arlington master plan

YOUR TOWN, YOUR FUTURE

January 2015

arlington redevelopment board
master plan advisory committee
department of planning & community development

RKG ASSOCIATES INC
in association with:
Howard/Stein-Hudson Associates, Inc.
Gamble Associates, Inc.
Community Opportunities Group, Inc.
Ezra Glenn, AICP

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Prepared for:
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Consulting Team:

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contents

arlington's town goals

This plan was developed to be consistent with the Town Goals.[1] The Master Plan Advisory Committee (MPAC) considers the Master Plan and Master Plan Goals to be consistent with the Town Goals, which are:

ARTICLE 1. COMMUNITY AND CITIZEN SERVICE

We value Arlington's geographic neighborhoods, common interest groups, and the sense of community in our Town. We value an active and compassionate citizenry delivering services in our community. We will be known for the vitality of our neighborhoods and as a community of people helping others.

ARTICLE 2. DIVERSITY

We value the diversity of our population. Our Town's mix of ethnic, religious and cultural backgrounds, as well as economic and personal circumstances, enriches us all. We will be known for the warm welcome and respect we extend to all.

ARTICLE 3. EDUCATION

We value learning for all Arlington citizens. We are responsible as a community for educating our youth and providing all ages with opportunities for educational growth. We will be known for demonstrated excellence in public education and our commitment to life-long learning.

ARTICLE 4. THE ENVIRONMENT

We value the physical beauty and natural habitats of our Town – parks, ponds, and wetlands, dramatic vistas and tree-lined streets – as they contribute to the well-being of our community. Recognizing the fragility of our natural resources, we must ensure that Arlington's residential areas, commercial centers, and infrastructure are developed in harmony with environmental concerns. We will be known for our commitment to the preservation of Arlington's beauty, limited open space and resources, as well as our place in the regional and global community.

ARTICLE 5. CULTURE AND RECREATION

We value the many opportunities to meet, play and grow in Arlington while treasuring and preserving our unique historical resources. Our social, cultural, artistic, historic, athletic, recreational, and other community groups strengthen Town life. We will be known for the breadth and richness of our resources and activities available to Arlington citizens.

ARTICLE 6. COMMUNICATION

We value public dialogue. Communication and information-sharing build trust. Our goals are true openness and accountability. Arlington will be known as a community that thoughtfully searches beyond divisive issues for the opportunities that bind us together.

ARTICLE 7. FISCAL RESOURCES

We value Arlington's efficient delivery of public services providing for the common good. The benefits from these services and the responsibility of taxation will be equitably distributed among us. We will be known for our sound fiscal planning and for the thoughtful, open process by which realistic choices are made in our Town.

ARTICLE 8. GOVERNANCE

We value our representative Town Meeting system and the community spirit it fosters. Participatory governance is both responsive and interactive. We will be known as a community where government provides effective and efficient services, insures open two-way communication, promotes the lively exchange of ideas, and encourages active citizen participation.

ARTICLE 9. BUSINESS

We value Arlington's diverse and accessible mix of merchants and service providers. We will be known for our vibrant, attractive commercial centers supporting the primarily residential and historic character of the Town.

[1] ARTICLE 15: Consideration of Vision 2020 Goals, Article 20 ATM 5/5/93. All Town officials including, but not limited to the Board of Selectmen, Town Manager, School Committee, and Superintendent of Schools shall consider the Goals of Vision 2020 as delineated in Article 19 of the 1993 Annual Town Meeting, or as same is subsequently amended by any future town meeting, in establishing their respective policies and in performing their various public functions.

a vision for arlington

Arlington's Master Plan envisions civic connections that encourage social interaction and foster a sense of community. The plan considers a range of critical topics by focusing on how they contribute to these connections:

- *Open spaces and corridors that link neighborhoods*
- *Thriving business districts*
- *Living and working opportunities for all*
- *Stewardship and promotion of our historic heritage*
- *Cultural and recreational resources that provide shared experiences*
- *Natural systems in ecological balance*
- *A walkable public realm where residents meet their neighbors*
- *A shared interest in community-wide fiscal health*

1 introduction

Public Participation

Arlington is fortunate to have a well-established tradition of citizen involvement in major decisions about the life of the town. In Arlington, residents actively participate in the political process and serve as good stewards of open, accessible government. This Master Plan has benefited immeasurably from their deliberations and guidance. From the volunteers who served on the Master Plan Advisory Committee (MPAC) to the people who attended community meetings, responded to surveys, agreed to be interviewed, read and commented on draft documents and maps, and provided valuable information to the consulting team, the Arlington Master Plan has evolved as an effort led and shaped by hundreds of residents who clearly care about their town.

The public participation process included the following key features:

- **World Café** – the official kickoff of the Arlington Master Plan, October 17, 2012
- **Master Plan Advisory Committee (MPAC)** – the eleven-member steering committee for this plan, appointed November 2012
- **Citizen Interviews –** May 2013, over sixty residents and business owners interviewed by the consulting team and the Planning and Development Department.
- **Community Meetings (3)** – June 2013, at Arlington High School (June 1), Cambridge Savings Bank (June 4), and Hardy School (June 5)
- **Online Survey,** June-July 2013, to rate/rank key ideas from the World Café event and help to inform the goals and policies of this Master Plan
- **MPAC Working Groups** – July-August 2013, Master Plan vision and goals work sessions
- **Consultation with Town Staff** – June-September, 2013: Department heads meeting, survey, and interviews
- **Town Day** – September 2013, MPAC outreach and booth with information about the master plan process
- **Community Meeting** – November 2013, presentation and public review of key Master Plan findings and issues
- **MPAC Discussion Meetings and Public Comment Period**: Master Plan Working Papers, January-May 2014, all available as video-on-demand from Arlington Community Media, Inc. (ACMi)
- **Community Meeting** – Visual Preference Survey, June 2014, followed by online survey process (see Appendix for survey results)
- **Zoning Diagnostic** (Audit), February-July 2014
- **Draft Master Plan Presentation** – November 2014
- **MPAC Outreach and Update Meetings** with Town Boards – November-December 2014
- **Arlington Redevelopment Board Public Hearing** – January 2015
- **Town Meeting** – April-May 2015

From the October 2012 World Cafe

Key Findings

1. **Arlington has many unique neighborhoods**, each with recognizable features in topography, housing typology, and streetscape characteristics. Neighborhoods tend to be identified in terms of their physical and cultural relationship with Massachusetts Avenue, the quintessential "Main Street" of Arlington, Massachusetts Avenue serves many neighborhoods along its length with civic amenities, local businesses, and public transportation.

2. **Massachusetts Avenue has the capacity for growth.** It can support mixed-use development commensurate with its function as Arlington's primary commercial corridor. Massachusetts Avenue is accessible to neighborhoods throughout the town, it has frequent bus service, bicycle routes, and good walkability. Increased density through greater building heights and massing would benefit the corridor from an urban design perspective and benefit the town from a fiscal perspective.

3. **Arlington's beauty is influenced by many factors:** its **varied landscape and topography**, the presence of **water resources**, and its **historic architecture**. In addition, Arlington's **distinctive street trees** and urban woodlands play a critical role in the town's appearance, walkability, and environmental health. Increased investments in more trees and tree maintenance , including enough personnel to carry out a comprehensive tree and streetscape management program, will be important for Arlington's future quality of life.

4. **Arlington has a limited number of vacant, developable land parcels**, e.g., at Poet's Corner on Route 2, and the large properties next to Thorndike Field and Alewife Brook. The conservation and development opportunities on these and other sites matter, but Arlington's growth management priorities must be Massachusetts Avenue, Broadway, and the Mill Brook area. Addressing Arlington's critical environmental challenges will hinge, in part, on the policies it adopts to guide and regulate future development in these locations.

5. **The Mill Brook is a hidden gem.** It has the potential to spawn transformative change along Massachusetts Avenue west of the center of town. Nearby properties are poised for redevelopment due to their current use, age, and ownership, their location adjacent to the waterway, and their proximity to the Minuteman Bikeway and Massachusetts Avenue.

6. **Arlington's historic civic spaces are beloved community institutions that serve as both visual landmarks and cultural gathering spaces.** Preserving them is a local priority, and overall, Arlington has been a good steward of its historic assets. Still, the Town has unmet preservation needs. There are historic properties without any protection, and several historic sites and buildings need long-term maintenance programs.

7. **Arlington has done more than many Massachusetts communities to promote sustainability.** Its early adoption of a climate action plan, its designation by the Massachusetts Green Communities Program, and impressive storm water awareness programs all suggest a strong sense of environmental stewardship.

8. Compared with many towns around Boston, A**rlington has been successful at creating affordable housing.** Through inclusionary zoning and directing federal grant funds to the Housing Corporation of Arlington (HCA), the Town has created over 140 low- or moderate-income housing units since 2000. However, despite efforts by the Town, the HCA, and the Arlington Housing Authority (AHA), Arlington has lost some of its traditional affordability. Pressure for housing close to Boston and Cambridge has triggered significant increases in Arlington's property values and home sale prices. Between 2000 and 2012, the median single-family home sale price rose by over 45 percent.

9. **Arlington's convenient access to employment centers in Boston and Cambridge attracts highly-educated and skilled homebuyers and renters.** Thirty-nine percent of its labor force commutes to these two cities alone. Arlington's attractiveness to young, well-educated families bodes well for the vitality of local businesses and the civic life of the town. The same phenomenon helps to explain the dramatic K-12 population growth that has occurred in Arlington at a time that many towns have experienced declining school enrollments.
10. **Arlington's economy is growing.** Seventy new businesses were established between 2008 and 2012, and since 2012, local employment figures have recovered and surpassed pre-recession numbers.
11. **The Town's two theatres – the Capitol Theatre in East Arlington and the Regent Theatre in Arlington Center – draw approximately 200,000 patrons per year.** According to a study prepared for the Arlington Planning Department, these visitors spend $2.4 million annually at the local shops and restaurants around them.
12. **Arlington has a vibrant local arts community.** Several organizations devoted to cultural production and appreciation are located in Arlington, and many self-employed residents work in the fine and performing arts. This creative infrastructure helps makes Arlington's commercial districts interesting places to shop, visit and work, which in turn boosts the utility and value of the commercial properties in them.
13. **Arlington's road network consists of 125 miles of roadway, including 102 miles under the Town's jurisdiction.** The network is well-connected and multimodal, with many sidewalks, several bicycle routes and pathways, and transit options, though the latter is mostly concentrated along the Massachusetts Avenue corridor.
14. **Due to significant traffic congestion, Arlington can be a difficult place to navigate during peak period commutes and school pick-up and drop-off times.** The congestion occurs on north-south cross-streets including Pleasant Street, Jason Street, Park Avenue, Highland Avenue, Mill Street, and Lake Street, in part due to motorists accessing major routes such as Route 2 and Route 2A. In addition, congestion often occurs on Mill Street and Lake Street near their intersections with the Minuteman Bikeway.

Economic Impact: Arlington's Theatres

Arlington's two theatres - the Capitol Theatre in East Arlington and the Regent Theatre in Arlington Center – draw approximately 200,000 patrons per year. According to a study prepared for the Arlington Planning Department, these visitors spend $2.4 million annually at the local shops and restaurants around them.

15. **Arlington is a well-run, fiscally responsible town.** Over the past twenty years, its average annual rate of expenditure growth has been about average or slightly below that of most of the neighboring towns and cities in its peer group. In addition, the Town has made cautious borrowing decisions and through prudent financial management and by adopting a five-year long-range and strategic financial plan, Arlington has earned a triple-A bond rating. Still, the Town has been challenged to keep pace with rising costs of community services. Over the past ten years (2003-2013), Arlington has had to reduce its municipal workforce by approximately 14 percent.
16. **Arlington spends slightly less per capita ($3,371) on local government services than the median for its peer group of local towns ($3,625)**. In Arlington, there are 1.8 Full-Time Equivalent (FTE) positions per 1,000 residents, but the Northeast U.S. average is 2.15 FTE per 1,000 residents. Commercial and industrial taxes make up a much smaller percentage of the tax base in Arlington (6.3 percent) than most of the towns in its peer group.
17. **Arlington High School's accreditation may be at risk** unless the Town addresses facility deficiencies identified in a recent accreditation review. There is also a need for improvements to the Stratton elementary school. In fact, Arlington faces demands for several "big ticket item" capital projects in the next few years, not only at the schools.

18. Arlington has very little publicly-owned land. The high school, cemetery, Public Works Department and Recreation Department will have difficulty meeting future needs because there is virtually no land for expansion. Some already face capacity problems.

Goals and Policies

Master Plan

Preserve and advance the Town's fiscal stability.

Land Use

1. Balance housing growth with other land uses that support residential services and amenities.
2. Encourage development that enhances the quality of Arlington's natural resources and built environment.
3. Attract development that supports and expands the economic, cultural, and civic purposes of Arlington's commercial areas.

Transportation

1. Enhance mobility and increase safety by maximizing transit, bicycle, and pedestrian access and other alternative modes of transportation.
2. Manage congestion safely and efficiently by improving traffic operations.
3. Manage the supply of parking in commercial areas in order to support Arlington businesses.

Housing

1. Encourage mixed-use development that includes affordable housing, primarily in well-established commercial areas.
2. Provide a variety of housing options for a range of incomes, ages, family sizes, and needs.
3. Preserve the "streetcar suburb" character of Arlington's residential neighborhoods.
4. Encourage sustainable construction and renovation of new and existing structures.

Economic Development

1. Support conditions that benefit small, independent businesses.
2. Maximize the buildout potential of commercial and industrial properties.
3. Promote Arlington's historic and cultural assets as leverage for economic development.
4. Improve access to public transit and parking

Historic & Cultural Resource Areas

1. Maintain, protect, preserve, and promote historic and diverse cultural resources in all neighborhoods.
2. Provide attractive, well-maintained spaces for residents to meet, play and grow.
3. Promote arts and cultural activities for all ages.

Natural Resources and Open Space

1. Use sustainable planning and engineering approaches to improve air and water quality, reduce flooding, and enhance ecological diversity by managing our natural resources.
2. Mitigate and adapt to climate change.
3. Ensure that Arlington's neighborhoods, commercial areas, and infrastructure are developed in harmony with natural resource concerns.
4. Value, protect, and enhance the physical beauty and natural resources of Arlington.
5. Treasure our open spaces, parks, recreational facilities and natural areas.
6. Expand recreational and athletic facilities, programs, and opportunities, for all residents.
7. Maintain and beautify our public parks, trails, play areas, and streetscapes.

Public Facilities & Services

1. Coordinate and efficiently deliver town services.
2. Build, operate, and maintain public facilities that are attractive and help to minimize environmental impact and that connect Arlington as a community.
3. Balance the need for additional revenue with ability and willingness of property owners to pay to maintain current services or for new expenditures and investments
4. Guide public facility investments through a long-term capital planning process that anticipates future needs.

Key Recommendations

Land Use Recommendations

1. **Recodify and update the Zoning Bylaw (ZBL).** The text of the ZBL is not always clear, and some of the language is out of date and inconsistent. As a first step in any zoning revisions following a new master plan, communities should focus on instituting a good regulatory foundation: structure, format, ease of navigation, updated language and definitions, and statutory and case law consistency.

2. **Adopt design guidelines** for new and redeveloped commercial and industrial sites.

3. **Reorganize and consolidate the business zoning districts on Massachusetts Avenue.** Zoning along the length of Massachusetts Avenue includes six business zones (B1, B2, B2A, B3, B4, B5) interspersed with six residential zoning districts. Encouraging continuity of development and the cohesion of the streetscape, is difficult. It is difficult to connect the zoning on a given site with the district's stated purposes in the ZBL. As part of updating and recodifying the ZBL, the Town should consider options for consolidating some of the business districts to better reflect its goals for flexible business zones that allow property owners to adapt their commercial properties to rapidly changing market trends and conditions..5. Promote development of higher value mixed use buildings by providing redevelopment incentives in all or selected portions of the business districts on Massachusetts Avenue, Broadway, and Medford Street, Arlington needs to unlock the development potential of business-zoned land, especially around the center of town. Slightly increasing the maximum building height in and near existing business districts, and reducing off-street parking requirements would go a long way toward incentivizing redevelopment, as would a clear set of design guidelines. Applicants should be able to anticipate what the Town wants to see in the business districts and plan their projects accordingly.

4. **Support vibrant commercial areas by encouraging new mixed use redevelopment** that includes residential and commercial uses in and near commercial centers, served by transit and infrastructure. Clarify that mixed-use development is permitted and reconcile inconsistent requirements. The B3 Village Business district and B5 Central Business district are described as encouraging mixed use development, but other business and residential districts along Massachusetts Avenue do not. The ZBL is vague regarding uses that are allowed in mixed-use projects, and dimensional requirements can conflict. As part of the recodification and update process, the Table of Use Regulations should be clarified, and the ZBL should have specific standards for design and construction of mixed use redevelopment projects.

5. **Boost industrial and commercial revitalization by allowing multiple uses within structures, parcels, and districts without losing commercial and industrial uses.** This will help enhance the suitability of Arlington's commercial property for businesses in emerging growth sectors and make them more agile in the face of shifting business trends and market conditions.

6. **Establish parking ratios that reflect actual need for parking**. Consideration should be given to use, location and access to transit.

7. **Amend on-site open space requirements** for certain uses in business districts to promote high value redevelopment and alternative green areas such as roof gardens.

8. **Reduce the number of uses that require a special permit.** Excessive special permit zoning can create land use conflicts and hinder successful planning initiatives. Special permits are a discretionary approval process; the board with authority to grant or deny has considerable power. Developers yearn for predictability. If the Town wants to encourage certain outcomes that are consistent with this Master Plan, some special permits should be replaced with by-right zoning, subject to performance standards and conditions, wherever possible. Performance standards might include design guidelines and other requirements that reflect community goals.

9. Establish areas that are a priority for preservation, and areas that are a priority for redevelopment. The Mugar land, between Alewife Station and Thorndike Field, is a high priority for preservation.

Transportation Recommendations

1. Develop a Complete Streets Policy governing design and implementation of street construction.

Complete Streets are designed and operated to provide safety and access for all users of the roadways, including pedestrians, bicyclists, transit riders, motorists, commercial vehicles, and community safety vehicles, and for people of all ages and abilities.

2. **Create safer pedestrian conditions to increase walking in Arlington,** as a means to reduce traffic congestion and improve public health..The Town has already begun an inventory of the condition of its sidewalks and curbs. The next step is to prioritize areas for new sidewalks and improvements to existing sidewalks, to encourage more walking, and allocate resources for implementation. Other improvements to the pedestrian environment, such as lighting and crosswalks, should also be considered. Sidewalk Plan should coordinate with the Safe Routes to School (SRTS) program and with a plan designating criteria for pavement types (concrete, asphalt, or brick).
3. **Improve conditions, access, and safety for bicyclists,** on the Minuteman Bikeway and on local streets. Strengthen connections between the Minuteman Bikeway and commercial districts to increase customers without increasing need for on street parking.
4. **Work with the MBTA to improve service and connections and to increase transit ridership.** Reduce bus bunching, and improve the efficiency of bus service, including the provision of queue jump lanes, bus-only lanes, bus signal prioritization, and real time bus schedule information. In addition, continue to advocate for extending the Green Line to Mystic Valley Parkway.
5. **Improve parking availability, especially in the commercial centers through better parking management.** Update parking study for East Arlington business district originally conducted as part of Koff Commercial Revitalization Study to develop strategies to improve parking management in the area. A similar study for Arlington Heights parking management might also be considered. Develop parking requirements in zoning regulations that reflect the actual need for parking.
6. **Review existing residential parking policies** regarding overnight residential street regulations and unregulated daytime residential street parking. Unregulated all day parking in residential

areas may encourage commuters to park on residential roadways near transit. Consider policies to reduce all day commuter parking in residential neighborhoods, such as using residential parking permits.

Overnight residential street parking ban may encourage excessive paving of residential lots. Conversely, the overnight parking ban could be holding down the total number of cars parked in Arlington. Either way, this policy should be looked at in a comprehensive way. Consider fee-based resident overnight parking for residents, or other solutions.

7. **Develop a program to improve the condition of private ways**. (see Public Facilities recommendation)
8. **Improve mobility and reduce congestion where possible, by harnessing new technology and business models**. Coordinate Town and State agencies' efforts to reduce traffic congestion, particularly on north/south corridors connecting to Route 2, such as Pleasant Street and Lake Street

Housing Recommendations

1. **Create an Affordable Housing Plan** (Housing Production Plan) and submit to State Department of Housing and Community Development (DHCD)

for approval. The Town of Arlington's last Housing Needs and Strategy plan was prepared in 2004. The town should review it for current applicability, especially in light of the increase in young families moving to town. A housing production plan should take into consideration the needs of all demographics, including families, elderly, households with special needs, and households with low and moderate incomes.

2. **Allocate Town resources to meet local needs and the State's requirement for affordable housing under Chapter 40B, while protecting neighborhood character.** Resources include but are not limited to Community Preservation Act funds, Community Development Block Grant, federal HOME funds, Inclusionary Zoning, local non-profit housing developers, and Town owned land.

3. **Address the quality and condition of aging housing stock,** including offering financial assistance programs for homeowners and landlords. Improvements to the structure and aesthetics of one house on a block often spurs further investment on adjacent properties. Arlington should continue to provide housing rehabilitation assistance with its Community Development Block Grant (CDBG) allocation in order to help moderate-income homeowners address substandard housing conditions. Currently the Town provides low-interest loans to correct code violations, remove lead paint, and weatherize to improve energy efficiency.

4. **Modify parking requirements to encourage multi-family housing and mixed use development in commercial areas**. The cost of parking is often the greatest hindrance to the economic feasibility of dense, urban developments. Minimum parking requirements should be removed for new mixed-use developments on Massachusetts Avenue and Broadway. These locations are well-served by public transit, and are close enough to commercial amenities and civic services so that the need for car use will be reduced.

Economic Development Recommendations

1. **Amend the Zoning Bylaw to enhance flexibility in business districts** to promote the development of higher value mixed use properties. The B1 district helps to preserve small-scale businesses in or near

residential areas, but changes in other business districts should be considered. The Town should encourage commercial properties along Massachusetts Avenue, Medford Street, and Broadway to develop to their highest and most valuable potential by slightly expanding height and lot coverage limits, and making more flexible requirements for on-site open space and parking.

2. **The Industrial district zoning should be updated to adapt to current market needs.** Current industrial zoning is focused on manufacturing and assembly uses, but is not very flexible. Modifications to use regulations would be effective in attracting new businesses and jobs in emerging growth industries such as biotechnology, pharmaceuticals and creative sectors.. The following changes should be considered for the Industrial district:

- **Remove the minimum floor area requirement of 2,000 sq. ft. for Personal, Consumer and Business Services.** Some manufacturing facilities operate in small spaces, so it should be possible to subdivide available floor area if necessary to support smaller industrial operations.
- **Allow restaurants in the Industrial district,** to serve employees of new industry, and residents of the region. Patrons of dining establishments are now accustomed to finding restaurants in non-traditional settings. The restaurant industry is growing in the area, including fine dining and "chef's" restaurants. Due to the timing of operations, restaurants and manufacturing facilities can often share parking and access routes.

- **Allow small (<2000sf) retail space by right or special permit in the Industrial districts** to promote maximum flexibility in redevelopment of existing industrial properties into higher value mixed use properties..
- **Allow residences to be built in Industrial Districts by special permit as part of mixed use developments** where associated commercial/industrial space comprises the majority of usable space. This is particularly helpful in spurring development of live/work studios for artists and creative professionals in visual, graphic and performing arts and associated trades..

3. **Allow new collaborative work spaces to attract small business ventures, innovative companies, entrepreneurs, and currently home-based businesses.** These contemporary work environments provide the facilities, services, and networking resources to support businesses and help them grow.

   There has been an increasing amount of new collaborative work space across the nation. Co-work facilities lease offices, desks, or even shared benches for small businesses or individual entrepreneurs. They are meeting needs for comfortable, affordable, short-term work environments by providing monthly leases with maximum support. In the Boston area alone, several of collaborative work spaces have opened in Downtown Boston, the Seaport Innovation District, Central Square in Cambridge, Field's Corner in Dorchester, Chelsea, and more. These well-designed and well-equipped offices provide twenty-four hour workspace, lounges, meeting rooms, sometimes food and drink, and most importantly, smart and exciting places to work. They provide more than just an address for a small business; they help to "brand" the business with the collective work environment they inhabit. They are also a hub for networking, promotion, and events.

   Arlington has many home-based businesses and freelance employees that could be attracted to work in these types of spaces. In addition, new entrepreneurs and small startup firms from Arlington and across the region would have a new, perhaps more accessible option for their operations. Other contemporary business models that often support collaborative work spaces include business incubators and accelerators. These facilities can be op-

COMMERCIAL AREA REVITALIZATION REPORT: KEY IDEAS

ARLINGTON HEIGHTS

- Encourage property owners to rent to a wider variety of retail , dining and service uses to better support local demand and draw new customers to the district..
- Improve public parking availability.
- Encourage property and business owners to enhance storefronts and commercial signage where needed. Collaborate with the Arlington Heights merchants to maintain the business directory and improve promotional and wayfinding signage.
- Strategically improve public infrastructure, particularly deteriorated town owned properties and spaces.

EAST ARLINGTON

- Improve the availability and management of public parking. Examine shared parking, a permit program, new facilities, adjusted time limits, consistent enforcement, and the possibility of meters.

ARLINGTON CENTER

- Revise the Zoning Bylaw to support desired and appropriate building placement, form, scale, density and mix of uses.
- Collaborate with local arts and cultural organizations to program civic events, gatherings and outdoor art exhibitions in open spaces throughout the district, giving local residents and tourists reason to visit Arlington Center on a regular basis.
- Encourage property and business owners to make storefront and commercial sign enhancements including restorations, window signs and treatments, blade signs, sandwich board signs, lighting and other enhancements.

erated as for-profit businesses, making equity investments in companies they host, or as non-profit small businesses, or workforce development projects. Supporting incubators or accelerators in Arlington's business scene is also worth investigating.

To develop or attract collaborative work space, business incubators and accelerators, Arlington should take the following steps:

- **Engage with local collaborative work space providers in the Boston area to learn of their interests or concerns with the Arlington market.** This process should include site visits to various collaborative work facilities in Boston, Cambridge, Chelsea, and Somerville. There should also be a continuation of the community engagement process begun by the Town in summer 2014. Meetings with residents, small business owners, and co-work space developers can help create customized business space for Arlington.
- **Survey similar efforts by neighboring cities and towns**, including the City of Boston and their current Neighborhood Innovation District Committee, which seeks to expand entrepreneurial small business development throughout the city.
- **Identify cost effective incentives for small business creation that could be directed to collaborative work,** incubator or accelerator type of facilities. Federal or state grants can be used for the development of collaborative work space or for reducing costs for new tenants of co-working facilities.

4. **Invest in promotion and support of Arlington's magnet businesses**. Magnet stores attract customers not only from Arlington, but also from neighboring communities. A recent study, The Economic Impact of Arlington's Theatres (2013) estimates the significant impact of the Regent and Capitol Theatres on Arlington's restaurants and shops that benefit from theatre patrons. To support magnet businesses, Arlington should focus on maintaining and enhancing public infrastructure (parking, roadways, sidewalks, etc.) in its business districts and developing flexible zoning that allows magnet firms to grow and thrive in Arlington.
5. **Arlington should further invest in the promotion of its performance venues.** In addition to the for-profit theater businesses, the non-profit theaters and auditoriums also attract out-of-town patrons.
6. **Revisit the recommendations contained in the Koff & Associates Commercial Center Revitalization report,** and implement the most appropriate ones in coordination with other Master Plan initiatives.

Historic and Cultural Resource Areas Recommendations

1. **Develop a historic and archaeological resources survey plan** to identify and prioritize outstanding inventory needs. This should include a prioritized list that includes civic buildings without inventory forms, and threatened resources such as historic landscapes. This activity would be eligible for funding through MHC's Survey and Planning Grant program.
2. **Seek Certified Local Government (CLG) Status for the Arlington Historical Commission.** CLG status, granted by the National Park Service through the MHC, would put Arlington in a better competitive position to receive preservation grants since at least ten percent of the MHC's annual federal funding must be distributed to CLG communities through the Survey and Planning Grant program.
3. **Expand community-wide preservation advocacy and education,** including integrating Arlington's historical significance and properties into economic development and tourism marketing.
    - Increase educational and outreach programs for historic resources. Educational initiatives would be an eligible activity for Survey and Planning Grant funds as well as other funding sources.
    - Expand educational outreach to property owners of non-designated historic properties. The majority of Arlington's historic buildings are not protected from adverse alterations. Implement a comprehensive plan for the protection of historic resources
    - Review and Strengthen Demolition Delay Bylaw. Arlington's existing demolition delay bylaw is limited both in terms of the types of resources subject to review and the time period allowed for the review. Consider adminis-

trative support to the Historical Commission for responding to demolition delay hearing applications. Document or map historic buildings demolished. Seek volunteers for Historical Commission documentation and inventory. Draft a fact sheet on common demolition determination parameters and basic design and alteration guidelines for historic property owners and future Historical Commission members.

- Provide the AHC with the tools to study single-building historic district for Town Meeting consideration.
- Neighborhoods may consider seeking Town Meeting action to designate Architectural Preservation Districts (APD), also called neighborhood preservation districts and architectural conservation districts. This could allow the Town to define the distinguishing characteristics of scale and streetscape pattern that should be preserved in a neighborhood.

4. **Integrate historic preservation, zoning, and planning.** Increasing redevelopment pressure on Arlington's existing historic properties has emphasized the need to guide redevelopment in a manner that respects historic character and the architectural integrity of the town's historic neighborhoods and commercial districts. To address the ongoing issue of residential teardowns, the town could consider adopting flexible zoning regulations to encourage the preservation of historic buildings. These new regulations could include different standards for dimensional and use requirements when an historic building is preserved and reused, to provide incentives for preservation of the original historic building.

5. **Preserve the character of the Historic Districts.** For Arlington's existing historic districts, the need for continued vigilance and dialogue between the AHDC and Building Inspector remains a priority to ensure that any changes within the districts are appropriate. Promoting stewardship for these districts is equally important. Creating a sense of place for these districts to highlight their significance and promote their importance to the community would aid in these efforts. Consider amending the zoning bylaw and demolition delay bylaw to allow multiple units in historic homes as an alternative to demolition, even if not otherwise allowed in the district, as done in Lexington.

6. **Preserve Town-owned historic resources.** Several civic properties remain in critical need of restoration and not all town-owned resources are formally protected from adverse development and alterations. The Town needs to institute procedures to require historically appropriate preservation of municipal resources. This includes buildings, landscapes, art, and documents. Consider placement of preservation restrictions on Town owned historic properties to ensure continued protection of these community landmarks.

7. **Implement the Community Preservation Act (CPA).** Arlington adopted the Community Preservation Act (CPA) in 2014, while this plan was being prepared. The CPA may now fund municipal historic preservation projects such as the restoration of the Jefferson Cutter House and Winfield Robbins Memorial Garden and preservation planning initiatives such as historic resource inventories, National Register nominations, and educational brochures. CPA funds can serve as a matching source for other preservation funding programs, such as MHC's Survey and Planning Grant program and the Massachusetts Preservation Projects Fund, are

available to municipalities to plan for and restore public buildings and sites.

8. **Better management, oversight and enforcement of bylaws and policies relating to historic preservation are needed.** Develop administrative and technical support for historical preservation.

9. **Adopt procedures to plan for public art and performance opportunities.**

   - In planning public facilities and infrastructure improvements, allow for designation of space that could accommodate art installations.
   - Preserve existing performance and rehearsal venues and adopt policies that recognize their value.
   - Utilize the Public Art Fund, established in 2013, to help restore and maintain Town owned art and sculpture.

Natural Resources and Open Space Recommendations

1. **Create a comprehensive plan for the Mill Brook environmental corridor,** including possible "daylighting" options for culverted sections of the waterway, flood plain management, and public access. Apply design guidelines for new development along the corridor to ensure development that will enhance the brook and improve it as a resource for the Town.

   Comprehensive plans allow decision making at various scales to adhere to overlying principles. The Mill Brook corridor crosses residential, industrial and open space land use districts. These different zoning districts regulate land use, but do not necessarily ensure that new or repurposed developments respect their environmentally sensitive location or create accessible pedestrian connections among open spaces and adjoining neighborhoods. A Mill Brook plan should create landscaping and building design standards, and establish requirements for public access to the Mill Brook, and the preservation of views.

2. **Address maintenance needs for all of the Town's open spaces and natural resources.**

   Consider additional staffing and funding to properly protect and maintain all open spaces and natural resources throughout the Town. Among the steps that should be explored is the designation of a facilities manager for open space, natural resources, recreational areas, and trees to oversee development and implementation of an overall maintenance plan for all Town owned outdoor spaces. In addition, the DPW may need to hire more staff to meet growing maintenance demands at parks and other open spaces, and to coordinate concerns with street trees, invasive plants, and other vegetation. To supplement regular capital planning and budgeting procedures for major open space improvement projects, some funding could be provided through the Community Preservation Act funding, fundraising with local Friends groups and other local organizations, state or private grants, and other innovative means.

   Street trees are a major asset for Arlington, but they also present problems. They provide beauty and shade, help mitigate ground level pollution, and are part of the greater ecological system. Many trees were lost in recent storms, and more still are at risk. A plan for tree maintenance and replacement be developed and implemented in order to replace lost trees, maintain mature trees wherever possible, and attain a desired planting density with appropriate native species. Additional funding is required in order to reverse this trend and start a net increase in street trees.

3. **Concurrently, the jurisdiction and management of street trees needs to be better outlined.** The responsibility and care for street trees needs to be well understood by residents. The Town and the Tree Committee need to perform public outreach to educate property owners.

4. **Pursue strategies to protect large parcels of undeveloped land** in order to preserve open space and manage the floodplains.

    - Privately owned propertyalong Route 2 in east Arlington totaling seventeen acres remains undeveloped. The parcels, known locally as the Mugar property, , remains vacant after several proposals were rejected by the Town. The properties, zoned for Planned Unit Development (PUD) are located adjacent to a large park (Thorndike Field), near the Minuteman Bikeway and Alewife Brook Reservation, and the Alewife Red Line MBTA station. The majority of the site is located in the 1-percent flood zone and construction is heavily restricted. Arlington needs to continue to pursue resolution of this land, either for partial development or complete open space protection.
    - The 183-acre Great Meadows is located in Lexington, but is owned by the Town of Arlington, under the jurisdiction of the Board of Selectmen. The largest part of Arlington's Great Meadows is a flat, marshy plain containing a series of hummocks. It is part of the watershed that flows into Arlington Reservoir and eventually into Mill Brook. Surrounding the wetland are wooded uplands crisscrossed by walking trails. The Minuteman Bikeway forms the southern border and offers the most direct access to the trails. More than 50 percent of the site is certified vegetated wetland. The Lexington zoning bylaw protects the wetlands in Great Meadows by zoning them as Wetland Protection District (WPD). However, the property is not fully protected as conservation land. Arlington officials should renew efforts to work with Lexington to investigate ways to ensure its protection for open space and flood control.
    - Among the tools available, a **Transfer of Development Rights (TDR) bylaw** should be considered as a combined land protection and economic development strategy. In order to be effective, a TDR bylaw will require partnering with a viable land trust so that development rights can be acquired efficiently when the owner of a "sending" area (such as the vacant land near Thorndike Field) is ready to sell.

5. **Prevent the use of identified invasive species of trees, shrubs, and other plants and species**. Arlington should explore the legality of imposing restrictions on the use of invasive plants in landscaping projects and on removing plants from both Town and private property when they create a hazard or threat to other properties or public land. Groups including the Conservation Commission and Department of Public Works should share information with the public about specific species that have been identified as harmful and suggest safe ways to remove them.

6. **Use environmentally sustainable planning and engineering approaches for natural resources management** to improve water quality, control flooding, maintain ecological diversity (flora and fauna), promote adaptation to climate changes, and ensure that Arlington's residential areas, commercial centers, and infrastructure are developed in harmony with natural resource conservation.

7. **Implement the Master Plan consistent with the current Open Space and Recreation Plan.** The Town of Arlington's Open Space Committee is updating the current state-approved Open Space and Recreation Plan for 2015-2022. Many of the needs, goals, and objectives in that plan overlap with this Master Plan, and they should be reinforced and expanded, particularly in reference to this Natural Resources/ Open Spaces section and in the Recreation section under Public Facilities and Services. Among the Open Space Plan goals are the promotion of public awareness of the Town's valued open spaces and the development of improved access to water resources such as Spy Pond, Mystic River, and Mystic Lakes.

8. **Consider measures to encourage development projects that respect and enhance adjacent open spaces and natural resources.** Recent projects such as new public parks and protected woodlands at the former Symmes Hospital site and a renovated park between Arlington High School and the Brigham's site demonstrate that economic development can go hand in hand with natural resources protection. Other examples could include ongoing projects that support streetscape improvements (such as Broadway Plaza and Capitol Square). Future emphasis should be placed on using redevelopment incentives and encouraging more public/ private planning and collaboration projects such as

these. This is also an opportunity to plan for the use of open spaces for more creative and cultural activities, including public art projects.

9. Protect all water bodies and watersheds for both healthy ecological balance and recreational purposes. Work with Cambridge, Somerville, and the MWRA to eliminate all CSO discharges into the Alewife Brook within the next 20 years. Uphold Town Meeting vote to restore Alewife Brook to a Federal Class B waterway

Public Services and Facilities Recommendations

1. **Perform a space needs analysis for all Town-owned buildings.** The Town of Arlington owns and occupies many buildings across town. A quantitative and qualitative analysis of all these facilities is needed to prevent the underutilization of space and misappropriation of resources between departments. This analysis should also identify potential need for space for current or projected uses, and inefficiencies that might affect the operations of a department. In addition to looking at the physical layout of space, an assessment of the environmental quality, such as daylight and the availability of fresh air, should be considered.

2. **Establish a regular process for evaluating the continued need to retain Town-owned properties and for disposing of properties that no longer serve public purposes**. As part of its asset management responsibilities, Arlington should create a procedure to evaluate Town-owned properties as potential candidates for disposition, and policies to guide how proceeds from the sale of Town property will be used.

3. **Establish a Planned Preventive Maintenance (PPM) program** to improve maintenance of Town facilities and structures. Arlington should create a PPM for all Town-owned facilities, including schools, recreational facilities, parks and open space. The Town should fund a Facilities Manager position and transfer the maintenance budget and building maintenance personnel from the School Department to the Facilities Manager. This would benefit Arlington by having a centralized, professional expert overseeing all aspects of facilities management: i.e. routine inspection, needs assessment, routine maintenance, repairs and improvement projects, accessibility improvements, energy improvements, budgeting, and planning. The Facilities Manager should also maintain an inventory of the tenants in each facility, both public and private.

4. **Assess the condition of private ways.** , Work with residents to improve the condition of private ways.

   The Town of Arlington operates trash and snow removal service on private ways, as a preventative measure for public safety. However, property owners are responsible for maintenance of over twenty-three lane miles of private ways in Arlington. Many of these roads are in deteriorated condition, and continue to fall further into disrepair.

5. Study and **develop a plan for addressing Arlington's long-term public works related needs**, including cemetery and snow storage needs.

6. **Establish a sidewalk pavement inventory** and a plan designating criteria for pavement types that will be employed for future replacement. Pavement types include concrete, asphalt, or brick.

7. **Seek Town acquisition of the Ed Burns Arena from the Massachusetts Department of Conservation and Recreation**.

8. Prepare a **feasibility study for an updated Community Center/Senior Center.**

2 demographic profile

Who Lives in Arlington?

Arlington was settled in the mid-1600s and its population grew slowly until the early twentieth century. Between 1870 and 1920, Arlington's population increased six-fold, from 3,261 to 18,665, and it would double again between 1920 and 1930. The population peaked at 53,524 during the 1970s. According to the Massachusetts State Data Center (University of Massachusetts, Donohue Institute), Arlington's population will increase 9.2 percent between 2010 and 2030, and most neighboring communities will gain population as well.[1] However, absolute population growth or decline will not matter as much as the dramatic increase in older residents that is happening throughout Arlington's region. The make-up of Arlington's population and households will continue to change in terms of population age, household sizes, and household wealth.

Table 2.1. Historical Population and Future Population Projections

Year	Population	% Change	Year	Population	% Change
1920	18,665	-	1990	44,630	-7.4%
1930	36,094	93.4%	2000	42,389	-5.0%
1940	40,013	10.9%	2010	42,844	1.1%
1950	44,353	10.8%	2020	43,735	2.1%
1960	49,953	12.6%	2030	45,164	3.3%
1970	53,524	7.1%	2035	46,776	3.6%
1980	48,219	-9.9%			

Sources: Bureau of the Census, Massachusetts Data Center, 2014.

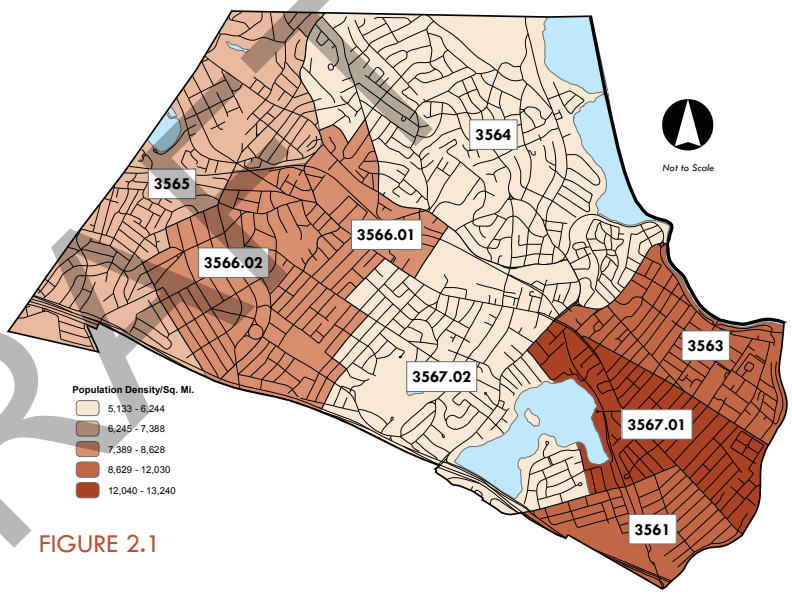


FIGURE 2.1

Population Density

Arlington is divided into eight census tracts: small areas delineated for statistical purposes in order to track and report demographic change (Fig. 2.1). Census tracts are intended to be stable and fairly permanent, but the boundaries sometimes change due to significant population growth or change in one part of town. By Census Bureau

Table 2.2. Population Density

	Population	Households	Avg. Persons/ Household	Land Area	Density/ Sq. Mi.
Town	42,844	18,969	2.26	5.2	8,239.2
Tract 3561	3,110	1,379	2.26	0.3	11,060.0
Tract 3563	5,040	2,320	2.17	0.4	12,033.6
Tract 3564	7,247	2,882	2.51	1.4	5,132.5
Tract 3565	6,580	2,839	2.32	0.9	7,388.2
Tract 3566.01	4,216	1,939	2.17	0.5	8,391.8
Tract 3566.02	4,169	1,691	2.47	0.5	8,627.6
Tract 3567.01	5,844	2,931	1.99	0.4	13,244.0
Tract 3567.02	6,638	2,988	2.22	1.1	6,244.3

Sources: U.S. Census Bureau, Census 1010, and MassGIS, Census 2010 Boundary Files. Note: land area numbers may not total due to rounding.

[1] This forecast differs from Boston metro area population projections developed by the Metropolitan Area Planning Council (MAPC), which predicts that Arlington's population will increase by less than 1 percent by 2030. MAPC's projections for the entire region anticipate very slow growth if not some population loss, owing to a combination of declining household sizes, lack of developable land, high housing costs, and limited production of higher-density housing

policy, the maximum population for a census tract is 8,000 people. When a tract approximates or exceeds the maximum, the Census Bureau will divide it into two smaller tracts, but the outer boundaries of the original or "parent" tract rarely change. Due to the land area and number of residents in each tract in Arlington, population density varies through the town (Table 2.2).

Population Age

Arlington's population is increasing at the elder and youngster ends of the age spectrum. From 2000 to 2010, the median population age increased from 39.5 to 41.7 years. Arlington's population is somewhat older than that of most nearby urban communities and the state as a whole, but younger than the populations of neighboring Lexington and Winchester. The most significant population increases occurred among people between 45-64 years – the Baby Boomers – 85 and over, and preschool and school-age children. Population losses occurred among people between 20 and 34 years. Today, the "over-55" age cohort accounts for 20 percent of Arlington's total population (Figure 2.2).[2] The number of seniors is expected to increase more dramatically, as is the case just about everywhere.

Arlington is experiencing turnover. Over 62 percent of householders in Arlington today were not here in the year 2000. Recent trends indicate that Arlington is attractive to young families with school-age children. The population under 18 years of age is estimated at 22.1 percent, up from 20.8 percent in 2000. In the last fifteen years, the number of families with children has increased and is now approximately 48 percent of all families (and 31.2 percent of all households). Over the last seven years, school enrollment has increased every year with the exception of 2011-12, which had a .01% decrease in enrollment (Table 2.3).

Table 2.3. Change in School Enrollment 2008–2015	
2014-15	+3.3%
2013-14	+2.7%
2012-13	+3.0%
2011-12	-.01%
2010-11	+0.7%
2009-10	+2.0%
2008-09	+2.1%
Table 1 Source: Arlington Public Schools	

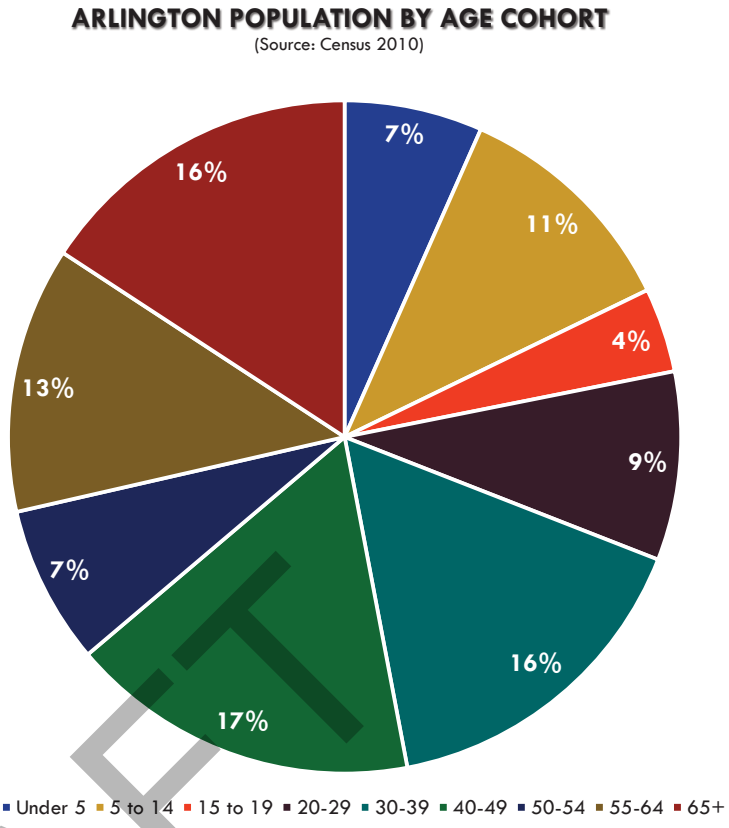


FIGURE 2.2

Race, Ethnicity, and National Origin

Arlington has limited racial and ethnic diversity, but there is a noteworthy foreign-born population and many people who speak languages other than English at home. According to the U.S. Census Bureau, Hispanic and racial minorities comprise 16.4 percent of Arlington's population, and 57 percent of the minority population is Asian.[3] By contrast, minorities account for 27 percent of the Boston metropolitan area's population and 23.5 percent of Middlesex County's total population. Among Arlington's neighbors, only Winchester has a smaller minority population on a percentage basis.[4]

Approximately 15 percent of Arlington's residents are foreign born: people who immigrated to the U.S. from some other part of the globe, and most have been in the U.S. for over a decade. Immigrant communities make up much larger shares of the populations in cities and towns around Arlington except Winchester.[5] In addi-

[2] U.S. Census Bureau, Census 2010, SF1 DP1, SF1 P12.

[3] The U.S. Census reports racial and national origin or socio-cultural groups. People may self-identify as more than one race. In addition, people who identify as Hispanic, Latino, or Spanish may be of any race.

[4] U.S. Census Bureau, Census 2010, SF1 P2.

[5] U.S. Census Bureau, American Community Survey (ACS) 2007-

tion, Arlington has fewer residents for whom English is not their native language.[6] Still, the presence of an ancestrally mixed foreign-born population – with many families from China, India, Russia, and Greece – sheds light on why so many residents think of Arlington as a diverse town.

Education

Massachusetts has the most highly educated population of all fifty states, and the Boston Metro population is particularly well educated. Arlington residents are indicative of the region's high levels of educational attainment. Nearly 64 percent of the population 25 and over has at least a bachelor's degree – much higher than the state's 38.7 percent. Moreover, 35 percent of the over-25 population in Arlington holds a graduate or professional degree, compared with 17 percent statewide. Most of Arlington's neighbors are home to exceptionally well educated residents, too, notably Lexington, where over half the adult population has a graduate or professional degree, and Winchester, at 40 percent.[7]

Geographic Mobility

Arlington has a fairly stable population. Over 88 percent of its residents lived in the same house a year ago, which is quite a bit more than Cambridge (72 percent) and Somerville (77 percent): cities with a large number of rental units and transient populations of college and graduate students. The difference between recent move-ins and longer-term residents is noteworthy. The median age of residents living in the same house at least one year ago is 43.6 years; among move-ins from some other part of Massachusetts, 29.8 years, and for new arrivals from another state, 31.9 years.[8]

Households and Families

A household consists of one or more people occupying a single housing unit. The federal census divides households into two groups – families and non-family households – the former being households of two or more people related by blood, marriage, or adoption, and the latter including all other types of households, including single people living alone.[9] Compared with surrounding towns (excluding the cities), Arlington has a larger share of non-family households (42 percent), and as shown in Table 2.4, single people living alone comprise the overwhelming majority of these non-family households. The number of families overall increased slightly from 2000 to 2010, and families remain Arlington's most common household type. Still, they represent less than 60 percent of all households today. Married-couple families account for 81 percent of all family households in Arlington. The number of single-parent women increased 7 percent in the past ten years, and they make up 14 percent of households .

Table 2.4: Change in Household Type (2000-2010)

	2000	2010	
	Number	Number	
HOUSEHOLD TYPE			
Total households	19,011	18,969	-0.2%
Family households	10,779	10,981	1.9%
Male householder	7,426	7,390	-0.5%
Female householder	3,353	3,591	7.1%
Nonfamily households	8,232	7,988	-3.0%
Male householder	3,122	3,088	-1.1%
Living alone	2,291	2,378	3.8%
Female householder	5,110	4,900	-4.1%
Living alone	4,210	4,085	-3.0%
Average household size	2.22	2.24	
Average family size	2.91	2.93	

Source: US Census 2000, QT-P10, US Census 2010, QT-P11

Although household sizes have slowly decreased throughout the country, Arlington has experienced a somewhat different trend. Here, the number of households with two or three people declined between 2000 and 2010 and the number of four-person households increased. This is consistent with K-12 enrollment growth in the Arlington Public Schools over the past decade. Given the increase in number of families and the shift in household sizes, Arlington seems to have attracted small families looking for a reasonably affordable place to live in the Boston Metro area.

Family and non-family households are not evenly distributed throughout Arlington. Non-family households in general and one-person households in partic-

2011 Five-Year Estimates, DP2, B05006.

[6] ACS 2007-2011, B06007.

[7] ACS 2007-2011, DP2.

[8] ACS 2007-2011, B07002.

[9] Note: the Census Bureau reports all same-sex couples as non-family households regardless of their marital status under state law.

Table 2.5. Distribution of Households and Families by Census Tract							
	Total Households	Total Families	Pct. Households	Families With Children Under 18	Pct. Families	Non-Family Households	Pct. Households
Town	18,969	10,981	57.9%	5,107	46.5%	7,988	42.1%
Tract 3561	1,379	784	56.9%	338	43.1%	595	43.1%
Tract 3563	2,320	1,260	54.3%	614	48.7%	1,060	45.7%
Tract 3564	2,882	2,027	70.3%	903	44.5%	855	29.7%
Tract 3565	2,839	1,781	62.7%	850	47.7%	1,058	37.3%
Tract 3566.01	1,939	1,097	56.6%	538	49.0%	842	43.4%
Tract 3566.02	1,691	1,025	60.6%	502	49.0%	666	39.4%
Tract 3567.01	2,931	1,310	44.7%	566	43.2%	1,621	55.3%
Tract 3567.02	2,988	1,697	56.8%	796	46.9%	1,291	43.2%
Source: Census 2010, DP1.							

ular are more prevalent in the neighborhoods of East Arlington and Arlington Center. It is not surprising to find family households concentrated in predominantly single-family home neighborhoods, such as Morningside/Turkey Hill, where families make up 70 percent of all households. Families with children generally make up the same proportion of families in each part of town, however.

Household and Family Incomes

Arlington is becoming a wealthier town. Today, its median household income exceeds that of Middlesex County and the state as a whole. For budgeting and financial planning purposes, Arlington tracks several comparison towns: contiguous and non-contiguous communities that are reasonably similar to Arlington. Population wealth is among the factors used to determine comparability. In 1969, Arlington was less affluent than Melrose and Stoneham, the two communities with most comparable median family incomes to Arlington. By 1989, this was no longer the case. The income gap between Arlington and communities such as Natick and Reading is decreasing, too (Fig. 2.3)

Nevertheless, household and family incomes remain higher in many neighboring towns and other Boston Metro communities. (A notable exception is the median non-family household income, which is higher in Arlington than every neighboring community except Belmont.) In addition, the income gap between Arlington and its wealthiest neighbors – Winchester and Lexington – has decreased. For example, forty years ago, Arlington's median family income was 77 percent of Winchester's; today, it is just 68 percent.

Forty-two percent of all Arlington households have annual incomes over $100,000. This includes families and non-families. The vast majority of Arlington's higher-income households are families. In fact, more than one-fifth of all married-couple families have annual incomes of more than $200,000. Non-family households have relatively low median incomes, i.e., about half of what married-couple families earn.

Poverty

Arlington 's poverty rates are among the lowest in the Boston Metro area. The childhood poverty rate is very low at 2.3 percent, less than a quarter of the state average. By contrast, childhood poverty is much higher in Cambridge and Somerville. Families in poverty have very few suburban housing choices; cities have larger inventories of affordable housing and public housing. The poverty rate of individuals 18-64 years old is 4.3 percent, less than half the state average. Seniors have the highest poverty rate in Arlington, at 7.5 percent, which is still below average for Middlesex County.

Group Quarters

In Arlington and virtually all other communities, the total population consists of people in households and those living in group quarters. As defined by the Census Bureau, "group quarters is a place where people live or stay, in a group living arrangement, that is owned or managed by an entity or organization providing housing and/or services for the residents." Arlington's small group quarters population (291 people) is composed primarily of adults and juveniles in group homes.[10]

[10] Census 2010, QTP12.

