

WATERTOWN COMMUNITY PATH

Linking Watertown's Past to its Future



Kristopher Carter | Eric Giambrone | Eunice Kim | Michelle Moon | Jong Wai Tommee

May 7, 2010
Tufts University Urban + Environmental Policy + Planning



The Watertown Community Path

Linking Watertown's Past to its Future

Tufts University Urban + Environmental Policy + Planning Research Team:

Kristopher Carter Eric Giambrone Eunice Kim Michelle Moon Jong Wai Tommee

Prepared for:

Watertown Department of Community Development & Planning

Watertown Bicycle & Pedestrian Committee

Watertown Citizens for Environmental Safety





ACKNOWLEDGEMENTS

The Tufts UEP Field Projects team would like to extend our utmost appreciation to our clients: the Town of Watertown Department of Community Development and Planning (DCDP), the Watertown Bicycle and Pedestrian Committee (WBPC), and Watertown Citizens for Environmental Safety (WCES). We would especially like to thank those people that worked closely with us on this project from the beginning, most notably Danielle Evans, Steve Magoon and Steve Engler from DCDP; Deborah Peterson from WCES, Janet Jameson and Peter Brooks from WBPC, and our Tufts UEP Field Projects instructor and teaching assistant team of Robert Russell and Jack Melcher.





ABSTRACT

For years, bicycle and pedestrian advocates in Watertown have envisioned the creation of a multi-use path that would provide a link in the regional network of paths and facilitate safe and easy access through the community for those traveling on foot or by bike. While some groundwork has been laid and a small portion will soon be constructed, a vital section through the heart of Watertown has yet to be formally planned. This report is the first major step in the development of that section, the Watertown Community Path. This report studies the feasibility of developing the Community Path and recommends preferred and alternative routes. Due to constraints related to private property, the preferred route includes a cycle track and extended sidewalk on the eastern portion of the Path. The preferred route calls for a multi-use path for the majority of the remaining portion, except on the western-most section where on-street bike lanes are recommended. This report also includes an analysis of existing conditions along the Path corridor, design standards, recommended cross sections, conceptual designs, and strategies for implementation. The goal of this report is to provide concrete recommendations that will help the Town of Watertown move forward with the development of the Community Path.

TABLE OF CONTENTS

Executive Summary	1
Chapter 1: Introduction	3
1.1 Methodology	4
1.2 Project Description and Benefits	5
1.3 Community Description	7
1.4 Watertown Branch Railroad History	7
1.5 Existing Bicycle Infrastructure	8
1.6 Recent Work on Multi-Use Paths in the Watertown Area	10
Chapter 2: Bicycle and Pedestrian Path Research	13
2.1 Economic Benefits to Businesses	13
2.2 Crime and Safety Issues	14
2.3 Effect on Home Values and Sales	14
2.4 Health Benefits	14
Chapter 3: Case Studies	17
3.1 Minuteman Bikeway	17
3.2 Vassar Street Cycle Track	18
Chapter 4: Community Outreach	23
4.1 Community Survey	23
4.2 Community Meeting	29
4.3 Town Council and Watertown Bicycle and Pedestrian Committee Meetings	32
4.4 Media and Internet Outreach	33
Chapter 5: Site Analysis and Route Options	35
Section A - School Street to Mount Auburn Street	36
Section A.1 - School Street to Mount Auburn Street	36
Section A.2 - Arsenal Street from Irving Street to Patten Street	41
Section A.3 - Patten Street to Mount Auburn Street	44
Section B - Mount Auburn Street to Pleasant Street	48

Section B.1 - Mount Auburn Street to Winter Street	48
Section B.2 - Winter Street to Main Street	52
Section B.3 - Main Street to Pleasant Street	56
Chapter 6: Design	59
6.2 Cross Sections	63
6.3 Conceptual Drawings	64
6.4 Amenities	68
Chapter 7: Implementation	73
Short-Term Actions	73
Long-Term Actions	73
Conclusion	75
References	77

Appendices

Appendix A - Interview List	81
Appendix B - Watertown Tab Article	82
Appendix C - Community One-pager	83
Appendix D - Planting List	85
Appendix E - Additional Conceptual Designs	87
Appendix F - Frequently Asked Questions	89
Appendix G - Community Meeting Flyer	91
Appendix H - Community Survey	92
Appendix I - Somerville Community Path	93
Appendix J - Memorandum of Understanding	95
Appendix K - IRB Approval	100



