



Needham Street Area Vision Plan 2018

Adopted 8.13.2018

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Barry Price Center

Major thanks are given to the Barry Price Center for hosting the Needham Street Area Vision Plan Community Engagement Group meetings

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Thanks are given to the Consensus Building Institute who provided advising services to the Planning and Development Department staff team regarding meeting organization

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A Vision for Needham Street

The Needham Street area will be a prosperous mixed-use district that emulates many of the positive aspects of Newton's villages. The area will be designed for all ages and connected to transportation options.

The Needham Street area will continue to reflect its industrial history and current commercial strength while adding diverse residential options and modern innovation industries. It will also be supported by a mix of cultural and recreational opportunities.

Future growth will incorporate environmentally sustainable technologies and design.

Introduction

What is a vision plan?

A vision plan is a guide for public policy action in a particular geographic region, in this case the Needham Street area, that is based in broader citywide strategies, past studies, data analysis, and community engagement.

Ultimately, a vision plan documents objectives for the future and sets out guidelines for private development and public investment meet those goals.

The Needham Street Area Vision Plan has been adopted by the Newton City Council as an amendment to the Comprehensive Plan. The Planning Department staff and the City Council committees will utilize this plan when reviewing development proposals. This plan will also be used by the City's Planning, Public Works, Public Buildings, and Parks and Recreation departments among others when considering municipal improvement projects.

Why write a vision plan for the Needham Street area?

The Needham Street area is a gateway into Newton from our neighbors to the west and has long been seen as a distinct district, connected to but different from the Upper Falls and Newton Highlands villages nearby.

The Needham Street area has been and is currently the subject of private development efforts. This vision plan builds upon past plans with an eye to the future. It is important to check in and make sure that the strategies of those previous plans continue to resonate with the community. This plan builds upon past work, aiming to guide new development toward the future envisioned during the 2017-2018 community engagement process.



Past Plans

1984 | Needham Street Corridor: Proposals for the Future

This plan concluded that land use should be steered toward office uses and resulted in the adoption of the Mixed Use-1 and Mixed Use-2 zoning districts in place today. Interestingly, the vehicles-per-hour tally noted in the 1984 plan roughly match the figure for 2009.

1994 | Needham Street Consensus Group Report

This community group, led by the Economic Development Commission, created a set of recommendations to address development density, traffic congestion, and tax revenue.

2010 | Envisioning Needham Street: Needham Street Corridor Plan

Graduate students from MIT produced a plan for Needham Street that incorporated community involvement. Their primary recommendation was to promote a “finer grain” of buildings and uses at the north end of the street while retaining the larger lots at the southern end.



Envisioning Needham Street: Needham Street Corridor Plan, 2010

2011 | Needham Street Visioning Sessions

For two nights, community members came together to discuss big ideas for Needham Street’s future. Common themes included transportation options, land use mix, connectivity to adjacent neighborhoods, aesthetics, and sense of place.



Needham Street Visioning Sessions, 2011

The Community Engagement Group Process

As is reflected in the final vision for the Needham Street area, there is no simple defined brand for the district. From the very beginning of the process it was clear that a range of voices would be needed to help guide the writing of this plan.

The City's Planning and Development Department convened a representative Community Engagement Group, reflecting diverse stakeholders in the future of the area. Understanding that representative forms of engagement can limit the number of participating voices, the process also included public commentary at each meeting as well as a public forum.

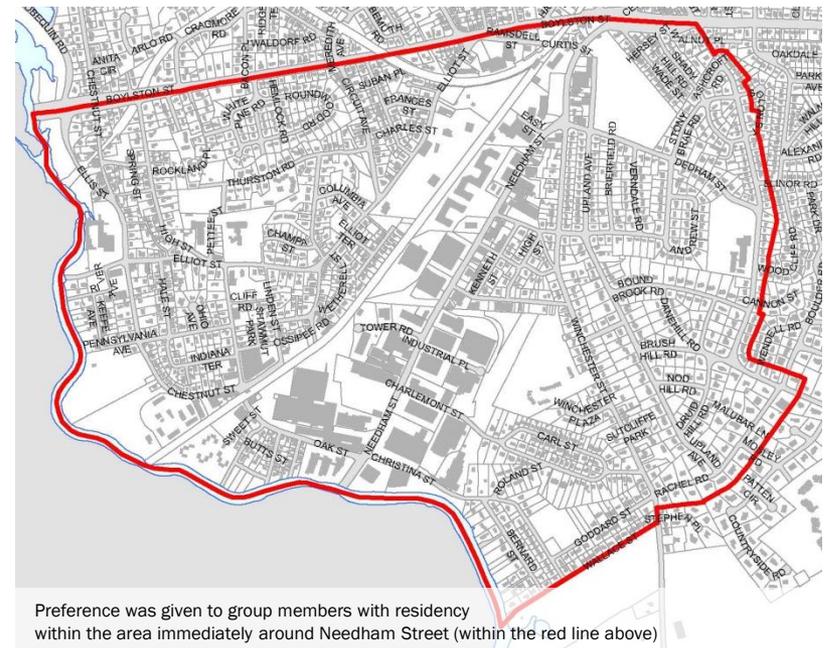
The representative seats included residents, commercial property owners, topic-area experts, representatives from neighborhood and citywide organizations, and at-large representatives. While Engagement Group members representing specific organizations were chosen by those organizations, members in the other categories submitted applications to the Planning Department for consideration. Preference was given to topic-area experts who also resided in the area around Needham Street illustrated below, and residents were selected to be geographically dispersed within the area.

Community Engagement Group members were asked to consent to a Charter covering the ground rules for meeting operations, with such responsibilities as:

- Members' willingness to be constructive and commit to the principles of respect, decency, and civility
- Preparation and distribution of meeting summaries by City staff

The goals of the Community Engagement Group process were to:

- Provide a forum for an exchange of information, citizen and stakeholder input, and deliberation
- Consider and explore needs and concerns of all parties regarding the future development of the area
- Identify key issues and ideas for the future of the area
- Jointly provide feedback on the pros and cons of options and seek to improve these options to meet the needs of residents, businesses, and the city as a whole



Community Engagement Group Meetings

2017

December 11th – Kick-off Meeting

2018

January 22nd – Open Space, Recreation, and Sustainability

January 29th – Transportation

February 12th – Land Use and Economic Development

March 12th – Design

March 26th – Policy Considerations

April 9th – Synthesis of Feedback

April 23rd – Public Forum

April 30th – Final Thoughts

Members of the Community Engagement Group committed to participating in nine meetings over the course of five months. The Planning Department was impressed by the commitment of the group; attendance was excellent at each meeting, and members could be counted on to participate in lively discussions and civil disagreements.

As mentioned, the community engagement group was formed to advise the Planning Department in the preparation of this document. As such, diversity of opinion was seen as a positive. Consensus was not required from the group, though throughout the process, there were numerous points of agreement among members.

The work of the group included homework assignments and individual, small group, and full group activities at the meetings. The output of all of this work can be found online for anyone who wishes to review full documentation of these events. Public comments were taken at each meeting and are also covered in the minutes.

At the middle and end of the process, staff asked for feedback from the members of the group. Overwhelmingly, feedback on the process itself was positive, particularly relating to the meeting organization as well as staff's responsiveness to mid-point requests for adjustments to meeting design.



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A Vision for Environmental Health

The Needham Street area will be designed to facilitate ecological health through restoration of existing open space.

The area will support healthy lifestyles with the creation of diverse, multi-use, natural areas that encourage activity and environmental education.

Increase climate resiliency

The properties along Needham Street are among the most paved in Newton. The lack of pervious surfaces (places where rainwater can soak into the ground) makes this one of the hottest areas in Newton and puts this area at higher risk to the effects of climate change.

