

Berlin Rail Trail Advisory Committee

FINAL REPORT

June 20, 2018



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Committee Members**

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Table of Contents**Page Number**

1. Executive Summary	
A. What is the Wayside Rail Trail?	4
B. Committee Activities	4
C. Recommendations	6
2. Introduction	
A. Purpose of Report	7
B. Background	8
3. Town Obligations	
A. Lease Obligations to the DCR and the MBTA	11
B. Expected Impact on Town Departments	12
C. Rail Trail Parking Requirements	13
4. Trail Construction Requirements	
A. The Design Phase	14
B. The Construction Phase	15
C. Frequently Asked Questions about Construction	16
5. Financing	
A. Cost and Process	21
B. Potential Funding Sources	23
6. Trail Abutters and Other Public Comments	
A. Overview	26
B. Background	26
C. RTAC Facilitated Public Forum	27
D. Other Public Comments	30
7. Passive Recreation Options in Berlin	
A. Berlin's Conservation Land	31
B. Planned Trails	32
C. Complete Streets Program	32
D. Boston Worcester Air Line Trail	33
Appendix A:	
Berlin Frequently Asked Questions Posted April 2018 to Town Website	34
Appendix B:	
a. Meeting minutes from the February 22, 2017 meeting with the DCR	37

Table of Contents**Page Number**

b. Notes of Interviews with Other Towns Along Wayside Trail Corridor	42
c. Notes taken during walk of Proposed Rail Trail with Police Chief Galvin	48
d. RTAC Notes of John Mavretic's 2017 interviews with Iron Horse Preservation	52
Appendix C: Notes on Funding Sources	53
Appendix D: Bibliography; Reference to Belmont Study and Other Source Materials	57
Appendix E: Glossary of Terms	60
Appendix F: Photos of Existing Rail Bed	61

1. Executive Summary

In August of 2016, the Town of Berlin Selectmen commissioned the Berlin Rail Trail Advisory Committee (RTAC) in order to study and make recommendations relative to the development of a multi-use recreational path from Coburn Road to the Bolton/Hudson Town line as part of the Department of Conservation and Recreation's (DCR) proposed Wayside Rail Trail from Berlin to Waltham. The commissioning followed the May 3, 2016 vote on article 38 at the annual Town Meeting to establish a committee to explore the impact of the proposed Rail Trail on Berlin.

A. What is the Wayside Rail Trail?

The rail trail is a proposal by Massachusetts Department of Conservation and Recreation (DCR) to develop the Mass Central Rail Trail - Wayside Branch (MCRT-WB) as a 10-foot wide and 23-mile long shared-use path through eight towns. The rail trail would be constructed within a 19-foot wide path development corridor within the existing 50- to 100-foot wide former Massachusetts Central Railroad right-of-way (ROW) now owned by the Massachusetts Bay Transit Authority (MBTA).

DCR has secured a lease with the MBTA along the ROW that allows DCR to construct, manage and maintain a rail trail within the corridor and develop additional amenities outside of this corridor provided they do not conflict with other MBTA uses. During 2012, DCR delineated the path development corridor within the existing ROW and received approval from the MBTA for its use for the MCRT-WB project. This corridor largely follows and is centered on the existing single wide track, ties and ballast. The rail trail would extend from Coburn Road in Berlin to Beaver Street in Waltham. Once completed, the MCRT-WB would be managed by the DCR and maintained by either the DCR, municipalities through which it crosses, or through a cooperative agreement between DCR and the municipalities.

The DCR has estimate development costs of the rail trail to be approximately \$1 million/linear mile. [1]

The eight towns on the Wayside Trail, along with the length of the rail corridor for each community, are:

1. Berlin - 2.3 miles from Coburn Road to the Hudson line
2. Bolton – 100 feet
3. Hudson - 6.9 miles
4. Stow - 327 feet
5. Sudbury – 4.6 miles
6. Wayland – 3.0 miles
7. Weston – 3.0 miles
8. Waltham – 3.0 mile

B. Committee Activities

Data gathering for this project took the form of researching existing literature, and engaging the community, Town Departments and committees, the DCR, and other towns along the proposed Wayside trail. The RTAC gathered feedback and information through the following activities:

1. The RTAC walked the proposed trail in Berlin with the Chief of Police and later with the Fire Chief to gain their perspectives on public safety aspects of the trail.
2. The RTAC spoke with the Town Highway about maintenance of the trail and associated parking areas.
3. The RTAC contacted representatives in each of the seven other communities along the Wayside Rail Trail: Bolton, Hudson, Stow, Sudbury, Wayland, Weston and Waltham to explore their view on development and track where they were in the process.
4. The RTAC invited Paul Jahnige, the Director of Greenways and Trails Program for the DCR, to meet the committee and answer questions from the committee and the public. This one and one-half hour meeting was recorded by the Berlin Cable Access Committee and is available on the Town website. Appendix B contains RTAC minutes of the meeting.
5. The RTAC held monthly public meetings beginning in September 2016, and organized one public forum for abutters and other community members, listened to and documented written and/or oral comments offered by members of the public.
6. The RTAC met with the Berlin Conservation Commission and the Berlin Recreation Committee to invite comments about the proposed Wayside Trail and passive recreation alternatives available in the Town of Berlin.
7. A RTAC member met with Dave Westerling of Berlin's Finance Committee to explore funding options for development of the Berlin portion of the Wayside Trail.
8. A RTAC member attended a DCR Wayside Rail Trail meeting on August 2, 2017 in Wayland. All towns along the Wayside Rail Trail were represented and each town provided an update as to their participation and/or involvement.
9. A RTAC member interviewed Pamela C. Marquis, the Right of Way Compliance Administrator for Massachusetts DOT/Highway Division (interview notes are contained in the Trail Construction Requirements section of this report – page 20). Mrs. Marquis has been involved with the majority of rail trail construction in the state.

Other RTAC research into the development of a non-motorized, multi-use path included:

1. Extensive online research into multi-use paths, including types of public uses and their frequency, commuting uses, costs of development and maintenance, crime and safety data, economic development, impact on property values, and active rail with trail considerations.
2. Potential financing sources were explored with multiple parties contacted during the study.
3. Various state requirements in the design and construction of a rail trail including: the Massachusetts horizontal construction regulations (the building of roads and projects such as the rail trail), the Massachusetts Department of Transportation's (MassDOT) guidelines for design and construction multi-use paths, and the DCR's specific requirements were reviewed.

Meeting minutes and key documents (e.g. MBTA lease with the DCR) can be found on the town's website at <http://www.mytowngovernment.org/01503>

The RTAC acknowledges the contributions of former RTAC members Maureen Johnson, Kimberly Lorencic and John Mavretic with appreciation for their service to the Town of Berlin.

C. Recommendations

Having completed our study, the RTAC recommends the following:

1. At this time we recommend Berlin take no action to develop the Berlin section of the proposed Mass Central Rail Trail Wayside Branch. Berlin may wish to revisit development options if and when towns to the east, in particular, Hudson, Bolton and Sudbury, commit funds to the 25% design process with the DCR to develop their segments of the Trail.
2. Responsive to expressed public interest in enhanced opportunities for passive recreation in the Town of Berlin, implement the following:
 - a. Install a paved 7/8-mile multi-use trail around South Commons along the lines of the proposed design developed and recommended by Berlin Planning Committee in the town master plan and presented and approved at the 2018 Annual Town Meeting;
 - b. Via better signage and maps (e.g., posted at trails or on-line, or printed) identifying trailheads and parking areas, improve public access to existing passive recreation areas on conservation lands held or managed in Berlin as a public or private conservation trust;
 - c. Install sidewalks and bike lanes as opportunities arise in conjunction with Berlin's Complete Streets compact; and
 - d. Engage with the communities and regional collaborators in the development of the Boston Worcester Air Line Trail (BWALT) a multi-use trail proposed to go from Framingham to Worcester, with side trails to Marlborough and Berlin utilizing the Aqueduct. This allows for access too points south in Marlborough and Northborough and west in Boylston and West Boylston along the southern end of Wachusett Reservoir.

2. Introduction

A. Purpose of Report

The purpose of this report is to provide a solid foundation for the Town of Berlin to understand the process, the regulations and resources essential to building a Rail Trail in Berlin in an inclusive and deliberate way.

The Berlin Board of Selectmen charged the Rail Trail Advisory Committee with gathering all pertinent information related to this potential path. Specifically, the Selectmen directed:

I. Mission Statement

The Rail Trail Advisory Committee provides a mechanism for the Town to examine the issues in converting an existing rail line in Berlin to a recreational path.

The Committee:

- Should have regular public presentations during the course of their review to publicize their inquiry and to regularly solicit input from the public;
- Should identify and address the many questions and concerns that residents of Berlin have about the rail trail;
- Should seek information as to the actual experience of communities with existing rail trails and document that information; and
- Should consider alternatives to the rail trail, including for example the placement of some or all of it on alternate routes (e.g. the Ross Dam).

The Committee shall develop a balanced report with a discussion of the pros/cons of the conversion and recommendations for the issues which must be addressed.

II. Issues for Consideration

The Town must come to a consensus on the many issues before the rail trail conversion can proceed. These issues include, but are not limited to:

- **Physical Design Issues**
 - Interface and Integration with existing public ways
 - Buffers to affected abutters
 - Access and Parking,
 - Need for any facilities (e.g. lighting, crossings, bathrooms)
 - Conceptual design of the path: dimensions of the path and materials used to construct the path.
- **Other Issues**
 - Abutters concerns; security, privacy, property values, mitigation,
 - Environmental issues; wetlands, wildlife, soil contamination,
 - Safety concerns; police, fire

- Allow dogs or horses,
- **Financial Issues**
 - Funding; how the design and construction will be paid for, what costs to the town,
 - Ongoing maintenance and costs (e.g. police coverage and trash pickup).

III. Membership and Operation

The Rail Trail Committee shall have 5 at-large members and a Board of Selectmen liaison. All appointments shall be indefinite, until the Board of Selectmen feels the mission of the Committee has been achieved, or that the membership needs to be changed in order to keep the work progressing. A member of the Board of Selectmen shall chair the Committee until a Chair has been elected from the membership of the Committee. A clerk shall also be elected to ensure that all meetings are properly posted and minutes of each meeting are kept. Minutes of the Committee shall be prepared and posted. The committee shall be in compliance with the Open Meeting Law, Public Records Law and the Conflict of Interest Law.

May 3, 2016 – ATM Art. 38 vote to establish committee (2nd of 3-night ATM)

June 27, 2016 – Description approved by Board of Selectmen

B. Background

Since the 1990's, various studies and working groups have been established to investigate the Wayside Rail Trail. This section summarizes these efforts.

Mass-Central Rail-Trail Feasibility Study

In April of 1997, the [Central Massachusetts Rail Trail Feasibility Study](#) was conducted that proposed a 23-mile rail trail from Waltham to Berlin with an extension through Belmont that would connect to the Minuteman Bikeway. The path would serve commuters as well as recreational cyclists, walkers, etc. For that reason, it would pass through several commuter stations on the Fitchburg/Gardner line and near the proposed station on the Framingham/Worcester line. A rail-trail would help reduce the number of street crossings required for bicyclists.

Since the 1997 Study was Issued

1. In 2009 The Massachusetts Department of Conservation and Recreation (DCR) conducted a Phase One Environmental Site Assessment of the entire corridor
2. In 2012 the DCR entered into a 99-year lease with the MBTA for a 19-foot delineated path development corridor to develop the Rail Trail
3. In 2013 the DCR filed an Expanded Environmental Notification Form with the State for a proposed Trail 10 feet wide with 2-foot shoulders on either side, for a total of 14 feet wide

Note: The remainder of the abandoned railroad tracks from Coburn Rd. through Clinton is owned by a different railroad, Pan Am. According to a presentation on the DCR's website the Clinton and Berlin Conservation Commissions are working to obtain a similar lease so that section can be utilized as a Rail Trail.

Other Towns Along the Wayside Trail and Their Progress

Town	Length of Trail	Estimated Cost*	Where they are in the Process
Berlin	2.3 miles	\$2,355,000	Advisory Committee created this final report for Selectmen
Bolton	100 feet	\$69,800	Bolton has no plans to develop this section. DCR will pay for the design and construction of this section if Berlin and Hudson move forward with construction
Hudson	6.9 miles	\$8,151,000	The opposition to the EverSource high-voltage power line proposal using the MBTA corridor needs to be resolved. Hudson has the Assabet River Rail Trail it presently maintains and polices and according to those interviewed in the town government said there are no plans to develop the Wayside section in Hudson. There is a 5-member citizens group that was recently formed and they are planning on proposing to Hudson's Selectmen a trail in Hudson from the Berlin/Bolton sections to the Assabet River Rail Trail. If given permission this group would then begin the process of speaking with the DCR and creating a report back to the Selectmen.
Stow	327 feet	\$83,000	Working group looking to link with Assabet River Wildlife Refuge to extend to Stow.
Sudbury	4.6 miles	\$5,678,000	As in Hudson, Sudbury is negotiating with EverSource. They are currently working to complete the 25% design phase for their section of the Bruce Freeman Rail Trail that runs through town and have not reviewed/decided on their participation in the Wayside trail.

Town	Length of Trail	Estimated Cost*	Where they are in the Process
Wayland	3.0 miles	\$4,314,000	Town's Rail Trail committee is currently working with stakeholders. EverSource is pursuing building a maintenance road for existing high-voltage power line and will fund the further development of a Rail Trail.
Weston	3.0 miles	\$4,314,000	Town Rail Trail Committee is working with stakeholders. Eversource is funding a stone maintenance road on bed for power lines in ROW; DCR funding paved path on road; designs approved—construction to start. Few abutters; RR goes by Town forest, conservation land.
Waltham	3.0 miles	\$5,371,000	Solicited 25% design bids in 2017. The engineering and design firm is now soliciting public comments.

