetts Department of Transportation's (MassDOT's) statewide Bike and Pedestrian Plans, the Department of Conservation & Recreation's (DCR's) Commonwealth Connections, and various local and regional plans.

Approximately 55 miles of undeveloped segments along the MCRR corridor are currently in public, private or conservation ownership. Approximately 33 miles of this trail have already been constructed as off-road, multi-use greenways. An additional 22 miles of former railroad corridor are owned by the Massachusetts Bay Transportation Authority (MBTA) and leased by DCR between Coburn Road in Berlin and Linden Street in Waltham. This 22-mile corridor is in varying stages of planning, design and construction by the municipalities, DCR and Eversource Energy to develop the 10-foot wide, paved MCRT.

Study Purpose

The Massachusetts Department of Transportation (MassDOT) Office of Transportation Planning initiated efforts to develop a feasibility study to complete the construction of the MCRT as an off-road shared-use path along the original MCRR corridor from the I-495 area in Hudson to the existing terminus of the Norwottuck Rail Trail in Belchertown. The current ownership, condition and existing use of the original MCRR corridor varies greatly from Hudson to Belchertown. Some sections have been converted to a shared-use path; some sections are in public ownership with an intact railbed. Other sections are active railroads while still others are now in private ownership and the original railbed has been obliterated or converted to different uses.

For the sections that have been converted to a shared-use path, the rail trail was constructed along the original MCRR railbed. Signage identifying those sections as the MCRT were installed. Other sections of path were built in locations that deviate from the original MCRR corridor or were built along different former railroad corridors; many of these trails have also been identified as the MCRT.

Development and other changes along the original MCRR corridor that have taken place over the past century plus will most likely preclude construction of a shared-use path on the MCRR corridor over the entire length of the project corridor from Hudson to Belchertown. Minor diversions to off-road paths not on the MCRR corridor or use of on-road bikeways will most likely be needed in locations where the rail bed has been physically obliterated and a shared-use path is not a practical or feasible alternative.

Study Tasks

MassDOT and DCR determined that the logical and appropriate first step for this feasibility study would be complete the following tasks:

- » Verify ownership of the MCRR corridor
- » Verify current use of railbed as intact, existing trail, active RR, inactive RR, other
- » Identify potential alternate trail routes around constrained sections for further evaluation

Project Location & Limits

The preferred MCRT alignment is along the former railbed from eastern terminus of the Norwottuck Rail Trail in Belchertown to the Interstate 495 overpass in Berlin. Some segments of the MCRT between these project limits have previously been converted to a rail trail and are currently open to the public. For purposes of this feasibility study, it is assumed that the length of the study corridor is approximately 50 miles long and that the proposed MCRT Alignment Alternatives in this study will connect to the existing completed trail segments. Evaluation and review of the existing completed segments are not included in this study.

This study divides the MCRT analysis into three segments, described as follows:

- River (east bank), Bondsville (Palmer)
- River, Barre
- underpass, Berlin/Hudson town line

Each segment is broken down into sections with a general description of existing conditions, potential trail option and a rating of difficulty of implementation from low difficulty to high difficulty. A summary matrix is included.

» Locate the original MCRR right-of-way (railbed) and assess the existing condition of the corridor

» Locate adjacent intersecting trails that have been built or are in the planning/design stages

» Segment 1 - MCRT at easternmost extent of Norwottuck Rail Trail, Belchertown to MCRR corridor at Swift

» Segment 2 - MCRR at Swift River, Bondsville (Palmer) to westernmost extent of the MCRT at the Ware

» Segment 3 - MCRT at Glenwood Road, Rutland to MCRR at Stone Road, Berlin, just east of the I-495

Summary of Proposed MCRT Location and Constrained Sections Alternate Routes

The following potential alternative MCRT locations have been identified for Segment 3.

Segment 3A: Glenwood Road, Rutland to Wachusett Street, Rutland (Map Pages 1-2)

East of Glenwood Road, the corridor is intact and an informal path leads eastward from the existing public parking area. The corridor is almost entirely in public ownership, and Wachusett Greenways indicated that they will communicate with the private landowner of the one parcel not in public ownership along this stretch for possible future access. Field investigation east of Glenwood Road found that the original corridor is generally intact, though heavily overgrown in places. There is evidence of significant beaver activity and ponding adjacent to the right-ofway.

Possible Option: Rail-to-Trail along the existing MCRR right-of-way

Approximate Length: 6,300 feet (1.2 miles)

Difficulty of Implementation: Moderate (corridor intact, some work around wetland features, one private parcel)

Segment 3B: Wachusett Street, Rutland to Quabbin Aqueduct west of East County Road (State Route 68), Rutland (Map Pages 2-3)

This segment has been completed.

The only potential recommendation for this section is to establish an effective and ongoing maintenance plan and to have standard signing and marking for road crossings and trail identification.

Segment 3C: Quabbin Aqueduct west of East County Road (State Route 68), Rutland to central Holden (Map Pages 3-8, 4A, 7A, 8A)

While some portions of this segment are intact, large amounts of the corridor are now in diverse private ownership. Some areas have been obliterated, such as through the Holden Hills Country Club and along Jackson Street northwest of Asnebumskit Brook. A large tract of publicly-owned land (mainly Department of Conservation, or DCR) is located north of Quinapoxet Street in Holden. The corridor is intact in this area.

Wachusett Greenways intends to plan for a Rail-to-Trail conversion for a section of the corridor south of the Quabbin Aqueduct, and then link to a portion or pathway that would deviate from the corridor to connect to State Route 68 at Parsons Road (Map Pages 3-4). From this point, Wachusett Greenways has suggested a potential

alternative to link further eastward. This potential link would follow Broad Street (State Route 68) southward, before diverting northeasterly to DCR land, but stopping short of land owned by the City of Worcester (Map Page 4A). The link would pick up at Whitney Street, continuing southerly to Princeton Street, where it would turn northeasterly and follow the street to a DCR access road north of the Quabbin Aqueduct (Map Page 7A). The feasibility of all these potential links needs to be reviewed. This set of links leaves an approximate 1,000-foot gap owned by the City of Worcester. A complete MCRT will need to find a viable continuation of the path, and the Worcester property may be a good opportunity to make this connection.

Wachusett Greenways was awarded a 2019 Mass Trails grant for a path connection from Princeton Street, Holden to Mill Street, Holden. This is currently under design. The intention is to link this path along Mill Street to the existing Wachusett Greenways path that terminates at Mill Street / Wachusett Street (State Route 31) in Holden (Map Pages 7, 8, 8A).

Possible Options:

- » Off-corridor path as suggested by Wachusett Greenways via Broad Street and DCR property
- » Off-corridor path through City of Worcester Land to Whitney Street
- » Off-corridor path as suggested by Wachusett Greenways via Whitney Street and Princeton Street
- » Off-corridor path and rail-to-trail along the existing MCRR right-of-way as currently in design by Wachusett Greenways per the 2020 Mass Trails program, linking Princeton Street to Mill Street

Approximate Length: 28,200 feet (5.3 miles)

Difficulty of Implementation: High (from the aqueduct to the railroad, length, right-of-way access, multiple private property owners, MCRR railbed obliterated, narrow roadways for shared-use bikeway); Low (from the railroad to Quinapoxet Street—intact MCRR on public land)

Segment 3D: Central Holden to Southern End of MCRT Quinapoxet River Trail Segment, Holden (Map Pages 8-10, 8A, 8B)

The corridor is largely obliterated throughout this area south of Mill Street in Holden, both physically and legally as it is now in diverse private ownership and in some cases other land uses have been constructed atop the corridor. The bridge crossing of the Quinapoxet River no longer exists (Map Pages 8, 8A, 9). The corridor is intact south of the existing southern end of the MCRT Quinapoxet River Trail and parking lot at River Street, though heavily overgrown (Map Page 10).

Wachusett Greenways has constructed an off-corridor connection linking the southern end of the MCRT Quinapoxet River Trail Segment to Mill Street/Wachusett Street (State Route 31) through DCR land (Map Pages 8A,

» Rail-to-Trail along the existing MCRR right-of-way south of the Quabbin Aqueduct (west of SR 68)

» Off-corridor path as in design by Wachusett Greenways along Mill Street, connecting to Wachusett Street and the existing western terminus of the off-corridor Wachusett Greenways Path at Wachusett Street

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8B, 10). This path is narrow in places and includes some steep terrain. This path will link to the future path under design by Wachusett Greenways at Mill Street as part of the 2020 Mass Trails program.

Possible Options: Not all of this off-corridor path may meet the design threshold of a shared use path under the Americans for Disabilities Act. Wachusett Greenways has recently completed work on a now ADA-compliant trail segment between River St and Manning St. and has plans for further improvements within this segment.

Approximate Length: 8,700 feet (1.6 miles)

Difficulty of Implementation: High (right-of-way access, multiple owners, sections of MCRR corridor obliterated, narrow roadways)

Segment 3E: Southern End of MCRT Quinapoxet River Trail Segment, Holden to Oakdale (Maps Pages 10-13)

This segment has been completed and is well-used. A DCR-managed parking area exists adjacent to Thomas Street.

The only potential recommendation for this section is to establish an effective and ongoing maintenance plan and to have standard signing and marking for road crossings and trail identification.

Segment 3F: Oakdale to South Meadow Road, Clinton (Map Pages 13-16, 16E, 16F, 18, 19)

The MCRR is active rail in this segment, and the existing rail right-of-way and bridge structure widths are inadequate to safely provide a rail-with-trail option. An off-corridor alternative will be necessary.

Wachusett Greenways has suggested a series of alternatives connecting the Oakdale section of West Boylston to Chace Hill Road in Clinton. One of these received 2016 Recreational Trails Program funding—a 900-foot extension of the trail from the Thomas Street trailhead through the Route 140 intersection in West Boylston along the Route 140/Beaman Street causeway. These alternatives are described below. They have not yet been independently verified as feasible alternatives.

Possible Options:

- » As suggested by Wachusett Greenways:
 - Sidepath along Thomas Street and Beaman Street causeway bridge as suggested by Wachusett Greenways (funded 2016 Recreational Trails Program)
 - Path along the closed DCR access road along Pleasant Street from Beaman Street to Prescott Street
 - Path along Prescott Street from Pleasant Street to Bean Road
 - Path along Mortimer Road from Bean Road to Worcester Road

- Path along Worcester Road between Mortimer Road and Twine Road

- Campground Road NW of Newell Hill Road
- Metropolitan Road (State Route 110).
- evaluation matrix]
- Rainbow Cove to Chace Hill Road.

Approximate Length: 34,000 feet (6.4 miles)

Difficulty of Implementation: Moderate (length, use of watershed management land, narrow roadways)

Off-Corridor Northern Spur (Map Pages 16, 16A-D)

This is a Wachusett Greenways-managed existing and future path north of the MCRR corridor. It follows the historic Fitchburg & Worcester Railroad corridor, which is no longer in operation. The existing path is situated north of Gates Road in Sterling, about 1,500 feet east of Worcester Road (State Route 12). A parking lot is located just south of Gates Road on DCR property. The existing path extends from Gates Road to a point approximately 500 feet south of Newell Hill Road. The path links to Newell Hill Road via unpaved driveway access to the Oh My Gosh antique store. The path crosses a causeway bisecting West Waushacum Pond and The Quag.

Unconstructed portions include a stretch at the southern end along State Route 12 (Worcester Road) to connect Gates Road to the prospective path identified for Segment 3F at Twine Road, a lengthy portion of the former rail corridor north of Newell Hill Road, and an area where the former corridor has effectively been incorporated into the right-of-way for State Route 12 (Leominster Road) in the vicinity of Chocksett Road. The corridor in this area is partially in public ownership (Town of Sterling) and partially private.

The study did not include field review for the Fitchburg & Worcester Line.

Possible Options:

Road to DCR property approximately 900 feet north.

Path along the closed DCR access road along Twine Road between Worcester Road and Gates Road

Path along Gates Road between Twine Road and DCR access road south of MCRR corridor

DCR access roads between Campground Road and Chace Hill Road (with short interval along

» Sidepath along Chace Hill Road from DCR access road suggested by Wachusett Greenways to

Sidepath along State Route 110 between Chace Hill Road and South Meadow Road. (There is ample room alongside the road for most of this segment, but it may have to cross State Route 110 to follow the easterly side of the road where the road passes Rainbow Cove) [This is the option included in the

» An alternative to a State Route 110 sidepath could follow the existing berm path along the reservoir from Rainbow Cove to the existing shared use path south of South Meadow Road. The unpaved berm path would need to be formalized. The berm path would still require a link along State Route 110 from

» Sidepath as suggested by Wachusett Greenways adjacent to State Route 12 (Worcester Road) from Twine

- » Rail-to-trail on existing F&W corridor north of Newell Hill Road.
- » Sidepath adjacent to State Route 12 (Leominster Road) for approximately 2,300 feet south from Chocksett Road.

Approximate Length: 19,000 feet (3.6 miles, of which 1.6 miles has been constructed)

Difficulty of Implementation: Moderate (right-of-way access, some private ownership)

Segment 3G: South Meadow Road, Clinton to Wachusett Dam, Clinton (Map Pages 19-21)

This segment has been completed and is well-used. It consists of a service road from the intersection of South Meadow Road/State Route 110 along the northern edge of the reservoir to the Wachusett Dam. The path effectively ends at the western end of the dam. An unpaved service road leads down the westerly flank of the dam to its base. This serves as a walking and running path of sorts. Several additional steep, informal paths also exist in this area. A series of stairs lead down both flanks of the dam directly to the base and to Lancaster Millpond. The top of the dam is not presently open for public access, although it is occasionally open to all twice a year. Access roads from the bottom of the dam lead toward central Clinton on both sides of the Nashua River - Grove Street and River Street.

Although the path is complete between South Meadow Road and the western side of Wachusett Dam, this study offers possible options for linking to the eastern side of the dam to continue path eastward.

Possible Options:

- » Formalize the service road on the eastern flank, connecting to the base-of-dam area and utilizing River Street to access State Route 62/70, then linking uphill along State Route 62/70 to access the chosen MCRT corridor to the east. The grade of the service road will need to be verified to see if it meets ADA standards. State Route 62/70 poses significant width difficulties for provision of a shared use path alongside the road.
- Explore options to open public access to and across the top-of-dam. This may require reinforcements to the railing at the edges for safety purposes. The western end of the dam does not have an ADAcompliant option (only stairs with a locked gate, at present), so an ADA-compliant access ramp would need to be constructed. A much smaller ADA-compliant ramp would be needed at the eastern end of the dam. Changes to the dam would need to consider the historic context of the structure. This option would need to link either uphill or downhill along State Route 62/70 to the chosen MCRT corridor to the east, and similar width difficulties apply. [This is the option included in the evaluation matrix.]
- Reconstruct the historic bridge crossing over the Lancaster Millpond to connect to State Route 62/70 and/or the Clinton Tunnel. This is the original corridor.
- » Install wheeling ramps alongside stairways on both sides of the dam. This would allow bicyclists to dismount and roll bicycles while using the stairs.

Approximate Length:

- » Service Road/State Road 62/70 Option: 1.1 (to tunnel) 1.6 (agueduct) miles » Top-of-Dam/State Route 72/70 Option: 2,550 (to tunnel) – 2,700 (aqueduct) feet » Bridge Reconstruction Option: 950 feet (to tunnel connection only)
- » Wheeling Channel Option: 2,400 (to tunnel) 2,550 (to aqueduct)

Difficulty of Implementation:

- » Service Road: Moderate (length, grade, narrow roadways)
- » Top of Dam: Moderate (new structure, historic changes, narrow roadways)
- » Bridge Reconstruction: High (new structure, high cost)
- » Wheeling Channels: Low (grade, safety concerns, not ADA-compliant, narrow roadways)

Segment 3H: Wachusett Dam, Clinton to Five Corners Intersection, Berlin (Map Pages 21, 22, 23)

This segment includes one of the most notable features on the MCRR corridor, the historic Clinton Tunnel just east of the Wachusett Dam. The Tunnel was constructed as part of the MCRR when creation of Wachusett Reservoir required relocation of the rail line away from the Nashua River Valley, which was inundated. The tunnel is approximately 1,000 feet long and stretches between a point just east of State Route 62/70 to a point several hundred feet west of Clamshell Road. The MCRR originally bridged over State Route 62/70 and the Nashua River Valley (now Lancaster Millpond). The abutments for the road crossing are extant and in good condition. The bridge structures were removed in the 1970s, and only the bridge footings are now visible in the middle of the millpond.

The tunnel is in poor condition. Some spalling was visible along its concrete walls and ceiling. Access to the tunnel is not prohibited by means of a physical barrier, and several informal paths lead up to the western tunnel entrance at State Route 62/70. Additional structural survey will be needed to assess the full viability of the tunnel. A brief visual walkthrough was completed, however, a complete structural inspection of the concrete interior is needed to determine a repair/rehabilitation program and cost.

East of the tunnel, the MCRR enters a deep rock cut. The railbed is wet due to poor drainage. Clamshell Road bridges over the railroad with a concrete arch bridge in poor condition. To the east, the corridor re-joins the surrounding grade, passing through some forested and wetland areas, as well as a designated Natural Heritage & Endangered Species Program area. The corridor is generally intact.

The corridor parcel ownership here is varied, with multiple parcels in private ownership. At the entrance to the Woodlands development (west of Berlin Street), the corridor could not be located and is assumed to be obliterated. Further south, the corridor is extant, though ownership could not be determined for a stretch north of State Route 62.

The original MCRR corridor bridged over Highway 62 west of the Five Corners intersection and then turned eastward to again bridge over the Five Corners intersection, the Fitchburg rail corridor, and North Brook. An abutment north of State Route 62 is visible to the west of Five Corners, but the bridge structure has been removed and the corridor does not reappear south of the highway for several hundred feet (where it is in private ownership). The corridor is extant beyond this through a wooded area to the southwest of the Five Corners and is easily visible. Multiple bridge abutments are visible at several points around the intersection, adjacent to the active CSX Fitchburg rail corridor, in the midst of North Brook and high above the intersection at the original MCRR embankment.

The Clinton Greenway Conservation Trust has successfully completed a purchase agreement with Pan Am Systems for the Clinton Tunnel and a segment of the railbed to the east of the tunnel. This would connect to the Rauscher Farm area, owned by the Town of Clinton. As part of the acquisition process, the CGCT commissioned an inspection of the tunnel. This inspection confirmed that the tunnel is stable and with remediation would be suitable as a shared use path. After the acquisition, the tunnel will be secured until that remediation can be completed.

Possible Options:

- » Construct the MCRT through the tunnel and along the rail corridor north of the Rauscher Farms area, including any associated work to bring the tunnel up to standard.
- » Negotiate a path through or around private property to connect back to the extant section of the corridor south of the Woodlands development.
- » Descend the original MCRR embankment north of State Route 62 to meet the highway at grade. Follow State Route 62 east to the Five Corners intersection, or divert to the original MCRR corridor south of State Route 62. Requires significant ROW strip takings along State Route 62.

Approximate Length: 10,300 feet (2 miles)

Difficulty of Implementation: High (right-of-way access, significant ROW actions with multiple owners, significant wetland impacts, structural repairs/rehabilitation to the tunnel)

Segment 3I: Wachusett Dam, Clinton to Five Corners Intersection, Berlin along Wachusett Aqueduct Corridor (Map Pages 21A-21B, 23).

This alignment is under consideration as an alternate to the Clinton Tunnel should that for some reason be determined to not be practical or feasible. This route would generally make use of the Wachusett Aqueduct corridor to provide a link between the Wachusett Dam in Clinton and the Five Corners Intersection in Berlin. The aqueduct is owned and operated by the Massachusetts Water Resources Authority (MWRA), which provides wholesale water and sewer services for the Boston metropolitan area. Watershed management land is generally protected, and no development is allowed.

The MWRA has established policy guidelines for public access to its lands. With respect to paths, bicycling and walking are considered appropriate uses for aqueduct corridors, as long as the existing soils covering the top of and side slopes of the aqueduct (generally 3-5 feet) pipeline are protected from erosion. Stone dust, gravel or other treatments may be required. The MWRA issues 8(m) permits and memoranda of agreement with host communities for public access. Note that MWRA has identified the Wachusett Agueduct in Clinton and Berlin to be an aqueduct access area in development.

The feasibility of the aqueduct option requires additional investigation, and would require the agreement from MWRA. Recommend exploring these options with DCR Water Supply and MWRA.

Possible Options:

- » Sidepath along State Route 62/70 from Wachusett Dam to Wilson Street
- » Connection along Wilson Street to Wachusett Aqueduct corridor.
- » Sidepath along State Route 62 to Five Corners intersection, OR
- matrix.]

Approximate Length: 10,300 feet (2 miles)

Difficulty of Implementation: Moderate (MWRA agreement, grade, narrow roadways)

Segment 3J: Five Corners Intersection, Clinton to I-495, Berlin (Map Pages 23-27)

The Five Corners intersection has a confusing traffic pattern. Westbound State Route 62 (West Street) has free movement at this intersection, while the other four legs (southbound West Street, eastbound State Route 62/ Boylston Road, northbound Barnes Hill Road, and northbound Derby Road) all have stop control. It is a challenge for vehicles to both safely monitor oncoming free-flow traffic from westbound State Route 62 and to effectively navigate taking turns from stopped positions. The intersection also includes the north-south at-grade crossing for the active Fitchburg railroad and public parking access between the railroad and North Brook. A shared use path would add one more layer of complexity to this already challenging intersection.