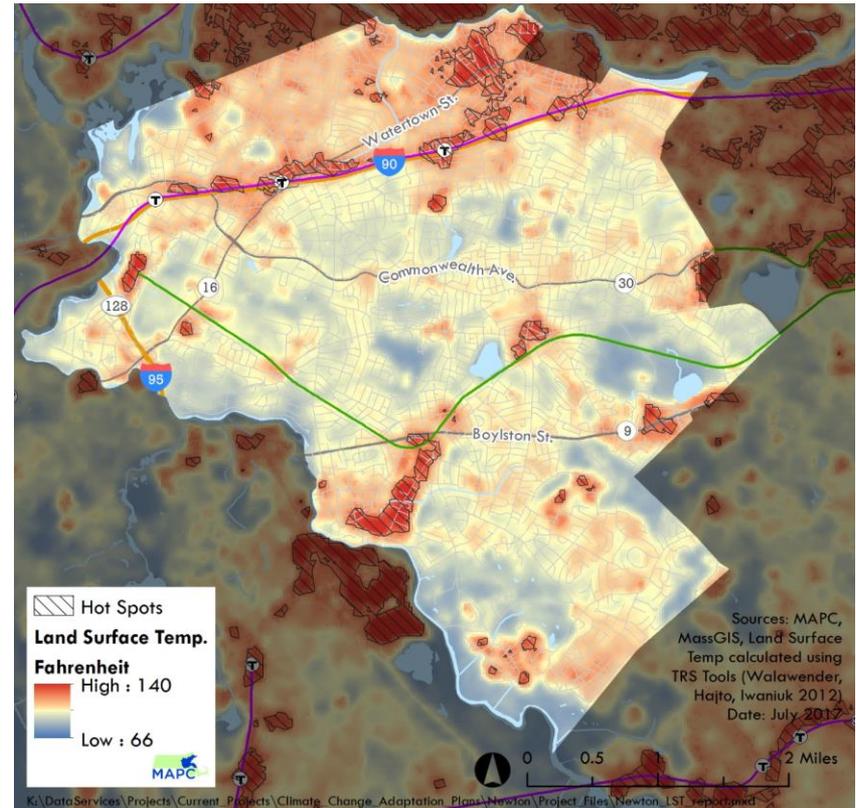
As a central part of the N² Innovation District, this is a prime location to incorporate innovative site planning, construction techniques, and efficient technologies to help restore the local ecology. The City of Newton would like to see any new development become a model for climate mitigation and system resiliency in Newton and the region.

Short-Term Actions

- Require and/or incentivize construction with:
 - Durable, energy and resource efficient materials
 - Sustainable waste management plans (before, during, and after construction)
 - Proper soil/erosion controls and native plantings
 - Net-zero energy goals
- Require and/or incentivize building and site designs to maximize energy efficiency, provide clean and renewable energy generation, and to reduce the heat island effect

Ongoing/Long Term Actions

- Promote transportation options that reduce emissions from single-occupancy vehicles. Provide safe walking conditions and increased shuttle services to open space/natural areas, transportation hubs, and cultural/community amenities
- Create a “Sustainable Living” theme for Needham Street focused on the natural amenities of the area including the Charles River, South Meadow Brook, and the Upper Falls Greenway



The Metropolitan Area Planning Council (MAPC) tracks areas within the top 5% of land surface temperatures in the Boston Metro Region, Needham Street is one of the areas of Newton that qualifies as one of these “hotspots.”

Recommended fixes include:

- Increase street trees and healthy green space
- Set design standards for new buildings to limit the heat island effect
- Protect wetland resources to encourage natural hydrologic cycles
- Encourage alternate forms of transportation to reduce single-occupancy vehicle exhaust

Promote low impact development to protect wetlands and waterways

The South Meadow Brook crisscrosses the Needham Street area from a large wetlands complex east of Needham Street down to the Charles River. Because of the brook, a significant portion of the Needham Street area falls under the Rivers and Wetlands Protection Acts and the purview of the Conservation Commission, whose focus is to ensure projects do not negatively impact water resources.

Stormwater runoff should, to the greatest extent possible, reach the Charles River in the most natural way possible. Typical existing systems aim to move the runoff away from the source as quickly as possible after a storm with no filtering of pollutants. Preserving the quality of the river through low impact stormwater management is seen as a top priority to improve the health of the local environment.

Several members of the Community Engagement Group highlighted the value they've found in visiting the banks of the Charles River. They provided recommendations to guide more attention to this asset, for example, better directional signs, an overlook at the end of the greenway, and a nature education center. The ecological investments in low impact development will ensure that visitors also find a cleaner, healthier natural environment when they arrive.

Short-Term Actions

- Update requirements in the zoning ordinance with respect to pervious/impervious coverage, landscaping, low-impact stormwater management, and erosion/sedimentation controls
- Increase native plantings to address heat island effects, provide stormwater management, add shade where needed, create habitat, and increase aesthetic appeal
- Set standards for stormwater management in any new public streets/public spaces



Graphic source: City of Philadelphia Green Streets Design Manual

Ongoing/Long Term Actions

- Work with the N2 Innovation District, Green Newton, and others to promote climate resiliency measures in the existing building stock (e.g. electric vehicle charging stations, tree planting)
- Promote climate resiliency by holding regular events (e.g. neighborhood walks) and displaying interpretive signs that encourage interaction with and knowledge about natural resources, hydrology, and the low impact development techniques used to protect them in the Needham Street area

Improve health of existing open space and create diversity in new open space

Newton has an opportunity to cultivate community stewardship in the Needham Street area with residents and local businesses. While developing this vision plan, the passion of the resident community in the Needham Street area became clear. Past community involvement in creating and maintaining the Greenway was frequently noted. Newton can expand support for volunteer groups that monitor the status of natural resources and participate in protecting and maintaining them.

The Community Engagement Group also discussed new open space desires. Expanding and linking the trails in the area was among the top priorities heard. There was also interest in expanding nature education, potentially with a community-nature center and interpretive signage along the trails. In the context of new development, there was interest in creating new open spaces with diverse activities from plazas to playgrounds, sports fields to quiet lawns.

As the City works with partners to expand and improve open space, the focus of open space design should continue to be on ecological health by replacing invasive species with native plantings, reducing impervious surface coverage, and creating connections between natural areas.



Hippo Spray Park, New York City
photo submitted by Community Engagement Group member

Short-Term Actions

- Develop a community action group to monitor open spaces and provide the relevant City offices with information that may be missed by people who do not live in the area
- Work with the Conservation Commission to ensure that water quality, stormwater storage capacity, and wildlife habitat are maintained and improved along South Meadow Brook
- Coordinate with MassDOT to add street trees along Needham Street wherever possible. Require trees on private property along Needham Street in any new development

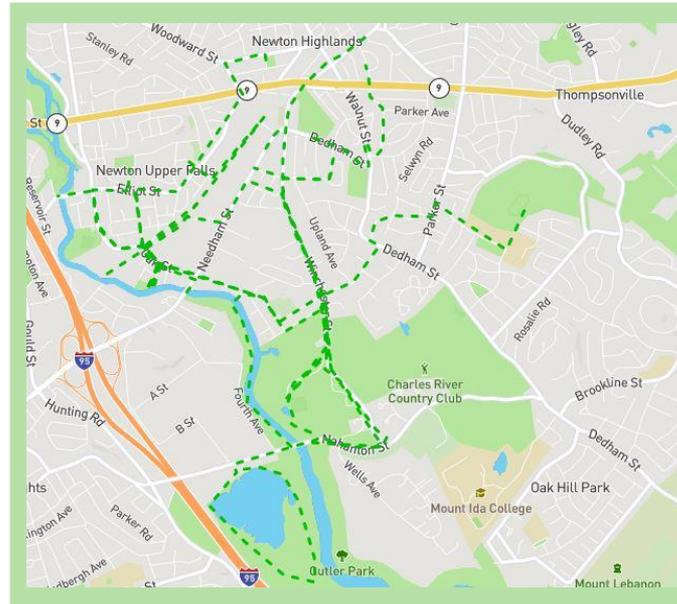
Ongoing/Long Term Actions

- Encourage stewardship investment (financial and otherwise) in the maintenance and improvement of existing open spaces
 - e.g. support volunteer clean-up days with residents and businesses to maintain the health of open spaces
- Require new development/redevelopment to incorporate new publicly accessible open spaces in the Needham Street area
 - Build diverse new public open spaces that encourage outdoor activity, environmental awareness, and community building: e.g. trails, interactive water features, playgrounds, community gardens, plazas, and public art

Provide ready access

As noted earlier, many of the Community Engagement Group's priority ideas related to trail access. There are numerous disconnected trail segments already in the Needham Street area. Several projects were identified for investment in improved connections not only between existing trails but also to parks, playgrounds, schools, and the Green Line, documented on the next page.