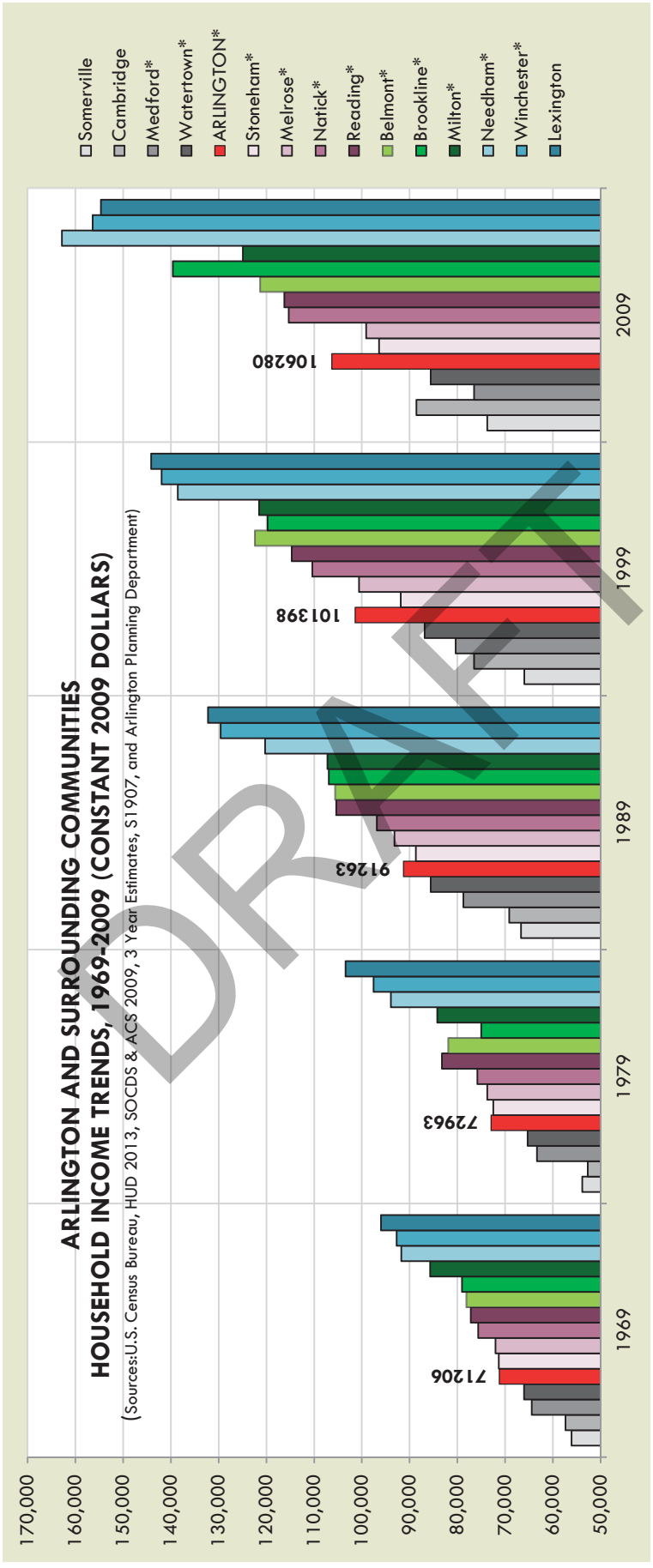

ARLINGTON AND SURROUNDING COMMUNITIES
HOUSEHOLD INCOME TRENDS, 1969-2009 (CONSTANT 2009 DOLLARS)
(Sources:U.S. Census Bureau, HUD 2013, SOCDS & ACS 2009, 3 Year Estimates, S1907, and Arlington Planning Department)
Somerville
Cambridge
Medford*
Watertown*
ARLINGTON*
Stoneham*
Melrose*
Natick*
Reading*
Belmont*
Brookline*
Milton*
Needham*
Winchester*
Lexington
170,000
160,000
150,000
140,000
130,000
120,000
110,000
100,000
90,000
80,000
70,000
60,000
50,000
1969
1979
1989
1999
2009
71206
72963
91263
101398
106280
DRAFT

FIGURE 2.3

3 land use

Introduction

Most people do not use the term "land use" when they try to explain what a town looks like. Often, they refer to locally important landmarks and images that can be seen from the road or sidewalk. Describing Arlington Center as a linear district composed of several sub-districts, with an impressive civic block and low-rise commercial buildings, or its adjacent neighborhoods as moderately dense housing on tree-lined streets, is to characterize these areas by their land use patterns.

As an element of the Master Plan, Land Use connects all the other elements because land use planning incorporates all the land in Town, and the Town's vision for it. Land use refers to the location, type, and intensity of a community's residential, commercial, industrial, and institutional development, along with roads, open land, and water. Patterns of development vary by the land and water resources that support them, the eras in which growth occurred, and the evolution of a town's transportation infrastructure. The ages of buildings in each part of a town usually correlate with changes in land use patterns. Similarly, the placement of buildings in relation to the street and to each other tends to be inseparable from their age and whether they were constructed before or after the adoption of zoning. Furthermore, a town's development pattern and shape sometimes hint at its annexation history, or exchanges of land with adjacent cities and towns.

Most of the boundaries of Arlington's 5.2 square mile (sq. mi) land area[1] were formed while it was part of the original, much larger colonial settlement of Cambridge. In 1807, the newly incorporated Town of West Cambridge (the area west of Alewife Brook) separated from Cambridge. A small section of the town was carved out to join the new Town of Belmont in 1859, leaving in place the final boundaries of Arlington, which was renamed in 1867. Arlington's present development patterns hint at the connections that once existed with neighboring communities, particularly along Massachusetts Avenue and Pleasant Street. Once seamless ties that transcended geopolitical divisions created commercial corridors and residential neighborhoods.

master plan goals for land use

- Balance housing growth with other land uses that support residential services and amenities.
- Encourage development that enhances the quality of Arlington's natural resources and built environment.
- Attract development that supports and expands the economic, cultural, and civic purposes of Arlington's commercial areas.

Zoning was introduced to cities and towns in the early twentieth century. This method of regulating land use is intended to define and manage the growth and

[1] Arlington's total area is 5.6 sq. mi., according to data from Arlington GIS and MassGIS. The federal Census Bureau reports Arlington's total area as 5.5 sq. mi.

character of communities, preserving and protecting open space, and guiding future capacity. As a result of Arlington's history, its land use patterns are reflected in both organic and regulated forms. Arlington needs to evaluate, restructure, and update its zoning to help form the Arlington of tomorrow while preserving its historic past. Arlington residents understand that the pressure for development is high, and that impending change is inevitable. Planning for such change will result in healthy neighborhoods, a strong local economy, enhanced civic amenities, and a better quality of life for current and future residents.

Arlington's many faces. (Collage from June 2014 Visual Preference Survey by David Gamble Assoociates and RKG Associates.)

Existing Conditions

Arlington is a predominantly residential suburb of Boston, bounded by the towns of Belmont, Lexington, and Winchester and the cities of Medford, Somerville, and Cambridge. Most of Arlington is maturely developed. The commercial centers along Massachusetts Avenue are surrounded by dense, largely walkable neighborhoods. The most concentrated center of activity in Arlington lies between Massachusetts Avenue and Summer Street, Mystic/Pleasant Streets and Grove Street. This quadrant lies in the center of a valley that crosses the town, and it is the historic cradle of transportation routes. In addition to the main roads, the Boston and Maine railroad used to provide some passenger service, but mostly freight service up to the late 1970s. The Mill Brook also runs through the valley, though mostly channelized or in an underground conduit. Importantly, the former rail line and waterway once supported many industries that lined this district. In 2014, only remnants of industrial land use remain west of Grove Street and near Arlington Heights. The rail line was converted to a recreational trail in 1992 and is part of the regional Minuteman Commuter Bikeway.

Land Use Patterns

Land use can be quantified, that is, measured by the amount of land used for various purposes. However, a more enlightening method of analyzing a community is by looking at its land use patterns. In Arlington, especially in some dense central sections, there are several eclectic spaces; areas with seemingly random mixes of uses, variable lot sizes, building types and orientations. In many cases, these mixed-use areas pre-date the adoption of zoning and contribute to the "organic" feel of Arlington's older neighborhoods. Map 3.1 illustrates Arlington's current (2014) land use patterns.

Massachusetts Avenue has played a critical role in Arlington's evolution. As the physical and figurative lifeline of Arlington, Massachusetts Avenue spans the town from Cambridge in the east to Lexington in the west. It lies in the flatlands of the town, and as the primary commercial corridor it draws people from the residential neighborhoods nestled in the hills that surround it. Although one almost continuous commercial corridor, Massachusetts Avenue supports many nodes with their own identity, including the town's three primary commercial centers: Arlington Heights, Arlington Center, and East Arlington.

Over the years, development extended from Massachusetts Avenue south along Jason Street and Academy Street, north along Medford Street and Mystic

Street, and east along Broadway and Warren Street. There is also evidence of late nineteenth- and early twentieth-century housing development in Arlington Heights and around Park Avenue, and in East Arlington as well. Streetcars once operated along Massachusetts Avenue, Mystic and Medford Streets, and Broadway, and were perhaps the greatest catalyst for housing development in the late nineteenth and early twentieth centuries. The urban street grid that characterizes much of East Arlington coincides with a significant concentration of densely developed worker housing: mostly two-family houses, and sometimes larger, most likely responding to the industrial growth that occurred in Arlington after the mid-nineteenth century.

Arlington grew dramatically during the interwar years (1920-1945) and again during the "Baby Boom" era (1946-1964). Neighborhoods filled in throughout the southern part of town, with single-family home subdivisions around Park Circle and Menotomy Rocks Park and small-scale multifamily housing in East Arlington. The largest post-WW2 single family development occurred in the north and west parts of Arlington, around Bishop, Stratton, and Dallin Schools. These neighborhoods have the classic curved streets and car-oriented road layouts which typified suburban subdivisions at the time.

Zoning in Arlington

An important component of any master plan is an assessment of local zoning requirements, especially for consistency or conflicts with the community's goals and aspirations for the future. Zoning should express a community's development blueprint: the "where, what, and how much" of land uses, intensity of uses, and the relationship between abutting land uses and the roads that serve them. Ideally, one can open a zoning ordinance or bylaw and understand what the community wants to achieve. Unfortunately, this is not always the case in Massachusetts cities and towns, and Arlington is no exception.[2]

USE DISTRICTS

Arlington adopted its first Zoning Bylaw (ZBL) in 1924, but the version currently in use (2014) was adopted in 1975 and amended many times since then. The ZBL divides the town into nineteen use districts (Map 3.2), i.e., areas zoned for residential, commercial, industrial, or other purposes. There is nothing inherently wrong with a large number of zoning districts as long as the regulations make sense on the ground. In many cases, especially along Massachusetts Avenue, the zoning was probably relevant for what existed some time ago, but it is no longer suitable. In addition, many zoning districts are haphazardly divided, again based on past decisions that fit a different time and place.

In addition to the prescribed zoning districts in Table 3.1, there is also a wetlands protection overlay district that appears only in part of the zoning map. Like many towns in Massachusetts, Arlington has an Inland Wetland District that pre-dates the adoption of the state Wetlands Protection Act. The ZBL relies on a text description for some covered wetlands that are not specifically mapped, e.g., twenty five feet from the centerline of rivers, brooks, and streams, despite a requirement of the state Zoning Act (Chapter 40A) that all districts be mapped.[3]

The name of a zoning district is not always a good indicator of how land within the district can be used. For example, much of Arlington's industrially zoned land is no longer used for industrial purposes. While the town has zoned about 49 acres for industrial development, a comparison of the zoning map and assessor's records shows that only fourteen acres (about 29 percent) of the Industrial District is actually used for manufacturing, warehouse/distribution, storage, and other industrial types of activity. Arlington allows some non-industrial uses in the industrial districts, and other non-industrial uses are probably "grandfathered" because they pre-date current zoning requirements. According to the assessor's data, the largest individual users of industrial land in Arlington are municipal (e.g., the Department of Public Works compound on Grove Street) or commercial, including auto repair. In fact, auto-related businesses account for most of the Industrial District's commercial uses, though there is a separate district devoted to Vehicular Oriented Businesses, B4.

Similarly, the six business districts have been developed with many uses in addition to the commercial uses for which they are principally intended. Information reported in the assessor's database shows that 20 percent of land in the business districts is used for

[2] A more detailed review of Arlington's zoning has been prepared in conjunction with this master plan and filed separately with the Planning Department.

[3] G.L. c. 40A, § 4.

residential purposes, including single-family homes and apartment units. Unlike its policies in the industrial district, Arlington allows multifamily housing by special permit in most of the business districts, and some of the apartments and townhouses located on business-zoned land came about because of this provision. The belief that commercial properties have been rezoned as residential is a common misperception in Arlington.

Many residents say **mixed-use development** should be explored along Massachusetts Avenue. Mixed use generally refers to ground floor retail with residential units on the upper floors. The first floor retail helps to build an interesting, walkable business district while upper story residential units can provide street vibrancy and support for businesses, and users of public transit (thereby reducing parking demands). Arlington's zoning does not specifically address mixed-use buildings, although mixed uses occupy several historic buildings in the Industrial district and the business districts.[4] Past plans promote the inclusion of mixed-use buildings in the commercial centers,[5] and comments at the public meetings for this plan indicate that many residents would like to see mixed-use development as well.

USE REGULATIONS

The Table of Use Regulations (Section 5.04 of the Arlington ZBL) identifies a variety of land uses that are allowed by right or special permit in each zoning district. In general, Arlington's use regulations are quite restrictive because most uses are allowed only by special permit (SP) from the Arlington Redevelopment Board (ARB) or Zoning Board of Appeals (ZBA). That Arlington has so many special permit options makes it nearly impossible to develop a plausible forecast of the town's so-called build-out potential, i.e., the difference between the amount of development that exists now and that which could still be built under existing zoning.

Dependence on Special Permits

Arlington's use regulations are quite restrictive because most uses are allowed only by special permit (SP) from the Arlington Redevelopment Board (ARB) or Zoning Board of Appeals (ZBA). That Arlington has so many special permit options makes it nearly impossible to develop a plausible forecast of the town's build-out potential.

Residential. These uses include a broad range of residential building types, from single-family detached homes to various multi-family types, dormitories, assisted living facilities, and hotels. Single-family detached units are allowed in all districts except MU, I, T, and OS; two-family dwellings are also not allowed in these districts or the single family RO and R1 districts. Allowing single-family homes and duplexes in nearly all districts is sometimes referred to as cumulative zoning, which can result in incompatible uses (e.g., single family dwellings in a central business district may not be appropriate). All other residential uses are allowed only by special permit in Arlington's other zoning districts, which is highly restrictive.

Institutional and Educational. These uses include community centers and related civic uses, hospitals, schools, daycare facilities, and cemeteries and similar types of uses. All uses in this category are allowed only by special permit in each zoning district except that private schools and institutions are allowed by right in Business Districts B2 through B5.

Agricultural. Agricultural uses include a range of farming (except livestock), sale of garden and agricultural supplies, and greenhouse uses. They are allowed by right in all zoning districts as is common in Massa-

[4] On this point, the Zoning Bylaw (ZBL) is ambiguous. For example, in ZBL Section 3.02, the Village Business District (B3) description provides, in part: "Multi-use development is encouraged, such as retail with office or business and residential," yet multi-use development is not specifically listed as permitted or allowed by special permit in the Table of Use Regulations. However, in Section 5.02, Permitted Uses, the ZBL provides: "A lot or structure located in the R6, R7, BI, B2, B2A, B3, B4, B5, PUD, I, MU, and T districts may contain more than one principal use as listed in Section 5.04 'Table of Use Regulation.' For the purposes of interpretation of this Bylaw, the use containing the largest floor area shall be deemed the principal use and all other uses shall be classified as accessory uses. In the case of existing commercial uses, the addition or expansion of residential use within the existing building footprint shall not require adherence to setback regulations for residential uses even if the residential use becomes the principal use of the property."

[5] See, for example, Larry Koff Associates, *A Vision and Action Plan for Commercial Revitalization* (July 2010).

chusetts. However, some forms of urban agriculture should be considered as being appropriate in more urban settings such as the village centers and central business districts.

Public, Recreational, and Entertainment. The uses include a variety of public and civic services as well as recreational uses, which are allowed by right in most zoning districts. Other uses such as a post office, private recreational business, construction yards, theaters, and outdoor amusement are allowed only by special permit and in specific districts.

Utility, Transportation, and Communications. These uses include bus, rail, and freight facilities, public and private parking facilities, and telephone utilities. All uses are allowed only by special permit in a limited number of districts except overhead utility poles which are allowed in all districts.

Commercial and Storage. These are auto-related sales and service businesses which are restricted by special permit only in B4, PUD and I zoning districts.

Personal, Consumer, and Business Services. These uses include print shops, financial institutions, various personal services, laundry services, consumer service establishments, funeral homes, veterinary clinic. These uses are allowed by right or by special permit in selected business districts as well as the PUD and I districts. Only funeral homes are allowed in residential districts R5-R7 by special permit. There are performance standards related to size for financial institutions (more than 2,000 gross sq. ft. requires a special permit) and laundry and consumer services (more than five employees requires a special permit in some districts).

Eating and Drinking. This category includes traditional restaurants, fast-food establishments, drive-in establishments, and catering services which are allowed by right primarily in the business districts. There are performance standards related to the size of the restaurants requiring a special permit for those larger than 2,000 gross sq. ft. and on lots greater than 10,000 sq. ft., which is a fairly low standard for a typical restaurant. There are no specific "drinking" establishments identified such as bars, pubs, or taverns, which are not permitted in Arlington. This sector has been growing rapidly over the past decade or more since Arlington started allowing beer and wine, and then liquor to be served in restaurants.

Retail. Retail uses have performance standards related to size so that stores of 3,000 gross sq. ft. or more require special permits in business districts B2-B5 under the assumption that they are serving more than just the needs of "the residents of the vicinity". This is a fairly low size threshold for local businesses that may in fact be serving a primary market of customers in the surrounding neighborhoods.

Office Uses. This category includes professional, business, medical, and technical offices allowed by right and special permit in the higher density residential districts, business districts, and MU, PUD and I districts. General office uses also have performance standards related to size requiring special permits for those 3,000 gross sq. ft. or more, which is also a fairly low threshold.

Wholesale Business and Storage. These uses all require special permits and are limited in the B2A, B4, and the industrial district.

Light Industry. These types of uses are mostly allowed by right in the industrial district but restricted by special permit in the B4 district. Only research and development facilities are allowed by right or special permit in high density residential, business and industrial districts.

Accessory Uses. This category includes a diverse range of uses from private garages, home occupations, accessory dwellings, nursery schools, auxiliary retail, and storage. They are allowed by right and special permit in a broad range of zoning districts, as is appropriate.

Mixed Uses. The only Mixed Use district in Arlington is located on the former Symmes property. Mixed-use development per se – such as ground-floor retail with upper-story residential – is not specifically provided for in Arlington's zoning, but the ZBL is unclear.

DENSITY AND DESIGN

Arlington has adopted a fairly prescriptive, traditional approach to regulating the amount of development that can occur on a lot (or adjoining lots in common ownership). The Town's basic dimensional requirements cover several pages in the ZBL, including some twenty footnotes that explain or provide exceptions to the Table of Dimensional and Density Regulations. In addition to minimum lot area requirements, Arlington regulates maximum floor area ratios (FAR), lot coverage, front, side, and rear yards, building height, park-

ing requirements and minimum open space. In most districts, the maximum building height is 35 feet and 2 ½ stories – traditional height limits for single-family and two-family homes but challenging for commercial buildings. Apartment buildings in some of the business-zoned areas can be as tall as 60 or 75 feet, and possibly higher with an Environmental Design Review (EDR) special permit from the ARB (Section 11.06 of the bylaw).[6]

The ZBL lacks urban design requirements such as building placement on a lot and building orientation, or tools that could help to regulate form in a coherent way. Due to the prevalence of one-parcel districts along Massachusetts Avenue, Arlington essentially requires variable building setbacks from lot to lot, though most of these properties have some zoning protection for pre-existing conditions. Still, a project involving parcel assembly and new construction might be in more than one zoning district and have to contend with varying zoning requirements. It might not be harmonious with adjacent uses, too.

RESIDENTIAL DISTRICTS

Lot Area Requirements. The minimum lot size for residential uses ranges from 5,000 to 9,000 square feet (sq. ft.), which seems consistent with prevailing neighborhood development patterns. Large lot sizes are required for multi-family buildings, as expected. The minimum frontage requirements are also generally consistent with prevailing development patterns in the neighborhoods and underlying zoning districts. One exception is that townhouse structures require 20,000 sq. ft. and 100 feet of frontage, yet townhouses are typically attached single-family homes on separate lots. They typically have frontage widths of 16 to 30 feet and lot sizes as small as 2,000 square feet. The standards should be revised to clarify the number of attached townhouses that are permitted without a break (such as nine to twelve).

Other Requirements. Standards that affect intensity of use, such as maximum floor area ratio (FAR), lot coverage maximum percent, setbacks (front, side, rear), open space ratios, and minimum lot area/D.U., seem reasonable and consistent with prevailing development patterns in the neighborhoods. One exception is that townhouses typically have a higher FAR than 0.75.

[6] The Planning Department notes that since cellars do not count toward the calculation of maximum building height, they can effectively cause structures to be taller than 35 feet.

Lack of Urban Design Standards

The ZBL lacks urban design standards such as building placement on a lot and building orientation, or tools that could help to regulate form in a coherent way. Due to the prevalence of one-parcel districts along Massachusetts Avenue, Arlington essentially mandates variable building setbacks ... a project involving parcel assembly might have to contend with conflicting requirements

These building forms should be considered separately from apartment houses and office structures in the dimensional requirements.

The maximum residential height, typically 35 feet and 2½ stories in the lower intensity residential districts and 40 feet and 3 stories in the higher density districts, is largely consistent with prevailing development patterns in the neighborhoods and commercial corridors. However, if Arlington wants to provide for a broader range of housing types and mixed uses, taller buildings and a reduction in square feet per dwelling unit may be desirable in selected areas. These kinds of incentives can be augmented with an increase in the percentage of usable open space on a site with access to the surrounding area.

BUSINESS DISTRICTS

Lot Requirements. The minimum lot size and minimum frontage are reasonable and consistent with prevailing development patterns and the context of the different districts. For example, no minimum lot size and 50 feet of frontage for most uses in the village centers is a context-based dimensional standard.

Other Requirements. Several standards affect intensity of use and design. The maximum FAR of 1.0 to 1.4 is reasonable and can be adjusted with a special permit. However, Arlington also has a minimum lot area per dwelling unit that is unnecessary and could discourage mixed-use development. The amount of area needed for commercial lots will always be driven by the

amount of parking either required by zoning or demanded by the market. Adding artificial standards that increase lot size without a particular benefit to the inhabitants is not advised. Requirements for landscaped and usable open space are more important in mixed use areas and can help attract residents to live in village centers.

The minimum front, side, and rear yard requirements, coupled with the landscaping and screening standards where necessary, are consistent with existing development. For example, in the B3 and B5 districts which cover the vast majority of land in the village centers, there are no front or side setback requirements. This allows buildings to be placed at the edge of the sidewalk, thereby enhancing the pedestrian environment by moving parking lots to the side or rear. However, this does not guarantee that buildings will be close to the street. They could still be set back, diminishing walkability and street activation, because Arlington does not have building placement and occupation standards in areas that cater to pedestrians.

The maximum height regulations provide some incentives for new infill development, but not redevelopment. In areas with many 2- or 3-story structures, a building of 5 stories and 60 feet could appear out of context and scale, but this type of impact can be mitigated with additional setback or building step backs, or a combination of thereof.

Finally, Arlington's open space requirements (percentage of total gross floor area) seem reasonable, but could be more specific in some districts. Landscaping should be primarily focused on streetscape enhancements (street trees, planters, and hardscapes such as plazas and seating areas), shading of parking lots, and screening from abutting uses where necessary. Usable open space in the village centers is critical. This can take place on individual lots (such as dining terraces, forecourts, etc.) and collective spaces such as plazas, commons, greens, and pocket parks. These usable open spaces are a significant draw to the districts and can be publically or privately owned, with property owners contributing to their establishment and maintenance in lieu of on-site requirements.

MU, PUD, I, T AND OS DISTRICTS

Requirements for lot size, yards, building heights, intensity of development, and open space in the MU, PUD, I and T districts are fairly minimal and flexible, providing additional incentives for redevelopment. Regulations for the Open Space district (OS) are very strict, for this district includes public parks, conservation lands, and open spaces.

Capitol Theatre, East Arlington.

OTHER REQUIREMENTS

Environmental Design Review (EDR). Arlington's EDR process blends an enhanced form of site plan review with authority for the ARB to grant special permits. EDR applies to most uses over a certain size that abut important thoroughfares—Massachusetts Avenue, Pleasant Street, Broadway, the Minuteman Bikeway, and parts of Mystic and Medford Streets within Arlington Center. The Town requires an EDR special permit for any residential development of six or more units, and all nonresidential uses that exceed specified floor area thresholds. The ARB conducts design review as part of the EDR process under Section 11.06, but the Town has not formally adopted design guidelines for the commercial areas. It would be difficult for property owners and developers to know what the Town actually wants and to plan their projects accordingly.

Off-Street Parking. Arlington requires all land uses to provide off-street parking. In many ways, the Town's off-street parking requirements are quite thoughtful. For example, requirements such as one space per 300 sq. ft. of retail development and one space per 500 sq. ft. of office development are fairly reasonable compared with the rules that apply in many towns. Arlington also provides for off-street parking on premises other than the lot served (i.e., off-site parking), if the permitting authority finds that it is impractical to construct the required parking on the same lot and the proper-

ty owners have a long-term agreement to secure the parking. In addition, Arlington allows substitution of public parking in lieu of off-street parking if the public lot is within 1,000 feet of the proposed use. Consistent with the purpose statement of Section 8.01 (Off-Street Parking and Loading Regulations), Arlington prohibits front yard parking in residential areas in order to promote aesthetically pleasing neighborhoods, preserve property values, and avoid undue congestion. Arlington has adopted bicycle parking requirements for lots with eight or more vehicular parking spaces, too.

Despite (or perhaps because of) the Town's generally reasonable parking standards, complaints about inadequate parking abound in Arlington. Property owners and merchants say the situation in East Arlington is most troublesome and that the area's development potential is capped by the lack of parking. Meanwhile, residents complain that the two-hour parking limits in East Arlington are enforced only in the business districts, not in the adjacent residential neighborhoods. Moreover, Arlington does not have an abundance of on-street or public parking, so the seemingly flexible provisions of the ZBL may not have much practical benefit. Even in districts where maximum height limits would not impede redevelopment, the off-street parking regulations could do just that – making parking regulations a form of dimensional and density control. It should be noted that many admired older buildings in the commercial districts do not meet parking requirements and would therefore be forbidden today. Parking supply management is not a land use issue per se, but it has an undeniable impact on the public's receptivity to more intensive development – which in turn has an impact on a special permit granting authority's approach to development review and permitting.

NONCONFORMING USES AND STRUCTURES

Arlington's zoning makes a remarkably clear statement about nonconforming uses and structures: they cannot be extended (increased). While the Town gives the ZBA some latitude to approve a change of one nonconforming use to another nonconforming use that is reasonably similar, the overall message of the ZBL is that nonconformities should be eliminated over time. Still, according to the Planning Department, the Town has given "wide latitude" to nonconforming structures, sometimes granting them greater expansion than conforming structures.

Under both state law and the Town's zoning, the standards for expanding or altering nonconforming single-family and two-family homes are less demanding than for other land uses. Single-family and two-family homes may be altered and extended if a proposed project does not create new nonconformities and is not detrimental to the neighborhood. (Changes to nonconforming structures may also trigger Arlington's demolition delay bylaw). Arlington's zoning does not allow use variances.

POTENTIAL CONFLICTS WITH STATE LAW

Arlington's present zoning is sometimes inconsistent with the state Zoning Act (Chapter 40A) and case law. For example, Arlington requires a special permit for churches and other religious uses, day care and kindergarten programs, and public and private non-profit schools, yet Chapter 40A plainly exempts these uses from local control, other than "reasonable" dimensional regulations. Libraries, which usually qualify as an educational use, also require a special permit in Arlington. Ironically, non-exempt schools such as trade schools conducted as a private business are allowed as of right in Arlington's business districts, yet public and non-profit schools require a special permit. "Rehabilitation residence," which Arlington defines as a "group residence" licensed or operated by the state, also requires a special permit, but Chapter 40A forbids imposing special permit requirements on housing for people with disabilities.

In addition, the Town's approach to regulating farms does not square with state law, which specifically protects farming in all of its varieties (including agriculture, horticulture, and permaculture) on five or more acres of land. As a practical matter, Arlington's compliance or lack thereof with the state's agricultural protections may be a moot point because the Town does not have five-acre parcels in agricultural use. Nevertheless, the bylaw's attempt to block livestock or poultry even on larger parcels is incompatible with state law.

Issues and Opportunities

Managing Growth and Change

Concerns about Change. From the beginning of the master plan process, residents have stated what we treasure about Arlington and the qualities that attract residents. This plan intends to preserve and protect the treasured, attractive qualities that make Arlington great, even when private and public land and devel-

"In terms of building style, I prefer this (1) or that (2) ..." Visual Preference Survey, 2014.

opment decisions are made in the coming decades. In fact, the plan intends to improve Arlington's fiscal stability by leveraging reasonable development that enhances and improves what we value and desire for our future, and steering change away from the buildings, neighborhoods, outdoor places, and facilities that we seek to preserve or conserve. The plan anticipates that we will designate specific areas in town where we do not want development, so called priority preservation areas, and areas where we think redevelopment is appropriate, so called priority development areas.

In public meetings for this plan, residents said they want to maintain Arlington's historic character, and curb – or at least exercise greater control over – new development. Residents seem concerned that additional development will be out of scale or character with the qualities they value in their community. One purpose of a master plan is to identify and strive to preserve the community character that residents cherish. Another purpose is to identify areas that might benefit from reinvestment, and to enable the community to take an active role in encouraging redevelopment in strategic areas to meet community needs. When development is directed toward underutilized sites, these sites can be put to greater use, while also lessening development pressures elsewhere.

Mixed Use. People want to live in Arlington. Residential demand and residential property values held strong during the economic downturn, and have increased rapidly since the economy improved. This market pressure threatens to convert the scarce land available for Arlington's limited commercial tax base into more residential development.[7] The traditional form of Arlington's commercial districts is mixed use-style buildings that have commercial uses usually at the street level and living units on upper floors above. By harnessing the market's drive toward residential uses, policies that promote higher-value Mixed Use redevelopments (instead of apartment-only or condominium-only buildings) could reinforce and increase commercial uses in, and business tax revenue from, our business districts. At the same time, policies that promote Mixed Use could be crafted in a way to produce the smaller residential units desired by young adults and older Arlingtonians who want to stay here after their children have grown. Arlington's zoning bylaw states that Mixed Uses are allowed, however few Mixed Use buildings have been constructed under the requirements of the current bylaw.

Density and Design. Arlington residents took part in a live and online visual preference survey (VPS) in June 2014. The study, entitled "Do you like this or that" asked respondents to compare or rate images of buildings and streetscapes. The results provide an interesting gauge of aesthetic and urban forms including material, use, density, and height. The results indicate great acceptance of mixed use development along Massachusetts Avenue and Broadway, and of building heights up to five stories. Greater massing and height without setbacks began to raise some concern. Further analysis reveals a preference for unique and eclectic design, albeit within balanced and symmetrical forms. (See Appendix for survey summary).

[7] See Comparative Data, pages 15-17 of the Town Manager's FY15 Budget & Financial Plan on impact of decline in Arlington's commercial tax base

Development and Sustainability. There is a general sentiment among Arlington residents that the town is already built out. However, a closer urban design examination reveals that Arlington has considerable potential for change. In some areas, redevelopment could enhance characteristics the community cherishes and simultaneously contribute to a tax base that needs expansion and diversification. Existing buildings need ways to evolve when they becomes unmarketable or obsolete for its original intended use, e.g., the redevelopment of the former Symmes Hospital site. Growth does not have to occur at the expense of open space. On the contrary, creating incentives and establishing a favorable development climate for density in certain locations can offset pressures where open space and parks are in greatest need. Wherever possible, Arlington should seek to direct new development to locations with or adjacent to existing assets, near transit in order to reduce auto dependency, and near existing services and infrastructure.

Alternatives to the Special Permit. Arlington uses the special permit as a tool to control the scale and design of development, which may be necessary for large complex proposals. However, it may not be necessary for small projects and uses that are more typical in a given zoning district. An alternative to controlling nearly all uses by special permit would be to allow more uses by right with specific performance standards that address the potential impacts on surrounding land uses. Performance standards may include limits not only on business size, but on building scale and massing, placement on the lot, height, screening and landscaping buffers, parking requirements, light and noise limitations, and other particulars such as limitations on drive-thru establishments.

Opportunity Areas

MASSACHUSETTS AVENUE

While market demands and individual development decisions will continue to occur on a town-wide scale, the geography most advantageous for redevelopment is that which is proximate to the primary commercial corridor, Massachusetts Avenue. Arlington Heights, Arlington Center, and Capitol Square in East Arlington each benefit from their relationship to the town's primary transit corridor, but each one manages to maintain its own identity and character. Arlington's commercial areas are made up of distinct sub-districts. For example, Arlington Heights has one of the last remaining industrial areas. It is also bounded by two major arteries, Park Avenue and Lowell Street. As the Minuteman Bikeway continues to emerge as a viable commuting and recreational corridor between Massachusetts Avenue and Summer Street, additional development pressures will place greater burdens on this underutilized swath of land. Arlington Center lies at the confluence of the town's commerce and civic uses. It is the undeniable center of town. How can it grow in ways that do not burden an already congested roadway network during the peak travel periods? East Arlington's Capitol Square area continues to build a reputation for new restaurants and shops. In what ways can this area grow and become more of a destination?

Though outside the scope of a town-wide master plan to "design" individual buildings, there are fundamental design principles that can mitigate the effects of increased height or greater lot coverage on adjoining properties. To a large degree, the alignment, form, and massing of a project can make the difference between a development that ignores its context and one that contributes to the character of the town. Arlington, like any town, needs to evolve and grow in order to thrive in the twenty-first century.

UNIQUE MIXED-USE NODES

Arlington has opportunities to develop unique mixed use activity centers in strategic locations along its primary corridors, including Massachusetts Avenue., Broadway, and Summer Street, the Mill Brook district, and the Minuteman Bikeway. The presence of activity centers should enhance economic vitality and promote social interaction and community building. These evolving centers, where appropriate, could include a mix of uses and activities located close together, providing people with new options for places to live, work, shop, and participate in civic life. Centers should vary in scale, use, and intensity. They should fill voids in Arlington's hierarchy of village centers, corridors, and neighborhoods such as with new walkable neighborhood centers and commons. They should be targeted to vacant, obsolete and underutilized properties. Potential opportunity areas could include land along the Mill Brook corridor, Broadway, the Battle Road Scenic Byway, Mirak Car Dealership and Theodore Schwamb Mill, Gold's Gym, and Schouler Court.

MILL BROOK

The revitalization of former industrial sites along the Mill Brook will have a significant and ongoing economic impact on the town. This area and the legacy

Mill Brook (2014).

it represents can provide the building blocks for new economic development in Arlington. An April 2010 study by the Mill Brook Linear Park Study Group (a subcommittee of the Arlington Open Space Committee) recognized the potential environmental, economic, flood control, recreational, historic, and transportation benefits of the Mill Brook. After a joint meeting of the Redevelopment Board, Open Space Committtee and Master Plan Advisory Committee in 2013, the Redevelopment Board voted in July 2014 to define a Mill Brook Study Area. By focusing attention and resources on this corridor, Arlington would be directing its resources to areas with the greatest need and potential. Resuscitating some of the large sites and underutilized buildings in this area should be a high priority if Arlington wants to preserve the character of other districts. In addition, Arlington has a strong trail network that in many places abuts the Mill Brook. Properties that are currently oriented away from the Mill Brook could be compelled to change their orientation and recognize both the brook and the Minuteman Bikeway as assets. The ability to craft and implement a successful redevelopment program for this underutilized area depends partly on the desirability of Arlington as a business location, the economics of the individual properties, and on the Town's ability to foster incremental changes.

ARLINGTON CENTER (RUSSELL COMMON) PARKING LOT

The Town parking lot in Arlington Center slopes in a way that could allow an additional deck of parking to be constructed if future demand warrants. The potential to meet multiple community needs, and possibly generate lease revenue, on this site should not be overlooked. A design could incorporate shared work spaces, commercial uses on the perimeter, community gathering spaces, deed-restricted affordable small housing units, a location for tour buses, as well as additional parking, if needed. The Town should creatively consider designs that meet a range of community needs on any land it owns, but especially on this comparatively large, unbuilt parcel.

COMPLETE NEIGHBORHOODS

Within each of Arlington's neighborhoods, consideration should be given to providing more "complete" neighborhoods that provide for a limited mix of uses and diverse housing types, close to schools, open spaces, and other activity centers. Methods may be considered such as corner stores and live-work units at designated intersections, accessory apartments, co-operative or co-housing, and others.

Arlington's Primary Commercial Centers

In 2009, Arlington retained Larry Koff & Associates to address concerns about the existing and future vitality of the three primary commercial centers: Arlington Heights, Arlington Center, and East Arlington. Koff & Associates built on an earlier study by ICON Architecture (1994) that supported creation of a "string of three villages along the Mass Ave. boulevard." In their 2010 plan, A Vision and Action Plan for Commercial Area Redevelopment, Koff & Associates identified three primary findings and outline methods for addressing them in Arlington's commercial districts:

1. Arlington Center should be the focus of a comprehensive revitalization initiative.
2. A range of actions should take place in each of the districts involving physical improvements, revised regulations, enhanced tenant mix, and organization support.
3. Public/private partnerships will be necessary in order for the revitalization process to succeed.

The following summary from Koff's study captures issues that need to be addressed in the implementation program for this master plan.

ARLINGTON HEIGHTS

Arlington Heights provides a mix of retail shops, personal and professional services, and restaurants pri-

marily supporting the needs of surrounding neighborhoods, but also including some "destination" retail that serves a broader customer base. In terms of public and civic amenities, the Minuteman Bikeway crosses the district on Park Avenue north of the intersection. The Post Office is located on Massachusetts Avenue, and there are a number of religious institutions in the area. The Locke School Condominiums and playground are located in this area, and the Mt Gilboa conservation area and Hurd Field are a few blocks away. The Mill Brook also bisects the district and provides future opportunities for passive recreation and attractive redevelopment.

Generally, Arlington Heights is in the best physical condition of the three village centers. Streetscape enhancements coupled with façade and sign upgrades have improved the aesthetic qualities and vibrancy of the district. The local businesses are also well organized and involved in promotional activities including their own website (Shopintheheights.com).

The Gold's Gym site is located in Arlington Heights on Park Avenue, with access from Park Avenue, and frontage on Lowell Street, and bordering the Minuteman Bikeway. It is bisected by the Mill Brook. Higher density mixed uses in this location could increase the draw to the Arlington Heights commercial center, add new customers to the trade area, expand housing options for local residents, provide new businesses, enhance access to the Minuteman Bikeway and Mill Brook, and create a positive transition between the business districts and neighborhoods to the north. A project of this type and form would require rezoning to allow for a mixed use development in this location.

EAST ARLINGTON

East Arlington is a thriving business district, entertainment destination, and center for creative arts and crafts. Capitol Square is the focal point of the district, centered on the intersection of Massachusetts Avenue and Lake Street, and it includes the surrounding blocks along Massachusetts Avenue between Oxford Street and Orvis Road to the west and Melrose Street to the east. The district is anchored by the Capitol Theater, which has attracted other complementary businesses including a series of arts and crafts boutiques, and eating and drinking establishments. Its proximity to the Minuteman Bikeway and Alewife MBTA station are important assets. While East Arlington is a town-wide and visitor destination, it has a number of personal and professional services, religious institutions, and the Fox Library, all providing for the regular needs of surrounding neighborhoods. Nearby public and civic amenities include the Crosby School and playground on Winter Street, and Hardy School and playground on Lake Street and the Minuteman Bikeway.

East Arlington Village Center will continue to grow as a local and regional destination for food, art, and entertainment. The East Arlington Massachusetts Avenue Rebuild Project will upgrade the corridor between the Cambridge city line and Pond Lane, and include improvements in the East Arlington Business District to revitalize the streetscape and enhance mobility and safety for vehicles, pedestrians, and bicyclists with new bicycle lanes and pedestrian crossings.

One of the main issues in East Arlington is the amount, distribution and use of parking in and around Capitol Square. It is constrained by the lack of a publicly owned parking facility. Parking was originally studied as part of the Koff Commercial Revitalization Plan (2009). Recommended strategies included a cooperative initiative involving the Town, Transportation Advisory Committee (TAC), and local business owners to consider the following:

- Shared-parking agreements between property owners to maximize the supply of short-term parking spaces most convenient to customers.
- Collaboration with local businesses, property owners, and residents to assess the need for changes to parking management to improve parking turnover and provide revenue for parking improvements and revitalization in the district.

ARLINGTON CENTER

Arlington Center is the "downtown" and historic center of the town. Its axis is on the Massachusetts Avenue intersection with Mystic Street/Pleasant Street. Arlington Center includes two sub-districts east and west of this intersection: Arlington Center East (ACE) and Arlington Center West (ACW). ACE includes the area centered on Massachusetts Avenue between Mystic Street and Franklin Street. Within the ACE sub-district, there are six focus areas:

- Jefferson-Cutter House and Park
- Russell Common/Mystic Street Corridor
- Massachusetts Avenue Corridor Core Area

- Medford Street Corridor
- Broadway Plaza (at confluence of Mass. Ave., Broadway and Medford Street)
- Monument Square (the triangle of land between Massachusetts Avenue, Broadway and Franklin Street)

The ACW sub-district is centered on Massachusetts Avenue between Pleasant Street and Academy Street. This is the historic and civic core. It includes Arlington Town Hall, the Robbins Library, the Central School containing the Senior Center, the main Post Office, the Whittemore-Robbins House, and several social and religious institutions.

Arlington Center includes several public open spaces such as the Winfield-Robbins Memorial Garden (between the library and Town Hall), Whittemore Robbins House Park and Old Burying Ground (both off Peg Spengler Way), Whittemore Park and Jefferson Cutter House (at the corner of Mystic Street), Uncle Sam Park (at the northwest corner of Massachusetts Avenue and Mystic Street) and Broadway Plaza. The district is also bisected by the Minuteman Bikeway. Many formal and informal community activities are held on these grounds throughout the year. Other nearby public and institutional facilities include several active churches, the Central Fire Station, Jason Russell House, Spy Pond recreational fields and Spy Pond Park, Arlington High School, and Arlington Catholic High School and St. Agnes Elementary School, and Arlington Boys' and Girls' Club; as well as Town Hall as a seat of town government and a social venue. .

Arlington Center needs improvements to walkability, connectivity, and access between and within the Arlington Center sub-districts. This includes a more uniform streetscape across the district that ties it together and supports business activity, enhances public amenities and opportunities for civic gatherings, and is friendly and easy to use for different modes of travel (vehicles, bus transit, pedestrians, and bicyclists). There are other needs as well:

1. Enhance and maintain the district's appearance and physical character with physical improvements and renovations to deteriorated sites, buildings, street furniture and rights of way.
2. Attention should be focused on rebuilding Broadway Plaza to make it more inviting, attractive and useful to shoppers, pedestrians, diners and other users.
3. Revise regulations to support desired and appropriate building placement, form, scale, density and mix of uses.
4. Address parking needs in the district including shared parking, on-street parking additions, new facilities, adjusted time limits, better management of existing parking supply, and consistent enforcement. Critically examine options for building structured parking on the Russell Common parking site.
5. Make walkability and street activation enhancements such as sidewalk areas for outdoor dining and entertainment, gateway treatments and wayfinding signage.
6. Encourage storefront façade and sign enhancements where needed, window signs and treatments, blade signs, lighting, and other enhancements.
7. Facilitate building façade restorations where needed.
8. Revise regulations to support mixed use development with first floor retail and upper story residential to support local businesses.

PUBLIC/PRIVATE COOPERATION AND COMMITMENT TO THE VILLAGE CENTERS

Good public/private cooperation is based on an understanding of the interdependence of buildings and the "public realm" in traditional village centers, e.g., streets, sidewalks, parking, and open space. Creating a good pedestrian environment requires attention to civic gathering spaces, sidewalks, and street activation which in turn encourages private investment and a mix of business types.

Public/private cooperation in the revitalization of Arlington's village centers needs to involve a broad range of municipal departments, boards and committees. On the private side, property owners, residents, business owners, potential developers, and local business organizations such as the Friends of Broadway Plaza, Capitol Square Business Association, and the Arlington Heights merchants group need to be committed to the revitalization process and to working with the Town toward common goals.

URBAN DESIGN

Traditional village centers and neighborhoods, whether established and historic, or new and emerging, often have common settlement and design characteristics as identified below:

1. Tight settlement patterns
2. Building functional and architectural compatibility
3. Moderate block size with lengths and widths that are at comfortable pedestrian scale
4. Street wall/street enclosure (the ratio of building height to street width) that provides a comfortable pedestrian environment
5. Strong terminal vistas.

Settlement characteristcs of a traditional village center: Arlington Center (2013).

Arlington is fortunate to have these elements already in place in many areas. These design indicators should be considered baseline criteria for revitalization initiatives in the village centers, and other commercial areas along Arlington's primary corridors including Massachusetts Avenue, Broadway, and Summer Street.

Tight Settlement Patterns. Tight settlement patterns provide good walkability and support diverse retail in traditional village and neighborhood centers where pedestrians have an opportunity to view more storefronts in a shorter distance. Tight settlements can generally be determined by key building placement and dimensions such as:

1. Zero or short building setbacks;
2. High frontage occupation by the primary buildings;
3. Narrow frontages and storefront widths; and
4. High ratios of building coverage to land area and floor area ratios (density indicators).

Arlington Center, East Arlington and Arlington Heights all share these traditional settlement patterns which provide an urban form that supports walkability. Arlington Center in particular illustrates the traditional patterns with the orderly row of commercial, institutional and mixed use buildings lining the sidewalk along Massachusetts Avenue with intermittent public open spaces. Most of the historic settlement patterns in the three village centers remain intact and should be retained. These patterns are typically different from other corridor segments along Mass. Ave. where larger and wider buildings may be pushed back from the street with parking in front of the buildings.

Functional and Architectural Building Compatibility. Building compatibility can be determined by their use, placement, size, scale, height, forms, and general architectural styles. For the most part, buildings in Arlington Center, East Arlington and Arlington Heights were constructed before the automobile was commonplace, and designed to be an excellent pedestrian environment which was often the primary mode of transportation. Residences, businesses and workplaces were meant to be accessible on a pedestrian scale, and the architecture supported both density and mixed use. The majority of buildings in the three village center core areas are one to three stories. This is somewhat shorter than commercial districts in Cambridge and Somerville, likely because of the more linear development pattern created by the streetcar and being in the rural fringe at a time of significant growth. Many buildings are partitioned into shop fronts of 20 to 40 feet facing Massachusetts Avenue. These buildings are typically placed along front lot line at the sidewalk edge. Most buildings have high ground floor plates allowing for taller shop front facades and windows. Tall windows and transoms allowed natural light to reach the back of the store, providing energy efficiency.

Block Size. Moderate block size is an important factor in creating walkable streets and a comfortable pedestrian environment. In a traditional village center, an ideal

block width is about 250 feet and a maximum of 600 feet. (Traditional neighborhoods can have longer blocks). If blocks are too long (greater distances between intersections), vehicle travel speeds tend to increase which can diminish the pedestrian environment. Shorter blocks break up the building spaces and provide depths to the business district, which may improve access to parking and interest to the pedestrian. The additional street frontage can also create new business development opportunities. Arlington Center, East Arlington and Arlington Heights all have short blocks, typically 250 to 350 feet between intersecting streets. However, because the Town witnessed significant growth along Mass. Ave with the addition of the streetcar, the commercial development is more linear in form than most communities and the depth of the three village centers is limited to one block by the well-established residential neighborhoods that abut the districts.

Street Enclosure. This urban design feature is the ratio of building height to the width between buildings across a street, and typically includes the street, sidewalk, and front yards of buildings. Street enclosure contributes to a comfortable pedestrian environment. In a traditional village center, good street enclosure ratios would generally be around 1:2. If the ratio is too low, the buildings across the street feel distant and disconnected. If the ratio is too high the buildings may appear too large creating a canyon effect along the street and shadowing during long stretches of the day. As street enclosure is an important walkability indicator, it was measured in several locations along Massachusetts Avenue in Arlington Center, East Arlington and Arlington Heights as illustrated in the figures below. Where street enclosure is less than desirable, in cases of excess parking frontage or under-developed properties, there may be opportunities for infill development to build up the street wall. If this is not possible, than various streetscape enhancements can help improve the pedestrian environment. These principles apply to established as well as emerging centers as well as targeted redevelopment sites where improved walkability is a design objective.

Transitions. Transitions or "Like Facing Like" refers to the way different building types are situated on a street. Ideally, the same building types should be across the street from each other. In many places including Arlington with conventional zoning regulations, blocks are built so that the same or similar building types are built along the same side of the street with different building types located across the street. For example, Arlington Center has Village Business District (B3) on the north side of Massachusetts Avenue facing a Central Business District (B5) on the south side of street, east of Mystic Avenue; and a Central Business District (B5) and Village Business District (B3) on the north side of Massachusetts Avenue are facing a Single Family Residential District (R1) on the south side, west of Pleasant Street. This checkerboard zoning pattern is even more prevalent on other segments of Massachusetts Avenue., as well as Broadway and Summer Street. This approach can be unpredictable, generate incompatible uses, impact access and walkability, and potentially result in lower property values. As an alternative, similar building types should be facing each other because this arrangement protects the character of the streetscape by ensuring that buildings with similar densities are facing one another. The official zoning district map should be examined to identify where potential conflicts exist now and may occur in the future. Opportunities to create more compatible "transitions" should be considered and zoning districts amended accordingly.

Vertical and Horizontal Mixed Uses. Mixed use (commercial and residential) in the three village centers is generally limited. Possible reasons for this may be the size of the buildings and current zoning restrictions. Most buildings in the core areas are one or two stories in height, and this limits opportunities for upper-floor residential. Additionally, the current zoning regulations do not favor vertical mixed use. On the other hand, there is a fair amount of horizontal mixed use activity in and around the village centers. Larger multifamily structures (apartments and condominiums) are typically at the edge of the core commercial areas. While vertical mixed use with residential over commercial can be highly beneficial to a village center (residential use provides built-in customers and security for the businesses), horizontal mixed use can be detrimental if improperly located. For example, if creating clusters of desirable and complementary businesses is a goal for Arlington Center, East Arlington, and Arlington Heights, placing a large residential building on the same frontage with commercial uses can create a void and disrupt vibrancy of the district. Requiring retail uses on the first floor of buildings in the three village centers, and emerging commercial centers will help strengthen the business districts' walkability and other design objectives.

Recommendations

1. **Recodify and update the Zoning Bylaw (ZBL).**

   The text of the ZBL is not always clear, and some of the language is out of date and inconsistent. As a first step in any zoning revisions following a new master plan, communities should focus on instituting a good regulatory foundation: structure, format, ease of navigation, updated language and definitions, and statutory and case law consistency.

2. **Adopt design guidelines** for new and redeveloped commercial and industrial sites.

3. **Reorganize and consolidate the business zoning districts** on Massachusetts Avenue.

   Zoning along the length of Massachusetts Avenue includes six business zones (B1, B2, B2A, B3, B4, B5) interspersed with six residential zoning districts. Encouraging continuity of development and the cohesion of the streetscape, is difficult. It is difficult to connect the zoning on a given site with the district's stated purposes in the ZBL. As part of updating and recodifying the ZBL, the Town should consider options for consolidating some of the business districts to better reflect its goals for flexible business zones that allow property owners to adapt their commercial properties to rapidly changing market trends and conditions..5. Promote development of higher value mixed use buildings by providing redevelopment incentives in all or selected portions of the business districts on Massachusetts Avenue, Broadway, and Medford Street, Arlington needs to unlock the development potential of business-zoned land, especially around the center of town. Slightly increasing the maximum building height in and near existing business districts, and reducing off-street parking requirements would go a long way toward incentivizing redevelopment, as would a clear set of design guidelines. Applicants should be able to anticipate what the Town wants to see in the business districts and plan their projects accordingly.

4. **Support vibrant commercial areas by encouraging new mixed use redevelopment** that includes residential and commercial uses in and near commercial centers, served by transit and infrastructure. Clarify that mixed-use development is permitted and reconcile inconsistent requirements.

   The B3 Village Business district and B5 Central Business district are described as encouraging mixed use development, but other business and residential districts along Massachusetts Avenue do not. The ZBL is vague regarding uses that are allowed in mixed-use projects, and dimensional requirements can conflict. As part of the recodification and update process, the Table of Use Regulations should be clarified, and the ZBL should have specific standards for design and construction of mixed use redevelopment projects.

5. Boost industrial and commercial revitalization by allowing multiple uses within structures, parcels, and districts without losing commercial and industrial uses. This will help enhance the suitability of Arlington's commercial property for businesses in emerging growth sectors and make them more agile in the face of shifting business trends and market conditions.

6. **Establish parking ratios that reflect actual need for parking.** Consideration should be given to use, location and access to transit.

7. **Amend on-site open space requirements** for certain uses in business districts to promote high value redevelopment and alternative green areas such as roof gardens.

8. **Reduce the number of uses that require a special permit.** Excessive special permit zoning can create land use conflicts and hinder successful planning initiatives. Special permits are a discretionary approval process; the board with authority to grant or deny has considerable power. Developers yearn for predictability. If the Town wants to encourage certain outcomes that are consistent with this Master Plan, some special permits should be replaced with by-right zoning, subject to performance standards and conditions, wherever possible. Performance standards might include design guidelines and other requirements that reflect community goals.

9. **Establish areas that are a priority for preservation, and areas that are a priority for redevelopment.** The Mugar land, between Alewife Station and Thorndike Field, is a high priority for preservation.

4 traffic & circulation

Introduction

A local transportation system should provide access to employment, shopping, recreation, and community facilities in a safe, efficient manner. When a transportation system operates well, it supports the community's quality of life, economy, and public and environmental health. Arlington's road network or capacity has barely changed in decades, yet a considerable amount of new traffic from Arlington and neighboring towns has placed strain on it, particularly on the main arterial routes, and in Arlington Center. Automobile traffic combined with bus routes, growing bicycle usage, and pedestrians create many issues that affect each of these transportation modes, and have effects of economic development, health and quality of life for residents.

In Arlington, the Board of Selectmen is responsible for all public ways under the Town's jurisdiction. Arlington has a Transportation Advisory Committee (TAC), which assists the Board of Selectmen in studying and making recommendations on transportation-related issues. The TAC includes representatives from the Police Department Traffic Unit, the Planning Department, the Town Engineer, and resident volunteers.

Existing Conditions

General Circulation, Network and Connectivity Characteristics

Arlington has a relatively complete network of streets, sidewalks, pathways, and trails. Most of the older neighborhoods in town were laid out on dense street grids, with narrow streets, sidewalks and shady trees, creating a very walkable environment. Some of the newer neighborhoods in the hillier northern sections of Arlington have a more suburban street pattern with wider rights-of way, curving roadways, cul-de-sacs, and fewer sidewalk and streetscape amenities. This form of street pattern is generally less walkable. These neighborhoods are also further from Massachusetts Avenue, making them less accessible on foot to public transportation and services.

Massachusetts Avenue is a former streetcar corridor that, until 1955, had dedicated track lanes with service between Arlington Heights and Harvard Square. This supported a mainly non-automobile environment along Massachusetts Avenue, with most development and business activity in Arlington based on proximity to Massachusetts Avenue. Once the streetcar infrastructure was removed and replaced with bus transit, traffic increased as the automobile became more popular. The corridor still functions as the spine of Arlington's road and transit system.

Arlington's village centers (Arlington Heights, Arlington Center, and East Arlington) and most residential neighborhoods are interconnected, with relatively few dead-end streets and cul-de-sacs. This "healthy" street network with short blocks and dense development gives Arlington the look and feel of a walkable community. Pedestrians and cars have direct paths to their destinations. The physical characteristics, geometric conditions, adjacent land uses, and current operating conditions of Arlington's principal roadways and in-

master plan goals for traffic & circulation

- Enhance mobility and increase safety by maximizing transit, bicycle, and pedestrian access and other alternative modes of transportation.
- Manage congestion safely and efficiently by improving traffic operations.
- Manage the supply of parking in commercial areas in order to support Arlington businesses.