* Estimates provided in the DCR's Expanded Environmental Notification Form

3. Town Obligations

A. Lease Obligations to the DCR and the MBTA

The MBTA owns the Wayside rail corridor from Waltham through to Berlin. The MBTA entered into a 99-year, no-fee lease with the DCR on December 31, 2010, giving the DCR the right to develop a pathway for “a revitalized use as a publicly owned, improved and maintained corridor for bicycle, pedestrian and other non-motorized public transportation, recreation and associated purposes” (a rail-trail use as provided in MGL Ch 82 Section 35A and MGL Ch 21E Sect 2(d)(1)). The lease provides for a 19-foot trail within the rail corridor (paragraphs 2-3).

The MBTA maintains the right to (1) restore rail operation in the corridor and (2) lease or license along the trail as long as it does not interfere with the development or use of the trail. The MBTA may terminate the lease upon 2 years notice for the “greater public good” (paragraph 4).

DCR has the sole right to design and develop the trail. The trail shall be open to the public and no fee shall be charged for use (paragraph 3).

Liability for injury, death or property damage are limited per MGL Ch 258 and the “recreational use statute”, collectively limiting liability of the part of DCR, MBTA, the Town, and those abutters whom permit public use of private land adjacent to the rail corridor.

The DCR is responsible for remediation of soil and construction and operation environmental protections, but the lease notes the MGL Ch 21E Sect 5J defense available to the DCR to avoid liability for presence of oil or other hazardous substances.

1. Construction: Two phases are required: design and building. Before the Town (and/or the Town and DCR jointly) begins to construct the trail, it must submit a Construction Access Permit and a proposed design to the DCR for review, revision and approval by the DCR, MBTA and Massachusetts Historic Commission. Lease (paragraphs 6 & 7) requires construction to standards (Hazardous Materials handling per Chapter 21E and other DEP regulations; contractors insurance per Public Works regulations; etc.), DCR prior submission of construction plan for MBTA approval, construction to lease terms, and performance bonds and payment bonds satisfactory to MBTA.
2. Maintenance: DCR has an obligation to repair, manage, operate and maintain the corridor in good and clean order, and the MBTA is expressly relieved of any maintenance obligation (paragraph 7).

Notes related to the lease and to Town obligations from DCR Berlin Meeting 2/22/2017:

- a. All lease obligations flow down to participating municipalities and other participating parties and terms are not negotiable.
- b. DCR has proposed a 14-foot trail with a 10-foot path and 2-foot shoulders on either side.
- c. DCR has the sole right to design and develop the trail, without Town agreement, but prefers not to do so.

- d. Neither MBTA nor DCR has trail development funds (estimated at \$25 million from Waltham to Berlin), and they are working with towns to seek funding for design and development.
- e. DCR anticipates entering into a memorandum of understanding with the Town providing for 'mowing and blowing' and public safety. DCR designs do not include trash bins or lights except in tunnels (DCR parks close at dusk), and trash removal would be left to trail users and/or the Town.
- f. DCR anticipates entering into an understanding with the Town regarding policing and safety and rescue. DCR does not have personnel to carry out these roles.
- g. DCR views a developed trail on the Wayside rail corridor to be a 'DCR park' for which general DCR park rules apply. The DCR would expect the Town to enforce DCR park rules, e.g., dogs must be on leash, no hunting, and horses allowed only on a secondary bridle path and not on the pedestrian/bike path.

B. Expected Impact on Town Departments

1. Police/Fire/Rescue

Any crime associated with rail trail usage is expected to mirror crime in the community at large, and so in the case of Berlin, to be relatively minor. Town police would not plan to conduct trail patrols, instead acting responsively to calls for police assistance. Officers likely would access remote trail sections by bicycle or some other off-road vehicle.

Trail design ought to include location markers (e.g., mile markers) to facilitate safety and rescue operations.

No added police or fire personnel are anticipated in connection with development and use of the Wayside trail.

Note: Town Police Chief advised the Town and the DCR have an understanding whereby hunting is permitted on certain land in the Town that is managed by the DCR and a similar arrangement may be possible for a DCR managed trail.

2. Highway

We expect DCR would sign an understanding with the Town providing for Town Highway/DPW to assume maintenance obligation of mowing, brush, roots and tree clearing, snow removal, trash removal, signage repair and the like as needed on the trail and associated parking areas.

The Town Highway Chief anticipates added personnel (only 4 employees now) would be required to take on trail maintenance. Existing equipment could not be used on the trail and special equipment would have to be purchased to access the trail and the right of way for mowing, clearing brush and roots, clean up, signage repairs and other maintenance tasks.

C. Rail Trail Parking Requirements

The Town must provide parking areas for the trail that meet public law standards, and the trail must be handicap accessible from parking areas. Parking at the Town commuter lot at routes 62 and 495 is mentioned in the DCR environmental filing report as the primary parking site for the trail in Berlin. The Town commuter lot is situated at the top of a very steep embankment leading down to the rail corridor. Handicap access from the parking lot to the trail would require construction of an appropriately graded access ramp, a difficult task in the narrow space between the parking lot and the rail corridor.

Small parking areas at Coburn Road and Highland Street could accommodate a maximum of about five vehicles each, and, absent a redesign of the Coburn Road terminus, only the Highland Street parking would allow handicap access to the trail. Other parking near the Wayside branch includes (1) parking at St. Joseph's Church on route 62, near Coburn Road, if the Church permits such parking; (2) parking along the sides of Sawyer Hill Road; (3) parking in the center of the Town; and (4) possibly parking at the current location of the Town Barn on Carter Street.

Parking along Sawyer Hill Road offers a suitable option from a traffic safety standpoint. Space is limited (to perhaps 10 cars along one side of the road). On the eastern side of the road is a private farm where animals are fenced and the owner does not want the public to have recreational access. The apple orchard on the western side of the road experiences heavy traffic during apple picking season and trail parking could present an issue during those months.

Parking at St. Joseph's Church raises safety issues as trail users would have to cross route 62 at the top of a hill with poor visibility, particularly for eastbound traffic, and walk along route 62 to the Coburn Road trailhead. Presently there is no traffic light, signage or sidewalks in this area, making pedestrian crossings problematic. Church services are held Saturday afternoons and Sunday mornings, coinciding with weekend recreational periods, when trail usage is expected to occur at higher levels, potentially presenting parking conflicts.

Parking in the center of town would require users to walk three blocks along Carter Street to the Highland Street trail access point and may not be suitable for handicap access. Events at First Parish Church, 1870 Town Hall, the Town Library and XIX Carter venues often fill available parking. Street side parking is not available along the stretch of Carter Street between town center and Highland Street due to the close proximity of homes to the street, resident parking along the street, and the narrow width of the street.

Potential for a small parking lot (estimate a dozen or so parking spaces) exists at the present location of the Town Highway Barn on Carter Street. Access to the trail would be directly adjacent to the rail corridor along relatively flat terrain offering a handicap accessible option.

4. Trail Construction Requirements

The Berlin Rail Trail Advisory Committee did not have access to professional services of trail designers or engineers. Therefore, detailed questions regarding the trail design cannot be answered at this point. If the Town decides to develop the Wayside Branch trail, a critical next step is an optional “10%” engineering feasibility study to inform key aspects of the trail design and preliminary estimated costs. This document would allow the town to determine if we wish to proceed with the actual design and construction of a rail trail. Typically, these feasibility studies cost between \$30,000 to \$50,000 dollars. This study could be funded through the Town’s capital budget, private funding, or through a combination of these. In particular, this would include some of the topics below:

1. Topography and compliance with the Americans with Disabilities Act.
2. Rail trail safety considerations, including the trail design, road crossings, parking, etc.
3. Water management and storm-water mitigation studies (in particular along the Walnut Street section).
4. Cost estimates.
5. Other engineering assessments.
6. Design factors for privacy and screening.
7. Feasibility assessment and preliminary design of proposed decking and proposed elevated structures (e.g., access ramp from the commuter parking area on Route 62 to the proposed path).

The next step following the engineering feasibility study would be to undertake a preliminary design effort, referred to as the 25% design plan. After the 25% design is approved by the DCR, the MBTA, and the Mass Historic Commission, the Town could apply for grants including MassDOT and Federal funds to cover the remaining design work and the full construction costs. If monies are obtained through state or federal sources there are further review, design and construction requirements in building the path as dictated by the entity providing the funding.

A. The Design Phase

There two design phases, both must be completed and then approved by the MBTA, the DCR and the Mass Historic Commission:

1. **Phase I – 25% design plans**– As part of this phase the town must secure all required permitting, including wetlands with the local Conservation Commission and permitting with the state Department of Environmental Protection (DEP) and the Endangered Species (if necessary).

This design phase is much more in depth than the optional 10% engineering feasibility report and includes the delineation of environmental resources, as well as the development of preliminary alignment plans, profiles and typical cross sections along the 2.3-mile corridor in Berlin. Each design phase would be followed by a series of hearings. The DCR, the MBTA and the Mass Historic Commission review these plans and any requested changes, etc. are than submitted back to the town for revision.

During the 25% Design phase, the designer will determine which permits and approvals will be required for the project and will initiate early coordination with those local and state agencies.

2. **Phase II - 100% design plans** – After the 25% Design is completed and approved by the DCR, the MBTA and the Mass Historic Commission, a Design Public Hearing is held in the community. The project can then advance to the final design phases (100% Design – Final Plans, Specifications & Estimates). The first step in the process is for the town to submit a Construction Access Permit with the DCR which the agency in turn will put various conditions on the town in order to proceed.

In other town applications DCR applied the following standard conditions after receiving their Access Permits:

1. At Grade road crossings will meet AASHTO and MUTC Standards and Guidelines
2. The path profile will be 10 feet wide, 12 feet is acceptable in high traffic areas
3. The trail surface shall meet applicable Federal Americans with Disabilities Act (ADA) and State Architectural Access Board (AAB) standards.
4. If the trail alignment needs to move off the center line of the main track, the Town shall provide a revised alignment that DCR can review and submit to the MBTA.
5. The Town shall have approved Wetland Protection Act permits for proposed work, and construction must follow any permit conditions
6. Natural Heritage and Endangered Species permits (if necessary) shall to be in hand prior to construction and construction must follow any permit conditions
7. Construction cannot begin until DCR has secured Mass Historic Commission concurrence for the proposed work
8. The Town should have a drainage plan for the proposed trail
9. Any and all trail construction contracting shall follow applicable state procurement laws for horizontal construction

The design proposed is again reviewed by the MBTA, the DCR, and the Mass Historic Commission. If monies for construction are obtained through MassDOT and/or federal agencies, then the associated agency would also require review and approval. In addition, additional requirements for the design and construction may be applied (e.g. black top would be required as a trail service if MassDOT monies are used).

B. The Construction Phase

When a final design is completed and approved by the necessary state agencies, and all necessary permits are secured the town can move forward and prepare a request for bids and award the construction contract(s). If MassDOT or federal monies are used for construction then MassDOT issues the bid requests, awards the contract and oversees the construction of the path with little input from the town.

The following are some of the main activities of the Construction Phase and the parties responsible:

- a) Clearing, tie and rail removal, grading and compacting the trail sub-grade (DCR, municipality, and third-party contractor)
- b) Constructing a finished trail surface and shoulders, stormwater and trail amenities (DCR, municipality, and third-party contractor)

- c) Installing safe road crossing marking and signals as warranted (municipality, DCR, MassDOT)
- d) Installing trail signage (DCR, Municipality)

As specified in the lease the construction of the trail must follow Massachusetts Horizontal Construction law M.G.L. c. 30, 39M. Projects that do not include work on a building are considered “non-building,” or horizontal projects. All contractors must be prequalified by MassDOT prior to bidding on horizontal construction projects with an estimated value of \$50,000 or more. This includes projects managed by cities and towns and by the Department of Conservation and Recreation.

Requirements for Public Works (Non-Building) Construction Contracts (With Labor) for estimated contracts over \$50,000:

Procurement Procedure Required	Sealed Bids.
Notice/Advertising Requirements	Post a notice 1) in your jurisdictions’ office for at least one week before bids are due; and, at least two weeks before bids are due, publish 2) in the Central Register; 3) in a newspaper; and 4) on COMMBUYS (the state’s online procurement site)
Contractors required to have OSHA Training	Yes
Bid Deposit Required	5% of the value of the total bid.
Payment Bond Required	50% payment bond
Contractor must pay Prevailing Wage	Yes

Massachusetts procurement-charts-november-7-2016

C. Frequently Asked Questions about Construction

During the public meeting held February 22, 2017 with Department of Conservation and Recreation Representative (DCR): Paul Jahnige the Director Greenways and Trails Program answered the following questions regarding construction (please see Appendix B for the complete meeting minutes).

Q - What is the process a municipality must follow in order to construct their portion of the Wayside branch of the Rail Trail?

A - The town must submit a Construction Access Permit to the DCR which in turn would put various conditions on it. Along with the permit the town would submit a proposed design. The design proposed is reviewed by the MBTA, the DCR and the state’s historic commission. Any requested changes, etc. are than submitted back to the town. Once the MBTA has approved the plan than construction can begin.

Q - Can volunteers build the trail?

A - No, volunteers cannot build the trail. State laws that apply to horizontal construction (roads, etc.), would apply to constructing the trail. Chapter 30 laws require prevailing wages, necessary insurance, etc. must be applied/followed during the construction. Volunteers can, however, maintain the trail.

Q - Is there any funding available from the DCR?

A - DCR is moving toward state capital dollars for Weston, Wayland and potentially Waltham. Admittedly Berlin is at the end of the line regarding allocating funding. DCR does manage a grant program with a max of \$50,000 to \$100,000 with a 20% match required. There are potentially other state grants available as well. There is potential funding with the state DOT – which would require the trail to follow the federal standard, AASHTO. These have higher burdens regarding standards and design proposals. Their standard requires a 12-foot-wide path and additional width for shoulders. The DCR prefers 10 feet with 2.5 feet on either side which includes grading. The Complete Street initiative has \$10,000 - \$20,000 grants available.

Q - There is a section along Walnut street that is below grade with significant drainage issues. What suggestions do you have to address this area?

A - This section will impact the construction costs of the trail and there could be permitting issues and design issues/solutions. Potentially, some sort of board walk could be constructed allowing the water to run under it. The Norwottuck branch of the Mass Central Rail trail laid a pre-cast concrete boardwalk.

Q - What are the requirements if a horse path is included in the design?