The Group was interested in the City providing routes for walking and biking for all ages and abilities. Clear signage and directions are essential to promoting safe shared paths, and building etiquette and stewardship among trail users. Points where the network of off-road paths intersect and/or overlap with the City sidewalk network are key locations where pedestrian and bicycle safety can be improved with signs, crosswalks, lighting, etc.



Community Engagement Group members mapped their current routes to recreation, which provided insight into the discussion about new routes and desired destinations for trails, bike paths, and accessible walking paths in the Needham Street area.

Destinations included: Bobby Braceland Playground, Countryside School, Newton Highlands Playground, Charles River Country Club, the JCC, Newton Community Farm, and Cutler Park in Needham.

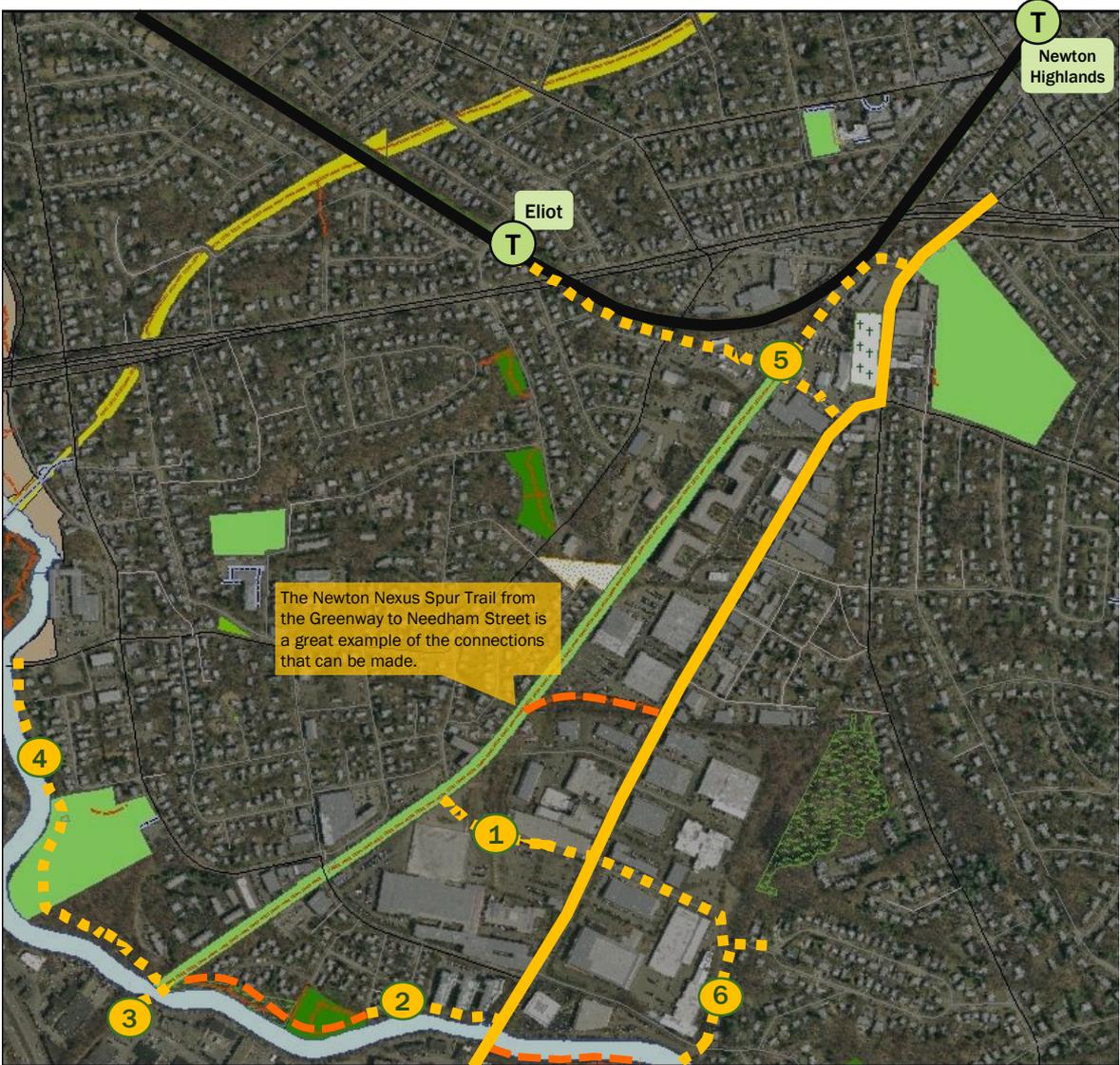
Short-Term Actions

- Increase access to those with disabilities through addition of ADA-compliant trails and amenities
- Place bike racks, benches, and informational, educational, and/or play features along trails
- Expand and diversify trails, walking loops, and open space connections on a local level to encourage a variety of trail users

Ongoing/Long Term Actions

- Construct trail and open space infrastructure that increases access to the Charles River
- Expand trails, walking loops, and open space connections on a regional level (e.g. into Needham, Brookline, Dedham, etc.)

A Vision for Environmental Health



Legend

- Aqueduct
 - Newton Parks and Rec. land
 - Newton Conservation land
 - Existing Trails
 - Future Connections
 - Limit of MassDOT bike & walk improvements
- 1 More connections between Needham Street and the local green/natural spaces, especially the Upper Falls Greenway.
 - 2
 - 3 Connections between Newton's trails/green space and other regional trails in Needham via existing bridges.
 - 4 Connections between local trails and other open/green space Newton.
 - 5 Connections between Needham Street and the Upper Falls Greenway northward to the MBTA Green Line and bus services at Newton Highlands and Eliot Street.
 - 6 Connections between Needham Street and points east via the stair to the Goddard Street neighborhood and the Christina Street Bridge to existing trails that connect down to Cutler Park.

The Upper Falls Greenway

Looking back at past plans for the Needham Street area, one of the biggest success stories is the 2016 opening of the Upper Falls Greenway. Countless community volunteers put their time and energy into making the Greenway a reality, and were supported by the Department of Public Works, Parks and Recreation, and the Newton City Council.

Thinking about the future of the Greenway, the key ideas brought forward were: connectivity and activity. A variety of connections were discussed, and a broad range of activities considered.

Bringing new activity to the Upper Falls Greenway is an early-action step that can be taken following the adoption of this plan.

In 2018, the City of Newton has already sought funding as well as community and regional partners to bring temporary art installations to the Greenway edge, and to develop a new connection north to Curtis Street. The outcome of these efforts is unknown at the time of writing this plan, but is a testament to the energy surrounding this community asset.



The Upper Falls Greenway has clear markers – interpretive signage could be added about the history of the Greenway and the surrounding area.



The ADA-accessible Upper Falls Greenway has many great features along its trail including the Depot Coffee Shop (left side of photo). Once a train depot, this spot is now a neighborhood favorite.



The Greenway, developed from a former industrial rail line, is at the back of properties. Activating the edges with art, building entrances, and public gathering spaces can further add life to the Greenway as has been done in similar settings like the Charles River Greenway, pictured here.



Recently, the Newton Nexus site opened an old railway spur as a new greenway spur, and there is interest in seeing an expanding network of walk/bike routes linking to the Upper Falls Greenway, including potentially connecting the Greenway across the Charles River into Needham.

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A Vision for Transportation

The Needham Street area will have safe and convenient transportation connections in and around the local neighborhoods and to regional destinations.