The corridor between Five Corners and I-495 is intact and is largely in public ownership. There may be structures built on top of the corridor on one privately-owned parcel (this requires further verification). In this instance, an old county roadway alignment just north of the corridor could be used as a bypass. The bridge at Coburn Road no longer exists. In places, the rail grade is well upgradient from the adjacent surroundings (Five Corners to Coburn Road), level with surrounding areas (Highland Street, Sawyer Hill Road), and is in one location in a cut well below the surrounding grade (to the north of Walnut Street). Just east of Coburn Road, the tracks are marked "Mile Marker 32, End of MBTA Branch."

» Shared use path along the aqueduct corridor from Wilson Street to State Route 62 (Boylston Road).

» Cross State Route 62 at grade, continue a path along the aqueduct corridor to meet Barnes Hill Road and then proceed north to Five Corners intersection. [This is the option included in the evaluation

In 2011, The DCR executed a lease with the MBTA for 22 miles of former railroad corridor from Berlin to Waltham for the purpose of designing and developing a multi-use rail trail in partnership with the local municipalities (known as the Mass Central Rail Trail – Wayside Branch). This lease extends from Coburn Road in Berlin to Beaver Street in Waltham.

Possible Options:

- Construct a rail-to-trail path along the former MCRR corridor from Flve Corners intersection to Stone Corner/Lively Road at the Berlin Town Line, descending to cross Coburn Roat at grade.
- » An old county roadway alignment just north of the corridor could be used as a bypass where the corridor crosses over (or near) privately-owned parcels between Five Corners and Carter Street.
- » Reconstruct a bridge over the Five Corners intersection using existing bridge abutments to safely grade separate the MCRT from the intersection.
- Construct a ramp to descend from the rail embankment above North Brook to the roadway grade along West Street (State Route 62) east of the Five Corners intersection. [This is the option included in the evaluation matrix.]
- » Consider wholesale redesign of the Five Corners intersection with regard to both current operations and the inclusion of a shared use path.

Approximate Length: 3.1 miles

Difficulty of Implementation: Moderate for the corridor as it is mainly in public ownership with railbed intact. Highly challenging due to traffic patterns, bridges, active railroad grade crossing and waterways.

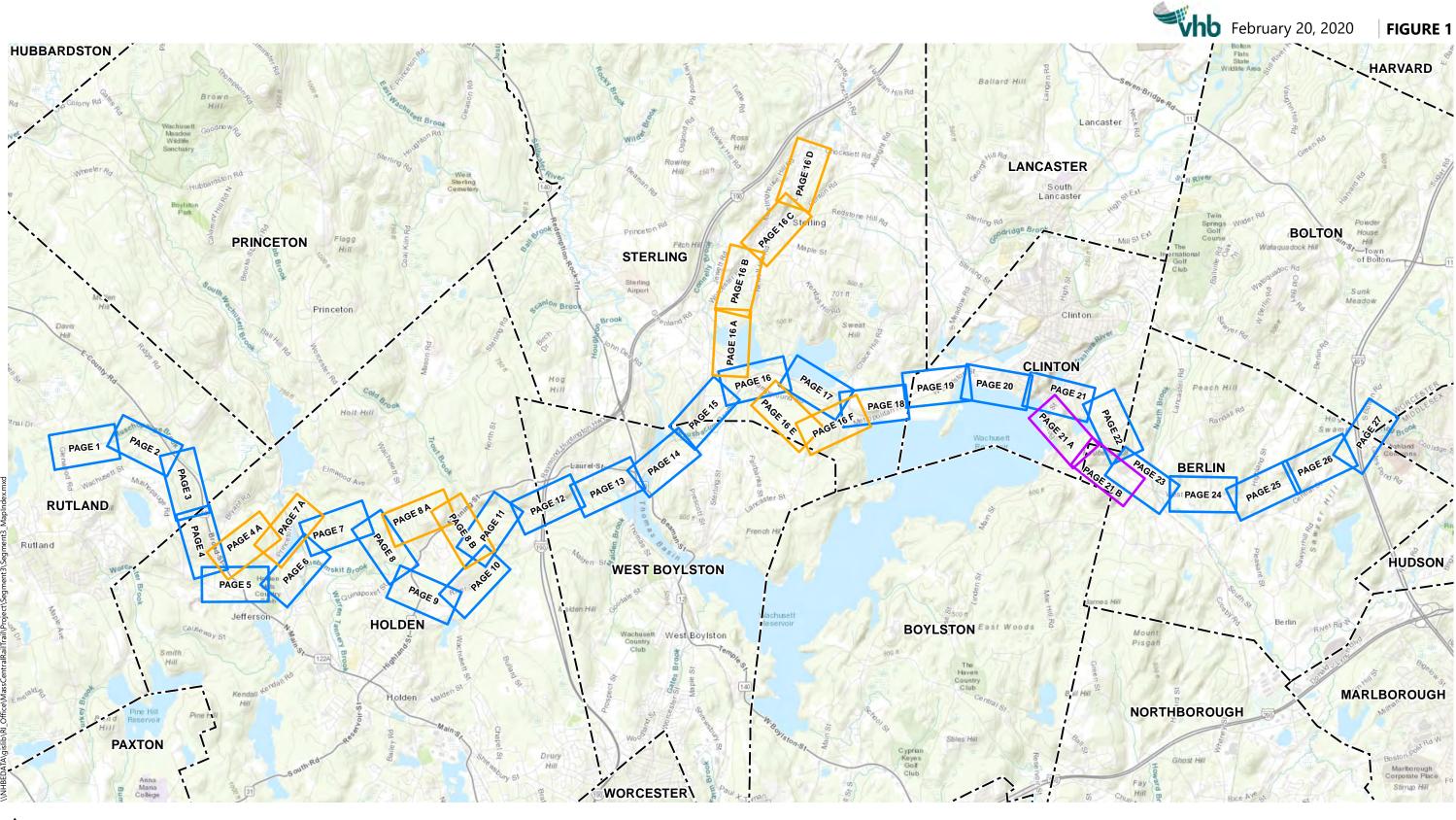
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Massachusetts Central Railroad Corridor, Mass Central Rail Trail Feasibility Assessment Matrix Segment 3: Rutland to Hudson

Segment	Section	Town	Limits	Map Pages	Length	Project Type	On/Off MCRR Corridor	Roadway Crossings	RR Grade Xings	Bridges Needed	ROW Actions	Wetlands	Habitat	Water Supply	Comments	Implementation Difficulty
3	3A	Rutland	Glenwood Road to Wachusett Street	Pp 1-2	1.2 miles	Rail to Trail	On	1	0	1	1 private parcel	Significant	No Natural Heritage & Endangered Species Program (NHESP) areas. Beaver activity.	NA	Corridor mostly intact with some deterioration. Significant wetlands and indications of beaver activity. At least one bridge needed. Informal trail activity already present.	Moderate
3	3B	Rutland	Wachusett Street to Quabbin Aqueduct	Рр 2-3	1.2 miles	Existing Trail	On	0	0	0	NA	NA	NA	NA	Existing MCRT segment. Parking area at Worcester Road.	NA
3	3C	Rutland, Holden	Quabbin Aqueduct to Central Holden (Quinapoxet Street)	Рр 3-8, 4А, 7А	5.3 miles	Path using existing DCR access roads, shared use path on independent alignment, rail-to- trail on MCRR, sidepath or shared use of public street	Both; primarily Off	6	1	0	1 private parcel	NA	NHESP areas surrounding Asnebumskit Brook and Quinapoxet River	Wachusett Greenway route— Crosses significant stretches of Wachusett Reservoir Watershed land (DCR) and Worcester City watershed management land.	Significant off-corridor alignment needed as corridor ownership south of the Quabbin Aqueduct is in diverse private ownership and obliterated in places. Significant watershed management land crossing needed.	High- Aqueduct to RR; Low- RR to Quinapoxet Street
3	3D	Holden	Central Holden to southern end of MCRT Quinapoxet River Trail Segment	Рр 8-10, 8А-В	1.6 miles	Wachusett Greenway Alternate—Bring existing off-corridor path into ADA- compliance.	Off	2	0	0	NA	NA	NA	Crosses significant stretches of Wachusett Reservoir Watershed land (DCR)	Alternative is to investigate bringing existing off-corridor path managed by Wachusett Greenways into ADA compliance.	High
3	3E	Holden, West Boylston	MCRT Quinapoxet River Trail at River Street to West Boylston Trailhead at Thomas Street	Pp 10-13	2.75 miles	Existing Trail	On	0	0	0	NA	NA	NA	NA	Existing MCRT segment. Parking areas at River Street (Holden) and Thomas Street (West Boylston).	NA
3	3F	West Boylston, Clinton	Thomas Street, West Boylston to South Meadow Road, Clinton	Pp 13-16, 16E-F, 18-19	6.4 miles	Wachusett Greenway Alternate—New causeway, existing DCR access roads, sidepaths or shared use on streets	Off	9	2	1	Negotiated access to DCR watershed management areas	Some	NHESP areas surrounding Waushacum Brook and Wachusett Reservoir	Crosses significant stretches of Wachusett Reservoir Watershed land (DCR)	Long bridge/causeway needed along Beaman Street. Lengthy possible stretches through DCR lands on existing access roads. Sidepath along State Route 110 has ample space.	Moderate

Massachusetts Central Railroad Corridor, Mass Central Rail Trail Feasibility Assessment Matrix Segment 3: Rutland to Hudson

Segment	Section	Town	Limits	Map Pages	Length	Project Type	On/Off MCRR Corridor	Roadway Crossings	RR Grade Xings	Bridges Needed	ROW Actions	Wetlands	Habitat	Water Supply	Comments	Implementation Difficulty
3	3G	Clinton	South Meadow Road, Clinton to Wachusett Dam, Clinton	Pp 19-21	1.6-1.7 miles	Dam Option— Existing Trail along reservoir access road, significant ramp structure up to dam on west side, small ramp on east side of dam, sidepath along State Route 62/70	Both	1	0	0	Negotiated access to top of dam	NA	NHESP areas surrounding Wachusett Reservoir	MWRA managed area	Top of Dam Option—With ramps at either end to facilitate access and a new sidepath along State Route 62/70 connecting either to the tunnel or to the Wachusett Aqueduct.	Moderate
3	ЗН	Clinton, Berlin	Wachusett Dam, Clinton to Five Corners Intersection, Berlin	Pp 21-23	2 miles	Clinton Tunnel Option—Ramp to tunnel grade, Tunnel restoration, Rail to Trail, Sidepath as needed	Both, primarily On	1	0	0	Negotiated access in vicinity of Woodlands Development; potential strip takings along State Route 62 or to access original corridor to the west of Five Corners	Significant in Rauscher Farms area	NHESP areas surrounding Rauscher Farms area and wetlands.	NA	Clinton Tunnel Option—The corridor is in private ownership between Rauscher Farms and State Route 62. Negotiated access or strip takings may be necessary in places.	High
3	31	Clinton, Berlin	Wachusett Dam, Clinton to Five Corners Intersection, Berlin along Wachusett Aqueduct	Рр. 21, 21А-В, 23	2 miles	Aqueduct Option— Sidepath, Shared Street, Path on aqueduct corridor, Grade crossing	Off	1	0	0	Negotiated access to MWRA aqueduct corridor; potential strip takings along Barnes Hill Road	Some	NA	Utilizes MWRA aqueduct corridor	Aqueduct Option—MWRA has a procedure to allow for public paths on aqueduct corridors. Significant grade up from reservoir to aqueduct on Wilson Street. Strip takings may be needed on narrow streets to allow for sidepath.	Moderate
3	ЗЈ	Berlin	Five Corners, Berlin to I-495, Berlin	Pp. 23-27	3.1 miles	Primarily rail-to- trail. Some sidepath at Five Corners and ramp up to rail grade.	On								Corridor mostly intact with some deterioration. Main challenge is the busy Five Corners intersection and several grade crossings of relatively minor roads.	Moderate for the corridor. High for Five Corners.



3250 6500 13000 Feet Massachusetts Central Rail Trail Pages Wachusett Greenways Pages Clinton Tunnel Alternative Path Pages

Town Boundary

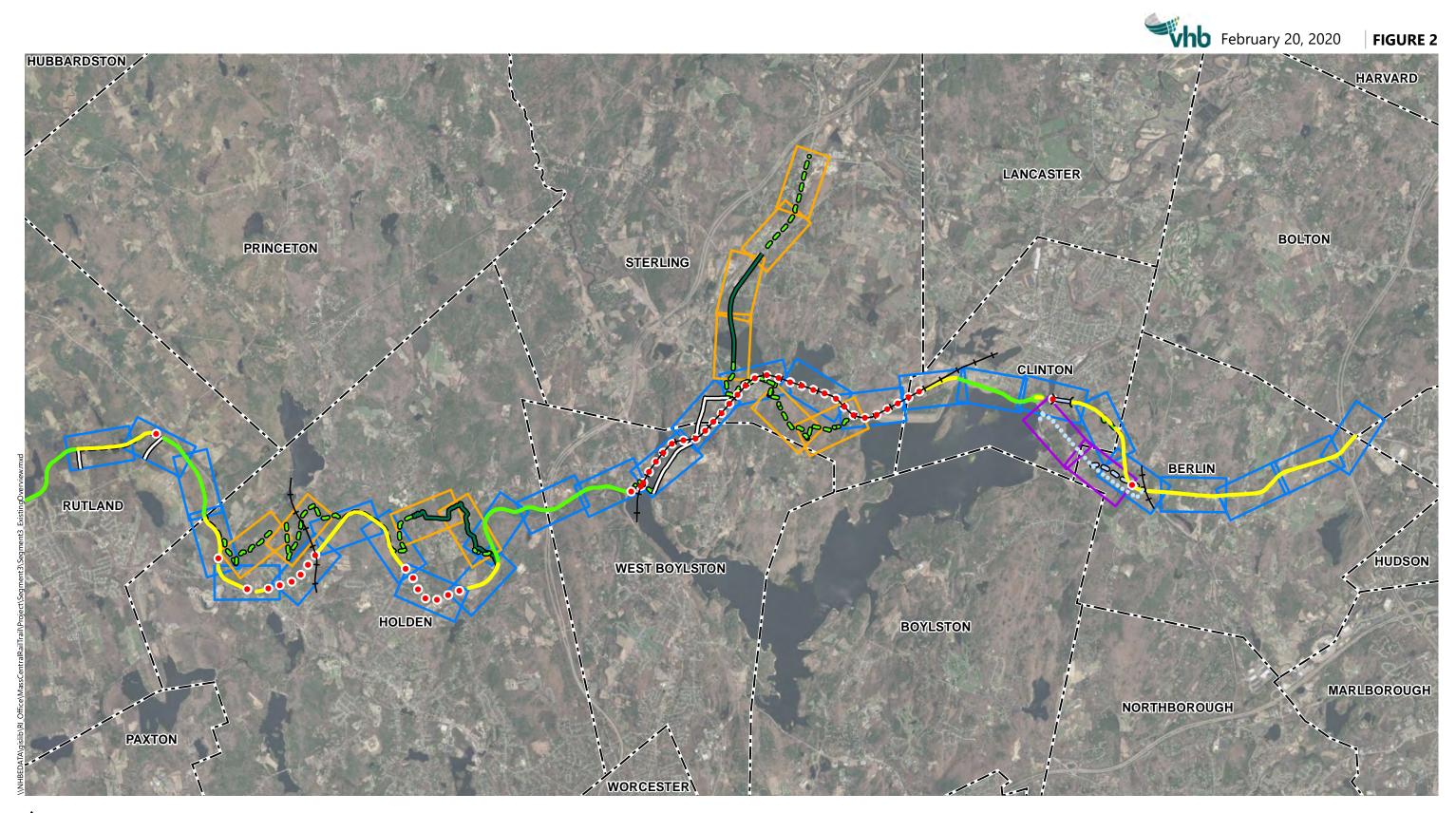
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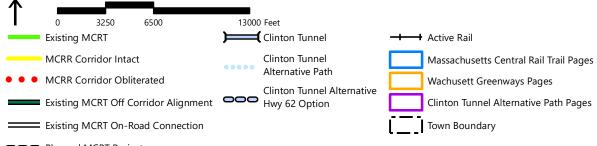
Massachusetts Central Rail Trail

Rutland to Hudson, Massachusetts

Segment 3 Page Index

Source Info: MassGIS, MassDOT, VHB





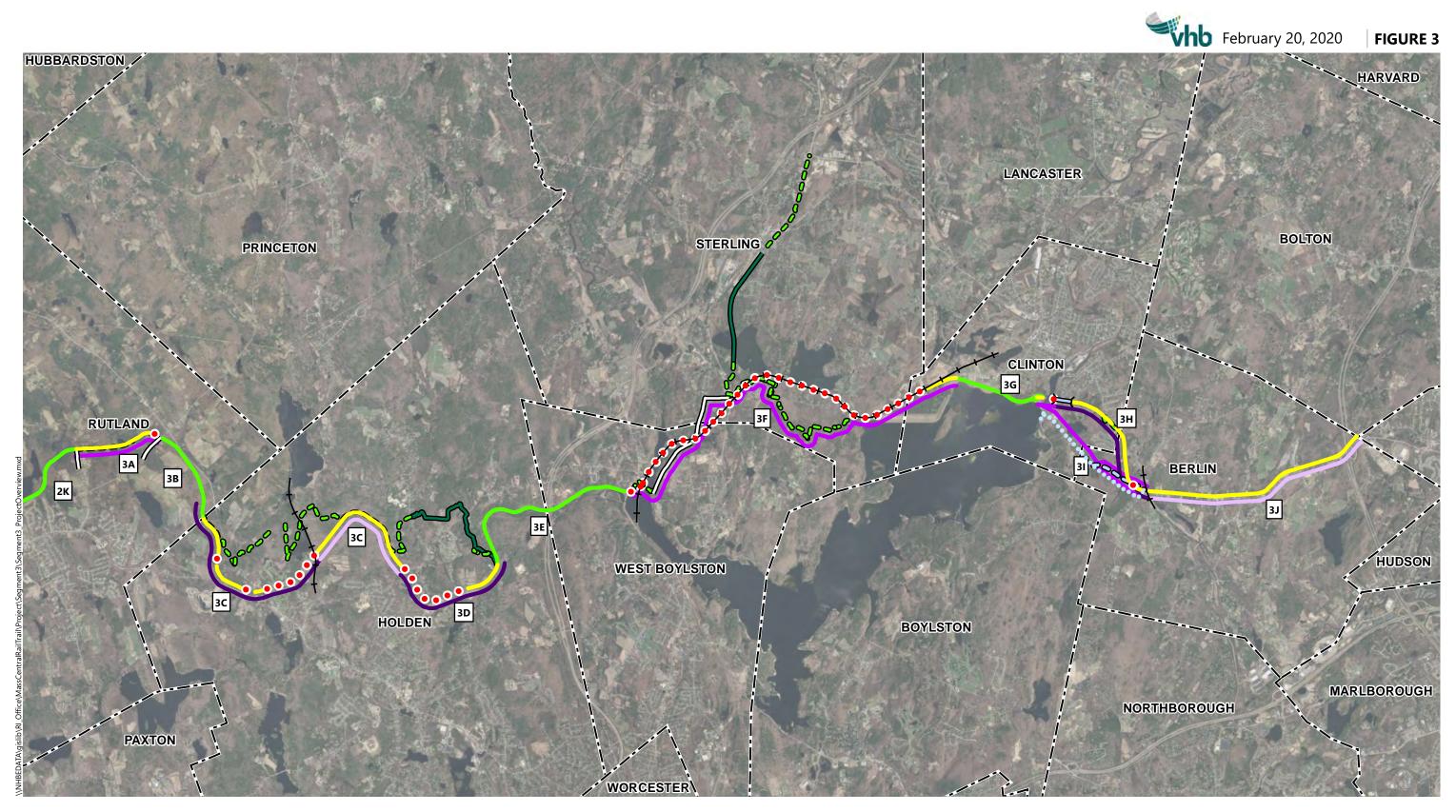
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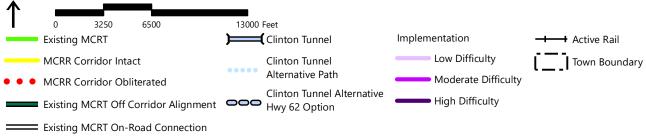
Planned MCRT Project