4.1. Classification of Roads in Arlington		
Class	Road Miles	Lane Miles
Arterial	20.76	52.85
Collector	10.05	20.09
Local	89.99	177.18
Total Miles	120.80*	250.12*

Source: MassDOT Road Inventory Year End Report, 2012. * Does not include roads owned by State.

tersections are described below. Table 4.1 identifies the total road mileage by functional classification. Map 4.1 illustrates the basic components of Arlington's road system.[1]

KEY ARTERIALS

Five state and federal numbered routes and three key minor arterials serve Arlington. They include:

1. **Route 2.** The Massachusetts Department of Transportation (MassDOT) classifies Route 2 as a principal arterial, a major east-west route that runs between downtown Boston and the New York state line at Williamstown. It is a primary commuting corridor to Boston from the northwest suburbs and Central Massachusetts. Within Arlington town limits, it is a limited access highway with three to four travel lanes in each direction. Exits in Arlington include 56, 57, 58, 59, and 60.
2. **Route 2A.** Route 2A (Massachusetts Avenue/Mystic Street/Summer Street) runs east-west between Commonwealth Avenue in Boston and Interstate 91 in Greenfield, alongside or near Route 2. It generally provides more local access with lower traffic speeds than Route 2. In Arlington, Route 2A runs contiguous with Route 3 from the Alewife Brook Parkway/ Cambridge line, where it is classified as a principal arterial, and Summer Street, where it functions as a minor arterial.
3. **Route 3.** Route 3 is a State highway classified by MassDOT as a principal arterial. Route 3 runs north-south between the New Hampshire state line at Tyngsborough, MA and the Sagamore Bridge at the Cape Cod Canal. In Arlington, Route 3 starts on Mystic Street at the Winchester line in the north and joins Route 2A at Summer Street for the rest of the route to the Cambridge line. Route 3 consists of one wide lane in each direction (often used as two) along Massachusetts Avenue and one lane in each direction along Mystic Street. It is a major commuting route into the Boston area from Winchester, Woburn, Burlington, and beyond.
4. **Route 16.** Route 16 is classified by MassDOT as a principal arterial south of Route 2A and as an urban major arterial north of Route 2A. It generally runs east-west between Bell Circle in Revere to the east and the intersection of Route 12/Route 193 in Webster, MA. Through Cambridge, however, Route 16 runs north-south along the Arlington town line, connecting Interstate 93 and Route 2. It generally consists of two travel lanes in each direction. While Route 16 does not run through Arlington, it has a significant impact on the traffic flow in the town.
5. **Route 60.** The Route 60 corridor is an urban major arterial that runs east-west between Route 1A in Revere to the east and Route 20 in Waltham to the west. In Arlington, Route 60 originates on Medford Street at the Medford city line to the north, continues onto Chestnut Street and Mystic Street, and along Pleasant Street to the Belmont line. It also connects with Interstate 93 and Route 2, and generally consists of one travel lane in each direction. Heavy vehicle traffic on Route 60 has increased significantly since hazardous cargo was prohibited on Boston's central artery.
6. **Lake Street.** Lake Street is classified by MassDOT as an urban minor arterial. It runs east-west between Massachusetts Avenue (Route 2A/ 3) and Route 2. Composed of one travel lane in each direction, Lake Street experiences significant congestion during commuter and school peak periods.
7. **Mill Street.** Mill Street is a short street that runs north-south between Massachusetts Avenue and Summer Street (Route 2A). Mill Street is classified by MassDOT as an urban minor arterial. Mill Street crosses the Minuteman Bikeway approximately 150 feet south of Summer Street and provides access to Arlington High School.
8. **Park Avenue.** Park Avenue, including Park Avenue Extension, is classified by MassDOT as an urban minor arterial, running north-south between Summer Street (Route 2A) to the north and the intersection of Marsh Street/Prospect Street in Belmont to the south. Park Avenue generally consists of one travel lane in each direction, and it crosses over the

[1] Definitions and descriptions of roadway classifications including arterials, collectors, and local roads are included in the Appendix.

Minuteman Bikeway 250 feet south of its intersection with Lowell Street/Westminster Avenue/Bow Street.

COLLECTOR ROADS

Collector roads provide more access to abutting land than arterials, and typically serve as a connection between arterials and networks of local roadways. Collector roadways in Arlington include, but are not limited to Gray Street, Hutchinson Road, Jason Street, and Washington Street.

CONGESTION POINTS

The primary east-west routes through and next to Arlington are Route 2, Massachusetts Avenue, Broadway, Mystic Valley Parkway, Summer Street, and Gray Street. The primary north-south routes include Route 16, Lake Street, Route 60, Mystic Street, Jason Street, Mill Street, Highland Avenue, Park Avenue, and Appleton Street. Route 2A/Route 3 and Route 60, plus the Minuteman Bikeway, intersect in Arlington Center, creating a congested intersection with high volumes of vehicular, bicycle, and pedestrian traffic. The intersection of Massachusetts Avenue/Route 16, just over the Cambridge line, is a major intersection that often creates significant congestion for vehicles entering or exiting Arlington via Massachusetts Avenue.

LOCAL ROADS

Most roads in Arlington are classified as local roads and provide access to abutting land, with less emphasis on mobility. Nearly 90 miles (75 percent) of the roads in Arlington are functionally classified as local roads. Roads owned by MassDOT or DCR are not included in the total mileage of accepted or unaccepted town roads.

- **Accepted Town Roads.** In total, Arlington has about 102 miles of town-accepted roads, which means the Town has accepted a layout of the street and owns the road in fee. By accepting the street, the Town takes responsibility for maintaining it.

- **Unaccepted Roads.** Arlington has an additional 22.77 miles of unaccepted streets, also known as private ways. An unaccepted street is owned by those who use the way to access their properties. Private ways can be private by choice of the owners, but sometimes they remain unaccepted because they do not meet local standards for roadway construction. As a matter of policy, Arlington plows private roads during the winter, but the owners remain responsible for road maintenance. Many of them are in deteriorated condition.

SIGNALIZED INTERSECTIONS

Arlington has a total of thirty-four traffic signals (Map 4.2). When properly designed and supplemented with other necessary traffic control devices, e.g., signs and pavement markings, traffic signals improve safety and facilitate traffic flow by assigning right-of-way at intersections. Most traffic signals in Arlington fall within the Town's jurisdiction, but MassDOT and the Department of Conservation and Recreation (DCR) have jurisdiction over some intersections. Typically, the Town of Arlington has jurisdiction if it controls one or more of the roadways at an intersection, e.g., a state highway or another major arterial. A signal may be under DCR jurisdiction if located within or near DCR land. One additional signal will be installed as part of the Massachusetts Avenue Reconstruction Project, and one additional signal will be installed as part of the Arlington Safe Travel Project. Table 4.2 contains a list of intersections and their jurisdictions.

SCENIC BYWAYS

The Battle Road Scenic Byway is a federally designated Scenic Byway that runs from Alewife Brook Parkway (Route 16) in East Arlington, along Massachusetts Avenue through Arlington, Lexington, Lincoln, and Concord. The Byway follows the approximate route of British regulars in April 1775 that preceded the Battle of Lexington and Concord and sparked the beginning of the American Revolution.

Traffic Volumes and Trends

Traffic Data. MassDOT maintains permanent count stations on some Arlington roadways. The MassDOT Count Book provides volume count data up to the year 2009, though data availability varies by count location. Arlington traffic volumes recorded from 2006 to 2009 (the most recent years available) are shown in the Appendix,along with counts taken in the surrounding towns.[2] The traffic counts indicate that volumes on certain primary roadways in and around Arlington have decreased in the last few years. Outside the permanent count stations, MassDOT has also collected traffic counts on a variety of roadways to monitor traffic volumes where reconstruction or intersection improvements may be planned in the future.

[2] Vision 2020 also contains local traffic volume counts; Traffic counts were not collected in Arlington from 2003 to 2005.

Table 4.2. Inventory of Signalized Intersections by Jurisdiction			
Intersection	Jurisdiction	Intersection	Jurisdiction
Lake Street/Route 2 WB Ramps	MassDOT	Pleasant/Irving	Town
Park Ave./Frontage Road D (North Side)	MassDOT	Summer/Mill Street/Cutter Hill Rd.	Town
Pleasant/Frontage Road D (North Side)	MassDOT	Broadway/Bates/Warren/River	Town
Route 2A (Summer)/Overlook/Ryder	Town	Broadway/Franklin	Town
Route 2A (Summer)/Park Ave. Extension	Town	Park Ave./Florence Ave.	Town
Route 2A (Summer)/Forest	Town	Mystic/Columbia/Kimball	Town
Mass. Ave./Brattle Street	Town	Broadway/Oxford Street/N. Union	Town
Mystic/Summer/Mystic Valley Pkwy	Town	Mass. Ave./Shoulder Ct/Lockeland Ave.	Town
Mass. Ave./Lake Street/Winter	Town	Mass. Ave./High School Drive	Town
Mass. Ave./Pleasant/Mystic	Town	Mystic/Chestnut	Town
Mass. Ave./Broadway	Town	Medford Street/Warren	Town
Mass. Ave./Swan Place (Proposed)	Town	Appleton St./Appleton Place/Mass. Ave.	Town
Route 2A (Summer)/Brattle/Hemlock	Town	Lake/Brooks Ave.	Town
Mass. Ave./Park Ave.	Town	Mass. Ave./Jason/Mill	Town
Mass. Ave./Linwood/Foster	Town	Mass. Ave./Franklin	Town
Gray Street/Highland Ave.	Town	Lake Street/Route 2 E Exit 60	MassDOT
Broadway/Cleveland	Town	Mystic Valley Pkwy/River/Harvard Ave.	DCR
Mass. Ave./Thorndike/Teel	Town	Mass Ave./Route 16*	MassDOT
Source: Boston Regional Municipal Planning Organization (CTPS).			

During peak commuter periods, many of Arlington's roads and intersections experience significant congestion. Morning peak-period congestion occurs on Massachusetts Avenue approaching Route 16/Alewife Brook Parkway due to heavy delays at the intersection. This congestion reverberates back into East Arlington. According to town officials, traffic often backs up to and on Lake Street, which is also affected by Hardy School traffic during the morning peak hour and the bikeway crossing on Lake Street. The intersection of Massachusetts Avenue/Mystic Street/Pleasant Street, at the heart of Arlington Center, also experiences peak-period congestion, which continues along Mystic Street to Chestnut Street and along Pleasant Street to Route 2. Other intersections that experience peak-period congestion include Park Avenue at Massachusetts Avenue and at Downing Square/Lowell Street in Arlington Heights, and Broadway at River Street and Warren Street.

According to the TAC, congestion often occurs on Mill Street and Lake Street near their intersections with the Minuteman Bikeway. The intersection of Mill Street and the Minuteman Bikeway is located between two busy signalized intersections one at Summer Street (Route 2A) and one at Massachusetts Avenue. Pedestrian and bicycle traffic crossing Mill Street can reduce the efficiency of the two signals and cause congestion on Mill Street. At the Minuteman Bikeway crossing of Mill Street, a flashing beacon was recently installed to alert drivers of oncoming bicyclists and pedestrians, and facilitate traffic flow when there are no Bikeway users crossing. The intersection of Lake Street and the Minuteman Bikeway is located approximately 200 feet west of the signalized intersection of Lake Street/Brooks Avenue. Similar to the Minuteman Bikeway's crossing at Mill Street, users of the Minuteman Bikeway crossing Lake Street can create inefficiency at the signal at Lake Street/Brooks Avenue, resulting in additional congestion on Lake Street.

TAC members anticipate that new development in Cambridge and Belmont oriented towards Alewife Station may cause additional congestion along Route 2, Route 16, Lake Street, and Massachusetts Avenue in East Arlington.

Bicycle and Pedestrian Facilities

Sidewalks. Arlington has an extensive sidewalk network that provides safe and convenient travel for pedestrians. All of the town's major corridors have complete sidewalks as do all but a few neighborhoods. According to a 2003 study, areas with limited sidewalks are primarily in the northwest part of town (Turkey Hill neighborhood), areas around Ridge Street and

the Stratton School, and in the southwest areas of Little Scotland and Poets Corner. In addition to these neighborhoods, private ways generally lack sidewalks, according to town officials. In the older neighborhoods, a planting strip with mature trees usually separates the sidewalks from the travel lane, thus giving shade and safety to pedestrians.

Along Massachusetts Avenue and Broadway, there are several wide sidewalk segments that support outdoor dining and provide pedestrian amenities. However, both corridors also have extensive curb cuts in some locations. This significantly reduces the pedestrian environment and presents a safety concern.

The Arlington Transportation Assessment Study (The Louis Berger Group, 2002) reported the condition of sidewalks in most areas of town as generally good or fair. At the time, only a few streets were found to have poor sidewalks. However, sidewalk conditions in some areas appear to have deteriorated since the study was completed. The Arlington Department of Public Works (DPW) prioritizes and constructs or repairs sidewalks and accessible ramps each year. An inventory of the Town's sidewalks and curbs is underway and expected to be complete in early 2015.

PATHWAYS

The Minuteman Bikeway is an 11-mile shared-use path that provides a dedicated facility for pedestrians and bicyclists to travel through Bedford, Lexington, Arlington, and into Cambridge. The Arlington section of the bikeway is three miles in length, and connects many important town parks, recreational areas, and cultural/historic sites, including: the Arlington Reservoir, Old Schwamb Mill, the Summer Street Sports Complex/Ice Rink, Wellington Park, Buzzell Field, Dallin Museum/Whittemore Park, Spy Pond, and the Thorndike/Magnolia Fields. The path runs roughly parallel to Massachusetts Avenue and provides connections to the town's major business districts in Arlington Heights, Arlington Center, and East Arlington.

The Minuteman Bikeway provides a convenient intermodal connection to the MBTA Red Line at Alewife Station, and serves as a primary commuter cycling route. It connects with numerous paths and trails, including the Alewife Linear Park/Somerville Community Path, the Fitchburg Cut-off Path, the Alewife Greenway, the Narrow-Gauge Rail-Trail, and the Reformatory Branch Rail-Trail.

The Minuteman Bikeway does not have lighting, which may deter users in the winter months when the sun sets before the end of the workday. Physically, the path is in need of some repair. The Bikeway is plowed by the Town.

BIKE FACILITIES

According to bicycle network maps from the Arlington Bicycle Advisory Committee,[3] Arlington has bicycle lanes or wide shoulders on portions of Massachusetts Avenue, Mystic Valley Parkway, and Park Avenue. The Town evaluates all major roadways for bike lane appropriateness whenever they are resurfaced. Shared lane markings, or "sharrows", are provided on some roadways, including portions of Massachusetts Avenue.

According to the 2012 Vision 2020 survey, more respondents supported additional bike lanes and bike routes (46.5 percent) than opposed them (29.1 percent). Except for the Minuteman Bikeway, the Town's network of dedicated bicycle facilities (bicycle lanes and paths) is limited and incongruous. An extension of the network as well as safe, continuous connections between neighborhoods and key bicycle thoroughfares may help to increase the number of Arlington residents that commute by bicycle.

Parking Facilities

ARLINGTON CENTER

In May 2013, Arlington's Transportation Advisory Committee (TAC) conducted a parking study in Arlington Center to determine where and when parking demand is highest. The study identified a total of 565 on- and off-street public parking spaces (Table 4.3). This includes on-street spaces on Massachusetts Avenue between Academy Street/Central Street and Franklin Street; Broadway between Franklin Street and Alton Street; Alton Street south of Belton Street; Medford Street south of Compton Street (St. Agnes Church); Pleasant Street between Massachusetts Avenue and Maple Street/Lombard Road; and Swan Street. The off-street public parking inventory includes Broadway Plaza, the Library Parking Lot, Russell Common Municipal Lot, and the Railroad Avenue Lot. In addition

[3] N.B. The Arlington Bicycle Advisory Committee (ABAC) was appointed by the Board of Selectmen in 1996 to advise the Town on local bicycling conditions. The committee promotes all forms of safe bicycling on town roadways and the Minuteman Bikeway, from recreational riding to using the bicycle for transportation and errands.

Table 4.3. Arlington Center Parking Inventory			
Type of Space	On Street	Public Lots	Total
15 Minute	5	0	5
One Hour	103	0	103
Two Hour	63	0	63
Three Hour	0	208	208
Permit	0	123	123
Unrestricted	38	0	38
Handicap	4	15	19
Taxi	4	0	4
Zipcar*	0	2	2
Total	217	348	565
Source: Arlington Transportation Advisory Committee Study. May 20, 2013			

to the available public parking spaces, there is also a significant amount of private parking in and around Arlington Center. These parking spaces are used by employees and visitors to the approximately 365,000 square feet of businesses in Arlington Center.

The study concluded that weekday parking demand peaks at 1:00 PM, when most on-street spaces are occupied but spaces are generally available in the public three-hour parking lots; and at 6:00 PM, when on-street parking and the public lots approach capacity. On Saturdays, demand for on-street parking exceeds capacity and the public lots approach capacity at the midday peak of 11:00 AM At the evening peak period, 7:00 PM, the on-street spaces are near capacity while the public lots have some parking availability. The study identifies strategies to maximize the efficiency of available public parking, such as improving wayfinding signage and internal signage and converting all on-street spaces to two-hour spaces.

EAST ARLINGTON

According to a recent parking inventory,[4] the East Arlington commercial center has approximately 945 parking spaces, including approximately 250 privately owned off-street parking spaces at the Crosby School, Cambridge Savings Bank (180 Massachusetts Avenue), Summit House, Trinity Baptist Church, and others. These privately-owned spaces are not available for use by the general public. In addition to private spaces, there are roughly 600 on-street parking spaces on side streets located within walking distance of the commercial center. Ninety-six on-street parking spaces along Massachusetts Avenue are designated for customers, but many are occupied by employees, leaving fewer convenient spaces for customers. These 96 spaces are the only spaces in the district that are intended for customer use. The 945 total spaces are used by approximately 103,000 square feet of residential and commercial uses in East Arlington. In 2010, the TAC worked with business owners and employees in East Arlington to prepare a "Where to Park" guide to help preserve the best on-street parking spaces for business customers.

ARLINGTON HEIGHTS

Parking supply for Arlington Heights was estimated using aerial imagery. Approximately 200 parking spaces were identified along Massachusetts Avenue between Drake Road and Appleton Street, and an additional 33 parking spaces on Park Avenue between Paul Revere Road and the Arlington Coal and Lumber driveway. On-street spaces are typically 2-hour parking, with some spaces designated as handicap parking or taxi stands. There are approximately 525 off-street parking spaces, primarily located behind or adjacent to private properties along Massachusetts Avenue and Park Avenue. The combination of the on-street and off-street parking spaces equal a total of approximately 758 parking spaces.

Arlington Heights includes approximately 422,000 square feet of development. The individual parking demand of the individual homes, businesses, and other land uses is 969 spaces; however, Arlington Heights is a mixed-use area with a large variety of land uses. The mixed-use nature of the neighborhood allows for visitors to the area to make multiple trips and for nearby residents to walk to nearby businesses without driving. The variety of businesses in Arlington Heights means that the peak demand for each business is not likely to occur at the same time; for example, a restaurant would not have the same peak demand time as a medical office, and parking spaces can be "shared" between these two land uses.

PARKING RULES AND REGULATIONS

Arlington typically restricts parking on major roadways to two hours, but in some areas it is restricted to one hour or less. On residential streets, daytime parking is typically unrestricted. Overnight parking is not permitted except by special permit.

[4] Walker Parking Arlington Commercial Development Plan Strategies Assessment Phase II - East Arlington Supplement, October 29, 2009, Larry Koff & Associates, Todreas Hanley Associates, Walker Parking Consultants.

Arlington's zoning imposes flexible off-street parking and loading requirements for residential and business districts, with alternatives to providing all spaces on the site. The off-street parking regulations in Section 8.01 are adequate for typical commercial uses in the business districts, e.g., one space per 300 gross sq. ft. of retail floor area, one space per four seats in a restaurant, and one space per 500 gross sq. ft. of office floor area. The regulations provide for shared parking between adjacent uses and modified off-street parking requirements if enough satellite parking can be secured within 600 feet or if adequate public parking is available within 1,000 feet. In addition, the regulations include basic design standards such as restricting parking and driveways in front of buildings, landscaping and paving standards, and bicycle parking in developments subject to Environmental Design Review.

CAR SHARING

Zipcar is a car rental company that specializes in ultra-short-term rentals. Zipcar charges an annual fee, plus a demand-driven hourly charge. Zipcar has eight locations in Arlington with a capacity for fourteen Zipcars. The Zipcar stations are mostly located along Massachusetts Avenue and more concentrated in East Arlington, close to the Cambridge line. While Zipcar will not replace a personal vehicle in most households, it does allow residents without a personal vehicle to make periodic regional trips.

Traffic Safety

Vehicle, Pedestrian, and Bicycle Accidents

According to MassDOT, a total of 1,664 crashes occurred in Arlington between 2008 and 2010, or an average of 13.8 crashes per mile. For comparison, the bordering municipalities of Cambridge, Lexington, and Somerville average 17.1, 4.2, and 9.7 crashes per mile, respectively. These figures are per roadway mile, not vehicle miles traveled, so it is reasonable to expect a higher ratio in communities that experience heavier traffic volumes than Arlington, such as Cambridge, or lower traffic volumes than Arlington, such as Lexington. Of the 1,664 crashes reported by MassDOT, 37 (2.2 percent) involved pedestrians, and 57 crashes (3.7 percent) involved cyclists. A significant portion of crashes involving pedestrians occurred around Arlington Center. Most crashes involving bicycles occurred along Massachusetts Avenue. Of the total crashes, 294 (17.7 percent) resulted in personal injury.

High Crash Hot Spots

The intersection of Massachusetts Avenue/ Mystic Street/Pleasant Street in Arlington Center ranks 95th in the state's most recent statewide 200 Top Crash Locations Report (September 2012). Locally identified "hot spots" include Arlington Center, Route 60/ Mystic Valley Parkway, Pleasant Street/ Gray Street, Mystic Street/Summer Street,, Massachusetts Avenue at Forest Street, Park Street, Paul Revere Road, and the entire length of Massachusetts Avenue in East Arlington.

MassDOT lists the intersection of Massachusetts Avenue/Mystic Street/Pleasant Street in Arlington Center in its most recent statewide 200 Top Crash Locations Report (September 2012). The intersection was ranked 95, with sixty-eight crashes from 2008-2010. The Arlington Safe Travel Project (MassDOT Project #606885) aims to reduce the number of crashes of all types within Arlington Center.

The Arlington Police Department identifies high crash location "hot spots" each year to help show where the most crashes occur within the town. These locations are mapped in Map 4.3, and in 2013 included Arlington Center; Route 60/Mystic Valley Parkway; Pleasant Street/Gray Street; Mystic Street/Summer Street; Massachusetts Avenue at Forest Street, Park Street, Paul Revere Road, and the entire length of Massachusetts Avenue in East Arlington. Moreover, after a high number of fatal pedestrian crashes in the 1990s, greater emphasis was placed on pedestrian safety, including more visible marked crosswalks and more enforcement.

Safe Routes to School

Arlington was one of the first two towns in the country to start a Safe Routes to School program. The state chose Dallin Elementary School as a pilot site. In October 2011, the Town of Arlington and MassDOT completed access and safety improvements for pedestrian and bicycle access to Dallin Elementary School using Safe Routes to School funds. The project introduced infrastructure enhancements to slow traffic and upgrade crosswalks and sidewalks. It also added new cross-

walks across roadways where no crossings previously existed.

In 2014, all of the elementary schools and the middle school participate in the program. Each school has assessed walking routes and made some safety improvements to promote walking to school. A Safe Routes to Schools Task Force was formed, including representatives from each participating school, the Arlington Police Department, Arlington Public Schools Health and Wellness Department, and the Arlington Transportation Advisory Committee. The Safe Routes to School task force organizes Walk/Bike to School Days, pedestrian safety training, and other walking and biking events at all of the participating schools. Together, the neighborhood locations of Arlington's elementary schools and the Safe Routes to School program have removed the need for school buses at all elementary schools except for Bishop School. Students who cannot walk or ride a bicycle to school may be able to take MBTA buses. Many children are dropped off by car, however, causing congestion around schools in the morning and mid-afternoon.

Winter Snow/Ice Removal

The Arlington DPW plows all roadways in the town as well as the Minuteman Bikeway. Residents and business owners are responsible for clearing the sidewalks adjacent to their properties, and the MBTA is responsible for clearing snow and ice from bus stops.

General Travel Patterns and Modal Splits

Household Travel Patterns

Modal split describes the percentage of trips that are made by each of the different transportation modes, e.g., driving alone, driving with others (shared rides, carpooling), public transit, walking, or bicycling. Arlington has an average of 2.24 people per household and 1.46 vehicles per household, according to the 2006-2010 American Community Survey This translates to one vehicle per 1.5 people in every household, which is lower than the regional average and consistent with the high level of commuting by public transit and bicycle.[5] A 2014 on-line survey by the Route 128 Business Council and answered by 1300 households found that 93 percent of Arlington residents own a car (4 percent have no car, 41 percent have one car, 48 percent have two cars, and 7 percent have more than two cars).

Thirty-nine percent of Arlington's commuters work in Boston and Cambridge, and 80 percent of these commuters live within one-quarter mile of a bus stop; considered an acceptable walk to a transit stop. Forty percent of Arlington residents who commute to Cambridge or Boston use bus transit, though a greater number, 49 percent, drive alone.[6]

Commuting to Work

The top two destinations for Arlington commuters are Boston and Cambridge. In third place is the internal commute within Arlington. The number of residents working in town grew between 2000 and 2010. Additionally, fewer Arlington residents commuted to Boston in 2010 than in 2000, and more residents commuted to Cambridge, Lexington, and Medford.

Of those who work in Arlington, more live in Arlington than any other community. Arlington residents make up about 37 percent of all employees of local establishments. Between 2000 and 2010, the number of Arlington residents working in Arlington increased 5.5 percent, but the number of employees commuting from Boston, Cambridge, Medford, and Lexington also rose significantly, which suggests that more residents of other municipalities are commuting to work at Arlington businesses.

Commuting Time. On average, Arlington workers spend 22 minutes commuting to work. Workers with commutes to places in Lexington, Waltham, and Medford have shorter-than-average commutes due to proximity, the "reverse commute" factor, and several choices for less congested routes. Workers commuting to Boston or Newton experience higher-than-average commutes due to congestion or, in the case of Newton, the lack of a direct arterial route.

Means of Travel. The percentage of Arlington residents who drove to work alone decreased slightly between 2000 and 2010 (Table 4.5) but still represent about two-thirds of Arlington's employed labor force. The percentage of residents carpooling or using public transportation also decreased. More Arlington residents walked or cycled to work in 2010 than in 2000. In fact,

[5] CTPP Profile of Arlington (Socio-Demographic Data and Transportation Mode Shares)

[6] CTPS Report on Alewife Feeders from Arlington (2009), http://www.ctps.org/Drupal/data/pdf/studies/highway/alewife/Improvements_MBTA_Feeder_Bus_Routes.pdf

the mode share of bicycle commuters more than doubled, from 0.9 percent in 2000 to 2.1 percent in 2010. Lastly, Arlington has witnessed noticeable growth in the number of residents working at home.

Public Transportation. According to the American Community Survey (ACS) 3,887 Arlington residents (16.7 percent of the population) commuted to work using public transit each day. The primary means of public transit in Arlington is MBTA bus service. The Alewife MBTA Station is not in Arlington, but is a short drive, walk, or bike ride for many residents.

Bus Transit. Eleven MBTA bus routes run through Arlington. Most connect to the Red line via Alewife Station (#62, #67, #76, #79, #84, #350 buses) or Harvard Station (#77 and #78 buses). The #80 and #87 buses connect to the Green Line at Lechmere Station; the #87 bus also connects to Davis Square Station. From Lechmere, the Green Line provides connections to Downtown Boston, Longwood area, Brookline, Brighton, and Newton, and Jamaica Plain. The #77 bus provides the most frequent service to the MBTA Red Line, leaving Arlington Heights with peak hour weekday service approximately every eight minutes and weekend service approximately every ten minutes. The #350 bus runs through Arlington between Alewife Station and Burlington, a major employment and retail center.

Typical daily boarding figures for the #62, #67, #76, #77, #79, and #350 bus routes is shown in Table 4.6. It should be noted that Table 4.6 does not encompass all of the bus routes available to Arlington residents, just the ones listed by the Battle Road Scenic Byway Corridor Management Plan.

Town officials noted that bus routes through Arlington are often delayed and have irregular headways due

Table 4.4: Top Commuting Destinations for Arlington Residents

Commute Destination	Avg. Commute	Census 2000	ACS 2006-10	% Change
1. Boston	27 minutes	5,095	4,942	-3.0%
2. Cambridge	21 minutes	4,048	4,262	5.3%
3. Arlington	N/A	3,450	3,640	5.5%
4. Lexington	12 minutes	849	932	9.8%
5. Burlington	19 minutes	753	821	9.0%
6. Waltham	18 minutes	1,177	769	-34.7%
7. Medford	14 minutes	428	643	50.2%
8. Somerville	21 minutes	602	603	0.2%
9. Woburn	16 minutes	370	489	32.2%
10. Newton	29 minutes	544	468	-14.0%

Source: U.S. Census Bureau, Census Transportation Planning Package (CTPP).

Table 4.5: Means of Transportation to Work

Means of Transportation	Census 2000	%	ACS 2006-2010	%
Drove alone	16,035	67.6%	15,437	66.5%
2-person carpool	1,335	5.6%	1,158	5.0%
3+ person carpool	290	1.2%	251	1.1%
Public Transportation	4,205	17.7%	3,887	16.7%
Bicycle	225	0.9%	489	2.1%
Walk	430	1.8%	552	2.4%
Taxi, motorcycle, other	79	0.3%	157	0.7%
Work at Home	1,115	4.7%	1,296	5.6%
Total	23,715	100.0%	23,277	100.0%

Source: U.S. Census Bureau, CTPP.
The percentages represented in Table 4.5 reflect the longest single mode used when commuting to work, and do not reflect the shorter legs of a multi-modal commute. For example, a person who rides a bike to Alewife Station, then commutes to Downtown Crossing, will be counted as a transit trip, and not a bicycle trip.

Table 4.6. Typical Boardings on Bus Routes through Arlington

MBTA Bus Route	Municipalities Served	Typical Daily Inbound Boardings (Weekday)	Typical Daily Outbound Boardings (Weekday)	Typical Daily Total Boardings (Weekday)
#62	Lexington, Arlington	922	722	1,644
#67	Arlington	312	276	588
#76	Lexington, Lincoln	560	431	991
#77	Arlington	3,635	4,004	7,640
#79	Arlington	684	577	1,261
#350	Arlington	665	989	1,653

Source: MBTA Ridership and Service Statistics, 14th Edition (2014), data as of Fall 2012

to congestion on Massachusetts Avenue and around Alewife Station, including the intersection of Massachusetts Avenue/Route 16 in Cambridge, locations not under Arlington's jurisdiction.

Rapid Transit. There are no rapid transit stations in Arlington, but the Alewife Station in Cambridge is only 1000 feet southeast of the Arlington town line and two miles southeast of Arlington Center. Alewife Station is a terminal station on the MBTA Red Line, which connects with Somerville, Cambridge, Quincy, Braintree, downtown Boston, south Boston, and Dorchester.

The Green Line Extension (GLX). The GLX is scheduled to be completed in 2019, and will extend the Green Line to College Avenue / Tufts University in Medford. This new terminus will be within 1 mile of East Arlington. Possible future extensions to Route 16 is under consideration but unfunded. Arlington TAC members stated that the Town supports an extension to Route 16 at Boston Avenue in Medford, which would be within a quarter mile of Arlington's northeast border.

Commuter Rail. Arlington is located within 1-2 miles of four MBTA commuter rail stations in Belmont, Winchester, Cambridge, and West Medford. Trains from these stations connect to North Station in Boston, and offer two-direction service throughout the day.

Intercity Bus Service. Go Buses offer bus service up to eight times a day to New York City from Alewife Station, with one stop in Newton.

Para-transit Services. Several transportation options exist for senior citizens and people with disabilities. The Arlington Council on Aging (COA) offers Dial-a-Ride Taxi (DART) service for Arlington seniors age 62 or older, income-eligible seniors 60-62 years, and residents with disabilities. The service costs $15 per year and $3 per one-way trip. According to Arlington's 2011 Vision 2020 Annual Survey, 2.7 percent of those surveyed used the DART service and 38.1 percent of seniors know about it but have not used it. The COA also operates a Senior Center Van, a Medical Appointment Van, and medical escort services. The Ride is a para-transit service provided by the MBTA that offers door-to-door shared-ride transportation for eligible people that cannot access fixed-route transit because of physical, cognitive, or mental disability. It is available 365 days per year from 5:00 AM to 1:00 AM in 60 cities and towns, including Arlington. Fares are $3 one-way as of January 6, 2014.

Issues and Opportunities

Drawing on feedback at the World Café event in October 2012 and at various community meetings, Arlington residents have identified congestion and pedestrian safety as significant transportation issues. Many participants are concerned that traffic congestion is having a negative impact on business development, pedestrian and bicycle safety, and transit efficiency. Through follow up meetings with Arlington town officials, including members of the TAC, Department of Planning and Community Development, Engineering Division, Police Department, and Department of Public Works, several transportation challenges were identified, and these groups continue to work together to improve traffic conditions.

Traffic Congestion

Traffic congestion can be a significant negative factor to both personal productivity and the economic health of a community. Traffic congestion occurs when the demand placed on a transportation facility exceeds its capacity. This can happen for many reasons, both recurring and nonrecurring. Nonrecurring congestion usually responds to random events such as crashes and inclement weather. Recurring congestion is often the result of a fundamental lack of roadway or intersection capacity.

LOCAL AND REGIONAL CONGESTION CONTRIBUTORS

Several local and regional factors have been identified as contributing to traffic congestion in Arlington.

Local commuting patterns contribute to overall congestion. Arlington generally has lower commute times, higher use of public transit and non-vehicle means of travel, and less daily mileage per household than its neighbors to the west. However, commuters to and from Arlington are still likely to be driving alone to work.

Traffic congestion near most schools during **school peak hours** results from pick-up or drop off activity.

North-south arteries in Arlington often experience traffic congestion as a result of congestion on primary east-west corridors including Massachusetts Avenue, Summer Street, Broadway, and Route 2.

Congestion along **Route 16** causes bottlenecks at key intersections and causes back-ups on Massachusetts Avenue and Broadway.

Existing and anticipated **development in Cambridge, Somerville, and Belmont** will likely contribute to increased traffic congestion in Arlington.

Massachusetts Avenue corridor and intersections:

1. Western Segment – Slow traffic due to volume on this two-lane section of Massachusetts Avenue west of Arlington Center is the main cause of congestion here. Congestion on Park Avenue at the intersection of Massachusetts Avenue is due to the lack of a protected left-turn phase onto Massachusetts Avenue. This has been identified as a safety issue for both drivers and pedestrians.
2. Central Segment – Congestion in Arlington Center is largely attributable to the Pleasant Street/Mystic Street intersection. This is being addressed by the Arlington Center Safe Travel project which will also provide a solution to the unsafe and inconvenient crossing of the Minuteman Bikeway. The goal is to improve traffic operations and pedestrian safety by shortening crosswalk lengths, coordinating signals, and increasing turning lane capacity.
3. Massachusetts Avenue/Jason Street/Mill Street is another congested intersection near Arlington Center. Jason Street is not designed to handle the amount of commuter traffic it is now carrying between Massachusetts Avenue and Route 2. The redesign of this intersection is underway and will include lane reconfiguration and signal improvements to address the high volume and crash rate at the intersection.
4. Massachusetts Avenue/Water Street poses a pedestrian safety issue, due to the high pedestrian use owing to the proximity of the library, Town Hall, businesses, and restaurants. Its proximity to the busy intersection with Route 60 also poses challenges.
5. Eastern Segment – Congestion on Massachusetts Avenue in East Arlington during the morning peak hour is primarily due to inadequate capacity at the intersection with Route 16 in Cambridge. The ongoing Massachusetts Avenue Rebuild Project (MassDOT Project #604687) will reconstruct the corridor between the Cambridge city line and Pond Lane, a distance of approximately one mile. This project will improve pavement conditions and mobility for vehicles, pedestrians, and bicyclists by improving traffic signal timing. It will also enhance safety and streetscape conditions in East Arlington, and improve capacity the Lake Street intersection.

Pleasant Street Corridor. Congestion on the Pleasant Street corridor between Massachusetts Avenue and Route 2 may be attributed to insufficient capacity on Pleasant Street and a heavy demand for travel between the two east-west roadways. Capacity limitations are tied to the directional commuting; southbound (AM) and northbound (PM). The Arlington Center Safe Travel Project may reduce back-ups at the intersection by improving traffic signal timing.

Mill Street Corridor. Mill Street approaching Summer Street is congested particularly during the AM and PM peak hour and because of the nearby Arlington High School, and Minuteman Bikeway crossing just south of Summer Street.

Lake Street Corridor.Lake Street traffic congestion between Massachusetts Avenue and Route 2 is attributable to several factors, including congestion on Massachusetts Avenue, traffic at the nearby Hardy Elementary School, the Minuteman Bikeway crossing just south of Massachusetts Avenue, and the on/off ramp at Route 2. It is anticipated that congestion will be reduced with the planned improvements to the intersection at Massachusetts Avenue. However, new development in and around Alewife may increase the number of cars using Lake Street, and those trying to avoid congestion on Route 16.

Pedestrian Facilities, Access and Safety

SIDEWALK NETWORK AND CONDITIONS

Arlington is generally well connected by sidewalks on residential streets and in most business districts. Older neighborhoods in Arlington usually have 4-foot sidewalks, which although aging are in relatively good condition. Some neighborhoods, however, are underserved by sidewalks, such as the residential area between Gray Street, Buena Vista Road, Hawthorne Ave., and Highland Avenue. Additionally, many street in the northeast neighborhoods in town have limited or no sidewalks.

The Public Works Department prioritizes construction and repairs for new sidewalks and handicapped ramps each year, including pavement markings and crosswalks. Arlington is also an active participant in

the Safe Routes to School Program (SRTS). However, according to SRTS officials, additional funding from the State is unlikely in the near term because the Dallin school sidewalk improvements were recently completed, and towns typically receive reconstruction funding for one project only.

PEDESTRIANS AT INTERSECTIONS

Broadway/Warren Street and Broadway/Bates Road/ River Street. These intersections have particularly poor sidewalks, signal timing, and irregular intersection angles. There is only one crosswalk at the intersection of Broadway/Warren Street, and the wide angle of the intersection permits high speed turning from Broadway eastbound onto Warren Street. There are no sidewalks along any of the edges of the triangular park located between Broadway, Warren Street, and River Street, and there are no marked crosswalks leading to the park, causing pedestrians to divert their routes around the park, rather than being able to walk through it.

Mystic Valley Parkway/Route 60 (Medford Street). Congestion and lack of safe pedestrian crossings at this intersection is a priority issue for the town. Two major arterial roads merge together with a pedestrian trail at a dual rotary intersection. The rotary itself is under DCR jurisdiction. Two crosswalks were recently added, but additional safety improvements are still needed.

Bicycle Facilities, Access and Safety

Minuteman Bikeway. The bikeway is divided by Massachusetts Avenue and Mystic Street in Arlington Center. The Arlington Center Safe Travel Project is currently addressing this issue.

There are segments in poor or failing condition; some segments have worn pavement and edge erosion. In addition, the lack of lighting along the bikeway is an impediment to its use at night and in winter months.

Crossings of the bikeway at Mill Street and Lake Street create safety concerns and are attributable to traffic congestion on those roads.

Though near or directly in business districts, there is a lack of physical and cultural connections between the bikeway and commercial establishments, posing a lost economic development opportunity.

Intersection Enhancements for Bicycles. There are several intersections in Arlington which are difficult to cross on a bicycle. One key issue is that traffic actuated signals are not actuated by bicycles, especially on side streets. Some major intersections are in particular not bicycle friendly, including: Massachusetts Avenue/ Broadway; Massachusetts Avenue/Route 16; Broadway/Route 16; and Foster Street/Linwood/Massachusetts Avenue.

Corridor Enhancements for Bicycles. Arlington is a key link in the Minuteman Bikeway. Many residents of Arlington use the path, as well as major roadways, to bicycle to and from work. Bike connectivity from the Bikeway and arterials such as Massachusetts Avenue to residential neighborhoods is a high priority. Some roadways connecting these bicycle routes residential neighborhoods, such as Lake Street and Pleasant Street, are narrow and difficult for bicyclists to maneuver.

Bicycle lanes will not be provided between Pond Lane and Swan Place after the Massachusetts Avenue rebuild project and the Arlington Safe Travel Project are completed, creating a disconnect between East Arlington and Arlington Center.

Bus Transit Facilities and Access

Several issues and opportunities for bus transit improvement have been identified.:First, MBTA bus service does not serve some neighborhoods.. In addition, some bus routes run limited service during off peak times. There is also a lack of direct bus service to Belmont, and Medford Center. Second, MBTA buses stack together during peak periods due to congestion and heavy boarding/alighting activity. Routes #77 and #87 are both affected by congestion along the bus routes.

Parking Issues

East Arlington. East Arlington does not have a large public lot for customers or employees, who must rely on street parking on Massachusetts Avenue and residential side streets. The Capitol Theatre and East Arlington restaurants create parking demand in evening hours.

Arlington Heights.This area has not been the subject of a parking study, but, according to Town officials, parking issues persist in the area. A parking study may provide a fresh look at existing parking conditions, identification of areas where parking is needed and where parking is abundant, and recommendations for future parking management in Arlington Heights.

Arlington Center. The Town is currently undertaking a study of parking in Arlington Center to look at ways to manage the existing parking supply better, including

optimal separation of long and short term parking for customers, employees, and students.

GENERAL PARKING CONSIDERATIONS

There is a general lack of wayfinding signage for public parking in the commercial districts. This is a potential safety issue with motorist confusion, causing motorists to circle for on-street parking because they are unaware of the location of off-street lots, in turn creating unnecessary pollution.

Town officials note that pedestrian access between parking areas and nearby businesses is often inadequate, indirect, or not ADA-compliant. They also note that motorists park on residential streets near Alewife Station before walking to the station to access the MBTA. This can make it difficult for residents to find a parking space on their own street. Some residents have also expressed the desire to be able to park on the street overnight, which is currently prohibited.

Recommendations

1. **Develop a Complete Streets Policy governing design and implementation of street construction.** Complete Streets are designed and operated to provide safety and access for all users of the roadways, including pedestrians, bicyclists, transit riders, motorists, commercial vehicles, and community safety vehicles, and for people of all ages and abilities.
2. **Create safer pedestrian conditions to increase walking in Arlington,** as a means to reduce traffic congestion and improve public health..The Town has already begun an inventory of the condition of its sidewalks and curbs. The next step is to prioritize areas for new sidewalks and improvements to existing sidewalks, to encourage more walking, and allocate resources for implementation. Other improvements to the pedestrian environment, such as lighting and crosswalks, should also be considered. Sidewalk planning should coordinate with the Safe Routes to School (SRTS) program and with a plan designating criteria for pavement types (concrete, asphalt, or brick).
3. **Improve Minuteman Bikeway.** Improve conditions, access, and safety for bicyclists, on the Minuteman Bikeway and on local streets. Strengthen connections between the Minuteman Bikeway and commercial districts to increase customers without increasing need for on street parking.
4. **Improve Public Transportation Service.** Work with the MBTA to improve service and connections, to increase transit ridership.
   - Reduce bus bunching, and improve the efficiency of bus service, including the provision of queue jump lanes, bus-only lanes, bus signal prioritization, and real time bus schedule information.
   - Continue to advocate for extending the Green Line to Mystic Valley Parkway.
5. **Manage Parking in Commercial Areas.** Improve parking availability, especially in the commercial centers through better parking management. Update parking study for East Arlington business district originally conducted as part of Koff Commercial Revitalization Study to develop strategies to improve parking management in the area. A similar study for Arlington Heights parking management might also be considered. Develop parking requirements in zoning regulations that reflect the actual need for parking.
6. **Reconsider Residential Parking Policies.** Review existing residential parking policies regarding overnight residential street regulations and unregulated daytime residential street parking.
   - Unregulated all day parking in residential areas may encourage commuters to park on residential roadways near transit. Consider policies to reduce all day commuter parking in residential neighborhoods, such as using residential parking permits.
   - Overnight residential street parking ban may encourage excessive paving of residential lots. Conversely, the overnight parking ban could be holding down the total number of cars parked in Arlington. Either way, this policy should be looked at in a comprehensive way. Consider fee-based resident overnight parking for residents, or other solutions.
7. **Address Priivate Ways.** Develop a program to improve the condition of private ways. (see Public Facilities recommendation)
8. **Reduce Congestion.** Improve mobility and reduce congestion where possible by harnessing

new technology and business models. Coordinate Town and State agencies' efforts to reduce traffic congestion, particularly on north/south corridors connecting to Route 2, such as Pleasant Street and Lake Street

5 housing & residential development

Introduction

Arlington is a maturely developed suburb of Boston. It has many distinct neighborhoods that offer a variety of housing, from single-family homes to mid-rise apartment buildings. Rapid population growth in the first half of the twentieth century led to development of housing across former farmland and over hilly terrain. Large lots were subdivided for the construction of single-family and multi-family homes along busy streetcar and railroad lines that extended out from Boston, Cambridge, and Somerville. The original streets were laid out in relatively dense grids off Massachusetts Avenue and Broadway. These have developed into well-established, compact neighborhoods, lush with trees, where many housing styles are interspersed with local business areas, parks, elementary schools, churches, and other amenities.

Though it has very little vacant, developable land, Arlington is poised for growth and inevitable changes to its housing stock. Intense demand for housing in the Boston Metro area has pushed up home prices and rents in once-affordable communities, including Arlington. This has triggered the conversion of non-residential space to housing, and redevelopment of small-scale buildings and underutilized properties into higher-density multi-family units, and small vacant lots into new homes. Housing demand is also setting the stage for demographic and socioeconomic changes within Arlington, for as property values increase, and the incomes of new residents rise as well.

In response to a range of housing needs for people of all ages, Arlington's Master Plan provides a framework for addressing key issues such as affordability, transit-oriented residential development, and aging in place.

master plan goals for housing & residential development

- Encourage mixed-use development that includes affordable housing, primarily in well-established commercial areas.
- Provide a variety of housing options for a range of incomes, ages, family sizes, and needs.
- Preserve the "streetcar suburb" character of Arlington's residential neighborhoods.
- Encourage sustainable construction and renovation of new and existing structures.

Existing Conditions

Physical Characteristics of Arlington's Housing

Arlington is unique among Boston's inner suburbs for its diverse housing stock. Although single-family homes remain the dominant housing type in some of the affluent nearby towns, they represented less than half of Arlington's 20,017 housing units in 2011 (Table 5.1). Two-family and small multi-family dwellings account for almost one-third of the units in Arlington, and mid-size apartment buildings, about one-fifth.

Many neighborhoods in Arlington developed gradually over more than one hundred years, and they have a variety of housing styles. While most housing units are in single-use structures, many historic mixed-use buildings can be found in Arlington, particularly around the business districts in East Arlington and Arlington Center. In general, points west and north of Arlington Center have fewer multi-family dwellings, although there are pockets of two- and three-family homes and even some larger multifamily buildings. Table 5.2 reports housing types in Arlington's census tracts, or areas the U.S. Census Bureau uses to track and report popula-

tion and housing trends. (see Chapter 2).

Arlington's condominium inventory increased significantly in recent years. Data from the Massachusetts Department of Revenue (DOR) show that Arlington gained 959 condominiums units between 2003 and 2014.[1] The Town Assessor reports that most of these units stem from two-family home conversions, an explanation generally consistent with data from the U.S. Census Bureau.

Table 5.1: Number of Units in Structure, 2000 and 2011

Housing Type	2000	2011	Difference (2000-2011)	% Change (2000-2011)
Total housing units	19,011	20,017	1,006	5.0%
1-unit, detached	7,788	8,445	657	7.8%
1-unit, attached (townhouse)	524	1,140	616	54.0%
2 units	5,652	5,156	-496	-9.6%
3 or 4 units	974	1,268	294	23.2%
5 to 9 units	488	625	137	21.9%
10 to 19 units	1,158	973	-185	-19.0%
20 or more units	2,403	2,403	0	0.0%
Mobile home	15	7	-8	-114.3%

Source: U.S. Census Bureau, Census 2000 SF-4 and ACS 2007-2011, DP4

During the same period, Arlington registered a minor increase in small multifamily structures, but single-family homes accounted for most of the Town's new housing growth.

Age of Housing Stock

Arlington's housing is relatively old. Local data show that the average age of housing units in Arlington is 81 years and the median year of construction is 1931. Similar conditions exist in other towns and small cities around Boston and Cambridge, while housing in outer parts of Middlesex County is newer (Table 5.3).

Although the housing in Arlington is fairly old, there are important neighborhood-level differences. For example, in the neighborhoods near Arlington's northern border with Winchester, most housing units were built after World War II, as were most units in the East Arlington neighborhoods of Sunnyside and Kelwyn Manor. New construction in the past decade, whether by teardown/rebuild or infill development, has mostly occurred in Arlington Heights, Arlington Center, and in the neighborhoods bordering Belmont and Lexington. Housing age usually correlates with decisions to rebuild, but neighborhood desirability and preference for housing typology seem to play a larger role in where redevelopment occurs in Arlington.

Housing Size and Density

The American Community Survey (ACS) reports that Arlington's housing units are slightly larger than those in other inner-suburbs and small cities. In Arlington, the median number of rooms per unit is 5.7. By contrast, most communities next to Boston have at least one less room per unit (except Milton), and the outer

[1] Commonwealth of Massachusetts, Department of Revenue (DOR), Division of Local Services (DLS), Municipal Data Bank.

Table 5.2. Number of Units in Structure by Census Tract (2011)

Housing Type	Town	Tract 3561	Tract 3563	Tract 3564	Tract 3565	Tract 3566.01	Tract 3566.02	Tract 3567.01	Tract 3567.02
Total housing units	20,017	1,455	2,452	2,971	2,909	2,182	1,720	3,192	3,136
1-unit, detached	8,445	219	501	2,229	1,815	1,102	934	341	1,304
1-unit, attached	1,140	147	379	59	94	51	48	163	199
2 units	5,156	899	744	352	486	228	455	1,441	551
3 or 4 units	1,268	137	423	78	72	88	92	277	101
5 to 9 units	625	34	102	0	88	90	53	107	151
10 to 19 units	973	19	164	26	121	326	19	186	112
20 or more units	2,403	0	139	220	233	297	119	677	718
Mobile home	7	0	0	7	0	0	0	0	0

Source: U.S. Census Bureau, ACS 2007-2011, DP4

Table 5.3. Distribution of Housing by Year Built							
	Construction Period						
Geography	2000-2011	1990-99	1980- 89	1970- 79	1960- 69	1950- 59	Pre-1950
ARLINGTON	3.3%	1.4%	2.7%	6.4%	10.0%	12.4%	63.8%
Belmont	2.6%	0.9%	1.5%	5.1%	4.6%	12.3%	73.1%
Cambridge	7.0%	4.7%	7.3%	8.7%	6.2%	4.4%	61.7%
Lexington	9.5%	6.0%	7.4%	8.9%	15.2%	22.5%	30.6%
Medford	4.8%	1.6%	7.8%	6.4%	5.3%	7.9%	66.1%
Somerville	3.1%	1.8%	4.3%	6.3%	4.4%	5.1%	75.0%
Winchester	3.8%	6.4%	7.9%	5.8%	12.5%	14.6%	49.0%
Middlesex County	6.5%	6.5%	9.6%	10.4%	11.1%	12.4%	43.4%
Massachusetts	6.7%	7.3%	10.8%	11.7%	10.4%	11.5%	41.5%
Source: ACS 2007-2011, 5 Year Estimates, DP-04, B2503 & Arlington Assessor's Data 2013.							

suburbs tend to have at least one more room per unit. While the median number of rooms per unit can be a useful measure of overall housing size, it is not always a good indicator of the number of bedrooms. For example, almost one-fourth of all housing units in Middlesex County have four bedrooms; in Arlington, two- and three-bedroom units represent over two-thirds of all housing units, and four-bedroom units make up just 16.4 percent.

Not surprisingly, Arlington's older, higher-density neighborhoods have smaller units while the less dense neighborhoods with newer, mostly single-family homes have larger units. Densities vary within Arlington, and neighborhood characteristics range from suburban to urban, offering a variety of housing sizes. The Turkey Hill and Morningside neighborhoods are the least densely developed and have the lowest population density (5,711 people per sq. mi.).[2] These neighborhoods also have the largest share of single family homes, the largest housing units, and the majority of Arlington's newer homes. Arlington Center and the Menotomy Rocks and Jason Heights neighborhoods also have a sizeable share of Arlington's larger homes. East Arlington's neighborhoods tend to have the smallest and oldest units in Arlington, and the population density in these areas ranges from 11,000 to 13,000 people per sq. mi. In the Capitol Square area (Census Tract 3567.01), 70 percent of all housing units have two bedrooms or less. Over half the housing units around Brattle Square (Census Tract 3566.01) also have one or two bedrooms.[3]

[2] US Census 2010, DP-1.

[3] ACS Five-Year Estimates, 2007-2011, DP-04.

Housing Development Trends

Building Permits

According to the U.S. Census Bureau, Arlington permitted 657 housing units between 2002 and 2012 (Table 5.4), or 3 percent of all units in town as of 2013. Like most towns, Arlington experienced a drop in single-family and two-family home permits following the recession. Still, multi-family permits remained strong, largely due to the redevelopment of the former Symmes Hospital (Arlington 360), and the former Brigham's Ice Cream factory (Brigham Square Apartments).[4]

Symmes Hospital Redevelopment. The Town of Arlington purchased the 100-year old Symmes Hospital property in 2001 after Advantage Health and the Lahey Clinic stopped operations there. The Town later sold the site to Arlington 360 LLC, and the property was developed jointly by Jefferson Apartment Group and Upton & Partners. The project consists of 176 units: 146 apartments and thirty two- and three-story townhomes. Twenty-six of the apartments will be affordable to lower-income households and nine units will be affordable to households with incomes up to 120 percent of area median income (AMI). Occupancy of this project began in 2014.[5]

Brigham Square. In 2008, Wood Partners purchased the former Brigham's Ice Cream factory at 30-50 Mill Street after the property fell into foreclosure. The project involved demolition of the 85,000 sq. ft. industrial build-

[4] Town of Arlington, Inspectional Services, http://arlserver.town.arlington.ma.us/buildingpermits//.

[5] Jefferson Apartment Group & Upton + Partners, http://livearlington360.com/.

ing and replacing it with 116 residential units (18 studio, 35 one-bedroom and 63 two-bedroom units), with 15 percent reserved for lower-income households.[6] Occupancy began in 2013. Intercontinental Real Estate Corporation bought the property in December 2013.

Table 5.4. Number of Residential Units Permitted (2002-2012)

	Year					
Geography	2002	2003	2004	2005	2006	2007
ARLINGTON	44	70	68	71	69	48
Belmont	4	11	15	48	42	3
Cambridge	45	22	81	996	54	611
Lexington	72	61	65	65	55	91
Medford	11	24	14	16	16	13
Winchester	99	91	98	23	32	31
Middlesex County	2,841	3,388	3,806	6,129	3,358	4,275
Geography	2008	2009	2010	2011	2012	Total
ARLINGTON	52	33	53	60	89	657
Belmont	15	2	15	43	27	225
Cambridge	36	11	38	34	392	2,320
Lexington	60	52	83	61	97	762
Medford	4	(n/a)	2	2	3	105
Winchester	24	15	18	50	49	530
Middlesex County	2,005	1,642	2,109	1,823	2,928	34,304

Source: Censtats 2013

Regional Trends

There is a considerable amount of new housing development in communities around Arlington. Approximately 1,300 units have been permitted near the Alewife MBTA Station in North Cambridge, and several projects have been proposed in Belmont as well.

The Residences at Alewife/ Vox on Two (North Cambridge). Criterion Development Partners is building 227 new housing units on a site along Route 2 that had been vacant for approximately twenty years. Upon completion, the project will include twenty-five studios, 131 one-bedroom units, and 71 two-bedroom units, with 34 units reserved for lower-income households.[7]

The Altmark (North Cambridge). Cabot, Cabot & Forbes is developing 428 units in two five-story buildings on a 4.5-acre site at 70 Fawcett Street.[8] The project consists of 55 studio apartments, 217 one-bedroom units, and 157 two-bedroom units.[9] The first phase has been completed with 260 units. Phase two will include the remaining 168 units. The developers expect to finish the project in 2015. This site was formerly occupied by two low-rise office buildings.

160-180 Cambridgepark Drive (North Cambridge). Construction of a 445,000 sq. ft. podium-style apartment building began on this site in December 2012. Upon completion (estimated for 2015), the project will offer 398 one- and two-bedroom units, with 46 affordable units for lower-income households.