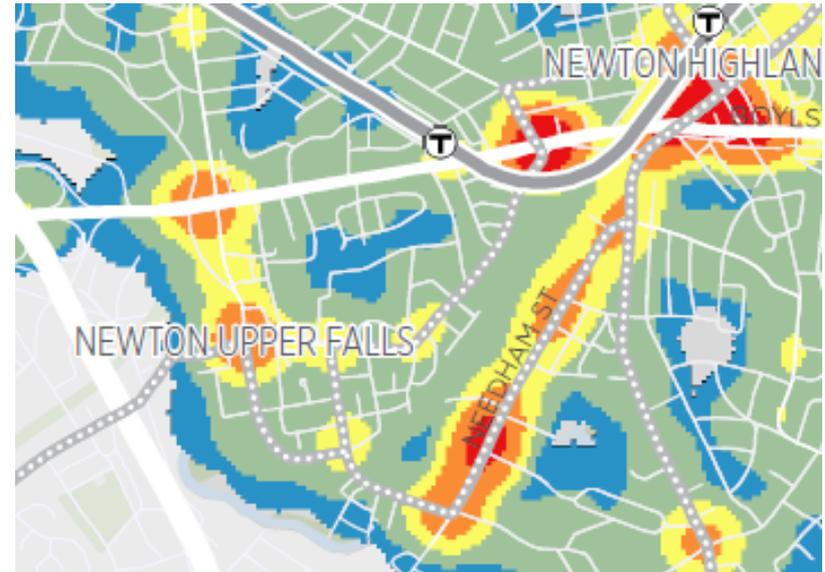
Needham Street will be a walkable retail spine, supported by diverse options for getting to the street whether by transit, walking, biking, or driving.

Improve safety and accessibility

The City of Newton is committed to ensuring the safety of all road users. Needham Street stands out as a crash hotspot within Newton. To improve safety, including reducing conflicts and improving infrastructure, the City will need to employ a multipronged approach including design, education, and enforcement.

Although the City of Newton owns most roadways within its borders, the Massachusetts Department of Transportation (MassDOT) owns Needham Street. MassDOT will be rebuilding the roadway beginning in 2019 with the intent of improving safety and encouraging multi-modal transportation. In the surrounding area, the City of Newton continues to work on improving pavement quality, accessible curb ramps, and intersection safety.

During the Community Engagement Group meetings, attendees pointed out that Needham Street is currently unfriendly to walking and biking, and that the design aesthetics of the area could go a long way toward making it a more comfortable and welcoming area to walk and bike. Congestion-related concerns also arose and occasionally overlapped with safety concerns.



Map of Crash Hotspots in the Needham Street area
The City of Newton owns most roadways. However, Needham Street is owned by the Massachusetts Department of Transportation, and will be rebuilt starting in 2019, after which it will become a City-owned roadway.

Short-Term Actions

- Update accessible curb ramps in conjunction with City accelerated road program projects
 - For example, the Chestnut St and Ellis St intersection is scheduled for repaving and city engineers are developing improvements to the accessible curb ramps and crosswalks at this intersection
- Work with MassDOT to pursue lighting upgrades along Needham Street

Ongoing/Long Term Actions

- Manage driving speeds in neighborhoods to at or below the posted speed limit through roadway design and safety education
- Update street, sidewalk, and parking lot lighting
- Incorporate principles of accessible/universal design in street, sidewalk, and parking lot design

MassDOT's Needham Street / Highland Avenue Reconstruction Project

The Massachusetts Department of Transportation (MassDOT) owns Needham Street for its entire length as well as a portion of Winchester Street up to Route 9.

For the past 20+ years, the City of Newton, Town of Needham, and MassDOT have been coordinating the redesign and reconstruction of Needham Street and Highland Avenue between I-95 and Route 9. After decades of work, construction will start in 2019.

The project takes a multi-modal approach to improving the roadway, balancing the needs of all users. The project will:

- Improve pedestrian accommodations through continuous sidewalks, reducing the number of driveway curb cuts, and adding new crosswalks.
- Add bicycle accommodations through a 5' wide raised bike lane and shared use paths.
- Improve traffic operations and safety through exclusive and two-way turn lanes and protected signal phasing.
- Improve transit by adjusting stop locations.

Community Engagement Group members were concerned that the project did not include undergrounding the electrical wires and does not include street trees. City staff and community members reviewed these concerns with the MassDOT design team.

Due to the unique complexity of utilities already below the road and sidewalks, there is no space to locate more wires underground in the Needham Street right-of-way. Furthermore the state cannot finance undergrounding onto private property through a transportation project.

The City and MassDOT worked diligently to add as many trees as possible to the right of way, despite limited space due to the utilities. The City continues to explore adding more lighting in conjunction with the MassDOT project.



The project includes new and enhanced pedestrian crossings at several locations, including both sides of the Route 9 intersection (shown above), as well as at two realigned intersections - Oak Street/Christina Street and Charlemont Street.

The City is exploring options to add pedestrian lighting to utility poles along Needham Street.



Where there is space for tree roots, the City has pushed for including small trees.

Expand and enhance transit connections along Needham Street

Situated between the Newton Highlands Green Line station and the Needham Heights commuter rail station, and served by two MBTA bus routes (#52 and #59), the Needham Street area has the potential to be a transit rider's dream. However, the bus service is infrequent and the walk to rail stations is seen as dangerous at worst and underwhelming at best.

A number of private shuttles also connect employees from office complexes just over the Needham town line to the Newton Highlands Green Line station, but these are not available to the public.

While the City of Newton does not directly provide transit service, there is much that the City can do to promote public transportation in the Needham Street area, particularly along the Needham Street spine. Chief among them is an opportunity to promote shared publicly accessible shuttles with stops along Needham Street in place of the business-specific shuttles.



Short-Term Actions

- Join the 128 Business Council to have a voice in the organization's decisions about private transit services
- Coordinate existing and encourage new publicly accessible fixed-route shuttle services along Needham Street to the Green Line
 - The City of Newton authorizes shuttle routes and stops in city streets. Further station area planning around shuttle pick-up/drop-off may be required as shuttle services expand in the Needham Street area
- Encourage and/or require use of electric or hybrid shuttles

Ongoing/Long Term Actions

- Improve bus stops with bus shelters, benches, real-time information, lighting, etc.
- Institute transit signal priority between the Newton Highlands station and the Needham border to improve reliability of buses and shuttles
 - Signal priority tracks a bus as it approaches an intersection and then prioritizes green time along the bus route to allow the bus to move through the intersection with less wait
- Advocate for additional MBTA service
- Study feasibility of transit options along the Greenway connecting Green Line at Newton Highlands to Needham Heights Commuter Rail

Convert Needham Street from an isolated to a connected roadway

A connected roadway network increases options and improves walkability. Needham Street scores poorly on two walkability metrics: intersection density and small block sizes (less than ¼ mile perimeter). Because of its location between the former rail line to the west and wetlands to the east, Needham Street is an isolated road segment, meaning that once you are on Needham Street, you have to travel its entire length to exit back into the neighborhood network. Between Winchester Street and Oak Street/Christina Street there are no public access routes off of Needham Street.

There are opportunities to create new connections and expand the route options. In the past, the City has required public connections between properties' parking lots, creating back-edge parallel routes to Needham Street. Looking ahead, there are locations where additional connections out to the street network could be made, and these rear connections could be formalized.



Street and pedestrian/bicycle path connection ideas from the Community Engagement Group's small group activity.

Short-Term Actions

- Encourage public connections between parking lots and require wayfinding signage to guide drivers to those routes
- Minimize driveway entrances from Needham Street as possible

Ongoing/Long Term Actions

- Create new driving and non-driving connections off of Needham Street as opportunities present themselves



Staff created the above set of possible new road location ideas based on principles and ideas discussed during the Community Engagement Group meetings.

Manage transportation demand in new development

Newton does not need to resign itself to a future of ever-increasing traffic jams and parking lots as part of new development. The City and developers can take proven, proactive steps to incentivize other options to driving and reduce vehicle trips.

The City of Seattle, which has suburban neighborhoods that look much like Newton, is committed to commute-trip reductions. Since its policies were implemented in the early 1990s, Seattle has seen steady traffic levels while also experiencing both commercial and residential growth downtown and in the suburban neighborhoods. Seattle's intensive transportation demand management programs are credited with allowing growth while preventing traffic increases.