A - A 6-foot side shoulder along the trail would be needed (example Brewster and Harwich). The Norwottuck trail initially included a horse path but due to wetlands permitting issues it was deleted from the plan. Wetland permitting issues could be a problem additionally with the grade in Berlin it would get complicated. You would need to take the grade down to get the width needed – 20-foot cross section (10-foot trail, 4 feet for shoulders and 6 feet for horse path).

Q - We see parking along the trail as an issue.

A - Paul agreed that the DCR has not figured out the parking in Berlin. That will need to be taken into consideration in the design. Perhaps along the MBTA corridor we could find appropriate parking areas.

Q - Does ADA disability act pertain to the trail and its access points?

A - The AAB (Mass. Architecture Access Board standards) and the ADA both apply for parking and access.

Q - What about the 2 small sections along the corridor that are owned by other towns who are not willing to fund the construction, such as the 100 feet in Bolton?

A - DCR will develop any small sections when that town has no interest in developing.

Q - What is the standard design for road crossings?

A - There would be advanced warning signs on the trail and the road, a marked cross walk, for accessibility a detectable warning panels would be installed on path edge of the road. The post in the middle at crossings can be a hazard issue – use instead a splitter island and a painted mark to give users a visual cue. Some paths use gates to limit access by snow mobiles or ATVs.

Additional usage and development questions posed by the Committee, and town residents. The answers to these questions were obtained by the Committee through research, interviews, the DCR and other state websites and reference resources.

Q - How much clearing would be required to construct the trail?

A - If built according to shared-use-path standards as dictated by the DCR, the travel surface would be 10 feet wide with a two-foot shoulder on each side. The minimum distance between trees on opposite sides of the trail would be 16 feet. Shared-use-path standards also require maintaining a cleared height of ten feet above the trail surface. The Town would review the engineering designs and other information to assess the degree of clearing that would be required and how such clearing may affect the adjacent environment. Access for emergency vehicles on a shared-use path may require turnarounds that need additional cleared sections along the path. Additional clearing to accommodate construction equipment may also be necessary.

Q - Are there any specific design and construction challenges along the Berlin Section of the Wayside Trail?

A - The topography and conditions along the corridor that runs from Coburn Road to the Hudson town line vary widely. The following are specific sections that would require input from qualified engineers and rail trail design specialists:

The Coburn Road to Highland Street Section:

- a) Limited Parking is available –
 - On Coburn Road to the right of the old trestle, and close to the Route 62 interchange is a small area that can accommodate approximately 5 cars total
 - On Highland Street across from the trail head is a small parking area that can accommodate approximately 5 cars
- b) There currently is an abandoned road that runs from Coburn Road to the top of the rail bed which could be used as one of the access points. The grade would need to be adjusted in order to meet the required ADA and AAB requirements.
- c) There are steep embankments on the southerly portion of this section, between the Coburn Road and Harris Street – over a 15-foot drop. This will require fencing per the best practices guidelines referenced in other sections of this document.
- d) The rail bed was removed to accommodate Harris Road resulting in a 4-foot high cut through. The grade correction and crossing will need to be considered in the design.

Highland Street to Sawyer Hill Road:

- a) There are steep embankments on the southern and northern sections, from just beyond the access point on Highland Street until before the Tollman greenhouse property on Walnut Street. Some areas have over a 25-foot drop.
- b) There is a section on Walnut Street that is below-grade and is cut through ledge. This area is flooded with the exception of droughts. DCR specified in the February, 2017 meeting that a decking system would need to be built to make this area accessible with a drainage system installed.

Sawyer Hill Road to the Hudson line:

- a) The Hog Swamp area may require special permitting.

- b) There is no area on Sawyer Hill Road to accommodate parking. Users would need to park along the road.
- c) The DCR in their environmental survey to the state specified the commuter lot on Route 62 as the main parking area for access to the Berlin portion of the rail trail. In order to use this lot a ramp would need to be designed and engineered to accommodate this.
- d) The trail is below grade along the section past the 495 overpasses and retaining walls may have to be constructed.
- e) There is no parking at the end of the Berlin section on Old Central Street. This street is narrow with stone walls close to the road.

Q – Can't we just have the existing tracks removed, put down crushed stone and just use the path that way?

A – No. According to the MBTA lease and the DCR the path must be designed according to the Massachusetts Department of Transportation's (MassDOT) shared use path standards and also must be ADA compliant, which includes all parking and access points.

Q – How are the existing track and ties removed?

A – Removal of existing track is a labor-intensive item that includes cutting the track into manageable sections for hauling purposes and removing tie plates, spikes, pins, rail anchors, and all other rail hardware. Disposal of the treated timber cross ties includes the cost of removing and stockpiling the ties and transporting the ties to an approved waste facility. There are several companies that will remove the existing materials in exchange for the salvage value of the steel, including Iron Horse Preservation Organization. Based on the current price of steel, the salvage value of the rail currently outweighs the cost of tie removal, thereby resulting in a cost-plus scenario. As a result, communities are now having to offset the cost for tie and rail removal – on average of \$10,000 - \$20,000 per mile. However future steel prices will fluctuate based on market demand and this may adjust in the town's favor.

Q - What types of contamination is found in old rail beds?

A – The most common contamination found along rail corridors is residual contamination from railroad operations. The most commonly reported contaminants along rail corridors include arsenic, which was used as an herbicide to control weeds, metals and constituents of oil or fuel (petroleum products), which likely dripped from the rail cars as they passed over the corridor. Other possible contaminants include creosote used to preserve wood ties, coal ash from engines, and polynuclear aromatic hydrocarbons (PAHs) from diesel exhaust.

Q - What happens if contamination is found on the old rail bed?

A - The general procedures for identifying and mitigating contamination along rail trails have been worked out. The Mass. Environmental Protection Agency has issued a document entitled "Best Management Practices" that outlines the approach for identifying, managing and mitigating possible contamination in the rail bed. As part of negotiated lease or purchase agreements between the towns and the current owners of the rail bed, contamination liabilities would be addressed. The state has passed legislation that provides low-cost environmental insurance to communities that sign leases with the MBTA for conversion of rail beds into rail trails. To qualify for this insurance, the Town must refrain from doing any testing for contamination or other digging along the line until the insurance has been granted. A five-year environmental insurance policy with a \$50,000 deductible would cost the Town \$25,000.

DCR's preferred surface treatment is asphalt which acts as a containment mechanism for contamination.

Q – What are the potential environmental resource impacts in Berlin if the rail trail is built?

A – As outlined in the DCR's Expanded Environmental Notification Form filed with the state the following exist in Berlin's section:

1. 870 square feet of Wetlands
2. 47,180 square feet of Riverfront
3. 41,781 square feet in 100-Year Floodplain
4. 1 Priority/Estimated Habitat Polygons (endangered species)
5. Hogg Brook is identified as a "major navigable waterway crossed by the MCRT-WD" and subject to Chapter 91

Source: VHB, 2013 based on environmental analysis Notes:

1. *Bordering Vegetated Wetland, 2. Land Area within 200 feet of a perennial River, 3. Bordering Land Subject to Flooding*
4. *Each Priority/Estimated Habitat Polygon was counted once in the community in which the majority of the polygon exists*

Q - How will environmental damage be avoided?

A - There are wetlands and habitat for rare and endangered species alongside the rail bed. If the rail trail conversion proceeds, the Town will have to obtain permits. Construction of projects near wetlands are regulated by the Conservation Commission, and no permit will be issued unless the Commission is satisfied that the project will not adversely affect wetland functions, which include protection of groundwater quality, water supply, and wildlife habitat. A wildlife study would identify areas of particular concern. The project must be constructed in a way that protects the wetland from sedimentation and erosion and designed in a way to protect the wetlands from adverse effects of storm-water runoff.

Interview with Pamela C Marquis, the Right of Way Compliance Administrator for Massachusetts DOT/Highway Division (May, 2018).

Q. What is the average time from permitting and design to ribbon cutting for Rail Trails?

A. This is a long and grueling process; a realistic estimate would be 5-10 years. Permitting and design takes about 3-5 years and construction usually takes 2 years.

Q. Is the base cost of \$1 million per mile to build a rail trail true?

A. No, that estimate is extremely low, a better estimate is \$3 – \$4 million per mile, road crossings, structures and safety are all factors that quickly raise costs. There was a recent 4 mile project in Fitchburg/Leominster that cost \$20 million to complete. There are several types of funding that can be applied for after you have an approved design.

Q. What are some of the considerations when awarding grant funds?

A. There are a few key considerations when looking at awarding funds – such as:

1. Are the other communities that connect along the trail proceeding, and if so where are they in the process? There is a benefit for communities to jointly apply for grants.
2. What are the amenities within the community that the trail will provide ease of access too (e.g. retail, town center, community resources, etc.)?

Q. Are there any ramifications if the building specifications are not followed?

A. Yes, a municipality would jeopardize funding if specifications and regulations are not adhered to.

Q. What do you think is important if our town were to proceed?

A. Someone such as Roland Bartle of Acton Massachusetts is a good resource to give the town direction if you proceed forward - he is one of the better design planners I have worked with on several local Rail Trails, he has a very practical outlook.

In addition, a municipality must understand the necessity of hiring or appointing an extremely competent and knowledgeable person who is the designated point person to this long and tedious project. This is a full-time job. There are many balls to juggle – from multiple grant applications that must be researched, applied for and managed, RFPs and contracts written and managed, contractors to oversee, state agencies communicated with, etc.

5. Financing

A. Cost and Process

According to the Expanded Environmental Notification Form filed by DCR with the state in November of 2013, the 2.3 miles of the proposed rail trail in Berlin has a conceptual cost estimate of \$2,355,000. This figure follows the general understanding that projects constructed in accordance with state and federal standards are estimated to be \$1 million per linear mile. That figure is the basis of the projections contained in this section. If the town decides to move forward with construction of a rail trail it is strongly advised that a feasibility study be commissioned to further explore the potential costs and potential design issues that could impact the project. Typically, these studies cost on average of \$30,000 to \$50,000 depending on the scope of work required. They provide a good perspective for Towns as to what to anticipate in construction.

It should be noted that the cost of trail construction on an existing rail corridor varies depending on the condition of the rail bed, condition of any infrastructure (culverts associated with the rail bed), any extra-ordinary safety mitigation requirements (steep embankments), environmental constraints (such as Hog Swamp and the 100-year flood plain area here in Berlin), the need to add parking areas and other similar variables. For instance, the Walnut Street section that is cut through bed rock floods regularly and a decking system over the water will be needed. This, along with permitting and design issues noted by the DCR, will increase the construction and maintenance costs of the trail.

Costs other communities have included in their budget for design and construction of aggregate surface trails:

1. Project Management = \$15,000 - \$25,000
2. Wetlands Delineation (WS) = \$15,000 - \$25,000
3. Notice of Intent (NOI) & Stormwater Pollution Prevention Plans (SWPPP) Preparation / Filing = \$20,000 - \$55,000
4. Conservation Commission Public Hearings = \$3,000 each (usually 4 meetings on average)
5. Implement Erosion Controls = \$20,000 - \$60,000
6. Engineering Design Drawings – Crossing Details – 60' Scale = Average of \$60,000
7. ADA Layout, Slope and Misc. Details = Average \$15,000
8. Grade Crossings, including MUTCD Signage = \$4,000 each
9. Rectangular Rapid Flash Beacon (RRFB) Signs = \$20,000 each
10. Rail and Tie Removal, and Rough Grading = \$10,000 - \$20,000 per mile
11. Bridge and Stream Crossings = \$200 - \$400 each (Average number required is over 200)
12. Stone Dust and Granite Stabilizers at ADA Access Locations = \$7,500 each
13. Flexible shoulders = Average of \$100,000
14. Survey Layout and Verification = Average \$3,000/day (5 to 10 days)
15. Insurance and Bonds = \$25,000 - \$40,000 (which includes a state five-year environmental insurance policy to offset potential contamination issues/cleanup)
16. Contingency Fund = \$45,000 - \$65,000

Sources - Documentation from: Acton, Carlisle, Chelmsford, Concord, Framingham Lowell, Sudbury, Wakefield and Westford

Prior to application for various state and local grant programs available to communities interested in constructing a Rail Trail, the Town will need to provide the DCR and the MBTA with a preliminary design plan referred to as the 25% design phase (please refer to the design section of this report for the definition of this phase). As part of the grant process all permitting must be completed, which the town would fund. Once that process is completed and approved then the Town could apply for grants and other potential funding sources.

The engineering design and permitting fees are typically between 10% and 20% of the construction cost, with the variation being attributed to the complexity of design issues along the corridor, number of structures and extent of required permitting. These costs are assumed by the towns as part of their share of funding contribution as required by state and federal funding guidelines. For Berlin this would cost between \$235,500 - \$471,00 based on the overall construction estimate provided by DCR.

Assuming a MassDOT design process is followed, a 25% MassDOT Design (preliminary design) is typically between 40% to 50% of the total design fee. Therefore, the 25% Design fee for the Berlin Rail Trail would be approximately \$117,750. This fee estimate is not based on detailed tasks and related work efforts but rather is a ballpark estimate intended for the purpose of this report (the \$117,750 is included in the overall design fee referenced in the paragraph above).

Once the Town is committed to the project, the first step is to complete a Project Need Form (PNF) and submit it to MassDOT. This form should also be forwarded to the Boston Metropolitan Planning Organization (MPO) and the Metropolitan Area Planning Council (MAPC) for their files. The PNF can be prepared by the Town with or without the help of a consultant. Other towns have utilized a town official, such as the planner, engineer, or administrator, to take the lead and act as the principal point of contact for the project. MassDOT will review the PNF and evaluate the merits and readiness of the project. They will also provide the Town with advice on how to proceed, both in terms of the design process and available funding sources. Funding for the design and construction of the rail trail can be secured from private, local, state, and federal sources. The two most commonly used funding programs for rail trail projects are the Transportation Alternative (TA) Program, and the Mitigation and Air Quality (CMAQ) Program.

B. Potential Funding Sources

Appendix C contains detailed notes on application processes and requirements for the potential funding sources listed below.