Figures

Chapter 1: Introduction

Figure 1.1: The Watertown Community Path

Figure 1.2: Regional network of multi-use paths

Figure 1.3: Former Watertown branch railroad

Figure 1.4: Bike lanes on Arsenal Street

Figure 1.5: Concept plan for Bacon Street property

Chapter 3: Case Studies

Figure 3.1: Minuteman Bikeway

Figure 3.2: Vassar Street lacks separation between pedestrians and cyclists

Figure 3.3: The row of parked cars block drivers' line of sight to the path

Figure 3.4: Three days after a snowfall, the path remains unplowed

Chapter 4: Community Outreach

Figure 4.1: Survey response distribution

Figure 4.2: Overall support level for the Path

Figure 4.3: Concern about safety and property impacts

Figure 4.4: Expected uses of the Path

Figure 4.5: Community meeting at Watertown Town Hall

Chapter 5: Site Analysis and Route Options

Figure 5.1: The Watertown Community Path and numbered sections

Figure 5.2: Narrow sidewalks along Arsenal Street

Figure 5.3: Eastern terminus of the Path

Figure 5.4: Bike path in front of Lexus

Figure 5.5: Arsenal Street section near businesses

Figure 5.6: Arsenal Street approaching Irving Street

Figure 5.7: YRT Corp. property along Arsenal Street

Figure 5.8: Patten Street bridge blocking the former railroad ROW

Figure 5.9: Vacant parcel portion behind NStar property

Figure 5.10: Vacant parcel behind the Jiffy Lube property

Figure 5.11: Watertown Plaza parking lot

Figure 5.12: Watertown Plaza and Mount Auburn Street crossing

Figure 5.13: Mount Auburn Street crossing

Figure 5.14: Municipal parking lots

Figure 5.15: Parking lot behind the library

Figure 5.16: Eastern edge of municipal parking lots

Figure 5.17: Municipal parking behind businesses

Figure 5.18: Parking lot behind the library

Figure 5.19: Linear Park entrance at Saltonstall Park

Figure 5.20: Connection to Saltonstall Park

Figure 5.21: Linear Park section

Figure 5.22: Main Street crossing

Figure 5.23: Main Street crossing to DPW corridor

Figure 5.24: Parking lot north of DPW staging area

Figure 5.25: DPW corridor to Howard Street

Figure 5.26: Connection to Charles River Reservation Path

Chapter 6: Design

Figure 6.1: Vassar Street in Cambridge

Figure 6.2: Kent Street Cycletrack in New York City

Figure 6.3: Raised crosswalks provide safer crossings

Figure 6.4: Cross sections along Arsenal Street

Figure 6.5: Cross sections for multi-use paths

Figure 6.6: View of an 8-foot wide cycle track on Arsenal Street

Figure 6.7: Plan view of cycle track along Arsenal Street

Figure 6.8: View of the Path passing through municipal parking lots in Watertown Square

Figure 6.9: Plan view of the Path in the municipal parking lots

Figure 6.10: Plan view of Linear Park path entrance

Figure 6.11: Linear Park path entrance

Figure 6.12: Seating and brickwork along the Somerville Community Path

Figure 6.13: Example of diverse plantings

Figure 6.14: Colorful perennial garden

Figure 6.15: Example of a rain garden



EXECUTIVE SUMMARY

Pedestrian and cycling advocates have long pushed for the creation of the Watertown Community Path, a proposed multi-use path through the heart of the town. They have envisioned developing the path along a former railroad right-of-way (ROW) in Watertown, which would make the town into a more livable, attractive and sustainable community. The proposed path would provide a link in the regional network of paths while facilitating safe access between East Watertown, Watertown Square and the Charles River. This report examines the feasibility of developing the Community Path, taking into consideration community input, design standards and site constraints.

Unlike a typical rail-to-trail conversion, a large portion of the former railroad ROW in Watertown has been sold and developed by private parties. Siting the Community Path along this corridor therefore requires extensive cooperation from property and business owners. Recognizing this, the Field Projects research team placed a strong emphasis on community engagement. Outreach to residents and property owners began when the team mailed a survey to abutters of the corridor. A subsequent community meeting was held to solicit input on design ideas and to learn about potential obstacles. The community meeting and more than 250 survey responses were decisively in favor of the Community Path. The surveys, however, highlighted a few concerns about safety, lighting and street crossings. The other major concern centered on the construction timeline, as residents desired a quick completion.

To reach out to businesses along the Community Path corridor, the research team conducted in-person interviews with more than a dozen business owners and managers. Many of those interviewed voiced strong concerns regarding the redistribution of parking spaces. The vast majority, however, thought the Community Path had the potential to bring more customers to their shops and improve the community.

The research team also visited the Path corridor multiple times to assess site conditions and consider preferred and alternative routes based on existing constraints. Major obstacles along the corridor include private

ownership of properties along the former railroad ROW, a bridge that stands in the way of the route, busy and dangerous crossings for pedestrians at several major intersections, and municipal parking lots in Watertown Square.

With these obstacles in mind, the team researched multi-use paths in other communities with similar circumstances and reviewed current best practices in cycling and pedestrian infrastructure design. The team concluded that attempting to develop the Community Path through private property would create unwanted backlash towards the Town of Watertown and potentially derail the project. In cases where private property could not be avoided, the preferred option is to site the Path along perimeters, disturbing the properties as little as possible. The research also showed a preference for separated bike lanes, or cycle tracks, to improve safety, and it recommended widths for paths shared by different transportation modes. The research team did not heavily consider cost as a factor in selecting the Community Path route, though attempts were made to provide potential lower-cost alternatives. The team's research resulted in the following recommendations:

- Create an on-street cycle track along Arsenal Street from School Street to Irving Street;
- Create a graded slope on vacant parcels abutting the Patten Street Bridge, which would allow the Community Path to avoid a congested commercial corridor;
- Install a raised crosswalk with a pedestrian island on Mount Auburn Street between Taylor Street and Baptist Walk.;Reconfigure the municipal parking lot in Watertown Square to accommodate the Path along the northern boundary;
- Reconfigure the municipal parking lot behind the Watertown Free Public Library to accommodate the Path without a net loss of parking in Watertown Square;
- Make improvements to the Linear Park path, such as widening it near Saltonstall Park and beginning the process of creating a mural on the concrete wall; and
- Redevelop the Watertown Department of Public Works staging area to include the Community Path.

A series of maps that show the preferred route for the Community Path and an extensive site analysis are included in Chapter 5 of this report. A complete list of short and long-term actions is provided in Chapter 7.

Developing the Community Path is a critical step toward making Watertown a more livable and sustainable town. It will provide a safe route through much of the community, increase the amount of open space, and support local business development. The Community Path will make Watertown a more attractive and desirable place to live.