In discussion with the Community Engagement Group there was interest in seeing these traffic prevention techniques, broadly grouped as transportation demand management (TDM), utilized in any new development. The ideas from the group included, centralized parking combined with frequent shuttles up and down Needham Street, and in the more distant future, setting congestion pricing for through-travelers on Needham Street during rush hour.

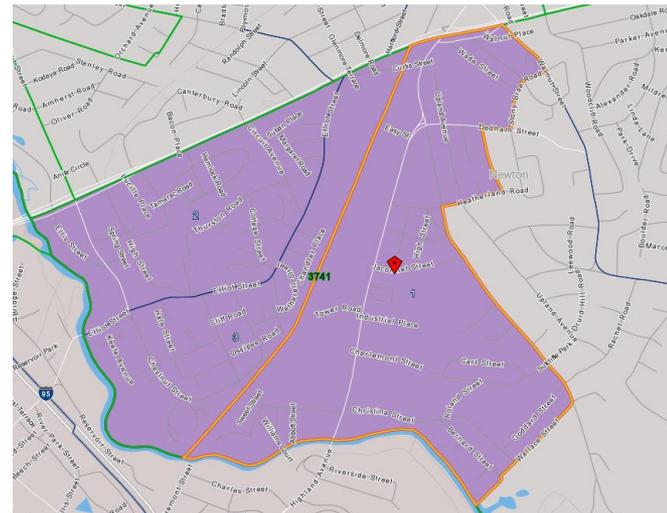
Tracking Commute Patterns to Guide Policy Decisions

An effective TDM strategy is to target top concentrations of trips and create strong alternative options for those making the same commute, e.g. transit for those commuting to and from nearby communities and better biking and walking for those commuting in the immediate neighborhood.

The 2015 American Community Survey found that the top commute destinations for residents from the area immediately around Needham Street (outlined in orange) were as follows:

- Just over 10% to Downtown Boston
- Just over 10% within Newton
- Approximately 7% to Cambridge
- Approximately 6% to the Longwood Medical Area

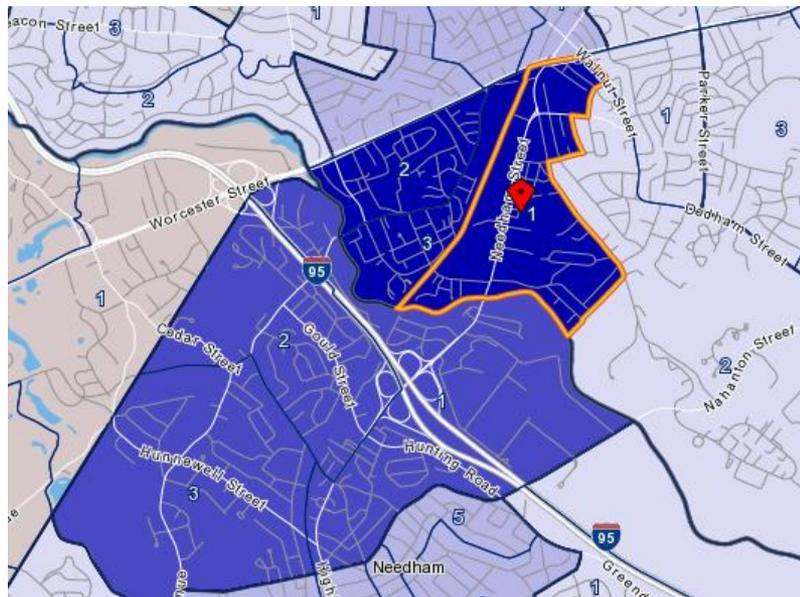
The Needham Street area and Newton Upper Falls (in purple) is actually a top destination for those commuting within Newton.



The same survey found that the top residential locations for those commuting to jobs along Needham Street (area outlined in orange) were as follows:

- 18.8% commuting to Needham Street from Boston
- 8.4% commuting within Newton
- 3% commuting from Needham
- 2.9% commuting from Waltham
- 2.5% commuting from Framingham

Despite the fact that almost 1 in 5 workers commute from Boston, when broken down to the finer-grained census tract level, no concentrated pockets of Boston to Needham Street commuters appear. Instead, the pattern that emerges shows that the highest concentrations of those commuting to Needham Street come from the neighborhoods immediately around the Needham Street area.



Short-Term Actions

- Design new development to encourage walking, biking, and transit, including supporting a mix of uses
- Establish standards for transportation demand management in new development (e.g. subsidies for transit, bike storage)

Ongoing/Long Term Actions

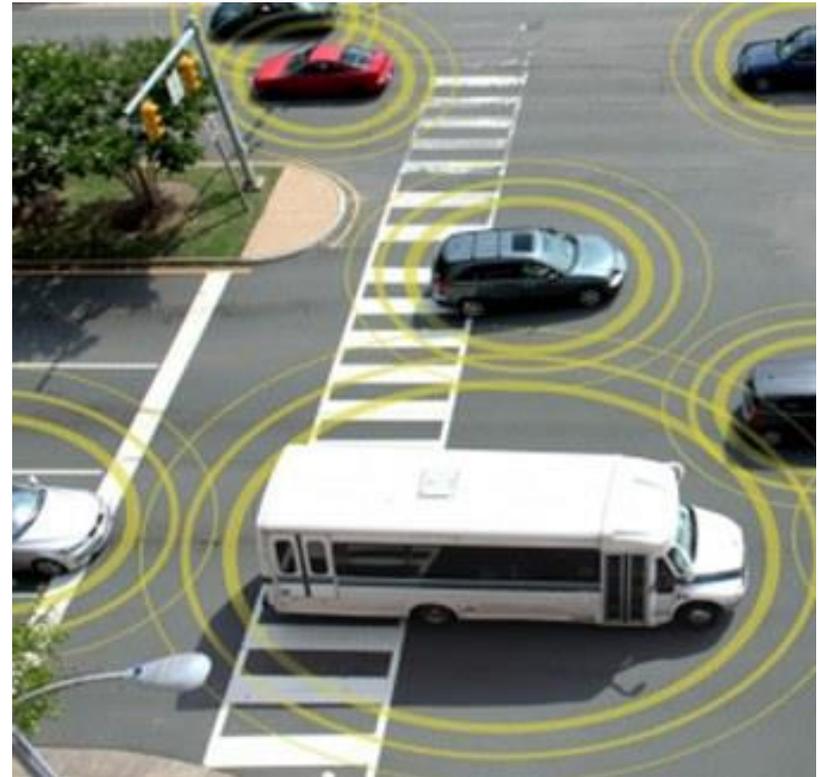
- Track commute flows and develop transportation management strategies for top destinations
- Consider parking management strategies and explore options for centralized parking facilities

Prepare for future tech: shared, electric, autonomous vehicles

Industry watchers anticipate that autonomous vehicles will be common on public roads within just a few years. The City must stay up-to-date on the rapidly changing transportation technologies and should look to the Needham Street area, and the N² Innovation District more broadly, as a place to innovate on how these vehicles can be incorporated into a suburban context.

Industry experts predict that rideshare services like Uber/Lyft will become more common, eventually incorporating driverless and electric technology. This is expected to trigger a reduction in personal car ownership and parking needs. Already, Newton is seeing this change: over 1 million rideshare rides started or ended in Newton last year and electric vehicle ownership is also increasing year over year. Regionally, parking lot owners are seeing dramatic reductions in demand.

Among the challenges to consider are how the curb-side will be managed with respect to pick-ups/drop-offs and short-term parking as well as how to scale electric vehicle and electric bike charging over time.



Short-Term Actions

- Coordinate with existing and emerging shared fleet companies, e.g. Uber/Lyft/Zipcar
- Plan for electric-vehicle charging stations in all new buildings and encourage adding them to existing parking lots
- Require new development to assign space for shared vehicles (e.g. Zipcar)

Ongoing/Long Term Actions

- Track autonomous vehicle innovations and management strategies

Big Ideas in Transportation

The Community Engagement Group members presented their big ideas for Needham Street's transportation future. Highlighted here are three themes that emerged, all connected to the broader idea of sharing.