1. **Federal Transportation Funding:** MAP-21, the most recent federal transportation funding law, consolidated a number of bicycle and pedestrian transportation funding programs that were previously available under [SAFETEA-LU](#) into a broader program called Transportation Alternatives. This singular program is the largest federal source for trail funding.
2. **Transportation Alternative** activities are projects that, according to the [Transportation Alternatives Data Exchange \(TrADE\)](#), “expand travel choices and enhance the transportation experience by integrating modes and improving the cultural, historic and environmental aspects of our transportation infrastructure.” The program is essentially a combination of two core active-

transportation programs from SAFETEA-LU: Transportation Enhancements and Safe Routes to Schools (SRTS). While the eligible projects from the two funding programs are largely retained under MAP-21, these projects are now forced to compete against each other for funding, as well as with some road and environmental mitigation projects.

3. **Congestion Mitigation and Air Quality Improvement Program:** A rail trail project often fits the eligibility requirements for both the TE Program and the Federal Congestion Mitigation and Air Quality Improvement Program (CMAQ) of SAFETEA. CMAQ is a transportation air quality improvement program that provides funding for both bike and pedestrian facilities that serve to reduce automobile travel.

4. **DCR Grant:** DCR manages a grant program with a maximum of \$50,000 to \$100,000, with a 20% match required. There are potentially other state grants available as well.

5. **Complete Street Grant:** The MassDOT Complete Streets Funding Program provides technical assistance and construction funding to eligible municipalities. Eligible municipalities must pass a Complete Streets Policy and develop a Prioritization Plan. The Complete Street initiative has \$10,000 - \$20,000 grants available.

6. **The Recreational Trails Program (RTP)** is a federal assistance program of the United States Department of Transportation's Federal Highway Administration (FHWA), administered at the State level, providing funding for the development and maintenance of recreational trail projects. Both motorized and non-motorized trail projects may qualify for assistance.

7. **Land and Water Conservation Fund (LWCF) Stateside Program**

The [Land and Water Conservation Fund \(LWC\)](#) 50/50 matching grant program is administered by state agencies in cooperation with the National Park Service. Program funds are intended for the acquisition and development of outdoor recreation areas; trails are one priority of this program. In particular, funds "target projects that would enhance urban parks and community green spaces," with a focus on "developing blueways and public access to water resources and conserving large landscapes."

8. **Economic Development Administration (EDA)**

Among the [various programs](#) administered by the [Economic Development Administration](#) (EDA) of the U.S. Department of Commerce is the Public Works program. The investment program provides funding with the goal of empowering "distressed communities to revitalize, expand and upgrade their physical infrastructure." Among other uses, EDA Public Works funds can help redevelop brownfield sites and increase eco-industrial development. The EDA also offers limited local technical assistance to distressed areas in times of need.

9. **Historic Preservation Funding Sources**

Many trail corridors contain historic structures, which are often of regional or national significance. Administered by the National Park Service, the [Historic Preservation Fund](#) awards matching grants to state and tribal historic preservation offices for the restoration of properties that are on the National Register of Historic Places. To look up your state or territorial state historic preservation officer (SHPO), visit the [National Conference of State Historic Preservation Officers](#).

10. Environmental Contamination Cleanup Funding Sources

Many rail corridors are contaminated from years of industrial use. To remediate this environmental pollution, there are many federal and state funding sources from which trails can benefit. The Environmental Protection Agency (EPA) has devoted a [section of its website](#) to funding and financing for brownfields, which are former industrial sites where contaminants or pollutants may be present.

11. Wetlands Restoration Funding Sources

Many railroads were built through environmentally sensitive areas that are now candidates for restoration. Administered by the U.S. Fish and Wildlife Service, the [National Coastal Wetlands Conservation Grant Program](#) is a matching grant program designed to assist states in the “acquisition, restoration, management or enhancement of coastal wetlands.” The 25 states bordering the Atlantic, Pacific, Gulf of Mexico and Great Lakes are eligible. Although trails cannot be the primary beneficiary of these funds, the program has been used to work on trail infrastructure.

6. Trail Abutters and other Public Comments

A. Overview

The 2.3-mile Berlin section of the Wayside Trail has 28 abutters, and more than 20 of these can either see or be seen from the trail. These direct abutters and other residents have shared opinions and concerns regarding the construction of the Wayside Trail from Coburn Road to the Bolton/Hudson town line along Old Central.

B. Background

Construction of the trail is a controversial issue in the town of Berlin, as demonstrated at the Town Meeting of May, 2016.

The first related article was a citizen's petition to rescind Article 41 voted on at the annual town meeting of 1997. The 1997 article proposed Berlin advocate the development of a multi-use Rail Trail on the Central Mass Branch of the MBTA from Belmont/Waltham to Berlin.

The vote was made in 2016 to rescind the 1997 vote.

Before the vote was made several people voiced their opinions. It was shared that the major change from 1997 was that the MBTA land was now under a lease agreement with the Massachusetts DCR. People shared concerns regarding, proximity to residences, crime, cost and residence privacy. Those speaking against rescinding and for the Rail Trail shared that the trail would offer safe recreation, easy access to abutting towns, and could easily be built for \$25,00.00/mile. It was stated that in their opinion that this was just a case of NIMBY (not in my backyard) and everyone loves a Rail Trail – just not in their backyard.

During the annual town meeting of May 2016 Article #38 was presented on the floor.

To see whether the Town of Berlin will advocate the development of a multi-use rail trail along the Central Massachusetts branch of the MBTA, now under lease by Massachusetts Department of Conservation and Recreation, from the Hudson town line to Coburn Rd.

That the design and construction of the trail shall be by qualified State or private engineers and shall be in consultation with town officials and other interested citizens to insure that it is (a) safe and convenient for both trail users and motorists on intersecting town roads; (b) environmentally sound; (c) economical to maintain; and (d) that and special local circumstances are considered; and assume the responsibility, assisted by citizens volunteer groups, for maintaining and policing the section of the trail within the town's borders after the design and construction are complete.

To authorize the Conservation Commission to seek and accept donations of money, and to apply for and accept federal and/or state grants including LAND Grants to be applied by the town toward financing, and to enter into contracts or agreement with state and/or federal agencies and private businesses for this purpose.

This article was sponsored by the Conservation Commission.

After the reading of the article and explanation shared by Selectman Walter Bickford, a motion was made and approved to refer the rail trail proposal to a study committee. The motion provided for the Selectmen to set up a 5-person committee to study the proposed Rail Trail in Berlin.

By a vote of 137-76 the motion/referral was passed.

C. RTAC Facilitated Public Meeting

On June 27, 2017 the RTAC hosted a public meeting for abutters, town residents and other interested citizens. This meeting was posted online and posters regarding the meeting were posted at public buildings in town. A mailing was sent to all abutters. Although attendance was light – approximately 10 town residents attended and the discussion was illuminating.

Participants were divided into groups and asked to write responses to four questions:

1. What outstanding questions are there regarding a rail trail in town?
2. What issues/concerns do you have regarding a rail trail in town?
3. How would the town benefit from having a rail trail?
4. What should be considered in the design and usage of the trail?

Responses to these four questions with the brainstorming responses reflect a range of town residents' opinions.

What outstanding questions are there regarding a rail trail in town?

- What are the benefits?
- Environmental concerns – spreading of chemicals and the impact on animals
- Is this a priority or a pet project?
- Isn't here already a rail trail in undeveloped form?
- How would it help local businesses?
- Fire and safety support – Where is the money for this?
- What is DCR's participation?
- Abutter Safety and privacy
- Who will maintain the trail?
- Why are other towns happy with a rail trail?
- What is the liability to the abutters?
- What guarantees are there to uphold agreements with abutters?
- What do agreements with abutters in other towns look like?

What issues/concerns do you have regarding a rail trail in town?

- Crime and vandalism
- Increase road traffic
- Limited parking now – how to accommodate more when trail completed?
- Who will maintain it and at what cost?
- Overall safety
- What is the cost of building?
- What is the environmental impact?
- What is the time line to build and how does that line up with other towns plans?

- What happens if other towns don't develop their portion of the trail?
- What is the impact on property values – abutters vs. other properties not located near the trail?
- Lack of bathroom facilities
- Why is the trail being talked about now going from Coburn Road to the Hudson Line vs. at the town meeting Conservation said it would start at Highland Street and not run along Carter Street?
- Does the Town have the funds to address an abutter's law suit?
- How to address the bug issue – mosquitoes and West Nile virus? (area along Walnut Street and East of Sawyer Hill Road test positive currently)
- What is the impact on wetland plants and creatures?
- For direct abutters and those residents who live close to the trail – building it is disrespectful and will result in the loss of tranquility.
- There will be a negative impact on farming operations.
- What is the cost to the town – now and in the future?
- Is the MBTA taxed on the land or is the town?
- Will there be Port-a-potties?
- Will there be trash barrels?
- Are we inviting a mess to town?
- We should be maintaining the trails and land we presently have – including signage and availability
- Will there be land taking to meet specifications of the DCR? E.g. Rock cut and if horses allowed it would require more land than the current lease allows.

How would the town benefit from having a rail trail?

- None seen
- Provide healthy, safe, human powered trail recreation
- Property values increase
- Other towns are happy with rail trails
- Potential business revenue (ice cream shop)
- Recreation opportunity
- Connection to other towns
- The town would not benefit – cost, safety concerns. You would be building it for other people not Berlin townspeople.

What should be considered in the design and usage of the trail?

- Ease of access
- Parking
- Family Friendly
- Safety
- Privacy for abutters
- What would be allowed?
 - Horses?
 - Pets?
 - Motorized vehicles?
 - Electric vehicles (bikes, hover boards, etc.)?
- Drainage issues solved – standing water and bugs
- What will the trail surface be?
- Policing the trail and ability to accommodate fire and rescue

- Deeded crossings – identify and accommodate for agriculture and road
- Abutters liability and what type of fencing will be built along the abutters property?
- Will there be a curfew for the trail?
- Camping could be a problem
- What landscaping will there be along the trail?
- Should the money be spent in building sidewalks in town?
- How to deal with litter
- Will allow access from trail to center of town or other “attractions”
- Should accommodate other existing trails that cut along the rail trail
- What will be the winter usage allowed and the required maintenance (plowing)?
- Should we spend the money in designing and building a park in the town vs. a rail trail?
- Who would really use the trail? Locals or people from out-of-town?
- Need to monitor for drug use/sales/discarded needles
- Preventing trespassing on abutter’s land
- Graffiti
- If allow winter usage – does the trail and parking need to be ADA compliant?

Proponents of the construction of the Rail Trail shared studies reporting that property values do go up in towns with a Rail Trail. They also feel that the trail would provide a safe way for bike riders, a safe way for family recreation (carriages and dog walking). It was also shared the Rail Trail offers a chance to experience nature and access to abutting towns.

The concerns and questions shared by residents can be categorized into five main topics: **cost, crime privacy, litter and liability.**

COST – this is discussed in other sections of the report. In summary; the town is responsible for engineering design, permits, policing and maintaining the trail.

CRIME – Our Berlin Police chief has shared his research shows, crime on Rail Trails reflects the crime of the community. The chief added the town owns a mountain bike which could be used on the trail, and a ATV would be helpful.

The town of Wayland reports that their chief has stated for their preliminary report he sees there will be no need for extra patrols.

PRIVACY --- this appears to be a major concern for many abutters. People state that the reason they choose to live in Berlin is to enjoy their personal privacy. DCR did say that no privacy fencing will be provided to abutters by them. Hudson (Assabet Rail Trail) Reports that there have been few concerns voiced regarding privacy, they have had success using vegetation providing privacy for abutters. Wayland has an 80 foot right of way (a different situation than Berlin) so it is thought no privacy fencing will be provided or needed. Blackstone Trail (located south of Worcester) was provided privacy fencing by DCR.

LITTER--- DCR and the towns of Hudson and Wayland believe in a “Carry in Carry out” policy. Hudson said that they work with local businesses and groups wanting to do community service project to clean the Assabet trail. Wayland believes their town DPW will need to do some pick up, they are

providing no trash cans. Dogs also fall under this category, DCR has the policy that all dogs must be leashed, which supersedes the fact that Berlin has no leash law.

LIABILITY – this is discussed in other sections of this report. Still it must be restated that several abutters shared concerns regarding the liability issue.

It should be added that no town on the Wayside Trail has a completed project, towns either have portions built or in the beginning stages of the process. Thus, no one has real solid answers for abutters.

D. Other Public Comments

Public comments about proposed development of the Wayside Branch rail trail were posted to Berlin's Neighbor Connect Facebook page, with high traffic pro and con opinion postings made from the second half of 2017 into early 2018. To provide the public with the benefit of our research, RTAC prepared a FAQ list for Berlin Board of Selectmen to post factual answers to frequent questions being posted. Commentary quieted following the posting of the FAQs. A copy of the FAQ list is provided in Appendix A.

A number of Berlin residents and a few people from nearby towns attended the April and May 2018 RTAC meetings to express opinions, pro and con, regarding proposed development of the Wayside Branch rail trail. Attendees were given an opportunity to speak and Committee members answered questions. Concerns similar to those raised in the June 2017 meeting described above were raised and addressed at the 2018 meetings.

Some of common questions from the public and answers obtained from the DCR interview are listed in appendix B.

7. Passive Recreation Options in Berlin

Per the committee's mission statement as written by the Board of Selectmen the following task was assigned, "Should consider alternatives to the rail trail, including for example the placement of some or all of it on alternate routes (e.g. the Ross Dam)".

A. Berlin's Conservation Land

Currently Berlin Conservation Commission publications list seven public trail systems.

- 1- Berlin Meadows
- 2- Lester Ross Suasco Project and Clark Conservation Area
- 3- Berlin South Commons
- 4- Powderhouse
- 5- Mt. Pisquah
- 6- 40 Caves, Musche Woods and Garfield Woods
- 7- Gates Pond Reservoir, Hudson Town Forest, and Berlin Conservation Land.

BERLIN MEADOWS - The Tyler Conservation Area and Brewer Brook is a large wetland and pond with migratory bird population. The west side of the Tyler Conservation Area toward Pleasant St is primarily a stand of black locust, and the east side is primarily an oak forest. There is a wonderful stand of white of pine at North end of Brewer Brook flood control site. The Berlin Meadows is 16 acres purchased in January 2003 and located at the corner of Pleasant and Route 62, There is a blue bird trail circling the meadow. Frequent visitors are turkeys, coyote, deer and birds of prey.

