

ROSLINDALE ARBORETUM GATEWAY PATH



A COMMUNITY VISION

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May 2016

Tufts University

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For up to date information on this project, visit
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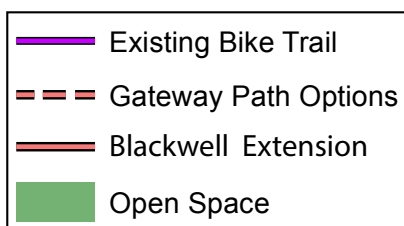
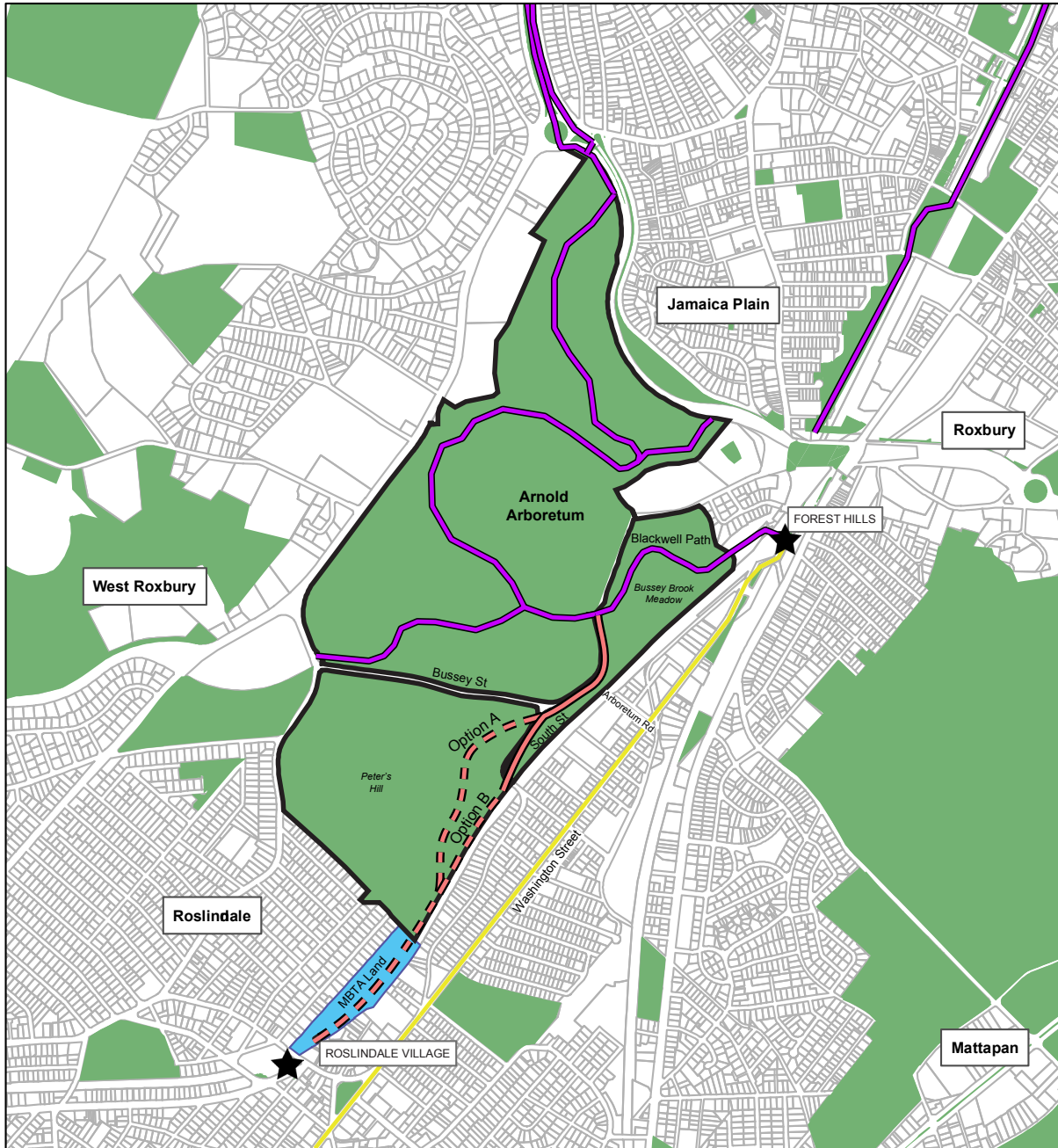
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EXECUTIVE SUMMARY

Roslindale Gateway Path Options



0 0.050.1 0.2 0.3 0.4 Miles



By Alexandra Purdy
April 20th 2016

Source: MassGIS, ESRI & Tufts GIS Data

Projection: NAD1983 StatePlane Massachusetts Mainland FIPS

The Roslindale Arboretum Gateway Path is a vision for a 1 ½ mile shared use bicycle and pedestrian path connecting Roslindale Village and Forest Hills through the historic Arnold Arboretum. In December 2015, LivableStreets Alliance, the Emerald Network, and community partner WalkUP Roslindale commissioned our graduate student team from Tufts University's Urban and Environmental Policy and Planning program to create a planning study for the path. This planning study provides an in depth outline of the Gateway Path by considering community demographics and path benefits, documenting responses to the path during a months-long community engagement process, and recommending a range of options for implementation.

The path would create a new and more accessible entrance to welcome residents and visitors to the Arboretum. From this entrance the path would run adjacent to the Roslindale Village Commuter Rail platform and continue at grade along current MBTA owned land into the southernmost corner of the Arboretum. As the Gateway Path enters the Arboretum it would roughly follow either option A or option B. Either option would connect the Gateway Path to the proposed Blackwell Path extension, through the Bussey Brook Meadow, and on to Forest Hills.

Key goals for the Gateway Path are to create better access to the Arboretum from Roslindale, as well as an alternative transit route for pedestrians and bicyclists travelling between Roslindale Village and Forest Hills. This new low-stress connection would then allow travelers to connect to the Southwest Corridor path, the MBTA Orange Line, and the Emerald Network, a LivableStreets initiative envisioning 200 miles of seamless greenways across the Boston metropolitan area. Additionally, we review the broad benefits ascribed to community paths in the professional and academic literature, which include varying degrees of increased mobility, public health, economic activity, and environmental benefits.

The Gateway Path Steering Committee, consisting mainly of Roslindale community volunteers with staff support from LivableStreets, guided our work during bi-weekly conference calls. The steering committee

played a vital leadership role in determining project timelines, leading the coordination of a community workshop, reaching out to local decision makers, and securing project support. In addition to the guidance from the steering committee, we also conducted 17 key informant interviews, reached out to nearby abutters, conducted an online community survey with 685 responses from predominantly Roslindale residents, and hosted a Community Visioning Workshop at the Roslindale Community Center with over 100 participants. Demographic mapping of MassGIS data revealed the existence of several Environmental Justice communities surrounding the Gateway Path that should be actively involved in future planning and further community engagement efforts on the Path.

During our community conversations we found overwhelming energy and excitement in support of the path. The results of these efforts showed that community priorities include safety and security, which led to community members advocating for lighting and improved pedestrian and bicycle crossing infrastructure. Additionally, there are opportunities to build on the momentum of seven other pedestrian and bicycle infrastructure improvements in various phases of development within the study area.

From our research, we were able to glean implementation strategies around ownership structure, funding sources, and project phasing for the Path. Potential ownership options include the MBTA, the City of Boston, a community group, and the Arboretum. Additionally, we provide federal, state, and local bike and pedestrian funding sources that are applicable to the Gateway Path and recommend project phasing options based on various funding outcomes.

As the research in this planning study demonstrates, this project represents an exciting opportunity for the Arnold Arboretum and the surrounding communities. With a demonstrated commitment from project leaders, documented community support, and a roadmap for future implementation, we are excited to see this project develop in the coming months and years.

REPORT ROADMAP



This study begins with a project description that lays out the context for the Gateway Path project. The project description outlines the current conditions of our study area that the Gateway Path would address, including commuting options and patterns, geographical layout, and issues in the surrounding neighborhood. This section continues by identifying the opportunities that exist to address these conditions, the central questions that guided us throughout the project, and the methodology we used to conduct our research.

Next we delve into the research and analysis that we conducted at the onset of this project to build our understanding and form a more complete picture of the study area. This section presents research findings on topics such as current projects and redevelopment initiatives on-going or planned in the Arnold Arboretum and surrounding area. Other topics include the historical, demographic and social context of Roslindale and their implications for the implementation of the Gateway Path, a summary of benefits that an urban greenway such as the Gateway Path would provide to the surrounding neighborhood and beyond, and lessons learned from similar path projects. We end this section by acknowledging the limitations of this research and analysis.

The study then describes the primary activity executed through this project - community outreach. Community outreach was done in three forms - through an online community survey, interviews with key informants and a visioning workshop in Roslindale. This section describes the questions asked in the survey and interviews, the results from the survey and their implications for the implementation of the path, and how the community feedback garnered from the visioning workshop will inform path implementation. This section ends with limitations to our outreach efforts.

Section IV Options and Recommendations lays out the important decisions that need to be made before the path can move to implementation. These decisions include the materials and amenities necessary to finalize a design for the path, the advantages and disadvantages of each of the two route options that our collaborators have identified,

and potential ownership structures to reconcile the three current owners of the land (Harvard University, the MBTA and the City of Boston). This section then draws parallels between the implementation of this path and various neighborhood and city goals and initiatives, demonstrating how, with thoughtful and inclusive planning, the Gateway Path has the potential to meet many of these goals. This section ends with areas of further study that were outside the scope of this project but which are important for our collaborators to carry forward, including considerations for cultural competencies and environmental justice concerns.

Section V Implementation ends this report, offering further insights into factors that will be crucial for continuing the momentum of the project into the implementation stage in the future. These factors include an ideal project timeline, the composition and responsibilities of the steering committee and potential sources of funding.

The Appendices include information on topics discussed throughout the report, including community outreach, descriptions and maps of the broader multi-modal network and other visual aids.

I. INTRODUCTION



The non-profit organization LivableStreets Alliance, in partnership with WalkUP Roslindale and other organizations, is building on grassroots efforts to create improved bicycle and pedestrian connections in and around the Boston neighborhoods of Roslindale and Jamaica Plain. LivableStreets' involvement is part of their ongoing work with the Emerald Network - a vision for 200 miles of seamless greenways across the Metro Boston area.

These community partners commissioned Tufts University Urban and Environmental Policy & Planning graduate program, to create a preliminary Planning Study for the "Roslindale Arboretum Gateway Path," referred to throughout this report as the "Gateway Path." The Gateway Path is a proposed 1.5-mile pedestrian and bicycle path through the Arnold Arboretum, linking the Roslindale Village Commuter Rail Station in Roslindale Square with the Forest Hills MBTA station in Jamaica Plain.

The direct benefits of the proposed Gateway Path include increased neighborhood accessibility to the



Figure 1.0. Why the Gateway Path (Source: Tufts UEP Team)

natural resource of the Arboretum, a low-stress, and flatter pedestrian and bike route between Roslindale Village and Forest Hills, and improved access to neighboring regional bike paths and public transportation. Urban greenways themselves come with many long-term benefits including, but not limited to, mobility, economic activity, public health, the environment and equity.

UEP Field Projects Team

This report is the culmination of work undertaken by a Field Projects student team from Tufts University's Department of Urban and Environmental Policy and Planning (UEP), in partnership with the client team outlined below. The student team consists of Jaissa Feliz, Liz Pongratz, Alexandra Purdy, and Mason Wells. LivableStreets approached us with this project in December 2015, with the goal of gathering and reporting on community input for the proposed path, informing relevant stakeholders about ongoing work, researching potential benefits, proposing non-technical design recommendations, and compiling our findings in a planning study.

Client Team

- **LivableStreets** – Member driven non-profit seeking to reimagine multi-modal transportation in the Boston region
- **Emerald Network** – A LivableStreets initiative envisioning 200 miles of seamless greenways across the Boston metropolitan area
- **WalkUP Roslindale** – Local community organization promoting active transportation in Roslindale



Figure 1.1. Gateway Path Steering Committee at the Community Workshop (Source: LivableStreets)



Figure 1.2. LivableStreets and WalkUP Roslindale host a biking tour of the proposed Gateway Path to raise community awareness. (Source: LivableStreets)

Project Context

In the summer of 2015, local community members and leaders formed WalkUP Roslindale to promote walkability within the neighborhood. While discussed in the community for many years, the idea of a Gateway Path emerged as a key initiative of the new group.

The Gateway Path would create a new southern entrance to the Arnold Arboretum at the Roslindale Village Commuter Rail Station. The path would extend north through a narrow section of MBTA-owned land (in blue in Figure 1.4) and continue into the Arboretum adjacent to the commuter rail line. The Gateway Path would then connect to the proposed Blackwell Path extension at South Street.

Current Conditions

The two endpoints of our study area are the Roslindale Village Commuter Rail Station and the Forest Hills MBTA station, which are the primary commuting centers in Roslindale (see Figure 1.4). At one end is Roslindale Village, within which lies Roslindale Square - the commercial, civic, and transportation center of Roslindale. At the other end lies Forest Hills, which connects Roslindale and the surrounding communities to downtown Boston via the MBTA Orange Line. The heavily congested Washington Street is the main travel corridor between these two hubs (indicated in yellow in Figure 1.4). Biking down this major thoroughfare can at times feel unsafe.

The Gateway Path would connect to the Blackwell Path extension and existing path in the Arnold Arboretum - a historic park owned by Harvard University - to provide an alternate and safer multi-modal route between Forest Hills and Roslindale Village.

As mentioned, the Blackwell Path begins at an entryway adjacent to the Forest Hills MBTA Station and runs through the Bussey Brook Meadow, a 24-acre piece of land incorporated into the Arnold Arboretum Indenture and maintained in partnership with the Arboretum Park Conservancy. This land has

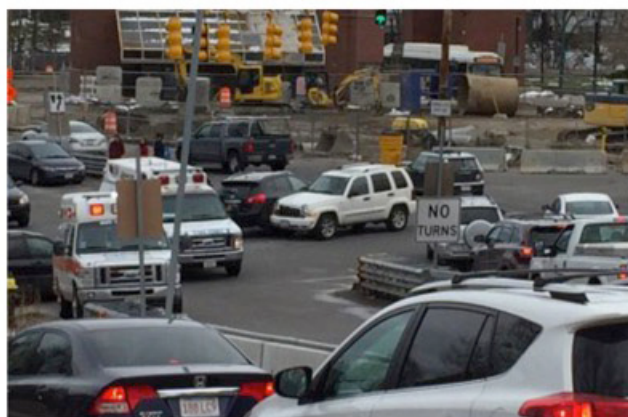
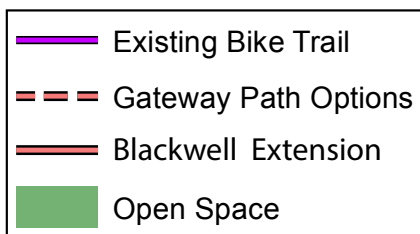
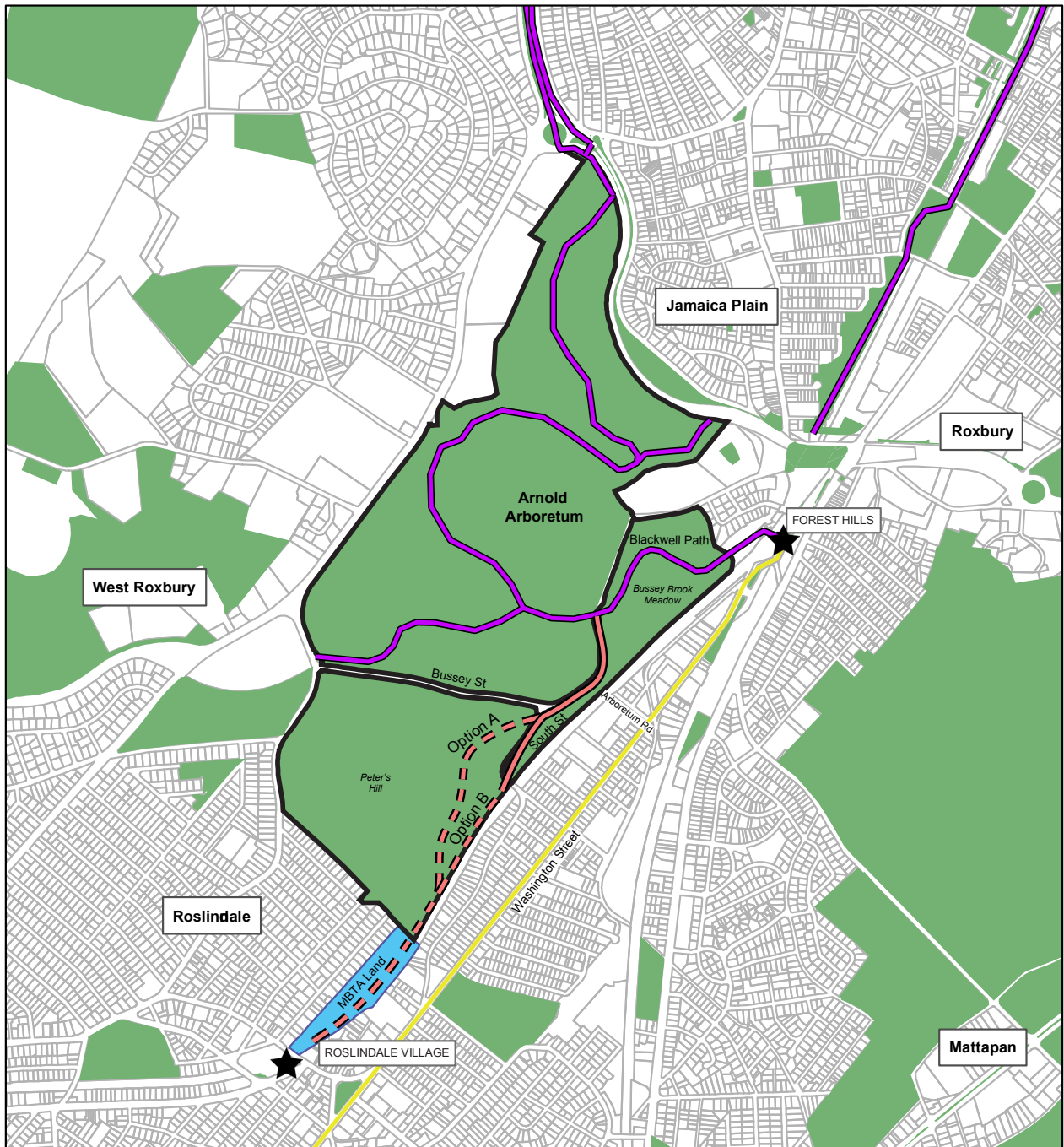


Figure 1.3. Traffic on Washington Street at the intersection of New Washington and South Street (Source: Universal Hub)

been designated an Urban Wild and the Arboretum carries out conservation efforts to maintain the natural character of the land, conduct ecosystem research and protect the area's wildlife, flora and fauna (Urban Wilds 2016).

The proposed Gateway Path would run through parcels of land owned by three entities - the Arnold Arboretum, the City of Boston and the MBTA. The following section explores potential obstacles that might be encountered with the use and construction of the Gateway Path.

Roslindale Gateway Path Options



0 0.050.1 0.2 0.3 0.4 Miles



By Alexandra Purdy
April 20th 2016

Source: MassGIS, ESRI & Tufts GIS Data
Projection: NAD1983 StatePlane Massachusetts Mainland FIPS

Figure 1.4. Gateway Path Options. (Source: GIS map by Alexandra Purdy)

Roslindale Gateway Path Issues Map

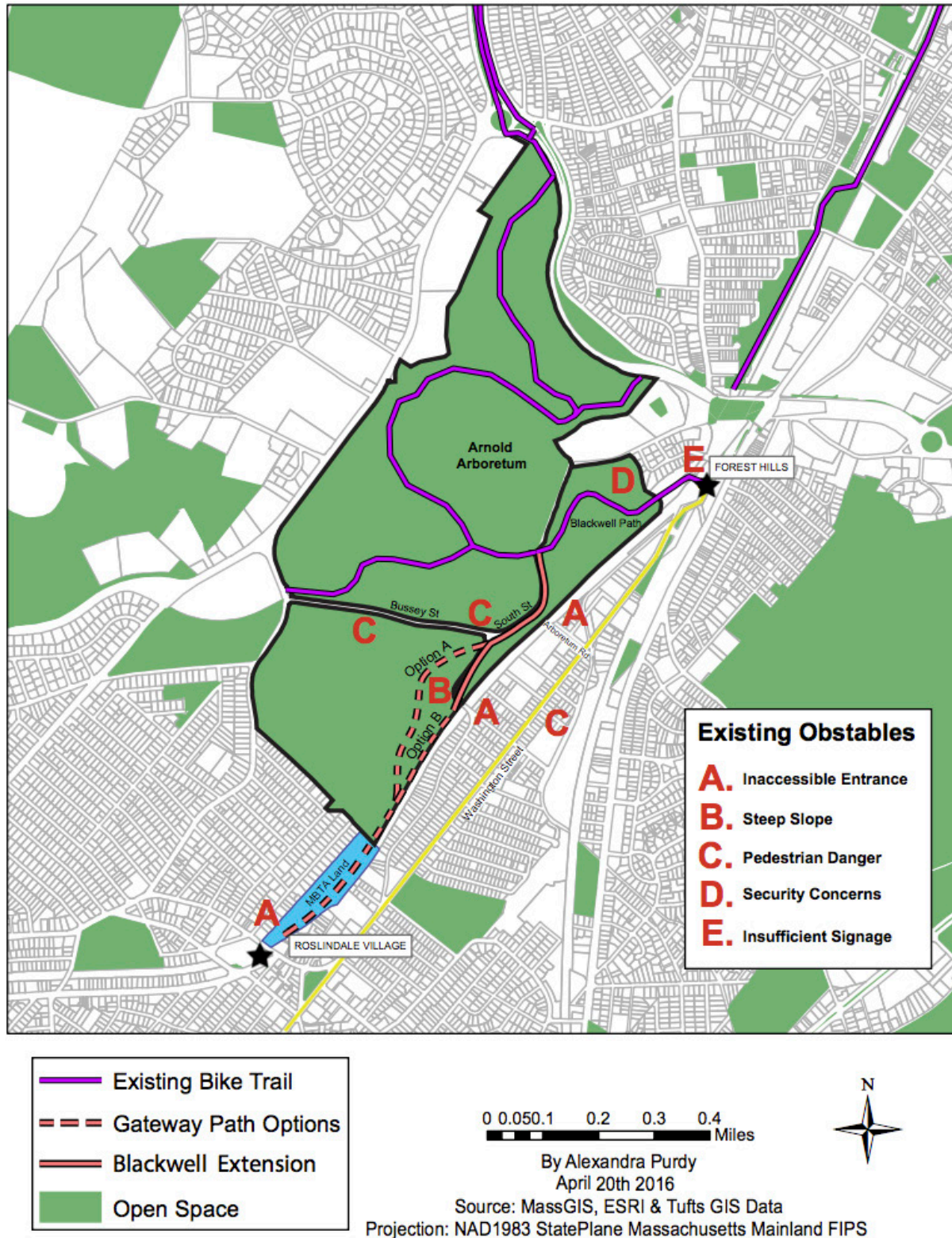


Figure 1.5. Roslindale Gateway Path Issues Map (Source: GIS map by Alexandra Purdy, Issues compiled by Liz Pongratz, informed by community engagement)

Obstacles

Obstacle A: The most direct path between the Roslindale Village commuter rail station and the Arboretum is through MBTA-owned land that is fenced off and overgrown. Additionally, the Archdale Road and Arboretum Road underpasses lack well maintained bicycle and pedestrian facilities.



*Figure 1.6. Inaccessible entrance at Arboretum Road underpass
(Source: Photo by Mason Wells)*

Obstacle B: There are many steep slopes in the Arboretum that create particular barriers to access for bicyclists and those with strollers and young children.



*Figure 1.7 Steep slope near path options A and B
(Source: Photo by Mason Wells)*

Obstacle C: Although obstacles C, D, and E are not directly adjacent to the Gateway Path, they are important to note because failures to address these obstacles would impede accessibility to the Gateway Path. Bussey St. lacks sidewalks or bike lanes, creating an unsafe environment for pedestrians and bicyclists. The intersection of Bussey Street and South Street can be dangerous because of high vehicle speeds, poor sight lines, and a lack of sidewalks and crossing markers. As outlined earlier in our report, Washington Street is dangerous due to high traffic volumes.



*Figure 1.8. Looking northeast up South St. at the intersection of
Bussey St. and South St. (Source: Photo by Mason Wells)*

Obstacle D: Some concerns emerged through our community engagement process around illegal activity in the Arboretum. This perception could prove an obstacle to path use.

Obstacle E: A lack of community knowledge of the existence and location of the existing Blackwell Path emerged during our community engagement process. Insufficient signage and wayfinding could account for this issue.