Rutland to Hudson, Massachusetts

Segment 3 Existing Conditions Overview

Source Info: MassGIS, MassDOT, VHB





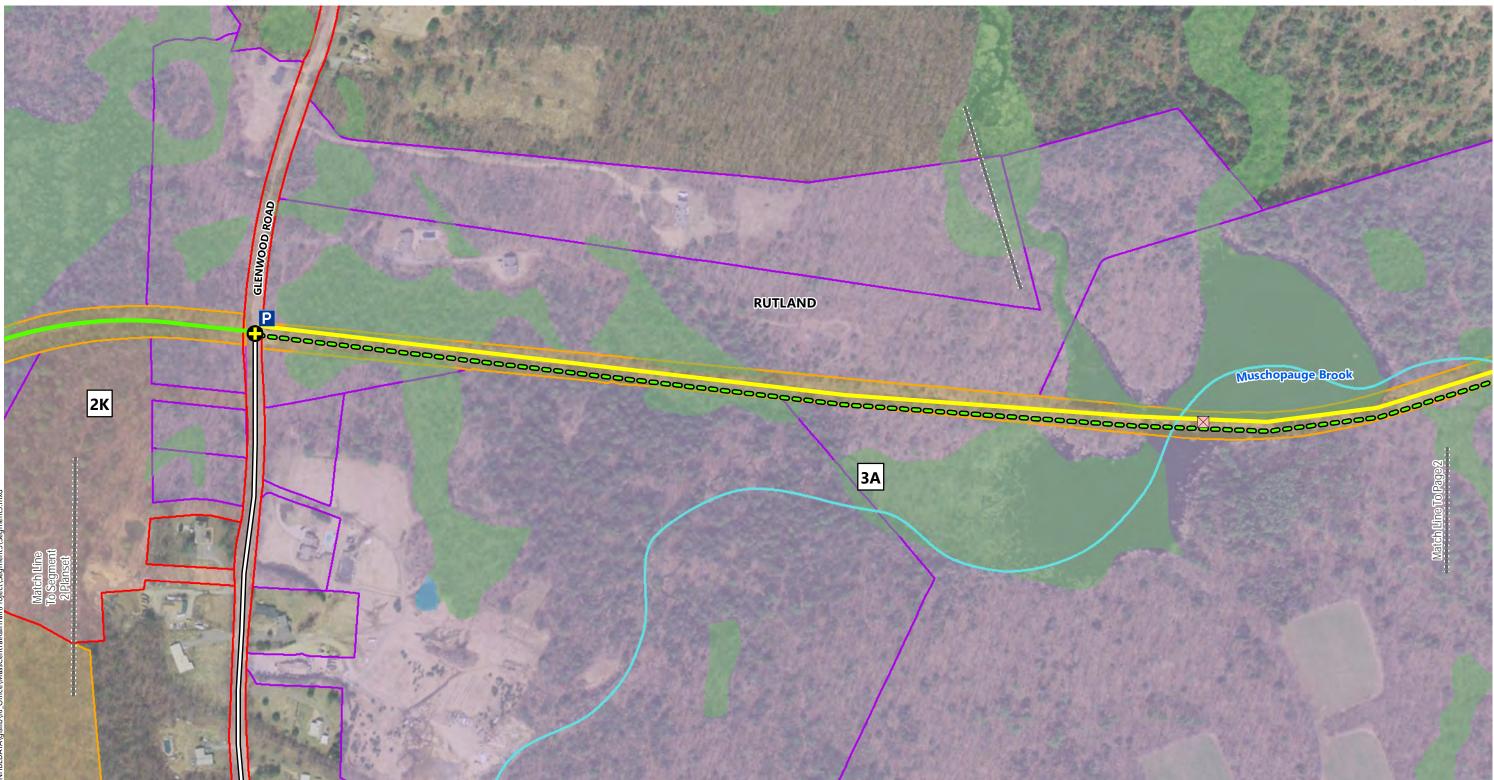
Massachusetts Central Rail Trail

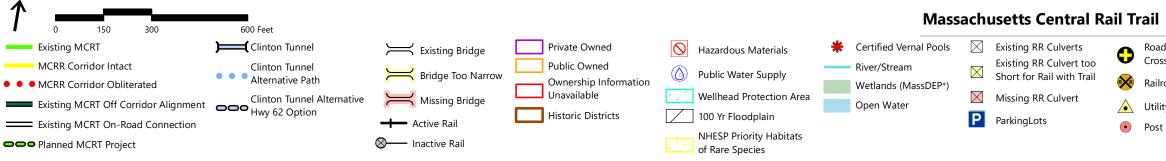
Planned MCRT Project

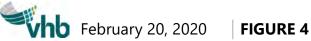
Rutland to Hudson, Massachusetts

Segment 3 **Proposed Project Overview**

Source Info: MassGIS, MassDOT, VHB





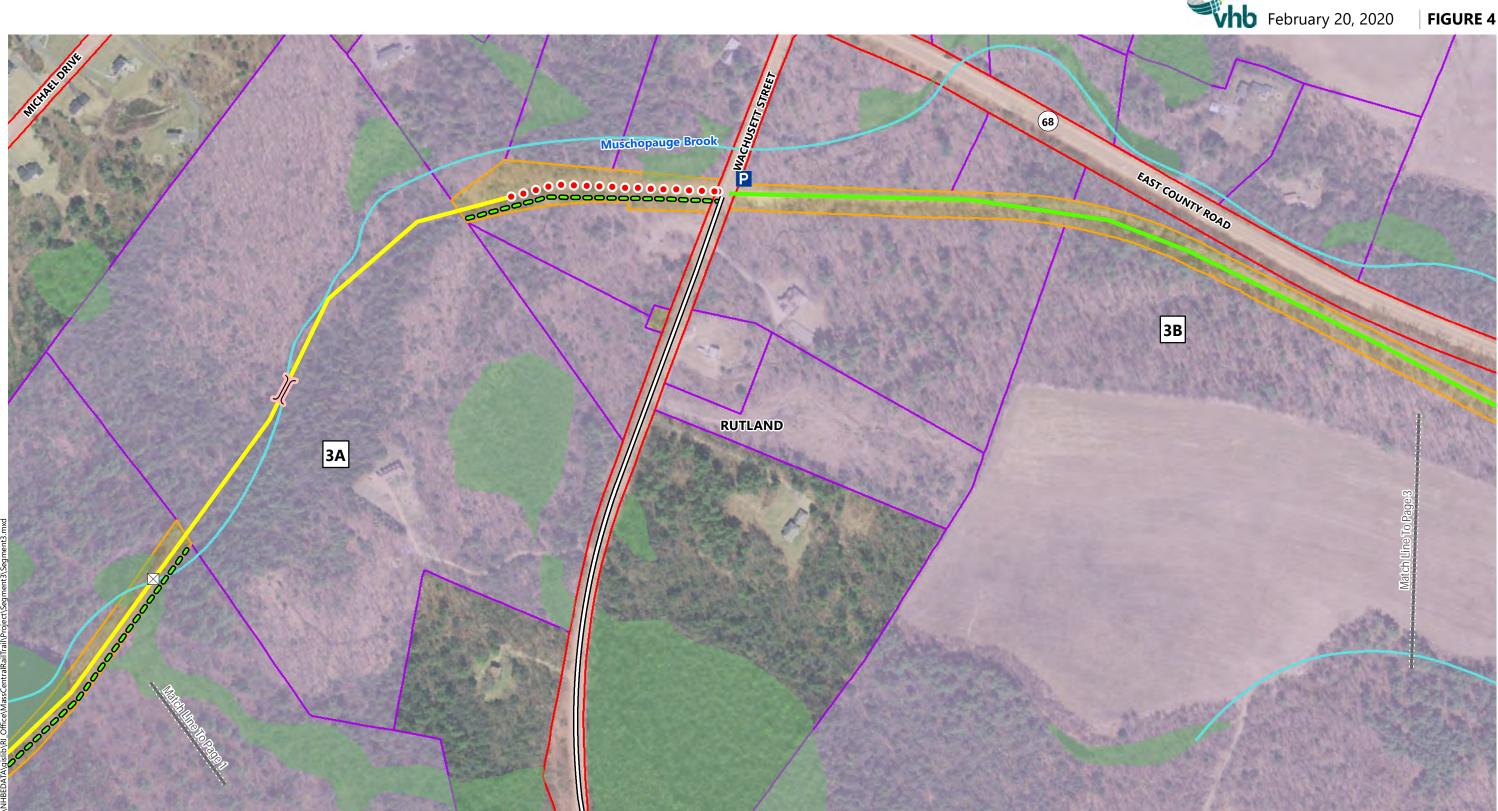


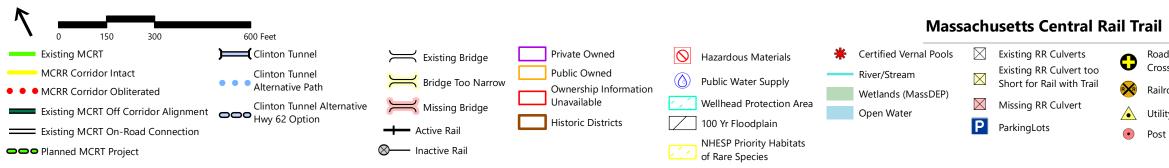
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- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

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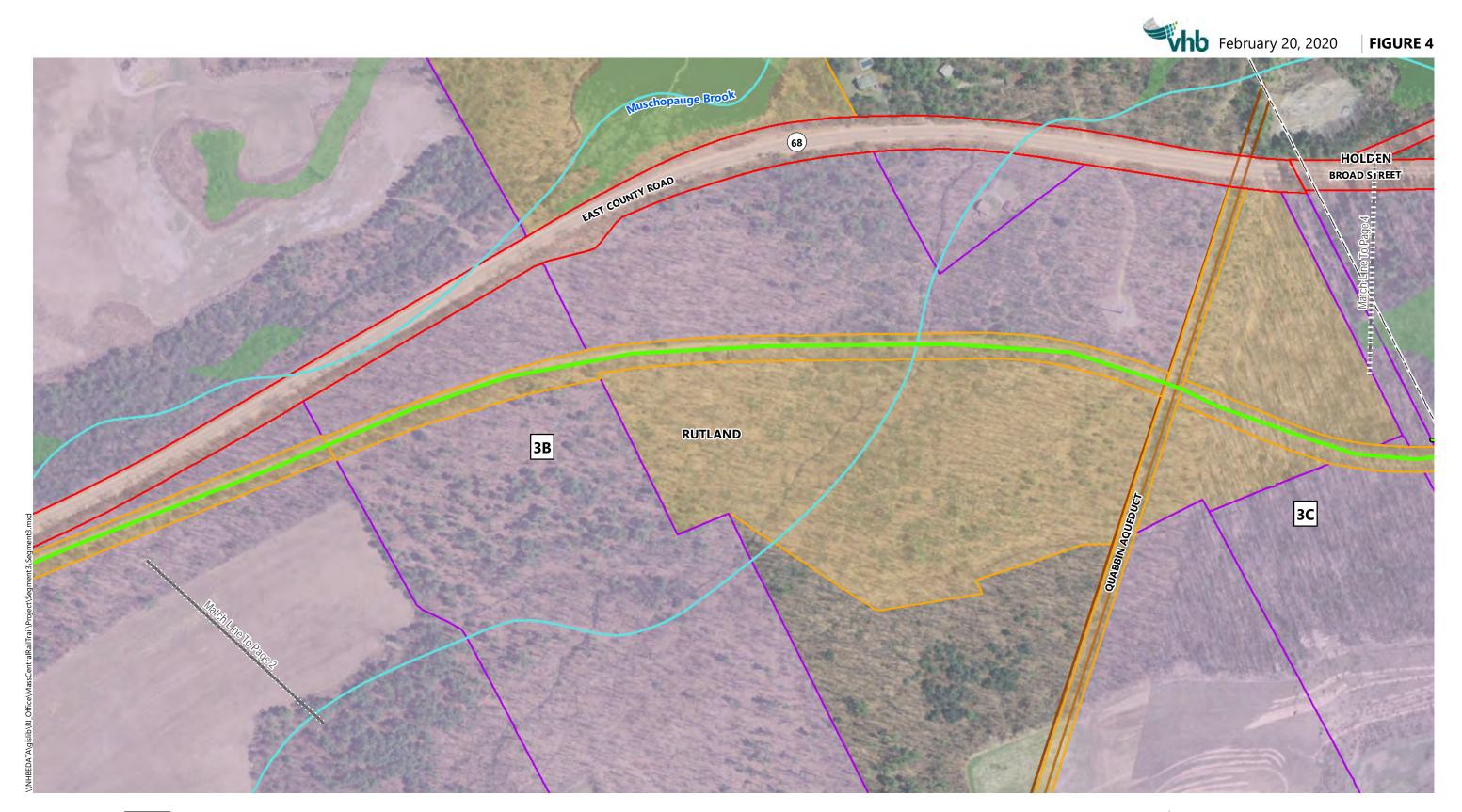


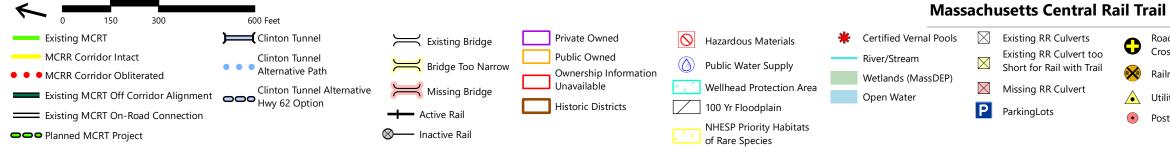
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- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

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- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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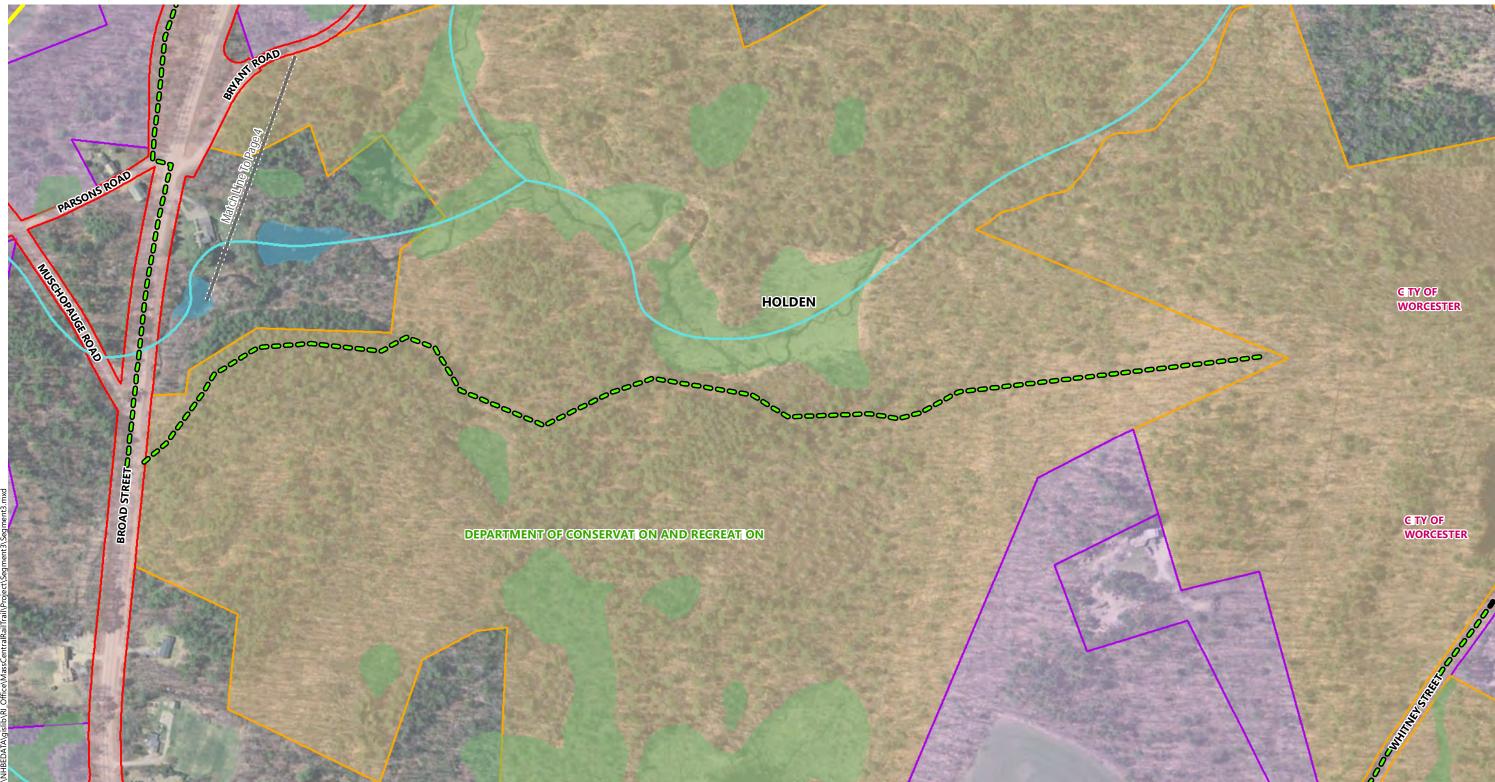


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- RailroadCrossing
- ▲ UtilityCrossing
- Post

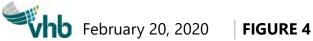
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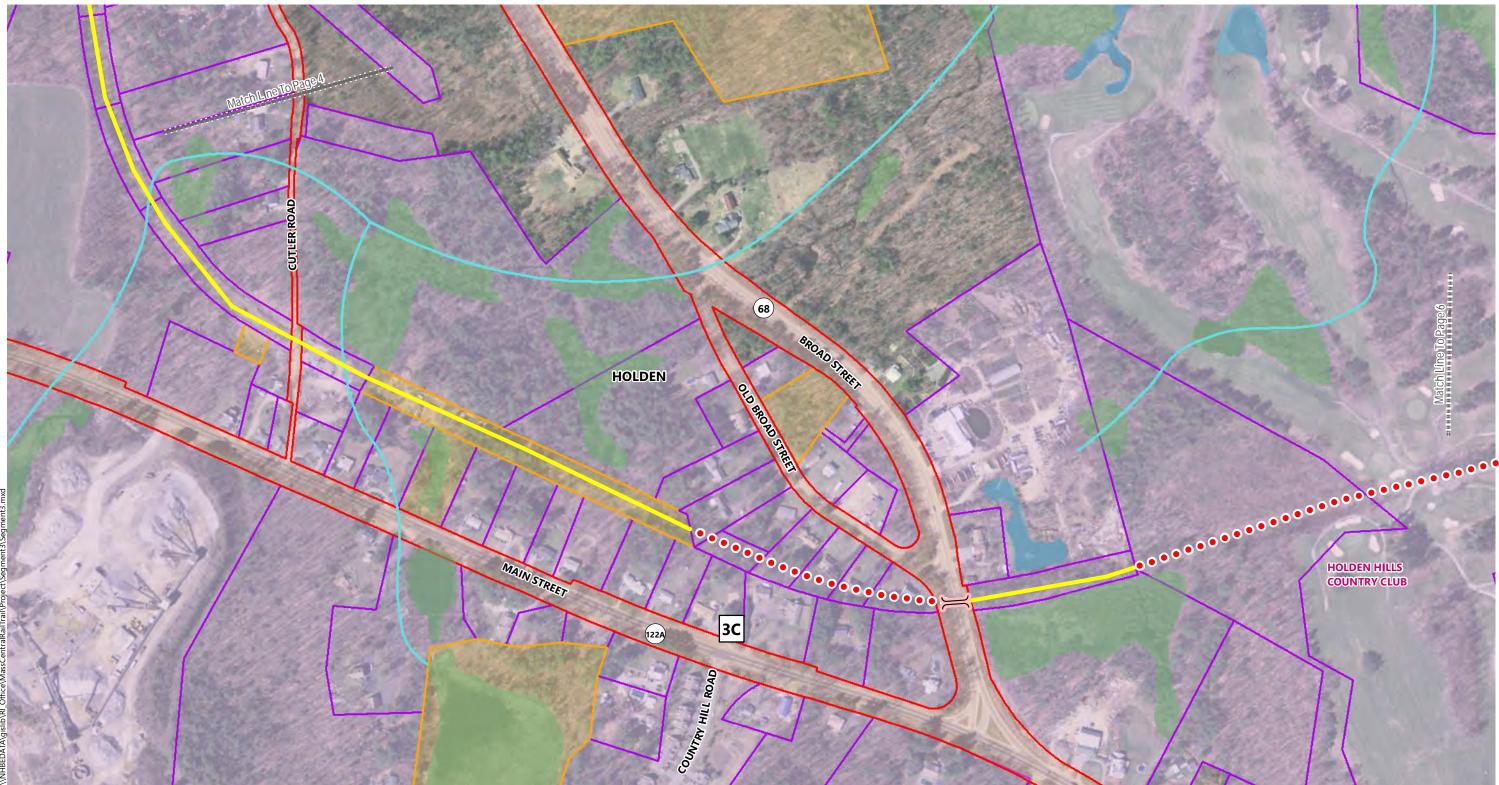


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- RailroadCrossing
- ▲ UtilityCrossing
- Post

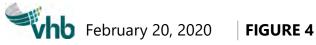
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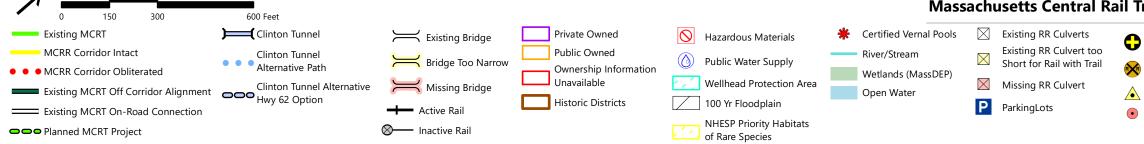
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- RailroadCrossing
- ▲ UtilityCrossing
- Post