The Berlin Conservation Commission is currently working on this trail becoming compliant with the American Disability Act. The terrain of this trail is described as narrow valley lowlands flanked by upland terrain.

LESTER ROSS SUASCO PROJECT AND CLARK CONSERVATION AREA - This 202-acre piece of property is state owned and presently used for hiking, fishing, horseback riding and hunting.

BERLIN SOUTH COMMONS - This is an undeveloped, unmarked trail, it is a suggested as a possible area to walk around the Berlin Memorial School and Town South Commons. This trail is a topic of discussion by the Berlin Recreation Committee. A majority of Berlin properties are accessible to hunters, this could offer family recreation without risk during hunting season.

With the complete streets agreement and possible sidewalks in areas of town the question arises if these three trails Berlin Meadows, the South Commons path and the potential Aqueduct trail could be made accessible to each other.

POWDERHOUSE HILL - This short steep climb offers walker a visit to the historic Berlin Powderhouse.

MT. PISQUAH - 144 acres of town owned land, it is currently used for hiking, biking, horseback riding, cross-country skiing, and hunting. The trails have varied terrain, including broad wooded uplands, wetlands, drastic rock ledges and glacial swale. This trail system also connects to Northboro trails.

40 CAVES, MUSCHE WOODS, AND GARFIELD WOODS - This trail system is currently used for hiking, nature and geological study. The terrain of the trails is listed as upland, rocky cliffs and wetlands.

***NOTE: these four trails are not easily accessible for disabled individuals, or baby carriages

GATES POND RESERVOIR, HUDSON TOWN FOREST, AND BERLIN CONSERVATION LAND - This land is jointly owned by the towns of Hudson and Berlin, and the State of Massachusetts.

B. Planned Trails

In 2017 the town of Berlin purchased a conservation restriction on a parcel of land on Highland Street, known as The Bentzen Property. There is a proposed hiking trail on the property if funds can be raised. Sudbury Valley Trust is cooperating with the Town in the project.

During this years Annual Town meeting the Town voted to construct a Recreation Wellness Trail walking path along the perimeter at South Commons. This walkway will be approximately 7/8 of a mile long and one leg of the walkway may potentially connect to Northbrook Village.

C. Complete Streets Program

A RTAC member had the opportunity to sit down with Timothy Wheeler (Berlin representative) to discuss the Complete Streets agreement, and if it could have any impact on the Rail Trail. Mr. Wheeler explained that Complete Streets is part of a larger agreement the town has entered into with the state. Under Complete Streets the town determines roads that could be made more accessible and safe for many modes of travel (automobiles, bicycles, walkers, joggers, and physically challenged individuals). Presently the town is looking at roads around the center of town. Mr. Wheeler did say that this is a 15- year plan, changes and construction would happen only in conjunction with routine road repair and reconstruction.

In regards to the Wayside Rail Trail, the construction of sidewalks, if extended to Highland St. crossing could possibly provide ADA and AAB compliant access to the trail if people to choose to park in the center of town. When it was shared that some residents asked if there was any chance to access the Highlands Common mall from the Old Central St. terminus of the trail safely, Mr. Wheeler felt that would be extremely difficult.

According to the mission of the RTAC, we were asked to look into alternative trails. The proposed plan of Complete Streets does create the opportunity to safely join several Berlin properties using sidewalks such as the library and XIX Carter (the community center). In the future if the plan is successful, conservation properties on Pleasant St., the South Common Property and possibly the Aqueduct for example could all be connected safely by designed roadways.

D. Boston Worcester Air Line Trail

The Town of Westborough Bicycle and Pedestrian Advisory Committee is working with neighboring communities to have a series of walks and talks about the Boston Worcester Air Line Trail (BWALT).

BWALT is a multi-use trail proposed to go from Framingham to Worcester, with side trails to Marlborough and Berlin. The trail follows the route of the Boston and Worcester Air Line Trolley. The trail utilizes the Wachusett Aqueduct and the former second track of the rail line from Framingham to Clinton for parts of its route. BWALT will connect a number of other multi-use trails in the area together. The concept plan for the complete trail is available at <https://bit.ly/2HIMJjM>. The following sections of the proposed trail located in Berlin are from the “Boston Worcester Air Line Trail A Route 9 Corridor Multi-use Path Concept Plan Version 2”

Appendix A: Berlin Frequently Asked Questions Posted April 2018 to Town Website

Can local volunteers work on the construction of the Rail Trail?

NO

- This property is not owned by the town of Berlin; the town has no authority regarding construction. The property is owned by the Massachusetts Bay Transportation Authority (MBTA) which in turn entered into a 99 year lease with the Department of Conservation and Recreation (DCR)
- Per the lease, two phases are required: design and building. Before the Town (and/or the Town and DCR jointly) begins to construct the trail, it must submit a Construction Access Permit and a proposed design to the DCR for review, revision and approval by the DCR, the MBTA and the Massachusetts Historic Commission.
- Per the DCR, construction must be done within MASSACHUSETTS HORIZONTAL CONSTRUCTION specification
- DCR can construct a trail with no Berlin input/approval if funds become available to them.

How much will the construction of the Rail Trail cost? How much of this will be the responsibility of the town?

The consensus is a rail trail has the base cost of \$1million per mile (a formula used for other rail trails built in Massachusetts). In 2013 the DCR filed an Expanded Environmental Notification Form with the State in it Berlin's 2.3 mile section was estimated to cost \$2,355,000

Initial costs; design, permitting and title search are the responsibility of the town. The engineering design and permitting fee is typically between 10% and 20% of the construction cost. Once the design is approved by the 3 state agencies, the town would then need a diligent and aggressive committee to research and apply for any available grants, to alleviate the town from further costs. Some towns have also received funds from local businesses, and these would need to be solicited.

Paul Jahnige, DCR's representative—said that there may be some available DCR monies in the future, but the reality is Berlin is the end of the line, monies will go to Waltham, Weston and Wayland first.

CRIME, is a reoccurring question among residents

Police Chief Tom Galvin reported after his research he believes, crime on a rail trail is reflective of the crime in the community.

Berlin police presently have a mountain bike that could be used for trail patrol.

Both police and fire feel that an ATV would be beneficial to them for dealing with the trail.

Because the land is State property, State Police can also be contacted if there is an issue to be addressed.

Who maintains the Rail Trail, will the Budget of our Highway department be impacted?

Berlin Highway department will need to mow trail edges, blow leaves, and keep the parking area plowed during winter months. Highway superintendent has reported that this will add to his budget. Major upkeep, such as surface repair, will be the responsibility of DCR.

What is the policy regarding litter?

DCR has the policy of CARRY IN, CARRY OUT. Trail users are expected to carry out everything that goes in with them. Volunteer groups or individuals can patrol the trail periodically for trail pick up.

Where is parking for the Rail Trail located?

This has still not been determined. Several locations have been suggested, (1) the commuter lot at 495 – which will require an ADA compliant ramp to be built (2) the corner of Route 62 and Coburn Rd. (3) Highland St. (4) Sawyer Hill Rd and possibly (5) the old Highway barn on Carter Street. If St. Josephs church agrees the church parking lot has also been suggested – if the trail begins at Coburn, users would need to walk along Route 62. Some factors on this subject that must be considered are the upkeep, space, safety of the location and any designated parking lot along with the access paths to the trail must be ADA and AAB compliant.

Can dogs be walked on the trail?

DCR requires that dogs must be leashed when walking on the trail, owners are expected to pick up after their own animals.

Will horseback riding be allowed on the trail?

This is one area Paul Jahnige has pointed out to be a problem area for the town of Berlin. Specifications require the trail be 10 feet wide with 2-foot shoulders on each side. An equestrian path requires an additional 6-foot adjacent path. The width of the present trail does not entirely accommodate this, extra construction could remedy this but that would require additional money and possibly disturb contaminated soil that naturally comes with rail beds.

Will hunting be allowed on the Rail Trail?

Berlin is a hunter friendly town, and there is hunting around the trail. Paul Jahnige said hunting is not allowed on DCR property and his opinion is hunting and mixed-use trails do not mix.

Will privacy fencing be provided if requested?

DCR prefers plantings and screening to serve this purpose.

Can the town provide wildlife cameras if requested by abutters?'

This is a subject our committee has never discussed; the question was raised by an abutter. There would need to research done if this is a possibility and who would pay for this.

Will there be lighting provided on the trail?

Hours for all DCR properties are from DAWN TO DUSK, lights will not be necessary.

What surface material will be used and who makes the final decision on this?

DCR prefers asphalt (asphalt functions as safe cap for the soil contaminants that comes with abandoned rail ways), their second choice is crushed stone aggregate.

Will restroom facilities be provided, and who is responsible for these?

These are not planned.

**All statements attributed to Paul Jahnige come directly from a February 2017 meeting that can be viewed on youtube and the town of Berlin web page.

Appendix B:

- a. Meeting minutes from the February 22, 2017 meeting with the DCR**
- b. Notes of Interviews with Other Towns Along Wayside Trail Corridor**
- c. Notes taken during walk of Proposed Rail Trail with Police Chief Galvin**
- d. RTAC Notes of John Mavretic 2017 interviews with Iron Horse Preservation**

Meeting minutes from the February 22, 2017 meeting with the DCR

Rail trail Advisory Committee meeting
Meeting convened at 7:29 pm

Attendees:

Advisory Committee Members: Kimberly Lorencic, John Mavretic, Mary Mikelk, Mary Porter, Sue Therrien

Department of Conservation and Recreation Representative (DCR): Paul Jahnige the Director Greenways and Trails Program

Meeting minute approval:

Meeting minutes from 1/11/2017 meeting was unanimously approved.

New Business:

The Committee welcomed new Rail Trail Advisory Committee Member John Mavretic

Mary P. provided an overview of the Berlin Rail Trail Advisory Committee Mission

Opening Statements from Paul Jahnige– The mission of the DCR is to protect, promote and enhance the natural, recreational and cultural resources in Massachusetts. DCR Manages a number of rail trails and multiuse paths throughout the state. He works in the planning department that manages the Greenways Trails program for trails across the state.

The MBTA owns the corridor from Waltham through to Berlin. The MBTA entered into a 99-year lease with the DCR giving the DCR the right to develop a pathway. The DCR proposed a 19-foot trail corridor within it. The MBTA maintains the right to lease or license along the trail as long as it does not interfere with the development or use of the trail. DCR does not have the approximate \$25 million to develop the rail trail from Waltham to Berlin. They are working with towns in order to make the funding possible.

Questions (Q) and Answers (A) with Paul Jahnige

Q What towns on the Wayside Rail Trail are actively planning on building?

A Wayland, Weston have active trail committees with support of selectman– the energy company, Eversource, is paying for the development of the trails. Construction in Weston will begin this Spring. Wayland has built a section of the trail. Waltham is planning to use some of their community preservation funds to fund a full design of their portion.

Q Is Paul aware of the results of the votes in the last Berlin Annual Town meeting in May of 2016 regarding a rail trail in Berlin?

A Legally DCR has the right to build the trail without the support of the town or the community. However, it is better for the town to participate in order to have say in the design and construction and since the DCR does not have the money to build they need to partner with towns in order to fund the building of the trail.

Q Did Berlin's Conservation Committee submit any documentation and/or application to the DCR to begin preliminary construction of the trail by removing the ties and rails?

A No. Paul has had conversations with Walter Bickford and Skip Duggan, but no formal communications. No paper work was passed between the DCR and the Berlin Conservation Commission.

Q What is the process a municipality must follow in order to construct their portion of the Wayside branch of the Rail Trail?

A The town must submit a Construction Access Permit to the DCR which in turn would put various conditions on it. Along with the permit the town would submit a proposed design. The design proposed is reviewed by the MBTA, the DCR and the state's historic commission. Any requested changes, etc. are then submitted back to the town. Once the MBTA has approved the plan then construction can begin.

Q How detailed must the design be?

A Not overly detailed. For instance, Wayland's plan shows the stations and widths and is only for the town center. The rest of the trail is where Eversource has access to using a gravel access road as a base to the trail. Later it is planned to complete the surface of the trail.

Q Do existing MBTA-DCR lease terms flow down to the municipality, and if so, are any terms negotiable?

A Lease provisions flow down to the town including the obligations. They are not negotiable.

Q If the Wayside Trail reverts to rail use, will municipal or private investments in the Trail be compensated for by MBTA/DCR?

A No

Q Regarding section 9.1 Non-Exclusivity (reservation of rights) in the 99-year lease – What licenses, leases or easements existing within Berlin?

A Paul will send the committee a document that shows any that exist.

Q What legal, financial, planning, environmental compliance, traffic compliance, safety and other resources, commitments and liabilities are required or expected of a municipality participating in development and maintenance of the Wayside Trail?

A The municipality is responsible for the construction. DCR has oversight in particular accessibility standards and safety especially steep drop-offs and at road crossings. The trail serves as both a recreational and transportation corridor. DCR has already done a Phase 1 environmental site assessment along the corridor and additional soil testing was also done (the firm BHP did the study). Construction must follow the DEP best practices. When a town is ready to proceed, typically consultants are hired to plan and create a proposed design. Then the DCR and the MBTA must review and approve the design. The state's historic commission must review it as well. Phase 2 of the process for the town is permitting – wetlands with the local Conservation Commission and permitting with the state DEP.

Q What are MBTA/DCR views on Wayside Trail design: paved/non-paved, construction materials, width, privacy screening/fencing, parking, restrooms, lighting, access controls to prevent motorized use & enable safe road crossing?

A The design and construction of the trail must follow DEP best management practices such as specifying how much clean soil surface to add. Better treatment is asphalt or dense graded crushed stone with an organic binder. With this type of surface, the trail shoulders need to be

maintained due to vegetation growth and water damage from failed culverts and the like which may lead to the need for reconstructing portions of the trail.

Q What is the potential liability to the abutters for incidents on the trail?