Projects Planned near the Arnold Arboretum

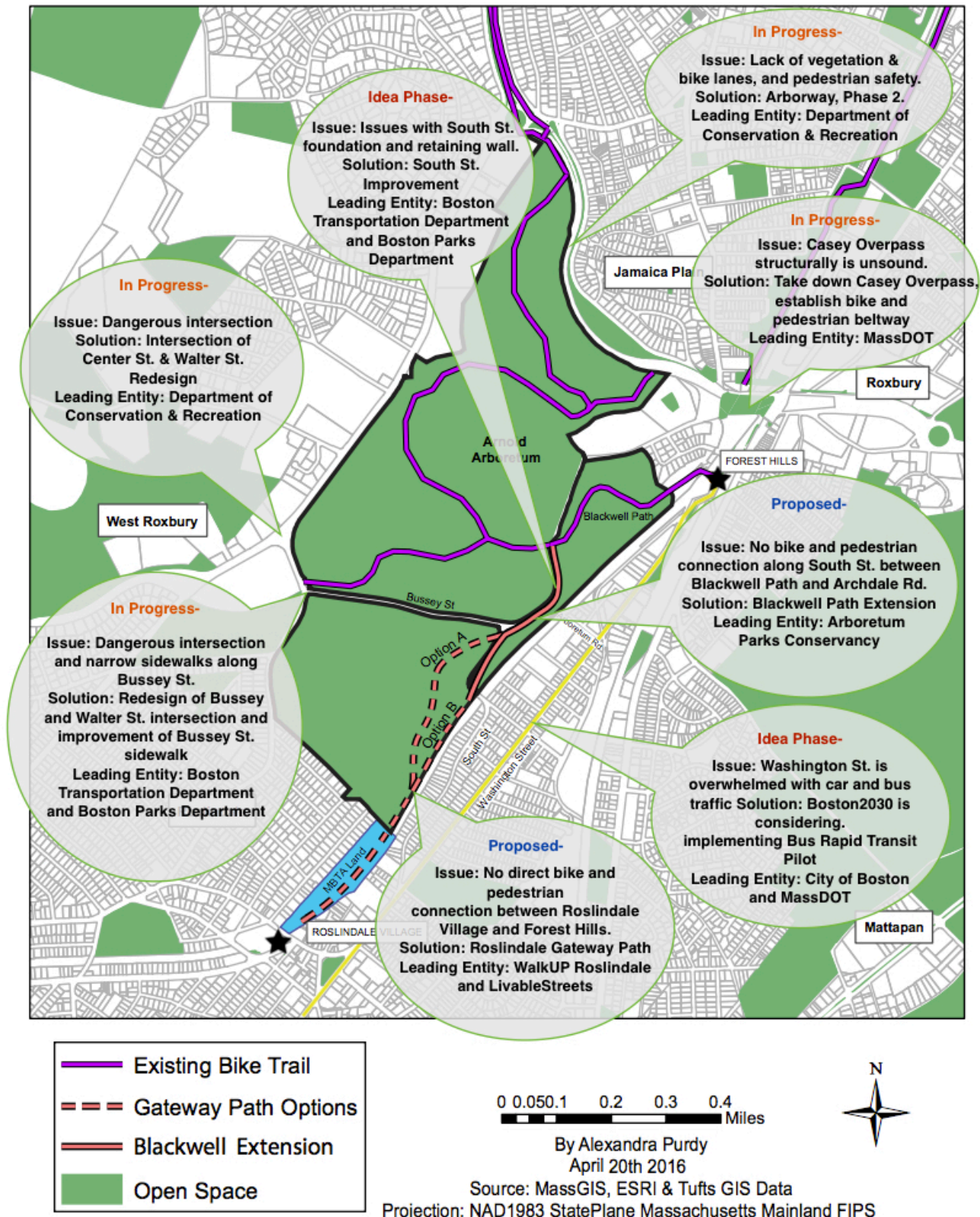


Figure 1.9. Projects Planned Near the Arnold Arboretum (Source: Project Descriptions: Compiled by Liz Pongratz, informed by LivableStreets and interviews with key informants)

Projects Planned

Figure 1.9. illustrates seven other bike and pedestrian infrastructure improvement projects, in addition to the Gateway Path, that are in the idea phase, have been proposed or have a start date. The projects planned near the Arnold Arboretum will generate community interest, and momentum, and should be leveraged together with the Gateway Path for funding and other implementation opportunities.

Objectives

The primary objectives of this project is to gather and document local opinion on the Gateway Path, outline the benefits and provide an implementation strategy.

To achieve our objectives, our study will investigate the following:

- How the Gateway Path could serve as a complement to Washington Street as a connecting route between Roslindale Square and Forest Hills.
- Ways the design of the Gateway Path could incorporate the opinions of local residents and stakeholders about the path's uses and benefits.
- How the Gateway Path could offer benefits of mobility, public health, economic development, environment and equity.
- Ownership and maintenance agreement suggestions to ensure that the path functions seamlessly for the neighborhood.

Clear communication of these findings will be crucial for increasing the visibility of this project and winning the approval of people who can advocate for and push to complete the path, such as local elected officials and potential funders.

In collaboration with our client and partners, we developed the following central questions, to inform our primary objectives.

Central Questions

1. What are local public opinions (of residents, commuters, community organizations) about the potential uses and benefits of the proposed Gateway Path?

The questions we asked residents and other stakeholders include the following:

- In what ways could the system of paths benefit the community?
 - Will the path be used as an alternative route for walking, and biking, for those who currently walk, bike, bus or drive on Washington Street?
 - Will people in the community use the system of paths to bike mainly for transportation or for recreation?
 - What specific amenities do users want for the path?
2. What broader benefits will the Gateway Path bring to Roslindale residents and others who use it?
 3. How will the proposed Gateway Path supplement and/or change commuting patterns in Roslindale?
 4. Who should own and maintain the proposed Gateway Path?

Methodology

To answer the questions above, we used the following methods:

- An online survey distributed to residents, businesses, and community groups, which received 685 responses.
- One-on-one interviews of 17 stakeholders, both in person and by phone.
- Data analysis of survey responses and interviews to extract trends and patterns in public opinion and potential uses of the path.
- Research and literature review about the benefits of multi-use paths or urban greenways.
- Research of other multi-use paths in Massachusetts, of ownership scenarios for the Gateway Path, and of potential sources of funding.
- Preparation of presentation and informational materials for a visioning workshop held by project partners, attended by over 100 participants, and solicitation of their input.
- Analysis of visioning workshop results.

PROJECT TASKS

- **Draft Online Community Survey and receive feedback from stakeholders**
- **Develop Informational Interview questions**
- **Submit research protocol for approval by the Institutional Review Board**
- **Distribute Online Community Survey and conduct Informational Interviews**
- **Literature Review of greenway benefits (mobility, safety and public health, economic and environmental)**
- **Research similar multiuse path case-studies**
- **Develop ownership options for the Gateway Path**

Figure 1.10. Project Tasks (Source: Tufts UEP Team)

II. RESEARCH AND ANALYSIS



Roslindale History and Demographics

Roslindale is a neighborhood of Boston, with a distinct and unique character. A historic neighborhood, it was once an agricultural region that grew as a result of its rail access to the Boston and Providence railroad (Sammarco 2003). Formerly known as “South Street Crossing”, the area was originally part of the colonial town of Roxbury and became part of West Roxbury in the early 19th century. Over time and through the advent of streetcar lines, Roslindale cultivated its own identity and commercial center (Kunze & Kunze 2016). Roslindale was annexed to Boston in 1870, and remained a distinct neighborhood in the city.

Today, Roslindale maintains many of its original qualities, and acts as a crossroads and access point between downtown Boston and Roslindale’s neighboring towns to the south (Gregoire, Kane, Moser, Shakro and Walker 2010). In the 20th century, Roslindale’s population was stable, likely one of the factors that contributed to the tight-knit, “small-town” feel that distinguishes Roslindale from Boston’s other neighborhoods. This type of neighborhood character is conducive to community interaction through different platforms. The Arnold Arboretum’s open space is one such meeting ground. Thus, the Gateway Path would offer a neighborhood like Roslindale more than just a method for commuting or leisurely travel, but it could also function as a resource for community interaction and activities.

While maintaining its historic characteristics, Roslindale is currently undergoing a cultural and demographic shift. Between 2000 and 2010, Roslindale’s population declined, coinciding with an increase of young adults without children moving into the community, and an increase of retirement age individuals. Since 2010 however, Roslindale’s population has seen renewed growth, as people are moving to the neighborhood to escape rising housing prices and cost of living in inner Boston.

Figure 2.1 on the following page, illustrates the ethnic and racial changes in the neighborhood between 2000 and 2014. Roslindale’s white population decreased by 12.7% and its Black or African American and Hispanic or Latino populations increased by 10.5% and 14.3 % respectively. Further, according to the BRA Research Division, between 2013-2014, 12.5% of residents either moved to Roslindale or changed homes in Roslindale (BRA Research Division Analysis 2016), showing a high level of transience.

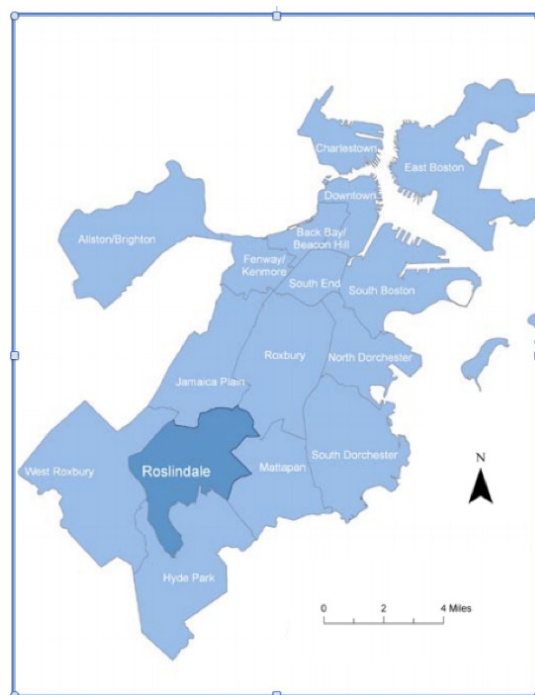


Figure 2.0. Roslindale Neighborhood in Boston.
Roslindale is located in southwest Boston. (Source:
“Gregoire, Kane, Moser, Shakro and Walker 2010
2010)

ROSLINDALE POPULATION CHANGE BY ETHNICITY

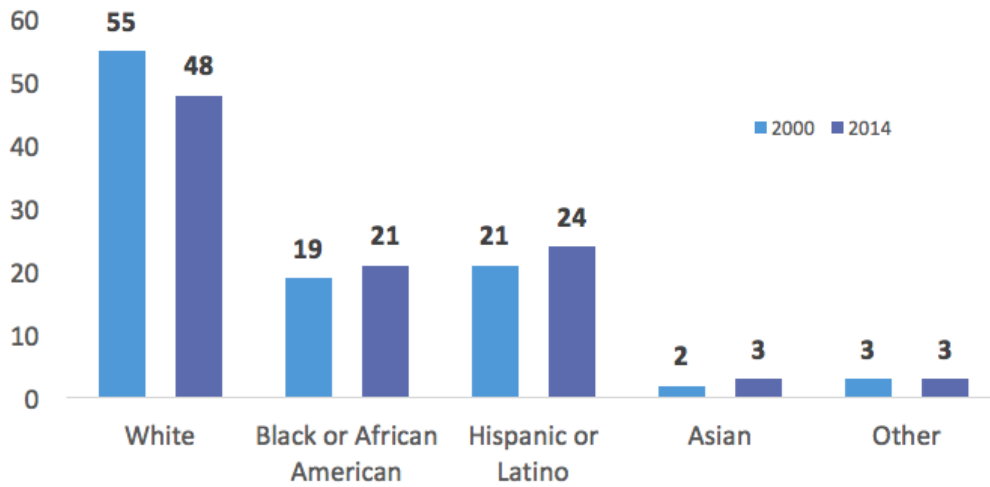


Figure 2.1. Roslindale Population Change by Race and Ethnicity between 2000 and 2010-2014. Roslindale's white population decreased, and its Black or African American and Hispanic or Latino populations increased. (Source: U.S. Census; American Community Survey 2010-2014; BRA Research Division 2016)

Not surprisingly, Roslindale's residents also speak a variety of languages. Figure 2.2 shows that 58% of households indicate speaking English at home, while 21% indicate speaking Spanish, 9% French or Haitian Creole and 12% indicating they speak another language.

Roslindale has an average medium income of \$67,423 which is higher than the City of Boston's average of \$55,448. As shown in Figure 2.3, a fifth of Roslindale's residents have incomes less than \$25,000, while a third make over \$100,000. This indicates that there is a divide between households who have high incomes, and those with low household incomes.

LANGUAGES SPOKEN IN ROSLINDALE

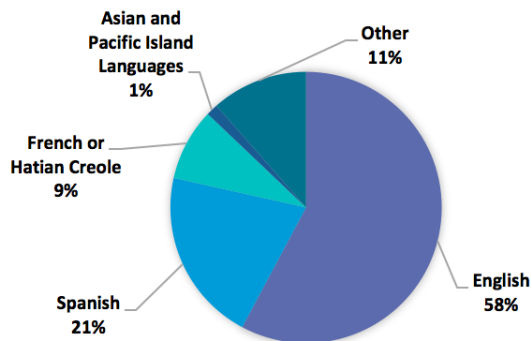


Figure 2.2 Languages Spoken in Roslindale. In Roslindale 42% of the population speaks a language other than English. (Source: BRA: American Community Survey 2014)

BREAKDOWN OF HOUSEHOLD INCOMES

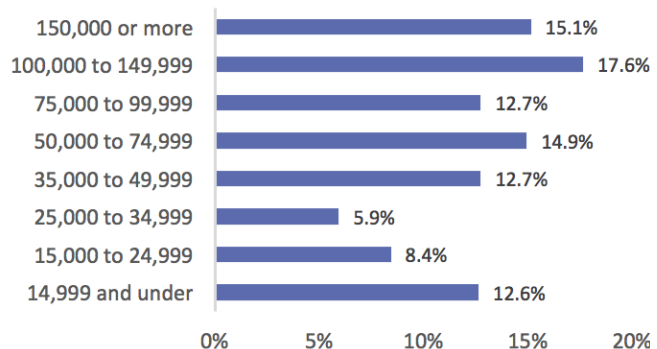


Figure 2.3. Distribution of Household Incomes. 21% of Roslindale residents make less than \$25,000 a year. (Source: BRA: American Community Survey 2014)

The racial makeup, income distribution and languages spoken by residents in Roslindale help explain why a number of communities in Roslindale are considered Environmental Justice areas, as defined by the state of Massachusetts. The following section explains what Environmental Justice communities are and why they are important to consider in the context of the Gateway Path project.

Environmental Justice and Access

Environmental Justice Communities, according to the Massachusetts Executive Office of Energy and Environmental Affairs, are defined by three characteristics: percent minority population, income, and English language isolation (EEA Article 97 2016). A block group is classified as an environmental justice area if the location has a minority population (any other than non-Hispanic white) greater than or equal to 25%. It is a low-income neighborhood if the average median household income is below 65% of the state median income, and is English language isolated if 25% or more of households have no person 14 years old or over that speaks English “very well” (EEA 2016). Any block group can qualify for one, two or all three of these characteristics.

Governor Deval Patrick Signing an Executive Environmental



Figure 2.4. Governor Deval Patrick Signing an Executive Environmental Justice Order. (Source: The Chelsea Record)

As shown in Figure 2.5 on the following page, there are a number of minority block groups, a few minority and low income block groups, one minority and English isolated block group, and one with all three characteristics of Environmental Justice, minority, low income and English isolated. The block group that qualifies for all three categories, is the location of the Boston Housing Authority’s Archdale Housing complex.

The Environmental Justice map of Figure 2.5 shows a distinct difference between the neighborhood areas that are located to the east of the Roslindale Gateway Path and the Arnold Arboretum compared to those located to the west and south. The Environmental Justice and non-Environmental Justice neighborhoods are mostly separated by the MBTA Orange Line subway and Needham Commuter Rail train tracks. This infrastructure obstacle also hinders residents east of the Arnold Arboretum from accessing the park. Figure 2.6 indicates on the Environmental Justice map, the current access points available in the park, and images of the current conditions of those access points that will be improved, or created in the case of the Roslindale Commuter Rail Entrance.

Environmental Justice Communities

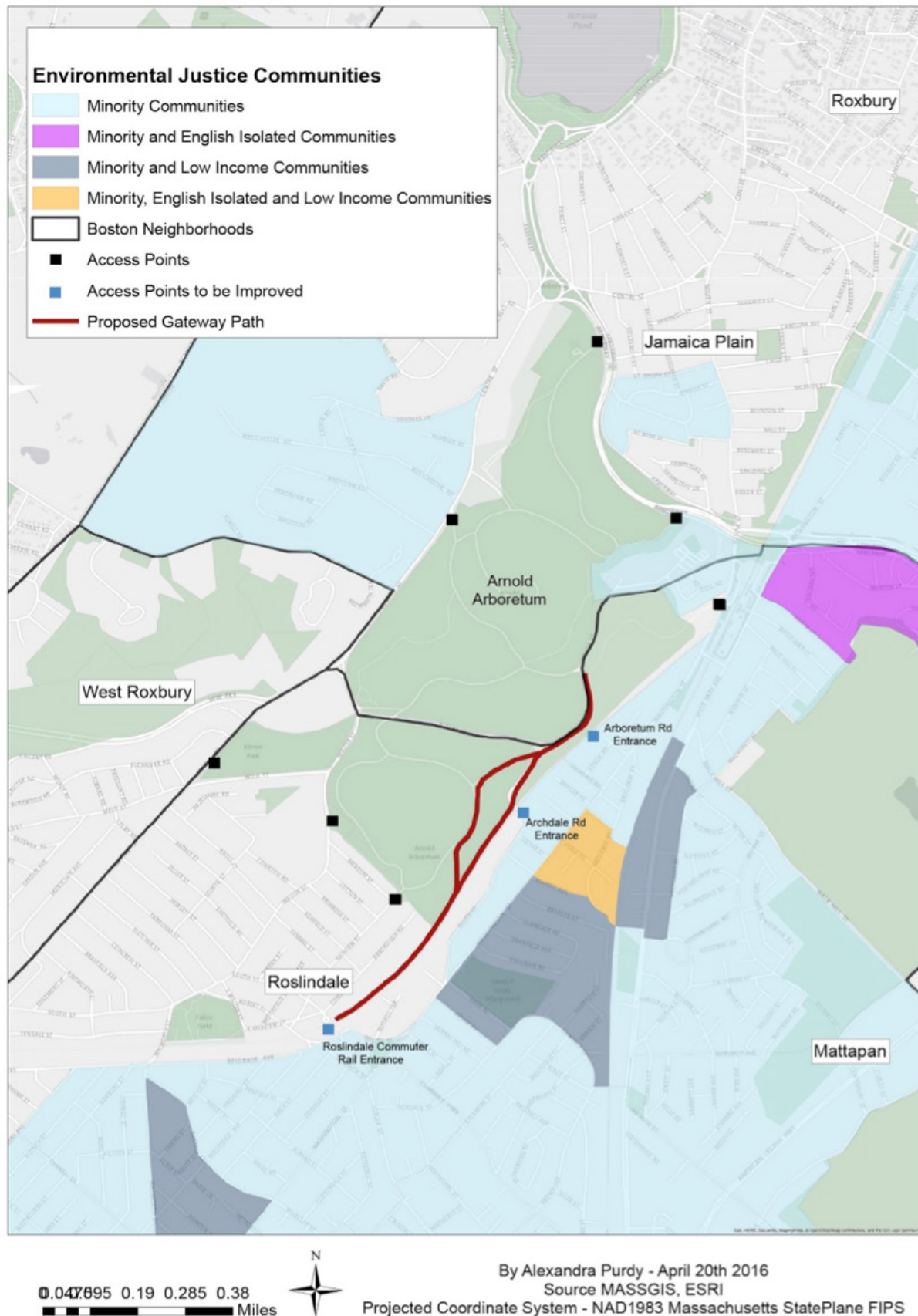


Figure 2.5. Environmental Justice Areas in Roslindale, Jamaica Plain, Mattapan, Hyde Park and West Roxbury (Source: MassGIS; Edited by Alexandra Purdy)

The Blackwell Path Extension will improve access points 1 and 2, on Arboretum Road, and South Street. This will greatly increase access to the Arnold Arboretum for Archdale residents and others living in the area. The new entrance at the Roslindale Village Commuter Rail Station, point 3, will be completed with the Gateway Path. This will provide residents south and east of Roslindale Square faster, safer and more enjoyable access to the Arboretum.

There are a number of reasons why improving access to the Arnold Arboretum and the Gateway Path, specifically for residents of Environmental Justice communities, is important. First, access to natural environments and recreation space has numerous benefits, centered around improved physical and mental health. Improved access also encourages alternative methods of transportation. As discussed in Section II: Current Conditions, Washington Street is currently dangerous for walkers and bikers, and is often congested during peak travel times, making

riding a bike prohibitive. The creation of this path will allow residents living near Washington Street to walk or bike to either Roslindale Village or the Forest Hills MBTA Station through a safe and green environment. Access to alternative transportation routes is especially important for low-income populations, as it provides an alternative to driving or in some cases taking public transportation, which saves money.

Improved access to the Arboretum, Roslindale Square and Forest Hills MBTA Station, for Roslindale Residents, particularly those in Environmental Justice communities, will help to create a more inclusive and equitable neighborhood.

Environmental Justice Areas and Access Points to the Arnold Arboretum.

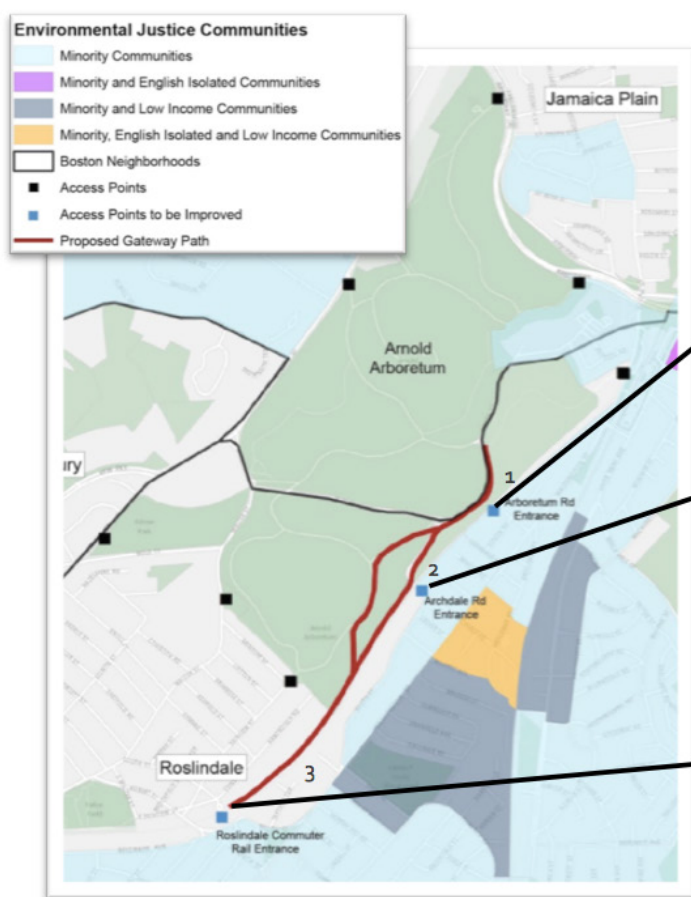


Figure 2.6. Environmental Justice Areas and Access Points to the Arnold Arboretum. (Source: GIS by Alexandra Purdy, Top and Middle Images: Google Street View, and Bottom Image: Rendering by Halvorson Design)

Transportation Patterns

To understand the benefits of the Gateway Path as an alternative transportation route, we examined the transportation patterns within Roslindale and neighboring communities. In particular, we considered how they relate to the two major transportation hubs at Forest Hills and the Roslindale Village. As shown in Figure 2.8, Forest Hills is the 9th most used MBTA station in Boston out of 60. On average, the station has 15,150 entries on a typical weekday - a 20% increase of the Forest Hills station use in the past decade (MBTA 2014).

The bus lines between Forest Hills and Roslindale Village are also heavily used. Nine bus lines transport nearly 10,000 commuters between the two locations on a typical weekday. This accounts for 5% of all outbound bus commuters in Boston (MBTA 2014).

Due to the heavy use of the popular subway and bus routes, and the cost of the MBTA ridership, commuting options for this one-mile stretch can be costly and time-consuming. Table 2.0 lists the typical time and cost of different modes during peak travel times between Forest Hills MBTA Station and Roslindale Square.