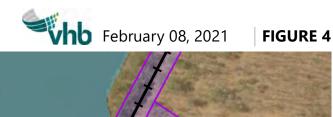
Source Info:MassGIS, MassDOT, VHB

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Match Line

Ceinester en connorm

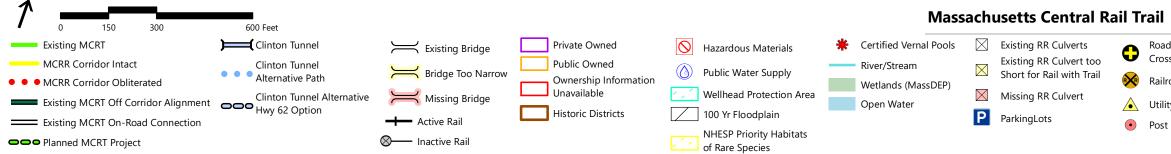
Rutland to Hudson, Massachusetts

- Roadway Grade Crossing
- RailroadCrossing
- ▲ UtilityCrossing • Post

Page 6 of 27 Source Info:MassGIS, MassDOT, VHB

Segment 3





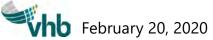


FIGURE 4

Rutland to Hudson, Massachusetts

- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing

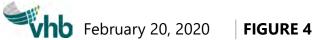
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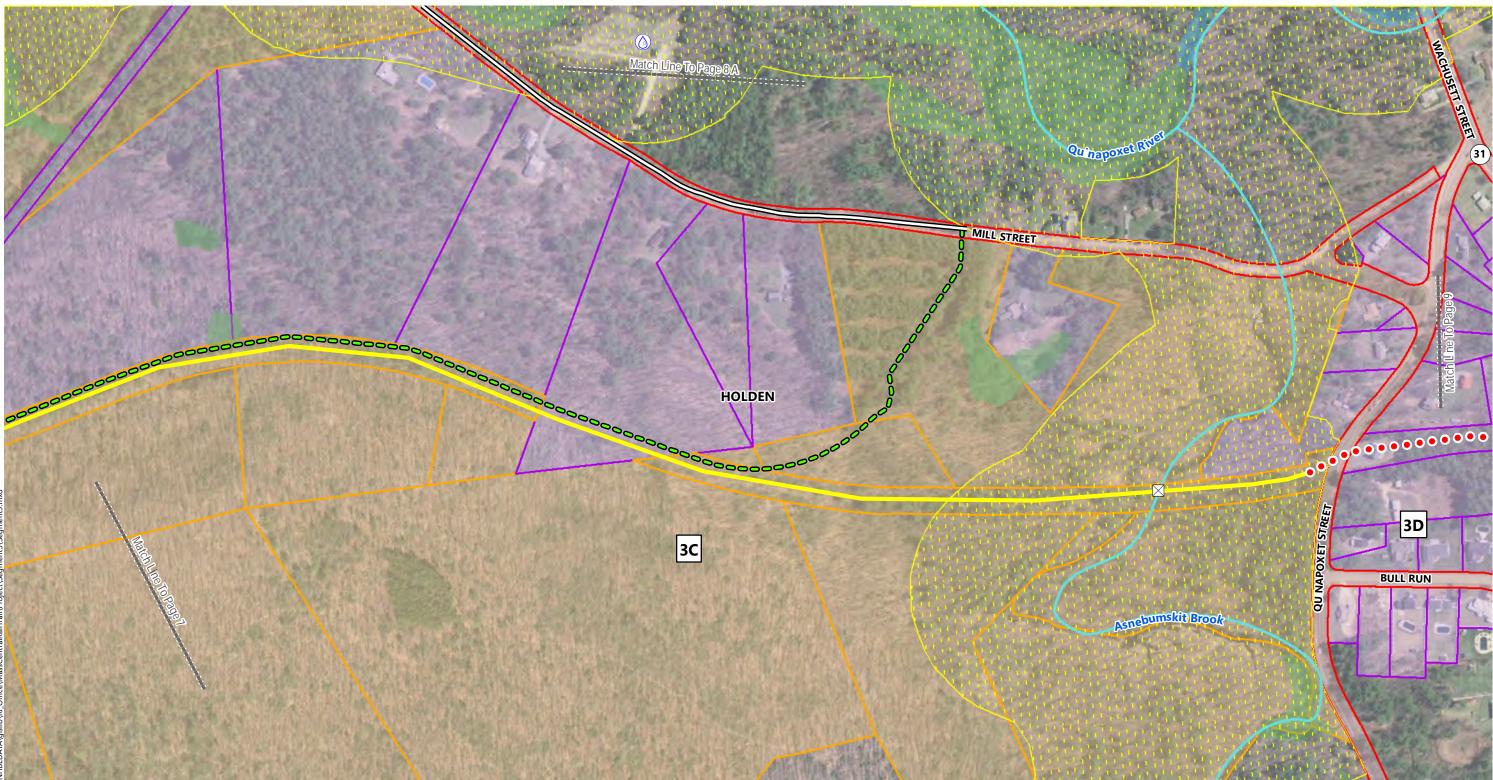


- Roadway Grade Roadway Crossing
- RailroadCrossing
- ▲ UtilityCrossing

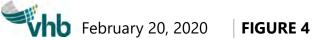
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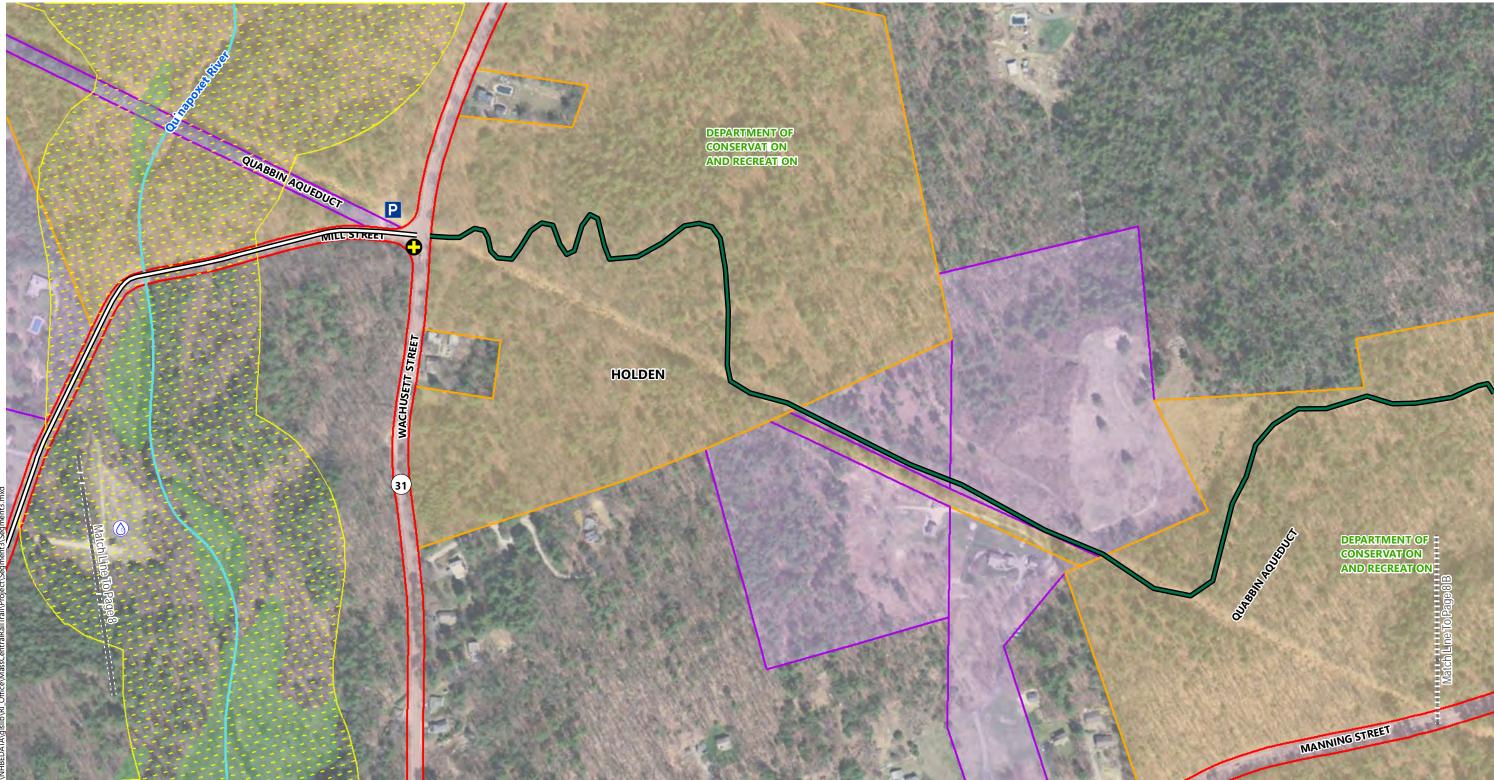


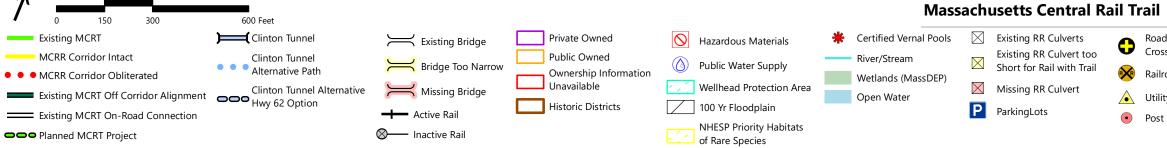
- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

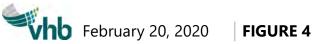
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Segment 3

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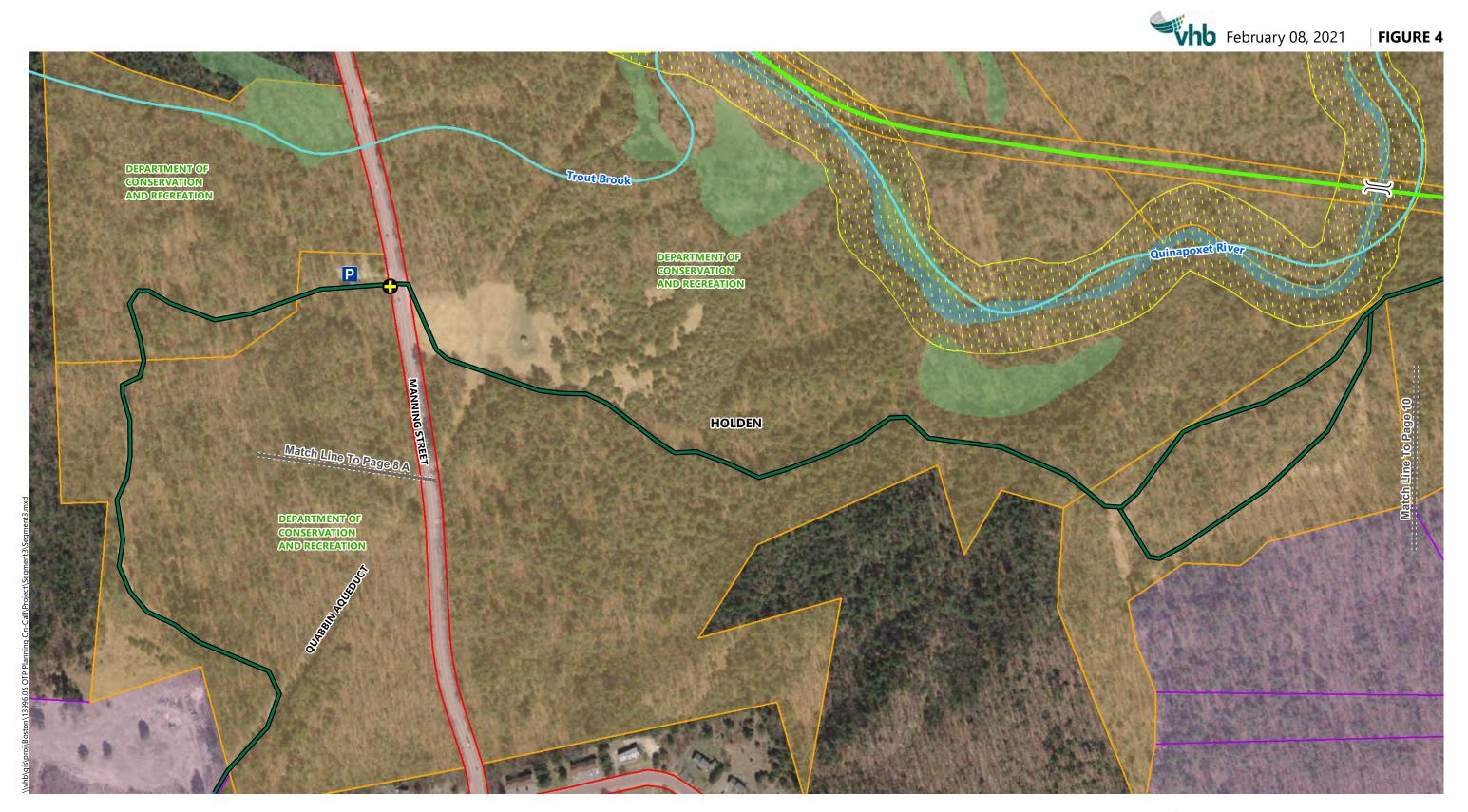


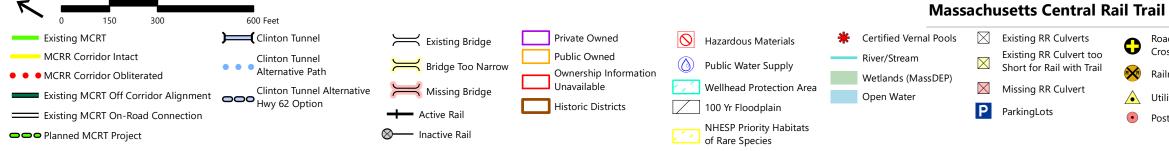
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- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

Segment 3

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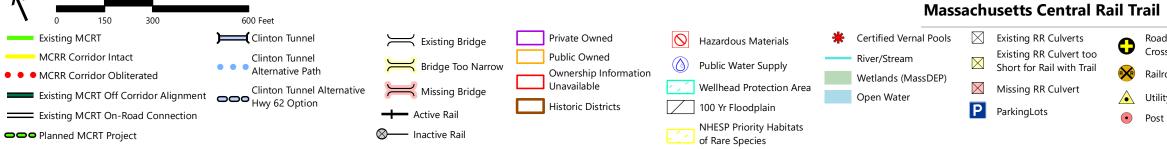


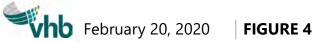
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- RailroadCrossing
- ▲ UtilityCrossing • Post

Segment 3 Page 8 B of 27

Source Info:MassGIS, MassDOT, VHB





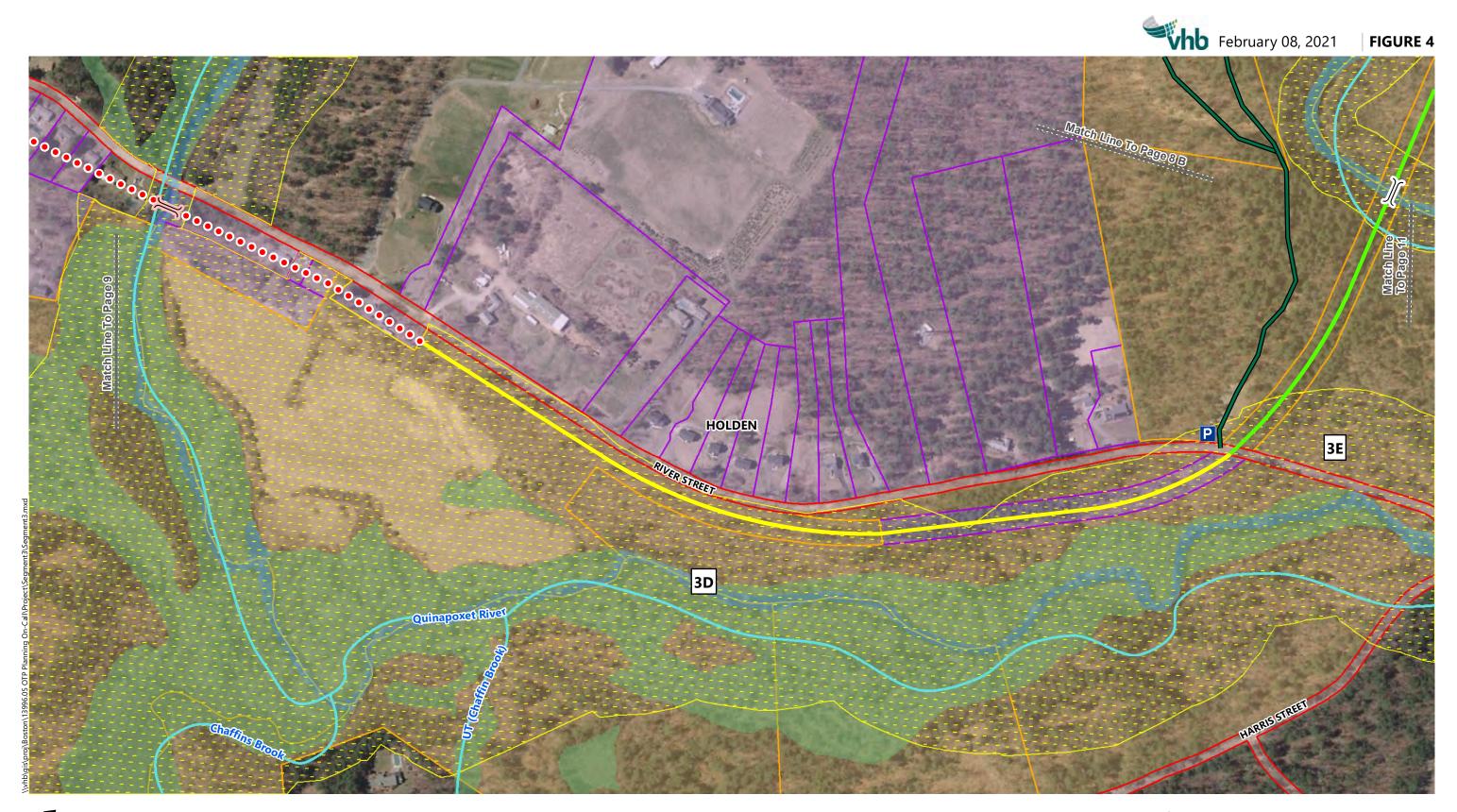


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- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

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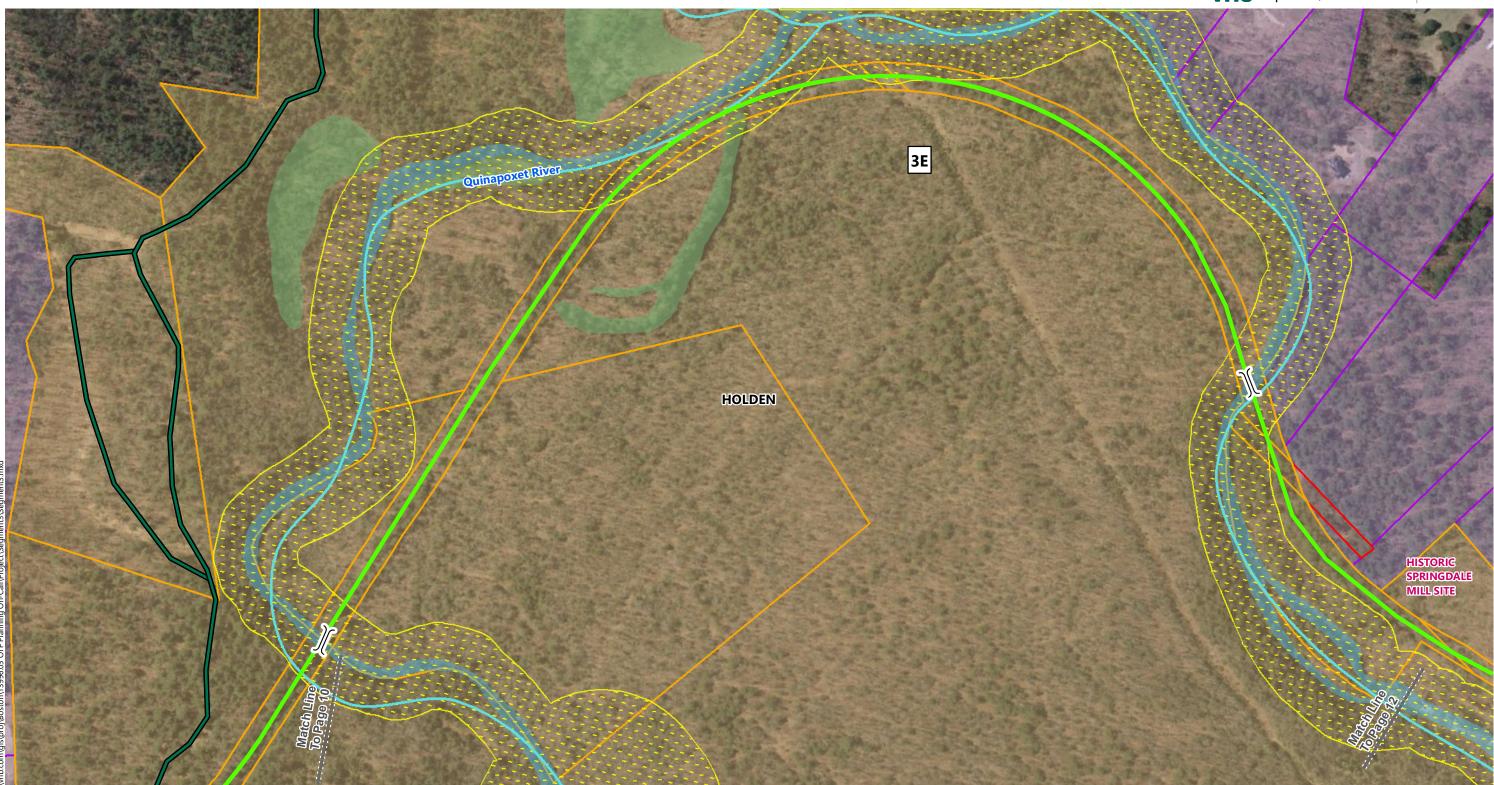