A The State's Recreational Use statute protects abutters. There is no additional liability to abutters. If an abutter conducted a "wanton and willful" action such as putting a wire across the trail then there would be a liability issue to the abutter. Trespassing laws protect the abutters in the case of a trail user entering their property.

Q Can volunteers build the trail?

A No, volunteers cannot build the trail. State laws that apply to horizontal construction (roads, etc.), would apply to constructing trail. Chapter 30 laws require prevailing wages, necessary insurance, etc. must be applied/followed during the construction. Volunteers can, however, maintain the trail.

Q Is there any funding available from the DCR?

A DCR is moving toward state capital dollars for Weston, Wayland and potentially Waltham. Admittedly Berlin is at the end of the line regarding allocating funding. DCR does manage a grant program with a max of \$50,000 to \$100,000 with a 20% match required. There are potentially other state grants available as well. There is potential funding with the state DOT – which would require the trail to follow the federal standard, AASHTO. These have higher burdens regarding standards and design proposals. Their standard requires a 12-foot-wide path and additional width for shoulders. The DCR prefers 10 foot with 2.5 feet on either side which includes grading. The Complete Street initiative has \$10,000 - \$20,000 grants available.

Q There is a section along Walnut street that is below grade with significant drainage issues. What suggestions do you have to address this area?

A This section will impact the construction costs of the trail and there could be permitting issues and design issues/solutions. Potentially, some sort of board walk could be constructed allowing the water to run under it. The Norwottuck branch of the Mass Central Rail trail laid a pre-cast concrete boardwalk.

Q What are the requirements if a horse path is included in the design?

A A 6-foot side shoulder along the trail would be needed (example Brewster and Harwich). The Norwottuck trail initially included a horse path but due to wetlands permitting issues it was deleted from the plan. Wetland permitting issues could be a problem additionally with the grade in Berlin it would get complicated. You would need to take the grade down to get the width needed – 20-foot cross section (10-foot trail, 4 feet for shoulders and 6 feet for horse path).

Q How do you deal with uses not desirable?

A We post rules signs (taken from presentation copy provided at meeting): Yield to pedestrians; path users stay right (except to pass); trail open dawn to dusk; dogs on short leash welcome – remove all waste; give clear signal when passing; travel at a reasonable speed; carry in, carry out

Q Berlin does not have a leash law

A DCR requires leashed pets on their property, so along the Berlin stretch people would be required to keep their dogs on leash. Our rules trump the town's.

Q Who maintains the trail?

A The DCR has very little staff. A memorandum of understanding is entered into with the municipality. The DCR is responsible for high capital maintenance (bridges, etc.). Communities are responsible to maintain what we call mowing and blowing.

Q Do other trails have trash bins?

A No

Q We see parking along the trail as an issue.

A Paul agreed that the DCR has not figured out the parking in Berlin. That will need to be taken into consideration in the design. Perhaps along the MBTA corridor we could find appropriate parking areas.

Q Are motorized vehicles allowed on the trail.

A Motorized vehicles are not a permitted use. If the abutter has a registered right of way than they could cross over the trail. If they do not they would need to work with the MBTA to obtain one. If motorized vehicles become an issue then the town police department can work with DCR and Environmental police to set up stings.

Q Has the DCR constructed privacy fencing for abutters on any trails?

A Yes, the new section in Black Stone trail south of Worcester.

Q Does ABA disability act pertain to the trail and its access points?

A The AAB (Mass. Architecture Access Board standards) and the ABA both apply for parking and access.

Q Berlin is a very supportive town for the hunting community. There is a very active deer run along the proposed Wayside trail that is very popular with hunters. What advice and/or guidance can the DCR provide the committee regarding safeguarding users of the Wayside Trail during hunting season?

A Hunting is not allowed. Once the trail is built hunters will not use it.

Q What encroachments exist in Berlin?

A Paul will get a list to the committee. If there is an encroachment the owner must work with the MBTA to rectify it. There is also the option to enter into a lease or license with the MBTA as a resolution.

Q What about the 2 small sections along the corridor that are owned by other towns who are not willing to fund the construction, such as the 100 feet in Bolton.

A DCR will develop any small sections when that town has no interest in developing.

Q According to 1997 the Central Massachusetts Rail Trail Feasibility Study it is estimated that in the town of Berlin, 700 people will use the trail on weekdays and 1,500 on weekends. What is the estimated number of users for the Berlin branch of the trail today versus 19 years ago?

a. If usage estimates have not been calculated, how can we obtain an estimate?

A That seems high. I would think it will be less. The Norwottuck trail has 7,000 users/week – Berlin would be a much smaller percentage – cut the 1997 numbers by a third.

Q What is the standard design for road crossings?

A There would be advanced warning signs on the trail and the road, a marked cross walk, for accessibility a detectable warning panels would be installed on path edge of the road. The post in the middle at crossings can be a hazard issue – use instead a splitter island a painted mark to give users a visual cue. Some paths use gates to limit access by snow mobiles or ATVs.

Q Are trails typically lighted?

A Typically trails do not have lights. Lights are added to trails where there are tunnels. Not sure if the tunnels in Berlin will require lighting.

Q If we decide to proceed with building the trail, when should we begin the grant process?

A There needs to be design and permitting completed first, which the town would fund. Once that process is done and approved than you would apply for grants and research other funding sources.

Q What are the expected benefits to the Town of Berlin?

A People use them and like them, especially families. They bring people in the community together. Gives people a chance to recreate in a natural setting vs. sidewalks. The Wachusett Greenways and the Bruce Freeman Rail Trails are very successful. Properties values due tend to increase for abutters.

Meeting adjourned at 9:11 pm

Next meeting scheduled for March 22, 2017 at 7:30 pm.

Notes of Interviews with Other Towns Along the Wayside Trail Corridor

Town: Bolton

Contact: Rebecca Longvall, Conservation Administrator

Length of Trail and Estimated Cost: 100 Feet, \$69,800

Conversation Recap:

- There currently is no discussion of constructing the Bolton portion of the Wayside rail trail. At this time Bolton's priorities are with the development of some town loop trails, current trail improvement and creating trail guides.

She did offer some opinions.

- Berlin should make smaller scale loop trails a priority
- she feels state guidelines are quite strict and must be followed, especially if the town wants financial assistance from the state.
- she questions the amount of support the state is able or willing to give towns in building and maintaining the trail.
- She feels if there was adequate support extended from the state more towns would be taking advantage of the program.

Town: Hudson

Contact: Tom Moses, Executive Assistant to the Town

Pam Helinek, Hudson Conservation

Length of Trail and Estimated Cost: 6.9 miles, \$8,151,000

Conversation Recap:

- Currently there are no immediate plans to develop the Wayside trail due to Eversource who is currently seeking approval to use the MBTA right-of-way (the same as designated for the Wayside trail) to install high power overhead tension lines. The plan outlines using 4.3 miles of the right-of-way in Sudbury and 4.7 miles in Hudson. If approved this year, the construction will take 3 to 4 years to complete. He noted that there is great opposition for the Eversource plan in both communities.
- Tom felt that any discussion about developing the Hudson portion of the Wayside trail is about 5 to 10 years out. He also mentioned in past discussions regarding the development of the trail it was planned to start the Wayside trail in the center of Hudson and develop it easterly and that connecting to Berlin had not been in any discussions.
- Pam reiterated that EverSource may be building the portion of the Wayside Rail Trail as part of their transmission line extension – from the Hudson Light & Power to right of way at Wilkins Street.

During the RTAC's May 16, 2018 meeting Tom Green who is spearheading a Hudson Wayside Rail Trail citizens group attended. There is a 5-member citizens group that was recently formed and they are planning on proposing to Hudson's Selectmen a trail in Hudson from the Berlin/Bolton sections of the Wayside Rail Trail to connect to the Assabet River Rail Trail. If given permission by the Selectmen this group would then begin the process of speaking with the DCR and creating a report back to the Selectmen.

Town: Sudbury

Contact: Pat Brown, Selectmen and Bruce Freeman Trail Committee member

Length of Trail and Estimated Cost: 4.6 miles, \$5,678,000

Conversation Recap:

2006 Feasibility study was commissioned for \$25,000

The study was conducted by Cathy Buckley Lewis, Central Transportation Planning Staff, Boston Region Metropolitan Planning Organization, this study examined the possible conversion of the rail bed from Route 9 in Framingham to the crossing of the Mass. Central rail bed just north of Route 20 in Sudbury. The study looked at the history, geography, road crossings, accident statistics, projected usage, community impacts and estimated costs

In 2011 the Friends of the Bruce Freeman Rail Trail gave the town \$50,000 to complete the 1/2-mile Sudbury Extension from the trail in Concord because there was concern that they needed to show the public the benefit of participating. Construction of Phase 2 of the Bruce Freeman Trail kicked off in 2015 connecting Westford into Acton and Concord which will include this ½ mile extension.

For the Bruce Freeman trail Sudbury is working with DCR and the Mass Department of Transportation (MassDOT). For every \$1 the state contributes the federal government programs contribute \$4. The respective town is responsible for paying for the design, permitting and surface treatment which is estimated to be 10-20% of the construction cost. The grant application and awards process can take up to 3 years to complete.

Using state and federal funds require the design criteria must follow these guidelines and regulations:

1. MassHighway Project Development & Design Guide (2006)
2. AASHTO Guide for the Planning, Design and Operation of Pedestrian Facilities (2004)
3. AASHTO Guide for the Development of Bicycle Facilities (1999)
4. The Rules & Regulations of the Massachusetts Architectural Access Board (521 CMR)
5. Americans with Disabilities Act Accessibility Guidelines (ADAAG)
6. Manual on Uniform Traffic Control Devices (MUTCD)

There are 3 stages in the design process – the 25% design phase, the 75% phase and the 100% phase

During the 25% Design phase, the designer will determine which permits and approvals will be required for the project and will initiate early coordination with those local and state agencies.

Sudbury allocated \$25,000 for preliminary engineering assessment, \$15,000 for a title search (required to verify the right to use the land), \$105,000 for surveying and wetlands delineation (they spent \$50,000 and allocated the remaining \$55,000 to the 75% design phase), and \$25,000 for a local four season wild life study = total spent \$115,000

Note: Sudbury does participate in the Community Preservation Act (CPA) where there is a 2-4% surcharge on property taxes. This funding is offsetting the costs of Rail Trail design.

After the 25% design is completed and approved by MassHighway, the project will advance to the final design phases (75% Design and the 100% Design Final Plans, specifications & Estimates) and secure the necessary permits before going out to bid for construction. The 75% Design phase in Sudbury is

estimated to cost \$330,000. Once it is in the 100% stage Mass Highway takes over and bids out the contracts. Towns lose ability to supervise construction.

Town: Wayland

Contact: Linda Hanson -Wayland Conservation Office

Larry Kiernan – Wayland Rail Trail committee

Length of Trail and Estimated Cost: 3.0 miles, \$4,306,000

Conversation Recap:

Linda

- Linda is new to the office
- The trail is currently between the Weston and Wayland centers
- The trail is paved – this is causing an issue for horse riders (previously it was used by horse riders when it was a graveled path)
- The Historical Commission is requiring that there is a need to preserve a cattle crossing and historical markers

Larry

- The Wayside Rail Trail is 3 miles long in Wayland
- He has been working with DCR and they have contributed some monies to the project
- Currently Wayland has \$770,00 set aside for the Rail Trail; \$450,000 from the Conservation Preservation Act (CPA) funds; \$250,000 from a local developer and \$70,000 from DCR = total monies committed to date: \$1,540,000
- Larry's understanding of the progress in other towns:
 - Weston is currently seeking funding
 - Eversource is removing the tracks and ties and DCR is paving the trail (Weston wanted a crushed stone trail)
 - Waltham is seeking state and federal monies
 - Sudbury and Hudson are on hold until the EverSource's proposal to build high-voltage power lines along the MBTA right away along the proposed Wayside Rail Trail is decided upon. There is quite a bit of opposition in both communities regarding this proposal.
 - If the power lines are installed it will be a paved trail

Town: Weston

Contact: Paul Penfield who is one of the main Wayside Rail Trail volunteers

Length of Trail and Estimated Cost: 3.0 miles, \$4,306,000

Town of Weston

Summary

Development of a 3-mile rail trail along the Wayside Branch railroad is in late design phase, with key aspects completed and ready for construction, except for a few final permits.

During the 1997 initiative to develop a Wayside Branch rail trail the Town of Weston voted against participation. Prompted by recent regional plans to bolster reliability of electrical service transmission infrastructure, Eversource Power needs reliable vehicle access to high voltage power lines along the Wayside Branch right of way for repair and maintenance. Eversource approached Weston for

cooperation in making improvements to the right of way, sparking a rail trail development revival and Weston's decision to participate. Weston formed a Rail Trail Committee in 2016 to study and recommend actions related to development of a rail trail and to reach out to stakeholders to gain a consensus on the trail development.

I. Financial

Weston has not had to fund the rail trail design or development, but is likely to incur costs in later phases and during use. Eversource is paying for removal of rails and ties and for construction of an agricultural grade road of crushed stone. Eversource paid for trail safety and design elements for DCR's path. The Weston project is part of a larger Eversource project along 4.5 miles of the railroad right of way running through Weston from Waltham to Wayland for enhancing reliability of delivery of electricity in this region.

DCR obtained Massachusetts funding for paving the rail trail path along the top of the crushed stone road Eversource is constructing. DCR funds will pay for slope protection and safety railings. Weston will maintain road crossings and do plowing.

Eversource and DCR acted jointly in wetlands permit applications to Weston Conservation Commission.

Weston may seek Community Preservation Act funds for design and construction items outside the scope of Eversource and DCR funding (handicap access; parking, Conant Road Underpass, etc.).

II. Physical Design

Wayside Branch railroad through Weston includes a 100 feet right of way. The Eversource access road will be 16 feet wide, with a 14 feet wide section for trucks to travel, plus 2 feet of improved shoulders on each side, constructed of gravel on the old rail bed and intended to permit large utility trucks access to the towers on concrete pads and lines carrying high voltage electricity. Eversource's power lines consist of an early 1950s installation of lines, pads and towers constructed in a right of way granted by the railroad to Boston Edison. Regional lines run west to Hudson center. Eversource engineers have completed design and surveying tasks.