Forest Hills Station

- 9th most used MBTA station in Boston out of 60.
- 15,150 riders enter the station on a typical weekday
- Ridership has increased by 20% in the past decade

Figure 2.7. Forest Hills Station. (Source MBTA 2014)

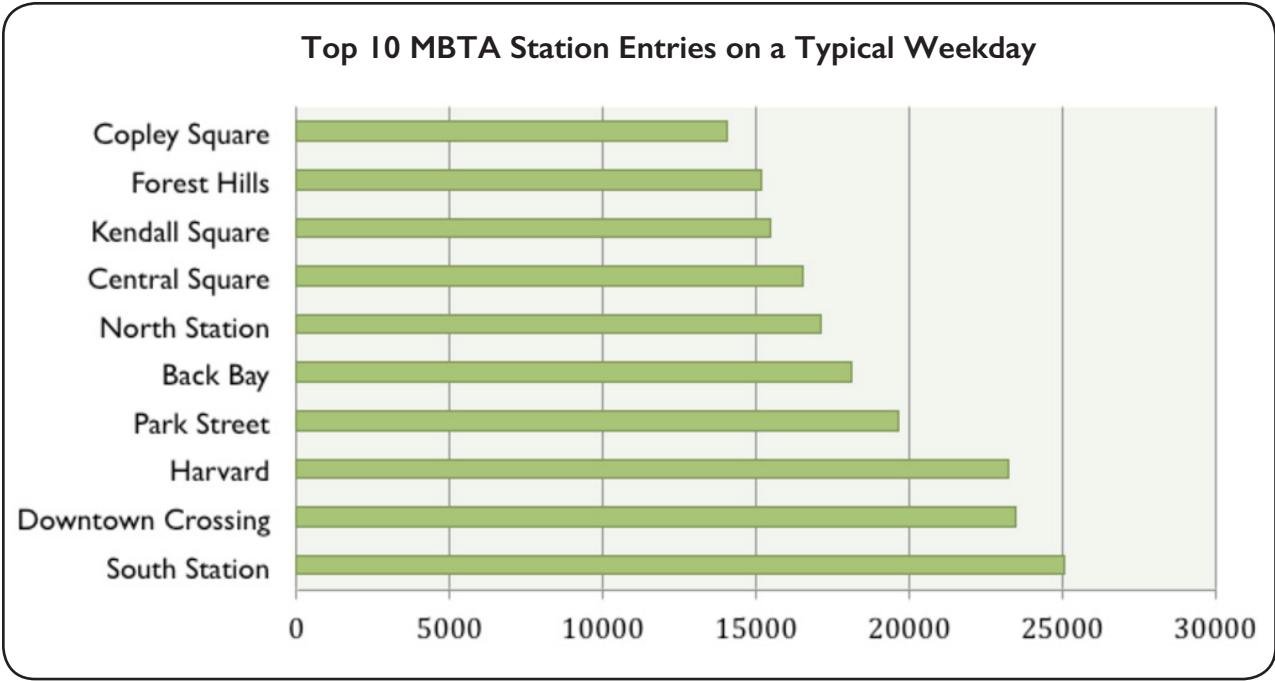


Figure 2.8. Top 10 MBTA Station Entries on a Typical Weekday (Source: Massachusetts Bay Transportation Authority. Ridership and Service Statistics, 2014)

The Gateway Path would provide commuters with an option that can save them up to 22 minutes in commuting time and up to \$2.75 in costs per trip during peak travel times. The time and money saving that can result from the path speaks significantly to its importance and need. Although those are not the only benefits. The next section will review key benefits the Gateway Path will create for residents, the surrounding communities, and the City of Boston as a whole.

Mode of Transportation					
	Walking	Biking	Bus	Car	Commuter Rail
Travel Time	20 minutes	10 minutes	32 minutes	32 minutes	5 minutes
Cost per Trip	\$0	\$0	\$1.60	\$0.10	\$2.75

Table 2.0. Mode of Transportation. (Sources: Mobility Monitoring System from the Boston Regional MPO; Research and Innovative Technology Administration, U.S. Department of Transportation, Massachusetts Department of Energy and Environmental Affairs)

Key Benefits of Urban Greenways

Greenways in urban communities are associated with many well-documented benefits for users and communities at large. The Gateway Path would add a link to an existing network of urban greenways in Boston, thus multiplying the benefits that could come from one path alone. We have conducted a literature review to investigate these benefits, settling on four primary benefits that would be enjoyed by local residents, the surrounding community and the City of Boston: mobility, safety & public health, economic and environmental benefits.

Mobility

Bike riding in Boston has become an increasingly popular method of commuting. Between 2000 and 2012, the percentage of commuters biking to work increased by 70% (La Tronica 2013). A shift towards bicycling can result in many positive outcomes including improved mobility in the city. Mayor Marty Walsh's administration has made city-wide goals towards this end, including a 2020 target of increasing the share of commute trips taken by bike from 2% to 10%, and a plan to establish 75 miles of new bike infrastructure by 2018 (Greenovate Boston 2014; Boston Bike Network Plan 2013).

Despite the city's initiatives, there is still a lot of work left to do to make Boston a bike-friendly city. Namely, to increase commuting bike travel, as it still comprises of only 2% of the overall mode share. To accomplish that, one of the most important steps is to increase investment in bicycle infrastructure, such as urban greenways and paths like the Gateway Path, as evidence shows that cities with more biking infrastructure have substantially more cycling than cities with less (Buehler and Pucher 2011). From a city investment perspective, investment in biking and walking path networks also yield the greatest benefits as compared to investments in other transport infrastructure, with benefits outweighing costs by a factor of 4 to 5 (Saelensminde 2004).

However, creating a bike-friendly city goes beyond establishing paths throughout an urban area. If a city is to promote a significant shift in mode share away from vehicles and towards bicycling, there needs to be a strong network of interconnected paths to maximize accessibility for commuters in and around the city (Barnes, Thompson and Krizek 2005; Mekuria, Furth and Nixon 2012). The Gateway Path would more easily connect Roslindale residents to public transportation, as well as provide access to the Southwest Corridor. The adjacent Southwest Corridor in Jamaica Plain provides an opportunity for the Gateway Path to extend an existing network of biking and walking paths in Boston. A widely-used, 4.7-mile biking and walking path, the Southwest Corridor runs parallel to 9 stops on the Orange Line subway. A 2013 morning rush hour bicycle count along the Southwest Corridor noted 128 bicyclists between 8 and 9 a.m. (Boston Region MPO Bicycle, 2016). Connection to the Southwest Corridor path will provide an important form of access to downtown Boston and into Roslindale for bikers and walkers from surrounding neighborhoods, including Jamaica Plain and Roxbury.

At a larger scale, the Emerald Network provides access and connectivity for Boston's active commuters, with over 100 miles of shared-used paths existing, 30 miles underway, and 70 additional miles proposed (see Appendix C). Establishing the

Gateway Path would be an important link within the Emerald Network.

Safety and Public Health

The Gateway Path will also improve quality of life from a safety and public health perspective. As seen earlier in this report, current conditions on Washington Street make it unsafe for bikers to use. Narrow, congested lanes, poor road maintenance and unclear crossing signals breed an environment ripe for injuries and accidents. Our study area of Jamaica Plain/Roslindale is in the top 5 areas of reported bicycle accidents in Boston (see Figure 2.9). As an off-road path through the Arnold Arboretum Park, the Arboretum Gateway path will provide a safer, low-stress travel route between Forest Hills and Roslindale Village. This benefit aligns with Boston's Vision Zero policy, which aims to eliminate traffic fatalities in Boston by 2030.

Aside from preventing threats to a rider's immediate physical health, establishing this path will also contribute to long-term physical and mental health benefits. Investing in biking infrastructure discourages commuters from automobile trips that contribute to increased body mass index and blood pressure (Hoehner, Barlow, Allen and Schooman 2012). Access to parks (such as the Arnold Arboretum) is associated with higher levels of physical activity in general, but within a park, people tend to be more physically active on trails than in other facilities (Godbey and Mowen 2010; Robert Wood Johnson Foundation 2010). Finally, active transportation as a form of physical activity is associated with lower body mass index, hypertension and diabetes (Furie and Desai 2012).

Hotspots for Bike Crashes in Boston

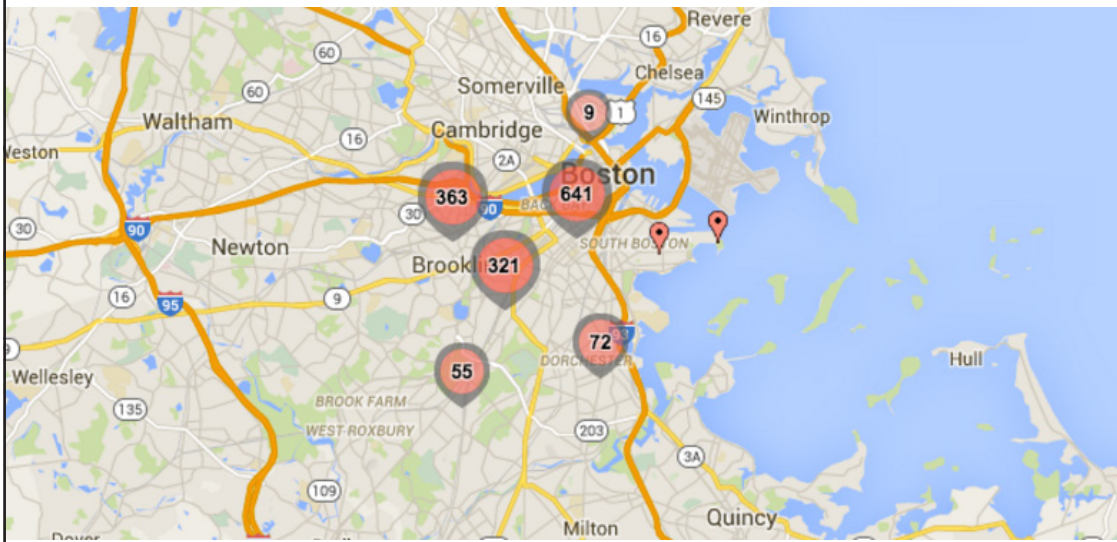


Figure 2.9. Hotspots for Bike Crashes in Boston (Source - Boston Bikes Accident Survey)

Economic Benefits

As part of our community outreach efforts for this project, we engaged with representatives from Roslindale Village Main Street (RVMS) - the city-sponsored entity tasked with providing organizational and technical support to the small businesses that are at the center of economic activity in Roslindale Village. RVMS expressed that by bringing people towards Roslindale Village, the Gateway Path would be a source of increased clientele for the small businesses in the village and would put Roslindale on the map as a visitor destination within the City of Boston. Furthermore, walkable open space can contribute to increased home values for homeowners in the area.

The economic impact of biking paths extends beyond the hyper-local level. According to Boston Bikes, between 2007 and 2012, 650 new jobs were created in the Boston area relating to biking, almost tripling the total jobs created before 2007. (Boston Bikes 2012) An equivalent New York City neighborhood saw a 49% increase in retail sales after the establishment of bike infrastructure in the area (McCann 2013).

Benefits to the Environment

Automobile emissions account for the vast majority of the greenhouse gas emissions that damage our environment and our air quality (Grabow 2011; Rasmussen 2008). Biking is a zero-emission mode of transportation that as an alternative to driving has the potential to improve air quality and decrease the use of energy resources. One study found that shifting just 5% of travel from automobile to bicycle could reduce transport-related greenhouse emissions by 0.4% (Lindsay, Macmillan and Woodward 2011). In the Boston area, where our sea levels, temperatures and subsequent energy uses have all been on the rise, it is especially important to mitigate the effects of greenhouse emissions (Rasmussen 2008). Investing in biking infrastructure such as the Gateway Path is an important way of reducing gas emissions.

Lessons from Other Paths

Another important area of research we undertook as part of this project was to investigate similar paths in the area. The primary lessons we learned from our investigations fell into three categories: planning collaboration, implementation and funding. Our findings from the Blackwell Path Extension will first be discussed, and primary lessons learned briefly reviewed for the Somerville Community and Belmont Paths.

Blackwell Path Extension

The proposed Blackwell Path extension is an important connection between the Gateway Path and the existing Blackwell Path. Currently, pedestrians and cyclists travelling south and exiting the Blackwell Path towards South Street must navigate a narrow road with poor sightlines, unsafe vehicle speeds and no pedestrian or bicycle infrastructure. This section of trail poses space constraints and engineering barriers unique along the Roslindale Village and Forest Hills route.

The Arboretum Park Conservancy's Blackwell Path Extension conceptual plan proposes a 10-foot wide asphalt pathway, (See Appendix B Figure B.4) from the intersection of Bussey and South Streets to the commuter rail underpass at Archdale Road and South Street. In order to avoid a narrow and low-lying portion at the southern edge of the Bussey Brook Meadow, the conceptual plan calls for a portion of raised boardwalk along South Street.

Other proposed improvements as part of the Blackwell Path Extension include three new gateway entrances, a crosswalk and sidewalk bump out at Bussey and South Streets to calm traffic, a lookout point along the boardwalk, stabilized slopes, and improved stormwater management.

Depending on the route option chosen for the Gateway Path, the Extension would either feed directly into the Gateway Path or would diverge from the Gateway path and continue towards a stopping

point at the commuter rail underpass. Both route options for the Gateway Path require a crossing at South Street to maintain continuity of the path through the Arboretum and towards Roslindale Village. It is these additional considerations that the Blackwell Path Extension plans sheds light. User signage and street infrastructure considerations will be important to maintain continuity between the Blackwell Path Extension and the Gateway Path.

Main Lessons

- Need for wayfinding signs
- Engineering for slope
- Need to consider Gateway Path with Blackwell Extension for continuity
- Consider natural character of the Arboretum

Somerville Community Path

The Somerville Community Path is a well-known, and very successful rail-to-trail path in Somerville, MA. To implement the project, the path has been completed in phases, with the first phase (.4 miles) finished in 2011, and another section currently in progress. Somerville's phasing method could provide an interesting model for the Gateway Path. Their funding methods listed below, could also be useful.

Main Lessons

Funding Sources (Somerville Path 2016)

- Mass Highway Congestion Management Air Quality (CMAQ)
- TIP funds and an earmark secured by Congressman M. Capuano

The adjacent Maxwell's Green development also contributed significantly to the creation of the Somerville Community Path. Through in-kind agreements, the development has removed the existing railroad tracks between Cedar Street and Lowell Street and regraded the area. Construction on a new extension will be starting this Spring 2016.

Belmont Community Path

Connecting the Alewife MBTA station, the last outward stop on the Red Line, to Belmont, MA, the Belmont Community path is also similar to the Gateway Path, at 2/3 of a mile long. Running along the Fitchburg Commuter Rail, the path was created through community efforts and engagement. It is paved, and has used helpful funding ideas, especially since the scale of this project is similar to that of the Gateway Path.

Main Lessons

- Example of stone dust infrastructure
- Use of wayfinding and educational signage.
- Community Engagement strategies
- Funding Sources
 - MassDOT
 - Community Preservation Act (CPA)

Accomplishing Broad Missions

The Gateway Path has the potential to accomplish three broad missions, while aligning with several local plans and studies. These missions align with the Roslindale Neighborhood Strategic Plan, the Destination: Roslindale Village Study, Boston's Vision Zero Plan, and the Emerald Network Vision and acknowledge issues of equity, and cultural competencies in regards to the Environmental Justice communities designated by the Commonwealth of Massachusetts near the Gateway Path.

Mission 1: Provide improved transit, pedestrian, and bike options.

A primary mission of the Gateway Path is to improve transportation choice and safety. This vision aligns with Boston's Vision Zero policy (Vision Zero Boston Action Plan 2015). Vision Zero aims to eliminate traffic fatalities and serious injuries in Boston. Due to the heavy traffic and dangerous biking and walking situations on Washington

Street (revealed by the Community Meeting, and qualitative data from the Community Survey), the Gateway Path would act as a safe and low-stress alternative for walkers, bicyclists and transit users, as investments in pedestrian safety are made on Washington Street.

Mission 2: Provide support to Roslindale Village as a commercial district by creating a path for new residents and visitors to access Roslindale businesses.

In 2010, another UEP Field Projects team conducted a study entitled "Destination: Roslindale Village" to investigate how shop-goers travel to Roslindale Village's business district. The results of the study found that 49% of shop-goers used motor transportation, while 35% walked. Fifteen percent (15%) of all shop-goers used public transportation to access the business district, including bus, subway and commuter rail combined, while only 1% rode a bike (Gregoire et al. 2010).

Our project builds on the 2010 study in two ways. First, the Gateway Path will increase accessibility to Roslindale Village and encourage active transportation modes - two key improvements recommended by the Roslindale study. Second, our Online Community Survey identified more specific transit use patterns, habits and preferences of neighboring residents of the Gateway Path.

Destination: Roslindale Village

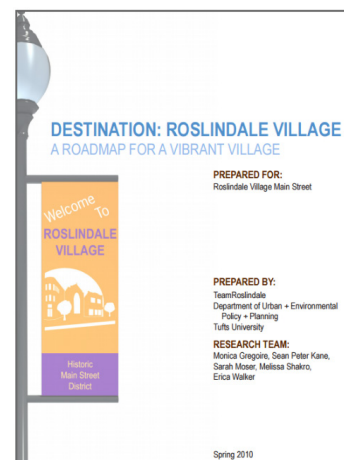


Figure 2.10. Destination Roslindale Village (Source: Gregoire et al. 2010)

From 2005 to 2007, Roslindale in conjunction with the Boston Redevelopment Authority, created a neighborhood strategic plan to “provide a blueprint for future development and identify and prioritize infrastructure projects such as transportation, open space and streetscape improvements.” (Boston Redevelopment Authority 2005). The Gateway Path would help to achieve the vision of the Roslindale Neighborhood Strategic Plan. The Path would enable visitors of the Arnold Arboretum, and many residents in the surrounding communities, to easily access Roslindale Village. Many Roslindale residents at the community meeting noted the desire to support and strengthen Roslindale small businesses. Improving the connection between Forest Hills and Roslindale Village will help make the business districts and other assets of Roslindale more attractive to visitors.

Mission 3: Contribute to the broad network of bike and pedestrian paths.

Roslindale Neighborhood Strategic Plan



Figure 2.11. Roslindale Neighborhood Strategic Plan
(Source: Boston BRA- City Hall)

The Gateway Path would connect to the broader network of biking and pedestrian paths in the Greater Boston area.

As noted earlier, LivableStreets is working on implementing the Emerald Network - a 200-mile connected network of tree-lined, shared-use paths. When completed, this system will connect every neighborhood in the greater Boston area to open space, transit and jobs and thereby increase mobility, promote active recreation, improve climate change resiliency and enhance the region’s competitiveness

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in the global economy (Emerald Network, 2016). LivableStreets is directly involved in efforts to implement the Gateway Path., as it would be an addition to the Emerald Network. The Emerald Network Map can be found in Appendix B.

Boston Green Links is a city-wide plan to connect people from every neighborhood to Boston’s greenway network by installing new paths, new bike facilities, and safer road crossings. It promotes low stress corridors that people of all ages and abilities can use to navigate the city safely, sustainably, and enjoyably, on foot, by bike, or in a wheelchair (Greenlinks, 2016). Boston Green Links is an ally of the Gateway Path. Their members collaborated with LivableStreets to coordinate a bike tour of the Gateway Path in the Summer of 2015. The Path aligns with the organization’s goals and can be found on the Green Links interactive map in relation to other existing, in-progress and proposed paths.

LandLine is the Metropolitan Area Planning Council’s (MAPC) vision to connect greenways and trails into a seamless network. Their plan has been developed in coordination with the LandLine Coalition, a group of 40 volunteers representing a number of local agencies and advocacy groups. Landline is an ally of the Gateway Path, and with assistance from LivableStreets we were able to import Landline’s trial data into Arc GIS and created the map shown in Figure 2.13. This map shows how the proposed Gateway Path could connect to the broader network of paths (Landline, 2016).

III. COMMUNITY ENGAGEMENT



This section of our planning study presents findings on community engagement, which assessed the extent to which residents support the Gateway Path and how it would be used. One of the significant objectives of the survey was to elicit residents' opinions on infrastructure, amenities and purpose of use. Our Central Questions and Methodology, and the previous section of Research and Analysis provided the background necessary to undertake this survey. We used three methods, and analyzed the data each provided:

- **The Online Community Survey:** A public survey distributed online and in-person to gather local opinion.
- **Interviews with Key Informants:** Key informant interviews with representatives of local organizations, public officials and community members.
- **The Community Visioning Workshop:** A public visioning workshop hosted on March 30th to discuss the project and receive input from local residents.

To analyze the data received from the Online Community Survey, we aggregated it in an online tool called Qualtrics and created figures and tables to visualize the findings. We selected pivot tables to relate participant characteristics and opinion questions for deeper analysis. To assess the open-ended comments, we initially grouped the responses into the themes used to generate the Online Community Survey: use, amenities and infrastructure, and safety/security.

Online Community Survey

To develop our Online Community Survey, we spoke at length with our Steering Committee made up of our client at LivableStreets and members of WalkUP Roslindale (see Appendix A for full survey). We discussed the questions we should ask the community, and drafted the survey in Qualtrics. We determined that we wanted to collect data on who would use the Gateway Path, how often, for

what purpose, and what types of amenities the path should have. We also wanted to gather information on the potential benefits of the Gateway Path, and receive quantitative data to help inform and frame our recommendations. We asked for feedback from our Steering Committee and from Francine Jacobs, one of our field projects instructors, who has extensive experience with surveying and incorporated their suggestions.

The Online Community Survey was open from March 5th to April 12th. We disseminated the survey through the email lists of LivableStreets, WalkUP Roslindale, Rozzie Bikes, Roslindale Village Main Street and Greening Rozzie, as well as through social media and the Roslindale Bulletin, a local newspaper. We also gathered ten surveys in person at the Roslindale Farmers Market, in the Arnold Arboretum, a bus stop on Washington Street, and at Forest Hills MBTA Station. Although we cannot determine the number of people who received the invitation to participate, the Online Community Survey generated robust community participation.

In total, 685 people started the Online Community Survey, and 638 people completed it. For the 47 respondents who answered a portion of the survey, we decided to keep their results as the questions are independent from each other, and their responses still provide valuable information. To maintain clarity throughout the data analysis section, respondent and/or response totals are indicated in all figures and tables and in the discussion as necessary.

Survey Design

The Online Community Survey is made up of four question groups:

1. **Questions for Train Commuters**
2. **Questions for Walkers and Bikers**
3. **Questions for Roslindale Residents and Employees**
4. **Open-Ended Questions**

Survey respondents answered the participant-specific questions and the open-ended question of group 4. Survey respondents answered questions

in question groups 1, 2 and 3 if they indicated in the participant characteristic section that they were a train commuter, walker or biker, and/or if they lived or worked in Roslindale. Figure 3.0 illustrates those participant responses for each of the categories and shows that many respondents answered positively for multiple categories.

These categories were developed in order to ask specific questions based on the type of respondent. In particular, we wanted to ask Roslindale residents and employees how they thought the Gateway Path might affect businesses in Roslindale Square, and how residents living in Roslindale and nearby neighborhoods would use the Gateway Path while commuting to the train or subway. We also wanted to ask about reasons why walkers and bikers would use the path and about the desire for greater connectivity to other multimodal networks.

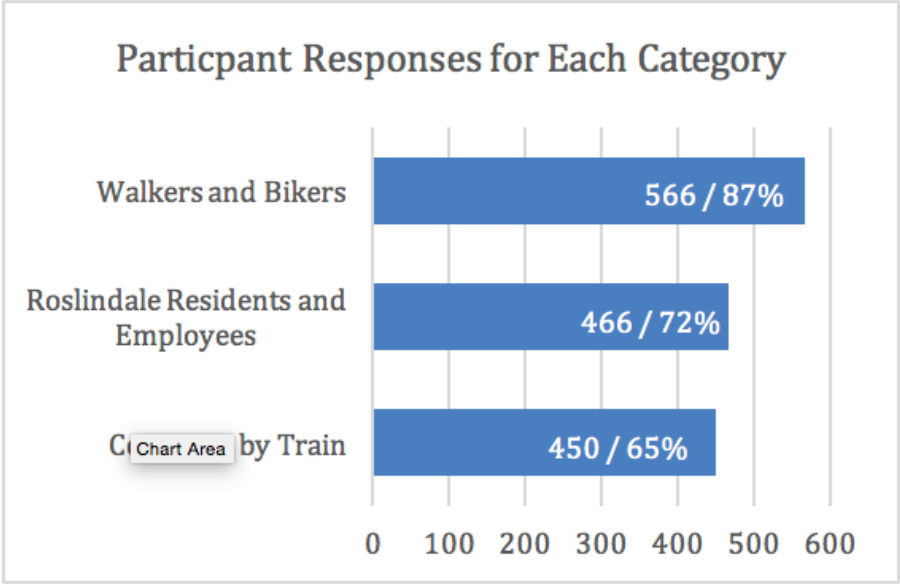


Figure 3.0. Participant Responses for Each Category (N=645 respondents)

Participant Characteristics

Of those who responded to the survey, a majority, or 77% were residents of Roslindale, with 12% residents of Jamaica Plain and 5% from West Roxbury. The 37 write-in answers for the “Other” category can be found in Appendix A. We believe that this shows the excitement and interest in the community for the Gateway Path.