- Roadway Grade Roadway Crossing
- RailroadCrossing
- ▲ UtilityCrossing • Post

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Source Info:MassGIS, MassDOT, VHB







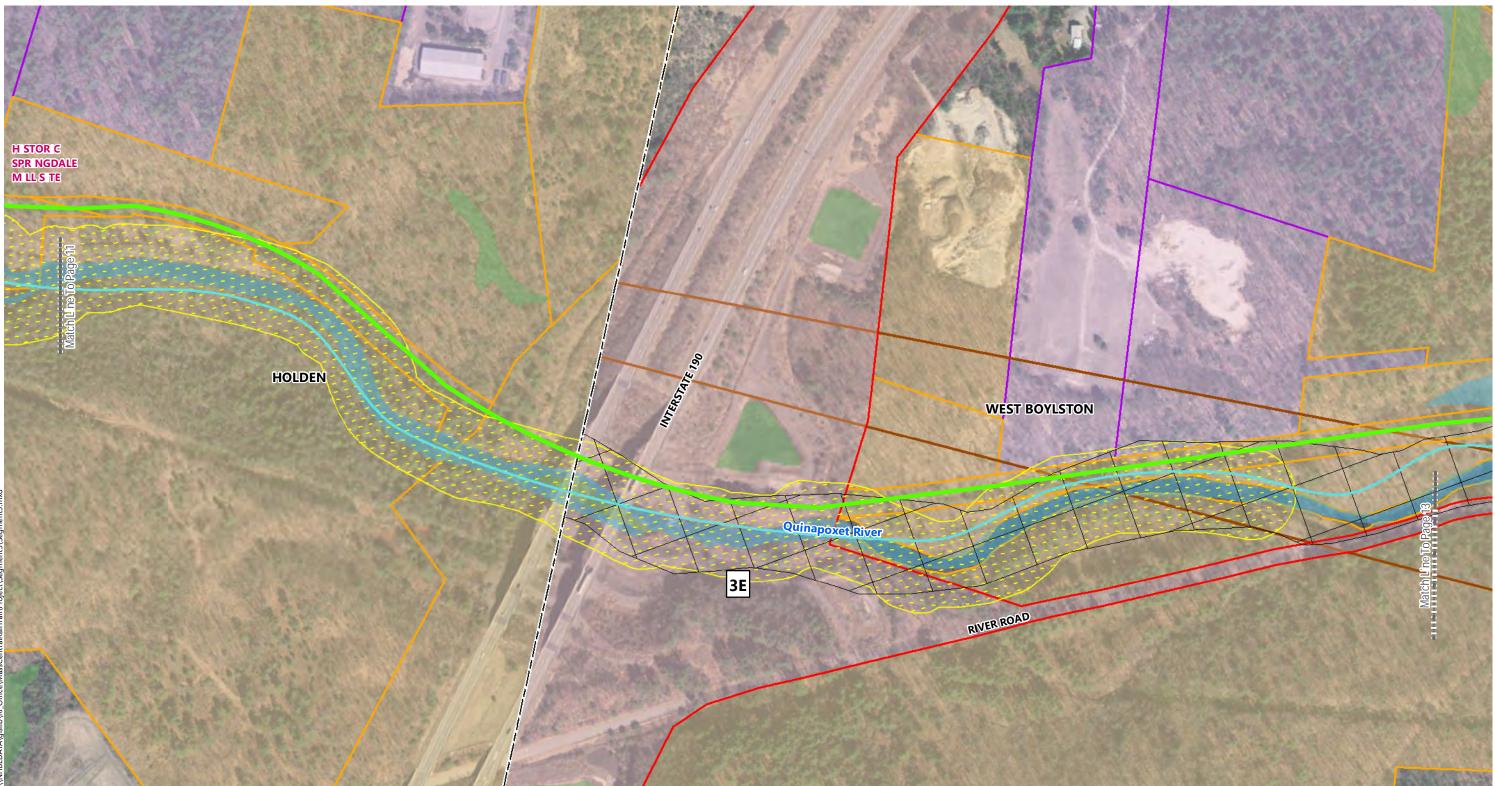


- Roadway Grade Crossing
- RailroadCrossing
- **UtilityCrossing**

Source Info:MassGIS, MassDOT, VHB

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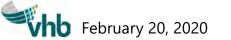


FIGURE 4

Rutland to Hudson, Massachusetts

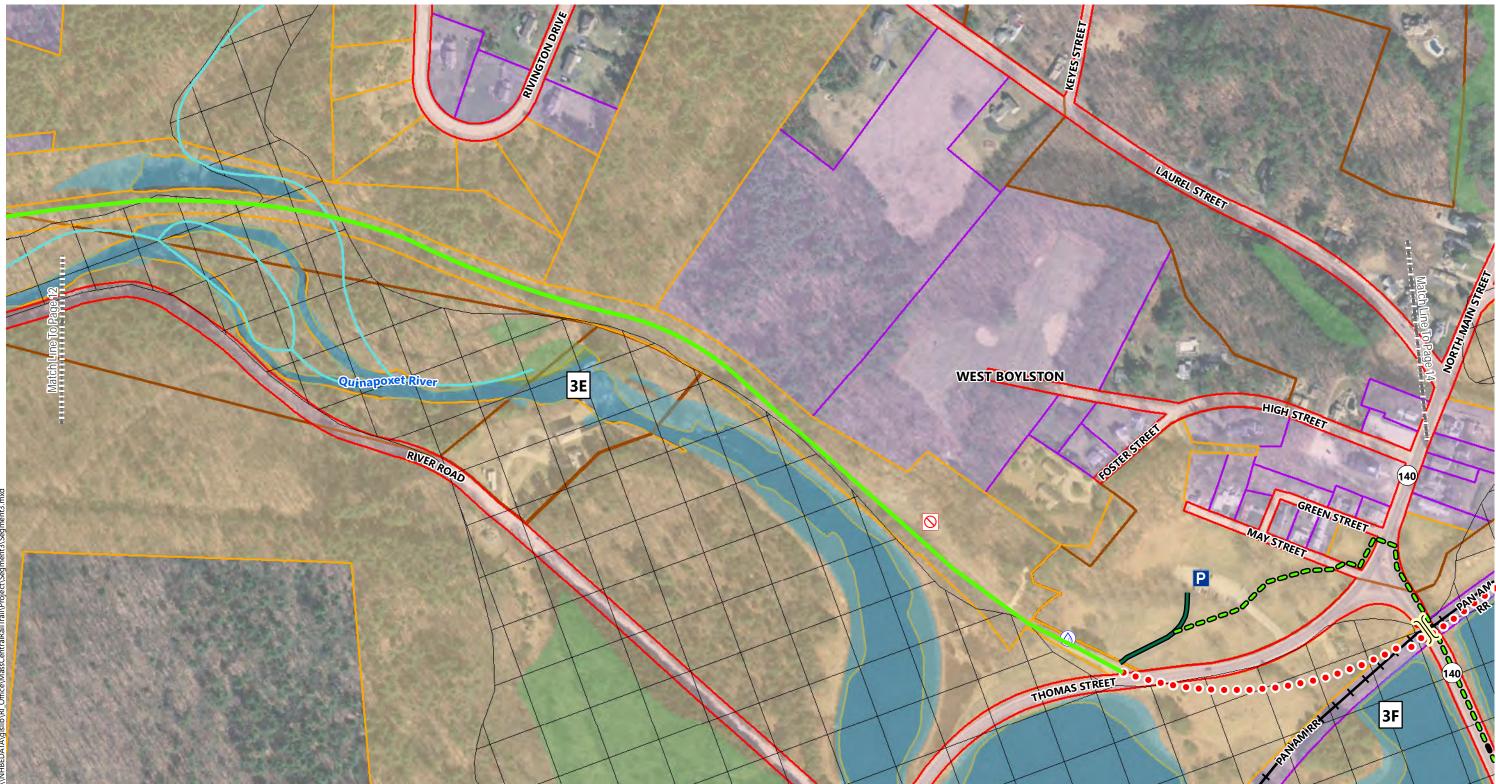
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- RailroadCrossing
- ▲ UtilityCrossing

• Post

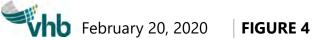
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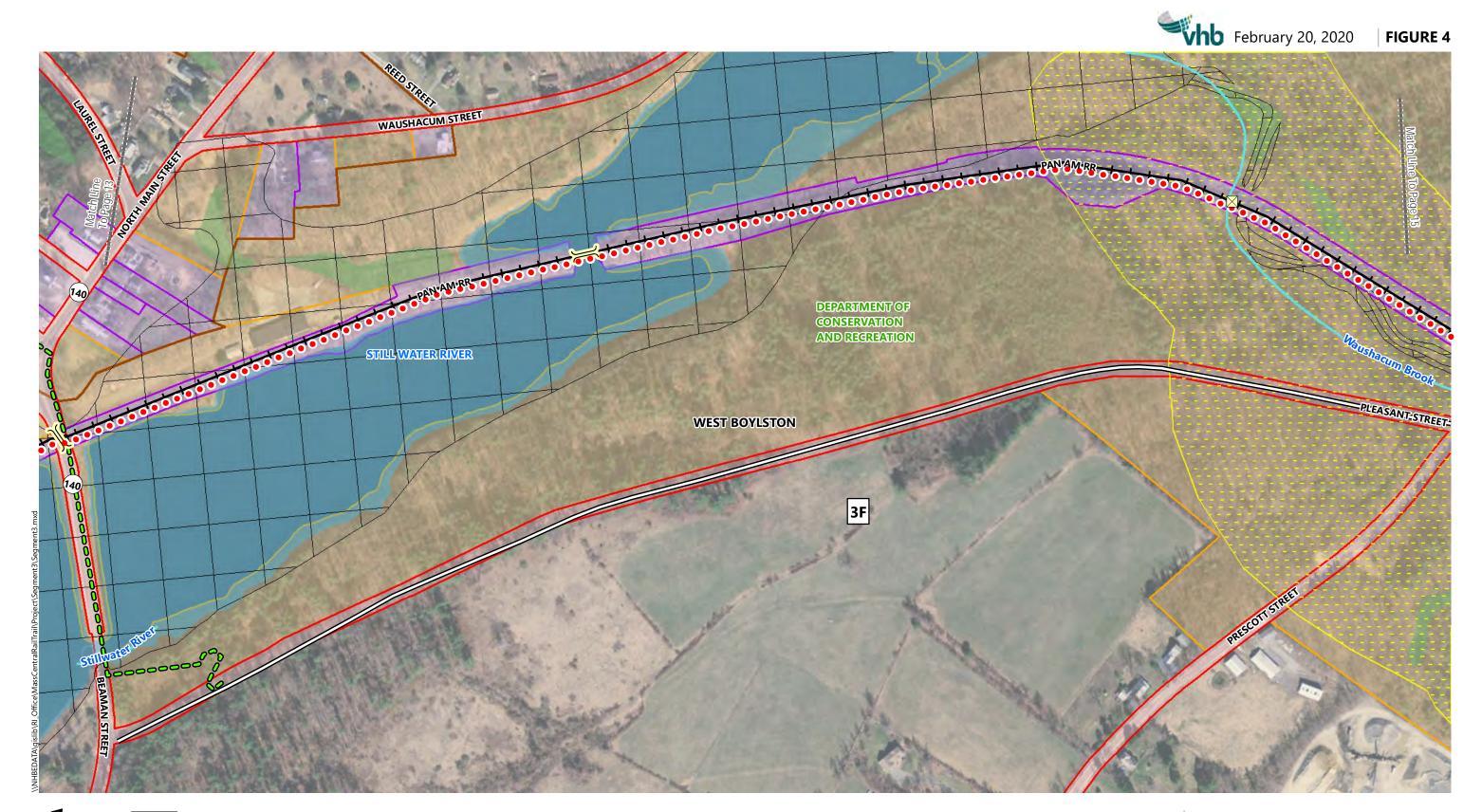


- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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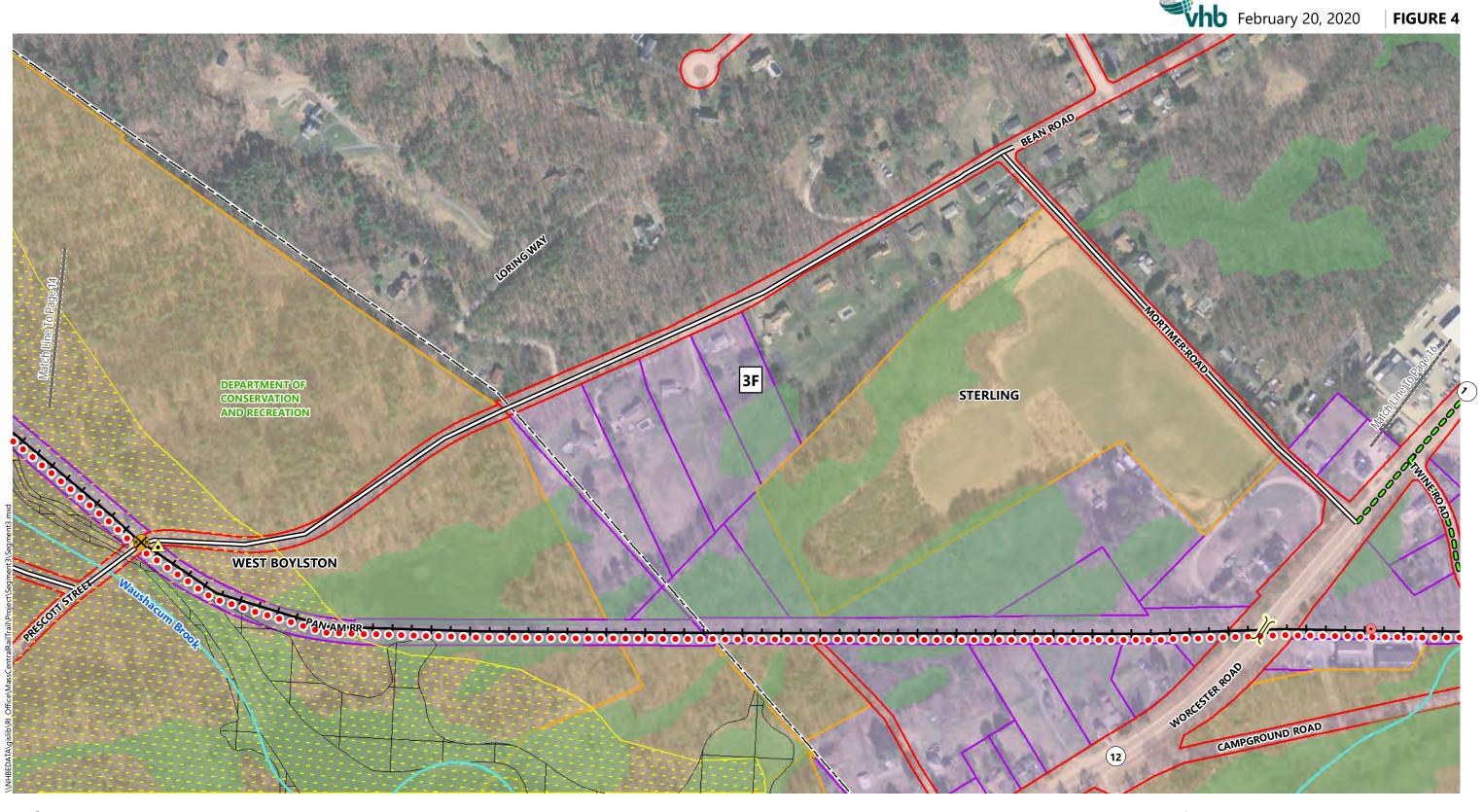
- Roadway Grade Roadway Crossing
- RailroadCrossing
- ▲ UtilityCrossing

• Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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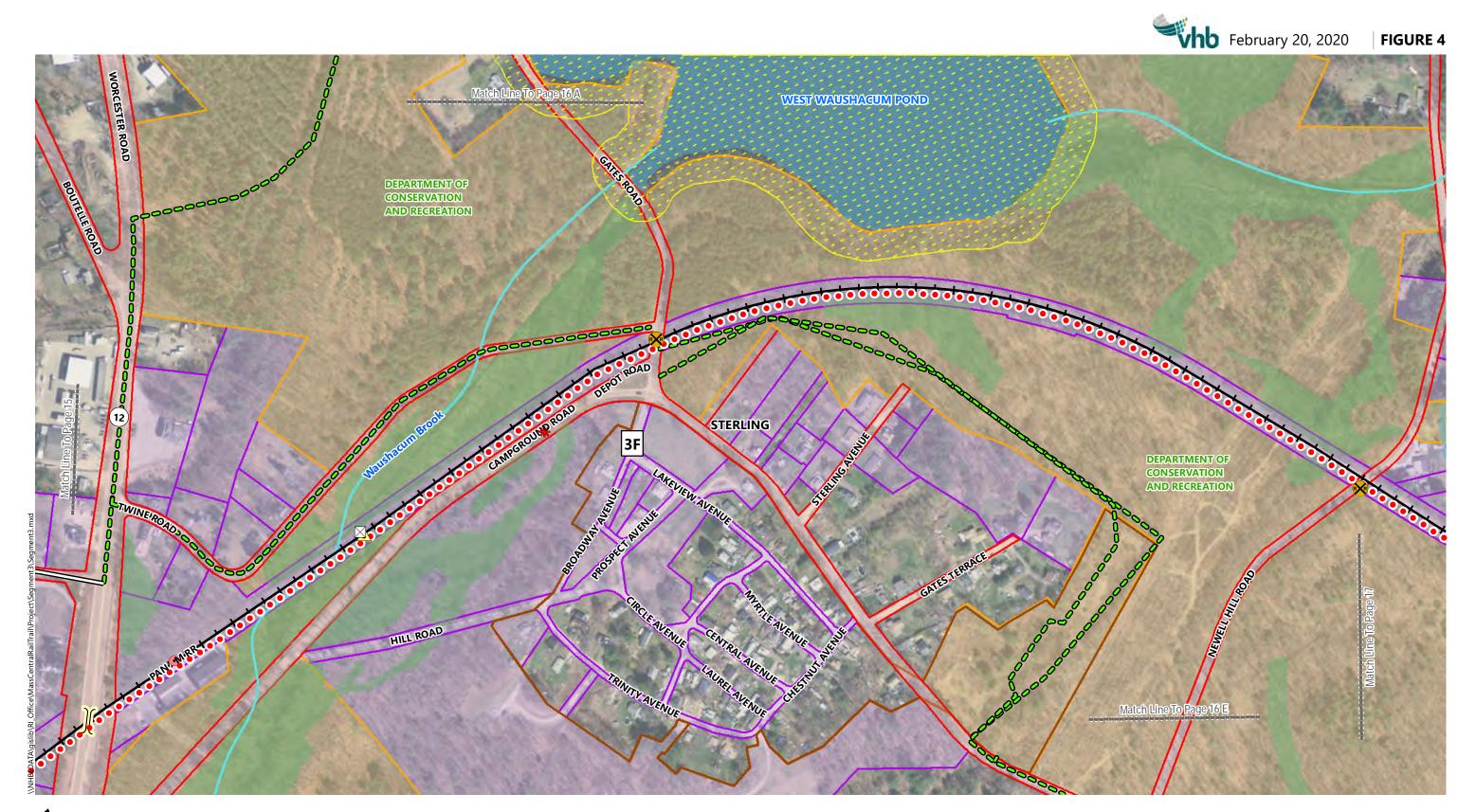


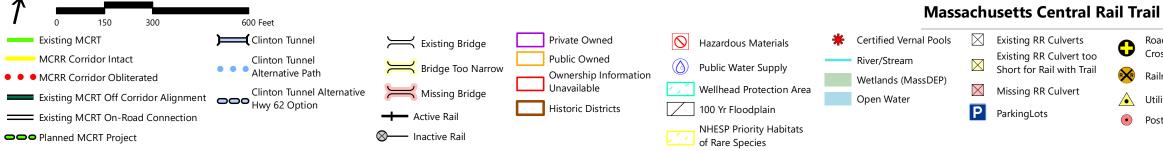
- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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- Roadway Grade Roadway Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