Shared Transportation Services

Several people identified the desire for shared transportation services. Among the ideas were:

- **Bikeshare** – Rent a bike for short one-way or round-trip rides (coming in 2018).
- **Shared shopping carts** – Pick up a shared cart at a centralized parking garage, use it throughout your shopping at all stores and return it to the garage after transferring goods into your private car.
- **Circulator Shuttle** – Whether parking or taking the Green Line, use the circulator to move between destinations along Needham Street.



Centralized Parking

There was no love for the large open parking lots that currently define Needham Street. The current disjointed parking layouts make it easier to drive than walk from property to property, adding traffic onto Needham Street.

Top of mind was the idea of creating clearly identified centralized parking areas from which you could walk, bike, or take a shuttle to many destinations.

Property owners, businesses, and the City will need to coordinate the creation of centralized parking lots or garages.



Transit on the Greenway

Newton and Needham have for years been discussing the idea of creating a Green Line Branch along the old rail corridor between Needham Heights and Newton Highlands alongside the pedestrian/bicycle Greenway.

Efforts of this magnitude may be decades in the making. For instance, the rail bridge between Newton and Needham would need to be reconnected.

Whether the Greenway should remain a pedestrian/bicycle-only space or have added transit is still an open discussion and merits continued conversations.



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A Vision for Land Use

The Needham Street area will be a vibrant destination with a distinct identity. The area will have a diversity of homes, businesses, and gathering places for community life.

A Vision for Land Use

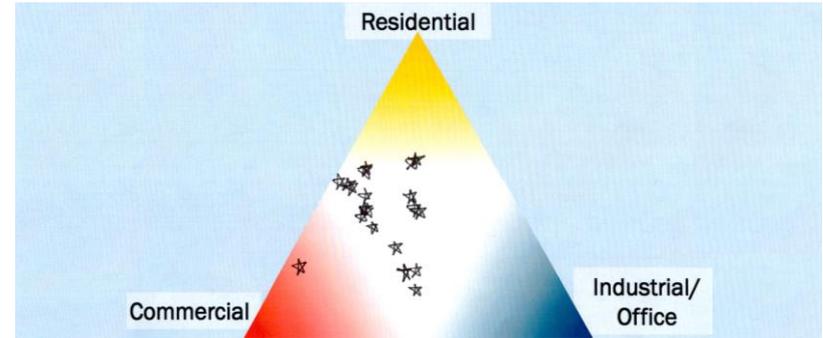
Support a mix of uses

Each of Newton's villages has a variety of uses that make it unique and give the village life throughout the day – from the early morning coffee shop to the offices open all day to the residences where people return at night.

The uses along Needham Street evolved from a farming area to an industrial corner, then to an office area and shopping destination. There are residential neighborhoods just off of Needham Street, and for a time in the early 20th century, there were plans for Needham Street to be lined with single family homes.

Looking ahead, the vision is for Needham Street to be a mixed-use place linking the villages of Upper Falls and Newton Highlands with a mix of residential, commercial, office, entertainment, recreation, and light-manufacturing/production uses. The mix of uses should reflect the industrial heritage of the area, meet the service needs of the adjacent neighborhoods, and provide for the evolving needs of a thriving business center.

In this vision, Needham Street continues to be an economic powerhouse within Newton and a central spine of the N² Innovation District. While office parks meet the needs of some businesses, the majority of office workers now prefer to work in places with housing and dining options within walking distance, and on streets that are lively with pedestrian activity from early morning to evening.



Community Engagement Group members identified the mix of uses that they would like to see along Needham Street between residential, retail/commercial, and office/industrial uses.

Short-Term Actions

- Amend zoning along Needham Street to encourage mixed uses, including housing, community uses, smaller commercial uses, and compatible manufacturing/production uses (e.g. breweries, artisans, R&D lab space, etc.)
- Allow more uses by-right with clear development and design requirements (height, massing, transparency, etc.), along with clear operating standards

Ongoing/Long Term Actions

- Attract employers and support employees by encouraging housing and transportation options, as well as amenity uses, such as restaurants, retail, and entertainment
- Work with the Newton-Needham Chamber of Commerce and N² Innovation District to attract new businesses and economic development assets, such as co-working, to the area

Provide diverse housing options

A wider range of housing choices will be necessary to support the desired diversity of commercial uses and the range of employee incomes.

Housing preferences continue to change too, as evidenced by the diversity of housing in the 'inspiration places' presented by members of the Community Engagement Group. Some places offered a mix of housing above commercial space, while others showed dedicated high-rise residential, and still others demonstrated dedicated commercial buildings with side-street residential activity.

As development occurs, proposed housing should be reviewed for: how it meets the goal of providing diverse options for different lifestyles and price points, how it supports Newton's commitment to be an all age friendly community, and how it supports the success of commercial enterprises along Needham Street.

Short-Term Actions

- Encourage a range of housing unit types and sizes to accommodate all ages and incomes
- Reduce minimum lot area per unit in the zoning ordinance to encourage the production of a range of housing types
- Update inclusionary housing requirements in the zoning ordinance to provide housing for a greater range of incomes

Ongoing/Long Term Actions

- Improve transit and bicycle access as well as transportation support services to appeal to potential car-free residents



Pleasant pedestrian streetscapes with human-scaled buildings, minimal front and side setbacks
photo submitted by Community Engagement Group member



Mix of housing above commercial space
photo submitted by Community Engagement Group member



Eco-friendly high-rise residential building
photo submitted by Community Engagement Group member

A Vision for Land Use

Increase support for small local businesses within the retail spine

The current zoning for Needham Street includes the Mixed Use-1 District along with a small section of the Mixed Use-2 district. These districts are specific to Needham Street and are not found in other parts of the City.

In discussing uses with the Community Engagement Group, it was clear that current preferences were at odds with what is currently accommodated in the zoning ordinance. For instance, a large auto dealership is currently a by-right use, while a small gift shop is a prohibited use along much of Needham Street. There was general consensus that the zoning ordinance should support rather than discourage small businesses along Needham Street.

Additionally, there was support for parking approaches that allow shoppers to park once and walk, or to use non-driving options. On several occasions, centralized parking with shuttles was proposed. Another way to achieve this would be to allow and encourage shared parking. These transportation management solutions, coupled with reduced parking space requirements, could further support smaller properties with smaller businesses in the Needham Street area.



Short-Term Actions

- Allow small-scale retail by-right
- Allow shared parking and reduce parking minimums to support retailers in encouraging customers to shop at multiple locations on Needham Street

Ongoing/Long Term Actions

- Locate neighborhood-scale retail and service uses on the ground floor of new developments
- Work with the Newton-Needham Chamber of Commerce and N² Innovation District to support business growth in the Needham Street area

Create a range of community gathering spaces

Another finding regarding the Mixed Use-1 and Mixed Use-2 zoning districts was that there are many typical community gathering and entertainment uses currently prohibited from locating along Needham Street. For example, libraries, museums, theaters, galleries, and bowling alleys are prohibited uses in the MU-1 zone.

In both the land use and environmental discussions with the Community Engagement Group there was an interest in seeing more places for fun, be they public or private, such as ice skating rinks, boating on the Charles, bowling, athletic fields, and theaters. The need for more cultural amenities in this part of Newton was also identified by members of the group who felt a dedicated performance venue would be a valuable anchor to the area.

While some community gathering spaces are likely public or non-profit investments, e.g. a nature education center, many community gathering uses can be successful private commercial enterprises such as bowling alleys and breweries.



Short-Term Actions

- Amend zoning to allow broader range of civic and cultural uses as well as private entertainment and recreational uses
- Require publicly accessible open space in new large developments and develop set standards for new public open spaces

Ongoing/Long Term Actions

- Consider the Needham Street area as a potential site for future public investments in community centers or civic institutions



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A Vision for Design

The Needham Street area will be an inviting place for people of all ages and abilities. The physical environment will be comfortable and healthy. The area's buildings and public spaces will be designed at a scale to engage people at the ground level and promote an active pedestrian environment.