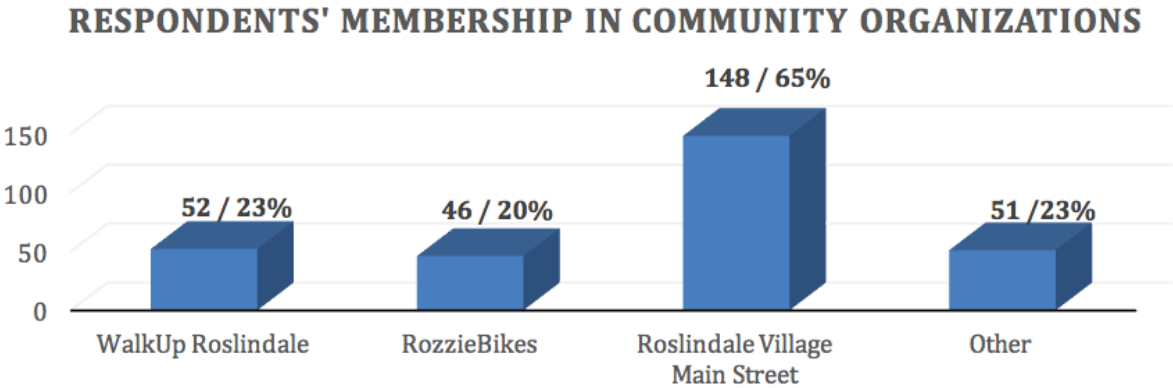


Figure 3.1 Respondents' Membership in Community Organization. (N=226 respondents, with 297 responses). Note. % calculated are based on 226 respondents. Survey question. Are you a member of the following organizations?

Participants of the survey are members of many community organizations. In all, the question had 226 respondents, but 297 responses, making the respondents who answered the question have membership in 1.3 organizations on average. Figure 3.1 indicates that out of those 297 responses about half were members of Roslindale Village Main Street and about a fifth members of WalkUP Roslindale and RozzieBikes respectively. Predominant organizations mentioned in the write-ins for “Other” were LivableStreets, GreeningRozzie, WalkBoston, Boston Cyclists Union, Parkland Management Advisory Committee (PMAC), Arborway Coalition, and Friends of the Roslindale Library. We feel that given the organizations that participated in our survey dataset, the Online Community Survey strongly represents biking, walking, path, and parkway advocates in Roslindale, as well as other active community members in Roslindale.

Of the 638 respondents in the total survey, 22 indicated owning a business in Roslindale, with 12 noting they were self-employed and/or worked at home. Those owners, as well as residents of Roslindale commonly agreed or strongly agreed that the Gateway Path would benefit local businesses in their neighborhood.

General Path Use

The current lack of bicycle and pedestrian accessibility to Roslindale Village, documented in the 2010 Tufts UEP Field Project, is a key element motivating the creation of the Roslindale Gateway Path. The path would facilitate access to downtown Roslindale for people visiting the Arnold Arboretum, and provide an alternative to Washington Street for people traveling between the Forest Hills MBTA station and Roslindale Village.

To gauge whether residents would use the path in general, our survey asked respondents how often they would use all or part of the Roslindale Gateway Path. Figure 3.2 illustrates that respondents were overwhelmingly positive, with 598 respondents out of 645, or 92% indicating they would use all or part of the path often or occasionally, and only 6% noting they would use the path rarely or never.

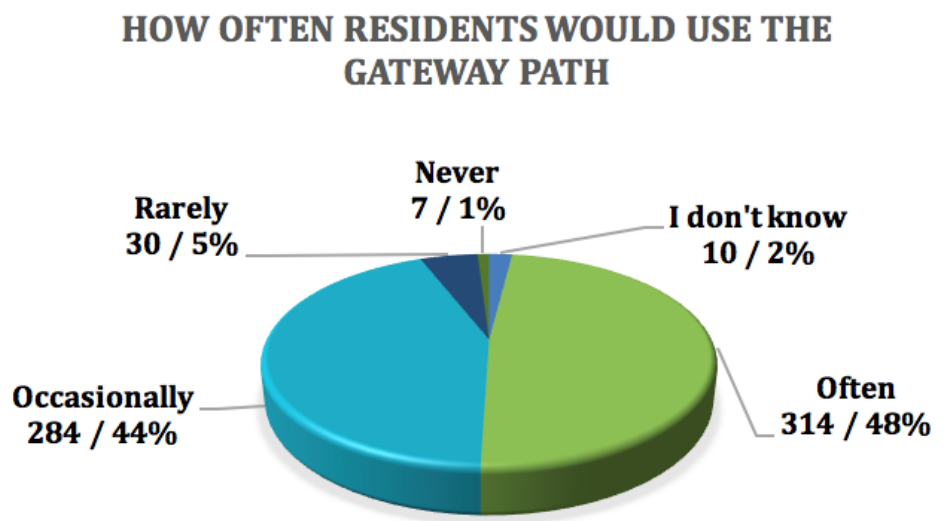


Figure 3.2. How Often Residents Would Use the Gateway Path (N=645 respondents). Survey Question: Would you use part or all of the paths indicated in red in the image above?

Respondents were also asked if they were aware of and used the existing Blackwell Path. Out of 638 responses, 20% of participants did not know the Blackwell Path existed and 18% indicated they did not use it. This serves to inform advocates for the proposed Gateway Path that efforts may be required to spread awareness of the path, and educate community members about its benefits.

While some residents did not know of the Blackwell Path, only 2% out of 562 respondents who self selected as walkers or bikers were not familiar with the Southwest Corridor, a path which ends just 306 yards away from the Blackwell Path entrance to the Arboretum. Figure 3.3 indicates that 80% would definitely and 14% would probably like the Southwest Corridor to better connect to the Arboretum.

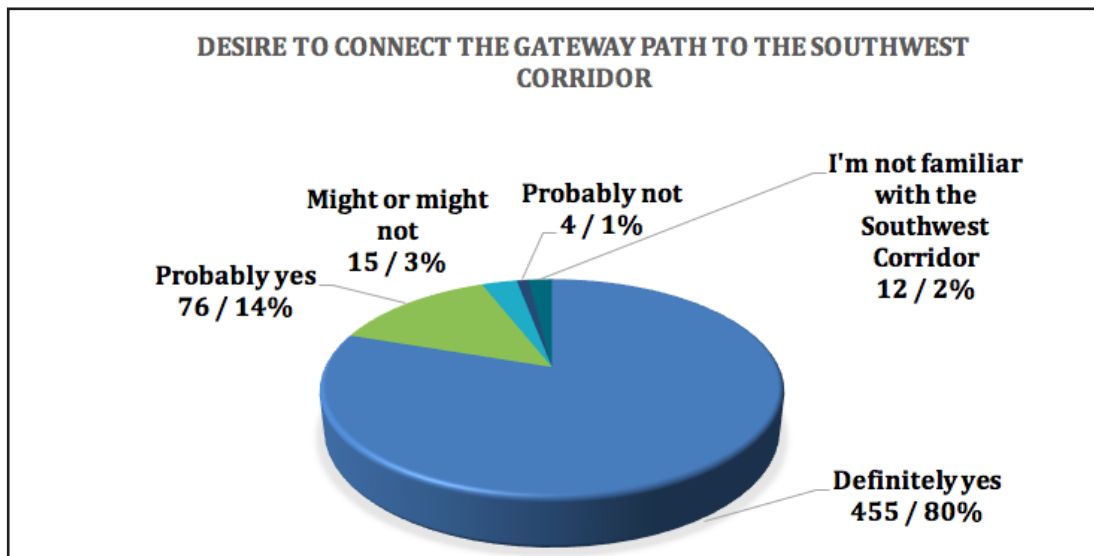


Figure 3.3. Desire to Connect The Gateway Path to the Southwest Corridor (N=562 respondents).
Survey Question: Would you use part or all of the paths indicated in red in the image above?

Commuter Trends

To gain a more comprehensive scope of the potential benefits of the Gateway Path, this section analyzes commuting trends of Roslindale and neighboring residents, looking at commuting purpose, modes, and frequency. Figure 3.4 below indicates how often respondents would use the path to connect to the train or

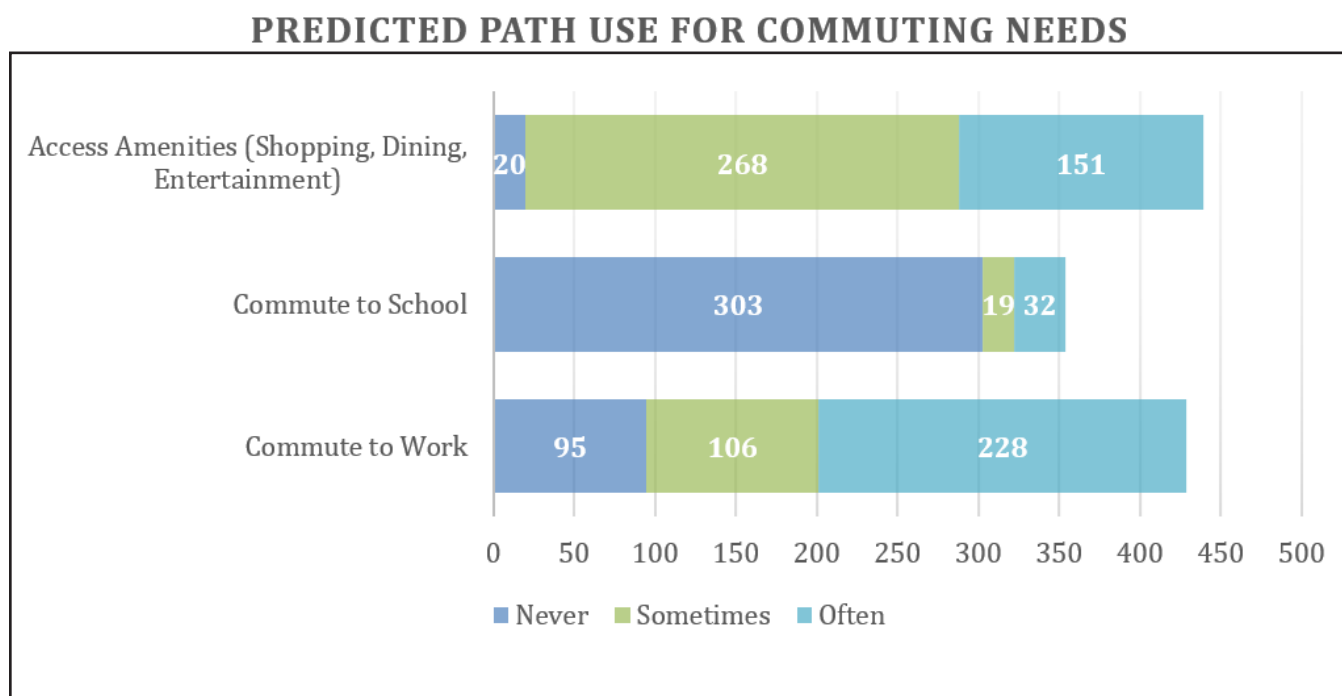


Figure 3.4. Predicted Path Use for Commuting Needs. (N=1222 responses). Survey Question- On average, how often do you use the Forest Hills Orange Line or the Roslindale Village Commuter Rail Stations in each of the following ways?

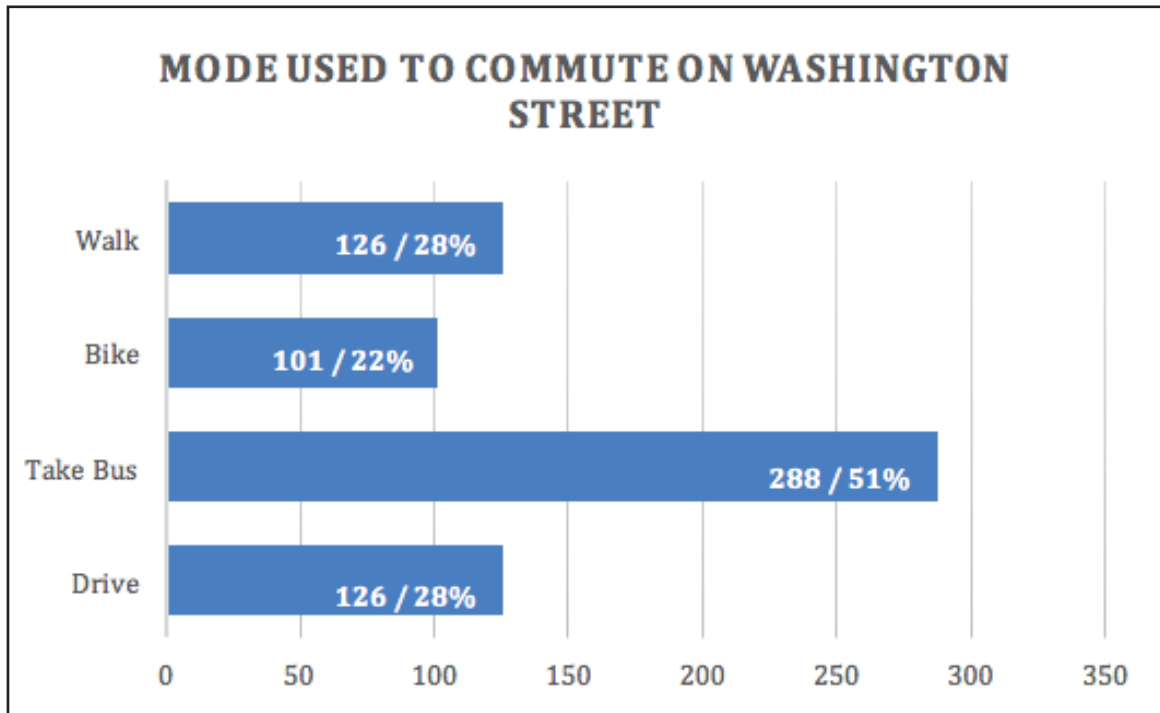


Figure 3.5. Mode Used to Commute on Washington St. (N=641 responses, 450 respondents). Survey Question- How do you currently get to the Forest Hills Orange Line or Roslindale Commuter Rail Station?

In its current configuration, Washington Street is a generally unsafe traffic corridor, as mentioned in the Project Description section, Current Conditions. One of the benefits the Gateway Path would provide, would be to offer an alternate route to Washington Street to commute between the Forest Hills MBTA station and Roslindale Village. In all, 450 or 70% of all respondents, indicated that they used Washington Street to commute all or part of the time, with 30% noting they use an alternate route. Figure 3.5 shows the modes of transportation used on Washington Street by those 70% of respondents, of which 51% indicated they use the bus.

These findings are important. Since a large number of residents use Washington Street to travel between Roslindale Village and Forest Hills, a significant number of commuters could be diverted off of Washington Street and onto the Roslindale Gateway Path. These findings however should not dissuade efforts to make Washington Street safer for walkers and bikers. It is also worth noting that 36 of the write-in answers for “Other”, not included in the results indicated walking or biking through the Arboretum as the way that they travel to the Forest Hills Orange Line and Commuter Rail Stations. It seems that there is interest in using the Arboretum as an alternative way of traveling to the train stations. A complete list of the write-in answers for “Other” can be found in Appendix A.

Figure 3.6 shows that 315 people out of 450 respondents or 70% who commuted to train stations, said they would use the path once a week or more, on average.

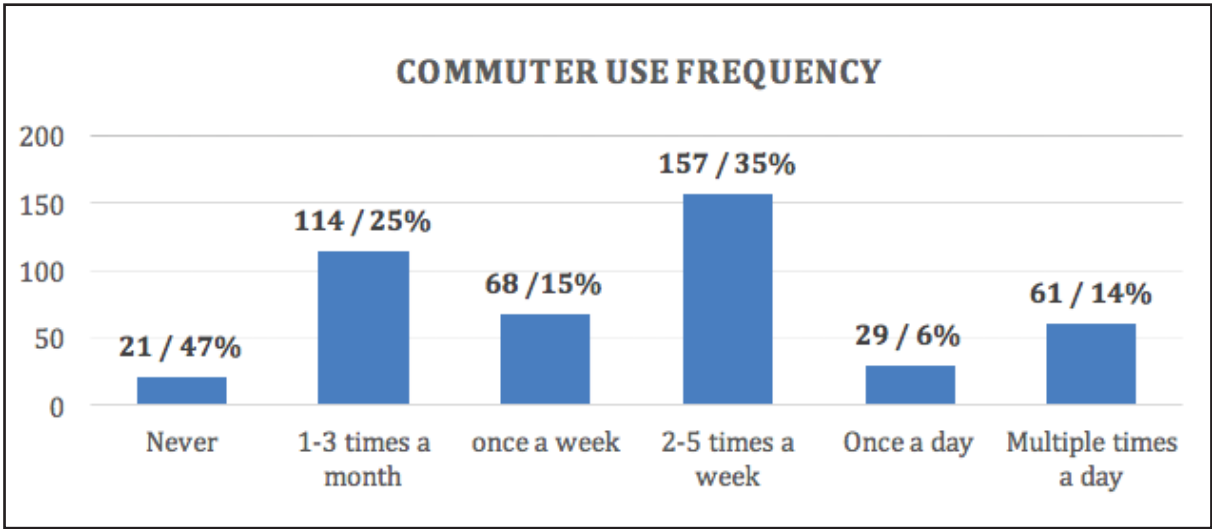


Figure 3.6. Gateway Path use by commuters. (N=450 respondents) Survey Question: On average how often would you use the Gateway Path to get to the Forest Hills Orange Line or Roslindale Commuter Rail Stations?

From further analysis we combined data on reasons for commuting by train with frequency of use of the Gateway Path. Figure 3.7 shows that the 187 survey participants who use the Forest Hills Orange Line or Roslindale Commuter Rail Stations to get to work also responded that they would use the Gateway Path to access those stations once a week or more. The data presented in Figure 3.7 suggests that there is significant potential for the Gateway Path to serve as a commuting route for community members on their way to work and when going shopping, dining, or to enjoy other forms of entertainment.

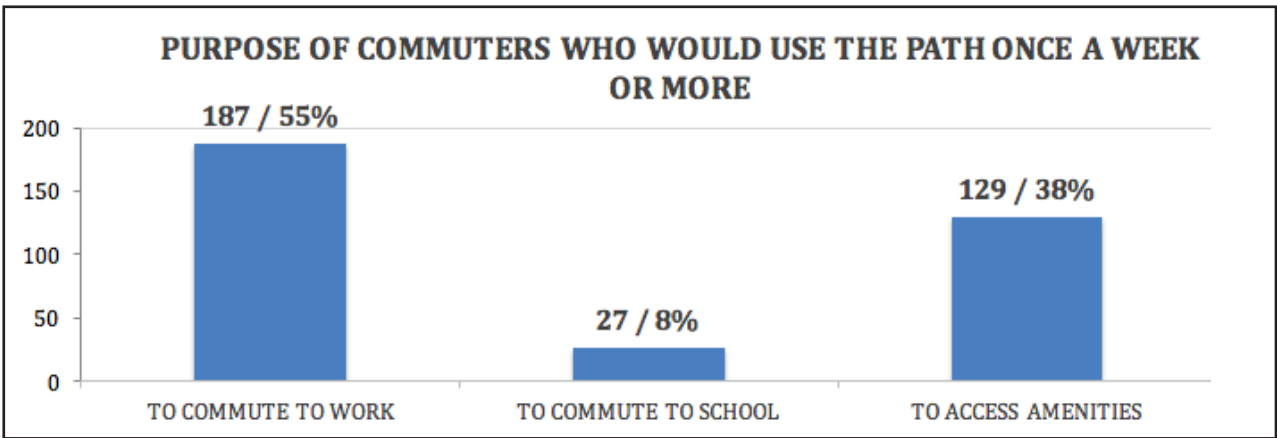


Figure 3.7. Purpose of Commuters Who Would Use the Path Once a Week or More (N=343 respondents)

Walker and Biker Trends

The two most popular reasons for survey participants to walk, run, or bike are for exercise and to enjoy nature. Figure 3.8 indicates that out of 562 respondents 91% walked or biked for exercise, and 88% for nature (respondents could indicate all reasons that applied). Increasing access to the Arboretum could be an asset to community members who walk, run, or bike for those reasons. Also worth noting, is that a quarter of the respondents who provided write-ins for “Other” indicated exercising their dog as their reason to walk, run, or bike. This suggests that amenities for dog ownership should be considered in the decision making process. Other write-ins included socializing and family entertainment. All “Other” responses can be found in Appendix A.

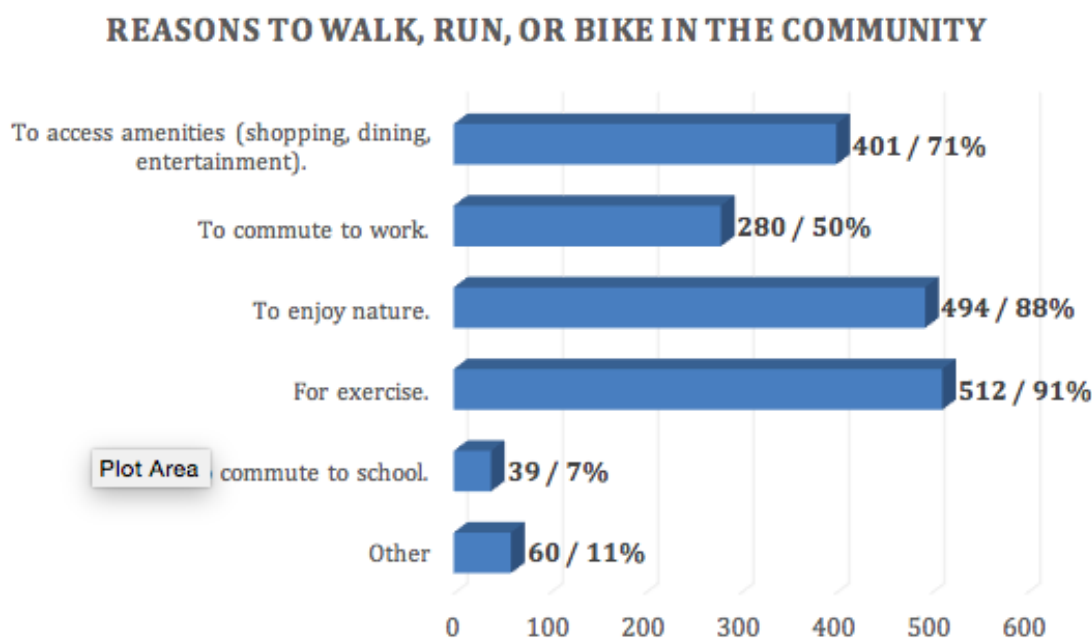


Figure 3.8. Reasons to Walk, Run or Bike in the Community. (N=562 respondents).

Figure 3.9. shows where 101 survey participants travel when walking, running or biking around Roslindale, Jamaica Plain, West Roxbury and surrounding neighborhoods. With 16.8%, Roslindale to Jamaica Plain was the most frequently traversed route. The Gateway Path could potentially assist community members with all of these trips as well as promote increased travel by foot, and bike.

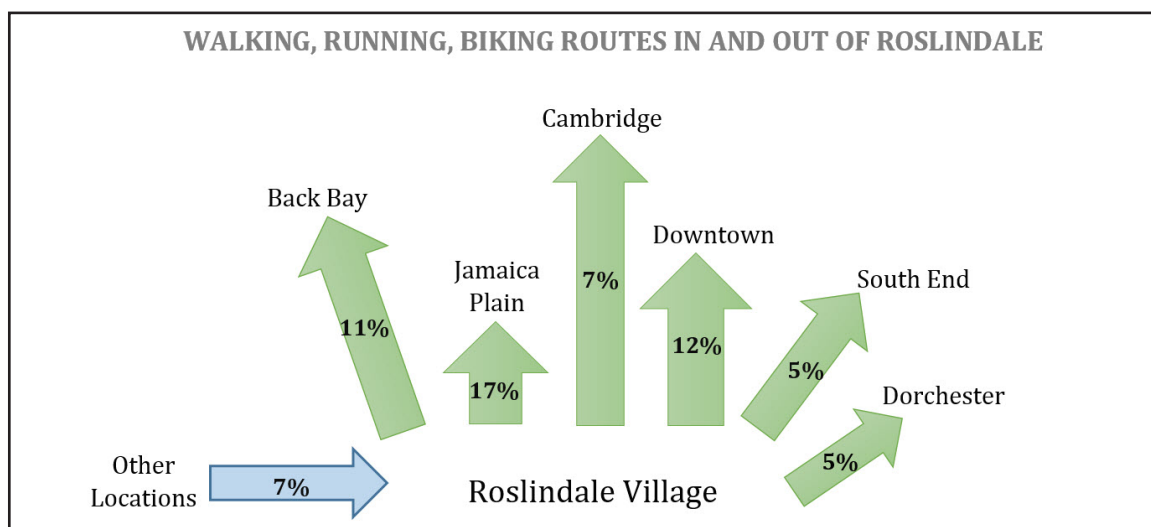


Figure 3.9. Where Participants Walk, Run, and Bike (N=101 respondents). Survey Question: When walking, running, or biking, where do you travel to and from?