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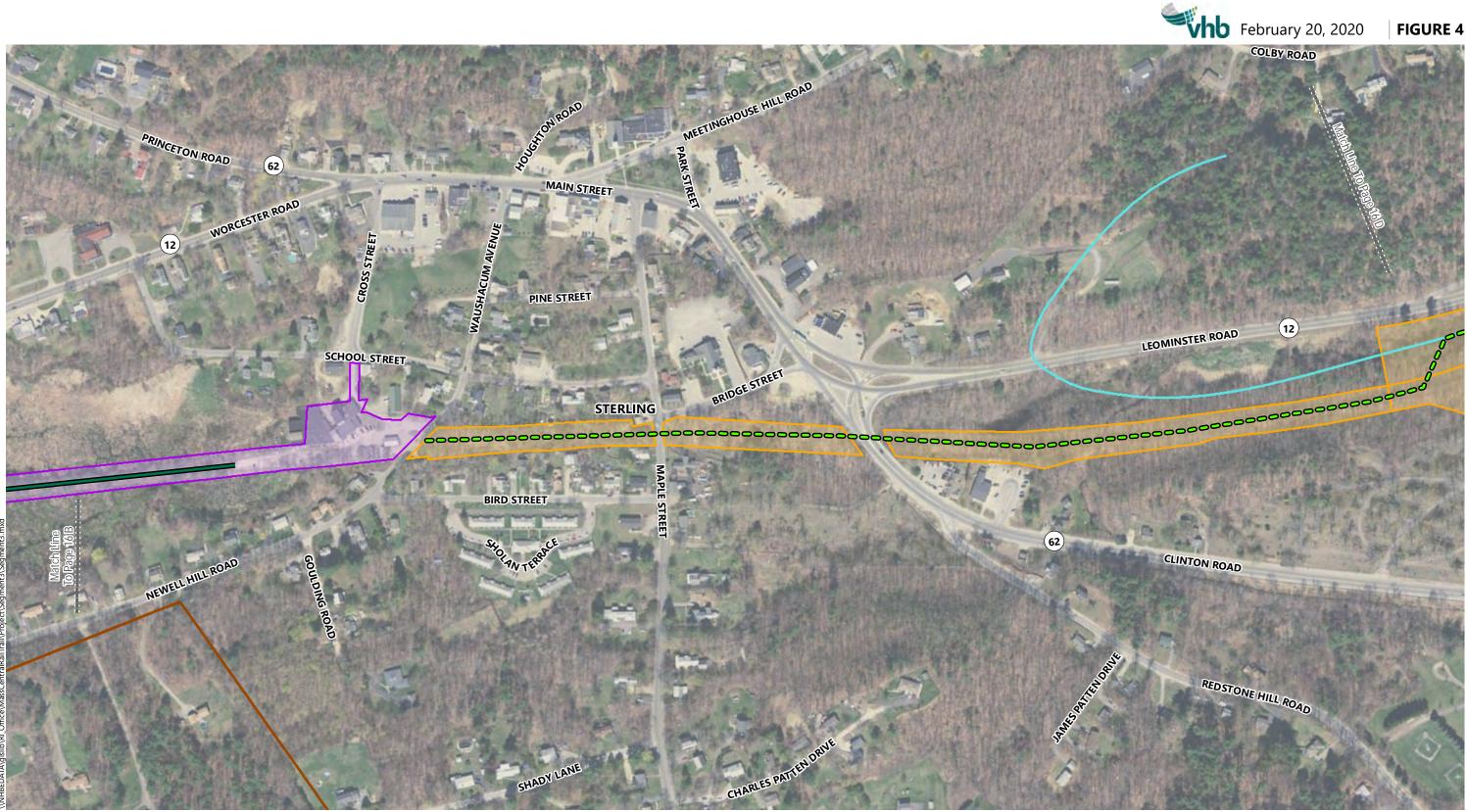


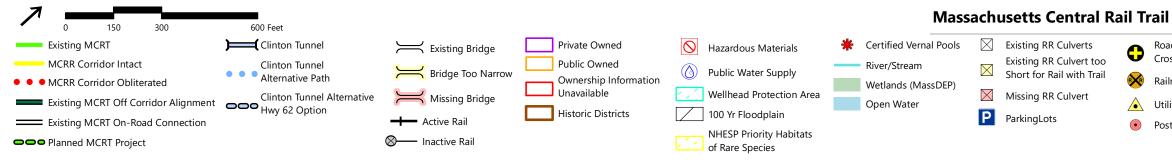


- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Segment 3 Page 16 B of 27

Source Info:MassGIS, MassDOT, VHB

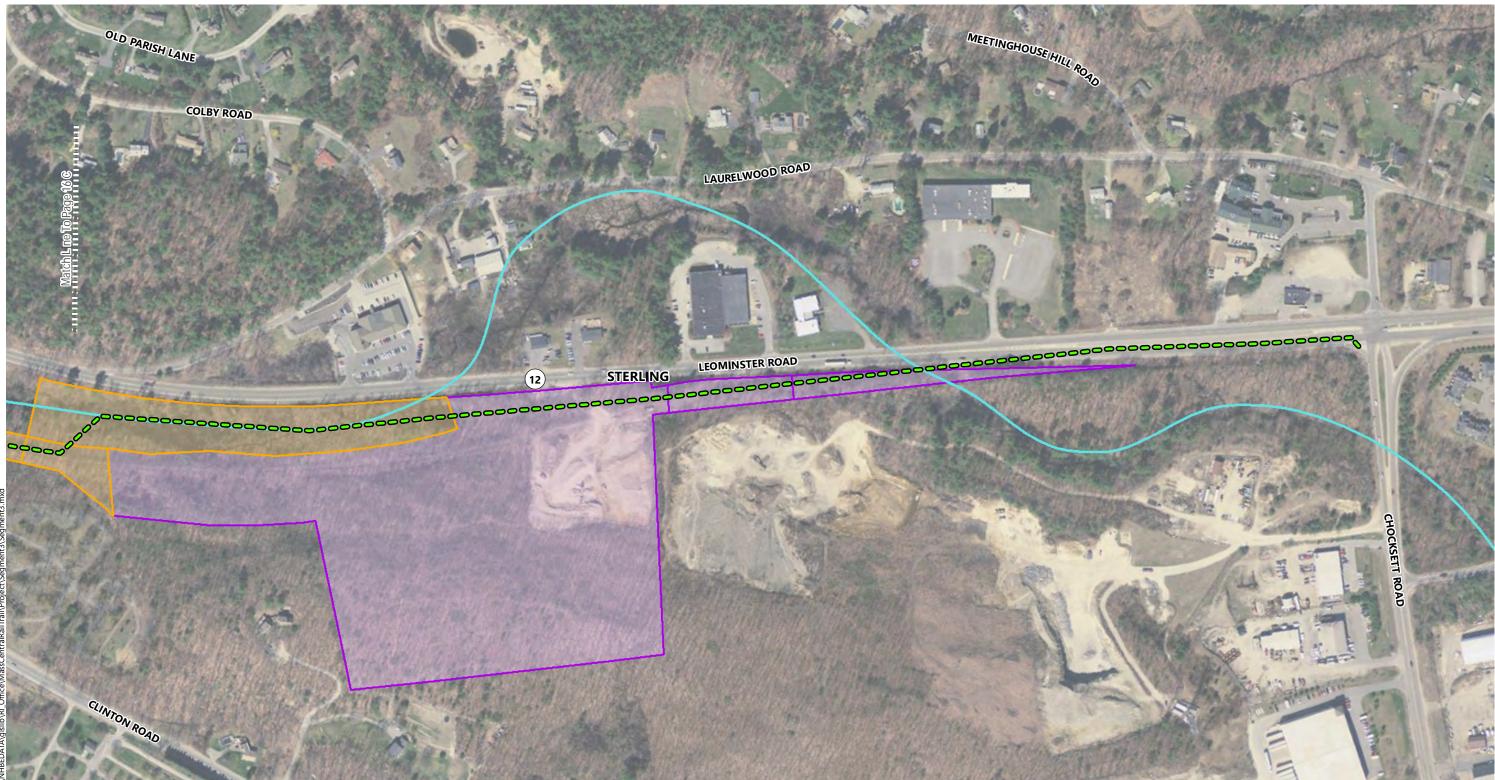




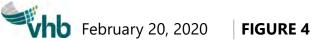
- Roadway Grade Roadway Crossing
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- ▲ UtilityCrossing
- Post

Page 16 C of 27 Source Info:MassGIS, MassDOT, VHB

Segment 3





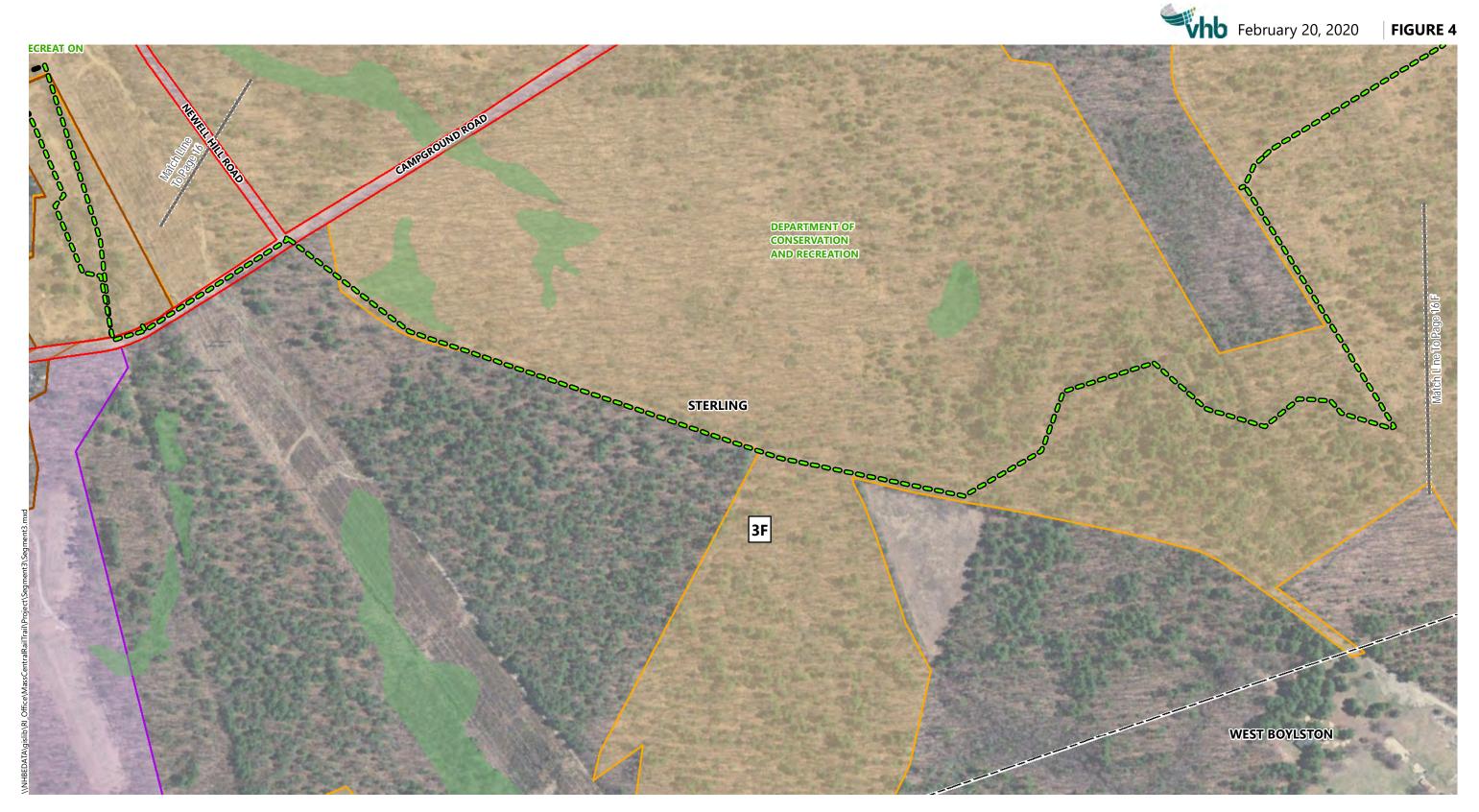


- Roadway Grade Roadway C Crossing
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- ▲ UtilityCrossing

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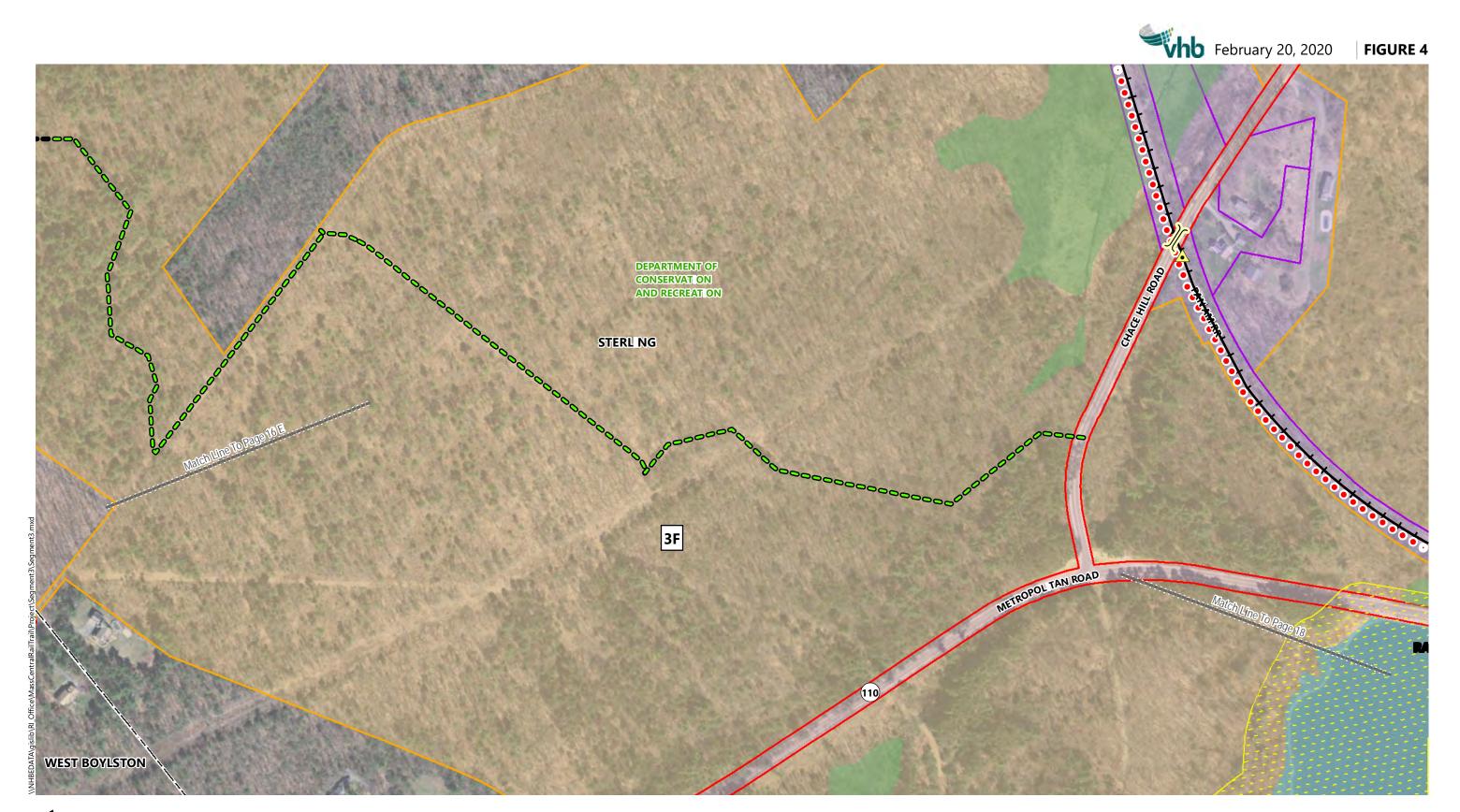




- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Page 16 E of 27 Source Info:MassGIS, MassDOT, VHB

Segment 3



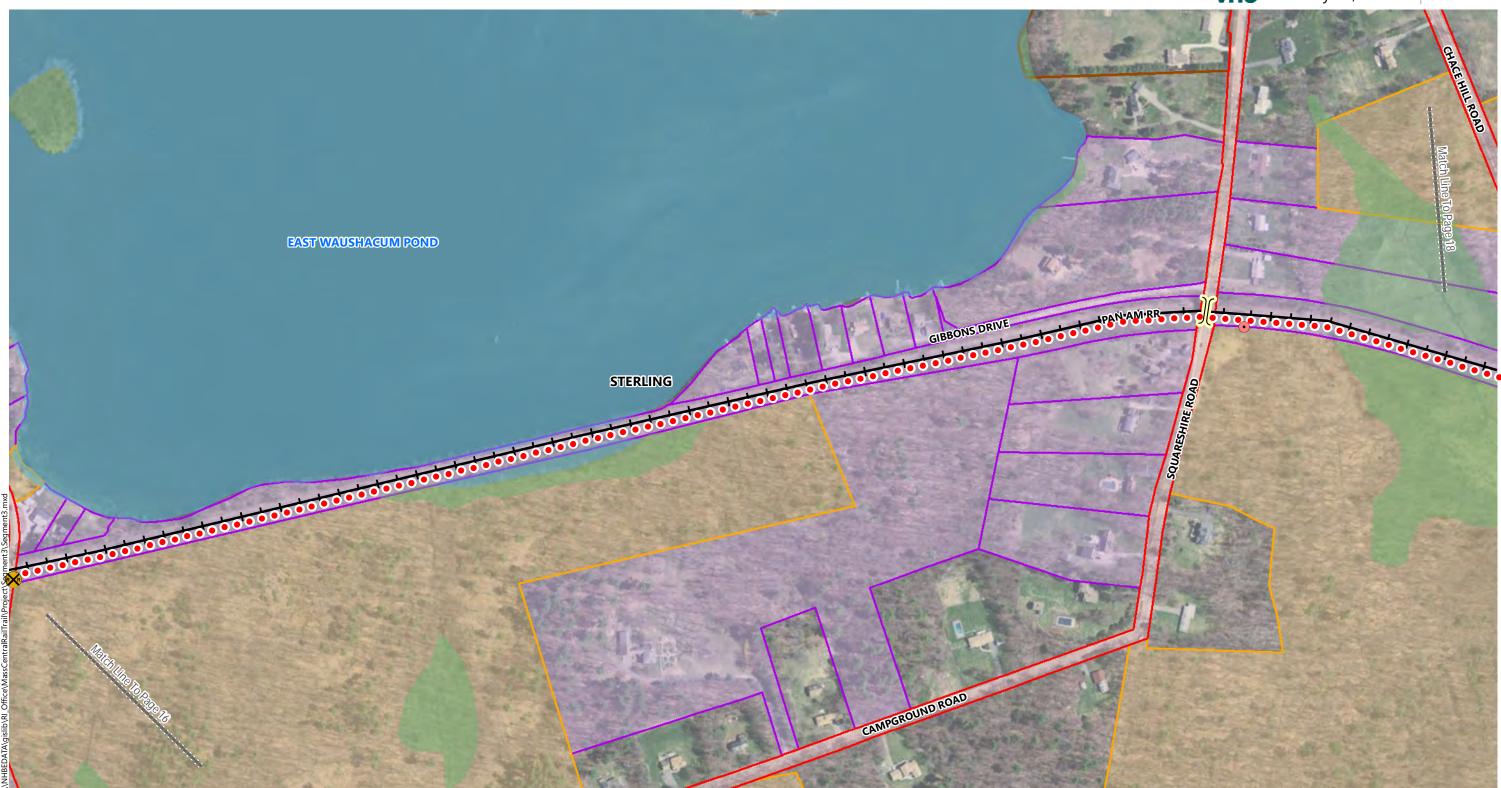


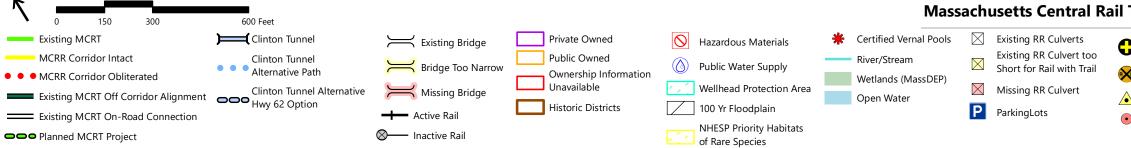
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- ▲ UtilityCrossing

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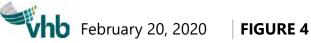
Segment 3

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Massachusetts Central Rail Trail