Utilize design to encourage active community life

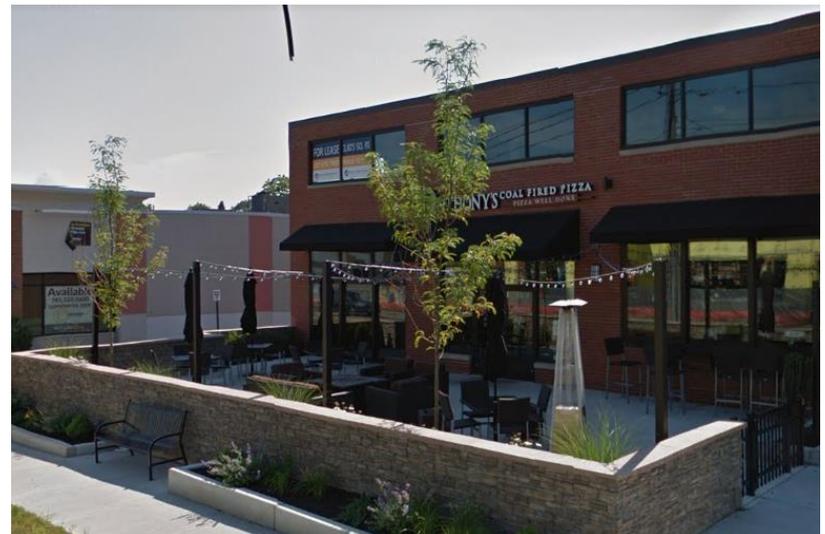
Design plays an important role in shaping how people interact with their environment, including the choice to walk or socialize in a public square. Needham Street is in many ways a place for community connection between the Newton Upper Falls neighborhood to the one side and Oak Hill to the other. At the moment however there are few public gathering places for people to meet on Needham Street.

The Community Engagement Group and staff took a site walk in January 2018 that demonstrated several key issues regarding how the design of buildings and public spaces in the Needham Street area could be improved to encourage more community life and activity along the street.



The layout, architecture, and window-displays of many existing buildings demonstrated a lack of attention to pedestrians. In numerous cases, there was no entry available from the street and the windows facing the street were fully covered. With buildings designed so that it's far easier to arrive by car than on foot, it is little wonder that few shoppers walk between properties when visiting Needham Street today.

Needham Street itself, even with the upcoming improvements by MassDOT, was found to be lacking in character and public life amenities. Some of the newer developments, e.g. the seating area outside Anthony's Pizza, were seen as positive improvements. Each of the commercial properties on Needham Street has opportunities to further activate its façade and connection to the sidewalk so that visitors are invited to linger and explore. Trees, seasonal plantings, seating, and artwork can be used to create a vibrant public space.



Public park spaces were discussed in a variety of contexts. There are major assets at both the northern and southern edges of the Needham Street area; the recently refreshed Highlands Playground to the north, and the natural areas along the Charles River to the south. There was interest in more public open space offerings, some with active programming and others without. In each case, the need for clearer design guidance was noted.

The central design goal for public spaces in the Needham Street area is to make them comfortable for people to enjoy and explore. Active edges along public spaces invite people to move through them, even if the planned activity for a public space is quiet and restful. Seasonal and one-time programming within a public space also give people a reason to come back time and again. For instance, the art installation on the Greenway in summer 2018 adapted to unique spaces along the path and brought in visitors. Some programming activities require dedicated spaces integrated into the design. A prime example is a spray park, which needs dedicated infrastructure.



Short-Term Actions

- Amend the zoning ordinance to strengthen requirements around active front façades.
 - Frequent entrances along a façade
 - Parking behind and/or below buildings
 - Line public open spaces with active façades to invite people to utilize the public space
- Establish design standards for newly created or renovated public and privately-owned publicly accessible open spaces
 - Encourage diverse open space programming – areas for social gathering and play as well as for quiet rest and relaxation
 - Set “all age friendly” guidelines – e.g. benches with arms for older adults and elements of play for children
- Establish lighting standards that encourage evening activity

Ongoing/Long Term Actions

- Work with businesses to increase transparency at street level
- Work with property owners to activate the Greenway and its edges with art installations, access into abutting shops, direct entries, public gathering spaces, etc.
- Expand art installations and programming in public spaces, particularly interactive pieces (e.g. the Artful Pianos)
- Require new development to underground utilities
- Work with businesses to implement clear wayfinding signage

Incentivize contextual & human-scale building design

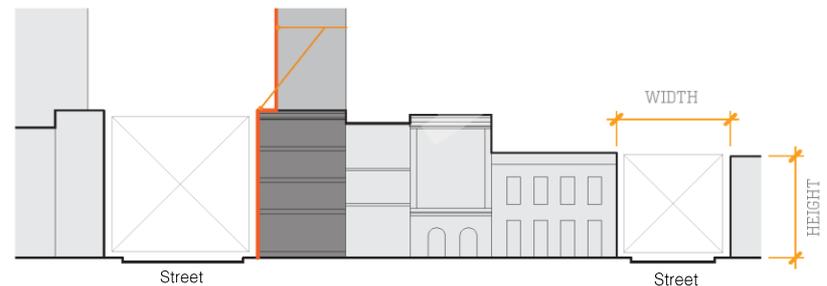
The Engagement Group members submitted photos of their 'inspirational places' to emulate on Needham Street. Many of the photos included examples of public spaces and public life at the ground level: sidewalk cafes, green spaces, and lively plazas. When considering how to shape great public gathering areas and sidewalks, the discussion turned to urban design principles for human-scale building design; buildings meant to be experienced walking along the sidewalk rather than driving past at 25 or 45 mph.

Human-scale design, means design that makes spaces comfortable for the people who will use them. Designing streets and public spaces with a focus on human needs is a field of study in urban design. The principles of a human-scale design can be seen in great streets of ancient and modern cities, in part because humans' needs and instinctual wiring have remained the same.

- People generally feel more comfortable in cozy spaces than in wide open spaces.
 - The human body is instinctually programmed to seek out edges and sheltered areas. In natural settings, the forest is generally more comfortable than the field. Similarly, in a built setting, a street that is enclosed by building edges is more comfortable than one with wide open parking lots on either side.
- People can only see so far, and what they can see changes at different distances.
 - People can see a lot of detail at eye-level and closer to the ground, and generally less detail up above. When walking along the street, people are more interested in the ground floor of a building than its upper stories. The eye easily seeks out other people, window displays, and other details but may not register information or activity as readily on the upper stories.
 - Regarding building height, from as high as the 5th or 6th story people can still engage in activity on the street. They can hear the tone of a conversation and clearly observe the interactions occurring down below. Above this height, humans lose direct connection with the happenings on the street.



The diagram below describes two of the design principles for setting building height in relationship to a street. First, note the gray square with an X through it above each street. The sides of the square are equal. The diagram demonstrates that the height of the buildings at the street edge are equal to the width of the open space. This ratio has generally been found to make for a comfortable sense of enclosure for humans. Second, note that on the left, the buildings are taller, but are set back at the upper levels. This preserves the proportions at which the street is comfortably enclosed and allows more sunlight into the street.



While the Engagement Group was not asked to reach consensus on the heights of new buildings, the preference for limiting height where properties along Needham Street meet the neighborhoods was gleaned from a number of conversations. Within the lots along the Needham Street, the focus was generally on creating great streets and public spaces, with height secondary to achieving that goal. Given the design principles discussed, the Needham Street area is expected to accommodate buildings with a variety of heights that relate specifically to a given site.

Design of the ground floor building façades and streetscape should reinforce the pedestrian experience and be designed to invite people to explore and linger. Frequent intersections and entrances create a variety of options for wandering through the neighborhood, and in and out of shops. Architectural detail, engaging window displays, street furniture, and street trees are all valuable details and textures for the eye to explore.



Short-Term Actions

- Develop zoning standards for building massing and articulation with a basis in the immediate context and best practices for vibrant neighborhoods
- Require new building heights to meet residential heights at neighborhood edges; utilize grade change and upper-story stepbacks to reduce visible height of larger buildings
- Encourage deep lots along Needham Street to be divided into smaller blocks to increase walking route options and public space opportunities; set requirements for changes in building facades to break up the massing of buildings

Ongoing/Long Term Actions

- Establish standards for and encourage active commercial front yards along Needham Street, e.g. outdoor dining, new tree planting, lighting, etc.