Multi-Use Scenarios

Knowing how community members would use the Gateway Path should be considered when deciding on path design and maintenance.

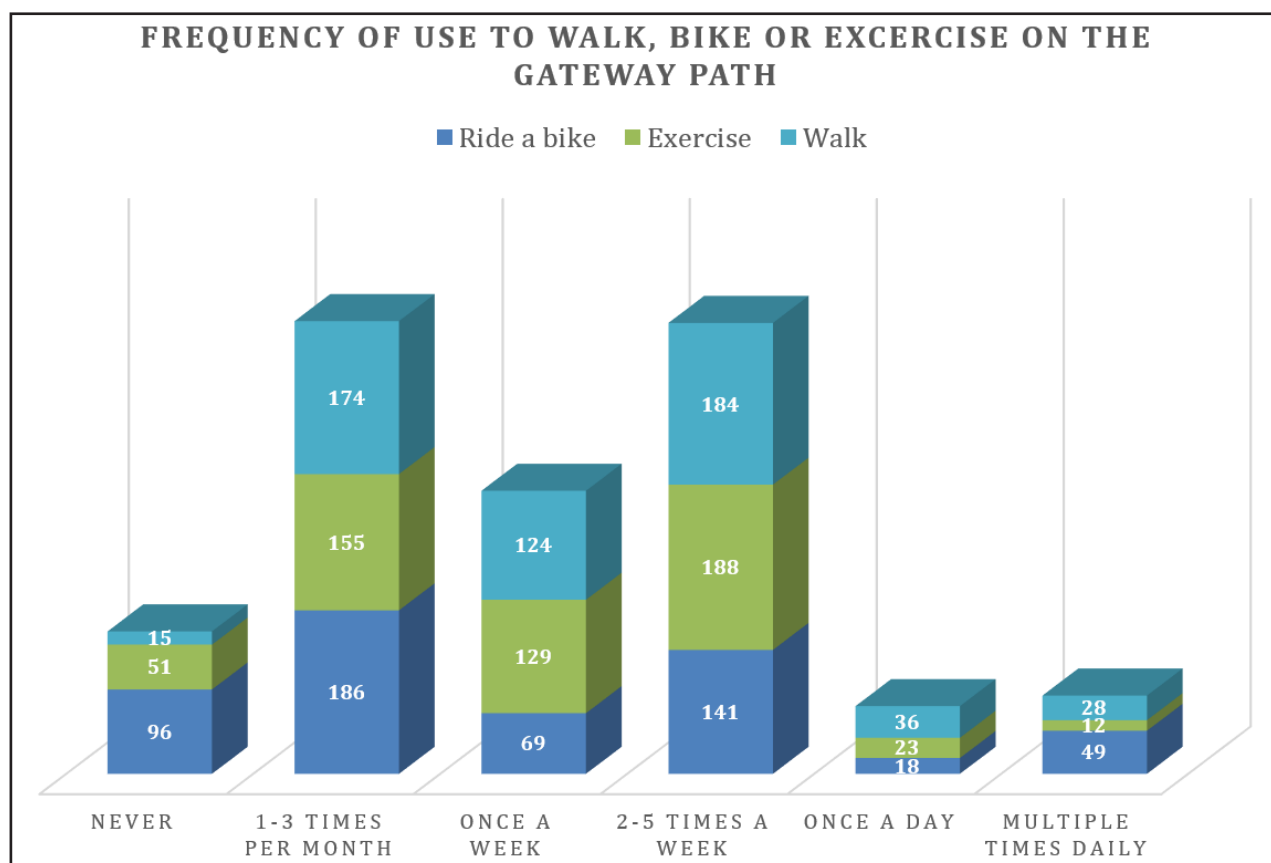


Figure 3.10. Frequency of Use to Walk, Bike or Exercise on the Gateway Path (N=561 respondents)

Figure 3.10 shows that 49 bikers would use the path multiple times daily, which represents the most prevalent use chosen for multiple times daily. 248 or 44% of survey participants said that on average, they would use the Gateway Path 2-5 times a week or more to walk, 223 or 40% for exercise, and 208 or 37% to ride a bike. This presents a case for the need of a multimodal-shared path.

Path Amenities

Many considerations need to go into designing a path, and most involve physical amenities. In order to understand what the community of Roslindale desired, we asked residents to rank the importance of five amenities: lighting, paved surfaces, educational signage, bike racks, and benches. The averages from 645 survey responses are shown in Figure 3.11 below. With an average rating of 7.73, lighting was rated as the amenity of most importance for survey participants.

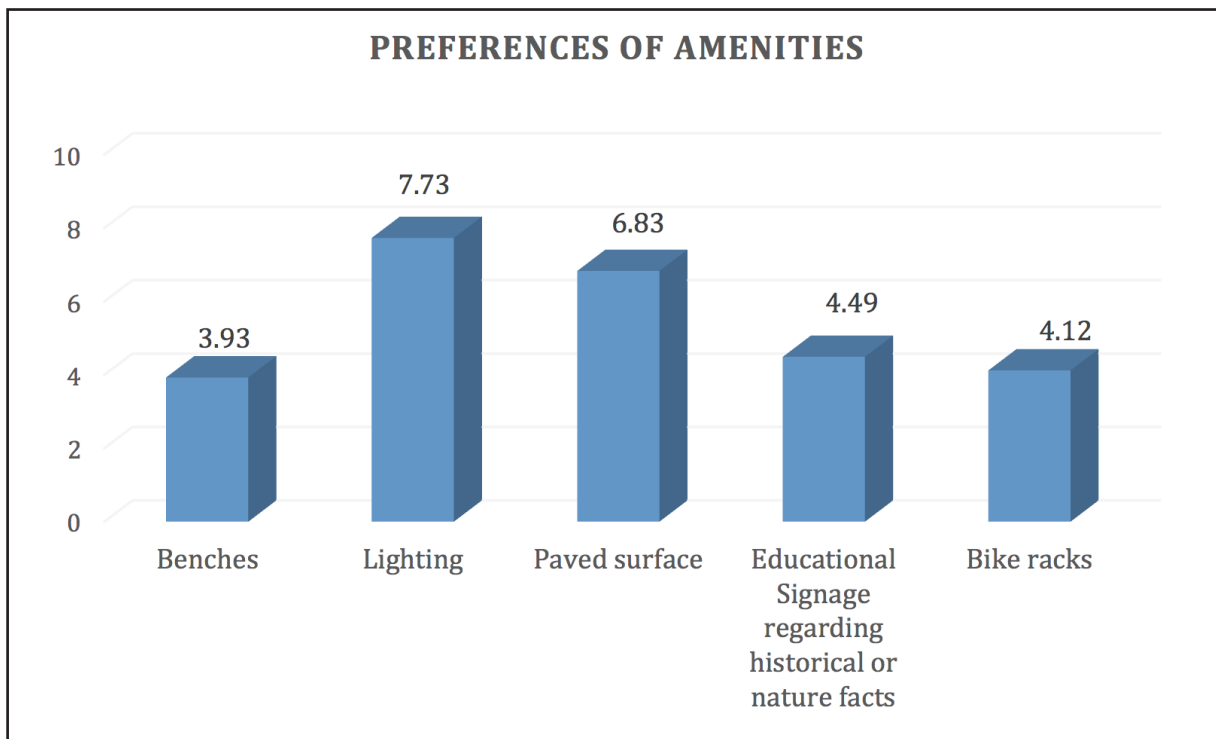


Figure 3.11. Preferences of Amenities (N=645 respondents)- 0 = not desired 10= very desired

Open Comment Themes

The Online Community Survey included an open-ended write-in question at the end, to allow participants to provide opinions or ask questions on the path freely. 200 people provided comments. We organized all 200 responses into the categories discussed previously: support, use, amenities and infrastructure, and safety/security.

Use

Many comments from the community took a broader look at potential connections. A number of comments advocated for the Gateway Path to connect with the Southwest Corridor via the Blackwell Path. Others cautioned not to preclude transit expansion such as a potential Orange Line Extension, advocated for more bike and walking connections such as one with Cummins Highway, and asked that access points such as “Bussey Street Bridge” be improved.

Amenities

Lighting was a frequent comment topic, with respondents indicating both in favor and not in favor of the amenity. Those who desired lighting typically noted it was due to concerns for safety, and to allow accessibility to commute at night. Those who did not want lighting were concerned of disrupting nature and wildlife. Another amenity that was discussed was the need for trash cans to keep the area clean.

Infrastructure

As with lighting, those who indicated the desire for a gravel path, principally wanted the option that would least affect nature and wildlife. Others were concerned with altering the natural character of the Arboretum. Both commenters felt that a gravel path would be a more natural option and better integrate with the environment compared to pavement. Respondents who preferred a paved path indicated the desired use of the path for strollers, easier plowing in the winter and concern for maintenance costs.

Safety/Security

Many people expressed safety as a concern with the Gateway Path, especially regarding keeping children safe at the South Street crossings, near the train tracks and away from fast bikes on Peter's Hill. Another common concern was security on the Gateway Path. As noted previously, many advocated for lighting in order to make the paths safer at night, with others suggesting that increased police patrol or emergency call boxes would be important.

Interviews of Key Informants

This project involved a steep learning curve to become familiar with the stakeholders and processes that are a part of creating a new path in Boston. In order to become informed and gain many perspectives on the process, we set out to have informational conversations with stakeholders that could help gain insight into the process. This section reviews the data received from those discussions, and analyzes them by stakeholder group.

Key Informants

In total we spoke with 17 key informants. Table 3.0 to the right is a chart detailing the stakeholder groups, number of interviews conducted from those groups and the purpose or intent of our discussions.

Process Design

We used the questions below as a guide for our informal key informant interviews.

1. Can you briefly describe your organization and your role in your organization?
2. Are you supportive of the Gateway Path?
3. What do you see the purpose of the Gateway Path being?
4. What amenities should the Gateway Path have?
5. What needs to happen to make the Gateway Path a reality?
6. Do you have recommendations on what the ownership structure or funding sources could be for the Gateway Path?
7. Can you recommend organizations we should speak with or studies we should look at to assist us with our study?

Stakeholder Group	Number of Interviews	Purpose/Intent of Interview
Steering Committee/WalkUP Roslindale	5	To gain a better understanding of what the steering committee expected from our project, why they thought the Gateway Path would be an asset to the community and who the other potential stakeholders might be that could help us gain a broader understanding of how to make the Gateway Path a reality.
Local Organizations		
Roslindale Village Main Street	1	To gain a better understanding of the community needs and other local priorities.
Roslindale Community Center	2	“ “
Emerald Necklace Conservancy	1	To gain a better understanding of other efforts to increase connectivity of the Emerald Necklace.
Washington Beech Public Housing	1	To gain a better understanding of the interests of the low-income population that fills 494 apartments.
Arboretum		
The Harvard Arnold Arboretum	2	To gain a better understanding of their supportiveness and interests.
Arboretum Parks Conservancy	1	To gain a better understanding of their scope and of the Blackwell Path Extension.
Public Officials		
Legislative Aide to State Representative for Roslindale	1	To gain a better understanding of the State Representative's support, interests and how to present our findings.
Boston Greenlinks	1	To gain a better understanding of their role and other process of similar projects.
MassDOT	1	To gain a better understanding of their interests and plans.
Mayor's Neighborhood Liaison to Roslindale	1	To gain a better understanding of their role and the process for similar projects.

Table 3.0. Participant Stakeholder Chart and Interview Intent

Data Themes

Steering Committee

The Steering Committee, including members of WalkUP Roslindale were informative and helpful in our interview process. They provided background data, and contextual information to enable us to understand the details of the project. They also expected us to engage with the community through a survey and workshop, and recommended we gain further insight from Roslindale Village Main Street, the Arnold Arboretum, and public officials.

Local Organizations

These organizations helped shape our recommendations by giving us insight into Roslindale's history and values and the Gateway to the Arborway initiative.

Arnold Arboretum

From speaking with representatives of the Arnold Arboretum we learned about their future plans, that they are supportive of the Gateway Path and are open to working with the community to help make the path a reality. From speaking with the Arboretum Park Conservancy we learned that it is a small non-profit in charge of the planning for the urban wilds, Bussey Brook Meadow and that they are also supportive of the Gateway Path. We were able to get a better understanding of their plans for the Blackwell Path Extension. This helped shape our implementation strategy and path design recommendations.

State Level View

A legislative aide of a Massachusetts State Representative had a wealth of local knowledge and identified key reports and players that helped inform who we chose to speak with.

City Officials

We learned about what roles they play and what projects they are working on to advance paths and trails in Boston. We also learned about the specific roles of various City of Boston departments, such as Boston Parks and Recreation. These stakeholders helped shape the implementation section of our recommendations.

Public Housing

A key insight we gained from the administrative representative of Washington Beech Public Housing is that residents of the apartments currently use the Arboretum very little because there is a cultural barrier for them. The residents may not feel comfortable in the Arboretum

because there are not many people who look like them and there are no amenities that are appropriate for the residents, such as picnic tables and stroller accessibility.

It was critical to speak with residents, public officials and representatives of local organizations because they held important knowledge regarding the process for making the Gateway Path a reality.

Community Visioning Workshop

The purpose of the Roslindale Gateway Path Community Visioning Workshop was to engage with the community and capture valuable local knowledge.



Figure 3.12. Members of WalkUP Roslindale and the Tufts student team lead workshop participants on a site tour of the MBTA-owned portion of the proposed Gateway Path. (Source: LivableStreets)

Over 100 community members participated in the Roslindale Gateway Path Community Visioning Workshop. Many key stakeholders, administrators and officials attended the Visioning Workshop. Those included Mark Boyle, Assistant General Manager for Real Estate and Asset Development at the MBTA, representatives from MassDOT including the Bicycle and Pedestrian Program Coordinator, Peter Sutton, Steven Schneider the Arnold Arboretum Maintenance Director, and Lee Blasi, Chief of Staff for Boston City Councilor Timothy McCarthy.

Workshop Process Design

We designed a workshop flyer in English and Spanish. These flyers were distributed electronically to the WalkUP Roslindale, LivableStreets, and Roslindale Village Main Streets email lists. Tufts students and a representative from WalkUP Roslindale put flyers up in Roslindale Square. Our Steering Committee used the Roslindale Bulletin to publicize the community workshop. The article can be found in the Appendix A of this report.

Abutters to the Gateway Path were informed on multiple occasions of the Gateway Path project and were made aware of the Visioning Workshop by way of flyers distributed to their homes by an abutter in WalkUP Roslindale (See Figure 3.12). Several abutters attended the Community Visioning Workshop. The workshop was held at the Roslindale Community Center on the evening of March 30th.



Figure 3.13. Community Members Engage in the Roslindale Gateway Path Community Visioning Workshop at the Roslindale Community Center (Source: LivableStreets)

The Visioning Workshop began with a walking tour, led by representatives from WalkUP Roslindale, see Figure 3.3 to the right. Around 30 people joined. Residents were led from the Roslindale Community Center to the Roslindale Commuter Rail Station, to show where the entrance to the Roslindale Gateway Path would be located. The tour walked down the MBTA train platform in the direction of downtown Boston to help those on the tour visualize how and where the path would connect to the Arnold Arboretum. They then returned to the Community Center for the remainder of the Community Visioning Workshop.

As residents entered the meeting space they were asked to place a colored sticker on a large map to show where they lived. This provided a visual illustration of where people attending the meeting

lived, and the communities represented. The map showed that a majority of the members at the meeting were from Roslindale, especially from the Peter's Hill neighborhood and south of Roslindale Center. Only a few were from Jamaica Plain and West Roxbury.



Figure 3.14. Community Members Engage in the Roslindale Gateway Path Community Visioning Workshop at the Roslindale Community Center (Source: LivableStreets)

While checking in, attendees were also assigned to tables, where a Visioning Workshop organizer, either from WalkUP Roslindale, LivableStreets, or the Metropolitan Area Planning Council (MAPC), was assigned as facilitator. Each table also had a designated notetaker, either from Tufts UEP or LivableStreets, to track comments and assist in the discussions. Facilitators were provided with questions to help guide conversations as needed, but most happened organically. Each table had maps of the area illustrating the proposed path to help attendees visualize the project, as well as topographic maps of the Arboretum and broader network maps.

To introduce the meeting, and provide contextual information on the Gateway Path project, LivableStreets, WalkUP Roslindale and Tufts UEP organized a short presentation. At this time, Tufts UEP presented preliminary results from the Online Community Survey. Results that were discussed were response rates and neighborhood survey participation, predicted frequency of path use if it existed, and the perceived benefits of the path to Roslindale Village. A few questions and concerns of the path were also shared from the open-ended portion of the Online Community Survey, including concerns of path safety for abutters.

Following the presentation, attendees were given 45 minutes to discuss in groups their ideas and recommendations for the path, with another 15 minutes reserved to collaborate as an entire group and review major themes discussed at the end. The themes were aggregated at the meeting for members to see.

Data Themes

Livable Streets co-host Amber Christoffersen was greatly encouraged by the community attendance and excitement. Key stakeholders, administrators and officials voiced support for the Roslindale Gateway Path. Abutters didn't voice any opposition to the path. The themes that emerged from the workshop included path safety and the danger of traveling on Washington St., lighting, surface composition, multimodal use, pros and cons of path Options A and B, the need for improved connectivity, funding, and further community engagement ideas.

Of note, there were a few ideas discussed in the Community Visioning Workshop that were not documented in other community engagement initiatives for this project, which we believe are important to include.

First, community members were in significant agreement that the creation of the Roslindale Gateway Path should not interfere with potential future transit improvements involving either a possible Orange Line extension or a Washington Street redevelopment. The path should act as a new connectivity method, not as an alternate route that decreases the importance of other transit routes.

Another issue discussed many times in the Visioning Workshop was the concern for safety while crossing South Street, an issue for either Option A or Option B path ideas. The high speeds, and blind corner where South Street enters the Arnold Arboretum would need improved traffic calming infrastructure to make the area safe for bikers and pedestrians. Other community ideas involved making the intersection of Bussey and Center Street a three-way intersection, or pricing out the cost of a pedestrian/biking bridge.

Another theme discussed involved implementation and funding of the project. With many attendees mindful of past bike and pedestrian plans, they voiced concerns about costs. To help mitigate this issue, project phasing was suggested, with the first phase being the connection through the MBTA land into the Arboretum, and the rest being added incrementally. It was cautioned "not to let the perfect get in the way of the possible," as well as the recommendation to build it now and improve it later. Potential funding sources were also provided.



Figure 3.15. Community Members Engage in the Roslindale Gateway Path Community Visioning Workshop at the Roslindale Community Center (Source: LivableStreets)

Those sources are listed below:

- Harvard University
- Community Preservation Act (if passed)
- Youth Lead the Change
- Boston Foundation
- Boston Medical Center
- Barr Foundation

For further funding ideas, refer to the Sources of Funding section in the Implementation chapter discussed later in this report. The community also provided recommendations for additional community engagement. Those ideas are listed below.

Ways to Promote Community Engagement

- Posters in the Arnold Arboretum
- Flyers on community bulletin boards and local businesses
- Bike ride fundraising
- Social media: Next Door, Facebook
- WalkUP Roslindale events

- Bicycle Shop Network events
- Table at the Roslindale Village Farmers Market hosted by Roslindale Village Main Street
- Articles in the Local Bulletin, JP gazette and JP news

These suggestions provided by the community for further engagement and awareness should be considered. While this project has pursued a number of the methods listed, maintaining a community presence and further engagement and awareness initiatives should be prioritized as the Gateway Path progresses.

Conclusions

We are able to make the following conclusions based on our findings from the Online Community Survey, the Stakeholder Interviews, and the Roslindale Gateway Path Community Visioning Workshop. Community members are very supportive and excited about the Gateway Path. Many community members find Washington Street to be a safety hazard for walkers and bikers and think the Gateway Path would be a perfect complement to Washington Street. The path has the potential to be used on foot and by bike by people getting to work and accessing amenities. They have security and safety concerns. Most community members would like to see safety measures put in place for walkers and bikers when they use the streets and they would like the path to be lit at night.

Limitations to Community Engagement

While we had a large number of Online Survey Responses, and participation in the Community Visioning Workshop, there were limitations to our dissemination and recruitment methods, and thus community engagement results received. Primarily, we distributed the survey via our partners' email list serves and social media, namely Roslindale Village Main Street, LivableStreets and WalkUP Roslindale. While effective, it is important to note that those sources tap into a community of active local members, and LivableStreets and WalkUP Roslindale advocates for pedestrian and biking transit. As a result, those who responded from these organizations would likely be more excited

about the Roslindale Gateway Path than others in the community. Considering that only 58% of households indicated they spoke English at home, with 21% noting they speak Spanish, we created a Spanish Language version of the Online Community Survey. Unfortunately, we were not able to reach any Spanish-speaking people to participate in this survey. Further, the Community Visioning Workshop had very little diversity. Considering that Roslindale Village is a community with a majority of people of color, the lack of representation of people of color was noticeable, and is an important concern. Further community engagement should work on obtaining diverse community input.

Further community engagement should also be sought to involve the Arnold Arboretum email list and social media. The Online Community survey did not adequately involve the Arnold Arboretum, as we began our interaction with the park staff later in our project timeline. Upon reflection, it may have been beneficial to gain input on the proposed Gateway Path from people who use the Arboretum, as their opinions will be important in the decision making process.

For our "Initial Questions", we asked participants to identify themselves as "Travelers from Roslindale or West Roxbury..." We now realize that this excludes Jamaica Plain, Hyde Park and other residents who might use the Gateway Path to reach either the Roslindale Commuter Rail or Forest Hills Stations.

IV. Options and Recommendations



Trail Design

In this section we discuss trail amenities and review the potential positives and negatives of scenarios proposed by local residents. This section does not intend to give specific suggestions, but seeks to document and review existing recommendations, to be used as a reference tool for future design and implementation decisions. As planning for the Gateway Path continues after our study, all aspects of the Gateway Path will be further analyzed in a feasibility study - conducted by an engineering firm - and final decisions will be assessed for cost and applicability. We first discuss path amenities, including lighting and surface composition. We then review the two options for how the Gateway Path will build upon the Blackwell Path Extension.

Lighting

Overall, we found the amenity that was most desired in the community survey was lighting. Currently no lighting exists in the Arnold Arboretum, neither on the footpaths nor on the city streets crossing through the park. As a result, residents indicated concern for their safety when traveling on the paths at night or at dusk. This would be especially problematic for those seeking to use the path as a commuting method, as during the winter months the path would be dark while residents are commuting from Forest Hills to Roslindale Village.

However, there are a few important aspects to consider before installing lighting. First, residents voiced concern about how lighting might affect the wildlife in the Arnold Arboretum and in the section of the path that would travel through what is now MBTA land. It is also a concern that the Arboretum's bylaws indicate that the park is closed between dusk and dawn. Installing lighting in the park would contravene the park rules. Others expressed concerns about the cost of lighting, both the initial cost of installation and the added costs to operate and maintain.

A few recommendations to help mitigate those issues were discussed during the Roslindale community workshop hosted on March 30th. One suggestion was to alter the Arnold Arboretum

bylaws. The Arboretum could modify the rules to designate the Gateway Path, the existing Blackwell Path and the Extension as a places in the Arboretum where people are allowed to be after dark. Thus, non-lit sections of the park would remain closed, but the path could exist as a safe thoroughfare.

For cost, environmental sustainability and wildlife concerns, residents suggested having motion-sensored lights on timers set to turn off during the late hours of the night. This recommendation would provide better habitats for wild animals, better quality of life for abutters and require less energy use. Residents also suggested the use of energy efficient solar lights. It would be important to look at the cost of electric and solar lighting solutions and weigh the options.

Path Surface

When choosing a path surface, it is important to consider:

- 1. Use**
- 2. Accessibility**
- 3. Costs of installation**
- 4. Cost of maintenance**
- 5. Life expectancy**

Figure 4.0. Path Surface Considerations (Source: Information accessed from PA Dept. of Conservation & Recreation)



Figure 4.1. Example of Paved Path Surface (Source: Information accessed from PA Dept. of Conservation & Recreation)

It is important to consider a number of different items before determining a path surface. Figure 4.0 lists five important concepts to discuss and consider, including use, costs, and the life expectancy of surface material. We found in the Online Community Survey that residents believed having a paved surface on the path was highly desired, receiving an average score of 6.85 out of a maximum of 10. At the community meeting, residents noted they desired a paved surface for a few reasons. First, it would allow for easy travel by bicycles, strollers, skaters and other various modes of transportation, and be ADA accessible. It would also be easier to plow in the winter, be more user friendly and less likely to be washed away on the steeper parts of the path, especially going up Peter's Hill. Other residents however were more cautious about installing a path with a paved surface. Their main concerns were about the expense and additional time it would take to install and maintain it over time. A few mentioned that crushed stone dust - an alternative to asphalt - would be a good option for surface water movement and water infiltration, especially as flooding can be a concern in the South Street section of the Arboretum.