165 Cambridgepark Drive (North Cambridge). This 2.76 acre site was formerly occupied by a warehouse building, an office building, and surface parking. The site is currently being redeveloped by Hines as a 280,000 sq. ft. apartment building. The building will contain 244 units, of which there will be 9 three-bedroom units, 74 two-bedroom units, 117 one-bedroom units, and 44 studios. Twenty-eight of the units will be designated as "affordable housing". The site will be served by 230 parking spaces. Construction is expected to be complete in 2015.[10]

Residences at Acorn Park, Belmont Uplands (Belmont/ Cambridge). O'Neill Properties Group will build 299 apartments on a 15.6-acre site in Belmont (about three acres of the site lie in Cambridge). The development will include four five-story buildings with 159 one-bedroom units, 116 two- bedroom units, and twenty-four

[6] Alta Brigham Square, http://www.altabrighamsquare.com/brigham-square.

[7] Metropolitan Area Planning Council, Development Database, http://dd.mapc.org/projects/detail/1550/

[8] Mark Levy, "Project will add 429 apartments at Alewife, developer says," *Cambridge Day*, November 16, 2011, http://www.cambridgeday.com/2011/11/16/project-will-add-429-apartments-at-alewife-developer-says/

[9] Cabot, Cabot & Forbes, http://atmarkapts.com/

[10] DiMella Shaffer, Planning Board Special Permit 272 Plans, www.cambridgema.gov/~/media/Files/CDD/*sp272_plans.ashx*

Table 5.5. Housing Tenure in Arlington (2011)						
	Total housing units	Vacant housing units	Owner-occupied	Renter-occupied	Household size (owner)	Household size (renter)
ARLINGTON	20,017	1,010	59.6%	40.4%	2.48	1.86
Tract 3561	1,455	88	47.9%	52.1%	2.36	2.20
Tract 3563	2,452	73	34.0%	66.0%	2.30	2.03
Tract 3564	2,971	134	77.3%	22.7%	2.69	1.74
Tract 3565	2,909	95	73.5%	26.5%	2.65	1.53
Tract 3566.01	2,182	232	68.6%	31.4%	2.34	1.51
Tract 3566.02	1,720	13	76.4%	23.6%	2.53	1.67
Tract 3567.01	3,192	195	34.8%	65.2%	2.30	1.86
Tract 3567.02	3,136	180	64.9%	35.1%	2.31	1.97
Source: ACS 2007-2011, DP-04						

three-bedroom units. Sixty apartments will be reserved for lower-income households.

Housing Market

Tenure and Occupancy

Arlington's homeownership rate (58 percent) is on par with that of Middlesex County and the state as a whole, but lower than in many of Boston's outer suburbs. Arlington and other inner-suburban communities tend to have more renters because they have a historic development pattern with a larger inventory of multi-family units. However, since 1980, the homeownership rate in Arlington has slowly increased, climbing by about 2.5 percent between 2000 and 2010. This trend is not consistent across all of Arlington, as neighborhoods with more multi-family housing tend to have more renters. For example, the Capitol Square area (Tract 3567.01) has the largest number of multi-family units and the second largest percentage of renter-occupied units (Table 5.5). Many new residents have arrived in Arlington since 2000. According to the ACS, over half of the people living in Arlington in 2010 moved into their present home after 2000. The highest residential turnover rates occurred in neighborhoods with more multi-family homes, including Brattle Square, College Streets, and Capitol Square. Morningside, Turkey Hill, and neighborhoods bordering Lexington, with mostly single-family homes, have the highest rate of long-term residents.

Housing Values

The ACS estimates Arlington's median 2011 owner-occupied housing value at $496,000.[11] This includes both single-family homes and condominiums. More recently, the Warren Group reports the 2013 median single family home sold for $550,000, a 10 percent increase over 2011. Arlington's housing values modestly exceed Somerville and Medford, but fall noticeably below those of Belmont, Lexington, and Winchester (Table 5.6). Looking at a more regional perspective, average housing values in Arlington are 21 percent higher than in Middlesex County, and 44 percent higher than in Massachusetts.[12]

Most cities and towns around Arlington experienced a significant rise in housing values from 2000 to 2010. A 40 percent increase in the median value was fairly common. However, Arlington experienced more dramatic growth in housing values than any community in the immediate area, except Somerville. In fact, Arlington's home values almost doubled.

Median housing values indicate the midpoint of all housing values in a given community. Further analysis of ACS data reveals that fewer than 10 percent of owner-occupied housing units in Arlington are valued at $300,000 or less while 75 percent are valued at $400,000 or more, and half of those at over $500,000. Within Arlington, home values differ by neighborhood. Arlington Center has the highest median value of owner-occupied units ($558,900), while the College Streets area has the lowest median home value ($443,600).[13] This difference reflects housing typology, age, size, and quality of housing stock, and specific neighborhood amenities, and urban design.

[11] American Community Survey 2007-2011, 5 Year Estimates, *B25075*.

[12] American Community Survey 2007-2011, 5 Year Estimates, *B25075*.

[13] American Community Survey 2007-2011, 5 Year Estimates, *DP-04*.

Housing Sales

Most communities in the region witnessed a decline in housing sale prices during the most recent recession period, but in Arlington they actually increased by 3.1 percent between 2006 and 2012. Since 2000, sales prices have risen 31 percent (Table 5.7). However, while sales prices remained strong , the recession did trigger a drop in overall sales activity in the town. At the macro scale, the number of sales in Arlington has remained fairly consistent for the past 25 years. Between 1987 and 2012, there were an average of 609 per year. The proportion of single-family and condominium sales fluctuates, but in the same 25 years, an average of 317 single family homes and 184 condominiums sold each year in Arlington.[14]

Table 5.6. Change in Median Value of Owner-Occupied Units 2000-2010

Geography	2000	2011	% Change
ARLINGTON	283,800	496,000	74.8%
Belmont	450,000	632,400	40.5%
Cambridge	398,500	546,900	37.2%
Lexington	417,400	687,100	64.6%
Medford	226,800	392,600	73.1%
Somerville	214,100	447,000	108.8%
Winchester	421,800	690,600	63.7%
Middlesex County	247,900	410,100	65.4%
Massachusetts	185,700	343,500	85.0%

Source: ACS 2007-2011, B20575. US Census 2000, H076.

Table 5.7. Housing Sale Prices, Number of Sales, and Percent Change: 2000-2012

	Median Sale Price			
Geography	2000	2006	2012	% Change 2000-2012
ARLINGTON	$320,000	$450,000	$464,500	45.2%
Belmont	$435,500	$637,000	$622,200	42.9%
Cambridge	$340,000	$452,750	$487,000	43.2%
Lexington	$452,000	$644,900	$675,000	49.3%
Medford	$250,000	$389,000	$349,900	40.0%
Somerville	$315,000	$392,500	$424,000	34.6%
Winchester	$399,000	$634,500	$655,700	64.3%
Middlesex County	$260,000	$390,000	$372,930	43.4%
	Number of Sales			
	2000	2006	2012	% Change 2000-2006
ARLINGTON	609	699	661	8.5%
Belmont	274	321	408	48.9%
Cambridge	1,098	1,372	1,311	19.4%
Lexington	436	475	591	35.6%
Medford	656	737	703	7.2%
Somerville	703	961	895	27.3%
Winchester	372	340	337	-9.4%
Middlesex County	22,908	21,624	19,880	-13.2%

Source: The Warren Group 2013, Town Stats

Market Rents

According to the U.S. Census Bureau, Arlington has 7,349 renter-occupied housing units. The median household size for renters is 1.86 people, with most renters living in one- or two- bedroom units. In 2011, Arlington's median gross rent, $1,318, represented a 29.1 percent increase over 2000 (Table 5.8). This increase is similar or lower than most adjacent communities, and below both county and state rates of change.

According to a market rent survey in 2013, in the two years since the latest census figures, Arlington's market rents rose even higher (Table 5.9). Area rental prices are also affected by the large number of non-family households that are composed of university students and young, single professionals. These households – especially students – typically involved shared housing and often have rents on a per-bedroom basis. As a result, they effectively inflate the rents for larger units beyond the reach of most family households. In addition, most of the region's new "luxury" apartment complexes generally provide studio, one- and two-bedroom units, and rarely offer three-bedroom units.

Foreclosures

The U.S. housing market has been in a boom-and-bust cycle for over a decade. Following several years of rising home values and record growth in conventional and subprime loans, the economy slumped in 2007 and many property owners went into default on their mortgages. Subprime loans were re-

[14] The Warren Group 2013, *Town Stats.*

rental housing costs

Area rental prices are affected by the large number of non-family households composed of university students and young, single professionals. These households – especially students – typically involve shared housing and pay rents on a per-bedroom basis. As a result, they effectively inflate the rents for larger units beyond the reach of most family households.

Table 5.8. Median Gross Rents (2000-2011)

	2000	2011	% Change
ARLINGTON	$934	$1,318	29.1%
Belmont	$1,141	$1,616	29.4%
Cambridge	$962	$1,529	37.1%
Lexington	$1,288	$1,887	31.7%
Medford	$819	$1,328	38.3%
Somerville	$874	$1,355	35.5%
Winchester	$1,031	$1,366	24.5%
Middlesex County	$835	$1,243	32.8%
Massachusetts	$684	$1,037	34.0%

Source: ACS 2007-2011 DP-4, U.S. Census 2000 QT-H12

Table 5.9. Survey of Market Rents in Arlington and Surrounding Communities (2013)

		Rent		Number of Bedrooms			
Community	Development	Low	High	Studio	1 Br	2 Br	3+ Br
Arlington	Alta Brigham Square	$2,000	$3,265	X	X	X	
Arlington	Cedar Crest	$1,400	$1,876		X	X	
Arlington	Hamilton	$1,195	$1,750	X	X		
Arlington	Parkway Mystic Apts.	$2,000	$2,000			X	
Arlington	The Legacy	$1,700	$2,750		X	X	
Arlington	Individual Listings	$1,025	$5,000	X	X	X	X
Belmont	Individual Listings	$1,155	$5,500	X	X	X	X
Medford	Mystic Place	$1,460	$1,950		X	X	
Medford	Wellington Place	$2,025	$2,990		X	X	
Medford	Individual Listings	$950	$4,500	X	X	X	X
North Cambridge	The Altmark	$2,020	$3,224	X	X	X	
North Cambridge	Walden Park	$1,975	$2,445	X	X	X	
North Cambridge	Individual Listings	$1,200	$4,400	X	X	X	X
Somerville	Maxwell's Green	$1,850	$4,055	X	X	X	X
Somerville	Individual Listings	$1,195	$5,500	X	X	X	X

Source: Community Opportunities Group.

Table 5.10. Number of Residential Foreclosures

	2007	2008	2009	2010	2011	2012
ARLINGTON	43	24	46	47	18	36
Belmont	23	19	19	20	12	12
Cambridge	84	57	94	59	27	26
Lexington	27	23	35	25	13	22
Medford	179	157	176	126	92	85
Somerville	160	123	155	119	58	56
Winchester	37	22	27	24	16	10
Middlesex County	4,618	3,633	4,470	3,657	1,896	2,537
Massachusetts	29,572	21,802	27,923	23,931	12,634	17,152

Source: The Warren Group, 2013

foreclosure activity

In Arlington, foreclosure activity peaked in 2010, with 47 foreclosure petitions filed by mortgage lenders (Table 5.10). For many Massachusetts cities and towns, including Arlington, foreclosures drastically declined in 2011, only to bounce up again in 2012.

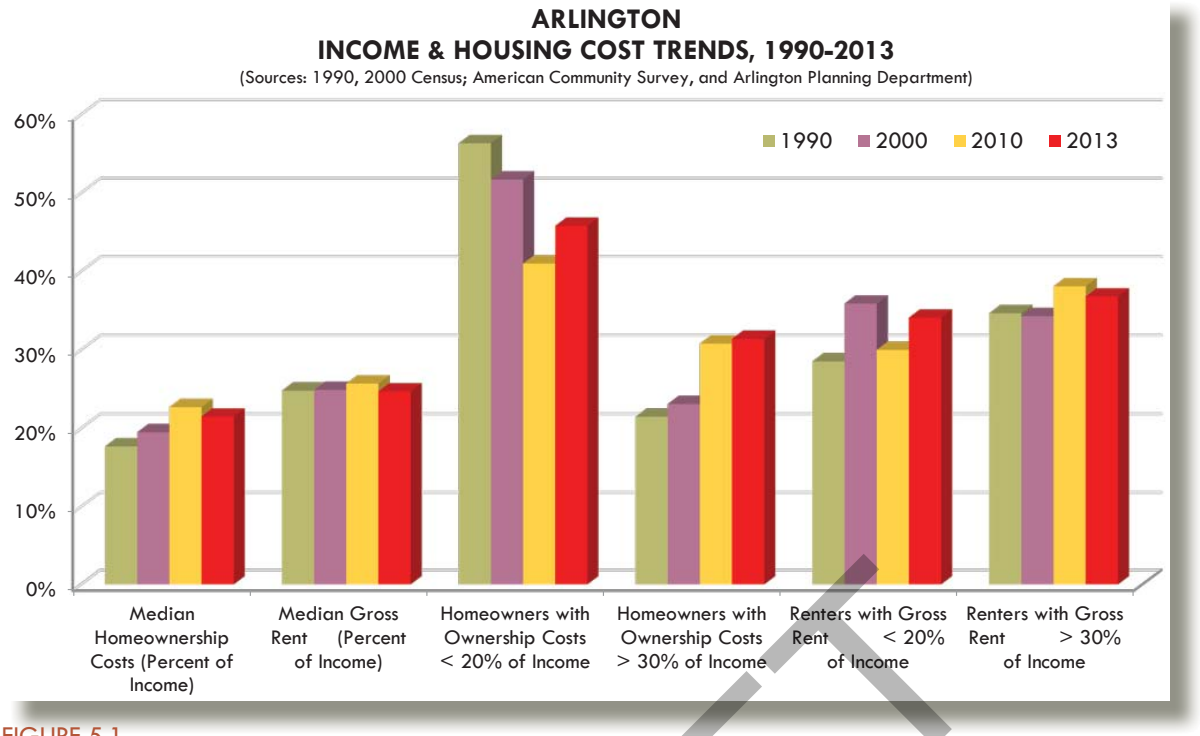


FIGURE 5.1

sponsible for a disproportionate share of early foreclosures, but as the economy worsened, a vicious cycle of unemployment and falling housing values ensued. Many homeowners found themselves "underwater," i.e., with mortgage loans that exceeded the market value of their homes. In Arlington, foreclosure activity peaked in 2010, with 47 foreclosure petitions filed by mortgage lenders (Table 5.10). For many Massachusetts cities and towns, including Arlington, foreclosures drastically declined in 2011, only to bounce up again in 2012.

Housing Affordability

Arlington has worked for many years to provide decent, affordable housing for low- and moderate-income residents who cannot afford to buy or rent market-rate units. "Affordable housing" means a monthly housing cost that does not exceed 30 percent of a lower-income household's monthly gross income. For homeowners, "monthly housing cost" includes a mortgage payment, property taxes and house insurance, while for tenants it includes monthly rent and basic utilities. When lower-income households have to spend more than 30 percent of their monthly gross income on housing, they are considered housing cost burdened.

The U.S. Census Bureau estimates that 32 percent of all households in Arlington spend more than 30 percent of their gross income on housing. However, not all of these households meet the definition of housing cost burden because many are middle- and upper-income homeowners and renters. Of Arlington's 11,000 homeowners, approximately 1,270 (11 percent) have low or moderate incomes, and 81 percent of those are housing cost burdened. Moreover, half of Arlington's lower-income homeowners are severely cost burdened, i.e. households that spend over 50 percent of their income on housing costs. While the percentage of cost burdened low-income homeowners changed very little between 2000 and 2010, the percentage with severe housing cost burdens increased significantly, from about 30 percent to 49.8 percent. As for Arlington's 7,445 renters, 3,250 (44 percent) have low or moderate incomes and almost 80 percent are housing cost burdened.

Affordability Mismatch

The picture of housing affordability is further complicated by affordability mismatch, a condition that exists when actually affordable units cannot meet a town's affordable housing needs because people with higher incomes live in them. In Arlington, there are approximately 320 modest ownership units that would be affordable to low- or moderate-income homebuyers, but 82 percent are owned and occupied by households with middle or higher incomes.[15] In addition, local assessor's

[15] U.S. Department of Housing and Urban Development (HUD),

data indicate that in Fiscal Year (FY) 2014, less than 1 percent of market-rate homes in Arlington were valued below $280,000: a purchase price affordable to a family of four with earnings equal to the Metro Boston median income ($94,400).[16] Almost 60 percent (4,415) of the rental units in Arlington have monthly rents that qualify as affordable under HUD's rent limits, but only 58 percent of them (2,575 units) are occupied by low- or moderate-income tenants. Moreover, in many cases households with very low incomes live in apartments that are affordable to moderate-income renters. This means that a community's affordable housing units are not necessarily affordable to the owners or renters who live in them.

Table 5.11.Chapter 40B Subsidized Housing Inventory

Community	Census 2010 Year-Round Units	Total Development Units	SHI Units*	SHI %
ARLINGTON	19,881	1,323	1,121	5.6%
Belmont	10,117	388	388	3.8%
Cambridge	46,690	7,181	7,091	15.2%
Lexington	11,946	1,515	1,334	11.2%
Medford	23,968	1,680	1,642	6.9%
Somerville	33,632	3,228	3,216	9.6%
Winchester	7,920	199	152	1.9%
Massachusetts	2,692,186	276,010	247,059	9.2%

Source: Mass. Department of Housing and Community Development.

Chapter 40B

Chapter 40B is a state law that allows qualified developers to apply to the Zoning Board of Appeals (ZBA) for a single comprehensive permit for multi-family construction that includes affordable housing.[17] When less than 10 percent of a community's housing is restricted for occupancy by lower-income households at prices they can afford, Chapter 40B all but requires the approval of comprehensive permit applications. In this calculation, the numerator includes affordable units eligible for the Chapter 40B Subsidized Housing Inventory (SHI), and the denominator is based on the total number of year-round housing units in the most recent decennial census (2010). Until the next federal census (2020), Arlington's 10 percent statutory minimum means an affordable housing target of 1,999 units.[18] As of January 2014, Arlington has 1,121 affordable units, or 5.6 percent of its Census 2010 total. This is well short of the number of units that would allow the ZBA to reject an unwanted comprehensive permit application.

Communities can also satisfy Chapter 40B requirements if at least 1.5 percent of their land area is developed for affordable housing. Arlington is closer to reaching this threshold than it is to attaining the 10 percent statutory minimum of affordable housing units. According to the Massachusetts Department of Housing and Community Development (DHCD), the agency that administers Chapter 40B, only two towns have met the 1.5 percent land area threshold. Because the land area calculation is less exact than calculating units, denial of a permit under that provision requires a hearing before the State Housing Appeals Committee (HAC) - the state body that has power to overturn a local board's comprehensive permit decision.

Table 5.11 shows that two of Arlington's neighbors, Cambridge and Lexington, exceed the 10 percent SHI minimum, and that Somerville is very close (9.6 percent). Most of Arlington' SHI units were created without Chapter 40B comprehensive permits. In fact, Arlington has only seen one comprehensive permit development that included four affordable units. All of Arlington's affordable housing has long-term deed restrictions that keep the units affordable in perpetuity or for either 30 or 50 years. Forty-one of Arlington's units have affordable housing restrictions that will expire in the 2030s unless the owners renew with a housing sub-

Comprehensive Housing Affordability Strategy (CHAS) Data, Tables 8, 15A, and 15B.

[16] US Department of Housing and Urban Development 2013, Income Limits System.

[17] A comprehensive permit is a type of unified permit: a single permit that replaces the approvals otherwise required from separate city or town permitting authorities and requires one single permit from the local Zoning Board of Appeals. Under Chapter 40B, the Zoning Board of Appeals may approve, conditionally approve, or deny a comprehensive permit, but in communities that do not meet the 10 percent minimum, developers may appeal to the state Housing Appeals Committee (HAC). Although comprehensive permits may still be granted after a town achieves the 10 percent minimum, the HAC no longer has authority to overturn a local board's decision.

[18] N.B. As of Census 2010, Arlington has a total of 20,017 housing units and 19,881 year-round units.

sidy program or the Town uses its own funds to purchase restrictions.

Inclusionary Zoning

In 2001, Arlington adopted an inclusionary zoning bylaw: a requirement that in any development of six or more units, 15 percent must be made affordable to low- and moderate-income households. The units are sold or rented through a lottery conducted by the Town or the developer. Units are reserved for first-time homebuyers or renters who meet income eligibility requirements and, in the case of for-sale units, have successfully completed a homebuyer education program. Since its inception, the inclusionary zoning bylaw has created fifty-three units of affordable housing: eleven for-sale units and forty-two rental units.[19] Examples of projects that recently triggered the inclusionary zoning bylaw include Brigham Square and the Symmes Hospital /Arlington 360 redevelopment projects.

Housing Corporation of Arlington

The Housing Corporation of Arlington (HCA) was formed in 1986 to provide affordable housing for Arlington residents affected by rising housing costs. In its early years, HCA offered down payment assistance to first-time homebuyers with moderate incomes. In 2001 HCA began purchasing and rehabilitating properties and offering them as affordable rental units. The Town of Arlington has allocated federal grant funds to support the HCA's acquisition-rehabilitation efforts. Today, the HCA owns and manages ninety affordable rental units in multiple locations.[20] Thirty of these units are two-family homes and sixty are in larger rental properties. In addition, the HCA operates a Homelessness Prevention Program that provides rent or security deposit subsidies to income-eligible, qualified households living in Arlington.

Federal Housing Grants

Arlington uses two federal grant sources to support the creation and preservation of affordable housing. As an "entitlement" grantee, Arlington receives Community Development Block Grant (CDBG) funds from the U.S. Department of Housing and Urban Development every year. The Town uses a portion of its CDBG funding to capitalize a home improvement loan program for homeowners and residents of one- to four-unit buildings, and to support development of affordable rental units. In addition, Arlington belongs to a consortium of eight cities and towns that participate in the federal HOME Investment Partnership Program (HOME). The North Suburban HOME Consortium, based in Malden, makes HOME funds available to member communities for housing rehabilitation, lead paint abatement, and rental development, and also administers a down payment assistance and homebuyer education program. Arlington has used HOME funds to support rental development and a first-time homebuyer assistance program. Since the HCA qualifies as a Community Housing Development Organization (CHDO) under federal HOME regulations, it has direct access to a portion of the Consortium's HOME dollars and has used those funds to acquire and rehabilitate affordable rental units in Arlington.

Arlington Housing Authority

The Arlington Housing Authority (AHA) owns and operates 175 units of affordable family housing and over 500 units of elderly housing. AHA also oversees and administers state and federal rental subsidy programs and offers a limited amount of special needs housing.[21]

Family Housing. AHA offers 175 two- and three-bedroom units at Menotomy Manor in East Arlington. Veterans, current Arlington residents, and families with no other form of assistance receive preference for available units. Menotomy Manor is currently being modernized with improvements to building envelopes including new insulation and new siding.

Elderly and Disabled Housing. AHA owns and manages four public housing developments for the elderly and people with disabilities. Priority goes to Arlington residents, victims of natural disasters, people displaced by government programs, and the homeless. The developments include Winslow Towers (1971), 132 one-bedroom units; Chestnut Manor (1965), 100 one-bedroom units; Cusack Terrace (1983), sixty-seven one-bedroom units, with five wheelchair accessible units; and Drake Village Complex (1961), 216 units, with seven wheelchair accessible units. Millbrook Square is another property that provides housing options for low income, elderly, and disabled residents. It is privately owned and managed by Corcoran Jennison Management, LLC.

[19] Laure Wiener (Director of Housing, Town of Arlington, MA), email message to Community Opportunities Group, Inc., September 11, 2013.

[20] Housing Corporation of Arlington, 2013. http://www.housingcorparlington.org/.

[21] Arlington Housing Authority. 2013. http://arlingtonhousing.org/.

Tenant Assistance. AHA administers the HUD Section 8 Housing Choice Voucher Program and the Massachusetts Rental Voucher Program (MRVP). Both programs provide a "gap" subsidy that makes it possible for income-eligible households to rent market-rate units. The tenants pay 30 percent (or more) of their monthly gross income toward rent and the AHA makes up the difference.

Special Needs Housing. AHA sponsors a residential home for thirteen developmentally disabled adults. There are approximately 113 housing units in Arlington designated for people with special needs, most administered by AHA.

Single Room Occupancy Housing. Arlington has two projects that house low-income single person households, with shared kitchen and baths. These properties are owned and operated by Caritas Communities, contain 37 units, and are an importance part of the affordable housing inventory.

Group Homes

Arlington's SHI includes 81 units in group homes for adults with severe disabilities.[22] They include fifty-five units overseen by the Department of Developmental Services (DDS) and twenty-six units administered by the Department of Mental Health (DMH). Arlington also has private group homes and mental health treatment facilities, such as those administered by the AHA, but only units under a DDS or DMH contract "count" toward the 10 percent SHI calculation as per Chapter 40B.

Other Assisted Housing

Caritas Communities owns two single-room occupancy (SRO) properties in Arlington. One of these residences was built with HOME funds. It provides housing for twenty-one (21) low-income residents and one resident house manager. The second property houses fifteen residents. The length of stay at these residences varies from one month to several years.

Housing Quality

At first glance, Arlington does not appear to have many units with housing quality problems such as substandard construction, energy inefficiency, incomplete cooking or plumbing facilities, or over-occupied living conditions. However, data from the U.S. Census Bureau and local health department indicate that such units do exist. According to a special report that HUD produces from census records, about 5 percent of Arlington's lower-income renters (160) have housing problems other than excessive housing costs. Sanitary code deficiencies and crowded units appear to comprise most of the housing quality problems in Arlington's rental stock.[23]

Facilities for the Elderly

In addition to the elderly housing provided by the AHA, Corcoran Jennison owns 176 elderly subsidized independent living units at Millbrook Square on Mill Street. Sunrise Senior Living in Arlington provides market rate assisted living, independent living, memory care, short term stays, companion living, and hospice care for elderly and disabled adults. A sixty-unit assisted living residence called Brightview has recently opened at the former Symmes Hospital site. The Council on Aging reports that wait lists for affordable properties serving the elderly and disabled have increased significantly as of late.

Issues and Opportunities

Communities influence the make-up of their population through the choices they make to control housing growth. In Arlington, many residents say the town's historic housing affordability has been essential for keeping it an economically diverse place. When asked why they decided to purchase or rent in Arlington, residents new and old often say they found decent housing they could afford in a region that has become increasingly expensive. However, long-term residents often note that as the quality of Arlington's housing has improved over time, the town has also lost some of its affordability. The good news for Arlington homeowners is that the value of their homes has increased significantly. The bad news– at least to some residents – is that Arlington's rising home values make it more difficult to preserve the social mix that many people characterize as one of its strengths.

The concerns and disagreements about housing in Arlington are similar to those heard elsewhere in the Boston Metro area. However, addressing these issues in Arlington involves the challenge of improving and/or supplying housing in a built-out, urban area. Arlington *does* have development opportunities, but successfully

[22] Department of Housing and Community Development, Subsidized Housing Report (Arlington), August 27, 2013.

[23] HUD, CHAS Data; Arlington Health Department.

pursuing them will require agreement about basic policy issues that seem to be in dispute.

Multifamily Conversions. Under Arlington's Zoning Bylaw (ZBL), special permits can be granted for residential use in the business districts. As land once occupied by car dealerships and other businesses became available for new development, housing proposals were approved, effectively reducing the amount of land devoted to nonresidential activity – and the amount of property generating commercial tax revenue. This process continues to raise concern among those residents who fear the loss of commercial properties will increase the tax burden on residential properties. They want to curb conversions and maintain the commercial tax base.

Vacant Land. Arlington has very little vacant land left for new housing construction or for any other need, e.g., public facilities and recreation areas. Two large sites that are developable include "Poet's Corner" at Dow Avenue and Route 2 and a large property adjacent to Thorndike Field near Alewife Station. The Dow Avenue/Route 2 site is zoned single-family residential like most of the surrounding neighborhood. However, this 6.4 acre property may have the potential for higher density or nonresidential development given its proximity to the highway. Some residents support prioritizing the land for open space and recreation needs. The other site, near Alewife, is zoned with a Planned Unit Development (PUD). However, the property lies almost entirely in a 1-percent flood zone, and many believe the land should remain unbuilt or largely undeveloped for environmental reasons.

Small Vacant Lots. The small vacant lots located within established residential neighborhoods came up repeatedly in focus groups and public meetings. By and large, neighbors do not want to see these lots developed. Some are legally buildable lots, and others become buildable with partial or total demolition. Some thought should be given to controlling the size and scope of development in existing residential neighborhoods.

Mixed-Use Development. In the development of this master plan, residents have expressed the desire for the Town to promote mixed-use development in the business districts. They cite advantages such as bringing more people within walking distance of stores and restaurants, incentivizing redevelopment and increasing business district property values, creating affordable housing opportunities, and reducing dependence on single-occupancy vehicle trips to meet basic household needs. To make mixed-use projects realistic, however, Arlington would have to allow a maximum height greater than thirty-five feet in order to have attractive, marketable buildings over three stories with ground-floor business uses. Some opponents to height increases, however, say Arlington is already over-built and too dense. Off-street parking policies will also need to be reformed to be in line with more urban commercial planning practices. The economic strain of underground parking on small sites will discourage investors, and there is likely less need for excessive parking in a more walkable, transit accessible environment.

Affordable Housing Development. Arlington has effectively used its inclusionary zoning and federal housing funds to create a fair amount of affordable housing. If Arlington reaches the 1.5% general land area minimum under Chapter 40B, it would not have to grant comprehensive permits in the future as long as it does not lose any of the affordable units on qualifying land. In 2014 Arlington seems close to achieving the 1.5% land area threshold. However, the state will not make an official determination about Arlington's land area status unless the Town receives a comprehensive permit application and denies it. This puts the Town in a difficult position because it would have to take the legal risks that come with denying a comprehensive permit in order to demonstrate that it actually complies with the statute. The Town can instead identify sites that would be likely 40B candidates and prepare for this outcome.

Elderly Housing. Changing demographics will result in a growing number of Arlington residents over the age of 65 in coming years. The Town may not be able to accommodate all of its older residents on fixed incomes in the coming years.

Teardowns and "Mansionization". High residential real estate values has led to demolition of smaller scale houses and their replacement with large houses out of scale with the existing neighborhood. Changes to setback requirements and floor area ratios might be considered to control the size and scale of replacement housing.

Recommendations

1. **Plan for Affordable Housing.** Create an Affordable Housing Plan (Housing Production Plan) and submit to State Department of Housing and Community Development (DHCD) for approval.

   The Town of Arlington's last Housing Needs and Strategy plan was prepared in 2004. The Town should review it for current applicability, especially in light of the increase in young families moving to town. A housing production plan should take into consideration the needs of all demographics, including families, elderly, households with special needs, and households with low and moderate incomes.

2. **Use Local Resources for Affordable Housing.** Allocate Town resources to meet local needs and the State's requirement for affordable housing under Chapter 40B while protecting neighborhood character. Resources include but are not limited to Community Preservation Act (CPA) funds, Community Development Block Grant (CDBG), federal HOME funds, inclusionary zoning, local non-profit housing developers, and Town-owned land.

3. **Improve Housing Quality.** Address the quality and condition of aging housing stock, including offering financial assistance programs for homeowners and landlords.

   Improvements to the structure and aesthetics of one house on a block often spurs further investment on adjacent properties. Arlington should continue to provide housing rehabilitation assistance with its Community Development Block Grant (CDBG) allocation in order to help moderate-income homeowners address substandard housing conditions. Currently the Town provides low-interest loans to correct code violations, remove lead paint, and weatherize to improve energy efficiency.

4. **Reconsider Parking Requirements.** Modify parking requirements to encourage multi-family housing and mixed use development in commercial areas.

   The cost of parking is often the greatest hindrance to the economic feasibility of dense, urban developments. Minimum parking requirements should be removed for new mixed-use developments on Massachusetts Avenue and Broadway. These locations are well-served by public transit, and are close enough to commercial amenities and civic services so that the need for car use will be reduced.

6 economic development

Introduction

A community's economy is guided by its location, the types of industries and other commercial activity it attracts, the education and skills of its working-age population, and by the economic uses of its land. Any one community is part of a larger economic region or area connected by employment, trade, and transportation characteristics. The boundaries of such regions tend to correspond with land use patterns, utilities, and transportation systems that support the movement of goods and people. For economic statistical purposes, Arlington is part of the Boston-Cambridge-Quincy, MA New England City and Town Area (NECTA) Division (also referred to as Boston Metro region). This area is centered on Boston and includes ninety-two communities with employment ties to the city, the "Route 128" suburbs, and some North Shore and South Shore municipalities. The Boston Metro division is part of the larger Cambridge-Boston-Quincy Metropolitan area that roughly extends in all directions to just beyond I-495.

Arlington has many characteristics of a workforce suburb (primarily providing housing for workers employed in other communities), yet it is poised to attract new business within its borders. Economic development is associated with the benefits of job creation, expanding a community's tax base, improving public services and shopping options for residents, strengthening the local economy, and enhancing the value of commercial properties. In Arlington, many believe that the addition of more businesses is required to expand the tax base and shoulder more of the cost of local government services. Arlington has very little vacant, developable commercial land available, so it will require the redevelopment or renewal of key sites to have a large-scale impact on economic growth. The Town has identified several potential sites along Massachusetts Avenue, the Mill Brook, Broadway, and Route 2. These locations, along with the historic centers of commercial activity in East Arlington, Arlington Center and Arlington Heights, and some neighborhood nodes, will constitute the focus of economic development. Beyond physical sites, Arlington is also looking toward investment in the new innovation economy, small business creation, and new types of workplace environments that are not necessarily dependent on location.

Existing Conditions

Arlington's Labor Force

A community's **labor force** includes all residents between 16 and 64 years of age, employed or looking for work. Arlington's labor force includes 24,984 people, which represents a 72.3 percent labor force participation rate.[1] As Table 6.1 indicates, Arlington has

[1] Labor Force Participation rate is the ratio between the labor force and the total size of the 16-64 cohort.

master plan goals for economic development

- Support conditions that benefit small, independent businesses.
- Maximize the buildout potential of commercial and industrial properties.
- Promote Arlington's historic and cultural assets as leverage for economic development.
- Improve access to public transit and parking

a relatively high labor force participation rate among neighboring communities, surpassed only by that of Somerville, and is positioned well above the national average of 64.1 percent (2011).

OCCUPATIONS

Similar to the trend that distinguishes the Boston Metro area from the state as a whole, residents of Arlington and other inner suburbs are far more likely to have occupations in management, science, technology, and the arts. An **occupation** describes the kind of work the person does, which is not the same as the **industry** a person works in or whether the person's employer is a public agency or private company. Sixty-four percent of Arlington residents have occupations in management, science, technology, or the arts, compared with 43 percent statewide; moreover, only 3 percent have production, manufacturing, or transportation jobs compared with 9 percent statewide (Table 6.2).

LABOR FORCE BY INDUSTRY

Residents of Arlington and all of its surrounding communities are well represented in the information, professional and scientific services, and education, health care, and social service sectors. Approximately 57 percent of Arlington's employed civilian labor force works in the professional/scientific, information, or education/ health care sectors, which include industries that often require considerable expertise and training. These are also among the top growth sectors in Eastern Massachusetts, and in many cases involve industries offering fairly high-wage employment. On average, Arlington residents are 1.5 to

Table 6.1. Labor Force Characteristics (2011)

Geography	Labor Force	Labor Force Participation Rate	Civilian Employed	Unemployment Rate
ARLINGTON	24,984	72.3%	23,747	4.8%
Belmont	13,097	67.5%	12,552	4.1%
Cambridge	63,071	68.3%	59,018	6.0%
Lexington	15,512	64.2%	14,835	4.3%
Medford	33,504	69.8%	31,003	7.4%
Somerville	50,435	75.2%	47,073	6.5%
Winchester	10,076	63.3%	9,408	6.4%

Source: U.S. Census Bureau, American Community Survey (ACS) 2007-2011, DP-03. Note: Table 6.1 omits military employment. For these seven communities, the combined total of Armed Forces employment is 473 people.

Table 6.2. Employed Civilian Labor Force by Occupation (2011)

		Percent in Occupational Groups				
Geography	Employed Civilian Labor Force	Management, Science, Arts	Service	Sales and Office	Construction, Maintenance, Mining	Production, Transportation
ARLINGTON	23,747	64.1%	8.9%	20.8%	3.7%	2.6%
Belmont	12,552	66.7%	10.5%	17.0%	3.1%	2.7%
Cambridge	59,018	69.6%	10.5%	15.5%	1.7%	2.7%
Lexington	14,835	74.6%	6.7%	15.6%	0.8%	2.4%
Medford	31,003	48.4%	15.2%	24.7%	6.0%	5.6%
Somerville	47,073	53.4%	16.8%	19.9%	5.3%	4.6%
Winchester	9,408	69.2%	7.6%	18.8%	2.1%	2.3%
Massachusetts	3,280,503	43.1%	16.8%	23.9%	7.2%	9.0%
Middlesex County	791,260	51.8%	14.2%	21.5%	6.0%	6.6%

Source: U.S. Census Bureau, ACS 2007-2011, DP3, and RKG Associates.

Brief Definitions:

a) Service occupations include a variety of occupations, from protective service workers to bartenders and wait staff in restaurants and personal services such as barbers and flight attendants.

b) Sales and Office occupations include retail sales, wholesale representatives, travel agents, real estate agents and brokers, telemarketers, and others.

c) Construction, Maintenance, Mining occupations include all of the construction trades and allied occupations, installation and repair workers,

d) Production occupations include manufacturing, assembly, machinists, printers,

e) Transportation occupations include trucking, bus drivers, taxi drivers, ambulance drivers, railroad operators, parking lot attendants, boat captains, material moving workers, truck and tractor operators, and so on.

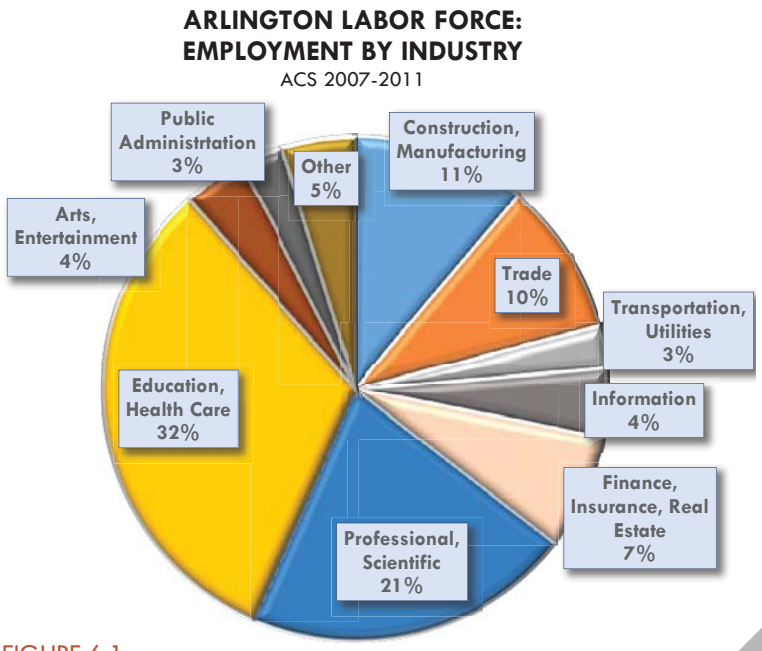


FIGURE 6.1

1.7 times more likely to work in one of these industries than residents elsewhere in the state, which some studies correlate to the relatively high educational attainment of Arlington's population.[2]

EMPLOYMENT PROFILE

The profile of Arlington's labor force is similar to that of the state and Middlesex County. Almost 82 percent of the local labor force has a wage or salary job with a private-sector business or non-profit organization. About 7 percent are self-employed individuals, while 11 percent of residents work as a government employee at the federal, state, or local level. This distribution is similar in neighboring cities and towns, with some exceptions. Belmont, for example, tends to have more residents in public-sector employment, and both Belmont and Lexington residents are more likely to be self-employed.

PLACE OF WORK

As a residential suburb with a fairly small employment base, Arlington does not offer many options for its own population to work locally. The overwhelming majority of its working residents commute to jobs outside of town. Thirty-nine percent of them commute to Boston or Cambridge, 11.3 percent have jobs in neighboring Belmont, Lexington, Medford, Somerville, or Winchester, and approximately 33 percent commute to Burlington, Waltham, or another major employment center along Route 128/I-95.[3] Arlington has a smaller percentage of locally employed residents than any of the adjacent cities and towns – only 15.7 percent of the local labor force works in Arlington. The impact of this "exodus" is noticeable – commuters are responsible for a 32 percent decrease in the town's daytime population.[4]

Almost 6 percent of Arlington's employed labor force works at home. Most home-based workers are self-employed individuals, but some are telecommuters, i.e. people who work for a business that allows them to work at home for all or a portion of the work week. Though a larger share of Arlington's labor force works at home than that of Middlesex County or the state, several surrounding communities have even larger shares, notably Lexington, at 8.5 percent, and Belmont, at 7.8 percent.

AGE DEPENDENCY

Arlington has a fairly low age dependency ratio, the relationship between the number of "dependent" persons – mainly children and senior citizens – and the labor force. Figure 6.2 shows the age dependency ratio in Arlington and neighboring cities and towns. Arlington's ratio is 0.604, which means there are only 0.6 children and seniors for every one working-age resident. In comparison, age dependency ratios in Cambridge, Somerville, and Medford are conspicuously low due to their disproportionate college student populations, and Lexington and Winchester – affluent suburbs with many families and large populations of school-age children – have much higher age dependency ratios, 0.864 and 0.869, respectively. Dependency ratios are a method to understanding the size and strength of a community's labor force, and are also key indicators for cost of living. As a rule, high dependency ratios indicate the need for higher household incomes to support the cost of municipal and school services. This is because the cost of services that benefit a large percentage of the population (seniors and school-age children) is

[2] See Section 1, Demographic Characteristics; and *Economic Development Self-Assessment Tool Results for the Town of Arlington* (EDSAT) (June 2012), 5.

[3] See also, Section 3: Transportation.

[4] Source: U.S. Census Bureau, ACS 2006-2010 5-Year Estimates, Journey to Work and Migration Statistics, Table 2. Commuter-Adjusted Daytime Population: Minor Civil Divisions (July 24, 2012).

paid for by a smaller percentage of the population (the working-age population).

Employment Base

A community's employment base includes all payroll jobs reported by for-profit, non-profit and public employers located in the town. Arlington's employment base includes 8,432 jobs, 87 percent of which are in industries that provide some type of professional, technical, financial, personal, or other service. Since 2001, the local employment base has declined by 4 percent if measured in jobs, but has grown almost 9 percent if measured by number of businesses, indicating that on average there are fewer jobs per employer. The jobs-to-housing ratio in Arlington is only 0.41 (0.41 jobs for every one housing unit) which is far below the standard planning range of 1.3 to 1.7 jobs per unit.[5] This figure, however, is consistent with the amount of commercial and industrial floor space that currently exists in the town (about 2.5 million square feet (sq. ft.)) and assuming an industry standard average of one employee per 300 sq. ft.

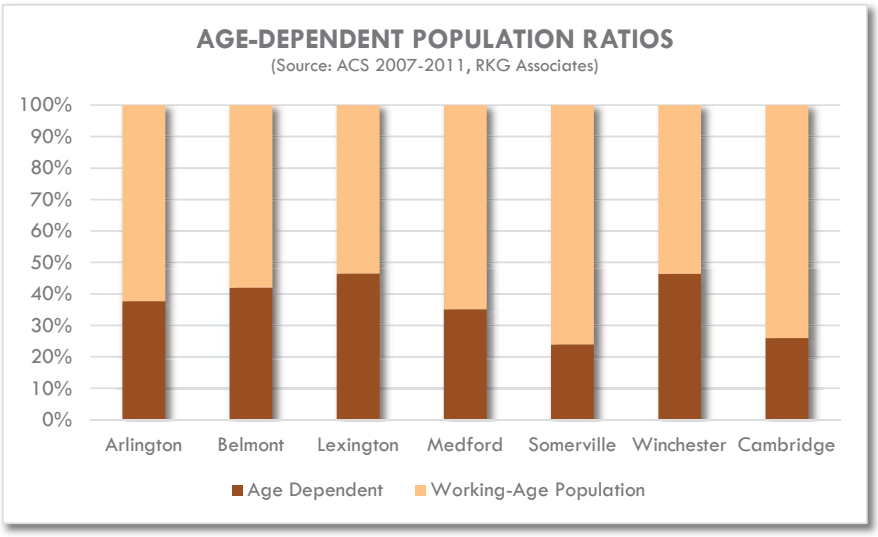


FIGURE 6.2

LOCATION QUOTIENTS

Location quotients compare employment by industry in two or more geographic areas. The quotient is a ratio of the percentage of an industry's employment in one area to that of a larger comparison area. If the location quotient for a given industry's employment falls between 0.90 and 1.10, the industry's proportion of jobs is virtually equal in both places. A location quotient of less than 0.90 identifies an industry that is under-represented in the local economy, and one that is more than 1.10 identifies an industry with a disproportionally large percentage of local employment. For planning purposes, location quotients can suggest opportunities for industries to claim a larger share of employment, or indicate the danger of over-dependence on a single industry. However, sometimes a high location quotient simply signals unique regional conditions such as hospitality and tourism businesses in seasonal resort areas.

A location quotient analysis of Arlington's employment base, as shown in Table 6.4, indicates that some industries are strongly served and others have a relatively small local presence. Aside from manufacturing, which is understandably underrepresented, professional and business services are noticeably low. Smaller services such as personal care, auto and equipment repair are overrepresented.

LOCAL WAGES

The average weekly wage paid by Arlington employers ($844) is low compared with statewide figures. Table 6.4 shows that in some cases Arlington has a relatively small number of jobs in higher-wage employment industries such as wholesale trade, with an average weekly wage of $1,247 and a location quotient of only 0.407. By contrast, an industry with a stable location quotient such as "Health Care" at 1.127 pays very low weekly wages.

MARKETS SERVED BY ARLINGTON'S EMPLOYMENT BASE

Another way to think about Arlington's local economy is whether any of the existing employment serves markets outside the town itself. Basic employment includes industries that depend on external demand, e.g., manufacturing, which ships goods to non-local markets. Employment in manufacturing, farming, and mining is inherently basic, and almost any industry with a location quotient greater than 1.00 involves some basic employment. **Non-basic** or local market-serving employment depends almost entirely on local demand and usually employs local residents, e.g., grocery stores and small personal service establishments. Since an economy with a large percentage of basic employment is usually

[5] Jerry Weitz, *The Jobs-Housing Balance*, Planning Advisory Service No. 516, American Planning Association (November 2003), 4

Table 6.3. Analysis of Location Quotients for Arlington's Employment Base (2012)			
Industry	Location Quotient	Industry	Location Quotient
Construction	2.875	Arts, Entertainment, Recreation	0.991
Other Services (auto & equipment repair, laundry services, personal care, pet care, fraternal organizations, etc.)	1.887	Finance and Insurance	0.849
Real Estate, Rental and Leasing	1.311	Trade, Transportation and Utilities	0.791
Public Administration (federal, state & local non-educational government workers)	1.294	Professional and Business Services	0.622
Information (Digital, print and multi-media publishing, broadcasting & communication)	1.170	Transportation and Warehousing	0.578
Educational Services (public and private, pre-k to college)	1.149	Wholesale Trade	0.407
Health Care and Social Assistance	1.127	Non-Durable Goods Manufacturing	0.399
Retail Trade	1.018	Manufacturing	0.166
Accommodations and Food Service	1.016	Durable Goods Manufacturing	0.044
Sources: Mass. Executive Office of Labor and Workforce Development, ES-202; and RKG Associates.			

more resilient during an economic downturn, the division of basic and non-basic employment is important.

About 20 percent of Arlington's economy consists of basic employment, which is fairly small but consistent with the overall profile of local industries, jobs, and wages. Arlington's many restaurants provide some basic employment, as suggested by the location quotient of 1.016. Together, the arts, entertainment, and food services industries operate as a "bundle" that draws people to Arlington from other communities. Conversely, Arlington's construction sector primarily responds to regional construction demand across the Boston metropolitan area in conjunction with growing demand for residential renovations in the town's neighborhoods.

Arts, Culture and Tourism

Contemporary art and culture play an important part in Arlington's community identity and economy. Approximately 630 Arlington residents work in the visual, print, performing arts, and related fields.[6] Arts and cultural businesses and organizations spur economic activity not just by employing people, but by drawing patrons to the town's commercial districts where they can patronize adjacent businesses. This sector is also successful in attracting out-of-town consumer spending. Visitors tend to patronize nearby shops, services and restaurants before or after artistic and cultural events. The prime example of this economic association is with Arlington's two theater businesses: the Regent Theatre and the Capitol Theatre, whose 200,000 annual patrons spend $2.4 million on nearby shops, restaurants and service businesses, according to the *Economic Impact of Arlington's Theatres* report.[7] Arlington's non-profit theaters, Arlington Friends of the Drama, Arlington Children's Theater and True Story Theater also attract out-of-town visitors and their spending. In addition to the arts, historic and cultural tourism has similar economic benefits for local businesses.

Many local organizations promote and enhance local arts institutions and Arlington's history. Arlington established a Cultural Commission in 1993 (that, after a defunct period, was reactivated and renamed as the Commission on Arts & Culture in 2013), and the Committee on Tourism and Economic Development (A-TED) in 2010. The Commission on Arts and Culture is tasked with preserving cultural and artistic resources and promoting Arlington as a significant cultural destination through marketing, education, advocacy, and related activities, including the compilation of a long-term cultural plan and advising the Town on cultural or artistic matters. In addition, Arlington became a charter member of the Battle Road Scenic By-Way Committee in 2013, a regional partnership of Battle Road communities (Arlington, Bedford, Concord, and Lexington) and of the Minuteman National Historical Park, which jointly promotes and enhances tourism along the length of the Battle Road area.

[6] ACS 2008-2012, Table C24030.

[7] Margaret Collins, Cambridge Economic Research, *Economic Impact of Arlington's Theatres* (September 2013), prepared for Arlington Planning Department.

Commercial and Industrial Development

Arlington has three main commercial centers located along the length of Massachusetts Avenue, with additional neighborhood-scale business activity on Broadway, Chestnut, and Mystic Streets, and a mix of older commercial and industrial uses in pockets along Summer Street. Industrial parcels are located along the central parts of the Mill Brook corridor and the Minuteman Bikeway. These areas fall under six unique business districts and one industrial district.

Property Characteristics

The inventory of commercial and industrial property in Arlington includes 415 parcels with a combined area of 193 acres and about 2.5 million sq. ft. of floor space.[8] Collectively these properties generate over $6 million in property tax levies. In addition, the industrial properties also generate personal property taxes ($222,700 in FY 2014). Approximately eighty of these parcels are mixed use, i.e. have both nonresidential and residential functions. Between FY 2009 and FY 2014, the amount of real and personal property taxes paid by nonresidential and mixed-use property owners in Arlington increased by 28 percent.[9]

Several commercial properties were recently sold in Arlington, including fourteen mostly office and industrial spaces between 2011 and 2013 for an average of $184 per sq. ft. As of February 2014, about 57,000 sq. ft. of retail, industrial, and office space was available for lease, with rents ranging from $13.33 per sq. ft. (industrial/flex space) to $45 per sq. ft. (retail and office space), averaging about $22 per sq. ft.[10] The Arlington Planning Department started tracking commercial vacancies in 2013, and last reported that about 3 % of the town's commercial space is vacant and available for rent. What is not reported, however, is whether all rented, "occupied" commercial space is fully utilized.

Planning for Economic Growth

In 2010, the Town conducted a vision and revitalization study of the town's three main commercial areas. Arlington wanted an assessment of each district's advantages and needs in order to create realistic strategies to carry out the study's recommendations. The study produced an implementation document entitled *Town of Arlington: A Vision and Action Plan for Com-*

Table 6.5. Commercial Center Findings, Vision and Action Plan (2010)

Commercial Area	Retail Mix	Issues	Solutions
Arlington Heights	Home improvement, sports, hobby stores	Business retention, organization, promotion	Short term: Improve marketing by enhancing district website; update business directory Long term: Redevelop key commercial sites with high-value retail and mixed-use structures.
East Arlington	Capitol Theatre, arts and crafts, cinema, galleries, boutiques and eateries, local convenience shopping; thriving businesses, collaborative efforts.	Issues: poor physical condition (signs, commercial storefronts, public infrastructure), parking	Short term: Improve parking availability, enhance district website Long term: Improve Mass. Avenue streetscape
Arlington Center	Civic, social, cultural heart of the Town; restaurants, stores, religious institutions, schools	Physically disorganized, visually incoherent; infrastructure, streetscape, public works, parking, marketing	Short term: Improve streetscape, upgrade signage Middle term: Plaza, restore storefront facades Long term: Reconfigure Russell Common Lot, renovate Broadway Plaza
Source: Koff & Associates (2010).			

[8] Arlington GIS, RKG Associates (March 2013) .

[9] Massachusetts Department of Revenue, Division of Local Services, Municipal Data Bank.

[10] Loopnet Commercial Real Estate Listings, February-March 2014.

Table 6.6. Tax Rate and Tax Base Trends

Community	FY2014 Property Tax Rates		% Change FY07-FY14		Tax Base Res. %	% Chg. FY07-FY14	Median Home Value (2013)	% Chg. FY06-FY13
	Residential	C/I/P	Residential	C/I/P				
ARLINGTON	$13.79	$13.79	25.9%	25.9%	93.9%	-0.7%	$483,000	8.1%
Belmont	$13.50	$13.50	30.9%	30.9%	94.4%	-0.4%	$687,850	11.1%
Cambridge	$8.38	$20.44	12.0%	11.7%	61.3%	-2.5%	$550,000	23.6%
Lexington	$15.51	$29.56	36.8%	35.5%	86.6%	-1.9%	$761,250	14.5%
Medford	$12.25	$24.01	37.8%	33.9%	87.5%	-1.7%	$375,000	-1.3%
Somerville	$12.66	$21.51	24.7%	29.0%	83.6%	-2.4%	$486,750	22.8%
Winchester	$12.66	$11.91	22.6%	23.5%	94.6%	-0.4%	$737,200	24.9%

Sources: Massachusetts Department of Revenue; RKG Associates, Inc.

mercial Revitalization, focused on Arlington Center but also promoted several ideas for Arlington Heights and East Arlington. Table 6.5 summarizes the priorities addressed in this plan.

The report contains numerous proposals to improve the appearance, operations, and economy of all three areas. For Arlington Heights, for example, recommendations range from streetscape improvements and parking management to business promotion, wayfinding strategies, creating better connections between open spaces along the Mill Brook, and effective use of an economic development coordinator for business revitalization.

The continued success of all three main commercial districts is desired by residents and town officials. Of the 4,400 respondents to Arlington's 2012 Vision 2020 survey, 67 percent rated "distinctive commercial centers" as important or very important to the town. In addition, many long-time residents are pleased with the evolution of the business districts, saying that over time they have changed considerably as old family-owned car dealerships gradually gave way to restaurants, housing, and other uses. As one town official said, "We're no longer known as the town with nothing but banks and pizza parlors." Residents have also expressed support for economic development opportunities for start-up businesses. Some people think the Town has developed an "anti-business" reputation and that its Zoning Bylaw is antiquated, unresponsive to changing market forces, and procedurally difficult.

EDSAT Report

A recent **Economic Development Self-Assessment Tool (EDSAT)** study of Arlington's economic development strengths and weaknesses identifies several potential "deal makers" and "deal breakers" to economic growth.[11]

- **Strengths:** Arlington has a highly-educated workforce with a large number of professionals, production of informative material to explain local permitting processes, and more amenities than comparable communities.
- **Weaknesses:** Arlington has some permitting procedures that take longer than those in other communities, restricted on-site parking,, relatively high rents for some types of retail space, lack of Class A office space, limited or no use of available state incentives for economic growth such as infrastructure grants, tax incentives or the Massachusetts Expedited Permitting Law, and regionally high housing costs.