The DCR will construct a 10 feet wide paved path on top of the Eversource gravel road. Both Eversource large trucks and trail users will travel on the paved path. Weston did not want a paved rail trail, but DCR required asphalt paving, stating the truck traffic would create maintenance issues on the path (DCR agreed to maintain the asphalt path and expects about 10 year life. [Paul Jahnige, Dan Driscoll are contacts at DCR].)

Weston has a significant amount of wetlands and town forest land in and near the railroad right of way. The railway has only a few, minor cuts through elevations and raised areas to maintain a steady grade. DCR will design and install safety fencing in raised areas.

Within the 100 feet railroad right of way, an existing narrow dirt path created by foot traffic, horses and off-road bikes winds throughout most of Weston. It is expected to persist after construction of the gravel road and paved path, as there are no plans to construct a bridle path within the right of way.

The existing 100 feet railroad right of way is clear-cut, with no trees or tall bushes, reflecting safety requirements for high voltage power line and tower to have nothing more than 15 feet tall adjacent to the lines. The overall visual impact along the railroad is not park-like and instead is consistent with that of typical power transmission lines.

Parking exists at three places along the trail and is quite limited (one old road spur may accommodate 20+ cars; another only about 5 cars). Weston plans to have a consultant review and may purchase an adjacent lot of land for parking. Handicap access to the path has not been considered in existing design. Each entity involved in design and construction wants signage (Eversource, DCR, MBTA, Weston). No restrooms or trash receptacles are planned.

III. Issues: Abutters, Environmental, Historical, Safety, Public Uses

Weston has only 20-30 abutters, a significant number of whom live in one cluster development. About 25% of the cluster development residents attended a public meeting held at the development and no serious objections were heard. Some single family home residents have resisted for privacy and noise reasons. Private efforts are underway to mitigate abutters' concerns, primarily by planting tree screens. Funding may be by the Town or may be from private sources.

Only one commercial establishment abuts the railway, a horticultural nursery. Vehicle storage and other uses encroach onto the right of way, but a reasonable resolution is expected.

Dogs will be permitted, but walkers must comply with Weston lease laws, commercial dog-walker regulations and waste removal. Weston may add a dog park or run adjacent to the Eversource road to accommodate residents' needs for such a space.

Weston police, fire and EMT will have keys to gates installed by Eversource to use the power line access road for emergency access to the rail trail. Weston employees did not raise concerns about rail trail users and crime, litter, etc. Weston does not expect to do maintenance along the path, given the presence of Eversource in the right of way.

Conant Road Underpass

Trestle Bridge Near Waltham (over Fitchburg commuter rail line)

Historical Artifacts

- RR telltale
- Rail rest blocks
- Cattle crossing underpasses, concrete and granite block
- Town, station and mile markers
- Trestle bridge
- Telegraph poles

Town: Waltham

Contact: Joseph Pedulla, CPO

Length of Trail and Estimated Cost: 3.0 miles, \$5,371,000

Waltham solicited design bids in 2017. In February 2018, the city solicited public comments on the Wayside Rail Trail, following a presentation from the designers and engineers of the Waltham portion of the 26-mile project that will stretch locally from the Weston line to the Watertown/Belmont line. The meeting, on Feb. 13, was held by representatives of the Pare Corporation to solicit community input on the Waltham hub that will cross old railroad tracks from Lyman and Main streets, and over Route 128.

Notes taken during walk of Proposed Rail Trail with Police Chief Galvin

Rail Trail Advisory Committee

Meeting 9AM Saturday, October 1, 2016:

Notes taken during the walk of the proposed Rail Trail with the Chief of Police, starting at Coburn Road continuing to Bolton/Hudson Town Line.

Attendees:

- Advisory Committee Members: Kimberly Lorencic, Mary Mikelk, Mary Porter, Sue Therrien, (Maureen Johnson was not able to attend)
- Chief of Police – Tom Galvin
- Resident – Dave Burke
- Note: The Fire Chief was unable to make it due to a family emergency

Overall Walk Observations

1. Parking – great concern - very little space available for car parking for access to trail at cross roads
2. Abutters – impact with trespassing, cost for fencing, self-policing
3. Environmental / Deforestation – wildlife impact, health issues with clean up contaminations, possible impact to abutters wells due to disturbing rail bed contamination
4. Public Safety – access, emergencies, handicap, maintaining, policing
5. Defining Multi-use – walkers, bikes, hunters, horses, etc. – who/what is allowed?
6. Cost considerations – to abutters, town, other towns along trail
7. Pros and Cons – Improvement to areas already in use, but with more use comes more issues requiring even more accessibility
8. Alternatives to rail trail to consider – Meeting with Conservation Commission is planned

Parking

A major concern at all access points starting with Coburn Road, through to Bolton/Hudson Town Line

- Coburn Road access point, extremely busy road intersecting with Rt 62
- Expect that people will park illegally on the road (impact to abutters nearby – e.g. Dave Burke)
- Small area on corner of Rt 62 and Coburn on edge of wetlands
- Church parking nearby will be impacted. This is a concern for Saturday afternoon, and Sunday morning church services when it is expected that is when trail users will be wanting to access the trail.
- Rt 62 Commuter Lot – DCR suggested this be used for the main parking area for trail access. The lot is already at capacity, heavily used, full every day, especially Patriot's game day. A winding ramp would need to be constructed to allow access from the lot to the trail. Currently there is a lot of trash dumping over the guard rail in the back and right along where the trail would be. Chief Galvin also noted that there have been issues with this lot – specifically drug use / sales.
- Trail end Hudson line / Bolton area – very small triangle spot to fit a couple cars and no shoulder along road – stone fence close to roadway.
- Areas along the way such as Sawyer Hill Road – no clear parking access
- Users need cars to access the trail – difficult to access without a car (especially if hauling bikes, strollers, handicap access etc.)

Abutters

28 properties border the Proposed Rail Trail – a few reflections along the way for some of those affected (not all are listed below):

1. Mikelk – trespass issues currently – cutting through yard, wandering around the yard, parking at St Joseph's church across the street and cutting through despite no-trespass signs
2. Lowe – the trail cuts across their driveway / Harris Road
3. Wheeler - "storage area" next to Highway Dept. barn
4. Wheeler's Garage – a lot of equipment would be impacted with building, expense to move

5. Porter – currently hunters come through, expect with trail users trespass issues would increase
6. Munyons, Schaffers – parking concerns in this section and road very busy here too. Jim Munyon has expressed concern if someone falls down the embankment and gets hurt will he be liable (young children riding bikes and such). “In MA you can be liable for anything!”
7. Forrest – Andy Forrest was in his yard as we passed so we had the opportunity to talk with him.
 - Proposed trail is located behind his property down in a gully
 - Gave us a perspective from his back yard (to view in person)
 - Currently hunters and orchard visitors come through (trail users will want to cut across Andy’s land to the orchard – Berlin Orchards across the street from Andy)
 - Very wet section of trail
 - Old railroad fence exists in backyard, but if the proposed trail goes in Andy would have to fence to prevent people coming through his land and he has a lot of frontage along that section of proposed trail and another 100 acres along the quarry that would need to be fenced also if the proposed trail goes in
 - Considerable expense – he paid \$9.00 a foot w/5 foot high fencing (nothing fancy) for the quarry side, plus Survey cost in order to do this will be an additional \$5,000, and land clearers \$1,500 a day for a week.
 - Huge financial burden imposed upon abutters like Andy. Question posed - Could they petition the town to pay for their loss of privacy and increased liability issues?
 - Hog Swamp – opens liability concerns for Andy here also – would need to install fence around the quarry at this area if the proposed trail goes in (e.g. Mine Safety and Health Administration – MSHA rules and regs for the Quarry business, etc.)
8. Beirne – Berlin Orchards owner
9. Cermak – Berlin Farms owner
 - Lots of trouble with trespassers and people approaching animals in the fenced fields (Sawyer Hill area and very busy road)
10. Ziegler – Trail very close to home

Environmental / Deforestation

Clearing the trail path will impact the forest wetland environment

- Deer runs will be cut off
- Bird migratory paths will be disrupted
- Coyote dens impacted

Public Safety

- **Drop offs, gullies, flood zones, and steep inclines:** at some access points there is a potential for creating hazards and public use safety concerns for the Chief of Police and Fire Chief. While we did not have the Fire Chief with us today (will do separate walk with him later), the Chief of Police provided his observations, impressions and concerns.
- **Man Power to police:** Don’t have man-power to police the trail (only 2 on shift)
- **Streams & Waterways:** Someone could wander off and end up face down in a stream, etc. (this happened in Wrentham a few years ago – a drunk teenager)
- **Steep embankment in some areas – concerns for ease of access in emergencies**
- **Marking the trail** to know where someone is at in case of an emergency
- **Drop offs and inherent dangers associated**
- **Sawyer Hill / Walnut Road under water – impassable – heavy flooding** – would need fill or build a structure over – steep ledge. Need hard frost in winter to make it passable.
- **Abandoned Greenhouse area** – town found too costly to clean up (trail goes by this area)
- **Hunters:** Very hunting friendly community – hunters would be able to use the proposed trail too along- side everyone else – perfectly legal. No restrictions for hunters – only restricted from private homes and roads.

- **Horses:** Huge horse community. Fair amount of riders who use the existing trail to gain access to trails that branch off of it. If horses are not allowed, the trail will block access to these trails and if they are blocked, how to manage access to the branching paths. Therefore, desire to have horse accessible. Specifications in the DCR documents would have to be followed so there is enough room for horses, bicycles and pedestrians to pass safely. However, concerns expressed with hunters, horses and dogs, etc. sharing the trail.
- **Medical Marijuana farm** looking to locate in Berlin close to the proposed trail path – lots of security that goes into a farm like this, but still close to the path
- **Wetlands areas** where trees fall – can become a town or abutter liability
- **Health concerns with building disruption to water supply** (liability to town)?
- **Clearing will encourage more snowmobiles, motor bikes, etc. to access**
- Chief Galvin noted that while crime does not necessarily increase with a rail trail (noting that there are incidents in other towns that have happened – theft, attacks, etc.) the **larger issue is the increase for first responders, particularly, EMT**. Also, there will be a need to purchase special equipment to allow access and policing.

Multi-use - Many questions about what is allowed and what will be needed

- Horses
- Motor bikes
- Dirt bikes
- Bicyclists
- Walkers, runners
- Strollers
- Skate-boarders
- Hover boards
- In-line skaters
- Cross Country Skiers
- Snow mobiles
- Dogs – unleashed, leashed - pick up and removal of dog waste – no leash law currently so we could not require a leash rule for the trail according to the Chief
- Trash receptacles, bathrooms, dog and horse waste removal

Cost considerations

- Clearing, removing rails and ties, over-growth, trees shrubs, trash
- 14 feet across needed for width of trail – impact to abutters, also narrow areas of trail where footage not available to clear (10 foot wide path with 2 foot shoulders on either side. All trees and shrubs need to be cleared by 3 feet on either side of the shoulders – this will remove, for some abutters, any natural screening they currently have. If horses are allowed, then a wider shoulder is needed to be constructed to allow for this usage. This is outlined in the MA State Guidelines Manual.
- Impassable sections - Stone and Walnut Road flooding, high embankments, gullies, Central Street, Wayside Old Railroad Market, Al's Auto-body across the street – this area is a mess, grass clippings, trash dumping, etc.
- Town must commit to maintaining and policing
- Estimates for other Towns already in process for Rail Trail development – Sudbury \$150,000 estimated just for the Survey work (must to survey work before engineering work can proceed)
- Estimate for Bolton 100 foot section - \$50,000 – 100,000 (\$69,800 is listed in the DCR 2013 filing with the state)
- Hudson has already invested an estimate \$8-\$9 million in the Assabet River Rail Trail. Question - Are they going to invest in an additional trail that would connect to Berlin? If it is years before they construct it, and Berlin proceeds than Berlin's section becomes a trail to nowhere. Hudson section to connect to Berlin is all residential – expressed concerns if this will

happen. The 2013 DCR state filing estimated it will cost \$8,151,000 for Hudson to develop their section.

- Very costly to do it right
- Abutters would have to clear property in some cases – are they willing to given cost considerations for them personally?
- Fencing – per Andy Forest – installed fencing (nothing fancy) cost \$9 a foot, \$5,000 for survey, \$1,500 day for install
- Use of volunteers for this work is not practical – liability issues again if someone gets hurt – heavy equipment needed to accomplish also.
- Iron Horse, a preservation company, does this kind of clearing work for the value of the scrap metal – however, scrap metal value has declined, so this is not a clear option now. They will still do the work but it will require the town to pay for the removal.
<http://www.ironhorsepreservation.org/>
- State and Federal funding (if any) would need to abide by rules and regulations accordingly.
- Chief Galvin noted that due to safety concerns a split rail fence would not be enough along the steep drop-off sections. A guard rail, or similar structure, would need to be installed.

Pros & Cons - Where does the benefit outweigh the cost?

- Pro: Better access to areas utilized already – (however in last few years haven't proved a need for better access)
- Con: Easier access to residents back yards – privacy concerns – current trespass conditions will only get worse
- Con: Maintenance and policing - changing current use behavior (trash, etc.)

Alternatives to Consider – Meet with Conservation Commission

- Need to meet with the Conservation Commission – need to get them involved
 - Conservation Commission mitigation role with Department of Conservation and Recreation (DCR) and the MBTA
 - Picture of proposed trail on Conservation Commission web-site does not tell the whole story – not reflective of work needed to accomplish or acknowledging impact to abutters
 - Has application been sent in for the propose rail trail to DCR?
 - Responsibilities for maintaining and policing easements?
 - Ross Dam alternative?
 - Gates Pond alternative?

RTAC Notes of John Mavretic 2017 interviews with Iron Horse Preservation

(reclaim metal rail for abandoned RR development projects. www.ironhorsepreservation.org)

During the 4/19/2017 RTAC meeting John reported that he spoke with Joe Hatstrup at Iron Horse Preservation - Website: www.ironhorsepreservation.org - Tel: 775-742-2149 (Nevada) - 603-718-1548 (NH). We agreed that a further conversation would be beneficial to gain insight into what the costs were for other towns and if they had done construction for the MBTA or other Massachusetts entity requiring following the regulations outlined in the MA Horizontal Construction Laws.