Additional Amenities

We found that educational signage regarding historical and natural facts, and bike racks were ranked below 5 out of ten in the Community Survey. Benches got the lowest rating in the survey, receiving a 3.92 out of 10. With low ratings, the survey finds that these amenities should be less of a priority when considering path design features. It is important to note however two important caveats. First, that educational signage on historical and natural facts does not mean not wanting directional signage along the path. Way markers should be used to help direct and orient path users. Second, reflecting on the limitations of this report's community engagement, benches likely would have been rated higher if it had reached all community members

Roslindale Arboretum Gateway Path Route Options

Option A

This route would cut across South Street at the intersection of Bussey Street and South Street, and continue through the existing Poplar Gate. The path would then follow the existing connection to Peter's Hill Road where it would merge onto the Peter's Hill path loop. After continuing toward Roslindale Village, it would then slope down toward flatter land near the commuter rail train track, where it will then cross into the land currently owned by the MBTA and onto the Roslindale Commuter Rail Platform.

Option A has many benefits. Most significantly the path would partly use existing path infrastructure which would decrease installation and maintenance costs. Additionally, the path avoids the steepest parts of Peters Hill, and would not require grading.

Option B

This route option would cross South Street as it exits the Arnold Arboretum, just before the railroad overpass. The path would then continue around Peter's Hill next to the commuter rail line, and cross into the land currently owned by the MBTA and onto the proposed improved access point at the Roslindale Commuter Rail platform. Option B also has many benefits. First, it is the most direct route in the Arnold Arboretum between Forest Hills and Roslindale Village. There is a desire line that follows this path option, showing that it is already used as a path. Additionally, it would continue the Blackwell Extension at its farthest point, allowing bikers or walkers entering the Arboretum from South Street direct access to a path toward Roslindale Village. It would also separate Gateway Path users from park-goers walking on Peter's Hill Road.

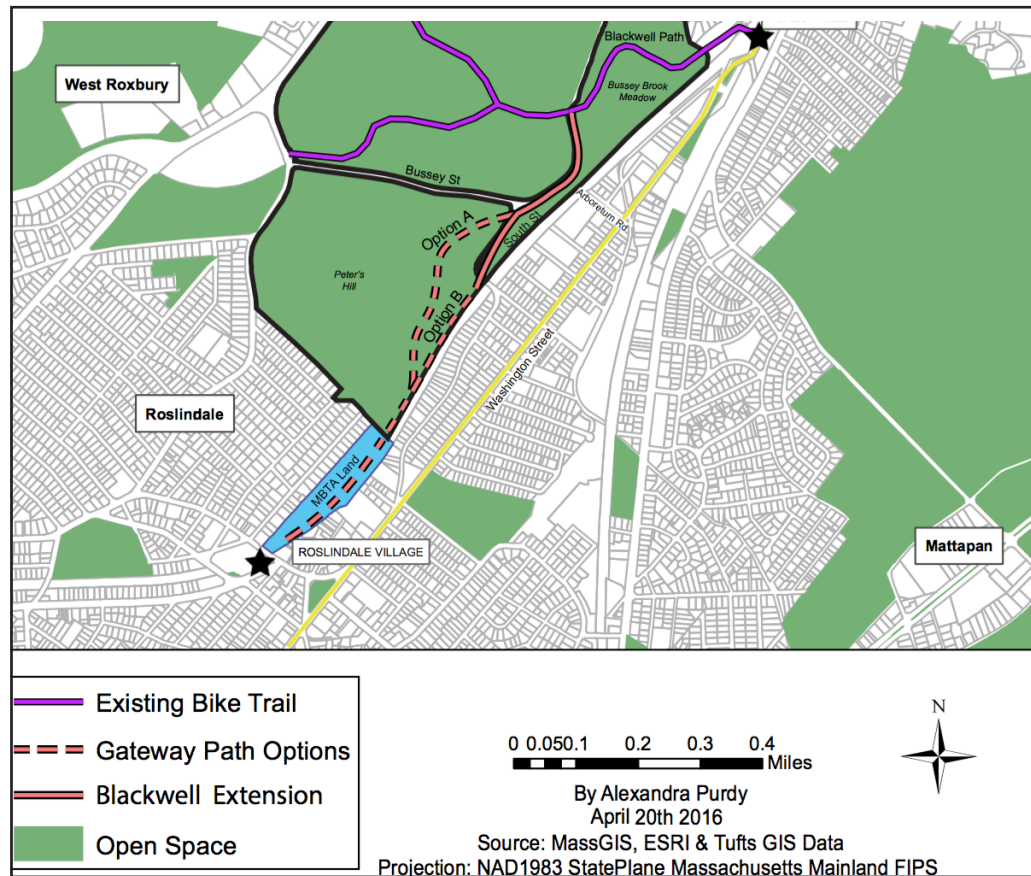


Figure 4.2. Gateway Path (Source: GIS Map by Alexandra Purdy)

Both Option A and Option B also pose challenges. First, Option A would require the Peters Hill Path to either expand, or become a multi-modal path in parts. A multi-modal path would be less desirable for walkers, and be more dangerous for children, especially as bikers would gain high speeds descending Peters Hill. Dogs are often off leash in the Peter's Hill area of the Arboretum, and could also be hazards to bikers travelling quickly, causing potential injury to both. Option A is also a more circuitous route through the Arboretum for those commuting from Forest Hills and Roslindale Village. As Option B is more direct, it might be used even if Option A was created. The main challenges of Option B however is that there is a significant slope greater than 5% through a section of the path on the southern side of South Street. This would require either significant grading, or switchbacks to make the path usable.

Potential Ownership Structure

From speaking with key informants, we have been able to identify potential strategies for an ownership structure for the Gateway Path. The proposed Gateway Path currently runs through parcels of land that have three different owners - the Arnold Arboretum, the City of Boston and the MBTA. As indicated in Figure 4.2 above, the portion of the path that is between the proposed path entrance and the Arnold Arboretum is owned by the MBTA. The remainder of the proposed path goes through land that is technically owned by the City of Boston, but leased to Harvard University since 1882, when the City gave Harvard a thousand-year lease for the Arboretum land. Accordingly, Harvard would have effective ownership of the portion of the path that is proposed to go through the Arboretum. So the

question is, who will own the portion of the path that goes through the MBTA property? We will discuss the three most likely scenarios.

MBTA-Owned

The MBTA could keep ownership of the land and partner with other entities to fund and carry out construction and on-going maintenance. We do not recommend this option because the community expressed concern that funding the Path would take away from funding towards other transit improvements, such as an extension to the Orange Line.

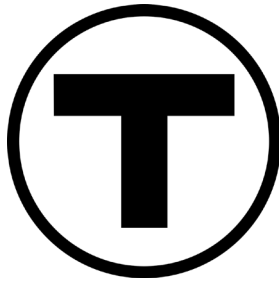


Figure 4.3. MBTA Logo (Wikimedia Commons)

City-Owned

The scenario that we believe is the most viable is for Boston to acquire this land from the MBTA as part of the city's Urban Wilds Initiative. The MBTA Real Estate Division manages its real estate assets through its asset manager, Massachusetts Realty Group. Asset management includes all new leasing, licensing, sale, and easement transactions. The Real Estate Department and Massachusetts Realty Group work together to identify and advance appropriate sale and development opportunities, including making surplus MBTA properties available for transit-oriented development (MBTA 2016).

The Urban Wilds Initiative is managed by the Boston Parks and Recreation Department. They seek to protect the city's publicly-owned urban wilds and thereby ensure access and enjoyment of natural treasures to present and future Boston residents. The goals of the Urban Wilds Initiative are summarized here:

- Protect urban wilds from uses that degrade their natural character.
- Promote their ecological integrity.
- Promote passive recreation, environmental education, and other uses in keeping with their

natural character.

- Develop administrative, fiscal, and programmatic resources to ensure on-going, long-term maintenance (Urban Wilds 2016).

Neighbors of the MBTA property say that it is a flourishing habitat with a diversity of wildlife. Since 1989, the Boston Youth Fund (BYF) has provided regular clean-ups and vegetation control for urban wilds in the summer months. Many neighborhood and community groups have been enlisted to conduct clean-ups and special projects in the urban wilds, with some limited support from the Parks Department Maintenance Division (Urban Wilds 2016). Since Roslindale residents who live near the Gateway Path have been active participants in advocating for the path, it would be viable to partner with them to conduct clean-ups and special projects such as invasive species removal.

After the Urban Wilds designation has been granted, the City and Harvard could then add this land to the thousand-year lease to Harvard. Along with this lease, an agreement would have to be made to include ongoing maintenance responsibilities and that a path could be created on this property. There is a strong precedent for this scenario, right on the other side of the Arboretum. Bussey Brook Meadow, indicated in Figure 4.2, was added to the thousand-year lease to Harvard in 1997. Similar to the MBTA land that contains the part of the proposed Gateway Path, the Bussey Brook Urban Wild was important because it provided a key link between the Arnold Arboretum and public transportation. This land was used to create the currently existing Blackwell Path, and has always been used for ecosystem and wildlife research.



Figure 4.4. The Arnold Arboretum Logo (Source: Arnold Arboretum)

Arnold Arboretum and Arnold Arboretum Park Conservancy staff take care of ongoing maintenance of Bussey Brook Meadow, as the land is valuable to them due to the research being conducted on it. Funding for maintenance comes from donations to

the Arboretum endowment fund. If funding would allow, it may be beneficial to the community to ask the Arboretum administrators if Arboretum staff would be able to take on the maintenance of the Gateway Path as well.

Owned by a Community Advocacy Group

Another viable option for ownership structure of the MBTA land is for a local community advocacy group to take ownership of the path and partner with a local institution for funding.



Figure 4.5. WalkUP Roslindale Logo
(Source: WalkUP Roslindale)

WalkUP Roslindale may be an appropriate group to own and manage the MBTA land. WalkUP Roslindale is made up of active Roslindale residents, some some of whom even abut the MBTA property. They would have a substantial interest in keeping the land well maintained and enjoyed by the community. An institution may be another appropriate partner, such as a health care or education facility whose mission involves public health or active lifestyles. A Healthcare Facility called Seraphic Springs, located right in Roslindale Square is one example of a potential partner.

Environmental Justice

One of the Arboretum's missions is to realize the opportunities inherent in its urban context by providing educational experiences for visitors, school children and the surrounding community. In this planning study, we have discussed how

the Gateway Path may alleviate physical barriers that are currently inhibiting Roslindale residents from accessing the Arboretum. However, there also may be cultural barriers that make the Arboretum



Figure 4.6. Programming for Children at the Arboretum.
(Source: Arboretum Children's Education 2016)

uninviting for some community members.

The residents most susceptible to these cultural barriers are the residents of color that reside in the low-income housing communities near the Arboretum - the Washington Beech Public Housing Apartments and the Archdale Public Housing apartments. We suspect that a major portion of the earlier-identified Environmental Justice communities



Figure 4.7. Programming for Children at the Arboretum. (Source: Arboretum Children's Education 2016)

is comprised of these housing communities. The Archdale community is especially of interest, as it is almost adjacent to the Arboretum (0.2 miles away) and contains 288 units of rental housing (Archdale, 2016).

As part of our community outreach efforts, we spoke with a resident coordinator from Washington Beech on Washington Street in Roslindale. It was her impression that no one living in the apartments visits the Arboretum. She informed us that some of their reasons for not visiting the park may be that the residents are not aware of how to access the park, they do not know if strollers handle well,

there are no picnic tables for birthday parties, and youth do not identify with the bike-riding culture and active lifestyles. In an effort to protect its collection of plants and historic landscape, the Arnold Arboretum prohibits barbecues and does not permit picnicking on the grounds. While it may be a priority to preserve the natural character of certain parts of the Arboretum, the rules may be inadvertently putting up a cultural barrier for certain communities.

We recommend that the Arboretum and the eventual owner of the MBTA land, consult with the Washington Beech and Archdale Village communities in order to begin breaking down cultural barriers that may be hindering these communities from visiting the Arboretum and that may hinder their use of the proposed Gateway Path in the future. There are many opportunities for such a partnership. Currently, the Arboretum is partnered with ABCD Head Start and Children's Services. Head Start programs focus on preparing children for school, and working to develop each child's social and learning skills (Head Start 2016). The Arboretum provides training, programs, and bus transportation to nearby Boston Head Start centers to introduce the Arboretum as a local resource for learning about the natural world for children from low-income families, their parents, and their teachers (Children's Education 2016).

This partnership is a precedent for the further partnership necessary to truly break down the cultural barriers that communities such as Archdale and Washington Beech are faced with. One of our community partners in this project - Rozzie Bikes - already partners with the Archdale community to offer bike repair workshops to youth in that community. That partnership could be extended in collaboration with the Arboretum to integrate open space. Another barrier to access that was shared with us by the resident coordinator at Washington Beech was cost. Boston Bikes already administers programming to address this issue, partnering with Hubway to offer \$5 annual memberships to 500 low-income Boston residents, distributing bikes and helmets to low-income residents through their Roll It Forward Program, and delivering biking

instructions through their Youth Cycling Program (Boston Bikes 2012). These are more examples of partners the Arboretum could collaborate with to encourage access to the park for low-income residents of color and remove cultural barriers. The opportunities for partnership are plentiful, it is just a matter of leveraging those opportunities.

V. Implementation



Ownership and maintenance agreements will play a vital role in determining how implementation of the Gateway Path proceeds. Under any of the agreements proposed in our “Options and Recommendation” chapter, three key areas will require attention. These include designating a leadership team to coordinate project efforts, determining potential funding options, and scheduling project phasing. In this chapter we explore these three areas of implementation.

There are several excellent existing guides to path implementation, which we drew on for our research and recommendations later in this chapter. They are the 2011 “Trail Development Primer” by Reno DeLuzio, then Chairman of the Milford Upper Charles Trail Committee in Milford, Massachusetts and the May 2012 “Trail Implementation Toolkit” by the Metropolitan Area Planning Council (MAPC). These and other resources offer further clarification and support for implementation strategies in a Massachusetts context.

Gateway Path Steering Committee

The “Trail Development Primer” from the Milford Upper Charles Trail Committee suggests forming a trail committee to guide path projects from conception to construction (DeLuzio 2011). We echo this recommendation for the Gateway Path. At the beginning of our study, LivableStreets convened a bi-weekly steering committee meeting comprised of LivableStreets staff, WalkUP Roslindale volunteers, local residents, and our Field

Creating a Shared Vision for the Gateway Path

Members of the Gateway Path Steering Committee should reflect the racial, ethnic, and economic diversity of the Roslindale neighborhood. This diversity of experience will better allow the steering committee to understand issues, identify concerns, and engage in collective problem-solving that values an inclusive community vision.

Project student group. The main objective of this group was to guide our semester-long work, while also connecting Gateway Path advocates. This structure facilitated the successful coordination of a community workshop, discussions around project timelines, coordination on outreach to local decision makers, and media messaging, which included press coverage in the Roslindale Bulletin.

Given these successes, extending the work of the Gateway Path Steering Committee would allow the group to coordinate project responsibilities moving forward and allow them to develop institutional memory. This is particularly important given the natural turnover in staff at supporting organizations.

To ensure that a diverse set of community members and institutional voices and experiences are incorporated in the development of the project, we recommend that the steering committee expand to potentially include several of the following representatives:

Institutional

- Representatives from the City of Boston responsible for biking and walking trails (e.g., Mayor’s Neighborhood Liaison, or Senior Transportation Planner: Charlotte Fleetwood, or others)
- Staff Members from Boston Parks & Recreation or Conservation Commission (e.g., Program Manager for the Urban Wilds Initiative: Paul Sutton)
- Representatives from the Arnold Arboretum (e.g., Gateway Path ally and Arboretum Maintenance Director: Stephen Schneider)
- Livable Streets staff
- Roslindale Village Main Street staff or board member

Community

- Residents who express an interest in joining
- Residents who have civil engineering, planning, design, community engagement, or other relevant experience
- At least two key abutters

The Gateway Path steering committee could additionally establish a charter/mission statement. An example mission statement slightly altered from the “Trail Development Primer” document is included below:

The Gateway Path Committee shall do all that is necessary to develop the Gateway Path from the Roslindale Commuter Rail Station to the Blackwell Path Extension including but not limited to design, permitting, property rights acquisition, and construction and further, to apply for and accept any local, state or federal grants, and private foundation grants, which may become available for the accomplishment of said purpose (DeLuzio 2011).

Funding

The Gateway Path Steering committee, outlined above, will need to pursue a collaborative and community-driven funding process. Luckily, as we highlight under “Trail Precedents,” there are many relevant examples of shared-use community paths from which to draw potential funding structures. A review of these precedents highlights a need to rely on a diverse mix of funding sources that can adapt to changes in project momentum, funding cycles, and concurrent facility improvements at the Arnold Arboretum. To take advantage of these shifting timelines and to coordinate a complex mix of public and private funding, we recommend that the Gateway Path Steering Committee undertake a capital campaign, either independently or in coordination with the Blackwell Path Extension capital campaign, to organize and plan project funding (Brown 2015).

Additionally, while our emphasis is on the large scale upfront capital costs, long term maintenance costs are also an important component of the project. These ongoing funding considerations will largely revolve around maintenance and ownership agreements between various stakeholders, including but not limited to the Arnold Arboretum, the City of Boston, the MBTA, and local community organizations. Both this section and our “Ownership and Maintenance” section briefly touch on these long term funding considerations.

Next we outline prominent sources of community path funding, beginning with the most promising funding sources and progressing to less likely sources and/or smaller scale sources.

Transportation Improvement Program (TIP)

Building shared use community paths with state and federal funding is a preferred option for many cities in Massachusetts (MAPC Trail Toolkit 2012). Key to securing this funding is the Boston Region Metropolitan Planning Organization’s (MPO) annual Transportation Improvement Program (TIP), which is responsible for allocating federal surface transportation dollars. The public TIP process funds roadway projects, including bicycle and pedestrian infrastructure. By completing this process, projects become eligible for federal funding, which include funding pools such as the Congestion Mitigation and Air Quality Improvement (CMAQ) program. There is successful precedent for using CMAQ funding for paths in Massachusetts, as the Boston region CMAQ partially funded the Somerville Community Path (see “Lessons from Other Paths” in the Research and Analysis section for more information).

There are typically 150 transportation infrastructure projects, totaling more than \$1 billion dollars, competing annually for \$75 to \$90 million dollars in available federal funding for the Boston metropolitan region (Boston MPO 2016). This is a time intensive and competitive process where projects submitted by municipalities, the state transportation agency, advocacy organizations, and individuals compete for funding (Boston MPO 2016).

Initiating a TIP Process

1. Contact the District 6 MassDOT office to complete a Project Need Form (PNF). Detailed project information is not needed to complete this form.
2. Begin communication with the District Office to further clarify project information and schedule a site visit.
3. Next steps include either a staff recommendation to complete the Project Initiation Form (PIF), suggestions for additional planning, or a determination that the project should not proceed.
4. Complete Project Initiation Form (PIF) and submit it to the District Office. This includes a detailed project proposal. District Office staff will contact proponent to further clarify the proposal.
5. Obtain Project Review Committee (PRC) approval. The PRC will review, evaluate, and discuss the project to determine if it warrants approval. The District Office will notify proponent of decision.

Figure 5.0. Initiating a TIP Process (Source: MassDOT PRC 2016)

Annual TIP Funding Decision Process

Municipalities and community members:

1. Propose ideas in November and February
2. Review projects and evaluate options from February to April
3. Public comment on draft document recommendations (May–June)

Figure 5.1. Annual TIP Funding Decision Process (Source: Boston MPO Development 2016)

Funded TIP Design Process

During the construction phase, projects are taken over by MassHighway and must be designed in accordance with MassHighway standards. The local municipality must contribute 10% of the total cost.

1. 25% design submittal
2. 75% design submittal
3. 100% design submittal
4. Plans Specifications & Estimate (PS&E) Submittal
5. Bid plans and contract documents submittal

Figure 5.2. Funded TIP Design Process (Source: DeLuzio 2011)

Development Projects and Mitigation Fees

Development projects offer a unique opportunity to fund community paths. Developers can commit to funding or directly constructing shared-use community paths through mitigation fees or community benefit agreements (MAPC Trail Toolkit 2012). For the Gateway Path, the private developments that offer prime opportunities to secure this type of project funding are those near Roslindale Village Station, the Forest Hills MBTA Station, or adjacent to the rail line running the length of the proposed path. One such development currently underway is 20 Taft Hill Park, directly adjacent to the Roslindale Village commuter station. Gateway Path proponents can argue that improved trail and Arboretum access will benefit and attract future occupants, as well as offsetting potential negative impacts like parking and congestion.

Coordinating with Municipal and Infrastructure Projects

The Massachusetts highway design manual notes that pedestrian and bicycle access are integral to any project. Given some forethought, organizational relationships, and good timing it is not uncommon for shared use paths to be included in the scope of work for road projects (MA Highway Design Manual 2006).

Two infrastructure projects to keep an eye on.

- The Puddingstone Wall, which dates to 1990, becomes a tall retaining wall supporting South Street near the intersection of South Street and Bussey Street (Arnold Arboretum Rhododendron Dell 2016). The Arboretum is currently working to remove vegetation obscuring the structural condition of the wall. Once exposed, the city can evaluate its condition and whether it could support a cantilevered walkway for the proposed Blackwell Path Extension (Brown 2015). If there is any need to reconstruct parts of South Street, there is potential to secure funds for parts of the

Gateway Path (MAPC Trail Toolkit 2012).

- During heavy rain, the Bussey Brook Meadow near South Street floods, and impacts property between the rail line and Washington Street. The Roslindale Self Storage facility at Lochdale Road and Washington Street is an example of a business impacted by this flooding. If the Boston Water & Sewer Commission undertakes a project in this area, there could be opportunities to secure path funding.

State Grants

Recreational Trail Program (RTP)

The RTP is an annual grant program administered by the Massachusetts Department of Conservation and Recreation (DCR) and funded through the Federal Highway Administration (FHWA). The RTP is largely unchanged in the 2015 federal transportation bill reauthorization. The grants are for trail projects and range from \$2,000 to \$50,000. Planning documents are not eligible for funding, but engineering work is eligible. Projects must provide a 20% minimum funding match. Roughly \$1 million in Massachusetts funding is available annually. The application deadline is typically in early February (RTP 2016).

Parkland Acquisitions and Renovations for Communities (PARC)

Formerly the urban self-help program, PARC is a state grant program administered by the Executive Office of Energy and Environmental Affairs (EEA). Applications must be submitted by the local municipality and fund the acquisition, development or renovation of parks or outdoor recreation facilities. To qualify for PARC grants the land must be under custody of the local Parks and Recreation Department (Parc 2016).

Awards range from \$50,000 to \$500,000 and reimburse 52% to 70% of project costs. Applications are typically due in mid-July. PARC prioritizes serving Environmental Justice (EJ) communities and bringing in new community voices to park administration

(Parc 2016). Roslindale is an EJ community and would perform well on this grant metric.

MassWorks

These grants are for shovel-ready projects with some prioritization for gateway cities and rural communities. Applications are typically due in late August (MassWorks 2016).

Private Grants

People for Bikes Grant

This grant awards \$10,000 maximum, with spring and fall grant cycles. The next deadline is July 29, 2016, when the letter of intent is due. This is a competitive program that only funds 10-15% of received proposals (People for Bikes 2016). People for Bikes awarded \$10,000 in grant funding to the Somerville Community Path in 2003 and to the Belmont Community Path in 2009.

Doppelt Family Trail Development Fund

This is a new grant program from 2015 that supports organizations and municipalities building rail-trails. Applications are due in January. \$85,000 is available annually in a competitive process (Doppelt 2016).

Trails Connecting People with Nature – Sierra Club

This is a new annual Sierra Club grant program intended to create, restore, and maintain trails in urban areas with limited access to nature. Grants range from \$5,000 to \$20,000 and applications are due in late September (Sierra Club 2016).

New England Grassroots Environment Fund

This fund offers small grants to support new and established community groups as they expand their neighborhood projects. Among other things, this could fund toolkits or general capacity building for the Gateway Path and its community advocates. There are both rolling deadlines and a mid-March and mid-September deadline (New England Fund 2016).

Other Sources for Private Grants

- Boston Foundation (Boston Foundation 2016)
- Barr Foundation (Barr Foundation 2016)
- Solomon Foundation - (Solomon Foundation 2016)
- Robert Wood Johnson Foundation - Built Environment and Health Funding (RWJF 2016)
- New England Grassroots Environment Fund (NE Grassroots Environmental Fund 2016)
- Merck Family Fund (Merck 2016)
- PSGE Foundation (PSGE 2016)

Grassroots Fundraising

The Gateway Path Steering Committee could use grassroots fundraising as an opportunity to establish a Gateway Path brand and expand their community outreach. Other paths have used “friends of” groups to coordinate fundraising to support path maintenance. Various programming options range from fun runs to house party fundraisers. These types of fundraising activities require a large amount of upfront investment in time and materials, but offer great opportunities for volunteers to become involved in the project.