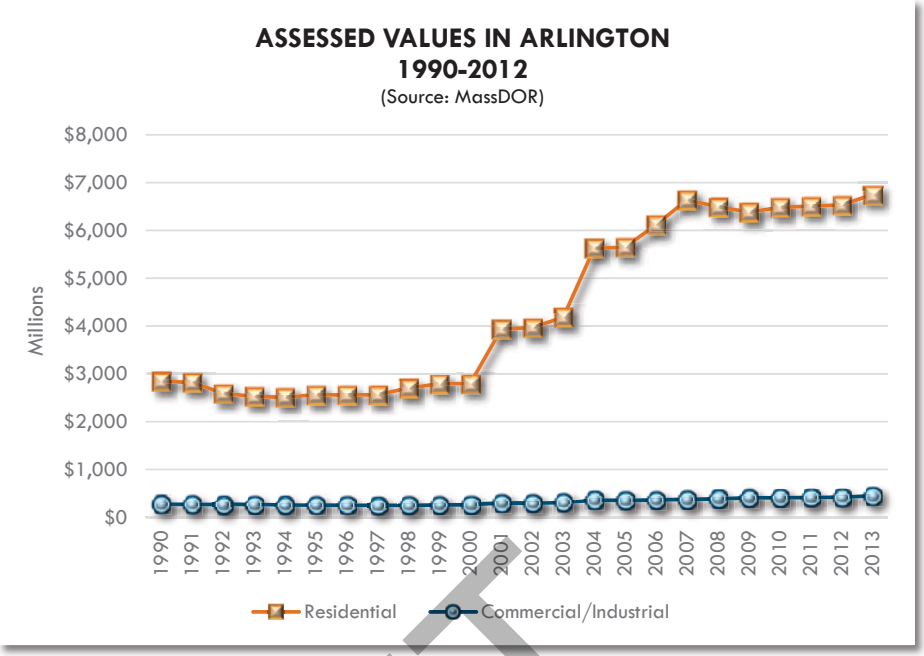
Property Tax Policies

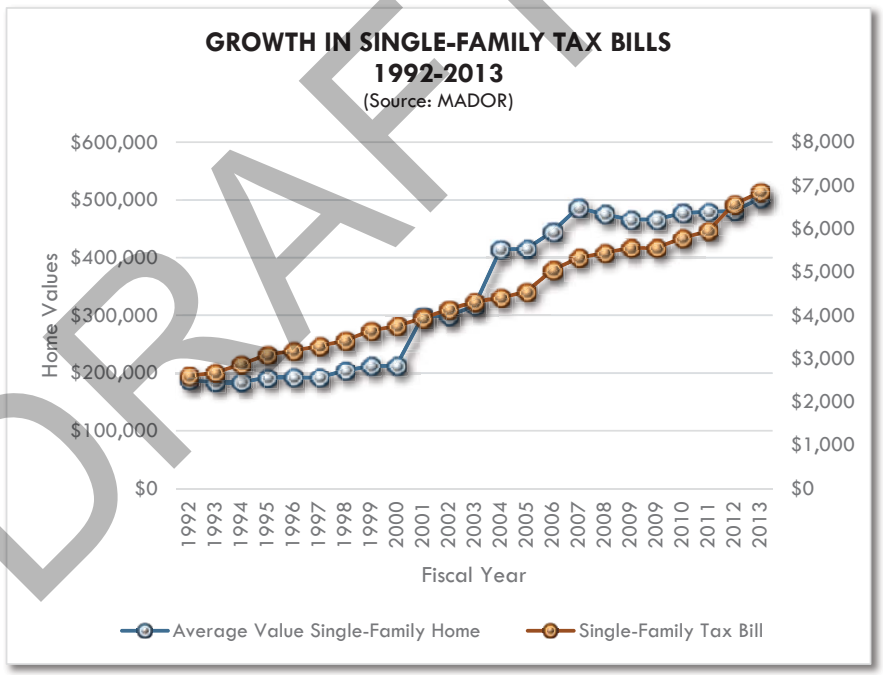
Arlington has a lower tax rate than most of the surrounding towns and cities. Per the policy of the Board of Selectmen, Arlington does not impose a higher tax rate on commercial, industrial, and personal (CIP) property than residential property (Table 6.6). The Board's reasoning is that doing so would provide little fiscal benefit given the small size of the commercial property levy, and would thus only increase expenses for small local businesses.

[11] *Economic Development Self-Assessment Tool Results for the Town of Arlington* (EDSAT); Northeastern University, Dukakis Center for Urban and Regional Policy. June, 2012, pp 6-7.

Economic Development and Arlington's Fiscal Health

Arlington residents have concerns about the future of the business districts on Massachusetts Avenue and the older industrial areas, many of which are underutilized and seemingly ripe for redevelopment. Many believe the Town has allowed too much residential development in non-residentially zoned areas, resulting in a decrease of the commercial tax base that then places a greater share of municipal public costs on town residents. However, although some recent changes have affected revenues, the tax burden shift that has occurred in Arlington has roots that pre-date the recent conversion of old commercial space to multifamily dwellings.





After the recession of the early 1990s, Arlington's commercial property values dropped significantly. Adjusted for inflation they have not yet fully recovered. Meanwhile, the housing market boom that began at the end of the 1990s in the Boston Metro-area led to skyrocketing housing values in Arlington – property value growth that was influenced, but not entirely caused, by new development (see Figure 6.3).

As values rose, the tax rate fell, yet between 2000 and 2013, Arlington's single-family tax bill was almost always in the top fifty for the state as a whole (Figure 6.4). By 2013, the portion of the CIP tax base was just 6 percent, down from 9 percent in the late 1980s.[12] To restore the CIP tax base to pre-recession levels would require major land use and density changes in Arlington's commercial and industrial districts. For example, achieving a CIP share of 8 percent would require about twice (1.93 times) the amount of commercial floor space that currently exists in Arlington; this is roughly equivalent to adding another story of space to each existing commercial structure in town.

[12] Massachusetts Department of Revenue (DOR), Division of Local Services (DLS), Municipal Data Bank.

Issues and Opportunities

Employment Projections and Space Needs. Utilizing state employment projections to 2020, as obtained from the Executive Office of Labor and Workforce Development (EOLWD), a range in local employment can be estimated by varying the capture rate by different industry sectors based on Arlington's employ-

Table 6.7. 2020 Employment Projections and Space Needs (Square Feet (SF))

	2012 Jobs				Employment in 2020 [1]		Potential Change by 2020		Building Requirements [2] (SF)		
Industry	2001	2008	2010	2012	Low	High	Low	High	Indusrial/Flex	Office/ Institutional	Commercial
23 - Construction	469	422	366	431	383	449	(48)	18	8,768		
31-33 - Manufacturing	274	123	119	109	124	135	15	26	13,178		
42 - Wholesale Trade	89	126	118	129	116	134	(13)	5	2,275		
44-45 - Retail Trade	1,202	933	893	916	864	883	(52)	(33)			N/A
48-49 - Transportation and Warehousing	11	30	48	51	31	53	(20)	2	874		
51 - Information	216	103	228	228	101	235	(127)	7		1,312	
52 - Finance and Insurance	328	305	289	367	364	474	(3)	107		21,392	
53 - Real Estate and Rental and Leasing	186	178	165	140	139	171	(1)	31		6,127	
54 - Professional and Technical Services	671	480	342	359	431	593	72	234		46,709	
56 - Administrative and Waste Services	359	356	270	321	302	372	(19)	51	25,325		
61 - Educational Services	569	209	201	232	229	252	(3)	20		3,972	
62 - Health Care and Social Assistance	1,194	1,526	1,470	1,569	1,848	2,007	279	438		87,625	
71 - Arts, Entertainment, and Recreation	92	160	146	134	164	201	30	67			23,475
72 - Accommodation and Food Services	660	696	685	728	716	734	(12)	6			2,060
81 - Other Services, Ex. Public Admin	539	549	655	695	726	841	31	146			51,045
Total	**7,011**	**6,325**	**6,124**	**6,534**	**6,816**	**7,475**	**129**	**1,122**	**50,420**	**167,136**	**76,581**

[1] Range based on Arlington's representation of statewide employment by sector for 2008, 2010 or 2012.

[2] Based on employment per building area at 500 SF for industrial; 200 SF for office; and 350 SF for commercial

Source: MA Executive Office of Labor & Workforce Development, ULI & RKG Associates, Inc.

ment between 2008 and 2012. This estimate can assist in determining building space needed to accommodate employment growth over the next several years (Table 6.7).

Private-sector employment in Arlington is expected to grow to between 6,816 and 7,475 jobs by 2020, compared with 6,534 jobs recorded in 2012. Most of this increase is projected to occur in three sectors: health care/social assistance, professional /technical services, and finance/insurance. The anticipated increase in local employment could translate into the potential need for 160,000 sq. ft. of office space, 50,000 sq. ft. of industrial/flex space, and 76,000 sq. ft. of retail/commercial space. Much of this demand for new space may be accommodated by adding one story to existing single or two-story commercial buildings along Massachusetts Avenue and Broadway. These are relatively modest demands given the existing inventory of commercial and industrial floor space.

Retail Service Potential. The existing retail/commercial base in Arlington underserves its population and local spending dollars are leaving town. Arlington has 101 retail-classified parcels and forty-five parcels classified with auto-related uses, totaling less than 1 million square feet of combined commercial space. Arlington lacks a mid- or large-scale shopping mall or plaza, as found in Cambridge, Burlington, and Somerville. As a result, households are inevitably making some basic purchases outside of Arlington resulting in "sales leakage." One business with retail strength is drug stores/pharmacies, which "imports" of sales, i.e. people from outside Arlington purchase goods at these businesses. (The difference between actual retail sales and residential demand in Arlington is displayed in the Appendix).

If all leaked sales from Arlington residents were to be captured by Arlington stores, the town could support another 1.2 million sq. ft. of retail development. However, that would require 100 acres of land (at a floor area ratio (FAR) of 0.25), or 33 acres (with a 0.75 FAR). Under current and future market conditions, it may be possible to capture 10-30 percent of Arlington's leaked sales demand, depending on specific site requirements, parcel size/availability and whether local demand is strong enough to trigger construction activity among retailers and developers. Arlington could hypothetically support another 5,100 sq. ft. of car parts and tire stores. Likewise, there is demand for an additional 12,000 sq. ft. of grocery store space, though this small size is impractical for major grocery retailers (but perhaps not for local independent grocery stores, food co-operatives or small stores trading in specialty foods). Arlington needs to strategically think about the goods and services residents want and the town's ability to provide land for those uses.

The Creative Economy. Cultural activities and venues are important to Arlington residents. Vision 2020 surveys show that an overwhelming majority of residents consider cultural activities and historic resources as important characteristics of Arlington, and over half strongly support museums, galleries, and theatres as desirable land uses for new development. Identifying and addressing the needs of Arlington's arts-related workers could be important for the long-term success of any cultural tourism plan. Conducting an assessment of financial, spatial, technical assistance, marketing, events, and other needs of arts entrepreneurs could help the Town focus its efforts and determine how it can best support the creative economy, given Arlington's other economic development needs, e.g., business retention and recruitment or instituting financial, permitting, and other incentives for new business development. The ability to re-use underutilized commercial/industrial property in Arlington by growth industries in creative and knowledge sectors should be intensively examined. Vibrant streetlife in the town's commercial centers, fostered by street performers, outdoor dining and art programming, supports these creative industries, which in turn can boost Arlington's cultural cache and attract regional and out-of-state visitors.

Redevelopment Opportunities. Like many towns and cities on the urban edge, Arlington has the potential for innovative commercial development that engages non-traditional business sectors, and/or pairs with other land uses. Several sites offer substantial potential for redevelopment into more valuable properties that can fill residents stated desire for more commercial and employment options in town, while providing more revenue to improve the town's finances. Moreover, since housing diversity and affordability are essential to a well-rounded economy, redevelopment opportunities such as these would most likely be strengthened if they include both residential and nonresidential components.

Co-Work Space. Arlington has highly educated home-based workforce. This demographic, combined with

the strategic location between Boston, Cambridge and the Route 128 corridor, makes Arlington a potential location for new types of flexible, collaborative work spaces that allow home-based workers to interact with a diverse set of peers for sharing ideas, methodologies and services. These "co-working" facilities meet the greatest need of home-based workers – periodic social interaction in a professional, efficient and comfortable working environment that offers shared office services, such as conference rooms, professional-level printers, large kitchen facilities, messaging and reception services, typically not available in homes, coffee shops or other places.

The ability to lease space on a daily, weekly or monthly basis is attractive to individuals, and freelancers, as well as small technology, information and creative start-up firms with fluctuating funding and staffing levels. In Arlington, co-working spaces, business incubators and similar facilities can be created in existing under-utilized retail, office and warehouse/industrial properties with relatively little capital (mostly interior renovations that require little or no alterations to building footprints or facades). Co-working spaces are generally more attractive when located in highly-accessible vibrant districts with a mixed use environment. The Arlington Heights, Arlington Center and East Arlington business districts could be ideal sites for these types of shared workspaces.

Economic Development Recommendations

1. **Business District Zoning.** Amend the Zoning Bylaw to enhance flexibility in the business districts to promote development of higher-value mixed use properties.

   The B1 district helps to preserve small-scale businesses in or near residential areas, but changes in other business districts should be considered. The Town should encourage commercial properties along Massachusetts Avenue, Medford Street, and Broadway to develop to their highest and most valuable potential by slightly expanding height and lot coverage limits, and making more flexible requirements for on-site open space and parking.

2. **Industrial District Zoning.** Amend the Zoning Bylaw by updating the Industrial District to adapt to current market needs. Current industrial zoning is focused on manufacturing and assembly uses, but is not very flexible. Modifications to use regulations would be effective in attracting new businesses and jobs in emerging growth industries such as biotechnology, pharmaceuticals and creative sectors.. The following changes should be considered for the Industrial district:

   - Remove the minimum floor area requirement of 2,000 sq. ft. for Personal, Consumer and Business Services. Some manufacturing facilities operate in small spaces, so it should be possible to subdivide available floor area if necessary to support smaller industrial operations.
   - Allow restaurants in the Industrial district, to serve employees of new industry, and residents of the region. Patrons of dining establishments are now accustomed to finding restaurants in non-traditional settings. The restaurant industry is growing in the area, including fine dining and "chef's" restaurants. Due to the timing of operations, restaurants and manufacturing facilities can often share parking and access routes.
   - Allow small (<2000sf) retail space by right or special permit in the Industrial districts to promote maximum flexibility in redevelopment of existing industrial properties into higher value mixed use properties..
   - Allow residences to be built in Industrial Districts by special permit as part of mixed use developments where associated commercial/industrial space comprises the majority of usable space. This is particularly helpful in spurring development of live/work studios for artists and creative professionals in visual, graphic and performing arts and associated trades..

3. **Collaborative Work Spaces.** Allow new collaborative work spaces to attract small business ventures, innovative companies, entrepreneurs, and currently home-based businesses. These contemporary work environments provide the facilities, services, and networking resources to support businesses and help them grow.

   There has been an increasing amount of new collaborative work space across the nation. Co-work facilities lease offices, desks, or even shared benches for small businesses or individual entrepreneurs. They are meeting needs for comfortable,

affordable, short-term work environments by providing monthly leases with maximum support. In the Boston area alone, several of collaborative work spaces have opened in Downtown Boston, the Seaport Innovation District, Central Square in Cambridge, Field's Corner in Dorchester, Chelsea, and more. These well-designed and well-equipped offices provide twenty-four hour workspace, lounges, meeting rooms, sometimes food and drink, and most importantly, smart and exciting places to work. They provide more than just an address for a small business; they help to "brand" the business with the collective work environment they inhabit. They are also a hub for networking, promotion, and events.

Arlington has many home-based businesses and freelance employees that could be attracted to work in these types of spaces. In addition, new entrepreneurs and small startup firms from Arlington and across the region would have a new, perhaps more accessible option for their operations. Other contemporary business models that often support collaborative work spaces include business incubators and accelerators. These facilities can be operated as for-profit businesses, making equity investments in companies they host, or as non-profit small businesses, or workforce development projects. Supporting incubators or accelerators in Arlington's business scene is also worth investigating.

To develop or attract collaborative work space, business incubators and accelerators, Arlington should take the following steps:

- Engage with local collaborative work space providers in the Boston area to learn of their interests or concerns with the Arlington market. This process should include site visits to various collaborative work facilities in Boston, Cambridge, Chelsea, and Somerville. There should also be a continuation of the community engagement process begun by the Town in summer 2014. Meetings with residents, small business owners, and co-work space developers can help create customized business space for Arlington.
- Survey similar efforts by neighboring cities and towns, including the City of Boston and their current Neighborhood Innovation District Committee, which seeks to expand entrepreneurial small business development throughout the city.
- Identify cost effective incentives for small business creation that could be directed to collaborative work, incubator or accelerator type of facilities. Federal or state grants can be used for the development of collaborative work space or for reducing costs for new tenants of co-working facilities.

4. **Magnet Businesses.** Invest in promotion and support of Arlington's magnet businesses.

   Magnet stores attract customers not only from Arlington, but also from neighboring communities. A recent study, *The Economic Impact of Arlington's Theatres* (2013) estimates the significant impact of the Regent and Capitol Theatres on Arlington's restaurants and shops that benefit from theatre patrons. To support magnet businesses, Arlington should focus on maintaining and enhancing public infrastructure (parking, roadways, sidewalks, etc.) in its business districts and developing flexible zoning that allows magnet firms to grow and thrive in Arlington.

5. **Performing Arts Organizations.** In addition to the for-profit theater businesses, the non-profit theaters and auditoriums also attract out-of-town patrons. Arlington should further invest in the promotion of its performance venues.

6. **Implementation of Koff Report.** Revisit the recommendations contained in the Koff & Associates Commercial Center Revitalization report, and implement the most appropriate ones in coordination with other Master Plan initiatives.

From the Koff Report:

ARLINGTON HEIGHTS:

- Encourage property owners to rent to a wider variety of retail , dining and service uses to better support local demand and draw new customers to the district..
- Improve public parking availability.
- Encourage property and business owners to enhance storefronts and commercial signage where needed. Collaborate with the Arlington Heights

merchants to maintain the business directory and improve promotional and wayfinding signage.

- Strategically improve public infrastructure, particularly deteriorated town owned properties and spaces.

EAST ARLINGTON

- Improve the availability and management of public parking. Examine shared parking, a permit program, new facilities, adjusted time limits, consistent enforcement, and the possibility of meters.

ARLINGTON CENTER

- Revise the Zoning Bylaw to support desired and appropriate building placement, form, scale, density and mix of uses.

- Collaborate with local arts and cultural organizations to program civic events, gatherings and outdoor art exhibitions in open spaces throughout the district, giving local residents and tourists reason to visit Arlington Center on a regular basis.

- Encourage property and business owners to make storefront and commercial sign enhancements including restorations, window signs and treatments, blade signs, sandwich board signs, lighting and other enhancements.

Arlington Heights, 2012

7 historic & cultural resource areas

Introduction

Communities need to preserve the physical tapestry of historic buildings, structures, and landscapes for future generations. From Arlington's pivotal role in the events that precipitated the Revolutionary War to the lasting physical creations showcasing masterful architectural styles, and the legacy of founding families such as the Robbins, Arlington has much to celebrate, and much to preserve from over three and a half centuries of development.

Historic Resources are the physical remnants that provide a visible connection with the past. These include Arlington's historic buildings and structures, objects and documents, designed landscapes, and cemeteries. Cultural Resources are the tangible assets that provide evidence of past human activities, including both man-made and natural sites, structures, and objects that possess significance in history, architecture, archaeology, or human development.[1] In Arlington, among others, this includes the heritage landscape of the Mill Brook, which represents generations of industrial development. Together, Arlington's collection of historic and cultural resources help tell the story of the modern, colonial, and Native American settlement of the land. These irreplaceable resources contribute to Arlington's visual character and sense of place.

master plan goals for historic & cultural resource areas

- Maintain, protect, preserve, and promote historic and diverse cultural resources in all neighborhoods.
- Provide attractive, well-maintained spaces for residents to meet, play and grow.
- Promote arts and cultural activities for all ages.

Existing Conditions

Arlington has a wealth of historic buildings, landscapes, sculptures, and other structures, as well as important collections of historic documents and artifacts housed in several historic sites.

Historic Buildings

Practically all architectural styles employed in the Boston region over the past 300 years are represented in Arlington, including Colonial, Georgian, Federal, and Greek Revival styles popular in the late eighteenth and early nineteenth century; the Second Empire, Gothic Revival, and Italianate styles fashionable in the mid-nineteenth century; the Romanesque, Queen Anne, and Shingle Styles of the late nineteenth century; and the Revival styles of the early-to mid-twentieth century. Arlington also has examples of mid-twentiethh century Modern style residences and buildings worthy of documentation and appreciation. Arlington's historic architectural styles are represented in both "high-style" architect-designed buildings and more modest "vernacular" versions constructed by local builders, and they are rendered on a variety of building forms, including residential, commercial, religious, institutional, industrial, and governmental buildings.[2]

[1] National Park Service, *NPS28: Cultural Resource Management Guideline*, http://www.nps.gov/history/history/online_books/nps28/28intro.htm

[2] The Arlington Historical Commission (AHC) has documented many historic resources on Massachusetts Historic Resource Inventory forms. Unless noted otherwise, these inventory forms are the main source of historic and architectural information in this plan. In some instances, historic names cited

RESIDENTIAL BUILDINGS

Arlington benefits greatly from the diversity of its historic housing stock, both in terms of styles and scale. In many instances, Arlington's neighborhoods present an architectural history lesson as one travels down the tree-lined streets. Particularly in the town's older neighborhoods, houses of different styles sit side by side, displaying a variety of ornamental trim and embellishment. In some neighborhoods, a single architectural style might stand alone on the streetscape. This can be seen in the steep-gabled English Revival homes found in parts of Arlington Heights and in the mid-century housing of Arlington's post-war neighborhoods. Arlington's residential building forms also vary, including collections of both modest and grand single-family homes and multi-family residences ranging from small workers' housing built around early industries to large early twentieth century brick apartment buildings built along and near Massachusetts Avenue and other major transportation routes. Most historic or older homes are well cared for in Arlington. Homeowners generally take great pride in their historic homes, preserving and restoring the architectural details that make their homes special.

CIVIC BUILDINGS

The Town of Arlington owns an impressive collection of architecturally and historically significant buildings, including Town Hall, Robbins Library, several school buildings and fire stations, the Mt. Pleasant Cemetery chapel, and several historic houses. Most of Arlington's civic buildings were constructed in the early twentieth century as the small town transitioned into a more densely settled suburb. While the Town continues to use most of its buildings for their original intended purpose, it has converted several edifices to new uses while respecting the architectural integrity of each structure. Arlington values its municipal properties, which serve as both cultural landmarks and community gathering places, and has been a relatively good steward of these historic assets. The Town has undertaken interior and exterior restoration projects on many of its historic properties; however, several Town-owned historic resources, such as the Jefferson Cutter House, the Jarvis House, and the Winfield Robbins Memorial Garden are in need of repair.

CIVIC BLOCK

Located on Massachusetts Avenue in the heart of Arlington Center, the Civic Block contains three of Arlington's most iconic civic institutions – the Robbins Library, the Robbins Memorial Town Hall, and the Whittemore-Robbins House – all interconnected by the landscaped grounds and brick walkways of the Winfield Robbins Memorial Garden. The Civic Block represents the generosity of the Robbins family, who donated funds for construction of these impressive landmarks. All buildings within the Civic Block are well-preserved and designated within the Arlington Center National Register Historic District.

Robbins Library* (1892), 700 Massachusetts Avenue. Designed by the architectural firm of Cabot, Everett, and Mead in the Italian Renaissance style, the impressive historic edifice of the Robbins Library was reputed to be modeled after the Cancelleria Palace in Rome. This grand building is constructed of sandstone ashlar with elaborate architectural embellishment, including three-story arched windows, a limestone and marble portico, and a grand central rotunda.[3] The building's interior features an ornately detailed Reading Room. The building was modified with additions in 1930 and 1994, and in 2013 the Town replaced the original slate roof.

Robbins Memorial Town Hall* (1913), 730 Massachusetts Avenue. Designed in the Classical Revival style by architect R. Clipston Sturgis, the sandstone Rob-

on inventory forms may conflict with commonly used names. For this plan, we have used historic names as identified on the town's inventory forms. Resources with an inventory form are noted by an asterisk (*).

[3] Massachusetts Historical Commission, *Form A – Area: Town Center Historic District.*

bins Memorial Town Hall complements the adjacent Robbins Library. The Town Hall's three-bay façade features a central pavilion with projecting arcaded entrance porch. Two projecting pavilions accented by rusticated limestone and ashlar panels flank the porch. Balustrades crown both the entrance porch and roof cornice, and an ornate cupola capped by a pineapple tops the gable roof. Arlington restored the building's auditorium prior to holding a series of celebrations in 2013 to honor Town Hall's 100th anniversary. The Town received a Massachusetts Preservation Projects Fund (MPPF) grant from the Massachusetts Historical Commission (MHC) for its restoration efforts, requiring the Town to protect the building with a preservation restriction.

Whittemore-Robbins House* (ca. 1795), 670R Massachusetts Avenue. Located at the rear of the Civic Block is the Federal-style Whittemore-Robbins House. This three-story wood and brick framed mansion features front and rear porches and a hipped roof crowned with an ornate cupola. The house was originally occupied by William Whittemore, a prominent local businessman and politician. The building was purchased by Nathan Robbins, a prosperous merchant at the Fanueil Hall market in 1847 and served as the Robbins family home until 1931, when the family donated the property to the Town. In 1890, the Robbins sisters relocated the house, rotating and moving it back from Massachusetts Avenue to allow for the construction of the Robbins Library. From 1976 to 1993, the Arlington Historical Commission (AHC) worked to restore the building's public rooms to their early residential condition. The building now serves as a meeting and function facility. The AHC and the Arlington Youth Consultation Center also maintain offices in the building.

FIRE STATIONS

Arlington's two historic fire stations were designed by architect George Ernest Robinson in the Georgian Revival style.

Central Fire Station* (1926), 1 Monument Park in Arlington Center. This red brick and stone building was one of the first octagonal fire stations constructed in the United States. Its unique design allowed fire trucks to emerge simultaneously from six different directions.[4] The building's tower, originally designed to hang fire hoses to dry, continues to serve as a visual landmark in Arlington Center.

Highland Hose House* (1928), 1007 Massachusetts Avenue. For this station, Robinson designed features to imitate those found on several of Boston's most iconic eighteenth and early nineteenth century buildings. The fire station's stepped gable ends and rounded windows are reminiscent of the Old State House, while its cupola and gilded grasshopper weathervane imitate Faneuil Hall. The building's interior is also architecturally and historically significant, with woodwork created by the Theodore Schwamb Company and a Cyrus E. Dallin bronze relief of one of Arlington's former fire chiefs in the lobby. In 2012, the Town completed a LEED-certified renovation of the building, including exterior repairs and interior renovations.[5]

MUNICIPAL BUILDING REUSE

While most of Arlington's governmental buildings continue to serve their original civic purpose, the Town has converted several of its historic buildings to new uses, including former schools, a former library, and several houses. The Town leases the buildings noted below and several others not listed here to private groups, primarily for educational or civic purposes.

Central School* (1894), 27 Maple Street. Arlington's first dedicated high school now serves as the Arlington Multi-Purpose Senior Center and is leased to variety of tenants. Designed by Hartwell and Richardson, the red brick and brownstone school building is elaborately detailed with a slate hipped roof, turreted dormers, and an arched entrance highlighted with brownstone relief panels.[6] In the 1980s, the building was rehabilitated and is now used as offices, and as a meeting space for public groups. The building is located within the Pleasant Street Local Historic District (LHD) and the Arlington Center Historic District.

Parmenter School* (1927), 17 Irving Street. This former school was designed by architect Charles Greely Loring in the Colonial Revival style. The Town closed the school in 1983 and now leases the brick and stone building to two private educational institutions.

Vittoria C. Dallin Branch Library* (1938), 85 Park Avenue, Arlington Heights. This former library is now leased by the Town to Arlington Community Media,

[4] Metropolitan Area Planning Council, *Corridor Management Plan: Battle Road Scenic Byways: Road to Revolution*, 57.

[5] Town of Arlington, *Annual Report*, 2012.

[6] Vision 2020, *Map of Arlington*.

Inc. (ACMi). This brick Colonial Revival style building was designed by Arlington architect William Proctor.[7]

Jefferson Cutter House* (ca. 1830), 1 Whittemore Park. Located on the corner of Massachusetts Avenue and Mystic Street in Arlington Center, the Federal-style Jefferson Cutter House was built for the owner of a local woodworking mill. The building features an ornate entrance with fluted pilasters and sidelights. The property is listed in the National Register of Historic Places. It was originally located further west on Massachusetts Avenue. In 1989, the Town worked with the then owner to purchase and relocate the building to a plot of land in Arlington Center.[8] Afterward, the Town restored the house and developed the land in front as a public park (see Whittemore Park in Historic Landscapes). Today, the Arlington Chamber of Commerce leases space on the second floor and the Town provides the ground floor rooms for meeting and art exhibition space. The Cyrus Dallin Art Museum, operated by a private non-profit organization, rents the first floor as gallery space to exhibit a valuable collection of Dallin's original sculptures, documents, and other works.

The George Croome House* (ca. 1862), 23 Maple Street. This Second Empire style home previously served as the Arlington Public Schools Administration Building. The Town now leases the building to a group home. The building is located within the Pleasant Street Historic District (LHD) and the Arlington Center Historic District (NR).

The John Jarvis House (1831), 50 Pleasant Street, is a Federal style former residence that is located within both the Arlington Center Historic District (NR) and the Pleasant Street Historic District (LHD). The Town leases the house from the private owner for use by the Town Legal Department.

The **Gibbs Junior High School at 41 Foster Street** in East Arlington is a former brick school that the Town now leases to the Arlington Center for the Arts and other nonprofit tenants.

OTHER GOVERNMENT BUILDINGS

Arlington's U. S. Post Office (1936) is located at 10 Court Street in Arlington Center. Constructed as a Works Progress Administration (WPA) project, this red brick building is designed in the Classical Revival style. The building's lobby features a Federal Art Project mural "Purchase and Use of the Soil" by artist William A. Palmer. Completed in 1938, the Art Deco style mural depicts the Squaw Sachem transferring the land of Menotomy to the English Settlers in 1635.

The Arlington Pumping Station* (1907) on Brattle Court is a single-story Renaissance Revival brick structure designed by C. A. Dodge for the Metropolitan Water System. This building, which was constructed to supply Arlington with drinking water, was surveyed several times on historic resource inventory forms and has a preliminary evaluation as eligible for listing on the National Register of Historic Places.

HISTORIC BUILDINGS AS CONTEMPORARY CULTURAL VENUES

History and the arts are interwoven in Arlington, with many historic buildings providing venues for performance space as well as art exhibits and contemporary cultural programming. Auditoriums at Arlington's Town Hall and High School, as well as spaces within the Town's public libraries and in private churches, theaters, and community halls, provide rehearsal and performance space for dance, choral, and other performing arts groups. Two historic theaters continue to serve in their original capacity as community cultural spaces. In Arlington Center, the Classical Revival style Regent Theatre (ca. 1930) continues to present live theater, music, movies, and other performance programs each year. The Capitol Theatre*, a Classical Revival style building was constructed in 1925. Its later division from one hall to multiple screening rooms was done with consideration to preserve early twentieth-century details. It remains a popular movie picture theater in the Boston area and continues to serve as a community landmark on Massachusetts Avenue in East Arlington.[9] Both theaters are listed in the National Register of Historic Places.

Arlington also has several other historic buildings that have been renovated and repurposed as performance and studio spaces. The Arlington Center for the Arts, a private arts organization, leases some of the space

[7] Duffy, Richard, *Then & Now: Arlington*, 70.

[8] Laskowksi, Nicole, "Jefferson Cutter House hits milestone", posted December 4, 2009, Wicked Local Arlington, www.wickedlocal.com/arlington/news

[9] Friedberg, Betsy, *Form B – Building Form: Capitol Theater Building*, December 1984.

in the former Gibbs Junior High School in East Arlington, while the nonprofit Arlington Friends of the Drama presents live community theater in the former St. John's Episcopal Church* (1877), a Stick Style church on Academy Street located within the Arlington Center National Register District and the Pleasant Street Local Historic District.

HISTORIC COMMERCIAL DISTRICTS

Massachusetts Avenue is Arlington's primary commercial corridor and the "spine" of the town. It is steeped in history as the site of battle during the first day of the Revolutionary War on April 19, 1775. A segment of Massachusetts Avenue, which extends through Concord, Lincoln, Lexington, and Arlington, received state designation as the Battle Road Scenic Byway in 2006 and awaits consideration as a National Scenic Byway. In Arlington, Massachusetts Avenue contains a varied collection of eighteenth, nineteenth, and twentieth century buildings including single-story commercial blocks, multi-story mixed-use commercial buildings, and Classical Revival masonry apartment buildings interspersed with earlier wood-frame houses, including two from the eighteenth century. Arlington's three commercial districts, Arlington Heights, Arlington Center, and East Arlington, are located along Massachusetts Avenue.

CHURCHES

Arlington's religious structures represent the various architectural styles associated with ecclesiastical design over the past several centuries, including a modest eighteenth century Federal style meetinghouse, elaborately detailed Greek Revival/Italianate and Stick Style churches, a romantic stone Gothic Revival Chapel, and several large masonry Neo-Gothic Revival churches. The AHC has documented seventeen of Arlington's churches, chapels, and parish halls on historic resources inventory forms. Six of Arlington's churches are designated within a local historic district and seven are listed in the National Register of Historic Places. One building, the **Pleasant Street Congregational Church*** (now Boston Church of Christ), is further protected by a preservation restriction because it received Massachusetts Preservation Projects Funds (MPPF) for exterior restoration work.[10]

[10] Massachusetts Historical Commission, "List of Grant Recipients", http://www.sec.state.ma.us/mhc

MUSEUMS

Arlington has three historic buildings that are open to the public as museums. The Town-owned Jefferson Cutter House hosts the Cyrus Dallin Art Museum, which is managed by a nonprofit organization. Two other museums are owned and operated by private nonprofit organizations.

The Jason Russell House and Smith Museum (1740), 7 Jason Street in Arlington Center. Operated by the Arlington Historical Society (AHS), the house was the site of fighting on the first day of the American Revolution and still bears several bullet holes from the battle. The museum houses the Society's collection of artifacts, manuscripts, and other Arlington memorabilia, and displays artifacts from the Russell family, who lived in the house until 1896. The property also includes an herb garden maintained by the Arlington Garden Club. In 1980, the AHS constructed the adjoining Smith Museum for archival and exhibit space.

The Old Schwamb Mill (1864), Mill Lane. The museum honors the industrial legacy of the Mill Brook and is one of the early mills established on its waterway. Operated by a nonprofit charitable education trust, the Old Schwamb Mill is a living history museum that presents special exhibits and a variety of programs for its members and the community. The current mill building was built in 1864 by Charles Schwamb for his picture frame factory, which specialized in round and oval frames made on unique elliptical faceplate lathes. Much of the machinery and extensive archive are still intact and the Mill continues to craft handmade frames to the exacting standards of five generations of Schwambs.

Historic Landscapes

Arlington's historic landscapes are as varied as the town's historic buildings, representing both formal landscapes designed by landscape architects and heritage landscapes formed by generations of human interaction with the land. In addition to offering a visual respite from the town's densely-settled built environment, these landscapes serve as community gathering spaces and areas for quiet contemplation.

DESIGNED LANDSCAPES

Arlington Center has two public green spaces, both designed as part of building projects.

The Winfield Robbins Memorial Garden* (1913) was laid out as part of the Town Hall construction project in 1913. The original garden design included the Cyrus

Dallin sculpture *The Menotomy Indian Hunter*. In 1939, Olmsted Associates reconfigured the garden in a more natural design with a rubble rock base for the Indian sculpture, flowering trees and bushes, winding brick paths, a circular fountain and a pool, and a masonry garden wall surrounding the grounds. The Town has prepared a preservation master plan for the garden - The Arlington Civic Block Master Plan (1998) by Patrica S. Loheed and Sara B. Chase. This Master Plan was intended to provide a decision-making framework for the restoration and unification of the major gardens in the Arlington Civic Block, including the Winfield Robbins Memorial Gardens, which is listed in the national and state Historic Registers. Repairs to the garden's sandstone and limestone wall were completed in 2014. The garden is protected by a preservation restriction and is used for both community and private events.

Whittemore Park is a small park in front of the Jefferson Cutter House that was created when the Cutter House was moved in 1989. In addition to several mature trees, park benches, and interpretive signage, the irregularly shaped park at the corner of Massachusetts Avenue and Mystic Street is intersected by a small section of exposed railroad tracks, which are the remains of a railway line (established in 1846) that once bisected the community. To the east and west of the park, the former railroad track is now the Minuteman Bikeway. Arlington uses the park to host art exhibits and community events throughout the year.

HERITAGE LANDSCAPES

The Massachusetts Department of Conservation and Recreation (DCR) operates the Historic Landscape Inventory Program, which completed Heritage Landscape Studies for communities in the Freedom's Way Heritage Area, including Arlington, in 2006. Arlington's report identified 63 heritage landscapes in the community and highlighted six for future study–the Battle Road Corridor; the Butterfield-Whittemore House at 54 Massachusetts Avenue; Great Meadow/ Mill Brook Drainage System; the Mugar Property adjacent to Thorndike Field; Spy Pond and adjacent parkland; and the W. C. Taylor House at 187 Lowell Street.[11]

One of the priority landscapes identified was the **Mill Brook**, which flows from the Arlington Reservoir to the Mystic Lakes. The Mill Brook has deep historical and

cultural roots dating back to the 1630s when Captain George Cooke build the first water-powered grist mill in Arlington (then Cambridge), now known as Cooke's Hollow on Mystic Street. Originally called Vine Brook and later Sucker Brook, the 2.7-mile long Mill Brook has an elevation drop of more than 140 feet, which provided water power significant enough to power small industrial ventures along its banks.[12] During the industrial period, a series of mill ponds and dams lined the brook. After decades of reconfiguration and development, much of the brook is culverted with only limited portions of the waterway still exposed. The impression of the original Old Schwamb Mill pond is still visible as a Town--owned grassy park on Mill Lane near Lowell Street. The other ponds have been filled in for playing fields and other uses.

The Town is committed to preserving the natural and historic legacy of the brook and is exploring opportunities to enhance the area as park space and a buffer zone to nearby commercial and residential neighborhoods. The Town has completed two planning studies on the Mill Brook, with the most recent report completed in 2010. The Mill Brook Linear Park Report provides an

[11] MA Department of Conservation and Recreation, *Massachusetts Heritage Landscape Inventory Program: Arlington Reconnaissance Report*, 2006.

[12] Mill Brook Linear Park Study Group, *Mill Brook Linear Park Report*, April 2010, 3.

historical overview of the brook, land characteristics and issues, and an analysis of current conditions, challenges, and opportunities.

Historic Structures

Arlington has documented twenty-eight structures on historic inventory forms (see Appendix). These structures include former railway bridges, a dam on the Mystic Lakes, several parks, garden landscapes, conservation lands, and the early twentieth century Mystic Valley Parkway. Many of the structures are owned by state agencies as part of regional transportation and water systems. One of Arlington's most distinctive structures is the Arlington Reservoir Standpipe* (1921), also known as the Park Avenue Water Tower, which occupies the crest of one of the town's highest hills. Arlington architect Frederic F. Low designed the 85-ft. tall tower based on the ruins of a Greek temple visited by the Robbins sisters, who donated funds for the structure.[13] The tower consists of a steel tank surrounded by a granite shell with twenty-four limestone columns, a decorative cornice, and concrete dome roof. The structure was listed on the National Register in 1985.[14]

Historic Objects

Arlington's historic objects span more than two centuries (Table 7.1). Due to the town's association with nationally renowned sculptor Cyrus E. Dallin (1861-1944), who lived in Arlington for over 40 years, Arlington has a significant collection of his artwork, including the Town-owned *Menotomy Indian Hunter** in the Winfield Robbins Memorial Garden, the *Robbins Memorial Flagstaff** at Town Hall, and *My Boys* in the Robbins Library. The Cyrus Dallin Art Museum, located in the Jefferson Cutter House, maintains a collection of more than 60 works of art by Dallin.[15] (See later discussion of Museum's collections in Historic & Cultural Resource Planning) Town Meeting established the museum in 1995 to collect, preserve, protect, and exhibit the works of the celebrated American sculptor. In the 1990s, Arlington completed a conservation project to preserve these objects. Other inventoried sculptures in Arlington include the late-twentieth century *Uncle Sam Memorial Statue** in Arlington Center, designed by sculptor Theodore Barbarossa of Belmont.[16]

Table 7.1. Documented Historic Objects

Name	Date	Location
Milestone	1790	Appleton Street
The Guardian Angel Rock	1920	Claremont Avenue
Robbins Memorial Flagstaff	1913	Mass. Avenue
Arlington Civil War Memorial	1886	Mass. Avenue
Menotomy Indian Hunter	1911	Mass. Avenue
Uncle Sam Memorial Sculpture	1976	Mass. Avenue

Source: MACRIS, accessed August 26, 2013.

Despite widespread appreciation of public art, Arlington has documented only the six historic markers, sculptures, and objects noted above on historic resource inventory forms. Notably missing are most of Dallin's public art pieces, as well as the ca. 1912 decorative concrete *Play Fair Arch and Wall* at Spy Pond's Hornblower Field[17], the historical markers along Massachusetts Avenue commemorating April 19, 1775, the granite watering trough at the Foot of the Rocks donated by the Robbins sisters in memory of their brother, and the bronze tablet in Cooke's Hollow Park commemorating the site of the first mill (1637) in Menotomy.

Burial Grounds and Cemeteries

The Town of Arlington maintains two public cemeteries: the Old Burying Ground on Pleasant Street in Arlington Center and Mount Pleasant Cemetery on Medford Street. Established in 1732, the **Old Burying Ground*** is Arlington's oldest cemetery.[18] Located behind the First Parish Unitarian Universalist Church, the burial ground includes an impressive collection of early slate markers dating from ca. 1732. The Old Burying Ground is included in the Arlington Center National Register District and is protected with a preservation restriction. The **Mount Pleasant Cemetery*** (established ca. 1843) is a 62-acre cemetery (the 62-Acre figure includes Meadowbrook Park, a 3-acre wetland area man-

[13] Duffy, *Then & Now: Arlington*, 75.

[14] Louis Berger & Associates, *Form F – Structure: Arlington Standpipe*, 1984, revised 1989.

[15] Cyrus E. Dallin Art Museum, http://dallin.org

[16] Arlington Historical Society, *Menotomy Minuteman Historical Trail.*

[17] MA Department of Conservation and Recreation, *Massachusetts Heritage Landscape Inventory Program: Arlington Reconnaissance Report*, 2006, 8.

[18] The Burying Ground is also referred to as "Arlington Old Cemetery" and "First Parish Church Old Burying Ground" on the Historic Resource Inventory Form completed for this site.

aged by the Conservation Commission.) highlighted by the **Cemetery Chapel*** (1930), a Gothic Revival chapel designed by the architectural firm of Gay & Proctor, a large entrance gate, Victorian-era marble monuments, and contemporary granite markers. Although still active, the cemetery is almost full and the Town is considering options for continuing interments at the facility.

The site of the Prince Hall Mystic Cemetery* (1846) on Gardner Street in East Arlington marks the only Black Masonic Cemetery in the United States. Today, a monument and small park mark the site where members of the Prince Hall Grand Lodge F & AM, formed in 1776, were buried. Though much of the original cemetery has been developed, a 1988 geophysical survey of the site by students of Boston University's Archaeological Department found remains of the original gate and an obelisk. In 1987, after learning about the cemetery, the Arlington Historical Society collaborated with the Prince Hall Grand Lodge of Dorchester to form the Prince Hall Mystic Arlington Cemetery Association to preserve and protect the site. The group restored the site with donations from the Prince Hall Grand Lodge and CDBG funds from the Town of Arlington. In 1990, the group rededicated the cemetery, and in 1998 the cemetery was listed in the National Register of Historic Places. Nearby at the corner of Broadway and Alewife Brook Parkway is **St. Paul Catholic Cemetery**, built in the late nineteenth century and associated with St. Paul Church in North Cambridge.

Archeological Resources

While Arlington has not conducted a community-wide archaeological reconnaissance survey, it has completed several site-specific archeological studies. In addition to the geophysical survey for Prince Hall Cemetery, the Town commissioned archaeological excavations along the shore of Spy Pond when it renovated Spy Pond Field in the early 1990s. Resources uncovered during the project include prehistoric lithic chipping debris and structural remains from the nineteenth and early twentieth century ice industry buildings.[19] In addition, a mastodon tusk found in Spy Pond in 1959 is on display in the Jason Russell House. Since Arlington is located within an area of Massachusetts that was settled centuries before the first English settlers arrived, it is realistic to imagine that other significant archaeological resources may exist within Arlington despite the town's intense development.

Any significant archaeological sites identified in Arlington will be included in the MHC Inventory of Archaeological Assets of the Commonwealth. This confidential inventory contains sensitive information and is not a public record as required under M.G.L. c.9, s. 26A (1).

Historic Collections

In addition to Arlington's historic built assets and heritage landscapes, the town also maintains significant collections of historic records, documents, and artifacts. These collections are retained in various locations including at the Town Hall and the Library and within the private collections of the Arlington Historical Society, the Cyrus Dallin Museum and the Old Schwamb Mill. Artifacts contained in these collections include historic documents, meeting records, photographs, postcards, furniture, and sculpture. Maintaining these collections can be challenging for local groups due to limited archival space and ongoing conservation needs.

Cultural Resources

Contemporary art and culture are integral to Arlington's community identity. Arlington has many residents working in the visual, print, and performing arts fields, and many local organizations promote and enhance the arts. History and culture are interwoven in Arlington, with the Town's historic buildings providing venues for contemporary theater and musical performances as well as art exhibits and cultural programming.

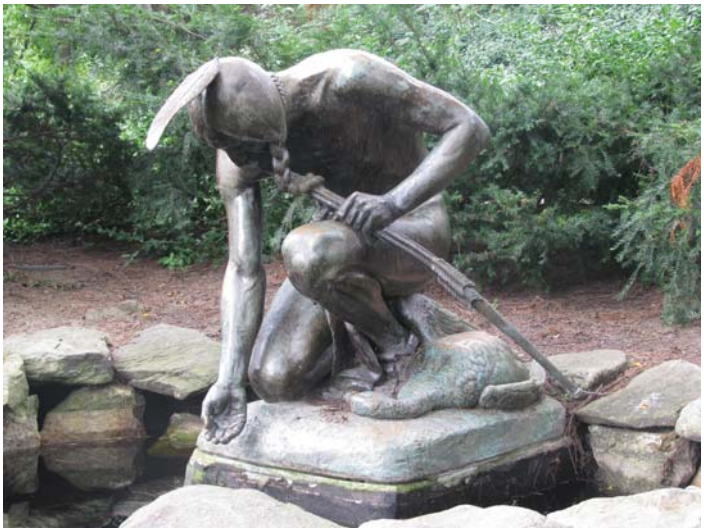
Public Art

Public art installations, whether on public or private property, enhance our experience of the public realm. Public art attracts visitors and business patrons. It fosters community pride and draws the community together. Much of it is made by local artists. In addition to Cyrus Dallin's work, examples of public art in Arlington include:

- Fox Library Mural
- Uncle Sam statue
- Scrim Mural at the Boys and Girls Club
- Mural at Arlington Center for the Arts
- Mural at Studio 221

[19] Town of Arlington, *Open Space and Recreation Plan*, 70.

- Elevn ceramic mosaic murals made by Arlington High School students
- Five painted transformer boxes
- The hawk tree in waldo park
- Spooky Walk at Menotomy Rocks Park
- Chairful Where You Sit
- Arts Rocks Menotomy
- Eco Fest creations
- Park Circle Watertower Image Projection & Dance



Venues

Performance venues and rehearsal spaces are important to Arlington's many performing groups, both long-established and newer or contemporary. The Arlington Philharmonic is more than 81 years old. There are two well-established choral groups, the Arlington-Belmont Choral Society and Cantelena, and the public schools have a strong music program from K-12. Students can participate in both instrumental and choral music including band, jazz band, orchestra, chorus and madrigal.

Historic and Cultural Resource Planning

Arlington has three Town-based organizations dedicated to preserving the community' historic resources: the Arlington Historical Commission; the Arlington Historic District Commissions; and the Arlington Preservation Fund, Inc. All three groups are involved with preservation planning, advocacy, and resource management. A fourth organization, the Arlington Historical Society, is a private nonprofit organization dedicated to preserving the town's heritage, in particular the Jason Russell House and its artifacts and memorabilia. Other groups, such as the Old Schwamb Mill, the Cyrus Dallin Art Museum, and the Arlington Public Library focus on the preservation of specific sites and historic artifact and document collections. Town boards such as the Cemetery Commission, the Redevelopment Board, the Conservation Commission, and the Arlington Tourism and Economic Development Committee (A-TED) also participate in preserving Arlington's historic character. Many of these boards have overlapping membership and have collaborated on past efforts to preserve and promote the town's history.

Municipal Boards and Committees

Arlington Historical Commission (AHC). Local historical commissions (LHC) are established under Massachusetts General Law, Chapter 40, Section 8D, as the official municipal agencies responsible for community-wide historic preservation planning. LHCs work in cooperation with other municipal departments, boards, and commissions to ensure that the goals of historic preservation are considered in community planning and development decisions. LHCs also serve as local preservation advocates and are an important resource for information about their community's cultural resources and preservation activities.[20]

The AHC is a seven-member volunteer board responsible for community-wide historic preservation planning and advocacy. The AHC is also responsible for administration of the town's demolition delay bylaw and provides guidance to other municipal departments, boards, and commissions to insure that historic preservation is considered in community planning and development decisions. The Commission's activities include historic resource surveys, National Register nominations, preservation restrictions, preservation awards, and community education and outreach. The AHC also operates a sign program, providing historic markers for inventoried properties. The AHC's website, www.arlingtonhistoricalcommission.org, provides a list of historically significant structures in Arlington (Historic Structures Inventory) as well as information about the Town's demolition delay bylaw and Preservation Loan Fund.

[20] Massachusetts Historical Commission, *Preservation through Bylaws and Ordinances*, Draft, 2009, 4.

Arlington Historic District Commissions (AHDC). The AHDC is Arlington's municipal review authority responsible for regulatory design review within the Town's seven designated local historic districts adopted under M.G.L. C. 40C. In Arlington, seven separate commissions oversee changes to these districts. All seven commissions share the same six volunteer members, including an architect, a real estate professional, and a representative from the Arlington Historical Society, with the seventh member consisting of a resident or property owner from the respective district. The AHDC meets monthly to review the architectural appropriateness of most proposed exterior design changes to properties located within the town's historic districts.

Arlington Preservation Fund, Inc. The Arlington Preservation Fund provides low interest loans for restoration work on historic properties. Originally established with Community Development Block Grant (CDBG) funds, the program approved its first loan in 1984 and has closed its 100th loan. The program is maintained as a municipal fund managed by an independent, non-profit board that oversees the distribution of funds. The nine-member board includes representatives from the Historical Commission, the Schwamb Mill, the Historical Society, and the Historic District Commissions as well as the Planning Director, an architect, lawyer, real estate professional, and a financial officer. To be eligible for funding, a property must be located within an historic district, inventoried, or otherwise deemed important by the fund's board.[21]

Arlington Public Library. Arlington's Public Library, including the Robbins Library and the Fox Branch Library, is a public institution and community resource that promotes the historical, social, and cultural development of the town. The Robbins Library's Local History Room maintains a collection of historic books, scrapbooks, annual reports, atlases, photographs, postcards, slides, vertical files, other ephemera documenting Arlington's history.

Local Private Nonprofit Organizations

Arlington Historical Society. The Arlington Historical Society was founded in 1897 as a private non-profit organization dedicated to collecting and preserving historic artifacts relating to Arlington's history. In 1923, the Society acquired and restored the Jason Russell House as a historic house museum. In 1980, the Society constructed the Smith Museum to provide exhibition and meeting space as well as a climate controlled archive. The society offers rotating exhibits and educational programming on local history, including an evening lecture series and member presentations.[22]

Cyrus Dallin Art Museum. The Dallin Museum manages and preserves the historic collection of Dallin's art work, including freestanding and relief sculptures, coins, medals, and paintings. The Museum also exhibits artifacts owned and used by Dallin as well as commercial items that demonstrate the far-reaching effects of the artist's work on popular culture.[23] The museum also manages an archive with photographs, letters, exhibition catalogs and other documents of Cyrus Dallin. In addition to its efforts relating to Dallin's legacy, the organization also presents lectures, exhibits, and other programming on local history and culture.

Old Schwamb Mill Preservation Trust, Inc. Founded in 1969 to save the Old Schwamb Mill, the Trust now owns and manages the mill as a historic museum (see previous description). The Trust maintains a collection of artifacts and records relating to the mill and its history in the community.

Regional Preservation Organizations

Freedom's Way Heritage Association (FWHA). Arlington is one of thrity-seven communities in Massachusetts and New Hampshire that are part of the Freedom's Way National Heritage Area, designated by Congress as a nationally significant area where historical, cultural, and natural resources combine to form a cohesive, common landscape. The Freedom's Way Heritage Association manages and coordinates efforts to build civic appreciation and understanding of unique assets and stories of the area. The organization's website highlights historic resources present in each participating community, including Revolutionary sites in Arlington.

Local Regulations, Policies, and Initiatives

HISTORIC RESOURCES INVENTORY

Identifying a community's historic resources through an historic resource survey forms the basis of historic preservation planning at the local level. During an historic resource survey, a town documents its historic resources on individual inventory forms that include historic and architectural significance narratives, photographs, and locus maps. To date, Arlington has

[21] Arlington Preservation Fund website, http://www.arlingtonpreservation.org/

[22] Arlington Historical Society website, http://arlingtonhistorical.org.

[23] Cyrus E. Dallin Museum website, http://dallin.org

Table 7.2. Local Historic Districts			
Historic District Name	Location	No. of Properties	Date of Designation/Most Recent Extension
Avon Place	7-29 Avon Place and 390-402 Massachusetts Avenue	12	8/20/1996
Broadway	Bounded by Broadway, Webster, and Mass Avenues	8	9/13/1991
Central Street	Bounded by Central St to east, Mass Ave to south, and bike path to north	17	6/9/1982
Jason - Gray	Jason, Gray, Irving and Ravine Streets	50	5/4/1998
Mount Gilboa - Crescent Hill	Westminster Ave, Crescent Hill Ave, Montague St, and Westmoreland Ave	104	9/13/1991
Pleasant Street	Pleasant St from Swan St to Venner Rd, Academy St, Maple St, Oak Knoll, Pelham Terrace, Venner Rd and Wellington St	137	4/26/2006
Russell Street	Roughly bounded by Water, Russell, Mystic, Prescott, and Winslow Streets	31	7/31/1985
Total Number of Properties		359	
Source: State Register of Historic Places 2012			

submitted inventory forms for more than 1,100 properties to the Massachusetts Historical Commission's Inventory of Historic and Archaeological Assets of the Commonwealth. Resources identified in Arlington's inventory date from 1695 to 1988. The Town's last survey effort was undertaken in support of expanding the Pleasant Street Historic District. Most of Arlington's inventory forms are available to view and download on the Massachusetts Historical Commission's searchable MACRIS database at mhc-macris.net. Properties listed in the inventory are subject to the Town's demolition delay bylaw (see discussion below.)

NATIONAL REGISTER HISTORIC DISTRICT AND INDIVIDUAL LISTINGS

The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects that have been deemed significant in American history, architecture, archaeology, engineering, and culture. Arlington has three multi-property National Register Districts, three National Register Districts encompassing three or fewer properties, and fifty-seven properties that are individually listed in the National Register (see Appendix).[24]

LOCAL HISTORIC DISTRICTS

Arlington has designated seven local historic districts with a combined total of 359 properties (see Table 7.2). In a local historic district, exterior alterations subject to public view require approval from the Historic District Commissions. These requirements afford a heightened level of protection against incongruous alterations of structures or their environs. Over time, Arlington has expanded a number of these districts due to requests from property owners wishing to have their properties included to better preserve historic streetscapes. All but the Mount Gilboa/Crescent Hill Historic District are located in or around Arlington Center. Properties in Arlington's historic districts vary in age, style, and level of ornamentation. The HDC has adopted design guidelines as an aid to property owners.