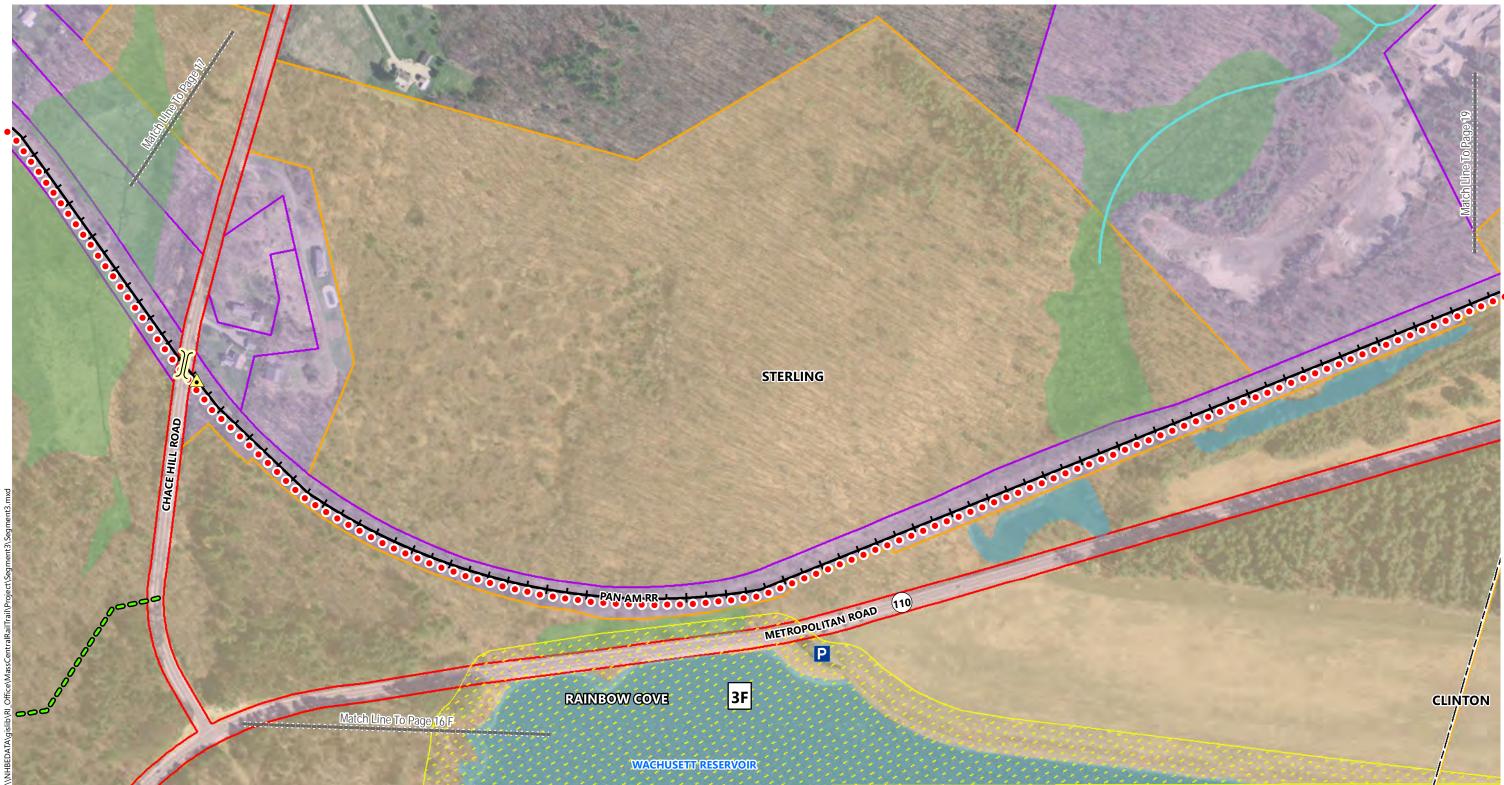
Rutland to Hudson, Massachusetts

- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

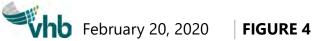
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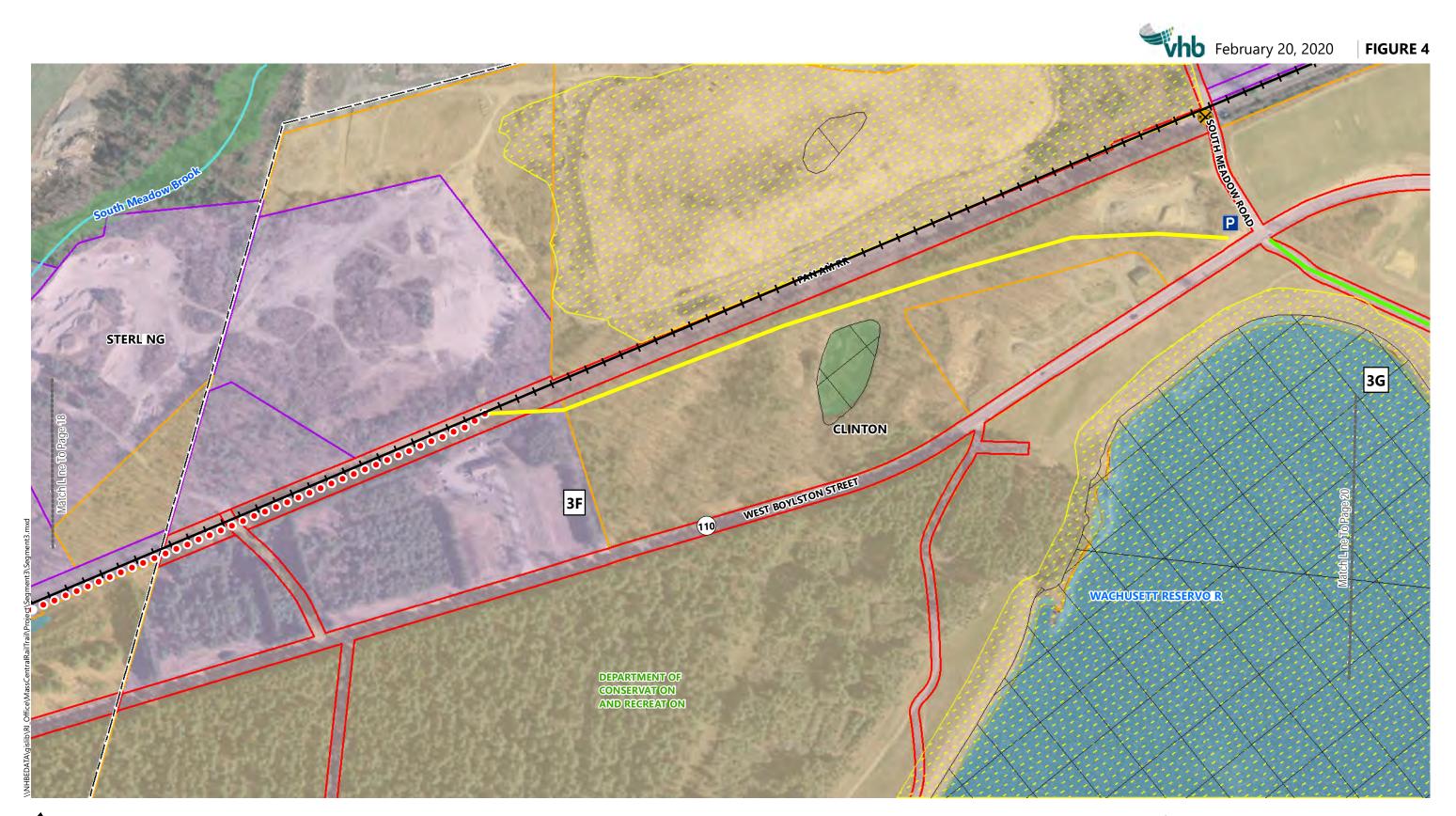


- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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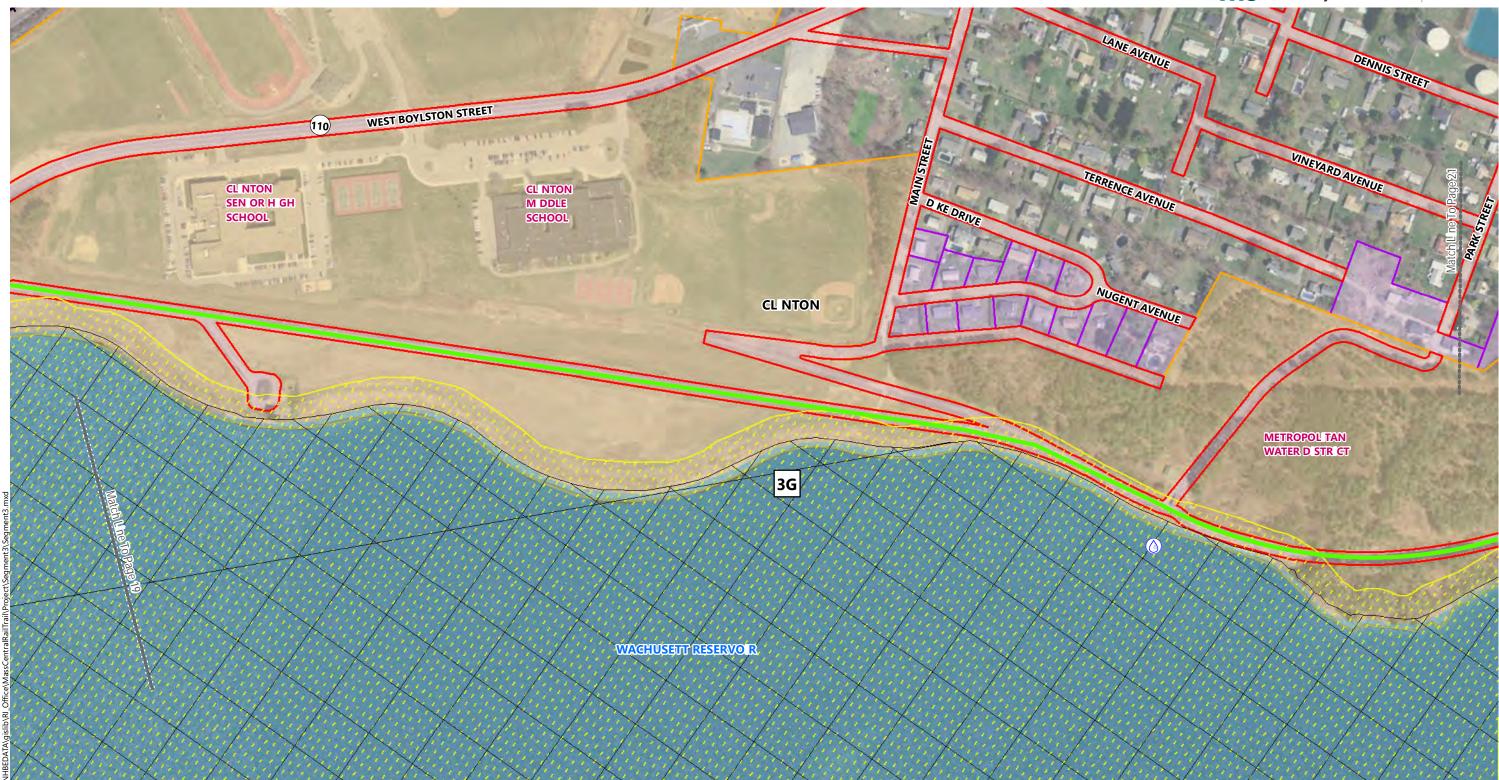


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- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

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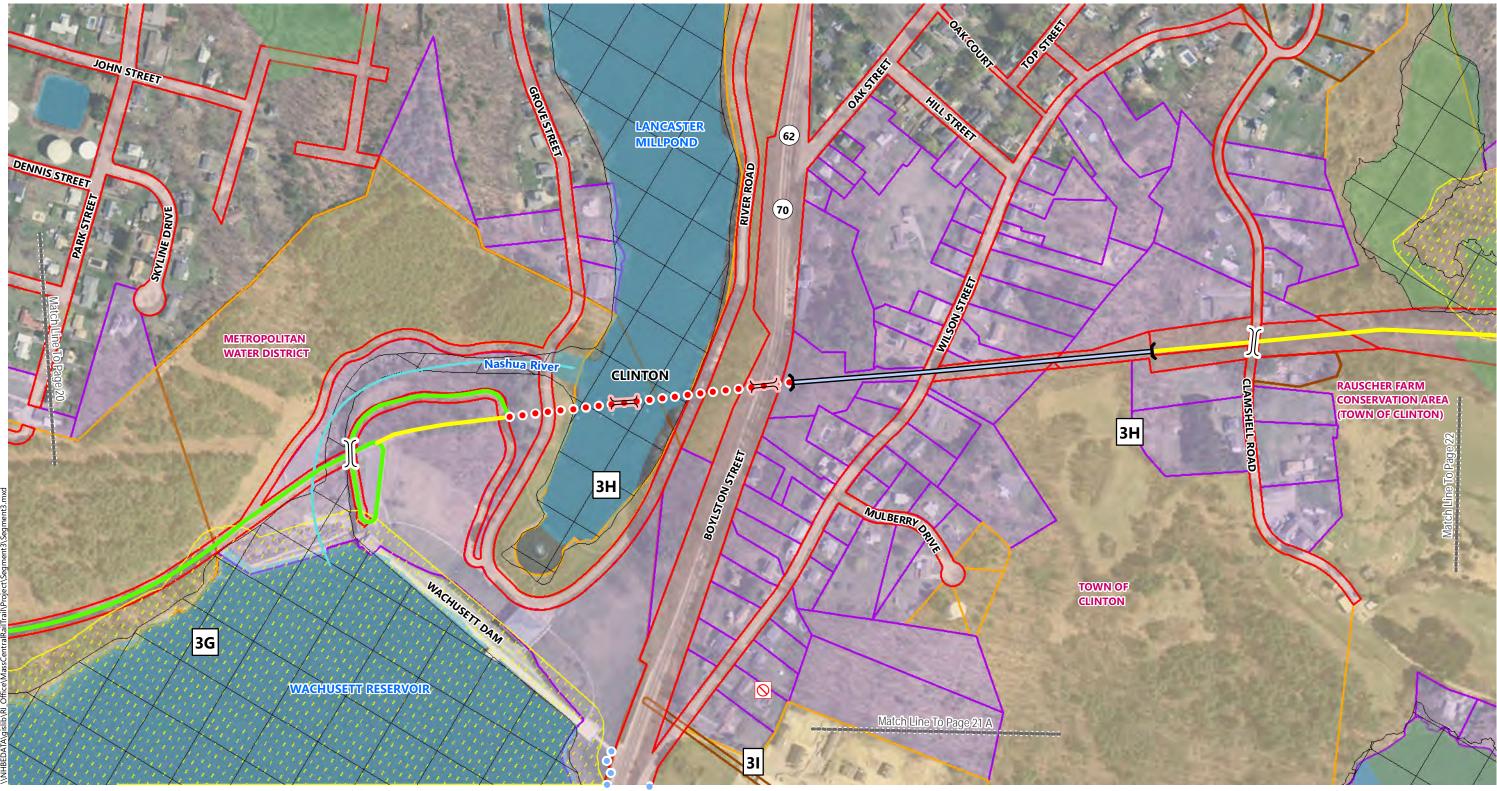


- Roadway Grade Roadway Crossing
- RailroadCrossing
- ▲ UtilityCrossing

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Segment 3

Source Info:MassGIS, MassDOT, VHB





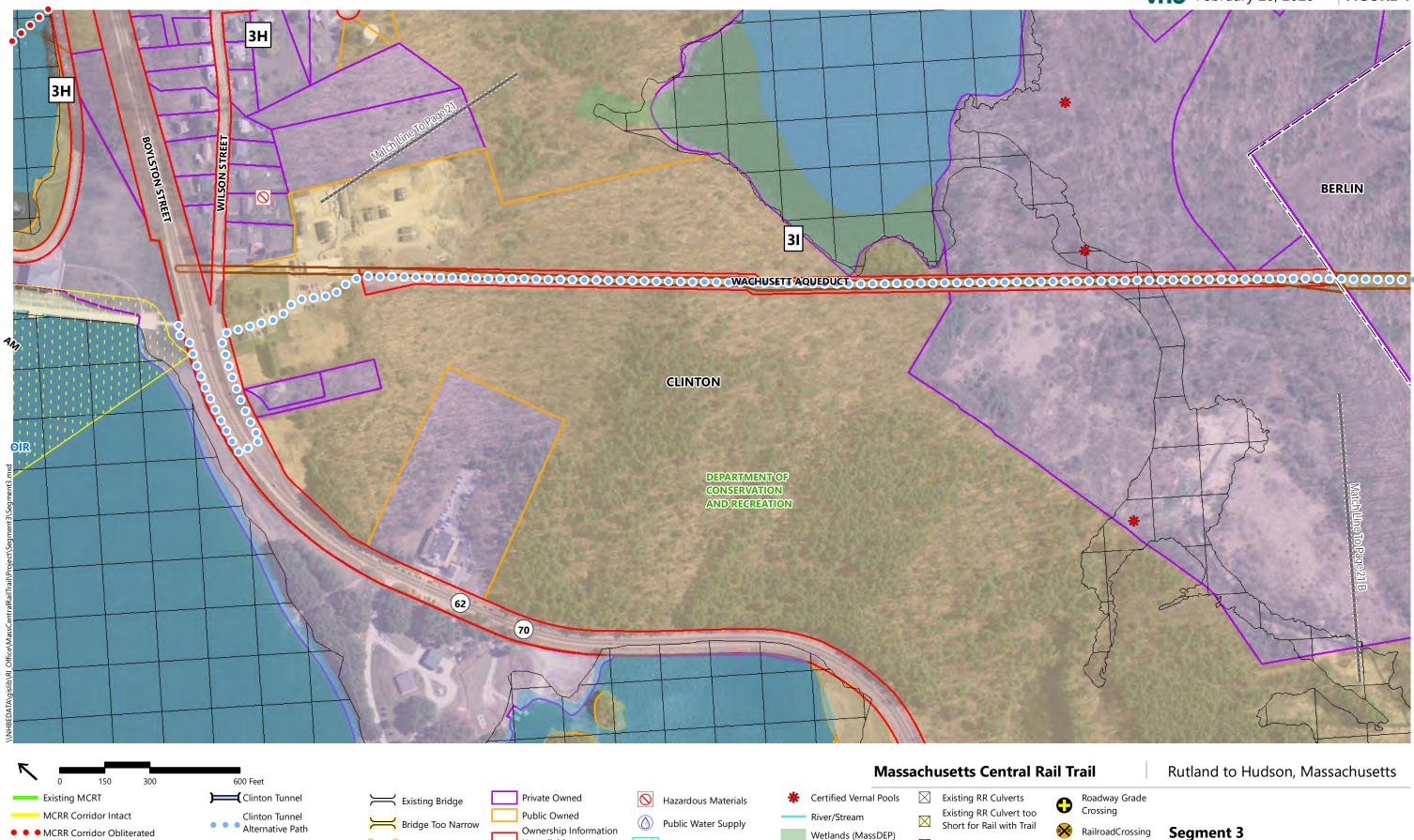


- Roadway Grade Roadway Crossing
- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

Segment 3

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Wellhead Protection Area

NHESP Priority Habitats

100 Yr Floodplain

of Rare Species

Unavailable

Historic Districts

Clinton Tunnel Alternative

Hwy 62 Option

Existing MCRT Off Corridor Alignment

Existing MCRT On-Road Connection

Planned MCRT Project

Kissing Bridge

Active Rail

O- Inactive Rail

Wetlands (MassDEP)

Open Water

Missing RR Culvert

ParkingLots

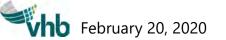
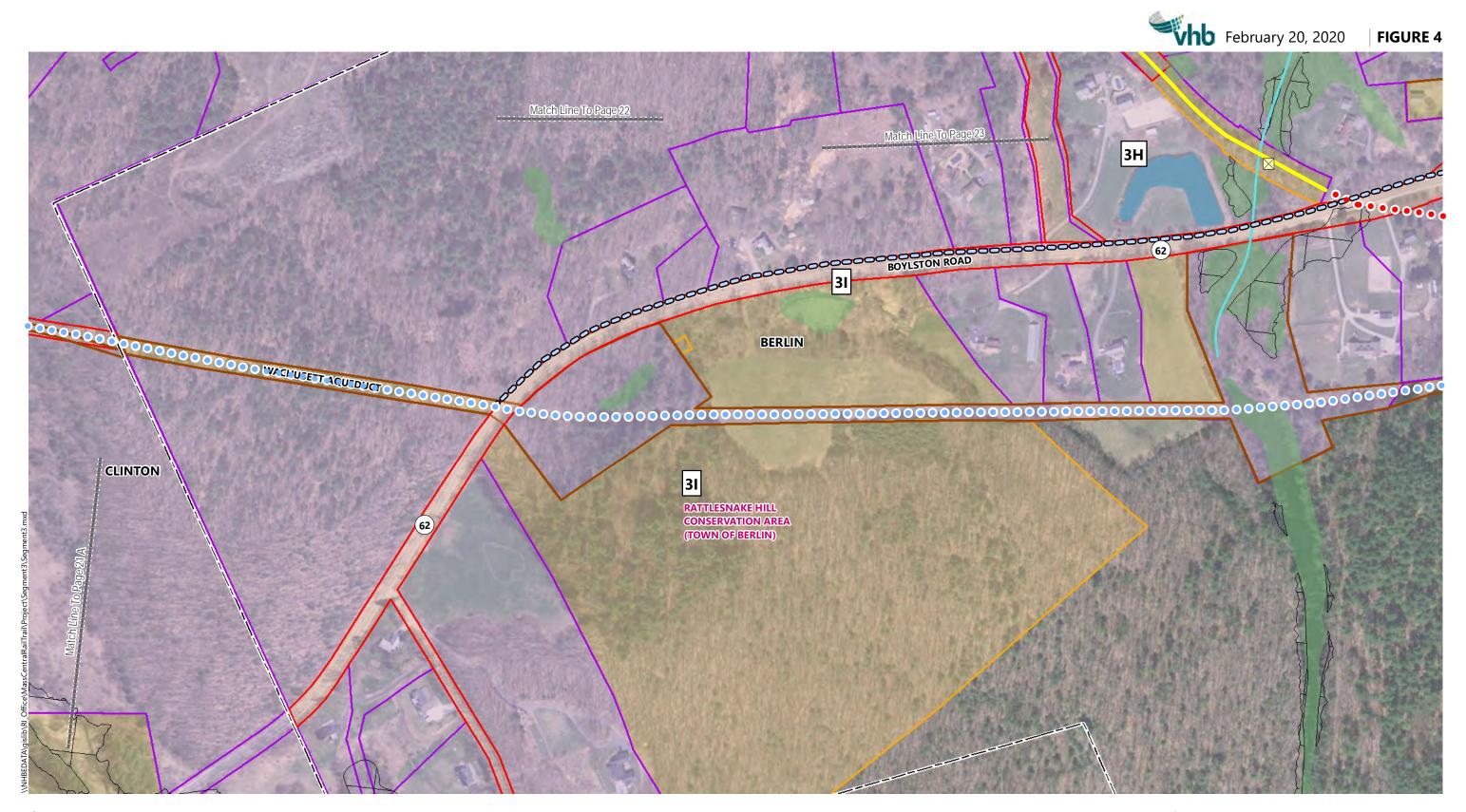