Other opportunities include sponsorships and naming rights for the various portions of the path. For example, mile marker campaigns allow various individuals and businesses to adopt sections of the trail for a small annual donation to the path. Markers every 10th of a mile could be named for donations of \$50 or \$100 dollars, while large signs at full mile points could be named for a larger donation of \$500 to \$1000. This is an opportunity to raise small amounts of maintenance funds, build community buy in, and offer opportunities to promote the name of local businesses.

Institutional Funding

Institutional Master Plans

Institutional Master Plans are required by the Boston Redevelopment Authority for large hospitals, colleges, and universities. These 10 year plans, with regular 2-year status updates, review the impacts large institutions have on transportation, the public realm, the environment, and historic resources among other items (Institutional Master Plans 2016). Additionally, all large institutional projects go through a Large Project Review. These regular planning processes welcome public input and offer opportunities for community stakeholders to work with local institutions to secure funding for neighborhood improvements near their facilities.

Local Bank Foundations

Eastern Bank, Citizens Bank, and other local banks often commit both financial and volunteer support to community improvement projects. For example, Citizens Bank gave \$15,000 to Healthy Dorchester/Walk Boston several years ago with half of the funding used to install temporary way finding signs.

Community Preservation Act

The Community Preservation Act (CPA) is a state law that allows local municipalities to impose up to an additional 3% property tax levy to fund open space, historic preservation, affordable housing, and outdoor recreation. In addition to the local property tax surcharge, communities in the CPA program receive distributions from the statewide Community Preservation Fund (CPA Overview 2016). As this planning study was being produced, there was a resolution before the Boston City Council to place a 1% CPA measure as a referendum on the November 2016 election ballot (CPA City Council 2016). As this measure progresses, we encourage Gateway Path advocates to build an advocacy campaign around this issue. Were it to pass it would create a large new funding stream that could potentially fund future Gateway Path work.

Youth Lead the Change: Participatory Budgeting Process

Youth Lead the Change is a participatory budgeting process that involves Boston youth in developing and voting on the allocation of \$1,000,000 from the City of Boston budget. Project proposals are submitted every January to February. Then youth “Change Agents” narrow down these lists (Youth Lead 2016). This could be an opportunity to further involve youth participation in the Gateway Path project.

Project Phasing

The funding received for the project will determine project phasing and construction capabilities. The following section reviews possible next steps for various funding outcomes and recommendations for community engagement.

Pre-Construction

The first phases of the Gateway Path implementation involve maintaining momentum, gathering community support and pre-construction projects. To accomplish these goals, gathering local volunteers to remove invasive species and dead growth from the current MBTA land is one recommendation. Gathering local volunteers would be a great opportunity to build support while also creating opportunities for concrete action from existing project volunteers.

Full Funding

If the Gateway Path secures large scale capital funding, project construction should be undertaken simultaneously for all portions of the path. This would create construction efficiencies and represent the most affordable build out strategy. However, the higher initial project cost and the scattered nature of the project funding described above could present obstacles for this preferred strategy. We repeatedly heard comments during our interviews and community workshop that emphasized that the

first priority should be completing the path, even if this meant sacrificing certain amenities in the name of cost savings.

Construct a Path - Improve It Later

Another approach would be to complete a “no-frills” scaled-down path and improve it at a later point when more funding becomes available. The benefits of this approach are that the scaled down path demonstrates project viability through early use, and increases community awareness and support. Future investments could, for example, alter amenities such as path material and lighting or improve the path surface. Potential drawbacks to this approach could include decreased community energy and difficulty securing funding for an existing path in a competitive grant process.

Phased Construction with Priorities

Should funding realities necessitate a phased construction plan, the first priority for the Gateway Path should be connecting the Roslindale Village commuter station to the Arnold Arboretum through the land currently owned by the MBTA. As we discussed in the Potential Ownership Structure section, this land is the most critical section of

the path for determining ownership and path maintenance. By securing this 1,500-foot section of land for the Gateway Path, the project would satisfy a main objective of the Gateway Path by creating a more welcoming Roslindale connection to the Arnold Arboretum.

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Appendices



Appendix A.Community Outreach

Survey Instrument

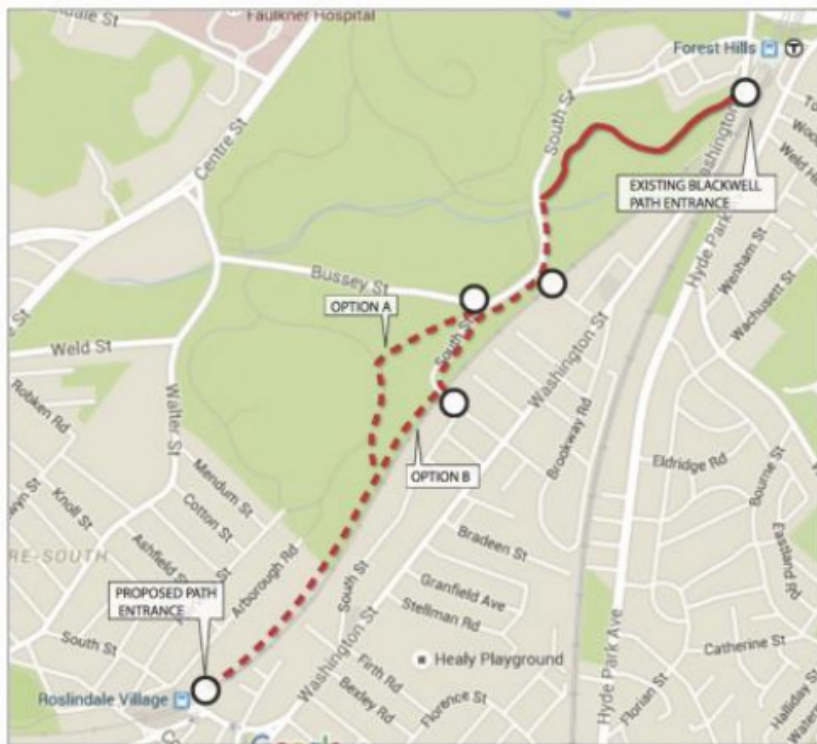
Arboretum Gateway Path Community Survey

Background Info

Thank you for taking the time to participate in this survey. It should take you 4 to 7 minutes. Community partners including LivableStreets, WalkUP Roslindale, and Tufts University are working to establish biking and walking paths that would improve the connectivity of Roslindale Village to the Arboretum and to Forest Hills. The image below sketches those out for you. This survey is meant to gather the community's perspective in order to ensure that the community's input is incorporated into future plans. Please contact WalkUP Roslindale at path@walkuproslindale.org for further information.

Come join us and share more of your thoughts! The mentioned community groups will be holding a visioning workshop at **6:30pm** on **March 30th** at the **Roslindale Community Center**. Please go to walkuproslindale.org to RSVP.

The questions in this survey refer to the paths indicated in red on this image below, which represent existing and proposed paths that would connect Roslindale Village to the Arboretum and Forest Hills.



PROPOSED PATH CONCEPT



Improved Access Point

— Existing Biking and Walking Path (Blackwell Path)

- - - Proposed Biking and Walking Path

Option A: proposed Blackwell Path Extension along South St, along a portion of Peters Hill Rd

Option B: proposed Blackwell Path Extension to end of South St, up hill, next to the rail tracks

For more information visit:

www.emeraldnetwork.info/arboretum_gateway_path

www.walkuprosindale.org/weblog/2015/10/10/the-rozzie-arboretum-gateway-path/

Are you over the age of 18?



Yes



No

Intro Questions

First, please tell us about yourself, and how you use this area.

Where do you live?

- ☐ Roslindale
- ☐ Jamaica Plain
- ☐ West Roxbury

☐ Other

Have you heard of the Blackwell Path that connects Forest Hills to the Arboretum?

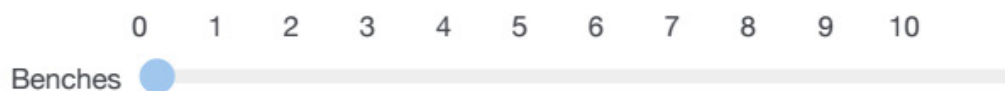
- ☐ Yes, and I have used it.
 - ☐ Yes, but I have not used it.
 - ☐ No
-



Would you use part or all of the paths indicated in red in the image above?

- ☐ Often
- ☐ Occasionally
- ☐ Rarely
- ☐ Never
- ☐ I don't know

If the paths indicated in red existed, how would you rate the following amenities in terms of importance to you? (0=not at all, 10=very)



Lighting ☒

Paved surface ☒

Bike racks ☒

Educational Signage regarding historical or nature facts ☒

The survey will continue with questions specific to your interests. Please choose all of the following identifiers that apply to you. **(You may choose more than one)**

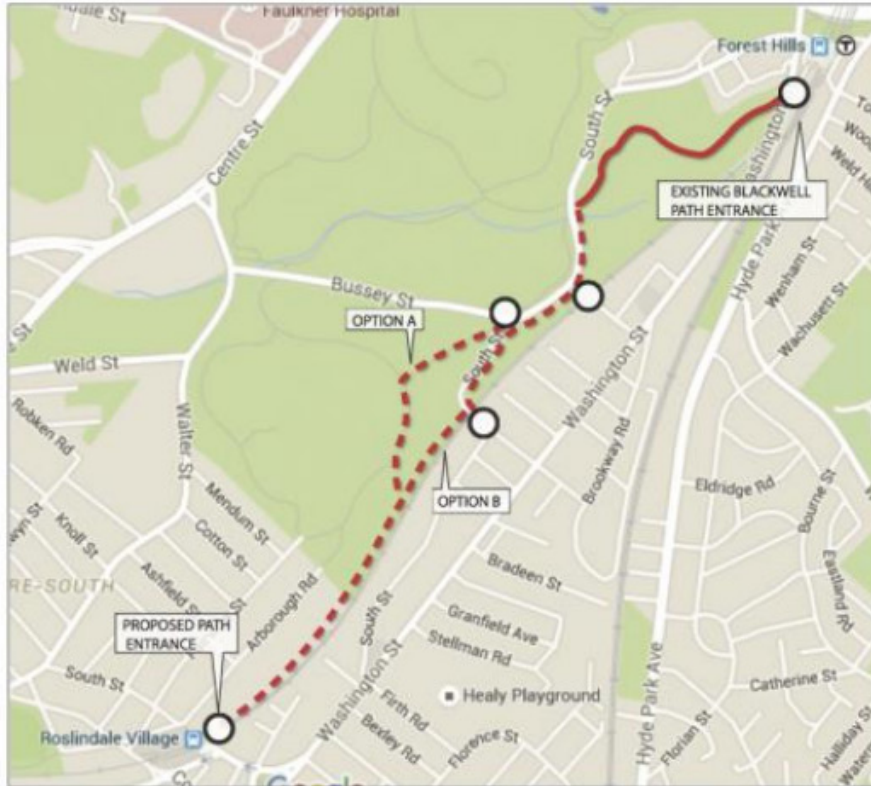
- ☐ Traveling from Roslindale or West Roxbury, I use the Forest Hills Orange Line or Roslindale Village Commuter Rail Stations.
- ☐ I am a walker, runner, or biker in Roslindale, Jamaica Plain or surrounding communities.
- ☐ I live or work in Roslindale.
- ☐ None of the above.
-

Forest Hills Orange Line & Rozzie Commuter Rail Users

As a commuter in the area, we would like to ask you the following questions.

On average, how often do you use the Forest Hills Orange Line or the Roslindale Village Commuter Rail Stations in each of the following ways?

	Never	Sometimes	Often
To commute to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To commute to school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To access amenities (shopping, dining, entertainment).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



PROPOSED PATH CONCEPT

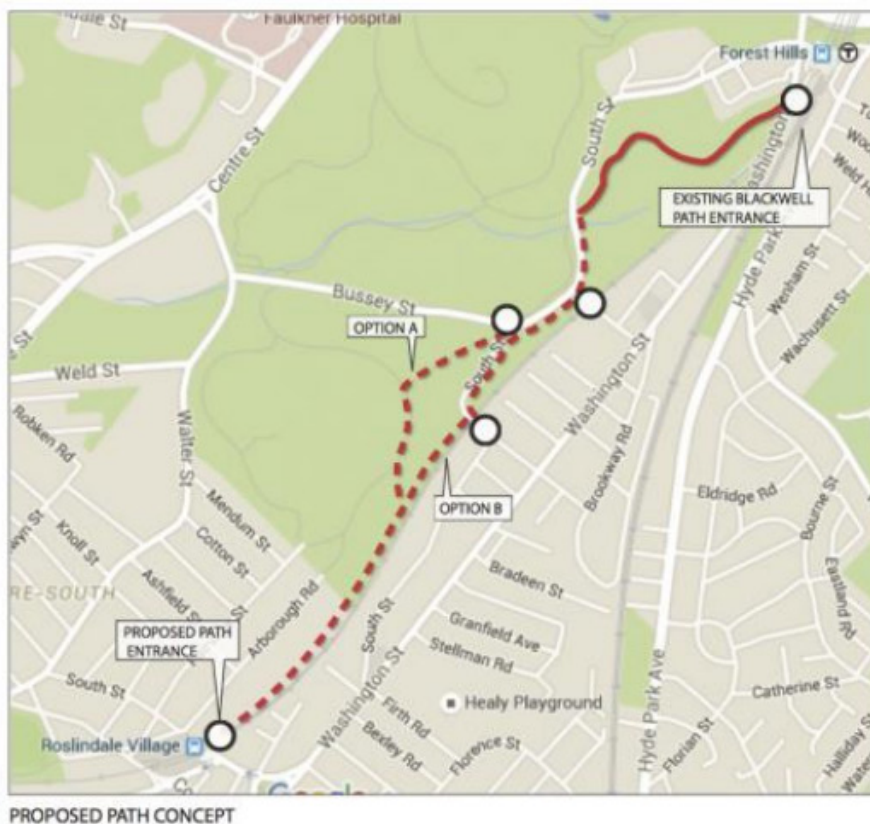
How do you currently get to the Forest Hills Orange Line or Roslindale Commuter Rails Stations?

- ☐ I walk along Washington St.
- ☐ I bike along Washington St.
- ☐ I take the bus along Washington St.
- ☐ I drive along Washington St.
- ☐ Other

On average, how often would you use the paths indicated in red to get to the Forest Hills Orange Line or Roslindale Commuter Rail Stations?

- ☐ Multiple times a day

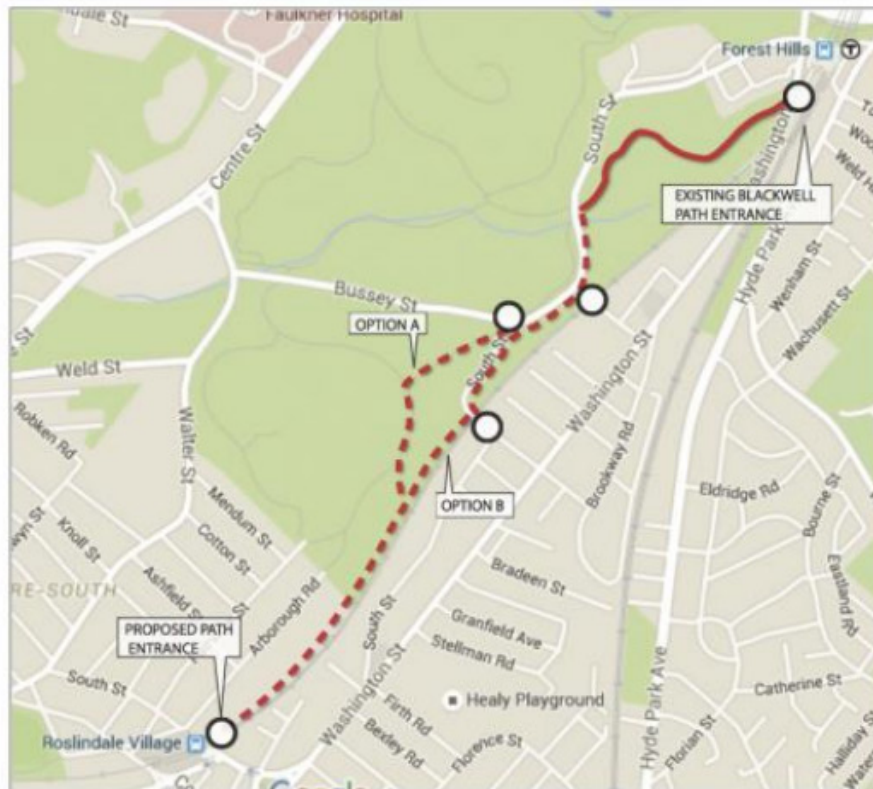
- ☐ Definitely yes
- ☐ Probably yes
- ☐ Might or might not
- ☐ Probably not
- ☐ Definitely not
- ☐ I'm not familiar with the Southwest Corridor



On average, how often would you use the paths indicated in red in each of the following ways?

	Never	1-3 times per month	once a week	2-5 times a week	once a day	Multiple times daily
Ride a bike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- ☐ Definitely yes
- ☐ Probably yes
- ☐ Might or might not
- ☐ Probably not
- ☐ Definitely not
- ☐ I'm not familiar with the Southwest Corridor



PROPOSED PATH CONCEPT

On average, how often would you use the paths indicated in red in each of the following ways?

	Never	1-3 times per month	once a week	2-5 times a week	once a day	Multiple times daily
Ride a bike	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exercise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Exercise



Walk



I Work & live in Roslindale

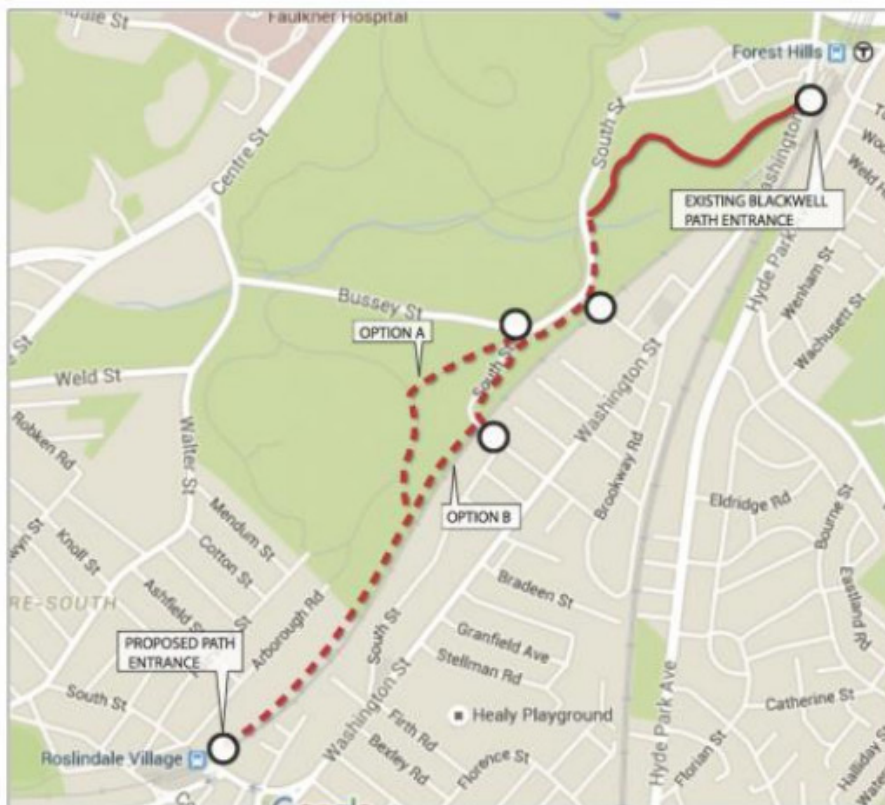
As someone who either lives or works in Roslindale, we would like to ask you a few more questions.

Do you own a business in Roslindale?

☐ Yes

☐ No

☐ Other



PROPOSED PATH CONCEPT

Exercise



Walk



I Work & live in Roslindale

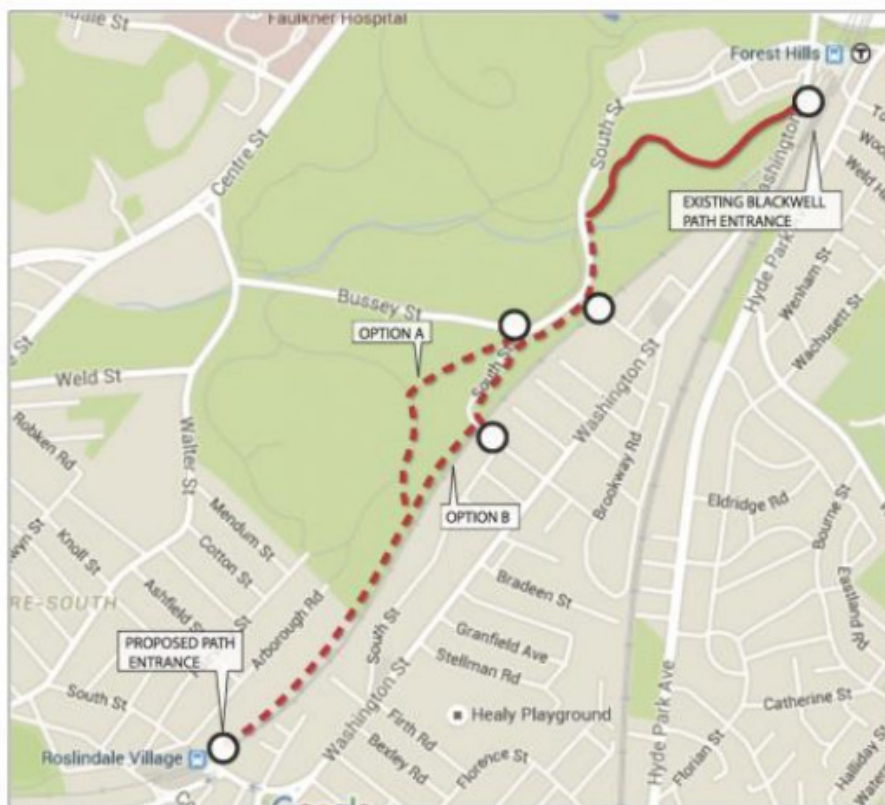
As someone who either lives or works in Roslindale, we would like to ask you a few more questions.

Do you own a business in Roslindale?

☐ Yes

☐ No

☐ Other



PROPOSED PATH CONCEPT

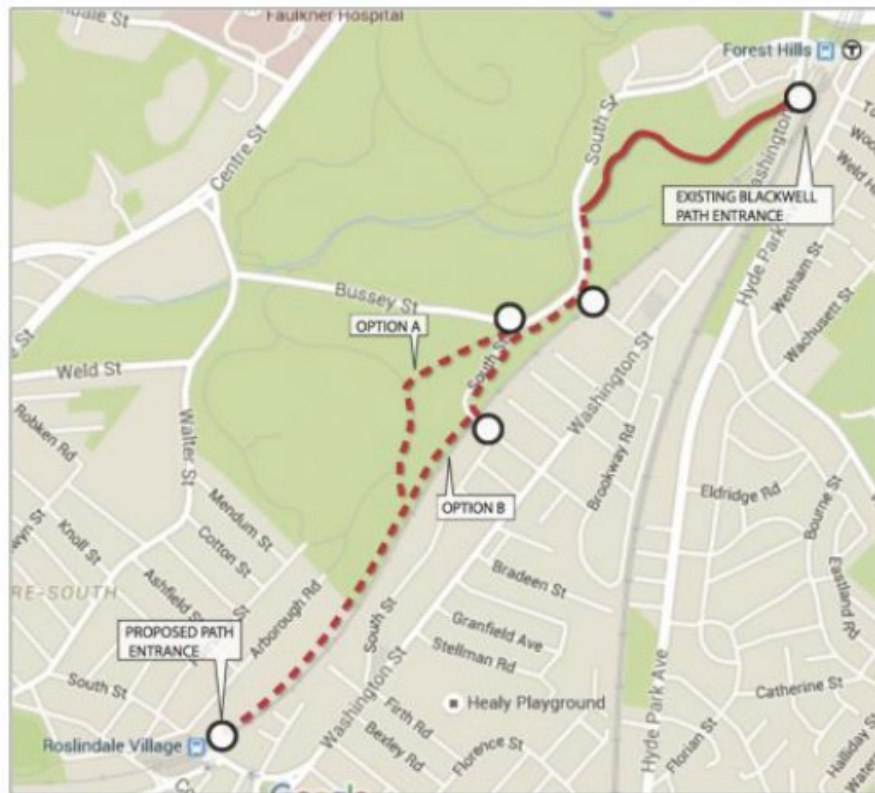
Please select the option that describes your feeling about the following statement:
"The paths indicated in red will benefit local businesses in Roslindale square."

- ☐ Strongly agree
 - ☐ Agree
 - ☐ Neutral
 - ☐ Disagree
 - ☐ Strongly disagree
-

Concluding Questions

Are you a member of the following organizations? (Choose all that apply)

- ☐ [WalkUp Roslindale](#)
 - ☐ [RozzieBikes](#)
 - ☐ [Roslindale Village Main Street](#)
 - ☐ Other
-



PROPOSED PATH CONCEPT

Stakeholder groups will be holding a visioning workshop at 6:30pm on March 30th at the Roslindale Community Center. Do you have any questions, concerns, or comments about the path, that you would like to have addressed at the forum?