DEMOLITION DELAY BYLAW

Arlington was one of the first communities in Massachusetts to adopt a demolition delay bylaw. Per the Town's Bylaw, Title VI, Article 6 – Historically or Architecturally Significant Buildings, any building in the Historic Structures Inventory (available on the AHC website) or deemed significant by the Historical Commission is subject to review by the commission when a property owner proposes to change or remove more than 25 percent of any one front or side elevation. The bylaw also defines demolition as a building owner's failure to maintain a watertight and secure structure. If the AHC determines during a public hearing process, that the building is preferably preserved, the bylaw imposes a 12-month delay to allow the opportunity to work with a property owner to find alternatives to demolition. The AHC has found the bylaw relatively effective when a property owner is willing to work with the commission. For owners who are not willing to consider an alternative solution, the bylaw only results in a temporary delay before the building is demolished.

[24] Massachusetts Historical Commission, *State Register of Historic Places* 2012.

PRESERVATION RESTRICTIONS

A number of important Arlington properties are protected by historic preservation restrictions under M.G.L. c. 184, ss. 31-33, including public and private resources (see Table 7.3). A preservation restriction is attached to the deed of a property and it is one of the strongest preservation tools available. Most of the restrictions were put in place when the properties were restored with a Massachusetts Preservation Project Fund (MPPF) grant from the Massachusetts Historical Commission.

EDUCATIONAL AND INTERPRETIVE ACTIVITIES

Interpreting local history in visual formats that are both informative and visually appealing can engage local residents and visitors with a community's heritage. Arlington's Historical Commission and Historical Society have both sponsored educational programs to highlight the town's heritage and historical sites, including walking tours, brochures, and lectures. The AHDC placed signage at several of the town's historic districts, but these markers are now deteriorated and in some instances, missing. Arlington has only a limited number of interpretive signs in the community. These include informational markers about the events of April 19, 1775, which are located in Whittemore Park in front of the Jefferson Cutter House, at the Jason Russell House, and at the Foot of the Rocks in Arlington Heights. Historic landscape markers are also located along the Minuteman Bikeway; they were developed by the Historic Commission to highlight local history in a neighborhood. The Town recently created distinctive directional signage for Arlington's museums and other cultural resources. In addition, the Town has installed an interpretive sign near the Uncle Sam Memorial Statue and plans to construct a new visitor center nearby at the corner of Massachusetts Avenue and Mystic Street. The Town also placed several historical markers on the former Symmes Hospital property as part of the redevelopment of the site.

REGIONAL INITIATIVES

Arlington's historical significance extends far beyond its local boundaries to one that is both regionally and nationally important. Arlington and its neighbors played a pivotal role in the events leading to the American Revolution, and several regional initiatives have been created to honor this legacy. In 2013, the Freedom's Way Heritage Association launched *Patriots Paths*, an outreach effort to identify Revolutionary sites and compile local stories from ten participating communities, including Arlington. The Freedom's Way website includes a list of venues in Arlington that represent the path of the Patriots in 1775. These sites include historic houses, civic buildings, burial grounds, and sites.

Table 7.3. Preservation Restrictions

Name	Address	Date Established	Expiration Date
Arlington Old Cemetery (Old Burying Ground)	730 Massachusetts Ave	5/25/2000	None
A. P. Cutter House #2	89 Summer St	12/19/2007	None
Ephraim Cutter House	4 Water St	12/2/1994	None
Jefferson Cutter House	1 Whittemore Park	1/9/1990	None
Old Schwamb Mill	17 Mill Ln and 29 Lowell St at Mill Brook	6/23/1999	None
Pleasant Street Congregational Church	75 Pleasant St	6/1/1999	None
Robbins Memorial Town Hall	730 Mass Ave	2/10/1987	None
Winfield Robbins Memorial Garden	730 Mass Ave	5/25/2000	None
Charles P. Wyman House	50 Wyman St	11/12/1985	None
Source: State Register of Historic Places 2012			

Designation of the *Battle Road Scenic Byway* along a portion of Massachusetts Avenue was a collaborative effort by the communities of Arlington, Lexington, Lincoln, and Concord, the Minute Man National Historical Park, MAPC, and the Massachusetts Executive Office of Transportation. The designation seeks to conserve this historic route and to highlight its archaeological, cultural, historic, natural, recreational, and scenic qualities. The Commonwealth of Massachusetts officially designated the Battle Road Scenic Byway on November 6, 2006, and MAPC completed a Corridor Management Plan for the Byway in Spring 2011.

Issues and Opportunities

DOCUMENTATION OF HISTORIC AND CULTURAL RESOURCE AREAS

In order to protect a community's historic and cultural resource areas, the Town needs to first identify what resources are present. Over the past three decades, the Arlington Historical Commission (AHC) has documented many of Arlington's historic resources on inventory forms. However, while these inventory forms include extensive historical and architectural narratives, the majority of these forms and their associated photographs are now more than fifteen years old. Furthermore, the Town still has significant locations, resources, and typologies that remain undocumented. Without a record of all of its historic resources, Arlington cannot plan adequately plan to protect this heritage. For example, limited or incomplete documentation can hinder the town's effective use of its demolition delay bylaw, which only allows review of buildings that are included in the inventory.

The Town could then engage professional preservation consultants to complete its survey initiatives, an activity that would be eligible for funding through MHC's Survey and Planning Grant program. A professional archaeologist-led survey effort to identify Native American and historic sites still present in Arlington would also be eligible for Survey and Planning funds. Other options include the use of volunteers and interns. The Historic District Commissions are considering the use of an intern to update Local Historic District (LHD) property photographs, which are used during the regulatory review process.

As Arlington has a Local Historic District bylaw, it is eligible to apply for Certified Local Government (CLG) designation, granted by the National Park Service through the MHC. The CLG designation is awarded based upon the strength of a community's existing and proposed programs for historic preservation. All state historic preservation offices are required to allocate ten percent of their annual federal appropriations to CLG communities. During years of limited federal allocation to MHC, Survey and Planning Grants are restricted to CLG communities only.

ADVOCACY AND EDUCATION

Once historic resources are identified and documented, Arlington can seek to promote and protect its historic resources. Arlington's historic resource inventory can be used to foster public appreciation of Arlington's rich heritage and to develop a public awareness campaign to encourage residents to consider historic designations. While the AHC has an extensive website, it has been many years since the Town has produced informational brochures and literature highlighting Arlington's historic resources. Providing this information in formats that are attractive, accurate, and easily understood is important. Utilizing modern technology, such as Smartphone apps and audio recordings, can help distribute this information to a broader audience. These efforts can build a better understanding of why Arlington's historic and cultural resource areas are important and why they should be preserved. Undertaking these efforts with volunteer memberships and limited budgets, however, could prove challenging for Arlington's preservation organizations.

COMMUNITY-WIDE RESOURCE PROTECTION

Successful preservation of a community's historic assets requires a concerted effort by municipal leaders and boards, private organizations, and local residents to protect the resources that serve as both a tangible reminder of a community's past and a vital component of its contemporary sense of place. While Arlington residents have long valued the town's heritage, and Arlington's well-preserved collection of historic resources stand as testament to this community pride, local historical groups still struggle to increase awareness that historic resources are fragile and need to be protected. While Arlington has a general culture of stewardship for its historical resources, the Town has not been as successful in mandating this protection through regulatory tools or institution of policies. While the Town verbally supports historic preservation, it has been unable to adopt the mechanics or funding to require preservation.

Arlington has significant areas worthy of protection, but the designation process for both National Register

and local historic districts requires extensive community outreach and education. The limited resources of each of the Town's historical commissions will make it extremely difficult to undertake future designation efforts.

Protection of historic and cultural resource areas should include more than just the traditional preservation-based regulatory tools, however. Arlington is a densely settled community, with much of its land now developed. This causes significant redevelopment pressure on the town's historic built environment, including both residential and commercial structures. Identifying ways to guide this redevelopment in a manner that respects Arlington's historic character and the architectural integrity of its historic neighborhoods and commercial districts is important. Incorporating historic preservation objectives into the development review process and exploring flexible zoning regulations to encourage building preservation are several objectives for the town to consider.

RESIDENTIAL TEARDOWNS AND BUILDING ALTERATIONS

In highly desirable communities like Arlington, rising residential property values continue to put pressure on historic houses, particularly those of modest size or those sited within a large lot. This pressure is especially acute in areas of smaller, modest housing stock, which are vulnerable to demolition for larger homes and multi-family duplexes built to the maximum height and minimum setbacks allowed under zoning. Arlington's last remaining oversized lots, many of which include historic houses and outbuildings, are also increasingly subject to subdivision and demolition. Furthermore, Arlington is witnessing some loss of historic outbuildings such as carriage houses when owners are unable to find viable uses for these secondary structures. When left vacant and not maintained, these structures slowly deteriorate, leading to unsafe conditions and ultimately demolition.

For Arlington's larger and grander homes, the town is witnessing a trend of building repair and restoration efforts by new owners interested in preservation. However, contemporary living styles are spurring significant interior remodeling and the construction of large additions. The incremental loss of historic building features, such as decorative trim and original multi-pane wood windows, and the construction of large additions that overwhelm the smaller, historic structure result in an incremental "fading" of Arlington's historic character.

This loss of building fabric, whether through outright demolition or incremental loss, is occurring despite Arlington's demolition delay bylaw, which is triggered only if a property is inventoried, and ultimately offers only a temporary reprieve from demolition. Many of Arlington's historic resources remain undocumented and are therefore not subject to the demolition delay bylaw. To address the deficiencies of demolition delay legislation, some communities have adopted provisions that require building officials to notify the local historical commission when any building is proposed for demolition in order to determine historic significance. To permanently protect threatened buildings, some municipalities have designated the properties as single-building historic districts or placed preservation restrictions on the properties.

PRESERVATION OF LOCAL HISTORIC DISTRICT CHARACTER

The streetscapes of Arlington's seven Local Historic Districts provide a living history lesson of Arlington's architectural evolution and development. For more than thirty years, Arlington's LHDs have protected the architectural integrity of the buildings found within these neighborhoods. This protection requires continued vigilance by the Historic District Commissions and ongoing communication with the Town's Building Inspector. Per Town Bylaw, building permits cannot be issued prior to AHDC approval of changes. However, some physical changes such as window replacements do not require a building permit from the building inspector, and sometimes are completed without approval by the respective commission. This emphasizes the importance of retaining a resident member on each district commission to provide an "eye on the ground" to watch over any unauthorized changes in buildings in the district. Furthermore, as the building industry continues to develop new materials and as energy efficiency remains a primary concern for property owners, the AHDC must navigate the delicate balance of historic integrity and environmental sustainability, two ideas that can be mutually supportive. Continuing and expanding the AHDC's efforts to build awareness of designation requirements and promote historically appropriate materials through property owner mailings and conversations with local realtors remains a priority.

Protecting Arlington's LHDs requires more than just regulatory review of building alterations to be success-

ful. Creating a sense of place for these districts to highlight their significance and promote their importance to the community can aid in efforts to create a sense of stewardship. Replacement of deteriorated interpretive markers, installation of unique street signs for designated streets, and ensuring historically appropriate public infrastructure improvements to streetscape elements such as sidewalks, curbing, lighting, and street furniture within the districts are also goals of the AHDC.

INTEGRATING HISTORIC PRESERVATION INTO A LARGER COMMUNITY ETHOS OF CONSERVATION AND PLANNING

Preserving Arlington's historic resources is more than just an effort to preserve history. These resources provide a sense of community for Arlington and its residents. Arlington is blessed with passionate groups who strive to make their community better. Bringing these advocates together, including historic, conservation, environmental, planning, cultural, economic development, and affordable housing groups, to discuss common interests for preserving community character would also allow these groups to explore opportunities to collaborate toward this effort.

For instance, the successful preservation of heritage landscapes, such as the Mill Brook and Spy Pond, requires a concerted effort by a variety of constituents working together to protect history, nature, and culture. Furthermore, historic neighborhoods are more than just historic houses; they are part of a larger streetscape network that includes the public realm of roadways, sidewalks, street trees, and lighting. The installation of historically appropriate lighting, street signs, sidewalks, tree/planting strips, and curbing, and the burial of underground utilities, which would enhance the overall visual quality of historic neighborhoods, would require a concerted effort by Arlington's Planning and Public Works departments together with preservation groups.

PRESERVATION OF TOWN-OWNED HISTORIC RESOURCES

Arlington maintains a unique and exquisite collection of historic civic buildings and landscapes that serve as visual landmarks and provide valuable public spaces for the community to gather. They also provide the setting for art and cultural activities and economic development initiatives such as heritage tourism. While many of the town's historic community/civic spaces are well-maintained and utilized, others are in need of significant repair.

Each of Arlington's historic civic buildings is a unique artifact from the past with distinctive architectural ornamentation reflecting the period and culture responsible for its construction. Collectively, these buildings provide a building fabric that is truly special and their continued use for cultural programming is important for maintaining the vitality of the community. Preserving these historic buildings and their architectural details often requires careful attention and skill. The Town has been a good steward of its historic buildings, parks, and cemeteries, engaging in numerous restoration projects at these properties and designating many of its civic buildings in local historic districts. The Town has also completed planning studies for several of its historic sites to document conditions and identify preservation needs. However, not all of Arlington's civic properties are protected from adverse development and alterations, and the Town has not instituted procedures to require historically-appropriate preservation of these resources.

Furthermore, the Town still has resources in critical need of preservation. Utilizing the expertise and guidance of the Historical Commission and Historic District Commissions, whose membership includes preservation enthusiasts and architectural professionals, can help guide future restoration efforts to ensure that renovations are architecturally and historically sensitive to these century old assets. Identifying funding sources to undertake these projects is also important. Should the Town adopt the Community Preservation Act, some funding will become available as part of this program. While the preservation of municipal buildings is an intent of the CPA, other funding sources should be pursued and regular property maintenance through long-term maintenance plans should also be considered.

Recommendations

1. **Develop a historic and archaeological resources survey plan to identify and prioritize outstanding inventory needs**. This should include a prioritized list that includes civic buildings without inventory forms, and threatened resources such as historic landscapes. This activity would be eligible for funding through MHC's Survey and Planning Grant program.
2. Seek Certified Local Government (CLG) Status for the Arlington Historical Commission. CLG status, granted by the National Park Service through the MHC, would put Arlington in a better competitive

position to receive preservation grants since at least ten percent of the MHC's annual federal funding must be distributed to CLG communities through the Survey and Planning Grant program.

3. **Expand community-wide preservation advocacy and education**, including integrating Arlington's historical significance and properties into economic development and tourism marketing. Increase educational and outreach programs for historic resources. Educational initiatives would be an eligible activity for Survey and Planning Grant funds as well as other funding sources.

   Expand educational outreach to property owners of non-designated historic properties. The majority of Arlington's historic buildings are not protected from adverse alterations. Implement a comprehensive plan for the protection of historic resources

4. **Review and Strengthen Demolition Delay Bylaw.** Arlington's existing demolition delay bylaw is limited both in terms of the types of resources subject to review and the time period allowed for the review. Consider administrative support to the Historical Commission for responding to demolition delay hearing applications. Document or map historic buildings demolished. Seek volunteers for Historical Commission documentation and inventory. Draft a fact sheet on common demolition determination parameters and basic design and alteration guidelines for historic property owners and future Historical Commision members.

5. **Provide the AHC with the tools to study single-building historic district for Town Meeting consideration.**

6. Neighborhoods may consider seeking Town Meeting action to designate Ar**chitectural Preservation Districts (APD)**, also called neighborhood preservation districts and architectural conservation districts. This could allow the Town to define the distinguishing characteristics of scale and streetscape pattern that should be preserved in a neighborhood.

7. **Integrate historic preservation, zoning, and planning.** Increasing redevelopment pressure on Arlington's existing historic properties has emphasized the need to guide redevelopment in a manner that respects historic character and the architectural integrity of the town's historic neighborhoods and commercial districts. To address the ongoing issue of residential teardowns, the town could consider adopting flexible zoning regulations to encourage the preservation of historic buildings. These new regulations could include different standards for dimensional and use requirements when an historic building is preserved and reused, to provide incentives for preservation of the original historic building.

8. **Preserve the character of the Historic Districts.** For Arlington's existing historic districts, the need for continued vigilance and dialogue between the AHDC and Building Inspector remains a priority to ensure that any changes within the districts are appropriate. Promoting stewardship for these districts is equally important. Creating a sense of place for these districts to highlight their significance and promote their importance to the community would aid in these efforts. Consider amending the zoning bylaw and demolition delay bylaw to allow multiple units in historic homes as an alternative to demolition, even if not otherwise allowed in the district, as done in Lexington.

9. **Preserve Town-owned historic resources.** Several civic properties remain in critical need of restoration and not all town-owned resources are formally protected from adverse development and alterations. The Town needs to institute procedures to require historically appropriate preservation of municipal resources. This includes buildings, landscapes, art, and documents. Consider placement of preservation restrictions on Town owned historic properties to ensure continued protection of these community landmarks.

10. **Implement the Community Preservation Act (CPA).** Arlington adopted the Community Preservation Act (CPA) in 2014, while this plan was being prepared. The CPA may now fund municipal historic preservation projects such as the restoration of the Jefferson Cutter House and Winfield Robbins Memorial Garden and preservation planning initiatives such as historic resource inventories, National Register nominations, and educational brochures. CPA funds can serve as a matching source for other preservation funding programs, such as MHC's Survey and Planning Grant program and the Massachusetts Preservation Projects Fund, are available to municipalities to plan for and restore public buildings and sites.

11. **Better management, oversight and enforcement of bylaws and policies relating to historic preservation are needed.** Develop administrative and technical support for historical preservation.
12. **Adopt procedures to plan for public art and performance opportunities.**
13. **In planning public facilities and infrastructure improvements, allow for designation of space that could accommodate art installations.**
    - Preserve existing performance and rehearsal venues and adopt policies that recognize their value.
    - Utilize the Public Art Fund, established in 2013, to help restore and maintain Town owned art and sculpture.

8 natural resources & open space

Introduction

Open spaces and the benefits of natural resources are a treasured commodity within densely developed communities. They have value in health, recreation, ecology, and beauty. The landscape of Arlington is adorned with natural features that have defined, and continue to influence, the location and intensity of the built environment. Lakes and ponds, brooks, wetlands, meadows and other protected spaces provide crucial public health and ecological benefits, as well as recreational opportunities. In addition, man-made outdoor structures such as paths, gardens, and playing fields, also factor into the components of open space.

Natural and built features all need careful preservation, and integration with continuous development in Arlington. Actions in Arlington also affect neighboring towns, and it is important to note that local policies and practices relating to water and other natural resources have regional consequences. There must be a focus on irreplaceable land and water resources in decisions about where, what, and how much to build in Arlington.

Existing Conditions

Topography, Geology, and Soils

Arlington straddles several geologic and watershed boundaries that contribute to its varied landscape. The west side of town lies within the Coastal Lowlands (also known as the Eastern Plateau), a **physiographic area** that includes large portions of Middlesex County, with elevations ranging from 100 feet to nearly 400 feet above mean sea level (MSL). Arlington's highest elevation, Turkey Hill (380 feet), along with Mount Gilboa and Symmes Hill, are all located in this part of town. Mill Brook flows from west to east through the valley below these hills. Another band of hilly terrain runs along the south and west sides of Arlington.

A **watershed divide** lies near the Arlington's southwest corner, where a small portion of town is part of the Charles River watershed. The majority of Arlington's land is located in the Mystic River watershed, and most of the water that falls in town flows toward low-lying areas in the eastern and southern parts of Arlington, emptying through Alewife Brook and the Mystic River leading to Boston Harbor River Basin and into Massa-

master plan goals for natural resources & open space

- Use sustainable planning and engineering approaches to improve air and water quality, reduce flooding, and enhance ecological diversity by managing our natural resources.
- Mitigate and adapt to climate change.
- Ensure that Arlington's neighborhoods, commercial areas, and infrastructure are developed in harmony with natural resource concerns.
- Value, protect, and enhance the physical beauty and natural resources of Arlington.
- Treasure our open spaces, parks, recreational facilities and natural areas.
- Expand recreational and athletic facilities, programs, and opportunities, for all residents.
- Maintain and beautify our public parks, trails, play areas, and streetscapes.

Table 8.1: Soil Types Found in Arlington		
Soil Type	Description	Location in Arlington
Charlton-Hollis-Urban Land Complex	Charlton Soils: well-drained, upland soils. Stony, with 60 inches or more of friable fine sandy loam (a silt-sand-clay mixture). Hollis soils: shallow (less than 20 inches), excessively drained on bedrock uplands. Friable fine sandy loam.	Western areas on slopes of 3 to 5 percent
Newport-Urban Land Complex	Newport Soils: found on 3 to 15 percent slopes, tends to be silty loam.	West and northwest of Park Circle, east of Turkey Hill, and west of Winchester Country Club
Merrimac-Urban Land Complex	Merrimac Soils: excessively drained soils on glacial outwash plains, sandy loams over a loose sand and gravel layer at 18 to 30 inches. Soils contain approximately 75 percent urban land/disturbed soils.	East Arlington
Sandy Udorthents and Udorthents Wet Substratum	Udorthent Soils: excavated and/or deposited due to construction operations.	East Arlington by lakes, streams and wet areas
Source: Arlington Open Space and Recreation Plan 2007-2012.		

chusetts Bay. Arlington's section of the Boston Basin consists of the low-lying, relatively flat floodplain bordering the Alewife Brook between Lower Mystic Lake and Spy Pond.[1] Here, elevations range between 10 and 40 feet above MSL.

Neither topography nor soil conditions have deterred development in Arlington over the past century. Homes and businesses were built in floodplains and on steep slopes both ignoring and hindering natural storm water management. According to the Environmental Protection Agency (EPA), a significant portion of the town (41.4 percent) is covered with impervious surfaces – mainly buildings and pavement – which impede the land's ability to absorb and disperse rainwater.[2] Also affecting Arlington's water absorption are large areas of ledge and rocky soils.

Most of Arlington's soils have been disrupted due to the intense development that occurred here over past centuries. The U.S. Natural Resource Conservation Service (NRCS) classifies these kinds of soils as **urban land**. In Arlington and virtually all cities and towns in the Greater Boston area, urban land occurs in a **soils complex**, or an intricate mix of two or more soil series, i.e., urban (disturbed) land mixed with soils that still retain their original characteristics. Table 8.1 describes specific information about Arlington's soils.

Water Resources

Approximately 226 acres, or 6.4 percent of Arlington's total area is covered by surface water, including two lakes, two ponds, one reservoir, one river, and several brooks (see Map 8.1). Most of Arlington is located in the Mystic River watershed, which covers about 76 sq. mi. and includes portions of twenty-two communities in the Greater Boston area, from Lexington to Wilmington, Belmont to Melrose. The Charles River watershed reaches slightly into the Poet's Corner and Arlmont Village neighborhoods. Arlington shares most of its water resources with neighboring communities, and all of its large water bodies are located on or near town boundaries. Together, Arlington, its neighbors, and nonprofit advocacy groups have collaborated to protect and improve the quality of their shared water resources.

LAKES, PONDS, AND RESERVOIRS

Mystic Lakes. The Upper and Lower Mystic Lakes form Arlington's northeast boundary with Winchester and Medford. Each water body qualifies as a Great Pond under state law.[3] The Mystic Lakes are regionally significant water bodies that support a variety of fish, year-round migrating birds, and outdoor recreation such as swimming, boating, and fishing. State-owned park land provides public access to the water along

[1] U.S. Natural Resource Conservation Service (NRCS), *Soil Survey of Middlesex County* (2009), 5-6.

[2] U.S. Environmental Protection Agency (EPA), Region 1, "Impervious Cover & Watershed Delineation by Subbasin or GWCA Arlington, MA" (March 30, 2010).

[3] "Great Pond" is a pond or lake that contained more than 10 acres in its natural state, or a water body that once measured 10 or more acres in its natural state, but which is now smaller. Ponds or lakes classified as Great Ponds trigger Chapter 91 licensing requirements for piers, wharves, floats, retaining walls, revetments, pilings, bridges, and dams, and waterfront buildings constructed on filled land or over water. See Mass. Department of Environmental Protection (DEP), Wetlands and Waterways, Massachusetts Great Pond List.

the eastern shores of the Mystic Lakes, but access in Arlington is limited because most of its shoreline is privately owned. The Town owns only three acres of steeply-sloped conservation land with shoreline on the Upper Mystic Lake, known as Window on the Mystic. This area is managed by the Arlington Conservation Commission.

Spy Pond. Spy Pond, also a Great Pond, is located near Arlington's southeast boundary with Belmont and forms part of the headwaters of Alewife Brook. Spy Pond supports a limited fish population and is an important resting and feeding area for migrating and year-round birds. According to the Natural Heritage and Endangered Species Program (NHESP), Spy Pond has ecological significance as an aquatic core habitat and a natural landscape that supports at least one species of special conservation concern (Engelmann's Umbrella-sedge).[4] In the middle of the pond is Elizabeth Island, a two-acre property owned by the Arlington Land Trust and permanently protected with a conservation restriction held by the Arlington Conservation Commission and Mass Audubon.

Spy Pond is a popular recreational spot for fishing, boating, bird watching, and ice skating. Swimming is not officially permitted and public access to the pond is limited to several short paths and Spy Pond Park. The Arlington Boys and Girls Club, located on the northwestern shore, uses Spy Pond for summer boating programs. The Arlington-Belmont Crew also uses the pond for its practices and meets, and the Arlington Recreation Department rents canoes and kayaks for public use during the summer.

It is a beloved community resource with well-organized advocates including the Spy Pond Committee of Vision 2020 and Friends of Spy Pond Park, Inc. Over the past decade, the Town has made improvements to the pond and shoreline access points, including major park improvements in 2005 and a joint project with the Appalachian Mountain Club Trail Team and MassDOT to reconstruct a multi-use path along Route 2. In addition, the Town has worked with consultants to remove invasive and nuisance plant species and replace them with native vegetation along the shoreline.[5] Water quality and environmental degradation of Spy Pond is an ongoing concern, and the Town has received state assistance with environmental remediation efforts.

Hill's Pond (Menotomy Pond). Located in Menotomy Rocks Park, Hill's Pond is a 2.6-acre man-made water body that provides habitat for common species of fish, frogs, birds, and insects. Accessible by footpaths from Jason Street and other adjacent roads, Hill's Pond offers scenic vistas and recreational opportunities for fishing and bird watching, and ice skating during the winter months. In the mid-1990s, Arlington completed an award-winning improvements project that involved draining, dredging, and redesigning the pond. In 2007, the Town installed aerators to improve water quality and re-graded and edged the pond to minimize erosion and run-off. Hill's Pond is monitored, tested, and treated for invasive plant species each year.

Arlington Reservoir. The 65-acre Arlington Reservoir site, including 29 acres of water, is located at Arlington's western border with Lexington. It served as Arlington's public water supply from the early 1870s until the Town joined the Metropolitan Water District (now the MWRA) in 1899. Only about half of the Reservoir's surface water area lies within Arlington (the remainder is in Lexington), but the entire perimeter is owned by the Town and managed by the Arlington Department of Public Works (DPW) and Parks and Recreation Commission (PRC). The Arlington Reservoir Committee, a subcommittee of Vision 2020, provides advocacy for protecting and improving Arlington Reservoir's water quality and surrounding landscape.

The Arlington Reservoir supports diverse wildlife habitats and includes Arlington's largest collection of aquatic species. It also serves as a recreational resource, with a mile-long perimeter walking trail, and swimming at a sandy beach (Reservoir Beach) on the northeastern shore. The Town has made some improvements at the beach recently. An earthen dam along the southern edge maintains the Arlington Reservoir's water level. Water can be released into the Mill Brook by way of a sluice gate in the dam. In 1999, the state notified Arlington that the dam was failing and needed to be repaired in order to protect downstream properties. Town officials, engineers, and members of Vision 2020 collaborated to design a plan that would protect public safety, preserve and enhance recreation facilities, and protect the wooded landscape around the reservoir. This award-winning rehabilitation project was completed in 2006. A Wildlife Habitat Garden surrounding the

[4] NHESP, BioMap 2 Arlington Report (2012).

[5] Aquatic Control Technology, Inc., to Arlington Department of Public Works, "2012 Aquatic Management Program ☐ Arlington, MA, Spy Pond, Arlington Reservoir and Hills Pond" (undated).

new bridge and spillway was established in 2011 and is maintained by the Vision 2020 Reservoir Committee.

RIVERS AND BROOKS

Mystic River. The Mystic River is a regional resource that provides recreational and scenic benefits, as well as habitat for many species of birds, fish, and other fauna. Its primary source is in Reading, where the Aberjona River begins. The Aberjona flows into the Mystic Lakes which then releases into the Mystic River, which passes along Arlington's eastern border, through Medford, Somerville, Everett, Charlestown (Boston), and Chelsea until it merges with the Chelsea River and empties into Boston Harbor. As one of five sub-watersheds of the much larger Boston Harbor watershed, the Mystic River watershed is very urban and densely populated and, as such, has significant environmental challenges.

Historically, the Mystic River was the site of significant industrial and maritime activity during the eighteenth and nineteenth centuries. This industrial legacy contributed to the river's serious pollution issues. Several organizations have worked to improve water quality, and educate the public about the Mystic River's ecological and public health significance to the region. Formed in 1972, the nonprofit Mystic River Watershed Association (MyRWA) is dedicated to restoring and protecting the river, organizing stewardship programs, promoting public access, monitoring water quality, and sponsoring clean-up activities.

The EPA's Mystic River Watershed Initiative (2009) is a partnership of federal, state, and local agencies, nonprofit organizations and UMass-Boston, to improve environmental conditions in the Mystic River and its tributaries, as well as support marine science research, protect open space, and provide public access to the water.[6] In addition, the Massachusetts Department of Conservation and Recreation (DCR) which owns the land abutting the river, created the Mystic River Master Plan (2009) to address various recreational improvements and maintenance needs along the river and the Mystic River Reservation. As of June, 2014, state funding has been made available to finalize the designs and permits necessary to implement the plan.[7]

Mill Brook. The Mill Brook flows from west to east through the center of Arlington, roughly parallel to both Massachusetts Avenue and the Minuteman Bikeway from the Arlington Reservoir to Arlington Center, where it turns northward and flows through Mt. Pleasant Cemetery and Meadowbrook Park into the Lower Mystic Lake. It functions as part of a larger drainage system that collects water from as far upstream as Arlington's Great Meadow in Lexington. As the water source for several mills and mill ponds during the eighteenth and nineteenth century, the Mill Brook is a significant piece of Arlington's cultural landscape, a link to its industrial past. As of 2014, much of the Mill Brook is channeled, with segments running through underground culverts and only limited views exist to the exposed sections of the waterway. There are access points in several Town-owned parks and cultural sites including Meadowbrook Park, Mt. Pleasant Cemetery, Cooke's Hollow Conservation Area, Wellington Park, the Old Schwamb Mill, Hurd Field, and the Arlington Reservoir. In 2010, the Open Space Committee prepared a preliminary study for a linear park abutting the Mill Brook. According to that report, the Mill Brook needs "restoration and remediation to improve biodiversity, water quality, drainage and flood control."[8] Portions of the Mill Brook are subject to "chronic flooding" largely because so much of it is channelized.

Alewife Brook. A Mystic River tributary, the completely channelized Alewife Brook forms Arlington's eastern boundary with Cambridge and Somerville. It is located within the state-owned Alewife Brook Reservation, a 120-acre conservation area that is one of the region's largest urban parks. Managed by DCR, the Alewife Brook Reservation includes land in Arlington, Cambridge, and Somerville. Alewife Brook continues to be the site of significant flooding concern for neighborhoods in East Arlington, Cambridge, and Belmont. Its urban setting and surrounding land use patterns make the Alewife Brook highly vulnerable to flooding, combined sewer overflows (CSOs), and high nutrient saturation.[9] There is concern in Arlington that recent large-scale development projects completed or proposed in Cambridge near Route 2, Alewife Brook and the Alewife MBTA station, could exacerbate the area's flooding problems.

[6] U.S. Environmental Protection Agency, *Mystic River Watershed Initiative* (undated publication).

[7] http://mysticriver.org/mystic-river-master-plan/

[8] Mill Brook Linear Park Study Group, "Mill Brook Linear Park Report" (2010).

[9] Blankenship, et al., *Quality and Quantity: Stormwater Management in Alewife Brook* (Tufts University WSSS and Mystic River Watershed Association, 2011), 9.

Reed's Brook. This small brook, including a retention pond to control flooding, flows through McClennen Park in the northwest corner of Arlington on the Lexington border. It meanders through both towns before feeding into Munroe Brook and entering the Arlington Reservoir. Before 1959, Reed's Brook was surrounded by agricultural land, and from 1959 to 1969 Arlington operated a landfill in this area. McClennen Park was redeveloped by the town during the early 2000s and dedicated in 2006.

WETLANDS

Wetlands perform basic functions such as flood storage, flood damage control, pollution filtration, and groundwater recharge. They are also essential habitats for many birds, animals, insects, and native plants, whether common, threatened, or endangered. In Arlington, wetlands can be found in scattered sites along Alewife Brook, Spy Pond, Hill's Pond, the Arlington Reservoir, Meadowbrook Park, on undeveloped properties near Thorndike Field, and in several sites near Reed's Brook in the northwest corner of town. Most of the mapped wetlands in Arlington are shallow marshes and shrub swamps bordering a water body, river, brook, or stream.

Wetlands are sensitive, scenic, and ecologically valuable resources. The regulations that protect them comprise some of the strongest controls over land development in Massachusetts. Wetlands protection laws and regulations do not directly control land use but they do affect where construction can occur, how construction activities can be carried out, and what types of mitigation may be required for construction near wetland resource areas. Wetland impacts are regulated by the federal Clean Water Act, the state Wetlands Protection Act (WPA) and Rivers Protection Act, and the Town of Arlington's Wetlands Protection Bylaw and Regulations. The Clean Water Act requires a permit for dredging or filling of any "waters of the United States," including most wetlands. The Massachusetts WPA requires Conservation Commission review and approval for work in and within 100 feet of wetlands and within 200 feet of perennial rivers. Arlington's local wetlands bylaw imposes some additional restrictions.

FLOODPLAINS

Several areas in Arlington experience major flooding problems every few years, including the areas around Reed's Brook, Mill Brook, and Alewife Brook. The Federal Emergency Management Agency (FEMA) released new floodplain maps for Arlington in 2010 and Town Meeting adopted them in 2010 (See Map 8.1). Virtually all of Arlington's easterly boundary – from the Mystic Lakes to the Mystic River, the Alewife Brook, and Spy Pond – falls within federally designated floodplains. The Arlington Reservoir and portions of the Mill Brook are also in floodplains.

Since construction in a 1-percent floodplain is strictly regulated by both state and local bylaws, and has to be permitted by the Conservation Commission, changes to floodplain boundaries may have an impact on future development not only within Arlington but on the greater flood-prone region along the Alewife Brook. Moreover, changes in flood risk assessments on a given property could have a significant impact on the homeowner's cost of flood insurance. The Arlington-Belmont-Cambridge (ABC) Tri-Community Group has recently been reauthorized by the state to address flooding in the Alewife Brook watershed region and to monitor combined sewer overflows (CSOs) along the brook.

Vegetation

Vegetation reveals a lot about a community's soil conditions and climate, as well as its density of development. It also plays a critical role in hydrologic cycles, stormwater management, heat management, and quality of life.

NATIVE AND INVASIVE PLANTS

Arlington's waterways are home to numerous species of native trees, bushes, and plants that thrive in wet soils. These include Green Ash, Silver, Red, and Ash-leaf Maples, Cottonwood, and Willow trees. Cattail, Silky and Red Osier Dogwoods, and Buttonbush are also commonly found. Reed pads and aquatic weeds can be found in and around the town's water bodies, including Mystic Lake and Spy Pond.[10]

The Town encourages landscaping and gardening with native plants. For example, the DPW uses native species in its landscaping work, and the Conservation Commission publishes a list of native plants as a guide for property owners and developers. As part of the Arlington Reservoir dam reconstruction project, the Town's Vision 2020 Reservoir Committee installed a Wildlife Habitat Garden planted with native shrubs, trees, and

[10] Ibid.

perennials.[11] The Town also used native plant species in rain gardens established in 2012 and 2013 at Spy Pond, Hardy School, and Hurd Field. These gardens are designed to collect, absorb, and clean stormwater runoff.

Numerous species of non-native and invasive trees, shrubs, and plants exist throughout Arlington. An **invasive species** is defined by the National Invasive Species Council as "… an alien (or non-native) species whose introduction does, or is likely to cause economic or environmental harm or harm to human health."[12] Non-native species in Arlington include Norway and Sycamore Maples, Tree-of-Heaven, and Mountain Ash trees, as well as Common and European Buckthorns, Forsythia, Winged Euonymus, some Honeysuckles, Multiflora Rose, Oriental Bittersweet, Barberry, and Japanese Knotweed shrubs. Purple Loosestrife, Phragmites reed, and water chestnut are also found in and near many of the town's wetlands and water bodies. All of these are fairly typical of the invasives found in Massachusetts cities and towns.

Using the Town's Water Bodies Fund, Arlington tries to control and remove invasive plants and aquatic weeds at its conservation lands, including the water chestnut growing at the Arlington Reservoir.[13] MyRWA has also worked to remove water chestnut from the Mystic River. Water chestnut, which grows in dense floating mats, limits the amount of light that can reach below the water's surface. It reduces oxygen levels in the water, increases the potential for fish kills, and limits recreational activities such as boating, fishing, and swimming.[14]

Arlington has an "endangered species" – Engleman's Umbrella Sedge – on the shores of Spy Pond.

STREET TREES AND WOODLANDS

One of the most important elements of Arlington's well-developed streetscape is the abundance of street trees , although there are many areas where the tree canopy is thin or nonexistent.. Arlington has significant tree coverage helping to improve air quality, filter pollutants, in addition to aiding flood control and erosion prevention. Street trees provide a buffer from car traffic, and some relief from the summer sun and winter winds. Trees and plants play a critical role in the hydrologic cycle, stormwater management, and heat management. Woodlands, though limited in size, are still found in several locations throughout town, at Menotomy Rocks Park, Turkey Hill, Mount Gilboa, Arlington Reservoir, portions of the Symmes property, Hill's Hill, and the Crusher Lot at the Ottoson School. According to the Town's *Open Space and Recreation Plan*, these woodlands include White Ash, several species of Oaks and Hickories, White Pine, Sassafras, Staghorn Sumac, Grey and Paper Birches, and more limited examples of Sugar Maple, Black Cherry, and Linden trees. Native shrubs and plants found in these woodland areas include Blueberry, Currant, Dangleberry, Deerberry, Maple Leaf Viburnum, Whorled Loosestrife, and False Solomon's Seal.[15] Arlington as a whole is experiencing a diminishing street tree population. There are currently approximately 18000 public trees bordering Arlington's streets and sidewals, just 75% of the 24000 estimated in a 1998 statistical survey. Many of those remaining are the invasive Norway Maple.

The Town's commitment to protecting its trees is key to its sustained designation as a Tree City USA community.[16] Cities and towns become eligible for designation if they meet four key requirements: having a tree warden, following state law for regulating the forest, celebrating Arbor Day, and spending at least $2 per capita on forestry preservation and maintenance. Arlington has instituted policies for responding to requests from residents to remove or add street trees. The Town does its best to address problems with dead or dying trees and hazardous tree limbs on public property, but it will not remove healthy trees. Residents who want to remove healthy street trees have to accept financial responsibility for public notification, a public hearing, taking down the tree, and planting a replacement. Although the Town plants eighty to ninety trees every year, local officials report that Arlington is losing more trees than it gains, in part due to sporadic torrential rains

[11] Arlington Reservoir Committee, "Wildlife Habitat Garden," http://www.arlington2020.org/reservoir/Habitat_Garden.htm.

[12] National Invasive Species Council, http://www.invasivespecies.gov.

[13] See Aquatic Control Technology, Inc., to Arlington DPW, 2012 Report.

[14] U.S. Department of the Interior, National Park Service, "Aquatic Plants: Water Chestnut," http://www.nps.gov/plants/alien/pubs/midatlantic/trna.htm.

[15] *Open Space and Recreation Plan Update 2007-2012* (2007), 54-59.

[16] The Tree City USA® program is sponsored by The National Arbor Day Foundation, in cooperation with the U.S. Department of Agriculture Forest Service and the National Association of State Foresters. It provides technical assistance and national recognition for urban and community forestry programs.

and winter storms. Arlington Town Meeting established the Tree Committee to assist the Tree Division by promoting the protection, planting, and care of trees in Arlington. Other initiatives of the Tree Committee include increasing the number of site-appropriate public trees, promoting community awareness of trees and their benefits, providing a website about trees (public and private) and related Town services, providing information about tree selection, planting and care, raising funds to support the Tree Committee's mission, and exploring the feasibility of a Town-wide tree inventory.

TOWN-SUPPORTED GARDENS

The Arlington Garden Club, in coordination with DPW, sponsors the adoption of more than sixty traffic islands throughout town and posts signs indicating the name of the sponsor. Volunteers plant flowers and shrubs, and water and maintain them throughout the year. A Wildlife Habitat garden of native plants located at the Reservoir spillway is maintained by Vision 2020 volunteers. The Garden Club presents awards, noted on small signs, for the "best" islands each year. The Town has also collaborated with various groups on building three rain gardens - at the Hardy School, Spy Pond Park, and near Hurd Field next to the Arlington Reservoir. Two volunteer-managed community gardens are located on Town-owned land at Robbins Farm Park and Magnolia Field.

Open Space

In urban communities like Arlington, residents value open space of all kinds, from pocket parks to playing fields to protected wetlands, for there is very little unused land in town. Arlington has 554.6 acres of publicly owned open space, including conservation land, parkland, and land in schools and recreational uses, and state-owned open land (Map 8.2). This also includes the 183-acre Great Meadows which is located in Lexington , but owned by Arlington.

Protected open space is land set aside and restricted for conservation, protection of surface waters, groundwater, and natural diversity, or passive recreation. According to state records, Arlington has 162 acres of protected open space including town conservation land and other land with long-term or perpetual protection through other means, e.g., a conservation restriction (CR).[17] By contrast, public parks and recreational facilities often serve other needs, e.g. team sports, playgrounds, or neighborhood gathering places.[18] These are described in the Recreation section of the Public Facilities and Services chapter.

TOWN CONSERVATION LAND

The Arlington Conservation Commission (ACC) oversees and manages twenty-four land parcels with a combined total of 33.11 acres (see Table 8.2). Except for a few relatively large conservation areas and parks, most are small, scattered-site holdings of less than one acre that Arlington acquired as tax title takings before the 1970s.[19] Many are unmaintained woodlands with limited access or visibility.

The ACC has adopted general use regulations for its properties and tries to address issues with encroachment and landscape dumping. It relies on its partner, the Conservation Land Stewards, to identify management needs. A significant portion of the ACC's small land acquisition fund was contributed to help fund the Arlington Land Trust's purchase of Elizabeth Island in Spy Pond, establishing the conservation restriction co-held by ACC and Mass Audubon. Key ACC holdings include:

- **Meadowbrook Park.** A 3.3 acre parcel adjacent to Mt. Pleasant Cemetery. Primarily wetlands, the site encompasses land where the Mill Brook enters the Lower Mystic Lake. The ACC has carried out several stewardship projects here: stabilizing the banks of the brook and improving public access,

[17] NHESP, BioMap 2: Arlington Report (2012).

[18] See Chapter 9 for discussion of Arlington's parks, playgrounds, and other developed recreation facilities.

[19] Cori Beckwith, Conservation Administrator, Interview with Community Opportunities Group, Inc., August 1, 2013.

Table 8.2. Open Space Parcels Under the Jurisdiction of the Arlington Conservation Commission		
Site Name	Location	Acres
Mt. Gilboa	North of Mass. Ave. (parking at Park Place, off Crescent Hill Avenue)	10.70
Turkey Hill	Above Forest and Washington Sts., northwest Arlington	10.70
Meadowbrook Park	Mouth of Mill Brook; surrounded by Mt. Pleasant Cemetery	3.30
Window-on-the Mystic	East of Mystic Street near Beverly Road on Upper Mystic Lake	3.00
Forest Street	Opposite intersection of Forest/Dunster Lane, Winchester town line	1.00
Cooke's Hollow	Off Mystic Street, south of the Community Safety Building	0.75
Ridge Street	North end of Ridge Street	0.60
Woodside Lane	Across from 26, 30 and 34 Woodside Lane	0.60
Brattle Street	Surrounding 54 Brattle Street	0.54
Stone Road	Across from 24 Stone Road	0.19
Madison Avenue	Adjacent to Mt. Gilboa lands	0.46
Philemon Street	South side of 32 Philemon Street	0.13
Concord Turnpike	Between Scituate and Newport Streets, Concord Turnpike and Arlmont Streets	0.13
Mohawk Road	2 parcels; intersection of Washington and Mohawk Streets	0.13
Hemlock Street	Uphill from 5 Hemlock Street, near former Symmes Hospital	0.12
Short Street	Between 8 Short and 11 West Streets	0.11
Inverness Road	Next to 36 Inverness Street	0.10
Rublee Street	Intersection of Rublee and Udine; entrance to Sutherland Woods in Lexington	0.10
Kilsythe Road	Landlocked behind 44 and 48 Kilsythe Road	0.09
Water Street	Area with two benches north of Bike path next to Buzzell Field	0.08
Brand Street	2 parcels, left of 72 Brand Street and right of 36 Brand Street	0.20
Spring Street	Across from 120 Spring Street	0.04
53 Park Avenue, rear	Access through left side of 53 Park Avenue	0.02
Central Street	Adamian property, end of Central Street	0.02
TOTAL		33.11
Source: Arlington Conservation Commission, http://www.town.arlington.ma.us/Public_Documents/ArlingtonMA_ConComm/misc/conservationlands		

removing invasive reeds, and planting native wetland and aquatic plants along the brook.

- **Mount Gilboa Conservation Area.** A ten-acre conservation site in northwest Arlington, this reserve is a steep, tree-covered hill with one house, large rock outcroppings, and a network of woodland trails. The Town rents the house to private individuals.

- **Window on the Mystic.** Located off Mystic Street (Route 3) near the Winchester line, this three-acre conservation parcel is Arlington's only public waterfront on the Mystic Lakes. It offers scenic views and is the primary public access point to the Upper Mystic Lake. The property's rugged landscape has made it difficult for the ACC to manage and maintain the site, resulting in limited use by visitors. Over the years, representatives of Arlington Boy Scouts and other volunteers have installed a trail and steps at the property, but there is no public boat launch or beach at the site.[20]

- **Cooke's Hollow.** This small parcel is a long, narrow, partially landscaped area located along both sides of Mill Brook near Mystic Street. The park provides scenic vistas and includes park benches and interpretive signage about the area's historic significance as the site of the first mill the area in the 1630s. The Arlington Garden Club installed gardens and public access at the site, and the Town renovated the park in 2008.

- **Turkey Hill Reservation.** Turkey Hill Reservation is a heavily wooded, twelve-acre parcel with walking trails and the Massachusetts Water Resources Authority's (MWRA) Turkey Hill water tower. The Arlington Park and Recreation Commission has jurisdiction over the land around the water tower.

[20] Cori Beckwith, Arlington Conservation Administrator.

During the mid-2000s, Arlington worked with the state, the MWRA, and neighborhood residents to address security issues at the site. A stewardship group organized through the ACC's Land Stewards Program monitors and maintains the Reservation.

OTHER TOWN-OWNED OPEN SPACE

Arlington also owns open space that is not under the ACC's direct purview. Most notable is the 183-acre **Great Meadows**, which is Arlington's largest open space holding, though it is actually located entirely in the Town of Lexington. While generally thought of as conservation land, Great Meadows is not protected in perpetuity. The Arlington Board of Selectmen has jurisdiction over the land, most of which is a flat, marshy plain surrounded by wooded uplands with hiking trails. The Minuteman Bikeway forms its southern border and offers the most direct access to the trails. Local officials and citizen groups in Arlington and Lexington have worked to preserve the natural resources at Great Meadows. In 1999, the ACC commissioned a Natural Resource Inventory and Stewardship Plan for this property.[21] Thereafter, Arlington and Lexington residents formed the Friends of Arlington's Great Meadows (FoAGM) to serve as stewards of the property. FoAGM has surveyed plants and animals in the Meadow, organized regular bird watching and geology walks, and built a series of boardwalks to improve the visitor's experience and protect natural resources.

Other Recreation Facilities

The Minuteman Bikeway, under the jurisdiction of the Town Manager, provides several recreational opportunities and functions as a natural habitat corridor by virtue of its adjacency to large open spaces, brooks, and other water bodies. [22] The path connects wildlife habitats of the Great Meadows, Mill Brook, Spy Pond and Alewife Brook. The first section of the Minuteman Bikeway opened in 1993 on a disused railroad right-of-way, after almost 20 years of planning and construction. In 1998, the path was completed to its current length. Only part of the 11-mile long path is in Arlington; it begins in Bedford Center, passing through Lexington and Arlington, ending in Cambridge at the Alewife MBTA Station. In addition to its popularity as a commuter bike route and recreation trail, the bikeway links historic sites, attractions, conservation areas, and regional parks. Arlington's portion of the bikeway is about three miles long and runs largely parallel to Massachusetts Avenue, although they, in fact, cross paths. DPW has planned and will construct a new crossing arrangement for the bikeway at this junction with Massachusetts Avenue in Arlington Center, with completion expected in 2015.

State-Owned Open Space

The Commonwealth of Massachusetts owns several land parcels in Arlington, the largest being the Alewife Reservation, which is managed by DCR. In 2003, the DCR prepared master plans for both the Alewife Reservation (2003) and the Mystic River (2009).

The 120-acre **Alewife Reservation** in Cambridge, Belmont, and Arlington is one of Boston's largest urban wilds. It provides habitat for a wide range of indigenous and migratory birds and many other animals, including deer and coyote. A large portion of the reservation consists of wetlands and water bodies, including Little Pond, Little River, and Alewife Brook. The site also has wooded uplands and meadows. In 2013, DCR completed a federally-funded $3.8 million multi-use path along the Alewife Brook connecting the Minuteman path with the Mystic Valley along the Alewife Brook Parkway. The Alewife Greenway Bike Path restoration project (also referred to as the Minuteman Bikeway Connector) included the installation of a dirt/stone pathway with elevated boardwalks in ecologically sensitive areas, removal of invasive plants, and new landscaping. The path provides much-improved access for bicyclists, pedestrians, bird watchers, and others.

The Massachusetts Water Resources Authority (MWRA) owns the pumping station on Brattle Street and the water tower on top of the Turkey Hill. The Arlington Park and Recreation Commission has jurisdiction over the twelve acres of wooded land around the Turkey Hill water tower – Turkey Hill Resevation - and the Conservation Commission owns a couple of small adjacent parcels. During the mid-2000s, Arlington worked with the state, the MWRA, and neighborhood residents to address security issues at the site. A stewardship group organized through the ACC's Land

[21] Frances Clark, Carex Associates. Natural Resources Inventory and Stewardship Plan of Arlington's Great Meadows in Lexington. July 2001.
http://www.foagm.org/AGM_Inventory/RptMaster.pdf

[22] In 2000, Arlington renamed its portion of the bikeway as the "Donald R. Marquis/Minuteman Bikeway" to honor a former town manager.

Stewards Program monitors and maintains the reservation.

In addition, the Massachusetts Department of Transportation owns a maintenance building near Route 2, as well as land along Route 2 that includes a path on the southern edge of Spy Pond.

Privately Owned Open Space

Elizabeth Island. The Arlington Land Trust (ALT) acquired Elizabeth Island in 2010. With privately raised funding and support from the Conservation Commission, the Commonwealth's Conservation Partnership program, and the Massachusetts Audubon Society (MAS), the ALT purchased this undeveloped, heavily vegetated two-acre island in the middle of Spy Pond and granted a conservation restriction (co-held by the ACC and MAS). In turn, MAS prepared a management plan for the island that identified minor maintenance needs. Elizabeth Island is open to the public, but its limited access allows the island to serve as nesting habitat for various species of birds and small mammals. ALT and the Friends of Spy Pond Park host tours of the island several times a year, and the Recreation Department has a boat rental program on the pond during the summer months so residents can visit the island on their own.

Symmes Woods. The Town of Arlington acquired the eighteen-acre Symmes Hospital property in 2002 in order to control future development on this large, central site. The property included several former hospital buildings, a nurse's residence, several parking lots, and nine acres of steep woodland. After an extensive public process, Arlington sold the property to a developer in 2007. The disposition agreement required the permanent protection of approximately nine acres of the site, including two public parks and the woodland now known as Symmes Woods.

The site offers parking for public visitors to use the parks and woodland trails for passive enjoyment, all protected with a Conservation Restriction (CR) held jointly by the ACC and ALT. A Conservation Restriction is recorded on a property's deed and provides the most restrictive form of land protection. It allows property owners to convey partial (less-than-fee) interest in their land to a qualified conservation organization such as the ALT, or public agency such as the ACC. By granting a CR, the landowner agrees to preserve the property in its "natural" state and forego future development. If given for less than full compensation, the landowner may receive the benefit of a charitable tax deduction.

Unprotected Private Open Space

Seventeen acres on three parcels in the southeast corner of Arlington, known as the Mugar land, are the largest privately owned undeveloped properties in Arlington. The empty land, located next to Route 2, Thorndike Field and the Alewife Brook Reservation, has been a concern for the Town for many years. In 2000 and 2001, Town Meeting endorsed the permanent protection of the land but local officials have not yet reached agreement with the owners who themselves have proposed several unsuccessful development concepts for the site.[23] In 2010 the Town negotiated an agreement to acquire a substantial majority of the property with grant-funding, but the owners later withdrew. These properties have been altered and filled-in over many years; a substantial amount of the site remains wetlands and the majority of the area is susceptible to flooding. The entire site is within a FEMA-designated flood zone and "must be kept free of encroachment so that the 1-percent annual chance flood can be carried without substantial increases in flood heights."[24]

Other significant unprotected private sites in Arlington are the Winchester Country Club (48 acres) and Belmont Country Club (11.2 acres), which are presently in use as golf courses but, in fact, zoned as residential. The Roman Catholic Archdiocese owns land at Poet's Corner (6.5 acres), the Arlington Catholic High School field on Summer Street (2.3 acres), and St. Paul's Cemetery (14.9 acres), also zoned as residential. The Kelwyn Manor Park (1.8 acres) includes a publically accessible playground and open space at Spy Pond, but is owned by a private neighborhood association.

Sustainability and Climate Change Adaptation

In Arlington, both staff and volunteer committees work on the development and implementation of sustainability programs, and educate the community about climate change adaptation. In 2006, Town Meeting adopted the *Arlington Sustainability Action Plan*, prepared jointly by Tufts University students and members of *Sustainable*

[23] The state MDC Land Acquistion Program in 2000 listed the Mugar land as third highest ranked land acquisition priority of nearly 300 ranked parcels, among parcels not yet protected.

[24] Federal Emergency Management Agency (FEMA). Flood Insurance Rate Map (25017C0419E). 2010

Arlington's Commitment to Sustainability

Current examples of good sustainability policies in Arlington range from the Safe Routes to School Program (walkability and public health) to the Vision 2020 surveys conducted each year (community assessments and inclusiveness). The Minuteman Bikeway, the "complete streets" plan for Massachusetts Avenue in East Arlington, and Arlington's tradition of neighborhood schools are also good examples of sustainability in facilities planning and design.

Arlington, an affiliate of the Vision 2020 Environment Task Group. The plan is primarily a **climate action plan** that focuses on energy efficiency, transitioning to sources of energy that lower or eliminate the production of greenhouse gases, reducing single-occupancy vehicle trips, and educating the public. Many of the recommendations have been adopted and continue to be carried out by the Town, including the hiring of an energy coordinator and a recycling manager, and the purchasing of fuel-efficient vehicles. Many of the steps taken to implement the *Sustainability Action Plan* set the stage for Arlington's designation by the **Massachusetts Green Communities Program** in 2010.

Sustainability focuses on the convergence of the built and natural environments in places where people can have healthier, more productive lives while reducing their impact on the world's natural resources. Seen this way, sustainability encompasses land use, transportation, economic diversity and competitiveness, and a broad range of environmental management practices. Arlington has understood this for a long time as shown in the nine Vision 2020 goals the Town adopted in 1993.