FIGURE 4

- RailroadCrossing
- ▲ UtilityCrossing
- Post

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Source Info:MassGIS, MassDOT, VHB

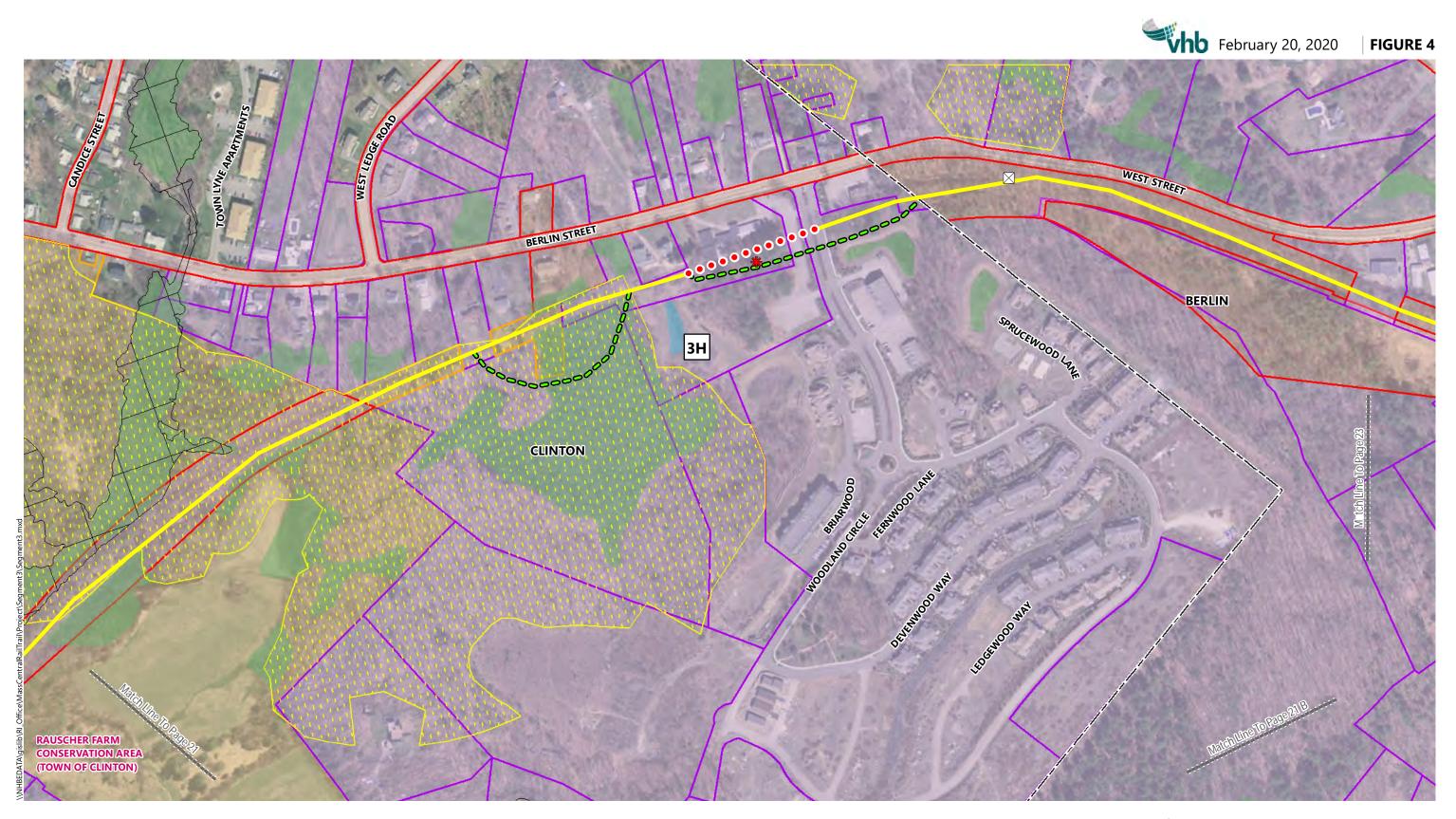




- Roadway Grade Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

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Source Info:MassGIS, MassDOT, VHB



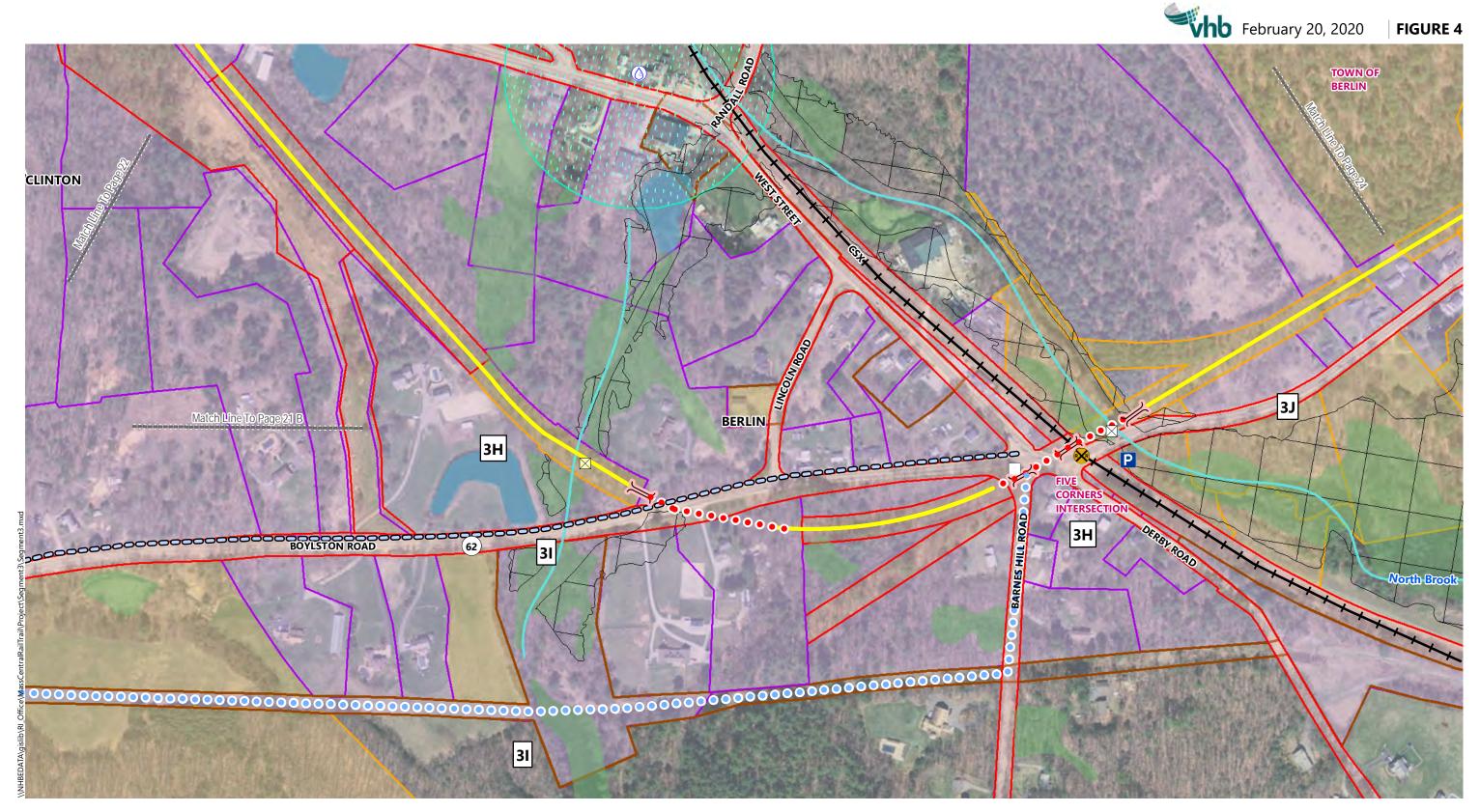


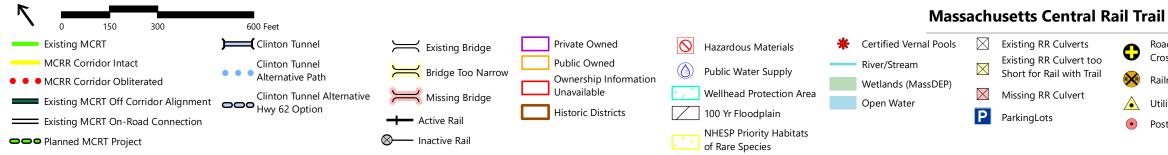
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- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

Segment 3

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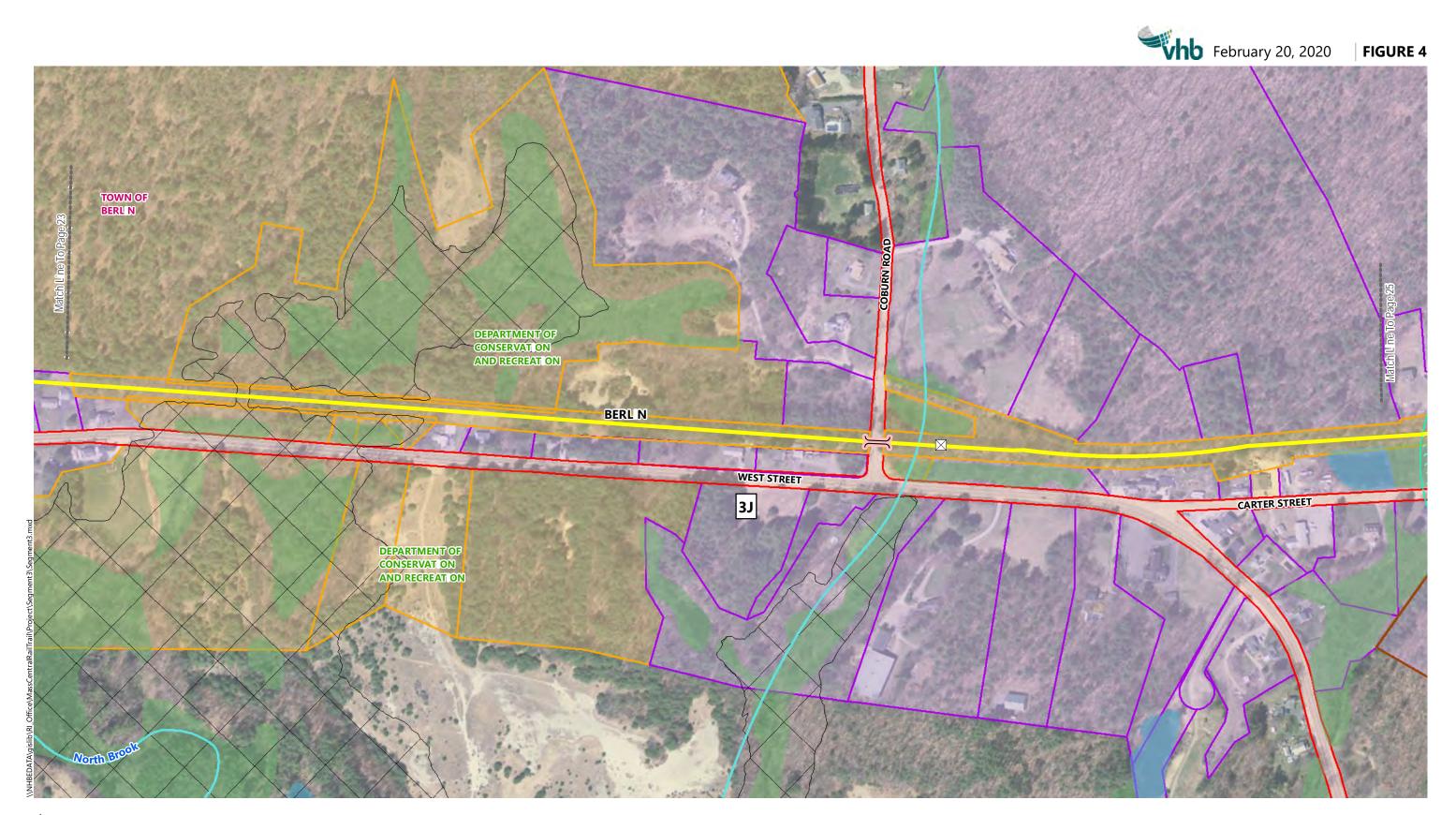


- Roadway Grade Roadway Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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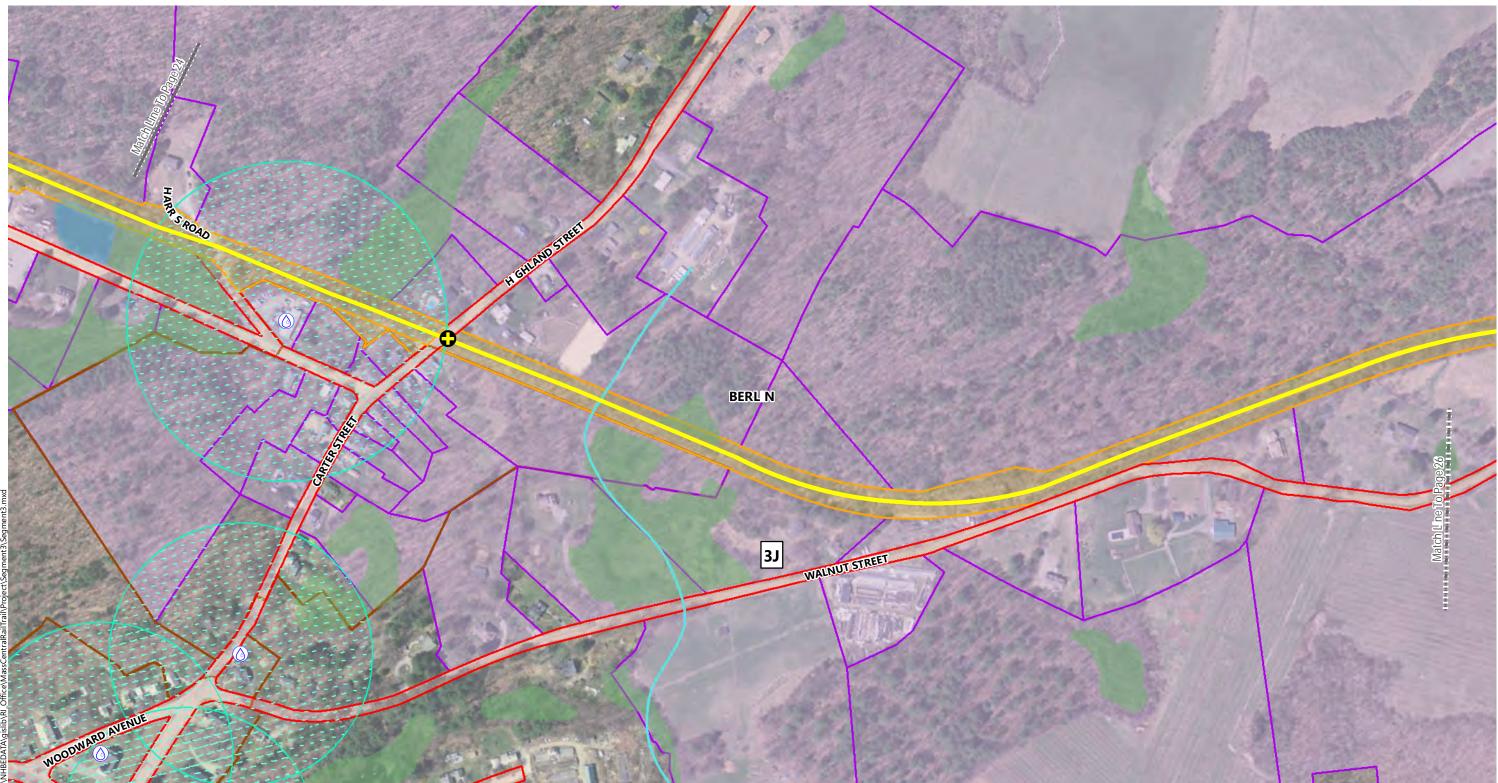


- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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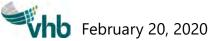


FIGURE 4

Rutland to Hudson, Massachusetts

- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing

Source Info:MassGIS, MassDOT, VHB

Segment 3

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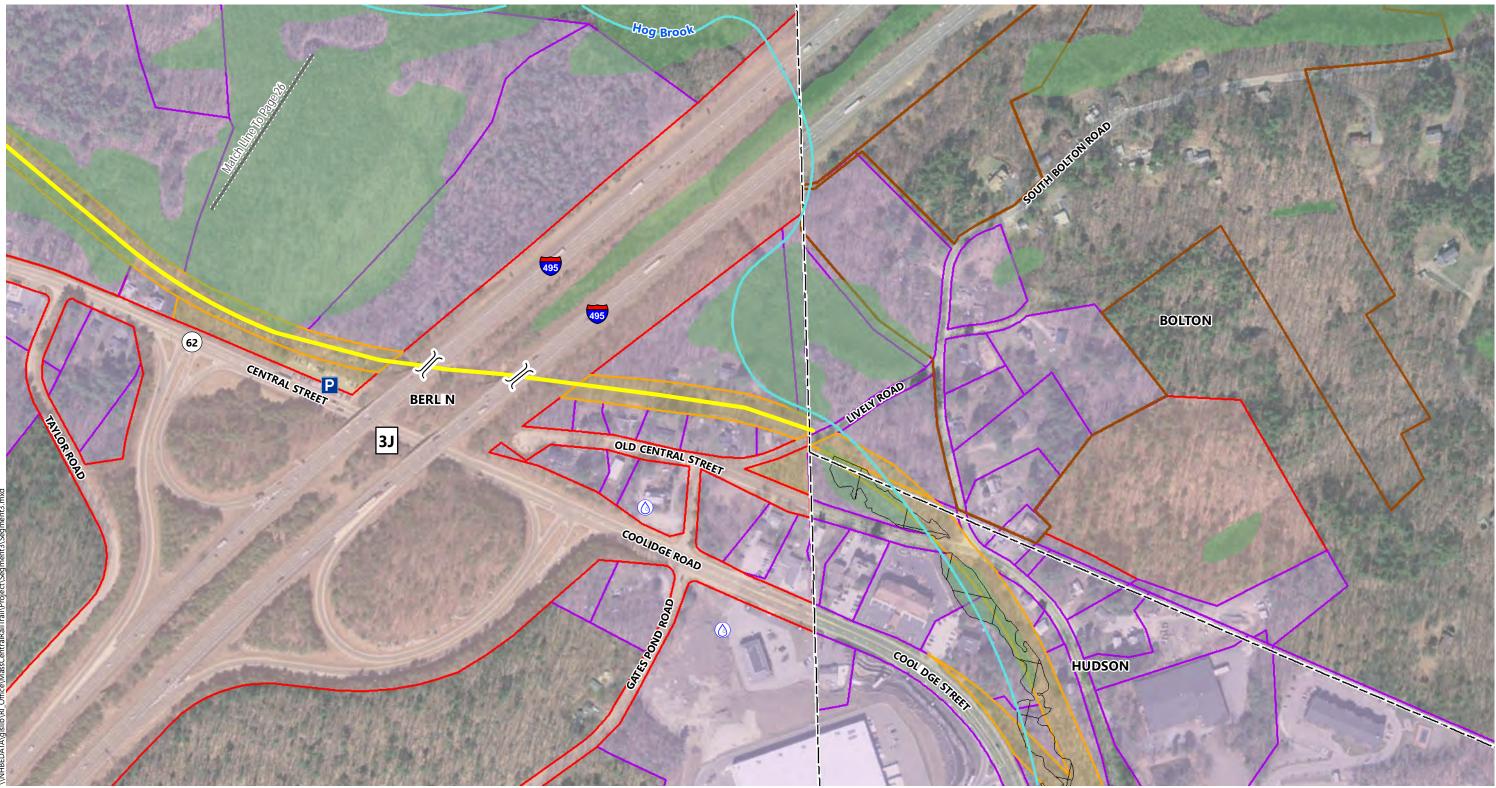


- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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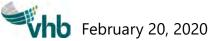


FIGURE 4

Rutland to Hudson, Massachusetts

- Roadway Grade Roadway C Crossing
- RailroadCrossing
- ▲ UtilityCrossing
- Post

Source Info:MassGIS, MassDOT, VHB

Segment 3

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