During the 5/2/2017 RTAC meeting John reported on a further discussion with Joe Hatstrup at Iron Horse Preservation.

Towns in Massachusetts where Iron Horse has worked on Rail Trails:

Danvers, contact Kate Day and Topsfield, contact Bill Weham (not sure about the spelling)

In these two towns Iron Horse:

- Removed growth
- Removed steel rails
- Removed Rail Road ties. The ties were shipped to Maine. There is also a local place to dispose the Rail Road ties in Harvard MA. - Joe noted that Rail Road ties are the most expensive item to get rid of.
- Graded the surface and put down 3 inches of stone dust.

They spoke with Peabody but the conversation commission went somewhere else and never returned – same with Rockland.

In the town of Needham, they chose a different route as well (not using Iron Horse). They spent \$250K on design and legal fees.

Newton was the last place Iron Horse did the work. John will find out more detail.

Cost: For the price of steel rail Berlin can get:

- All rails removed
- Remove and dispose the ties
- Grade and put down the stone dust (usual cost of stone dust is \$20,000 to 30,000 per mile)
- Stockade fence installation (if needed): Iron Horse will install it if the town buys it.

Extra cost: Any environmental issues, Waddles, washouts, retaining walls, bridges, road crossing, signs, parking, etc.

Who does the job

- Iron Horse hires local contractors and equipment
- The major budget busters are the prevailing wages which are required under Massachusetts Horizontal Construction Laws and regulations. Iron Horse noted that there is a legal way around this.
 - The committee discussed that 2 other projects in town (the Town Highway Barn and the 1870 Town Hall Elevator project) are both state and town funded and are following the Vertical Construction Laws and regulations and are paying prevailing wages. The committee would need to have a discussion with the Town's legal counsel regarding not following this requirement.

What's next:

- Get estimates for the wetland protection.
- Contact people in Danvers and Topsfield and get firsthand information how they did it.
- If the town moves forward with the Rail Trail we need to send Iron Horse a Statement Of Work and they will provide a cost estimate.

Appendix C: Notes on Funding Sources

1. **Federal Transportation Funding:** MAP-21, the most recent federal transportation funding law, consolidated a number of bicycle and pedestrian transportation funding programs that were previously available under [SAFETEA-LU](#) into a broader program called Transportation Alternatives. This singular program is the largest federal source for trail funding.

Under our current understanding of this program, the Town of Berlin would pay approximately 10% of the total of the costs of the engineering and other preliminary studies, design and construction.

All of the upfront costs through the final design would be the responsibility of the Town of Berlin. Because design typically represents about 10% of the total cost, Berlin's share would probably be satisfied by funding the design. Privately raised money can be used toward Berlin's share. The state will pay up to 10% of the cost and federal transportation funds will pay up to 80%. The costs would include mitigation of the effects of the trail on abutters (e.g., fences or shrubbery)

Constructions costs are those determined in the 100% design phase. These estimates must include a contingency allowance to cover overruns during construction according to the regulations. Expenses exceeding these allowable overruns must be borne by the local community.

2. **Transportation Alternative** activities are projects that, according to the [Transportation Alternatives Data Exchange \(TrADE\)](#), “expand travel choices and enhance the transportation experience by integrating modes and improving the cultural, historic and environmental aspects of our transportation infrastructure.” The program is essentially a combination of two core active-transportation programs from SAFETEA-LU: Transportation Enhancements and Safe Routes to Schools (SRTS). While the eligible projects from the two funding programs are largely retained under MAP-21, these projects are now forced to compete against each other for funding, as well as with some road and environmental mitigation projects.

Although a few eligible activities were eliminated or altered under MAP-21, a number of activities remain eligible. These include the conversion of abandoned railroad corridors into trails for nonmotorized transportation uses and the “construction, planning and design of on-road and off-road trail facilities for pedestrians, bicyclists and other nonmotorized forms of transportation.”

While Transportation Alternatives projects are federally funded, the funds are administered by each state's department of transportation (DOT). Project sponsors are generally responsible for 20 percent of the project's cost. Eligible entities to receive funds under the Transportation Alternatives program include local governments; regional transportation authorities; transit agencies; natural resource or public land agencies; schools, school districts and local education agencies; tribal governments; and any other local or regional governmental entity that is responsible for transportation oversight and is deemed eligible by the state DOT.

Nonprofits are NOT eligible to apply as direct recipients of Transportation Alternatives funds, but they may partner with state or local entities that are eligible if the state DOT is agreeable

In order for a project to be considered for the TA Program, a Town needs to apply for funding through a two-step preapplication / final application administered by the MAPC Transportation Enhancement Selection Committee. The Committee is responsible for selecting which regional projects are eligible for consideration as TA Program funded projects. Selected projects are reviewed for eligibility and preparedness for implementation before a project is forwarded to MassDOT and the State Transportation Enhancement Steering Committee. Under this program, a Town must be prepared to provide a local funding commitment comprised of a cash match in the amount of 10% of the total project construction cost. The remaining project cost is funded 80% federal and 10% state. Most communities fund the engineering design to meet their cash match. At the time a TA Program application is submitted, the Towns should have completed or substantially completed the 25% Design phase; or the Towns should have committed in writing to fund the project development and 25% Design phase pursuant to MassDOT design standards.

3. Congestion Mitigation and Air Quality Improvement Program: A rail trail project often fits the eligibility requirements for both the TE Program and the Federal Congestion Mitigation and Air Quality Improvement Program (CMAQ) of SAFETEA. CMAQ is a transportation air quality improvement program that provides funding for both bike and pedestrian facilities that serve to reduce automobile travel. A Town must complete a CMAQ Air Quality Analysis Worksheet for Bicycle and Pedestrian Projects to document a quantifiable reduction in auto emissions and/or congestion to be eligible under this program. Under this program, the project cost is funded 80% federal and 20% state or local match. In some instances, the state has funded the entire 20% match. However, most commonly, Towns are required to provide a cash match in the amount of 10% of the total project construction cost. Most communities fund the engineering design to meet their cash match. Similar to the TE Program, project funded under the CMAQ Program must adhere to MassDOT design standards.

According to the MAPC, most rail trail projects proceed through the TA Program, but sometimes end up being funded under CMAQ depending upon the availability of state and federal funding.

If the Towns decide to seek federal funding (i.e. Transportation Alternative or CMAQ) and funds the entire design as its 10% local match, then the Town would act as the Project Proponent and administer the design contract. MassDOT would be responsible for constructing the project using the federal funding. The design would still be subject to MassDOT review and approval at each stage of design.

4. DCR Grant: DCR does manage a grant program with a max of \$50,000 to \$100,000 with a 20% match required. There are potentially other state grants available as well.

5. Complete Street Grant: The MassDOT Complete Streets Funding Program provides technical assistance and construction funding to eligible municipalities. Eligible municipalities

must pass a Complete Streets Policy and develop a Prioritization Plan. The Complete Street initiative has \$10,000 - \$20,000 grants available.

6. **The Recreational Trails Program (RTP)** is a federal assistance program of the United States Department of Transportation's Federal Highway Administration (FHWA), administered at the State level, providing funding for the development and maintenance of recreational trail projects. Both motorized and non-motorized trail projects may qualify for assistance.

In Massachusetts, the RTP is administered by the Department of Conservation and Recreation (DCR), and grants are reviewed and awarded in partnership with the [Massachusetts Recreational Trails Advisory Board \(MARTAB\)](#). The RTP provides grants for project costs ranging from \$5,000 to \$50,000. However, larger projects of up to \$100,000 will be considered if the project will directly impact multiple communities upon completion.

The RTP is a REIMBURSEMENT grant program, meaning grantees must first pay for expenditures themselves and then submit for reimbursement using the required documentation. Grants are awarded for a variety of trail construction, maintenance, and stewardship projects throughout Massachusetts

7. **Land and Water Conservation Fund (LWCF) Stateside Program**

The [Land and Water Conservation Fund \(LWC\)](#) 50/50 matching grant program is administered by state agencies in cooperation with the National Park Service. Program funds are intended for the acquisition and development of outdoor recreation areas; trails are one priority of this program. In particular, funds "target projects that would enhance urban parks and community green spaces," with a focus on "developing blueways and public access to water resources and conserving large landscapes."

8. **Economic Development Administration (EDA)**

Among the [various programs](#) administered by the [Economic Development Administration](#) (EDA) of the U.S. Department of Commerce is the Public Works program. The investment program provides funding with the goal of empowering "distressed communities to revitalize, expand and upgrade their physical infrastructure." Among other uses, EDA Public Works funds can help redevelop brownfield sites and increase eco-industrial development. The EDA also offers limited local technical assistance to distressed areas in times of need.

9. **Historic Preservation Funding Sources**

Many trail corridors contain historic structures, which are often of regional or national significance. Administered by the National Park Service, the [Historic Preservation Fund](#) awards matching grants to state and tribal historic preservation offices for the restoration of properties that are on the National Register of Historic Places. To look up your state or territorial state historic preservation officer (SHPO), visit the [National Conference of State Historic Preservation Officers](#).

10. **Environmental Contamination Cleanup Funding Sources**

Many rail corridors are contaminated from years of industrial use. To remediate this environmental pollution, there are many federal and state funding sources from which trails can benefit. The Environmental Protection Agency (EPA) has devoted a [section of its website](#)

to funding and financing for brownfields, which are former industrial sites where contaminants or pollutants may be present. Many trails have taken advantage of brownfield funding, including Rhode Island's [Woonasquatucket River Greenway Project](#), the [Elkins Railyard redevelopment](#) in West Virginia and the [Assabet River Rail Trail](#) here in Hudson Massachusetts. A 2011 [article from the Trust for Public Land](#) shows examples of brownfields converted to parkland.

The EPA also administers Superfund, the federal government's program to clean up some of the nation's worst uncontrolled hazardous waste sites. More information about Superfund Redevelopment, an effort to return these hazardous sites to safe and productive use, is available on the [EPA website](#). Specific information about [rail-trails on or near Superfund sites](#) is also available.

11. Wetlands Restoration Funding Sources

Many railroads were built through environmentally sensitive areas that are now candidates for restoration. Administered by the U.S. Fish and Wildlife Service, the [National Coastal Wetlands Conservation Grant Program](#) is a matching grant program designed to assist states in the “acquisition, restoration, management or enhancement of coastal wetlands.” The 25 states bordering the Atlantic, Pacific, Gulf of Mexico and Great Lakes are eligible. Although trails cannot be the primary beneficiary of these funds, the program has been used to work on trail infrastructure.

Related funding sources include the [Corporate Wetlands Restoration Partnership](#)—an innovative private-public partnership that provides money for wetlands restoration—and the [Natural Resources Conservation Service](#) of the Department of Agriculture, which offers technical and financial assistance programs to restore and protect natural resources and wildlife. The Environmental Protection Agency offers a [full list of federal funding sources for watershed protection](#).

Appendix D: Bibliography; Reference to Belmont Study and Other Source Materials

The RTAC found the Belmont Town Rail Trail Study particularly comprehensive and substantive and highly recommends it to anyone desiring further reading. The Belmont Study can be found at: http://www.belmont-ma.gov/sites/belmontma/files/file/file/belmont-community-path-advisory-committee_final-report_2014-06-07.pdf

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Appendix E: Glossary of Terms

AAB - Architectural Access Board

AASHTO – American Association of State Highway and Transportation Officials

ACT - Federal Americans with Disabilities Act

ADA - Americans with Disabilities Act

BWALT - Boston Worcester Air Line Trail

CMAQ - Mitigation and Air Quality Program

DCR - Department of Conservation and Recreation's

DEP - Department of Environmental Protection

DOT - Department of Transportation

EDA - Economic Development Administration

FHWA - United States Department of Transportation's Federal Highway Administration

LWC - Land and Water Conservation

MAPC - Metropolitan Area Planning Council

MARTAB - Massachusetts Recreational Trails Advisory Board

MassDOT - Massachusetts Department of Transportation's

MBTA - Massachusetts Bay Transit Authority

MCRT-WB - Mass Central Rail Trail - Wayside Branch

MPO - Boston Metropolitan Planning Organization

MUTC – Massachusetts Uniform Trust Code

NOI – Notice of Intent

PNF - Project Need Form

RRFB - Rectangular Rapid Flash Beacon

ROW - Right-of-Way

RTAC - Berlin Rail Trail Advisory Committee

RTF - Recreational Trails Program

SHPO - State Historic Preservation Officer

SRTS - Safe Routes to Schools

SWPPP - Stormwater Pollution Prevention Plans

TA - Transportation Alternative Program

TRADE - Transportation Alternatives Data Exchange

Appendix F: Photos of Existing Rail Bed



The elevation from abandoned road used to access the trail head from Coburn Road.



The elevation from top of tracks to the bottom of the embankment along the Southern portions of the Carter Street section. **Note:** person in the red circle is standing at the bottom of the approximately 15-foot embankment.



The elevation from Harris Road to the top of the trail - a cut through the rail bed was made to accommodate this dead end road.



Walking from Highland Street to Sawyer Hill Road

The photographs on this page were taken along the rail bed that runs parallel to Walnut Street. It is currently too overgrown and flooded to traverse the entire length that runs from Tollman's greenhouse property to Sawyer Hill Road. Unfortunately we were unable to obtain pictures of the section that is cut through bedrock mentioned in this report due to that section being currently impassable.



The entrance at Sawyer Hill Road facing West toward Highland Street.



Flooding along the Hog Swamp section.



Section below grade parallel to Walnut Street.



Flooded section where the rail ties have completely eroded, is overgrown and very difficult to walk.



The rail bed from Sawyer Hill Road towards Hudson.



Looking up the embankment from the rail bed to house before commuter lot.



Looking up from the rail bed to the commuter parking lot on Route 62. The DCR has recommended using this lot as the main parking and access point to the proposed Rail Trail.



The entrance to the 495 Overpasses.



Inside one of the 495 Overpasses.



Looking up the embankment from the rail bed to house along Old Central Street.