Under 18

Unfortunately, we are not able to survey people under the age of 18. Thank you for

your time.



Figure 7.0: Online Community Survey

Key Informant Interview Guide

We loosely used a set of questions as a guide for our informal key informant interviews. The questions were as follow:

1. Can you briefly describe your organization and your role in your organization?
2. Are you supportive of the Gateway Path?
3. What do you see the purpose of the Gateway Path being?
4. What amenities should the Gateway Path have?
5. What needs to happen to make the Gateway Path a reality?
6. Do you have recommendations on what the ownership structure or funding sources could be for the Gateway Path?
7. Can you recommend organizations we should speak with or studies we should look at to assist us with our study?

Figure A.1: *Key Informant Interview Guide*

Workshop Facilitator Guide

FACILITATOR DISCUSSION GUIDE

You will be facilitating a group of 6-8 participants. Your primary tasks are to: ensure that all group members participate equally (preventing any one person from taking over), keep the group moving through the agenda, and remain a neutral third party. The discussion can be free wheeling, but should generally touch on each of the below topic areas for 5 to 10 minutes.

Materials: Choose one person to be in charge of notetaking (most facilitators have one assigned, see end of document). Each group will have one 24x36" map of the Roslindale Arboretum Gateway Path concept (both options, Option B has difficult slope), which includes the commuter rail and MBTA stations and the connection point to the Southwest Corridor. Each group will also have a handful of 11x17 topographical maps to provide landscape details and an easel pad/trace paper/notepads to write down themes and ideas.

Suggested Format:

1. Introductions (5 mins): have each person introduce themselves and share where they live and why they came to the workshop
2. Four Topics (30 mins ~ 5-10 mins/each): go through each of the sections below (in suggested order or whatever order comes naturally), each has a series of questions to help with the discussion. However you do not need to address all of them.
3. Wrap Up (10 mins): At 7:20, you will get a 10 minute warning, summarize themes and pick one person to present the key ideas from your table. Each person will have 1 minute to share these with the all of the groups.

Topic Areas and Discussion Questions:

I. Asset and needs mapping (Attempt to start on assets before transitioning to needs)

What are most important community assets and uses in the area?

Use the categories below to guide conversation:

Places - Discuss the housing, business, open space, employment components in the area

- What place(s) do you most often go to between Roslindale Square and Forest Hills (map area)? What is your experience here? How would you change it (mix of activities, new development, public spaces)?
- What neighborhood destinations would you like to reach more easily?
- What open spaces do you use most often? What are the barriers to getting there? How often do you visit the Arnold Arboretum?
- What are needs around other community efforts like housing, job creation, local business development? How could this path support these efforts?
- What makes Roslindale Square, the Arboretum, Washington Street, and Forest Hills unique? What historic elements need to be preserved/enhanced?

Transportation: Discuss how people get around

- What sections of Washington Street do you use and for what purpose? What is your experience travelling and visiting this area?
- Do you currently use the Blackwell Path? What are your thoughts on the Blackwell Path?
- What is your commute and how do you get around in general?
- What/where are your primary safety concerns?

II. Path Design

- What are your thoughts on the proposed path?

- Would you use the Roslindale Arboretum Gateway Path?
- What do you think are the best potential routes connecting the Poplar Gate to the MBTA owned land?
- Amenities? - Lighting, benches, pavement, water fountains
- Bike and pedestrian separation?
- How does the topography influence the layout of the path?
- What type of signage should we incorporate?

III. Implementation

- What are potential funding sources (public, private)?
- Phasing- what are short-term/temporary strategies for implementation?
- What entities could own/maintain land?

IV. Outreach Strategy

- How can we broaden community awareness and participation in the AGP discussion?
- How should we brand/name the path? What other communications tools are needed?
- How can we build a supportive political coalition?
- Who are the most important community/political stakeholders?

Group Facilitators:

1. Amber
2. Matt - as someone in your group to take notes
3. Adam K. - as someone in your group to take notes
4. Steve- Jaissa (Spanish speaking, if necessary)
5. Sarah K. - Mason
6. Adam R.- Louisa
7. Alan W. - Alex
8. David Wean - Liz

Figure A.2: *Workshop Facilitator Guide*



**ARBORETUM
GATEWAY PATH**
ROSLINDALE, WEST ROXBURY,
AND JAMAICA PLAIN

**COMMUNITY VISIONING
WORKSHOP**

WEDNESDAY MARCH 30TH
ROSLINDALE COMMUNITY CENTER
6 CUMMINS HIGHWAY

5:45 PM - JOIN US FOR A GATEWAY PATH SITE VISIT
6:30 - 8:00 PM - PROJECT PRESENTATION AND WORKSHOP
RSVP AT WALKUPROSLINDALE.ORG/PATH

WalkUP
Roslindale

**EMERALD
NETWORK**

Tufts
UNIVERSITY



**CAMINO
"GATEWAY"
DEL ARBORETUM**
ROSLINDALE, WEST ROXBURY Y
JAMAICA PLAIN

**TALLER COMUNITARIO
DE VISIÓN**

MIÉRCOLES, 30 DE MARZO
CENTRO COMUNITARIO DE ROSLINDALE
6 CUMMINS HIGHWAY

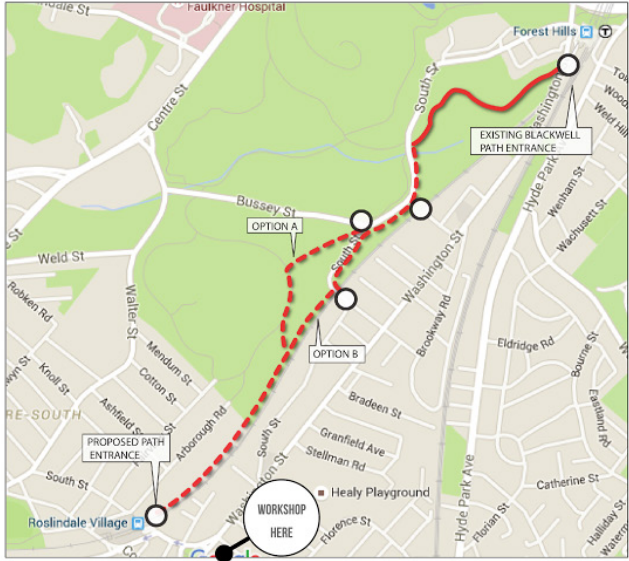
5:45 PM - VISITA AL CAMINO GATEWAY
6:30 - 8:00 PM - PRESENTACIÓN DEL PROYECTO Y TALLER
BSVP WALKUPROSLINDALE.ORG/PATH

WalkUP
Roslindale

LivableStreets
Rethinking urban transportation

Tufts
UNIVERSITY

PROPOSED WALK/BIKE PATH



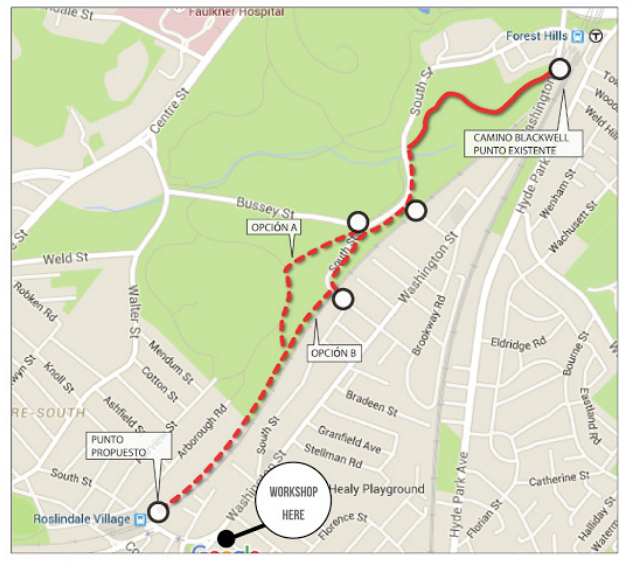
PROPOSED PATH CONCEPT

- Improved Access Point
- Existing Biking and Walking Path (Blackwell Path)
- - - Proposed Biking and Walking Path
Option A: proposed Blackwell Path Extension along South St, along a portion of Peters Hill Rd
Option B: proposed Blackwell Path Extension to end of South St, up hill, next to the rail tracks

For more information visit:
www.emeraldnetwork.info/arboretum_gateway_path
<http://walkuprosindale.org/path>

**Figure A.3: Community Workshop
Flyers English**

**CAMINOS PROPUESTOS Y EXISTENTES
PARA CAMINAR Y CICLISMO**



IDEAS PROPUESTAS PARA EL CAMINO

- Punto de Acceso Mejorado
- Camino de ciclismo y caminar existente (Camino Blackwell)
- - - Camino de ciclismo y caminar propuesto
Opción A: Extensión Propuesta para el Camino Blackwell, por South Street, corriendo al lado de parte de Peters Hill Road
Opción B: Extensión Propuesta para el Camino Blackwell hasta el final de South Street, subiendo la colina, al lado de las vías del tren

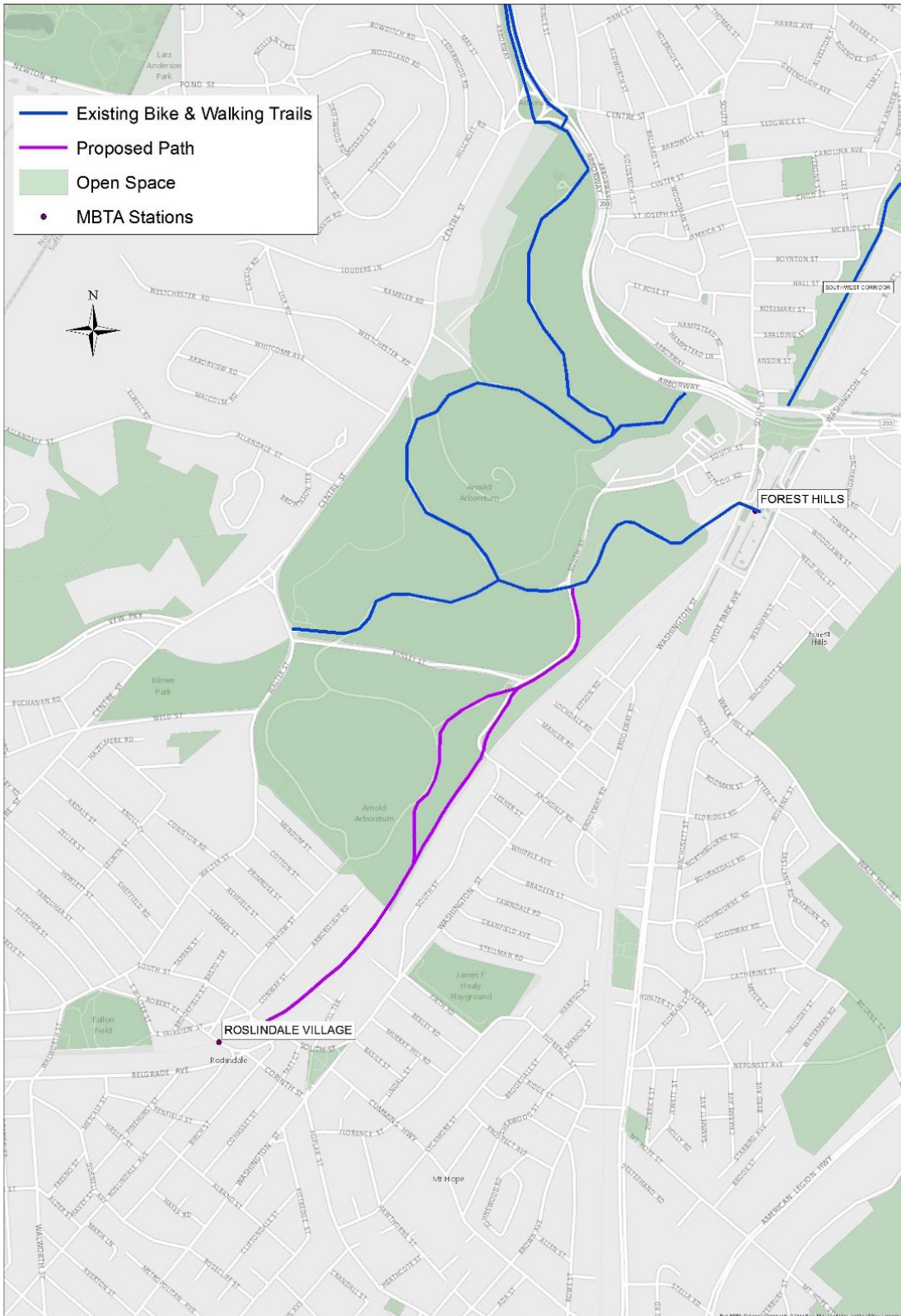
www.emeraldnetwork.info/arboretum_gateway_path
<http://walkuprosindale.org/path>

**Figure A.4: Community Workshop
Flyers Spanish**

Appendix B. Maps and Posters

Gateway Path Map, Connecting Roslindale Village to Forest Hills

Gateway Path - Visioning Session



By Alexandra Purdy - March 16th 2016 - MASSGIS Data - NAD1983 Massachusetts StatePlane FIPS

Figure B.I: Gateway Path Visioning Session Map (Source: GIS by Alexandra Purdy)

Network Connectivity

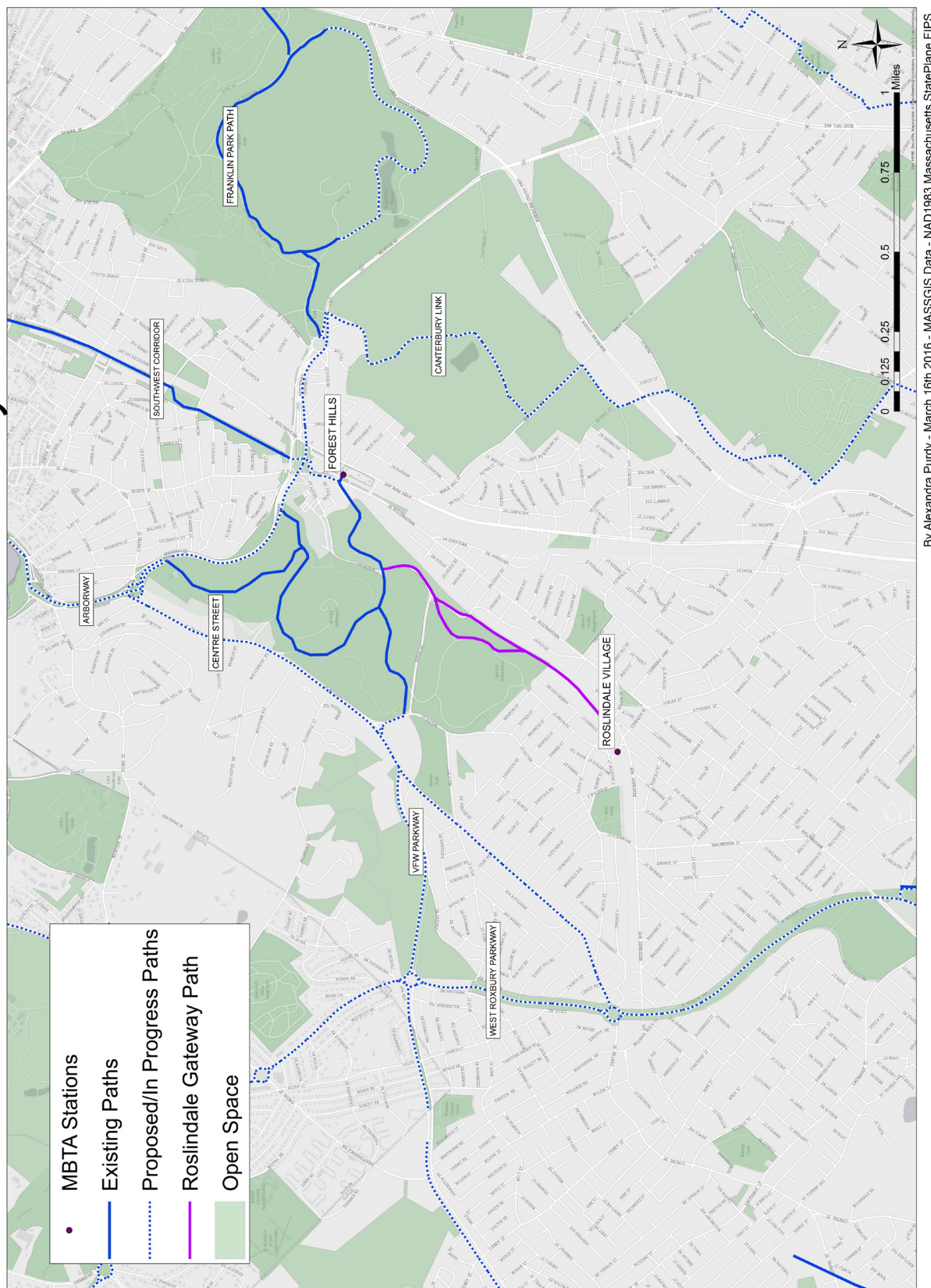


Figure B.2: Network Connectivity (Source: GIS by Alexandra Purdy)

Emerald Network Vision Map

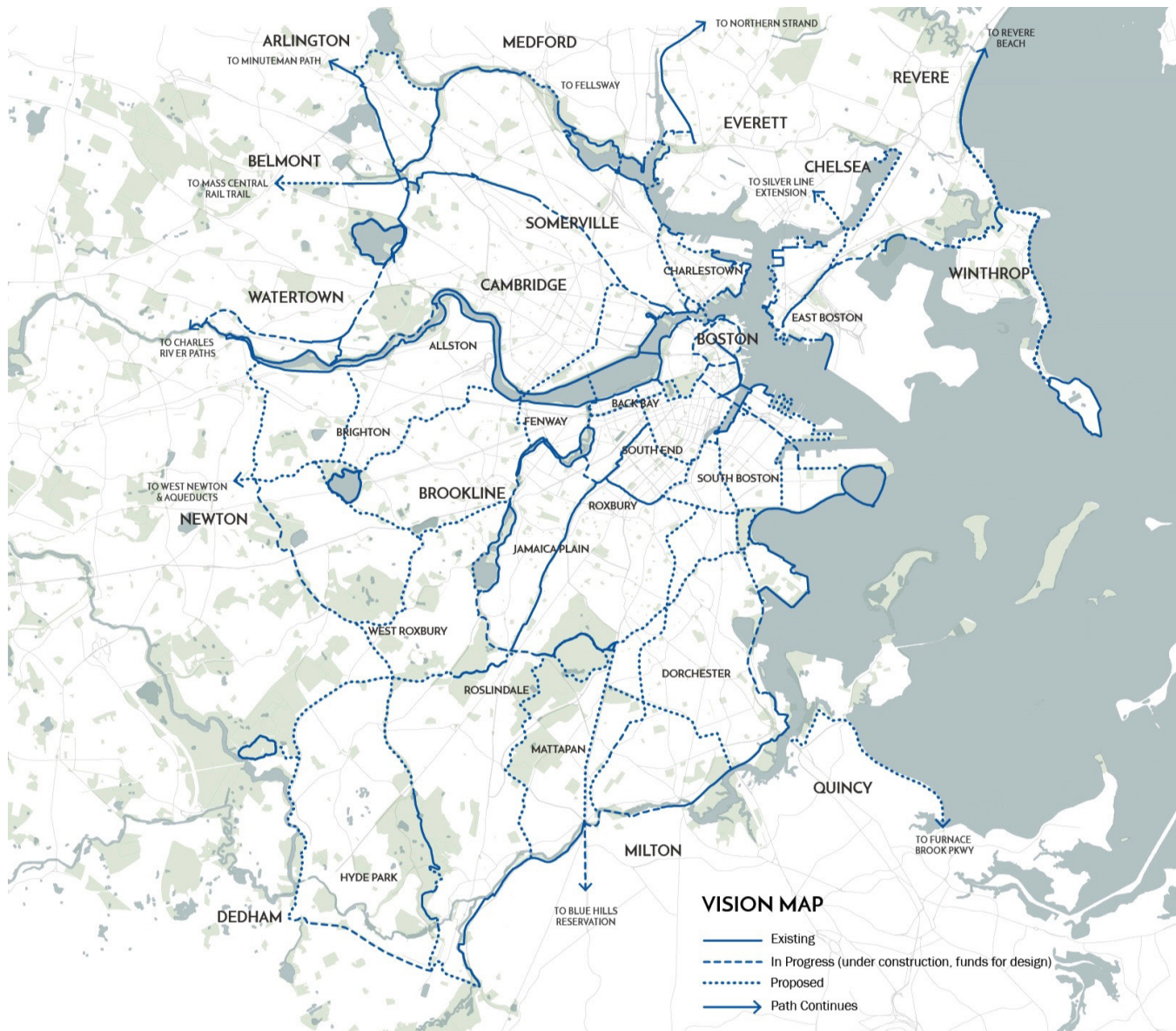


Figure B.3: Emerald Network Vision Map (Source: Emerald Network)

Blackwell Path Extension Conceptual Plan

Blackwell Path Extension Conceptual Plan Bussey Brook Meadow - Roslindale, MA

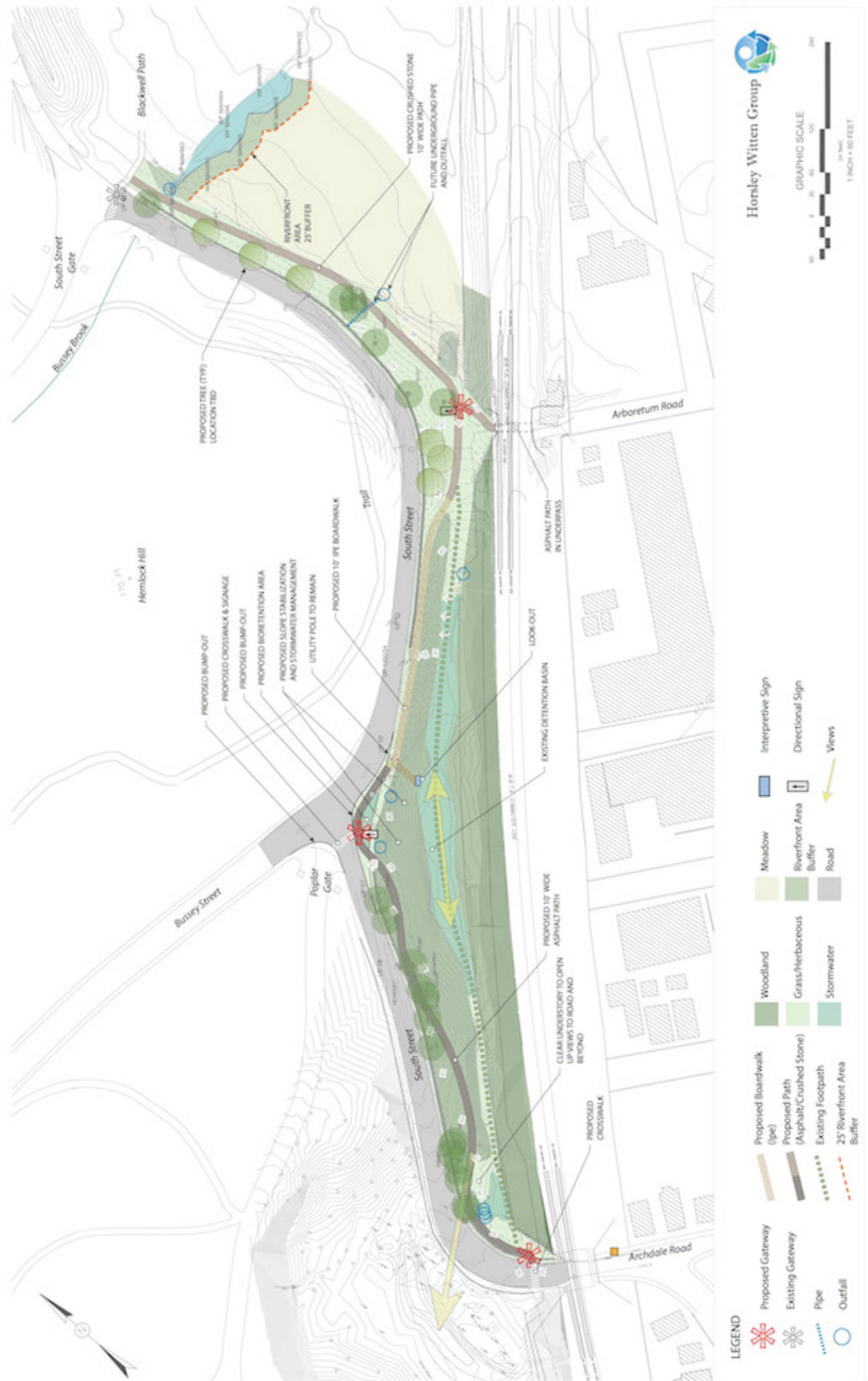


Figure B.4: Blackwell Path Extension Conceptual Plan - Bussey Brook Meadow - Roslindale, MA
(Source Horsley Witten Group)