A Vision for Design

Endorse high-quality architecture and high-performance construction

While most of the goals stated in this vision relate to the quality of spaces experienced by the public, the City of Newton is also interested in seeing that new construction have high quality private spaces as well. Since this area is a central part of the N² Innovation District, innovative techniques are encouraged.

Newton is particularly interested in seeing new development along Needham Street target net-zero energy use and high-performance construction. Energy efficiency and conservation efforts are a top priority citywide, and the N² Innovation District is a place to showcase state-of-the-art techniques in a living laboratory. Development should utilize high-performance building design and systems, durable as well as resource and energy efficient construction, on-site renewable energy generation, and low-impact site design strategies.

Ultimately, integrated and comprehensive approaches to environmental health in development are the most effective. New development should use and showcase clean energy, walkable site design, sustainable materials management, and restored natural ecology. Once made, these investments also need to be communicated with the community to allow future generations to continue to learn from and build upon today's innovations.

Short-Term Actions

- Request that new development utilize natural and hardy materials, particularly where users can interact with them (e.g. ground floor facades, fences, and public spaces)
- Underscore the innovation and sustainable living themes through identity-enhancing public space amenities (e.g. street-lamps, benches, banners, educational kiosks, etc.)



Ongoing/Long Term Actions

- Work with the N² Innovation district to develop and install identity-enhancing wayfinding signs
- Request that new development incorporate latest high performance buildings and sustainable site design principles and make those innovations part of the identity of the area as a living laboratory

Design Principles

Summarized here are the design principles that were discussed with the Community Engagement Group for both development and redevelopment along Needham Street.



Design public open space as an extension of the streetscape and maximize comfort and visual access*



Design sidewalks with active building fronts to enhance the pedestrian experience*



Harmonize relationship between buildings, streets, and open spaces*



Create a defined and active streetwall, render facades with texture and depth*



Recognize and enhance unique conditions, historic and natural features



Express a clear organizing architectural idea and harmonize the built form with scale and materials



Modulate buildings vertically and horizontally



Shape the roofs of buildings

PUBLIC REALM

SITE DESIGN

BUILT FORM

*photo submitted by Community Engagement Group member

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A Vision for Implementation

The Needham Street Area Vision Plan will inform public and private sector decisions. The City of Newton will continue to be a leader in coordinating the long-term improvement and success of the area, working in partnership with residents, businesses, and the city as a whole.

A Vision for Implementation

This Vision Plan has been adopted as an amendment to the City of Newton Comprehensive Plan because it is a basis for future decision-making by the City Council, other decision-making bodies, and the administrative staff. This document itself does not represent adopted policy, but rather the vision for the future from which policy will be developed.

Several of the resulting actions listed in this vision require additional discussion by the City Council before the recommended actions can be implemented. The Planning Department, along with other administrative staff, the Mayor, and the City Council, will take on these tasks in the coming months and years.

In the near-term, the City Council will be able to use this vision to guide decision-making on proposed private-sector development projects, as well as when considering proposed City of Newton investments. Private-sector proponents are encouraged to use the Vision Plan when preparing their proposals as well, in order to align with this adopted vision for the Needham Street area.

Additionally, the Planning Department will write the draft zoning ordinance (due to the City Council in October 2018) using both this Vision Plan and the input of those who participated in this process.

Thinking broadly about implementing the Vision Plan, there are three recommended ideas to keep in mind when putting this vision into practice:

- Use an active management framework
- Make community engagement a cornerstone of action
- Establish equity as an essential consideration

Use an active management framework

An active management framework allows for and encourages course corrections as circumstances change while remaining true to the core directive of the vision for the Needham Street area. This is essential for any long-range project, where the future cannot always be known.

In the short-term, the City would like to continue to build a stronger understanding of fiscal impacts to the City relative to new development/redevelopment and policy decisions. Fiscal impact studies, particularly those related to school enrollment, are valuable tools for guiding investment to ensure there are adequate facilities to support new residents while maintaining current quality of service.

In keeping with the Innovation District identity, the City would also like to create pathways for testing ideas through short-term trials, pilots, and pop-ups. Whether for a new city program in a public space or a new private use, having the flexibility for temporary activities that take an iterative implementation approach will demonstrate to companies that the City is ready to be a partner in innovation.

Finally, the City plans to update this Vision Plan again in the future. Just as this Vision Plan looked back to the ideas developed in past plans, this plan should be revisited in approximately 10 years or as otherwise warranted by changing circumstances.

Make community engagement a cornerstone of action

Implementing this vision will require that Newton continue its ongoing successful partnerships with businesses and community members.

The City of Newton commits to involving the Community Engagement Group and others who have participated in this process in future community planning processes for the Needham Street area.

Continuing to widen the circle of involved stakeholders is important for future efforts, and the work involved in bringing more people to the table will require dedication of City staff and resources as well as assistance from those citizens already involved in implementing this Vision Plan.

At several points, this vision discusses developing a culture of stewardship for the Needham Street area through community events and engagement (e.g. Greenway cleanup, social events in public spaces). These engagement activities are self-reinforcing because the more residents engage with the public spaces and community around them, the more likely they are to engage with improving their community's future.

Establish equity as an essential consideration

Newton has pledged to be an all age friendly community and a welcoming community. These statements match a tone that Newton has set to promote equity in all efforts.

There are a number of ways to promote equity in the implementation of this vision, including:

- Update inclusionary housing requirements in the zoning ordinance to expand the availability of deed-restricted affordable housing
- Encourage new development to include deed-restricted middle-income housing in addition to housing in the lower affordable housing price range
- Incorporate universal design and/or accessibility in development.
- Explore ways to support affordable business space for new and established small and family-run businesses
- Ensure that public spaces are truly open and accessible to all residents, even when privately owned
- Promote multiple modes of transportation and the physical accessibility of those modes
- Engage all members of the community, with particular efforts to including those who have, in the past, been shut out of decision-making processes
- Connect low-income residents to job opportunities as those expand in the area over time

Where opportunities arise in new private development projects and with new City investment projects, the equity impacts of decisions should always be considered.

Summary

Overall Vision

The Needham Street area will be a prosperous mixed-use district that emulates many of the positive aspects of Newton's villages. The area will be designed for all ages and connected to transportation options.

The Needham Street area will continue to reflect its industrial history and current commercial strength while adding diverse residential options and modern innovation industries. It will also be supported by a mix of cultural and recreational opportunities.

Future growth will incorporate environmentally sustainable technologies and design.

A Vision for Environmental Health

The Needham Street area will be designed to facilitate ecological health through restoration of existing open space.

The area will support healthy lifestyles with the creation of diverse, multi-use, natural areas that encourage activity and environmental education.

- Increase climate resilience
- Promote low impact development to protect wetlands and waterways
- Improve health of existing open space and create diversity in new open space
- Provide ready access

A Vision for Transportation

The Needham Street area will have safe and convenient transportation connections in and around the local neighborhoods and to regional destinations.

Needham Street will be a walkable retail spine, supported by diverse options for getting to the street whether by transit, walking, biking, or driving.

- Improve safety and accessibility
- Expand and enhance transit connections along Needham Street
- Convert Needham Street from an isolated to a connected roadway
- Manage transportation demand in new development
- Prepare for future tech – shared, electric, autonomous vehicles

A Vision for Land Use

The Needham Street area will be a vibrant destination with a distinct identity. The area will have a diversity of homes, businesses, and gathering places for community life.

- Support a mix of uses
- Provide diverse housing options
- Increase support for small local businesses within the retail spine
- Create a range of community gathering spaces

A Vision for Design

The Needham Street area will be an inviting place for people of all ages and abilities. The physical environment will be comfortable and healthy. The area's buildings and public spaces will be designed at a scale to engage people at the ground level and promote an active pedestrian environment.

- Utilize design to encourage active community life
- Incentivize contextual and human-scale building design
- Endorse high-quality architecture and high-performance construction

A Vision for Implementation

The Needham Street Area Vision Plan will inform public and private sector decisions. The City of Newton will continue to be a leader in coordinating the long-term improvement and success of the area, working in partnership with residents, businesses, and the city as a whole.

- Use an active management framework
- Make community engagement a cornerstone of action
- Establish equity as an essential consideration