Current examples of good sustainability policies in Arlington range from the Safe Routes to School Program (walkability and public health) to the Vision 2020 surveys conducted each year (community assessments and inclusiveness). The Minuteman Bikeway, the "complete streets" plan for Massachusetts Avenue in East Arlington, and Arlington's tradition of neighborhood schools are also good examples of sustainability in facilities planning and design. Furthermore, Arlington's efforts to care for trees, its successful recycling program, and its unusually strong commitment to stormwater education exemplify the sense of environmental stewardship shared by residents, town officials, and staff. With help from MyRWA, rain gardens have been built at Hurd Field (Drake Road in Arlington Heights) and at the Hardy School (Lake Street). Rain gardens are vegetated areas that collect, absorb, and clean stormwater runoff. In addition, porous parking surfaces have been installed at Hurd Field and Thorndike Field in East Arlington.

Issues and Opportunities

Open Space

In Vision 2020 surveys, the World Café event in October 2012, and at many community meetings, Arlington residents have been remarkably consistent about the town's natural resource protection needs. Residents believe that Arlington should protect, improve, and maintain the open spaces it currently owns and, where possible, make more diverse use of existing open space properties. In a 2013 survey of support for the nine Town Goals developed by Vision 2020 and adopted by Town Meeting, the goal addressing the protection and enhancement of Arlington's natural resources and sustainability was considered second most important, beaten only by the need for good public schools. Arlington residents have expressed a desire to see the Town do more to protect open space and natural resources.

Concerns of residents include the limited amount of public access to water bodies in Arlington. There is a well-used nature trail around the Arlington Reservoir, but very limited access around Spy Pond, where most of the shoreline is privately owned. Public access is also limited on the Arlington portion of DCR land on the shores of the Mystic Lakes and Mystic River. Furthermore, the protected open space that does exist in Arlington is not always well-connected or well-maintained, so the ecological and passive recreational values of the land are significantly diminished. The Minuteman Bikeway does provide a recreational link among many sites along the Mill Brook..

Residents also recognize that protecting open space and natural resources requires regional action, espe-

cially for urbanized communities like Arlington and most of its neighbors. Some of the regional or inter-local efforts that do exist are described in the Town's *Open Space and Recreation Plan*, which also calls for more funding and staff to manage and maintain the town's open space. Due to budget constraints, however, Arlington has not been able to increase staff in most of its municipal departments; in many cases, especially the DPW, the number of personnel has actually decreased. Funding constraints also limit Arlington's ability to acquire open space. In 2014, Arlington Town Meeting voted to put the Community Preservation Act (CPA) on the Town-wide ballot, a move that could bring the town a dedicated source of revenue for open space, historic preservation, and affordable housing. Approved in November 2014, the CPA could offer the town a new funding source for acquiring and protecting currently undeveloped land, especially parcels located in floodplains.

Water Quality

NONPOINT SOURCE WATER POLLUTION

Another source of environmental concern is nonpoint source water pollution—pollution that originates from diffused or widespread sources and enters surface water and groundwater through storm water runoff. Nonpoint source pollutants include:

- Excess fertilizers, herbicides, and insecticides from lawns and farmland;
- Oil, grease, and toxic chemicals from urban runoff and energy production;
- Sediment from improperly managed construction sites and eroding stream banks; and
- Bacteria and nutrients from pet wastes.

These pollutants have harmful effects on downgradient water supplies, recreation, and fisheries and wildlife. Identifying and controlling the source of pollutants, such as a leaking underground oil tank or the leaching of fertilizer into a water body, is much more difficult than point source pollution. The most important ways to control nonpoint source pollution are through proper land management, effective maintenance of petroleum, erosion control, and storm water management bylaws and zoning to control land use. All of Arlington's water bodies are threatened by nonpoint pollution due to untreated storm water runoff from roadways, residential properties, and businesses. Storm water runoff is accelerating the process of eutrophication in many town water bodies, and in the case of Spy Pond is also creating a sandbar.

WATER QUALITY STANDARDS

The federal Clean Water Act (CWA) requires all fifty states to assess the quality of surface waters every two years and identify water bodies with significant water quality impairments. All of the water bodies in Arlington are designated suitable for "habitat for fish, other aquatic life, and wildlife…, and secondary contact recreation ... Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value."[25] Though designated for these purposes, the water bodies in Arlington do not actually meet Class B surface water quality standards. DEP has classified almost all of the ponds, lakes, rivers, and named brooks in Arlington as "Category 5" impaired waters under the CWA. As Category 5 waters, they require a **Total Maximum Daily Load** (TMDL) in order to restore them to meet surface water quality standards for Class B waters. As defined by the EPA, TMDL is an estimate of how much of a pollutant, or group of pollutants, a water body (lake, pond, river, stream, or estuary) can absorb without becoming polluted. TMDLs are developed for a pollutant (or a group of pollutants) in water bodies that are listed in each state's list of impaired waters, known as the 303(d) list.

Spy Pond has been the subject of environmental concerns for several decades. In 2001, the Town received two state grants to assist in adopting Best Management Practices to control nonpoint water source pollution, to address the more than forty storm drains allowing excess phosphorus from lawn fertilizers and road salt and sand to enter the pond. From 2010 to 2013, Spy Pond was one of five water bodies in Massachusetts tested weekly by the Department of Public Health (MDPH) to identify harmful algae blooms (HABs) as part of a grant from the Centers for Disease Control (CDC).[26] The Massachusetts Department of Transportation (MassDOT) recently installed Best Management Practices (BMP) devices to address runoff from Route 2 that was causing the formation of a sandbar in the pond.[27] Nevertheless, while Spy Pond is state-designated as a Class B water body, it does not meet the

[25] Code of Massachusetts Regulations (CMR) 314: 405(b).

[26] Arlington Board of Health, http://www.arlingtonma.gov.

[27] Cori Beckwith, Conservation Administrator, Interview with Community Opportunities Group, Inc., August 1, 2013.

Commonwealth's Class B water quality standards. Spy Pond remains impaired from causes such as chlordane, DDT, excessive algae growth, and phosphorous – all conditions that make it a Category 5 water body that requires a TMDL.[28]

The Mystic Lakes suffer from nonpoint runoff from the Mystic Valley Parkway and lawn and yard maintenance. Aquatic weeds such as milfoil continue to be found in the lakes, causing concerns to both human safety and eutrophication of the water body. In the past, the Winchester Boat Club has successfully applied aquatic pesticides to control weeds in its area of the Upper Mystic Lake. According to the 2012 Integrated List of Waters, both the Upper and Lower Mystic Lakes qualify as Category 5 waters due to dissolved oxygen, and the Lower Mystic Lake is also impaired due to PCB (found in fish tissue), salinity, chronic toxicity, DDT, and hydrogen sulfide.[29]

The five-mile segment of the Mystic River that flows from Arlington to the Amelia Earhart Dam in Somerville/Everett is impaired by arsenic, chlordane, chlorophyll-a, DDT, dissolved oxygen saturation, Escherichia coli (E. coli), PCB in fish tissue, phosphorus (Total), and chronic toxicity. In annual self-assessments under MassDOT's NPDES Stormwater Management Plan, the agency estimates that the watershed of this segment consists of approximately 3,860 acres, 59.8 percent of which is impervious.[30] MyRWA and other state and private entities perform regular monitoring and maintain records of water quality.

Mill Brook suffers from nonpoint source pollution and storm drain pollution all across the town. The principal cause of Mill Brook's impairment is E. coli from animal wastes.

Alewife Brook, one of the most polluted water bodies in Arlington, is adversely affected by combined sewer overflows (CSOs) from Cambridge, Somerville, and the MWRA system. Cambridge has separated some of its combined drains, but overflows remain problematic. There are several reported causes of the Alewife Brook's Category 5 status, including copper, E. coli, foam and oil slicks, lead, dissolved oxygen, PCB in fish tissue, phosphorus, and chronic toxicity.

Arlington Reservoir faces nonpoint pollution problems from pesticides and fertilizers from a nearby farm and surrounding homes. Water chestnuts are also a problem that the Town tries to control by manual and mechanical harvesting during the summer. Two storm drains on the Lexington side of the Reservoir also are sources of pollution.

Urban Wildlife

Many Arlington residents say that since roughly 2000, they have seen increasing numbers of rabbits, wild turkeys, coyote, and raccoons around town. Over time, largely due to the introduction of exotic plants in natural communities and displacement of native species, animals that rarely ventured into settled areas now frequent yards in residential neighborhoods. The problems range from predatory wildlife to human illness, injury, and fatalities, and property damage. In Arlington, controlling the population of geese by egg addling has become an essential part of managing water quality at Spy Pond and at Reed's Brook in McClennen Park.

Environmental Hazards

HAZARDOUS WASTE SITES

The Massachusetts DEP Bureau of Waste Site Cleanup regulates the identification, assessment, and remediation of contaminated sites, known as **Disposal Sites** under the Massachusetts Contingency Plan regulations. According to the DEP's Reportable Release Lookup table, there have been 193 reported disposal incidents in Arlington since 1987.[31] The vast majority of incidents reported to DEP were relatively minor or low risk, involving a response that did not require oversight by DEP or a Licensed Site Professional. Seven incidents are "Tier classified," however, meaning a type or an extent of contamination that poses a higher risk to the public.

DEP has identified six sites in Arlington that are subject to Activity and Use Limitations: remediated (and sometimes not remediated) sites that can be used for new purposes, subject to restrictions recorded with the deed. For example, the playing field at Arlington Catholic High School can be used for an athletic field and accessory purposes, but not for construction of a residence or business.

NATURAL HAZARDS RESPONSE

In recent years, Arlington has experienced both natural and human-caused disasters, e.g., hurricanes,

[28] DEP, *2012 Integrated List of Waters*, 144.

[29] Ibid.

[30] MassDOT, "Impaired Waters Assessment of Mystic River" (Segment MA71-02), 2012.

[31] MA DEP, "Waste Sites and Releases: Arlington," http://public.dep.state.ma.us/SearchableSites2/Search.aspx.

blizzards, floods, and hazardous material spills. To help prepare for these events, Arlington established a Local Emergency Planning Committee, composed of town employees and residents. The committee has developed a new Emergency Management Plan for the town which focuses not only on preparedness and response but also mitigation and recovery.[32] Arlington has a **Hazard Mitigation Plan**, , as required by the Federal Disaster Mitigation Act of 2000; on file with the DPW and with the Community Safety-Fire Division. The Metropolitan Area Planning Council (MAPC) worked with the community in its creation. to develop the Hazard Mitigation Plan. "Hazard mitigation" involves long-term strategies, such as planning, changes in policy, educational programs, public works projects and preservation of floodplains and wetlands, to reduce or alleviate losses of life, injuries, and property resulting from natural hazards.

Tree Cover

Despite Arlington's ongoing support for maintaining and protecting trees, the town is losing tree cover due to storms, utility company maintenance, the failure of replacement street trees to thrive, and budget limitations . In July 2012, for example, a "microburst" rain storm descended on East Arlington, destroying approximately one hundred trees. Although the Town appropriates funds for tree replacement each year, the DPW is not staffed to provide the amount of field labor involved with proper urban forestry management. According to the DPW director, the town is losing more trees than it is replacing each year. Storm-related problems are not the only cause of tree loss. Sometimes new trees planted to replace older trees (uprooted or removed) do not survive. In the business districts, there needs to be a close collaboration between the Town, store owners, other commercial tenants, residents, and community organizations to take better care of both existing and new trees. Aside from the environmental and public health benefits of trees in urban areas, the trees have a significant impact on the quality of the pedestrian's experience in Arlington's commercial centers and neighborhoods .

Recommendations

1. **Create a comprehensive plan for the Mill Brook environmental corridor**, including possible "daylighting" options for culverted sections of the waterway, flood plain management, and public access. Apply design guidelines for new development along the corridor to ensure development that will enhance the brook and improve it as a resource for the Town.

   Comprehensive plans allow decision making at various scales to adhere to overlying principles. The Mill Brook corridor crosses residential, industrial and open space land use districts. These different zoning districts regulate land use, but do not necessarily ensure that new or repurposed developments respect their environmentally sensitive location or create accessible pedestrian connections among open spaces and adjoining neighborhoods. A Mill Brook plan should create landscaping and building design standards, and establish requirements for public access to the Mill Brook, and the preservation of views.

2. **Address maintenance needs for all of the Town's open spaces and natural resources.** Consider additional staffing and funding to properly protect and maintain all open spaces and natural resources throughout the Town. Among the steps that should be explored is the designation of a facilities manager for open space, natural resources, recreational areas, and trees to oversee development and implementation of an overall maintenance plan for all Town owned outdoor spaces. In addition, the DPW may need to hire more staff to meet growing maintenance demands at parks and other open spaces, and to coordinate concerns with street trees, invasive plants, and other vegetation. To supplement regular capital planning and budgeting procedures for major open space improvement projects, some funding could be provided through the Community Preservation Act funding, fundraising with local Friends groups and other local organizations, state or private grants, and other innovative means.

   Street trees are a major asset for Arlington, but they also present problems. They provide beauty and shade, help mitigate ground level pollution, and are part of the greater ecological system. Many trees were lost in recent storms, and more still are at risk. A plan for tree maintenance and replacement be developed and implemented in order to replace lost trees, maintain mature trees wherever possible, and attain a desired planting density with appropriate native species. Addi-

[32] Arlington Emergency Management Services, www.arlingtonma.gov/Public_Documents/ArlingtonMA_EMS/index.

tional funding is required in order to reverse this trend and start a net increase in street trees.

Concurrently, the jurisdiction and management of street trees needs to be better outlined. The responsibility and care for street trees needs to be well understood by residents. The Town and the Tree Committee need to perform public outreach to educate property owners.

3. **Pursue strategies to protect large parcels of undeveloped land in order to preserve open space and manage the floodplains.**

   - Privately owned property along Route 2 in East Arlington totaling seventeen acres remains undeveloped. The parcels, known locally as the Mugar property, remain vacant after several proposals were rejected by the Town. The properties, zoned for Planned Unit Development (PUD) are located adjacent to a large park (Thorndike Field), near the Minuteman Bikeway and Alewife Brook Reservation, and the Alewife Red Line MBTA station. The majority of the site is located in the 1-percent flood zone and construction is heavily restricted. Arlington needs to continue to pursue resolution of this land, either for partial development or complete open space protection.
   - The 183-acre Great Meadows is located in Lexington, but is owned by the Town of Arlington, under the jurisdiction of the Board of Selectmen. The largest part of Arlington's Great Meadows is a flat, marshy plain containing a series of hummocks. It is part of the watershed that flows into Arlington Reservoir and eventually into Mill Brook. Surrounding the wetland are wooded uplands crisscrossed by walking trails. The Minuteman Bikeway forms the southern border and offers the most direct access to the trails. More than 50 percent of the site is certified vegetated wetland. The Lexington zoning bylaw protects the wetlands in Great Meadows by zoning them as Wetland Protection District (WPD). However, the property is not fully protected as conservation land. Arlington officials should renew efforts to work with Lexington to investigate ways to ensure its protection for open space and flood control.

   Among the tools available, a **Transfer of Development Rights (TDR) bylaw** should be considered as a combined land protection and economic development strategy. In order to be effective, a TDR bylaw will require partnering with a viable land trust so that development rights can be acquired efficiently when the owner of a "sending" area (such as the vacant land near Thorndike Field) is ready to sell.

4. **Prevent the use of identified invasive species of trees, shrubs, and other plants and species.** Arlington should explore the legality of imposing restrictions on the use of invasive plants in landscaping projects and on removing plants from both Town and private property when they create a hazard or threat to other properties or public land. Groups including the Conservation Commission and Department of Public Works should share information with the public about specific species that have been identified as harmful and suggest safe ways to remove them.
5. **Use environmentally sustainable planning and engineering approaches for natural resources management** to improve water quality, control flooding, maintain ecological diversity (flora and fauna), promote adaptation to climate changes, and ensure that Arlington's residential areas, commercial centers, and infrastructure are developed in harmony with natural resource conservation.
6. **Implement the Master Plan consistent with the current Open Space and Recreation Plan.** The Town of Arlington's Open Space Committee is updating the current state-approved Open Space and Recreation Plan for 2015-2022. Many of the needs, goals, and objectives in that plan overlap with this Master Plan, and they should be reinforced and expanded, particularly in reference to this Natural Resources/Open Spaces section and in the Recreation section under Public Facilities and Services. Among the Open Space Plan goals are the promotion of public awareness of the Town's valued open spaces and the development of improved access to water resources such as Spy Pond, Mystic River, and Mystic Lakes.
7. **Consider measures to encourage development projects that respect and enhance adjacent open spaces and natural resources.** Recent projects such as new public parks and protected woodlands at the former Symmes Hospital site and a renovat-

ed park between Arlington High School and the Brigham's site demonstrate that economic development can go hand in hand with natural resources protection. Other examples could include ongoing projects that support streetscape improvements (such as Broadway Plaza and Capitol Square). Future emphasis should be placed on using redevelopment incentives and encouraging more public/private planning and collaboration projects such as these. This is also an opportunity to plan for the use of open spaces for more creative and cultural activities, including public art projects.

8. **Protect all water bodies and watersheds for both healthy ecological balance and recreational purposes.** Work with Cambridge, Somerville, and the MWRA to eliminate all CSO discharges into the Alewife Brook within the next twenty years. In addition, uphold the Town Meeting vote to restore Alewife Brook to a Federal Class B waterway

9 public facilities & services

Introduction

The public services and facilities element of a master plan tries to anticipate the buildings, other facilities, and human resources that a local government will need in order to meet future demands for services. A public facility is any town-owned property designated for public use or providing a base of operations for municipal services. In addition to buildings, this includes, but is not limited to, roadways, utilities such as water or sewer service, parks, playgrounds, and cemeteries.

Common public facilities include town halls, fire and police stations, and public schools. In addition to these "basic" public buildings, many communities have unique facilities such as town hospitals, an airport, or a function hall and grounds. For example, Arlington owns several historic buildings and former schools that currently house municipal programs and private offices. Together, a town's buildings, land, infrastructure, and equipment make it possible for municipal employees and volunteers to provide services to residents and businesses. Public facilities are often located in strategic locations. Siting emergency departments in centrally located and accessible areas should benefit the greatest number of residents.. Arlington's Central Fire Station is a good example of a strategically located facility at the confluence of multiple street grids which enable quick access in an emergency.

The Town of Arlington is a large, complex corporation with an annual operating budget of $132 million (FY 2014). Its financial strength is due largely to the implementation of a five-year strategic financial plan. Credit rating agencies have recognized Arlington as an exceptionally well-run town and it ranks among an elite group of Massachusetts communities with a triple-A bond rating. Arlington adopted the Community Preservation Act in 2014 to augment financial resources for affordable housing, historic preservation, open space and recreation.

It is a "full-service" community, offering many programs and services for people of all ages. Overall, residents seem satisfied with the quality of the services they receive. Participants in public meetings for this master plan usually gave high marks to town government in general and the schools in particular, and many say Arlington's historic civic buildings are among the great strengths of the community. Design can embody the values of the community. Arlington's Town Hall, Robbins Library, and the gardens that connect them are more than just a reflection of the community when they were built; they represent Arlington's cultural identity.

master plan goals for public facilities & services

- Coordinate and efficiently deliver town services.
- Build, operate, and maintain public facilities that are attractive and help to minimize environmental impact and that connect Arlington as a community.
- Balance the need for additional revenue with ability and willingness of property owners to pay to maintain current services or for new expenditures and investments
- Guide public facility investments through a long-term capital planning process that anticipates future needs.

The educational, cultural, recreational, and health services that Arlington provides enhance the quality of life in town, but they are increasingly expensive to maintain. Complaints about property taxes are hardly unique to Arlington, but the frequency with which people mention "structural deficit" in Arlington suggests a heightened awareness about the imbalance between a major dependence on the local tax base and high expectations for services. Arlington is a largely built-out community. It benefits from the efficiencies that come with a fairly compact development pattern, yet it still faces a constant challenge of funding local government services. There are several reasons for these challenges, ranging from Arlington's lack of land for new growth to its small nonresidential tax base. The aging of the population, the impact of economic cycles on municipal revenue growth, the unpredictability of state aid, constitutional constraints on the taxation powers of Massachusetts cities and towns, and the cost to operate high quality services mean that Arlington's financial challenges will probably intensify in the future.

Existing Conditions

Town Services

GENERAL GOVERNMENT

"General government" includes the Town's executive, financial, legal, administrative, policy, and planning functions. Arlington has a **Town Manager/Board of Selectmen** form of government with a legislative body composed of 252 elected **Town Meeting** members. The Town Manager, a professional appointed by the selectmen, directs the day-to-day operations of local government and acts as the chief executive officer. In addition, the Town Manager prepares a proposed annual operating budget and capital budget and submits them to the Board of Selectmen and Finance Committee, which reviews all spending requests and makes recommendations to Town Meeting. The Board of Selectmen issues warrants for Town Meeting, makes recommendations on some warrant articles, sets town policies, and adopts financial guidelines for the annual operating budget and capital improvements. In addition, the selectmen approve the Town Manager's appointments to boards and commissions, hold public hearings, oversee traffic issues, and issue various licenses, including liquor and food vendor licenses.

In 1986, Arlington established a Capital Planning Committee (CPC) to help the town plan for and prioritize capital expenses. The CPC includes the Town Manager, Superintendent of Schools, Treasurer, and Comptroller (or their designees), along with a representative of the Finance Committee and four registered voters. As a matter of policy, Arlington dedicates approximately 5 percent of town revenue for capital items annually, including debt service from projects approved in prior years. The CPC uses the following criteria to evaluate capital requests from town departments:

- Imminent threat to the health and safety of citizens/property
- Maintenance of operations/necessary expenditure
- Requirement of state or federal law/regulation
- Improvement of infrastructure
- Improvement of productivity
- Alleviation of over-taxed/over-burdened population

The CPC develops a five-year capital plan and submits recommendations to the Town Manager for inclusion with the operating budget. Over the five-year period FY 2014-2018, Arlington's capital plan calls for a total investment of $47 million from a combination of debt, cash outlays from general revenue, and other sources such as user fees and grants.[1]

The Board of Selectmen and Town Manager develop annual goals. Both have embraced goals of transparency, public information, and customer service. Toward these ends, Arlington has established an online Request/Answer Center to make, track, and search requests for town services. The service has been heavily used by both staff and residents. In addition, there is a town email distribution list for official notices, information on town activities, and public alerts. According to the 2012 *Annual Report*, subscription has increased to more than 4,500 individuals. Arlington residents take participation seriously, and they expect timely access to information. In Vision 2020 surveys, many respondents have said they rely on the town website and public alerts to stay on top of town and school issues.[2]

[1] Adam Chapdelaine, Town Manager, *FY 2014 Annual Budget and Financial Plan*, 177-198 passim; and interview, September 25, 2013.

[2] *Vision 2020 Annual Report to Town Meeting* (May 6, 2013), 4.

Table 9.1. General Government FTE Staff (FY 2014)				
Position	**Board of Selectmen**	**Town Manager**	**Human Resources**	**Finance**
Managerial	1	2.0	1.0	2.0
Clerical	2.5	1.0	2.5	11.2
Professional/Technical	0	2.7	0.0	3.0
Custodial	0	0.0	0.0	0.0
Total	3.5	5.7	3.5	16.2
Position	**Assessor**	**Information Technology**	**Legal**	**Town Clerk/Registrars**
Managerial	1.0	1.0	2.0	1.0
Clerical	3.0	1.0	1.5	3.0
Professional/Technical	0.0	5.5	1.0	1.0
Custodial	0.0	0.0	0.0	0.0
Total	4.0	7.5	4.5	5.0
Position	**Parking**	**Planning & Community Development**	**Redevelopment Board**	**Zoning Board of Appeals**
Managerial	0.0	1.0	0.0	0.0
Clerical	1.0	1.0	0.0	0.5
Professional/Technical	0.0	3.8	0.0	0.0
Custodial	0.0	0.0	0.5	0.0
Total	1.0	5.8	0.5	0.5
Grand Total				57.7
Source: Town of Arlington, *FY2014 Budget*				

Several departments comprise the general government operations at Arlington Town Hall (Table 9.1). In addition to the Town Manager and Board of Selectmen, Arlington has the core functions of Town Clerk, Comptroller, Treasurer/Collector, and Assessors as well as the Department of Planning and Community Development (DPCD). General government functions in Arlington have a combined total of 57.7 full-time equivalent (FTE) employees, or approximately 1.3 general government employees per 1,000 population.[3]

Most departments provide support to elected and appointed boards, notably DPCD, which works with many volunteer entities: the **Redevelopment Board**, **Board of Appeals**, **Historic District Commission**, **Conservation Commission**, **Vision 2020**, the **Open Space Committee**, the **Master Plan Advisory Committee**, and others. Arlington has over 50 civic volunteer organizations and bodies that carry out formal local government actions, influence budgeting and borrowing, grant permits, help form policy, and augment the stewardship of Town properties. These volunteers are essential to civic life and local government in Arlington.

[3] *FY 2014 Annual Budget and Financial Plan*, 61-101 passim.

Facilities. Many of Arlington's general government functions are housed in the Town Hall and annex at the corner of Massachusetts Avenue and Academy Street in Arlington Center. The 100-year-old building includes administrative offices, meeting rooms, and a beautifully restored auditorium used for town meetings and other community events. Town Hall is partially accessible to people with disabilities

Public Safety

POLICE DEPARTMENT

The Arlington Police Department has the largest staff of all Town departments in Arlington (excluding schools). Organized into three divisions, the police department has a total of 83.7 FTE employees or 1.95 FTE per 1,000 population (Table 9.2). Staffing for the traffic and patrol functions in the Community Services Division and the Criminal Investigation Bureau (CIB) have been reduced from historic levels but remained constant for the last few years. In the past, administration and support for the fire and police departments were accounted for separately in the Community Safety Administration & Support Budget. As of FY 2014, these functions have been integrated within the police and

fire department budgets, but the support staff levels will remain the same. The public safety dispatchers now fall within the police department's purview as well.

The **Community Services Division** includes all uniformed patrol operations: the Traffic Unit, Patrol Division, Community Services Officer, K-9 Unit, Bicycle Unit, and Animal Control. Officers answer calls, enforce traffic and parking laws, and perform special assignments such as school safety. The Crime Analysis Unit tracks trends and patterns and uses the information to direct police resources.

The **Investigative Services and Professional Standards Division** administers the Criminal Investigation Bureau (CIB) and Professional Standards/Accreditation Office. The CIB has responsibility for crime follow-up, maintaining the sex offender registry, police prosecutions in court, the school resource officer, drug task force, family services, and code enforcement. This division also develops and implements department policies and procedures, maintains state accreditation and certification, and conducts internal and special investigations.

The **Support Services Division** provides logistical support to all police units and carries out administrative functions. The division's responsibilities include recruiting, hiring, and training new officers; managing information systems; issuing firearm and hackney licenses; scheduling; maintaining the fleet and building; recordkeeping; and dispatch.

The Police Department receives grants for special programs, e.g., the Hoarding Response Team (a joint effort with the Fire and Health Departments) and the Jail Diversion Program. Both efforts pair a mental health clinician with public safety officials to help residents with mental health problems.

Arlington belongs to the North Eastern Massachusetts Law Enforcement Council (NEMLEC), which provides mutual aid and has an assistance agreement to share resources and personnel among member communities.

Calls for Service. Between 2009 and 2012, the Arlington Police Department's calls for service increased steadily (Table 9.3). According to the 2012 *Annual Report*, the Police Department responded to more than 30,000 emergency calls that year. However, arrests decreased, as did reported "Part A" crimes: murder, manslaughter, rape, robbery, aggravated assault, burglary, larceny, arson, and motor vehicle theft. In Arlington, burglaries are the most common Part A crime. In 2012, a total of 582 crimes were reported to the Police Department, representing a 15 percent decrease from 2011. Traffic problems generate many of the public safety complaints. The Traffic Unit is considered understaffed, with only one full-time officer assigned to it. With increasing investigative and administrative functions, the Traffic Unit's productivity has decreased.[4]

Table 9.2. Police Department Staff (FY 2014)

Position	Total Staff
Chief	1
Captain	3
Lieutenant	6
Sergeants	9
Police Officers	47
Parking Control Officers	2.4
Animal Control Officer	1
Dispatchers	10
Clerical	4.3
Custodial	1
Total	83.7

Source: Town of Arlington, *FY2014 Budget*

Table 9.3. Police Department Calls for Service: 2009-2012

	2009	2010	2011	2012
Emergency Calls	25,268	26,732	27,483	30,168
Police Reports	3,510	3,810	3,638	3,488
Arrests	309	293	226	209
Protective Custody	35	22	15	35
Summons	205	181	192	183
M.V. Citations	3,369	3,567	4,049	3,914

Source: Arlington Police Department, *2012 Annual Report*

Facilities. The Police Department operates from Arlington's Community Safety Building on the corner of Mystic and Summer Streets. Built in 1983, it is currently in the second phase of a three-phase renovation. Phase 1 involved rebuilding the central courtyard. In Phase 2, the building envelope—damaged by chronic water infiltration—is being reconstructed. Phase 3 will focus on interior renovations and programmatic improvements to support police operations. This last phase, budgeted

[4] Arlington Police Department, *2012 Annual Report*.

at $2.5 million, is currently planned for FY 2015 and FY 2016.[5]

FIRE DEPARTMENT

The Arlington Fire Department's responsibilities include fire prevention and suppression, hazard mitigation, planning for local emergencies, and emergency medical service. Fire prevention includes code enforcement and inspections as well as public education efforts, e.g., Student Awareness of Fire Education (SAFE) and the Juvenile Fire Setter Intervention Program (JFIP). All Arlington firefighters are trained in emergency medical techniques, and all newly hired firefighters are required to become emergency medical technicians (EMTs). There is one Town-owned ambulance with one backup. Arlington continues to explore expanding its emergency medical service to include advanced life support (ALS) and a second full-time ambulance. Currently, the privately-owned Armstrong Ambulance Service provides the paramedics for all ALS calls. Armstrong, which provides services to many communities in Greater Boston, is physically based and headquartered in Arlington.

The Fire Department employs eighty people, most with combined firefighter/EMT responsibilities (Table 9.4), providing a ratio of 1.87 FTE per 1,000 population. In 2012, the Fire Department had 73 EMTs on staff and three first responders. According to the 2012 *Annual Report* and the Town's FY 2014 Budget and Financial Plan, the Fire Department's capacity has been strained by increasing demands, particularly for training, prevention, and inspections. In 2014, the Fire Department expects to create a five-to-ten- year plan that will likely involve reorganization of functions and personnel.

Table 9.4. Fire Department Staff (FY 2014)

Position	Total Staffing
Chief	1.0
Deputy Chief	5.0
Captain	6.0
Lieutenant	15.0
Firefighter	50.0
Professional/Technical	2.0
Clerical	1.0
Total	80.0

Source: Town of Arlington, *FY 2014 Budget*

Table 9.5. Fire Department Calls for Service: 2009-2012

	2009	2010	2011	2012
Fire	79	132	111	133
Emergency Medicals & Medical Assists	2,546	2,490	2,581	2,450
Other*	2,093	2,426	2,125	2,169
Total Calls	4,718	5,048	4,817	4,752

Source: Arlington Fire Department, *2012 Annual Report.*

Table 9.6. Fire Apparatus

Station	Equipment
Central Fire Station	Engine 1 Engine 5 Ladder 1 4 cars 1 pick up 1 trailer 1 maintenance truck 1 boat
Highland Fire Station	Engine 2 Engine 4 Rescue 1 Rescue 2
Tower Fire Station (Park Circle)	Engine 3

Source: Northeast Fire News, 2013.

Calls for Service. The Arlington Fire Department responded to 4,752 calls for service in 2012, including 133 fires. Over half the calls were for medical emergencies or medical assists. The overall call volume has remained relatively constant for the past several years (Table 9.5).

Facilities and Equipment. Arlington has three fire stations that house a variety of apparatus (Table X.6). The Fire Department Headquarters are located in the historic Central Fire Station, which is currently in the final phase of a complete renovation. Funding for the design of interior renovations is budgeted in Arlington's capital plan for FY2014, and construction is budgeted in FY2015 (estimated construction cost: $5.6 million). The Highland Fire Station, renovated in 2011, is certified as LEED Silver[6], and the third facility, the Tower Fire Sta-

[5] Arlington Capital Planning Committee, *Report to Town Meeting*, April 2013.

[6] LEED Silver indicates a score of 50-59 out of 100 points on a scale that measures energy efficiency and environmental design.

tion on Park Avenue in Arlington Heights, was built in 2007 to replace an earlier station at that site.

INSPECTIONAL SERVICES

The Inspectional Services Department (ISD) administers the State Building Code and enforces the Zoning Bylaw. In addition to the ISD director, who serves as the Town's building commissioner, the department employs three other inspectors and a zoning assistant. In FY2012, the ISD issued a combined total of 5,760 building, plumbing, gas, and wiring permits. Like most building departments, Arlington's ISD generates significantly more revenue from permit fees than the town's cost to operate the department. The 5,760 permits issued in 2012 brought over $1.7 million to the Arlington's general fund compared with a total operating budget of $378,190.[7]

Public Works

The Arlington Department of Public Works (DPW) consists of eight divisions with a combined total of 77.3 FTE employees (Table 9.7), or just 1.8 FTE per 1,000 population – *including* those employed under the water/sewer enterprise. The average ratio of employees in the U.S. Northeast region is 2.15 FTE. A decade ago (2004), the DPW was Arlington's largest town department, but it has felt drastic effects of budget shortfalls, more than most other municipal operations. As in most towns, the DPW in Arlington is the "go-to" department for numerous requests, and it is a very busy operation. Public works departments everywhere tend to be capital-intensive operations, and the same applies to Arlington's DPW. Virtually all of the projects the DPW is responsible for involve both workers and heavy equipment: dump trucks, tractors, backhoes, street sweepers, sanders, materials and equipment for water and sewer main repairs and improvements, plows, and so forth. Its $24.2 million share of the 2012-2013 capital plan is one-half of the total that Arlington expects to spend on capital projects between FY 2014-2018.[8]

DPW Services. In addition to core DPW administrative functions, the DPW maintains just over 100 miles[9] of roadways and 175 miles of sidewalks; provides engineering services (e.g., design, construction oversight, development review); maintains all town parks and playgrounds and all trees on public property; manages building custodians; and maintains forty town buildings,[10] cemeteries, the town's 250 miles of water and sewer infrastructure, and over 150 town vehicles. The DPW also oversees the vendor contract for curbside solid waste disposal, composting, and recycling services. Although Arlington is not a "pay-as-you-throw" (PAYT) community, the DPW is particularly proud of Arlington's accomplishments with solid waste and recycling. In 2012, for example, the Town reduced solid

Table 9.7. Public Works Staff (FY 2014)

Position	Total Staffing
Administration	7.2
Engineering	4.0
Cemeteries	3.6
Natural Resources	18.0
Highways	22.0
Water/Sewer	16.5
Fleet Maintenance	6.0
Total	77.3

Source: Town of Arlington, FY 2014 Budget.
Note: *two DPW divisions - Properties and Streetlights – do not have employees.*

[7] *FY2014 Annual Budget and Financial Plan*, 137.

[8] *FY 2014 Budget and Financial Plan*, 191-194.

[9] Of the total 120.80 miles of roadway in Arlington, DPW maintains 101.98 miles of public roadway. 4.52 miles are maintained by MassDOT, 1.52 miles by DCR, and 12.77 miles are private ways. Mass Dept. of Revenue: Municipal databank. Road Miles 2012.

[10] Supervision of building maintenance resides in the DPW, but the budget for building maintenance and all of the maintenance personnel are in the School Department.

Table 9.8. Water and Sewer Charges, Arlington and Peer Group Communities (2012)

	Sewer		Water				
	Average Sewer Cost	**Population Served**	**Average Water Cost**	**Population Served**	**Average Annual Utility Cost (Combined)**	**Median Household Income**	**Utility Cost % Household Income**
ARLINGTON	$583	42,300	$594	42,300	$1,177	$87,525	1.34%
Belmont	$1,347	24,000	$724	25,000	$2,071	$105,717	1.96%
Brookline	$895	56,377	$600	56,377	$1,495	$95,471	1.57%
Medford	$912	57,407	$637	57,407	$1,549	$72,773	2.13%
Melrose	$1,069	28,100	$690	28,100	$1,759	$86,264	2.04%
Milton	$1,232	Not reported	$656	26,220	$1,888	$107,577	1.76%
Natick	$951	32,000	$316	32,000	$1,267	$95,059	1.33%
Needham	$998	30,000	$483	30,000	$1,481	$125,170	1.18%
North Andover	$846	18,000	$526	29,456	$1,372	$97,044	1.41%
Reading	$1,176	23,486	$1,075	23,846	$2,251	$102,614	2.19%
Stoneham	$1,080	23,000	$552	23,000	$1,632	$72,938	2.24%
Watertown	$913	32,986	$479	30,237	$1,392	$83,053	1.68%
Winchester	$313	22,275	$276	22,275	$589	$128,199	0.46%
Midpoint	$951		$594		$1,495		1.68%

Source: Tighe & Bond, 2012 Massachusetts Sewer Rate Survey and 2012 Massachusetts Water Rate Survey (undated).

waste disposal from 14,527 to 12,603 tons in FY13 and increased recyclables from 4652 to 5258 tons.[11]

Water/Sewer Enterprise. Arlington purchases water and sewer service from the Massachusetts Water Resources Authority (MWRA) but maintains its own water and sewer infrastructure: 135 miles of water mains, 127 miles of sewer mains, nine sewer lift stations, and many hydrants, valves, and service connections/shut offs. The Town charges residents and businesses for water and sewer use and pays the MWRA approximately $12 million per year. Arlington operates these services as a **municipal enterprise**, which means water and sewer revenues are accounted for separately from the General Fund. Since these services receive a set level of subsidy (approximately $5.6 million) from taxes, water and sewer rates must be set at levels that will cover the Town's obligations to the MWRA and provide for reasonable operating and capital reserves.

Relative to its peer group, Arlington is fairly affordable in terms of water and sewer costs. An annual survey of water and sewer rates in Massachusetts indicates that Arlington's average sewer bill falls well below the peer group midpoint, and its average water bill is at the midpoint.[12] Together, water and sewer charges in Arlington comprise 1.3 percent of the town's median household income: one of the least burdensome costs shown in Table 9.8.

According to a study recently published by the Massachusetts Water Infrastructure Finance Commission (WIFC), the U.S. Environmental Protection Agency (EPA) has established a water and sewer affordability benchmark of 2 to 2.5 percent of median household income each for water and sewer service. However, the WIFC argues for a lower threshold: 1.25 percent each for water and sewer service.[13] Arlington somewhat exceeds the WIFC affordability standard but falls well within that promoted by the EPA.

[11] Public Works Department, *2012 Annual Report*, and Michael Rademacher, DPW Director, interview, September 17, 2013.

[12] As part of the annual budget presentation, the Town Manager's office tracks key financial data for twelve communities that are generally similar to Arlington. Together, Arlington and the other twelve 9.9 make up the peer group referred to elsewhere in this plan.

[13] Water Infrastructure Finance Commission, *Massachusetts's Water Infrastructure: Toward Financial Sustainability* (February 7, 2012), 99-100.

Health & Human Services

Arlington has a multi-purpose human services agency with programs supported both by tax revenue and user fees. The Department of Health and Human Services (HHS) includes the **Board of Health**, the **Council on Aging** (COA), **COA Transportation, Veterans Services**, and the **Youth Counseling Center**. It also provides professional support to several town boards, notably the **Fair Housing Commission**, the **Disabilities Commission**, **Board of Health**, **Council on Aging**, **Human Rights Commission**, and **Board of Youth Services**. The department employs fourteen people (FTE) and provides services on a contractual basis as well (Table 9.9). In addition to these budgeted services, the HHS oversees a federally funded program known as the Arlington Youth Health and Safety Coalition, which employs three people.

Table 9.9. Health & Human Services Staff (FTE) (FY2014)

				Municipal Enterprises	
Position	**Board of Health**	**Veterans Agent**	**Council on Aging (COA)**	**COA Transportation**	**Youth Counseling Center**
Managerial	1.0	0.0	1.0	0.0	1.0
Clerical	0.8	0.0	0.9	0.5	1.5
Professional/Technical	2.5	1.0	1.1	0.0	1.7
Other	0.0	0.0	0.0	1.0	0.0
Total	4.3	1.0	3.0	1.5	4.2

Source: Town of Arlington, *FY 2014 Budget*.

HHS programs are scattered among several community facilities, though all are located in the town's civic center. The main administrative offices are at 27 Maple Street in the former Central School building, which also houses the COA and the Arlington Senior Center. The Central School was rehabilitated from a school building to a senior/community center and leased office space in 1984. The existing space available to the COA is inadequate to serve the 4,420 Arlington seniors who seek service annually, according to correspondence from the COA Board of Directors.[14] The COA is subject to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) privacy rules which are challenging for the COA to meet in shared workspaces. According to the town's Capital Planning Committee (CPC), the Central School is managed by the Arlington Redevelopment Board (ARB). The Youth Counseling Center occupies space in the Whittemore Robbins House, located behind the library. The Veterans Agent has an office at Town Hall.

Culture and Recreation

ARLINGTON PUBLIC LIBRARIES

Arlington's public library system is a vital asset to the community, serving as a cultural hub and providing free and equal access to traditional and technological resources for all Arlington residents. The main library, Robbins Library, is located in the heart of Arlington, on Massachusetts Avenue. Built in 1892, Robbins Library was designed in the Italian Renaissance style, modeled on a palace in Rome, and finished extravagantly with marble, gold leaf, and custom furniture and fixtures.[15] It is on the National Register of Historic Places. Arlington also operates a branch library on Massachusetts Avenue in East Arlington, the Edith M. Fox Library, which was built in 1965 to replace the original East Branch library on Massachusetts Avenue. Since 1994, the Fox Library has also served as an active, multi-purpose community center.

Both libraries offer a variety of programming for children, teens, and adults. Examples of library programming include panels of local authors, summer reading program, teen book group, and story time. In addition, both facilities have public computer workstations, which are heavily used, and the library has a laptop lending service. Robbins Library also has display space for local organizations, special exhibits, study rooms, a local history room, and community rooms available for local group meetings. Rooms at the Robbins Library can be rented after hours for events. Arlington is part of the Minuteman Library Network of forty-three public and academic libraries, offering residents access to combined holdings of over six million items.

Operations. The Town Manager oversees the library operations, and the Library Board of Trustees admin-

[14] May 15, 2014 letter to Director of Planning and Community Development form the COA Board.

[15] Arlington Public Libraries, History of the Library. See also, Part 6, Historic & Cultural Resources.

isters library trust funds. The seven board members are appointed by the Town Manager for terms between one and three years. In addition to public funding, the Friends of Robbins Library and Friends of the Fox Branch Library provide financial support for programs and extended hours. The Anne A. Russell Children's Educational and Cultural Enrichment Fund, established in the 1990s, supports children's services. Further, the Arlington Libraries Foundation was started in 2013 to attract private donations to support the library's goals.

Robbins Library is open Monday through Friday year-round, with Saturday hours in September through June and Sunday afternoon hours in October through April. The Fox Library is open Tuesday through Friday, with Friday hours funded by the Friends of the Fox.

The library budget provides for a total of 31.3 FTE positions, but the libraries employ approximately 20 part-time employees (Table 9.10). Due to budget cuts, staffing has decreased since 2003. The increasing demand for library services has led to growth in responsibilities for staff members. Implementing new technologies, such as the radio frequency identification (RFID) system for tracking and inventory, can help the library meet its growing demands with current staff levels.

Use. Arlington's libraries are heavily used. In FY2012, the libraries reported over 325,000 visits, a total circulation of 665,437, the highest in the library's history, and a 23 percent increase since 2002 (Table 9.11).[16] The library also reported that circulation of electronic content, including e-books, quadrupled between 2011 and 2012, to over 8,900. Circulation at the Fox Library has also increased significantly in recent years. The library director estimates that overdue fees and fines generate approximately $40,000 annually, which goes to the Town's General Fund.[17]

Facilities. Robbins Library had a major renovation with a new addition, in 1992. Since then, the way residents use the library has changed, shifting the focus away from print materials to computer-based resources. Demand has also increased significantly. The Library staff is currently developing a strategic plan that will include an observational study of how library patrons currently use the space. The study's results will influence future capital improvements for the facility. Robbins Library has also been proposed as a public cooling zone for the community during summer weekends, which would require additional funding to keep the library open for summer weekend hours.[18] The Fox Branch Library, which has not had a major renovation since 1969, also has capital needs. Both library buildings are managed by DPW.

Table 9.10. Library Staff (FY2014)

Position	Total Staffing (FTE)
Managerial	1.0
Clerical	17.5
Professional/Technical	12.0
Custodial	0.8
Total	31.3

Source: Town of Arlington, *FY 2014 Budget*

Table 9.11. Arlington Library Use: 2011-2012

	FY2011	FY2012
Circulation of materials	641,994	665,437
Electronic Content circulation	2,213	8,902
Children's programs	331	460
Adult and young adult programs	85	119
Visits to Robbins Library	321,898	325,550
Uses of Meeting Rooms	997	1,053

Source: Arlington Libraries, Department Report in Arlington's 2012 Annual Report.

RECREATION

The Arlington Recreation Department is responsible for managing town recreation facilities: scheduling, de-

[16] Arlington Libraries, Department Report in Arlington's *2012 Annual Report*.

[17] Ryan Livergood (Library Director), Department Survey, October 2013.

[18] Ibid.

Table 9.12. Recreation Department Staff (FY2014)		
Position	Recreation	Ed Burns Arena
Managerial	0.5	0.5
Clerical	0.6	0.6
Professional/Technical	1.0	1.0
Custodial	0.0	1.0
Total	2.1	3.1
Source: Town of Arlington, *FY 2014 Budget*		

veloping and providing programs, collecting user fees, and so forth, and provides staff support to the Park and Recreation Commission (Table 9.12). The department consists of two divisions: recreation, and the Ed Burns Arena/Sports Center. Arlington operates both as municipal enterprises, so all of the town's recreation services have to be self-supported from user fees. Together, the Recreation Department's programs and the ice rink generate approximately $1.1 million per year in revenue. The Arlington Parks Alliance umbrella group, individual friends groups, and the numerous youth leagues help with routine maintenance and special projects, but the DPW is responsible for most of the maintenance of public recreation facilities – both indoor and outdoor .

Arlington's variety of opportunities for active recreation include Town-owned softball and baseball fields, football fields, multi-use fields for soccer, lacrosse, and other sports, public beach, basketball, bocce and tennis courts, and playgrounds. In these facilities, the Recreation Department sponsors seasonal offerings of sports, fitness, skating, and other programs for residents of all ages. The Recreation Department also manages 28 parks, playground and buildings throughout the Town including the following major facilities:

- **Veterans Memorial Sports Complex.** This major multi-sport complex includes the Ed Burns Arena and all the surrounding baseball, softball, little league and soccer fields that are used by local sports organizations. There is also a bocce court and fitness stations have recently been added to the outdoor offerings.

- **Ed Burns Arena.** The state-owned Ed Burns Arena is the Recreation Department's headquarters. It is leased by the Town under an agreement with the Massachusetts Department of Conservation and Recreation (DCR) and maintained by the DPW. Built in 1971, the facility originally offered a seasonal regulation-size skating rink. The Ed Burns Arena is now a year-round, multi-sport facility with an ice rink that operates during the fall and winter, and batting cages, indoor soccer programs, and summer camps in the spring and summer. It is used for a variety of special events and serves as home facility for the Arlington Hockey and Figure Skating Association and Arlington High and Arlington Catholic High School hockey teams. Table 9.13 tracks annual usage statistics for the skating rink for the past five years. Public skating as an activity for both adults and children has grown significantly over the past several years, and the department offers a variety of instructional programs and special skating events.

- **Robbins Farm Park.** The historic Robbins Farm was owned and farmed by the Robbins Family for more than three generations. In 1941, the Town acquired the land for a public park. Residents use the Robbins Farm fields, basketball court, and playground year-round for active and passive recreation. The site includes a large playground, renovated in 2003, with unique hillside slides and a picnic area, a basketball court, baseball and soccer fields, and a hillside used for sledding in the winter. In partnership with the Friends of Robbins Farm Par, the Park and Recreation Commission prepared a master plan for Robbins Farm Park in the early 2000s.

- **Menotomy Rocks Park.** Another historic recreation site located close to the town center, this park was once known as Devil's Den. It consists of 35.5 acres of rocky woodland, walking paths/cross-country running trails, two informal playing fields, a picnic area, playground and a three-acre pond. Special events, including the Spooky Walk and Arlington's first "art in the park" event, are coordinated by the Friends of Menotomy Rocks Park and other community groups.

- **McClennen Park**. A former landfill in the northwest corner of town, this park now has two multi-purpose fields, a youth baseball field, skate boarding elements, walking trail, picnic area, playground and a naturalized area with a pond in back.

- **Spy Pond Park.** Located on Spy Pond's north shoreline, this public park includes a playground, a public boat ramp, benches, and picnic tables. In 1999, the town commissioned a feasibility study for the

Table 9.13. Participation Statistics: Ed Burns Arena						
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	% Change
Ice Rental Hours	1,913	2,086	1,859	1,944	1,962	2.6%
Rec & Public Skate Hours	496	552	500	610	622	25.4%
Public Skate #'s-Adult	3,597	3824	3,979	4,484	4,258	18.4%
Public Skate Passes #'s-Adult	46	55	58	53	53	15.2%
Public Skate #'s-Child/Seniors	8,356	8597	7,846	8,317	8,411	0.7%
Public Skate Passes #'s-Child/Seniors	85	92	98	127	79	-7.1%
Skate Rentals	2,713	2597	2,762	3,235	2,959	9.1%
Skate Sharpening	932	962	982	1,112	848	-9.0%
Skate Sharpening Passes	N/A	11	20	15	9	N/A
Stick and Puck	280	452	557	518	657	134.6%
Source: Arlington Recreation Department, August 2013. Note: the skating rink is actually owned by the Commonwealth and managed by the Arlington Recreation Department.						

Table 9.14. Participation Statistics: Arlington Recreation Department Programs, 2008-2012					
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Program Participants by Season					
Summer	1,464	1,349	1,634	1,832	1,823
Fall	913	1057	920	1,110	1,263
Winter	764	905	1,506	1,207	2,012
Spring	544	732	812	772	786
Reservoir Beach Tags Sold					
Adult Resident	464	352	455	437	437
Child Resident	461	346	443	395	395
Senior Citizen	67	51	70	71	71
Non-Resident	31	13	13	24	24
Resident Family	358	290	379	340	340
Non Resident Family	46	17	34	27	27
Resident Family Plus 1	90	59	70	64	64
Non-Resident Family Plus 1	8	1	3	6	6
Total	1,525	1,129	1,467	1,364	1,364
Reservoir Beach Passes Sold					
Weekday Pass	3,500	3,051	4,254	3,050	3,344
Weekend Pass	1,191	1,431	1,827	1,667	2,386
Total	4,691	4,482	6,081	4,717	5,730
Source: Arlington Recreation Department, August 2013.					

park and shoreline. The plan recommended park improvements, environmental remediation, and site improvements to prevent soil erosion, improve drainage, remove invasive plant species, and deter geese. The Town's Vision 2020 Spy Pond Task Group and the Friends of Spy Pond Park participate in stewardship and planning efforts at the pond.

- **Reservoir Beach**. Located on Lowell Street in Arlington Heights, Reservoir Beach includes a filtered/chlorinated swimming area, bathhouse, and playground. The beach is supervised by certified lifeguards and other beach staff when open. Boston.com recently listed Reservoir Beach as one of the state's top ten swimming holes.[19]

[19] Boston.com, "Massachusetts Swimming Holes". <http://www.boston.com/travel/explorene/massachusetts/galleries/swimming_

- **Hurd Field**. Located near Mill Brook and the Reservoir, Hurd Field offers two softball diamonds and a multi-use field. The Town received a U.S. Environmental Protection Agency (EPA) grant for a Porous Pavement Education Project at Hurd Field, which funded the installation of a new porous parking surface at the field. A rain garden was also installed in 2013 with support from the Town and the Mystic River Watershed Association.

- **Thorndike Field.** This recreation area is located next to Alewife at the end of the Minuteman Bikeway. In addition to sports fields, this is also the site of Arlington's dedicated off-leash recreation area (OLRA.).

Fees collected from participants of youth sport leagues help to defray some of the capital and maintenance costs of the facilities. Arlington is also seeing growth in picnic permit requests at parks such as Menotomy Rocks, Robbins Farm, McClennen, Spy Pond, and Parallel Park. Furthermore, there has been increased use of Arlington's off-leash dog park at Thorndike Field, and a growing desire among residents for additional off-leash dog areas.[20]

In addition to traditional sports, leisure, and fitness programming for all ages, the Recreation Department has opened an after-school program for children in grades K-5. Arlington Kid Care, a state-licensed child-

Table 9.15. Participation Statistics: Arlington Recreation Department Programs, 2008-2012

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Program Participants by Season					
Summer	1,464	1,349	1,634	1,832	1,823
Fall	913	1057	920	1,110	1,263
Winter	764	905	1,506	1,207	2,012
Spring	544	732	812	772	786
Reservoir Beach Tags Sold					
Adult Resident	464	352	455	437	437
Child Resident	461	346	443	395	395
Senior Citizen	67	51	70	71	71
Non-Resident	31	13	13	24	24
Resident Family	358	290	379	340	340
Non Resident Family	46	17	34	27	27
Resident Family Plus 1	90	59	70	64	64
Non-Resident Family Plus 1	8	1	3	6	6
Total	1,525	1,129	1,467	1,364	1,364
Reservoir Beach Passes Sold					
Weekday Pass	3,500	3,051	4,254	3,050	3,344
Weekend Pass	1,191	1,431	1,827	1,667	2,386
Total	4,691	4,482	6,081	4,717	5,730
Source: Arlington Recreation Department, August 2013.					

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[20] Joseph Connelly, Arlington Recreation Director. Arlington Park and Recreation Commission, *Capital Plan FY 2014-FY 2024*.

care program, operates at the Gibbs School and serves all of the Town's elementary schools, as well as St. Agnes, a local parochial school.

Arlington has made a substantial investment in developing and maintaining recreation facilities. Between 2003 and 2013, many playing fields, courts, and playgrounds were updated with new surfaces, equipment, lights, and irrigation systems. The Town completed a $2 million improvements project at the ice rink and upgraded several playgrounds. The Park and Recreation Commission's long-term capital plan anticipates many more improvements, including a new bath house at Reservoir Beach, field and diamond repairs at Hurd Field and Poets Corner, field and court renovations at Robbins Farm, Scannell Field, and Spy Pond, and new play structures at several town playgrounds.

All of Arlington's recreation facilities are well used and highly valued by local residents. Table 9.14 reports summary-level program participation statistics for Recreation Department seasonal programs for the past five years and details activity at the Reservoir Beach. The recreational facilities under the Parks and Recreation Commission are shown in Table 9.15.

Other Recreation Facilities. The **Minuteman Bikeway** provides recreational opportunities, and it also functions as a habitat corridor due to its proximity to open space, brooks, and water bodies. The path connects the wildlife habitat of Great Meadows in Lexington to the natural environment of Spy Pond. The Minuteman Bikeway was constructed on the former Boston and Maine Railroad right of way in 1992 after 20 years of planning and construction. The entire path is almost 11 miles long, beginning in Bedford Center, passing through Lexington and Arlington, and terminating in Cambridge near the Alewife MBTA Station. In addition to its popularity as a commuter bike route, the bikeway links historic sites, attractions, conservation areas, and parks in Arlington, Lexington, and Bedford. Arlington's portion of the bikeway is about three miles long and runs largely parallel to Massachusetts Avenue. In 2000, Arlington renamed its portion of the bikeway as the "Donald R. Marquis/Minuteman Bikeway" to honor a former town manager.

The **Arlington Boys' and Girls' Club,** a private, non-profit recreation facility, located next to Spy Pond, is an important resource for children and teenagers. It has the only indoor swimming pool in town for classes and open swim times, and is home for the high school swim team. The club offers a large variety of classes and special events, including pre-school, after-school, and summer programs, and boating on Spy Pond. **Fidelity House** in Arlington Center is another private nonprofit community center that offers a wide variety of programs for children. Arlington also hosts privately owned health clubs, fitness centers, and yoga studios that offer a variety of facilities and programs, primarily for adults.

Table 9.15. Arlington Parks, Fields, and Facilities: Parks and Recreation Commission		
Site Name	Location/Description	Acres
Bishop Field	Located at Bishop School, 25 Columbia Rd. Park has a softball/little league field, open field area used for soccer, hardtop basketball area, and a playground. Parking available.	5.7
Bracket School	66 Eastern Ave. Area has a playground and a hardtop basketball area . On-street parking available.	3.1
Buck Field	422 Summer St. Field is located on the right of Ed Burns Arena (Rink). Park has a softball/little league field, access to Minuteman Bikeway. Parking available.	
Buzzell Field	29 Summer St. Area has two little league/softball fields, a playground, picnic tables, a basketball court, access to Minuteman Bikeway. On-street parking available.	3.6
Crosby School/Tennis Courts	Winter St. Area has a medium size breen space used for soccer and a playground. Limited on-street parking available.	3.8
Cutter School Park	Located between Robbins Road and School St. Area has a playground.	0.5
Ed Burns Arena	422 Summer St. An indoor ice facility, regulation-size rink, spectator seating for 1,085 people, complete snack bar and vending machines, skate rentals and sharpening. Open September-April. Parking available.	2.4
Florence-Dallin School	185 Florence Ave. Area has a little league/softball field, a large open green space for soccer/lacrosse, a playground, small spray park, a small basketball area. On-street parking available.	5.3
Gibbs Gym	41 Foster St. Area has two playgrounds available to the public (after 6 pm weekdays) and a basketball court. Parking available.	
Arlington's Great Meadows	Area is owned by the Town of Arlington, located in Lexington; it is located between two schools, the Waldorf School of Lexington and Lexington Christian Academy. Area has walking trails.	183.3
Hibbert Playground	Hibbert St. Area has a small playground.	0.5
Hill's Hill	422 Summer St., at the Arlington Sports Center. Open field for various sports or activities, with access to Minuteman Bikeway, and has a playground. Parking available.	
Hurd/Reservoir	Located off of Drake Road. Area has two softball/little league fields, large open field used for soccer, access to Minuteman Bikeway, access to Arlington Reservoir. Parking available.	6.1
Locke School Playground	Davis Rd. at the Locke School condos	0.2
Lussiano Field	Linwood St. Areas has playground, a basketball court, three picnic tables, one basketball court, one softball/little league field, one baseball field, and a big open field used for soccer; seasonal spray pool area open from June-August. Parking available.	5.0
Magnolia	Located on Herbert St./Magnolia St. Area has a playground, a basketball court, huge open field which is used for soccer and lacrosse, community gardens area; access to the Minuteman Bikeway. Very limited parking available.	3.3
McClennen Park	Locaed on Summer St. (Rte 2A). Area has playground, skate boarding ramps, walking trail, two soccer fields, one little league field. Parking is available.	20.3
Menotomy Rocks Park	Main entrance: Jason St. Area has two open green spaces, a picnic area, playground, walking trails and fishing pond. On-street parking available.	35.1
Ottoson Middle School	630 Acton St. Area has a softball/little league field and practice area; parking available.	6.0
Parallel Park	Located at the intersection of Medford St. and Mystic Valley Parkway. Playground, basketball court, and open space area.	1.2
Parmenter Park	17 Irving St. Area has a playground and a basketball court. No parking available.	1.2

Table 9.15. Arlington Parks, Fields, and Facilities: Parks and Recreation Commission		
Site Name	Location/Description	Acres
Peirce School	85 Park Ave. Extension. Areas has a playground, a basketball court, and green space; parking available after 3 pm.	2.3
Pheasant Ave. Park	180 Mountain Ave. Area has a playground, hard surface for basketball, open green space.	
Poet's Corner	175 Dow Ave. Area has a playground, softball/little league field, basketball courts, and tennis courts.	3.8
Reservior Beach	Lowell St.; seasonal beach with changing facilities, playground, walking trails; large public parking lot abuts facility.	21.3
Robbins Farm	166 Eastern Ave. Area has a baseball diamond, large green space area used for soccer, a playground, summertimes moview in the park, and a 4th of July celebration; on-street parking available.	11.1
Robbins Library	700 Mass. Ave. Area has a glayground and a small green space; parking available.	
Scannell Field	Linwood St. access; area has a softball/little league field, access to the Minuteman Bikeway, stands to watch athletic activities.	15.0
Spy Pond Field	66 Pond Lane. Area has a baseball diamond, little league field, stands to watch athletic activities, large open field used for soccer, and four tennis courts; on-street parking available.	
Spy Pond Park	Pond Lane access; area has a playground, boat ramp and access to the Minuteman Bikeway	
Stratton School	180 Mountain Ave. Area has a playground, hardtop for basketball, and a small geen space; parking is available after 3 pm.	4.1
Summer St.	422 Summer St. Area has a playground, multigenerational area, basketball court, baseball diamond, large open filed used for field hockey; access to the Minuteman Bikeway; parking available.	12.7
Thorndike Field and area	99 Margaret St.; area has a large field for soccer and lacrosse, off-leach dog park, and access to the Minuteman Bikeway; limited parking is available.	10.0
Waldo Park	Located between Teal and Waldo sT.s; playground, basketball court, and open space area.	1.0
W. A. Peirce Turf Field	869 Mass. Ave.; a newly-renovated turf field, new six-lane track, one baseball field, one softball/little league field, one multi-purpose practice field, and two basketball courts.	20.8
Wellington Park	Grove St. Lighted tennis courts, adventure course, and open space area	3.0
Whittemore Robbins House	700 Mass. Ave.; area has a playground an a small green space; limited parking available.	
Source: Arlington Department of Planning and Community Development.		

Arlington Public Schools

In the 2012-2013 school year, total K-12 enrollment in the Arlington Public Schools exceeded 4,900 students. Approximately half of these students are in the elementary schools. Enrollment has grown steadily for the past twenty years and is expected to continue to increase over the next five years (see Appendix).

In addition to providing its own public schools, Arlington belongs to the Minuteman Regional Vocational Technical School District. Located in Lexington, Minuteman Regional High School serves sixteen towns and more than 700 students, including 125 high school students and 14 post-graduate students from Arlington in 2012. Minuteman Regional is in the Massachusetts School Building Authority's (MSBA) Vocational School Repair and Renew pipeline for renovations and an addition.

The Arlington Public Schools operates nine school facilities: seven elementary schools, one middle school, and one high school (Table 9.16). Menotomy Preschool is a nonprofit preschool located in Arlington High School and run by the childhood special education department at AHS, offering work-related training experience for high school students studying early childhood education. The elementary schools serve grades kindergarten through five. A redistricting plan

Table 9.16. Arlington Public Schools (with associated Park and Recreation Facilities)

School	Description
Bishop Elementary 25 Columbia Road	Grades: kindergarten to 5 51,367 sq. ft., built in 1950; renovated in 2002 Softball/little league diamond, basketball court, multipurpose field, playground, parking lot
Brackett Elementary 66 Eastern Avenue	Grades: kindergarten to 5 57,670 sq. ft., originally built in 1930; rebuilt in 2000 Basketball court*, multipurpose field*, playground*, across street from Robbins Farm Park (baseball diamond, multipurpose field, playground)
Dallin Elementary 185 Florence Avenue	Grades: kindergarten to 5 63,578 sq. ft., originally built in 1956; rebuilt in 2005 Softball/little league diamond, basketball courts*, multipurpose field, playground*, tot lot*
Hardy Elementary 52 Lake Street	Grades: kindergarten to 5 55,107 sq. ft., built in 1926; renovated in 2001 Basketball courts, playground, parking lot available after 3pm
Peirce Elementary 85 Park Avenue Extension	Grades: kindergarten to 5 55,107 sq. ft., originally built in 1926; rebuilt in 2004 Basketball courts, playground, tot lot*, parking lot available after 3pm
Stratton Elementary 180 Mountain Avenue	Grades: kindergarten to 5 63,300 sq. ft., built in 1962; renovated in 1968, 2011 Baseball diamond, basketball courts, multipurpose field, playground, parking lot available after 3pm
Thompson Elementary 60 North Union Street	Grades: kindergarten to 5 59,000 sq. ft., originally built in 1956; rebuilt in 2013 Basketball court*, softball/little league diamond*, playground*, baseball diamond*, multipurpose field*, picnic tables*, seasonal spray pool, parking lot
Ottoson Middle School 63 Acton Street	Grades: 6-8 154,380 sq. ft., built in 1920; renovated in 1998 Softball/little league diamond*, practice area*, parking
Arlington High School 869 Massachusetts Avenue	Grades: 9-12 394,106 sq. ft., built 1914; addition 1964 and renovated in 1980 synthetic field*, track*, basketball courts*, baseball diamond*, softball/ diamond*, multipurpose field*

Source: Arlington Capital Planning Committee, Report to Town Meeting, April 2013; Arlington Recreation Department; * - items with asterisk are under authority of the School Department.

for elementary schools went into effect for the 2013-2014 school year in an effort to address enrollment imbalances.

The School Department has identified a need for a long-term capital maintenance plan and expanded technology in all schools. Arlington is near the end of a multi-year process of renovating or replacing all seven elementary schools. To date, six of these schools have been completed. The most recent project involved the Thompson School, at $20 million. The new building opened in September 2013. The Stratton School is next. In December 2013, the School Department obtained a "green" capital needs assessment and replacement reserve analysis of the Stratton School and established a school building committee. The committee has begun the process of determining what needs to be done to bring the Stratton to parity with the other elementary schools. According to the School Department, the goal is to generate estimated budgets to submit to the next Capital Budget cycle in September, for funding in FY2016.

The Ottoson Middle School is space-constrained and needs renovations. In 2014 the School Department filed a Statement of Interest with the Massachusetts School building Athority to rebuild Arlington High School.

Town Buildings/ Preventive Maintenance

Town Buildings

The Town of Arlington owns nearly fifty buildings. In addition to those most recognizable to the general public – Town Hall, the libraries, the schools, community safety, and public works – the Arlington Redevelopment Board manages several decommissioned facilities and leases the space to tenants, primarily local nonprofits such as the Cyrus Dallin Art Museum, Arlington Chamber of Commerce, Arlington Center for the Arts, and Arlington Community Media Inc., the local cable access station. An inventory prepared by the Capital Planning Committee (CPC) has been reproduced in the Appendix.

In the past, Arlington had no town-wide policy for a coordinated approach to preventative maintenance of town facilities. Departmental coordination was lacking, and the town had multiple maintenance service contracts with vendors. To improve the efficiency and effectiveness of preventative maintenance, Arlington has created a Facilities Maintenance Planning Committee. Led by the assistant town manager, this committee is in its infancy in 2013, but it is working to develop a comprehensive preventative maintenance plan for all Town-owned public facilities.[21]

UNIVERSAL ACCESS

Under the Americans with Disabilities Act (ADA), the Town is required to make all of its programs and buildings accessible to people with disabilities. The Massachusetts Architectural Access Board (MAAB) provides State guidelines for accessibility for new construction and renovations. The Town prepared an Americans with Disabilities Act (ADA) Self Evaluation and Transition Plan in 1992. According to Town staff, Arlington has brought many, though not all, of its buildings into compliance since 1992. The Massachusetts Office on Disabilities (MOD) has recognized Arlington for its efforts. The Town Hall, the Robbins Library, six of seven elementary schools, and the Ottoson Middle School reportedly comply with MAAB regulations. The Town has allocated CDBG funds for the past twelve years to install Wheel Chair Ramps. The Town is planning to update its Accessibility Self-Evaluation in 2015, to be followed by an updated ADA Transition Plan.

In 2013-14 the Parks and Recreation Commission, working with the Institue for Human Centered Design, undertook a survey of their programs and locations with the following goals: Provide an evaluation of sevices and aprograms to determine compliance with ADA guidelines; provide an evaluation of facilities,

[21] Andrew Flanagan, Assistant Town Manager, interview, October 9, 2013.

prepare a transition plan that complies with ADA standards; establish a grievance procedure and notice form that complies with ADA requirements; and provide the Town with a cost estimate for work required as a result of the evaluations; this work will be ongoing for many years.

ENERGY

Arlington became a state-designated "Green Community" in 2010.[22] The Town has a part-time energy manager whose time is divided between Arlington and Bedford. The energy manager's duties include administering energy programs and policies, managing and applying for grants, implementing sustainability projects, and monitoring energy consumption in municipal facilities. Since 2010, Arlington has used Green Communities funds to install energy conservation measures at several Town-owned buildings. The improvements included new, high efficiency boilers; variable speed drives (which save energy by adjusting the output of mechanical equipment in response to the amount of power required); energy management systems; steam traps; and motion light sensors. Arlington has also converted all of its streetlights to LED lights (see Appendix). Through these efforts, the Town has reduced its energy consumption by 22 percent since 2008. Potential future projects include installing occupancy sensors and updating light fixtures at DPW facilities and Robbins Library; and installing anti-idling devices in DPW cars and trucks to lower carbon emissions.

Town Finances

When asked to identify and rank Arlington's current weaknesses and the conditions that threaten its future, participants at three public meetings for this master plan spoke almost in unison: lack of commercial and industrial tax base, and Arlington's increasing dependence on residential taxpayers to fund the cost of local government. Most of the sixty-two residents who attended individual and small-group interviews made similar comments. Some characterized Arlington's dilemma with words heard at all levels of government in the U.S. today: "structural deficit." In fact, residential property values have driven Arlington's tax base for many years. Since the mid-1980s, the tax base has gradually changed from 90 percent residential to almost 94 percent in 2013. In the intervening years (1986-2013), a combination of very little new growth, state aid fluctuations, three recessions, substantial increases in the cost of employee benefits such as pensions and health insurance and changes in school spending requirements have also contributed to making it hard for built-out suburbs like Arlington to maintain current service levels.

> **"Structual Defificit"**
>
> a structural deficit occurs when annual increases in fixed costs exceed the annual increase in revenue.

Arlington tracks financial indicators for thirteen comparison towns (Table 9.17): communities with similar populations, wealth, land area, road miles, budgets, and so forth. While Arlington relies more on residential property taxes than most towns in the comparison group, its tax burden is relatively low. Arlington's average tax bill rose at a faster rate than the state median for the past two years, presumably due to a Proposition 2 ½ override vote in 2011. However, even with accelerated tax bill growth, Arlington's tax levy per capita remained comfortably below the midpoint of its comparison area, and its average tax bill as a percentage of median household income is low for the comparison area, too. Arlington also spends less per capita than similar towns. The available demographic, revenue, and expenditure data for Arlington suggest that lack of revenue growth, not excessive spending, lies at the root of what residents call the Town's structural deficit. As the Town's FY 2014 Financial Plan suggests, Arlington is left "with only two choices: significant budget cuts resulting in service reductions or Proposition 2 ½ general overrides."[23]

To preserve basic services and manage the rate of spending growth, Arlington approved an override of Proposition 2 ½ in 2011 with the understanding that the new revenues would maintain acceptable levels of service through FY 2014. Town leaders made several commitments for making the money last at least three years, and so far all of those commitments have been met. Recent changes in state law made it easier for Ar-

[22] "Green Communities" is a program of the Mass. Executive Office of Energy and Environmental Affairs (EOEEA). It provides funding to eligible cities and towns for energy efficiency and renewable energy projects. To qualify for designation, a community must institute certain energy policies and provide streamlined zoning and other regulations for renewable energy development.

[23] *FY 2014 Budget and Financial Plan*, 15.

Table 9.17. Financial Comparison Data

Community	Census 2010 Population	Population Density Sq. Mi.	2010 Dept. of Revenue (DOR) Income Per Capita	2012 EQV Per Capita	2011 Expenditures Per Capita	2013 Levy Per Capita
ARLINGTON	42,844	8,271	$43,414	$175,702	$2,029	$2,288
Belmont	24,729	5,307	$65,808	$226,958	$2,678	$2,914
Brookline	58,732	8,650	$58,434	$276,924	$2,976	$2,897
Medford	56,173	6,901	$29,198	$126,373	$1,815	$1,601
Melrose	26,983	5,753	$37,402	$138,817	$2,435	$1,779
Milton	27,003	2,071	$51,918	$169,647	$2,372	$2,406
Natick	33,006	2,189	$46,091	$199,265	$2,891	$2,706
Needham	28,886	2,291	$80,902	$281,849	$3,533	$3,477
North Andover	28,352	1,064	$47,602	$156,821	$2,293	$2,167
Reading	24,747	2,492	$42,071	$159,675	$2,857	$2,226
Stoneham	21,437	3,486	$34,028	$145,507	$2,442	$1,907
Watertown	31,915	7,765	$35,554	$169,115	$2,801	$2,456
Winchester	21,374	3,539	$87,306	$269,213	$3,739	$3,243

Sources: FY 2014 Budget and Financial Plan; Mass. Department of Revenue, Municipal Data Bank.

lington and other communities to reduce expenditures for employee health insurance, and this has helped to stretch the benefits of the 2011 general override.[24]

Issues and Opportunities

Arlington Public Schools

K-12 Enrollments. Few trends attest to the demographic changes in Arlington more persuasively than what has happened with K-12 enrollments. When work began on this master plan, the school department's enrollment projections anticipated a fairly stable pattern. By the time the master plan was in development, however, a new enrollment forecast called for steady growth in Arlington's school-age population. The good news for Arlington is that families want to live in the community. The down side is that Arlington will find it even more challenging to meet capital and operating needs on the municipal side of town government if school enrollments increase as currently predicted.

Capital Improvements. While the Stratton School is next in line for capital improvements, the timing is complicated because Arlington High School – last upgraded more than 30 years ago – has major capital needs as well. Building conditions at Arlington High School led to a recent accreditation warning from the New England Association of Schools and Colleges (NEASC). A needs assessment is being conducted to help the School Department plan for renovation or reconstruction of this facility in the next five years. The School Department filed a Statement of Interest with the Massachusetts School Building Authority (MSBA) in April 2014. A Statement of Interest is the first step in a long process of being partially (if not substantially) funded by the state. The timing of the project is uncertain due to significant competition statewide for limited building funds. It is very unlikely that Arlington could afford to rebuild the

[24] Ibid, 3-4. See also, *Finance Committee Report to 2013 Annual Town Meeting*, 4.

High School without state funding. If Arlington High School is selected to proceed by the MSBA, the School Committee will have to approach Town Meeting for funding to conduct a feasibility study. Moving beyond the feasibility study stage to design and construction funding will require a Proposition 2 1/2 debt exclusion vote.

Arlington also faces the challenging of competing demands between school and municipal facilities. For example, the town has identified needs for a community center and a new senior center. Some town properties also involve overlapping jurisdiction, e.g., both the Park and Recreation Commission and the School Department oversee outdoor recreation facilities associated with the schools. To better understand the town's long-term building needs and the status of existing plant, Arlington formed a Building Facilities Committee in 2013.

Department of Public Works

Aside from a 29 percent decrease in DPW employees between 2003 and 2013 (measured in FTE),[25] the DPW operates with some constraints that are unique to a built-out community. For example, Arlington has no designated storage areas for snow and tree removal, thus the DPW has to work with the owners of vacant or underused sites such as parking lots in order to find places to dump snow (or trees) during or after a storm. According to the DPW director, the Town has had to move snow to some of the public parks in past years; doing so, however, runs the risk of costly damage to these facilities. A regional solution may be explored, though concerns about contamination and the added problem of longer operational run times makes an out-of-town snow disposal site difficult.

A second challenge for both the DPW and the Cemetery Commission, is that Arlington is running out of cemetery space. The Mount Pleasant Cemetery is the only public cemetery facility in Arlington that still has room for additional burials, but its estimated capacity is only about another five years.

Arlington residents clearly value the tree canopy that defines most neighborhood streets. The abundance of mature trees found throughout Arlington has an indelible impact on the town's visual character and environmental quality. Arlington has approximately 19,000 public trees, all under the responsibility of the DPW Natural Resources Division. Due to the number of severe storm events that occurred in 2012 – the July "microburst" and Tropical Storm Sandy in October – coupled with staff shortages, the DPW has a current backlog of about 400 tree repair/removal requests, or roughly one year of catch-up work. The Natural Resources Division also maintains thirty parks, twenty-six playgrounds, nineteen athletic fields, several parcels of open space, and twenty-one traffic islands.[26]

Private ways present additional public works challenges in Arlington. The Town has approximately twenty-three lane miles of private ways. Mainly for public safety reasons, Arlington plows all roads and provides curbside trash pickup on private as well as public roads. However, regular road maintenance is limited to public streets under the Town's jurisdiction. According to the DPW, the private ways serving many houses on small lots are in relatively good condition, but the short private ways in lower-density parts of town need work. The DPW estimates that approximately one-third of the private ways in Arlington are in serious disrepair posing a hazard for pedestrians and vehicular access to abutting properties.

Recommendations

1. **Space Needs Analysis.** Perform a space needs analysis for all Town-owned buildings. The Town of Arlington owns and occupies many buildings across town. A quantitative and qualitative analysis of all these facilities is needed to prevent the underutilization of space and misappropriation of resources between departments. This analysis should also identify potential need for space for current or projected uses, and inefficiencies that might affect the operations of a department. In addition to looking at the physical layout of space, an assessment of the environmental quality, such as daylight and the availability of fresh air, should be considered.
2. **Planned Preventive Maintenance.** Establish a Planned Preventive Maintenance (PPM) program to improve maintenance of Town facilities and structures. Create a PPM for all Town-owned facilities, including schools, recreational facilities, parks and open space.
3. **Asset Management.** Establish a regular process for evaluating the continued need to retain Town-

[25] *FY 2014 Budget and Financial Plan*, 58.

[26] Public Works Department, 2012 *Annual Report*.

owned properties and for disposing of properties that no longer serve public purposes. As part of its asset management responsibilities, Arlington should create a procedure to evaluate Town-owned properties as potential candidates for disposition, and policies to guide how proceeds from the sale of Town property will be used.

4. **Facilities Manager.** Fund a Facilities Manager position; transfer the maintenance budget and building maintenance personnel from the School Department to the Facilities Manager. This would benefit Arlington by having a centralized, professional expert overseeing all aspects of facilities management: i.e. routine inspection, needs assessment, routine maintenance, repairs and improvement projects, accessibility improvements, energy improvements, budgeting, and planning. The Facilities Manager should also maintain an inventory of the tenants in each facility, both public and private.
5. **Maintenance of Private Ways.** Work with residents to improve the condition of private ways. The Town of Arlington operates trash and snow removal service on private ways as a preventative measure for public health and safety. However, property owners are responsible for maintaining over twenty-three lane miles of private ways in Arlington. Many of these roads are in deteriorated condition and continue to fall further into disrepair.
6. **Public Works Needs.** Study and develop a plan for addressing Arlington's long-term public works related needs, including cemetery and snow storage needs.
7. **Sidewalks Inventory and Plan.** Establish a sidewalk pavement inventory and a plan designating criteria for pavement types that will be employed for future replacement. Pavement types include concrete, asphalt, or brick.
8. **Ownership of Ed Burns Arena.** Seek Town acquisition of the Ed Burns Arena from the Massachusetts Department of Conservation and Recreation (DCR).
9. **Community Center.** Prepare a feasibility study for an updated Community Center/Senior Center.

10 implementation program

INTRODUCTION

Arlington's Implementation Program is divided into four types of timeframes:

- **near-term**, or "first order of business" implementation needs;
- **mid-term**, or actions that either depend on the completion of near-term recommendations or require more time, planning, and policy development;
- **long-term**, or actions that will be needed but can be deferred, or actions requiring multiple participants, more planning work, or significant sums of money; and
- **ongoing**, or recurring actions.

This section of Chapter 10 provides brief commentss on the actions outlined in the Implementation Summary (chart). Since the organizations that should lead these actions and the resources required for implementation are outlined in the chart, they have not been repeated here unless needed for empahsis or clarification.

A master plan or comprehensive plan usually contemplates a 10-year implementation period. Arlington may need more time, and some actions will take longer than 10 years to complete, but 10 years is a reasonable assumption for the effective period of this Implementation Plan.

NEAR-TERM

Organizational Capacity

The most important component of any implementation program is **capacity**: people, knowledge, technology, infrastructure (political, social, and physical), and funding. As a result, the short-term phase of the Master Plan calls for two action items relating to capacity. They are:

- Select an Implementation Committee of interested MPAC members to oversee implementation in first year, with new members added for subsequent years; and
- Develop measurable indicators of progress, times of completion/milestones, responsible parties, and schedule and reporting plan for Implementation Program.

Adequate capacity is the most important component of any implementation plan. Capacity means people, knowledge, technology, infrastructure, and money.

COMMENTS

The initial phases of master plan implementation tend to focus on zoning, but master plans involve far more than land use regulations. Communities with a strong tradition of public involvement are more likely to succeed with master plan implementation if they have a coordinating committee to keep the implementation process moving forward. Arlington should create a Master Plan Implementation Committee, ideally with participants from the MPAC and some new faces as well, to conduct the following tasks:

1. Guide the implementation process by coordinating actions that involve more than one department or board; make reports to Town Meeting, and provide oversight, technical assistance, and advocacy;

2. Conduct public outreach and education;
3. Support funding requests for master plan implementation; and
4. Identify areas of the plan that may need to be amended or modified, based on first-year implementation experience.

Indicators provide a useful framework for measuring goals and identifying both intended and unintended consequences.

The implementation program for this Master Plan is organized by general "phase" or timeframe within which certain actions should occur. It may be helpful to Arlington to develop a series of indicators that measure not only whether a recommended action has happened, but how effective it has been at addressing the goals of this Master Plan and the Vision 2020 goals. For example, if Arlington eventually meets one of the statutory minima under the state's affordable housing law, Chapter 40B (the 10 percent affordable unit minimum or the 1.5 percent general land area minimum) but its economic diversity diminishes, the Town may have met one goal but not another. Indicators can be a useful way to track overall progress, institute an "early warning system" for potential conflicts, and identify areas of the Master Plan that need to be amended.

Regulatory

Zoning

Most master plans begin with zoning changes – from clean-up to comprehensive overhaul, depending on the city or town. Arlington's short-term implementation phase calls for two types of Zoning Bylaw revisions:

1. Recodify and update the Zoning Bylaw;
2. Conduct a comprehensive zoning revision to institute the land use policy recommendations of this Master Plan.

Arlington has a critical need for zoning recodification, which focuses on the format and structure of a Zoning Bylaw, the terms it uses, and whether its provisions comply with state law and court decisions.

COMMENTS

Arlington's ZBL can be difficult to navigate. It is not a well-organized document, its terminology is sometimes obsolete, it is internally inconsistent, and it contains provisions that are out of sync with current statutory requirements. A zoning audit prepared in connection with this master plan can provide an initial "road map" for a consultant to help the town reorganize and update the ZBL as a first-step in the process of bringing Arlington's ZBL in line with this Master Plan.

Following recodification, Arlington needs to conduct a comprehensive review and update of its ZBL to advance the land use, housing, environmental, and economic development goals of the Master Plan and to improve the town's permitting procedures. The following tasks should be emphasized during the zoning revision process.

1. **Reduce the number of uses that require a special permit**; replace some special permits with a system of uses by right subject to performance standards.
2. Tailor **parking requirements** to actual parking need in different commercial centers.
3. Strengthen **bicycle parking regulations** in and adjacent to business districts and multifamily developments
4. Consolidate and redefine the **business zoning districts** on Massachusetts Avenue.

5. Provide **redevelopment incentives** in all or selected portions of the business districts on Massachusetts Avenue, Broadway, and Medford Street (note: incentives may include more than zoning).
6. Clarify that **mixed-use development** is permitted along sections of Massachusetts Avenue, Broadway, and Medford Street; clarify associated regulations and procedures.
7. Allow **flexibility in dimensional requirements** and use regulations for projects that will preserve historic properties.
8. Review **open space requirements**, e.g., by providing for roof gardens and other useable open space.

Some of Arlington's existing zoning policies will also need to be changed in order to implement the Master Plan.

Demolition Delay

Arlington also needs to review and strengthen the demolition delay bylaw. Demolition delay is a general bylaw, not zoning, but it has an impact on what the owners of historically significant buildings can do to their property – at least for a year.

COMMENTS

Demolition delay is a preservation tool that can help to preserve significant historic buildings and structures. It provides communities with the opportunity to work with property owners to try to find an alternative to demolition. For buildings on Arlington's Inventory of Historically or Architecturally Significant Properties, a delay on the issuance of a demolition permit creates a window for the Historical Commission to work with property owners to preserve a building or find a buyer willing to preserve it. The bylaw also creates a public review process for proposed demolitions of historic structures. This ensures that important historic landmarks are not destroyed without community awareness and the ability to seek an alternative. However, a demolition delay bylaw is just that: a delay bylaw. After the one-year delay period expires, owners can proceed with demolition if they wish, though obviously the goal is a better outcome for the building.

Compared with other towns, Arlington has done fairly well with its Demolition Delay bylaw. However, the bylaw could be a stronger, more effective tool to control "mansionization" and reduce the loss of historic resources that still need to be documented.

Due to effective leadership from the Arlington Historical Commission, the Town has had some success with demolition delay, but the bylaw could be stronger. Many communities have adopted longer delay periods in an effort to encourage property owners to take preservation seriously. In addition, the Town could consider changing the bylaw's applicability threshold. Today (2015), the only buildings that trigger demolition delay are those on the Inventory of Historically or Architecturally Significant Properties, but since Arlington lacks a comprehensive community-wide resources inventory, demolition delay does not afford review of changes to a structure that may in fact be significant even though it is not on the official Inventory. The Town should consider requiring all demolition permits to go to the AHC for review and a determination of applicability.

Facilities, Services & Infrastructure

An important function of any master plan is to identify existing and future needs for services and facilities as a community's population grows and changes. Most but not all of the responsibility for these actions will fall on the Department of Public Works (DPW) – the department universally recognized as Arlington's most constrained and least well-staffed relative to the demands already placed

upon it. Since Arlington's master plan calls for several near-term actions to improve facilities and services, the Town must address the DPW's personnel shortage as a "first step" toward implementation.

Arlington needs to restore and increase the capacity of its Department of Public Works (DPW). Without more DPW resources, the Town will not be able to implement all of the recommendations of this Master Plan.

Zoning changes are not enough.

The proposed actions include:

9. Create a **Facilities Manager** position; transfer the maintenance budget and building maintenance personnel from the School Department to Facilities Manager.
10. Establish a **Planned Preventive Maintenance (PPM)** program for all Town-owned buildings and infrastructure.
11. Study and develop a plan for addressing Arlington's **long-term cemetery needs.**
12. Identify options for, and resolve, the Town's land needs for **snow storage** and other emergency needs.
13. Consider **additional staffing and funding** to **maintain the Town's outdoor facilities**: parks, recreational, and open spaces.
14. Develop a plan for **universal access** to recreation facilities, parks, and trails.
15. Address ADA requirements, improved lighting, signs and signalization at street crossings, for the **Minuteman Bikeway** to give more visibility to pedestrians and bicyclists, and speed control to drivers.
16. Develop a **Tree Inventory and Management Plan**, to include locations for new and replacement trees, planned maintenance, and appropriate tree species selection.

COMMENTS

Arlington needs a process for systematically evaluating its public facilities. A consolidated facilities planning process would help the Town manage its facilities more efficiently and productively. It would enhance Arlington's ability to engage in meaningful planning for maintenance, long-term repairs or improvements, and energy efficiency. In addition, coordinated long-term facilities planning should help Arlington make the most efficient use of its financial and human resources.

Toward these ends, Arlington should consolidate all facilities management functions by creating a full-time facilities manager position in the Public Works Department. This position would benefit Arlington by having a centralized, professional expert overseeing all aspects of facilities management: custodial care, routine inspection, routine maintenance, repair and improvement projects, improvements to make facilities accessible to people with disabilities, energy use, budgeting, and planning. In addition to preparing a periodic assessment of and budget for these needs, the responsibilities of a facilities manager would include maintaining an inventory of the services provided in each facility. Currently, the town divides building maintenance functions in an awkward arrangement with management in Public Works and maintenance crews in the School Department. In a town of Arlington's size and complexity, and especially because it has so many older, significant properties to care for, there is a critical need for centralized, professional oversight of the Town's capital assets. There are also compli-

ance issues to consider. The absence of ADA-compliant facilities – buildings, parks, and open spaces – creates a significant liability for Arlington.

There should also be a long-term asset management plan with a process for identifying facility elements to be replaced and a plan for advanced funding (like a capital reserve) to the extent allowed by law. This process is known as Planned Preventative Maintenance (PPM). Advance funding through special capital reserve accounts should be based on the predictable useful life of each facility or component thereof and coordinated with Arlington's efforts to incorporate "green building" principles in public facilities.

Finally, the DPW should oversee the process of developing a Tree Inventory and management plan, similar to a tree inventory project completed in the City of Cambridge in 2011. A tree inventory is usually prepared in order to understand the health and composition of a community's trees and to conduct more effective urban forestry programs. The Cambridge inventory identifies the number of trees and empty tree wells, tree size, species, recent plantings, and vulnerability to invasives, and the data are available in the City's GIS system. Arlington could consider hiring a student intern to assist with developing the inventory (as Cambridge did), and the Town may also need to purchase special software to maintain the inventory over time.

Arlington's tree canopy is one of its most important character traits. To protect the trees that make Arlington the beautiful town that it is, the DPW needs more information - and more efficient access to information - about the existing tree inventory.

Mobility and Quality of Life

It is not surprising that every phase of master plan implementation in Arlington involves actions to improve traffic and circulation systems, including parking. From the very beginning of the master plan process, residents named traffic congestion and parking as major "quality of life" impediments in Arlington. The near-term implementation phase includes several actions to address circulation and parking:

1. Adopt a "complete streets" policy to accommodate all street users when improving public streets and sidewalks.
2. Initiate a complete, safe Sidewalks Plan town-wide, in coordination with the Safe Routes to School (SRTS) program. Prioritize improvements for new and existing sidewalks.
3. Identify intersections with pedestrian safety issues and prioritize improvements for problem intersections.
4. Adopt a plan for future sidewalk paving design treatments according to density and road geometry, consistent with the Sidewalks Plan.
5. Implement the recommendations in the 2014 Arlington Center parking study.
6. Monitor parking trends in all commercial districts.
7. Consider a Parking Management Study for Arlington Heights.

COMMENTS

Arlington has already embraced a "complete streets" approach in the Massachusetts Avenue-East Arlington Rebuild project, which is designed to make Massachusetts Avenue more efficient and safer for everyone by reconstructing the road, building new and better sidewalks, providing bike lanes, and improving

traffic signals. The Master Plan calls for adopting this type of approach as official local policy, i.e., to guide all major roadway improvement projects in the future.

Arlington needs a Sidewalks Plan and a sustained commitment to sidewalk improvements. The Town also needs to resolve disputes about appropriate sidewalk treatments in historically significant areas.

One of the most frequently cited advantages of living in Arlington is the town's walkability. However, while this applies in many neighborhoods, there are parts of Arlington with limited or missing sidewalks. Even where sidewalks do exist, they are not always in good condition or designed to accommodate people with disabilities. In addition, there are conflicts in Arlington over appropriate sidewalk treatments, especially in areas considered historically significant. The Town needs to resolve these conflicts; first, deteriorating sidewalks benefit no one, and second, sidewalks that cannot be used by people with mobility impairments place the town at risk of civil rights complaints.

Lack of universal access is a civil rights issue.

Finally, Arlington recently (2014) completed a parking study in Arlington Center. The Board of Selectmen has adopted the study's recommendations, and it is time to implement them. A similar study may be in order for Arlington Heights, which the Town should consider funding. In general, parking supply and demand should be monitored in all of Arlington's business areas so the Town has a good baseline for future planning. Arlington could design a parking data collection and GIS analysis project to be conducted by student interns, which would help to bring some additional capacity (personnel) to this task.

Community & Economic Development

The Master Plan's near-term implementation phase calls for four planning-related tasks, three of which relate to Chapter 40B, the state's comprehensive permit law:

1. Create a comprehensive plan for the Mill Brook study area.
2. Create an Affordable Housing Plan (Housing Production Plan) and submit to DHCD for approval under Chapter 40B.
3. Allocate CDBG and CPA resources to meet local housing needs and work toward meeting Town's affordable housing goal of 1.5 percent land area for affordable housing (or 10 percent affordable units, if achievable sooner).
4. Work with DHCD and the Town's state representatives and senator to determine Arlington's status under the Chapter 40B 1.5 percent land area rule.

Arlington has done more than most towns to create and preserve affordable housing. The state should do more to recognize the efforts of towns like Arlington: maturely developed, close-in suburbs with little vacant land, yet an effective non-profit partner like the Arlington Housing Corporation.

COMMENTS

Revitalizing former industrial sites along the Mill Brook could bring significant benefits to Arlington: economic, environmental, flood control, recreation, transportation, and historic preservation. In July 2014, the Arlington Redevelopment Board voted to define a Mill Brook Study Area. What Arlington needs now is an area (or district) plan for the Study Area, most likely to include peripheral areas of influence. Toward this end, the Town will need to appropriate funds (or secure grants) for an area planning process, ideally to be led by a landscape architect.

Arlington's Planning and Community Development (PCD) staff believe the Town is close to meeting a standard under Chapter 40B known as the 1.5 percent general land area minimum – an alternative to having affordable housing units equal to or greater than 10 percent of a community's year-round housing stock. As this Master Plan approached completion, the Mass. Department of Housing and Community Development (DHCD) was paying considerable attention to

the 1.5 percent "rule" because several Massachusetts towns had hired a consultant to prove they met the threshold. The consultant's methodology was under review by the Housing Appeals Committee (HAC), and it is not clear how the matter will be resolved. Until Arlington knows what methodology the state will actually accept, e.g., how much of a town's total land area and how much land with affordable housing units can be included in the 1.5 percent formula, the Town should keep its options open and continue to work on creating more units *an*d tracking affordable housing land use.

In both cases, the Town's actions should be guided by an Affordable Housing Plan that addresses, as closely as possible, DHCD's Housing Production Plan requirements. Having a DHCD-approved HPP would at least position Arlington to deny large, unwanted comprehensive permits if the Town approved enough new affordable units in one year (99) to qualify for temporary relief under state regulations.

A Housing Production Plan could help Arlington discourage large or otherwise incompatible comprehensive permits. It also could focus attention on housng choices as a key element of making Arlington a sustainable community.

Conservation & Resource Protection

There are three near-term actions involving conservation and resource protection, two pertaining to historic preservation and one to the Community Preservation Act (CPA):

1. Complete a comprehensive historic resources inventory and survey, including buildings, structures, and landscapes.
2. Seek Certified Local Government (CLG) designation for the Arlington Historical Commission.
3. Seek preservation funding from available grant sources such MHC's Survey and Planning Grant Program.
4. Implement the Community Preservation Act funding process.

Arlington needs a comprehensive historic resources inventory in order to protect and preserve its historic resources. Historic resource inventories provide a foundation for good preservation planning at the local level. A comprehensive inventory documents the historical and architectural significance of resources found throughout a community, including historic buildings, objects, structures, and archaeological sites, landscape features, and industrial resources. Arlington's existing historic resources inventory has little if any information about the significance of objects, structures, and landscapes. Moreover, Arlington's existing inventory does not include all types of historic resources or historic resources found throughout neighborhoods.

A comprehensive inventory documents the historical and architectural significance of resources found throughout a community, including historic buildings, objects, structures, and archaeological sites, landscape features, and industrial resources ...Arlington's existing inventory does not include all types of resources.

Completing a comprehensive historic resource survey requires professional assistance. The documentation that meets MHC standards usually exceeds the capacity of volunteers. Survey and Planning grants can be used for this purpose. They are awarded each year on a competitive basis to fund preservation planning activities such as a historic resource survey, preservation plans, educational activities, and in some instances, staff support. It is important to note that Survey and Planning Grants are matching reimbursement grants, so the Town must appropriate the entire amount necessary to complete the inventory and will ultimately be responsible for funding a portion of the survey costs. CPA and, in some cases, CDBG funds can be used for this purpose.

Certified Local Government (CLG) status for the Arlington HIstoric Districts Commission could help the Town garner more resources for historic preservation.

In addition, Arlington should seek Certified Local Government (CLG) designation for the Historic Districts Commission, CLG status is granted by the National Park Service through the Massachusetts Historical Commission (MHC). Arlington can apply for CLG designation because the town has a local historic district bylaw. The Commission should consult with MHC to determine other requirements, if any, that would need to be met. CLG designation would benefit Arlington because 10 percent of MHC's annual Survey and Planning Grant funds have to be distributed to CLGs. MHC funds cities and towns through annual matching grants, distributed on a competitive basis.

Toward the end of the Master Plan process (November 2014), Arlington residents voted to adopt the Community Preservation Act (CPA). By passing Question 5 on the November state election ballot, Arlington voters agreed to impose a 1.5 percent surcharge on property tax bills in order to have dedicated revenue for projects involving historic preservation, open space and recreation, and affordable housing. Some taxpayers will be exempt, e.g., people with low or moderate incomes and owners of commercial property. CPA communities receive matching funds from the state, which collects revenue for the statewide CPA trust fund through fees on real estate transfers. The actual amount of each year's match depends on funds available in the CPA trust fund and the number of communities participating in CPA. At least thirty percent of a community's annual CPA revenue must be divided equally among the three statutory purposes: 10 percent for open space and recreation, 10 percent for housing, and 10 percent for historic preservation. The remaining 70 percent can be expended for any CPA purpose as long as the local CPC recommends it and Town Meeting appropriates the funds.

Arlington needs to create a Community Preservation Committee (CPC) and the CPC needs to develop a community preservation plan. The CPC can consider using a portion of its CPA funds to hire a consultant to help with the plan and setting up a process for inviting, considering, and selecting funding requests.

MID-TERM

Regulatory

Design guidelines could help to communicate what the Town wants to see in redevelopment projects in the commercial districts.

Mid-term implementation includes three regulatory measures:

1. Create commercial district design guidelines and cross-reference them in the ZBL.
2. Update Industrial district zoning to reflect current needs of today's industrial and innovation uses and markets.
3. Evaluate amending the ZBL to allow Transfer of Development Rights (TDR), identifying both sending areas and receiving areas.

COMMENTS

Design guidelines could help Arlington promote high-quality, generally acceptable outcomes in redevelopment projects in the commercial centers on Massachusetts Avenue and Broadway. The guidelines will play an important role in supporting the additional height required to encourage redevelopment and reuse. Design guidelines vary significantly in Massachusetts cities and towns,

so Arlington should spend some time exploring what the guidelines should focus on and what the desired outcomes are before hiring a consultant. Design guidelines can take the form of photographs, computer-generated graphics or diagrams, hand-drawn sketches, and illustrations. The scope of the guidelines and how they will communicate Arlington's preferences will largely determine the budget for this project. In addition, Arlington's commercial centers are quite different, so the design guidelines should be tailored to each area by highlighting their unique qualities. Once adopted, the guidelines should be published on the Arlington's website and made available through the PCD and Building Department.

Arlington's Industrial district zoning is obsolete and it needs to be overhauled. Work on this would be best handled as a separate task from the comprehensive zoning update contemplated for the near-term implementation phase. Industrial users have different needs in 2015 than they did thirty years ago, both in terms of space needs and configuration as well as supporting business uses. Arlington should consider hiring an economic development consultant to evaluate the industrial areas and make recommendations to address contemporary use, dimensional, parking, landscaping, and site development practices.

In addition, Arlington needs to consider adding a Transfer of Development Rights (TDR) provision to the ZBL. Under a TDR bylaw, developers can "transfer" the development rights of one parcel – land the town would like to save – to another parcel that is suitable to development or redevelopment at a higher density. Though not often used in Massachusetts, TDR has been a very effective tool for land conservation and sustainable development in other parts of the country. Since Arlington has so little vacant land left and some of that land has important natural resources value, the Town could benefit from having TDR available as an alternative to spending public funds to acquire open space. Effective TDR requires a framework with zoning and non-zoning components, so to make TDR succeed, the Town will also need a land bank (see below).

TDR has been a very effective tool for land conservation and sustainable development in other parts of the country. It could be an invaluable tool for helping Arlington protect key land parcels by "sending" development rights to priority development areas.

Facilities, Services & Infrastructure

Mid-term implementation will involve several actions that concern Arlington's public buildings and other facilities. They include:

1. Perform a space needs analysis for Town-owned buildings
2. Prepare a feasibility study for an updated Community Center/Senior Center
3. Develop long-term capital improvement and maintenance plans for town-owned historic buildings, structures, parks, cemeteries, and monuments
4. Establish asset management policies and institute a regular process for evaluating need to retain Town-owned properties; institute a surplus property policy.

The Town owns and occupies many buildings, many (if not most) of which are historically significant. Arlington residents clearly value their historic properties, but the Town needs to be open to the possibility of disposing of surplus assets, even if the answer is usually "no." A quantitative and qualitative analysis of all town buildings would help to prevent over- or under-utilization of space and a poor alignment between allocated resources and departmental needs. A town buildings study could help Arlington identify potential needs for space for

current or projected uses and inefficiencies that might affect the operations of a department. In addition to looking at the physical layout of space, an assessment of the environmental quality, such as daylight and the availability of fresh air, should be considered.

A good example of a beautiful historic building that may not be appropriate for its current use is the Senior Center, located in the former Center School. The existing space is inadequate to serve Arlington's growing senior population. In addition, Council on Aging (COA) social service programs have to comply with privacy rules under the Health Insurance Portability and Accountability Act of 1996 (HIPAA), and this is very difficult to do in the layout of the Center School. Furthermore, Arlington provides other human services that are housed in other town buildings, yet consolidation would probably benefit most program participants and staff.

Asset management policies could help guide the Town through the difficult process of making surplus property determinations - if and when the Town needs to make those choices in the future.

Arlington should have policies for disposing of surplus land and buildings, investing the proceeds in future capital improvements, and deciding when disposition should be carried out for some type of public benefit purpose. Even though service needs change over time, communities often retain obsolete or unused property in their assets inventory. These properties, while sometimes perceived as a burden, can also present opportunities to towns looking to achieve certain development objectives. By disposing of surplus properties for reuse, municipalities can guide redevelopment to meet a particular public benefit either through reuse of the property itself or through use of proceeds from a sale. Ideally, the Town Manager would lead a process for developing property disposition policies in consultant with town department heads and seek consensus from the Board of Selectmen.

Mobility and Quality of Life

Mid-term traffic and circulation actions consist of the following:

For public safety reasons, the condition of private ways (privately owned streets) needs to be evaluated, and the Town needs to work with the owners to make needed improvements.

1. Include bicycle friendly design and technology in new road projects.
2. Work with the MBTA to reduce bus bunching and improve the efficiency of bus service.
3. Work with MassDOT, DCR and City of Cambridge to improve the efficiency of Massachusetts Avenue/Route 16 signal in Cambridge.
4. Develop a plan to review condition of private ways and work with residents for a program to improve condition of private ways.
5. Conduct a parking study of residential neighborhoods, starting in East Arlington, of both unregulated all day parking and overnight parking.
6. Adopt a plan to reduce congestion on north/south roads connecting to Route 2, including consideration of new technology and business models.

COMMENTS

As Arlington continues to pursue a complete streets policy, the Town will need to determine the most cost effective, key pieces of bicycle infrastructure needed on a community-wide and neighborhood- or area-level basis. Bicycle-friendly engineering design can range from bike lanes in reconstruction of an existing street to a "bike boulevard" approach, i.e., a street design that intentionally gives bicyclists priority access to the road, as well as technology that helps bicyclists

communicate with traffic signals as effectively as cars. Making a community bike-friendly also requires attention to public education and enforcement, too. Through efforts of the Transportation Advisory Committee (TAC) and PCD/DPW staff, Arlington can become a more bike-friendly town just as it works toward improving walkability.

Arlington has approximately 24 miles of unaccepted streets, also known as private ways. An unaccepted street is owned by those who use it to access their properties and the Town has neither fee ownership nor easement rights in the way. Private ways can be private by choice of the owners, but sometimes they remain unaccepted because they do not meet local standards for roadway construction. Arlington plows these ways during the winter for public safety reasons, but the owners are ultimately responsible for road maintenance. Many of the roads are deteriorated and need to be upgraded.

Arlington needs to continue working with the MBTA and MassDOT to address local traffic circulation and congestion problems that stem from non-local causes. These include the reliability of bus service schedules and traffic congestion both in Arlington Center and at the Arlington/Cambridge line. The Town also needs safe connections between the Minuteman Bikeway and the three main commercial centers. Wayfinding signage and map kiosks along the path would help to make these connections efficient and safe, and also benefit local businesses.

Identifying priority development and conservation areas and establishing a land bank are important steps toward instituting an effective TDR program.

Community & Economic Development

Mid-term planning strategies encompass include:

1. Identify and implement priority development areas and priority preservation areas.
2. Work with a non-profit entity to function as a TDR land bank.
3. Pursue strategies to protect vacant land in the southeast corner of Arlington near Alewife Station and Thorndike Field.
4. Allow and promote development of new collaborative work spaces to attract small business ventures, innovative companies, entrepreneurs, and currently home-based businesses.
5. Evaluate aging-in-place needs as part of Housing Plan.

COMMENTS

Of these five mid-term implementation proposals, the first three relate to the Master Plan's recommendation that Arlington adopt a TDR bylaw. The most difficult part of implementing TDR usually involves resolving disagreements about priority preservation and development areas, or in the language of TDR, sending and receiving areas. The Town should spend some time on this aspect of TDR planning because without nit, the program is unlikely to work. Hiring a landscape architect with TDR experience will be one of the best investments Arlington could make in creating a successful TDR program. In addition, the Town needs a non-profit partner to hold the development rights for sending areas in case an owner decides to sell before a developer can purchase the rights for a receiving area project.

Collaborative work spaces (co-work spaces), incubators, and accelerators have become important "in vogue" economic development strategies in cities throughout the U.S., especially in the northeast and California. Though different in terms of focus and financial structure, these facilities provide relatively affordable spaces for entrepreneurs and start-ups to develop their businesses. Co-work spaces of different types can be found in Cambridge and Boston, and Arlington seems poised to attract a share of the region's growing demand for part-time and full-time co-work facilities. The Town should continue to consult with successful co-work space and accelerator facilities in the region to determine market need and identify potential sponsors.

Prohibiting the use of invasive tree and shrub species on Town property would be a good step toward sustainability and set an example for private property owners.

Conservation & Resource Protection

The mid-term implementation phase involves four actions that relate to conservation and historic preservation:

1. Create a bylaw or management policy to prevent the use of identified invasive species of trees, shrubs, and other plants on Town property and streetscapes.
2. Consider designating single-building historic districts
3. Place preservation restrictions on town-owned historic properties not already protected.
4. Consider establishing an open space, parks, and recreation facilities maintenance manager position.

COMMENTS

Early on, the MPAC identified invasives control as an important sustainability issue for this Master Plan. The Town could adopt a general bylaw prohibiting invasive plants on Town-owned property or simply adopt a management policy directing the DPW to plans only native trees, shrubs, and ground cover. Perhaps after placing limits on plantings on public property, the Town will want to consider stronger measures in the future, e.g., making all projects that require Environmental Design Review to provide landscaping plans with native species only, as some other Massachusetts towns have done.

Single-property historic districts can be an important preservation tool for significant buildings that are isolated from other resources. Somerville has several hundred single--property distruicts; Arlington should investigate this as well.

Other mid-term conservation measures include exploring the benefits and drawbacks (if any) of single-property historic districts, which could help the Historic Districts Commission protect individual resources in areas where a larger district may take more time to document or is simply not feasible. Placing preservation restrictions under G.L. c. 181, §§ 31-33, on historically significant Town-owned buildings should be considered as a long-term strategy to protect them, particularly if some of these buildings were to be sold in the future. A model preservation restriction is available from MHC.

Finally, as part of a longer-range effort to restore and expand capacity in the DPW, the Town should consider creating a parks manager position that would be responsible for managing and maintaining (or coordinating the maintenance of) Arlington's open space, parks, and recreation facilities.

LONG-TERM

Facilities, Services & Infrastructure

There is one long-term facilities action that matters to many Arlington residents: develop a feasible plan for acquiring the state-owned **Ed Burns arena.**

COMMENTS

The Ed Burns Arena, home to the Arlington Recreation Department, is owned by the Commonwealth. The Town leases it under an agreement with the Massachusetts Department of Conservation and Recreation (DCR). Built in 1971 as a seasonal skating rink, the Ed Burns Arena is a year-round, multi-sport facility used for Town recreation programs and a variety of youth sports organizations. The Town should work through its state representatives and senator to arrive at a plan to acquire the property, given that Arlington is the only tenant and the Town has exclusive responsibility for facility maintenance.

Mobility & Quality of Life

These longer-term actions will all require additional planning, engineering, and political advocacy work by the Town:

1. Review the extension of the regional bikeshare program into Arlington.
2. Add bicycle lanes on Massachusetts Avenue from Swan Place to Pond Lane to connect lanes created by the Massachusetts Avenue Rebuild Project and the Arlington Safe Travel Project.
3. Advocate to further extend the Green Line Extension to Mystic Valley Parkway.

Continuing to add bicycle lanes to Massachusetts Avenue will help to make Arlington a safer, more accessible town and address the desire to make Arlington a sustainable community.

ONGOING

The "ongoing" actions to implement the Master Plan are either in place and should continue, or they are in the planning stages and will be ready to proceed to implementation in the near future. These actions will require sustained or frequent attention from the Town and cannot be assigned to any particular phase of the implementation program.

Continuie to ...

Build capacity

Integrate master plan implementation in other town goals and programs

Maintain parks and recreation facilities

Organizational Capacity

1. Work with appropriate town committees to assist with an annual process of evaluating master plan implementation and identifying potential amendments to the plan, as appropriate.
2. Integrate master plan implementation within the Board of Selectmen/Town Manager annual goal-setting process.

Facilities, Services & Infrastructure

1. Increase budgets for outdoor facilities maintenance
2. Prepare maintenance and management plan to support preservation of civic buildings and historic resources (i.e., art, documents, sculpture, historic objects); promote a sense of place for historic districts and landscapes.

3. Develop and install identifying and educational signage for historic structures and locations;

Mobility & Quality of Life

1. Continue to support and expand the Safe Routes to School program to encourage more biking and walking to school.
2. Install wayfinding signage for public parking lots, including maps and parking limits. Post regulations and policies on Town's website.
3. Develop a plan and schedule to reduce unnecessary roadway pavement in Town street intersections
4. Revisit East Arlington commercial district parking study from the Koff Associates Commercial Revitalization Study. Identify deficiencies (if any), and develop parking management strategies.

Continue to ...

Support Safe Routes to School

Implement the Commercial Revitalization Study by Larry Koff & Associates

Recognize the importance of arts, history, and culture to the health of Arlington's economy

Think locally, work regionally

Do something to protect the Mugar land, whether through open space acquisition or a TDR strategy, or other means

Community & Economic Development

1. Revisit the recommendations contained in the Koff & Associates Commercial Center Revitalization report and implement where compatible with Master Plan recommendations
2. Address the quality and condition of aging housing stock, including financial assistance programs for homeowners and landlords, as part of Housing Production Plan
3. Promote policies that support Arlington's magnet businesses, which boost the overall health of the business districts.
4. Adopt a policy that recognizes and conveys the importance of Arlington's arts, culture and historical significance in economic development and tourism
5. Expand storefront and sign enhancement program

Conservation and Resource Protection

1. Address street tree problems, including the replacement of trees lost due to age, storms and the failed survival of many newly planted trees. Coordinate tree care between the Town and property owners.
2. Develop regional cooperative relationships to support the maintenance and care of Arlington's water resources, most of which are shared with neighboring communities.
3. Update Arlington's Open Space and Recreation Plan and integrate, as appropriate, the recommendations of this Master Plan with the goals, objectives, and action plan of the Open Space and Recreation Plan.
4. Adopt a policy to employ recognized preservation standards when maintaining and repairing the Town's historic properties.
5. Act on 2000 and 2001 Town Meeting votes to acquire the Mugar Land
6. Identify actions to further reduce Combined Sewer Overflows into Alewife Brook

IMPLEMENTATION PROGRAM: SUMMARY						
Action	**Elements(s)**	**Lead Entity**	**Support**	**Approximate Timeline**	**Town Meeting Action Required**	**Resources Needed**
Recodify and update the Zoning Bylaw.	LU, OS	ARB	ZBA	Neat-Term	Yes	Consultant
Reduce the number of uses that require a special permit; replace some special permits with a system of uses by right subject to performance standards.	LU	ARB	A-TED, BOS	Near-Term	Yes	Consultant
Consolidate and redefine the business zoning districts on Massachusetts Avenue.	LU, ED	ARB	A-TED, BOS	Near-Term	Yes	Consultant
Amend the Zoning Bylaw to provide redevelopment incentives in all or selected portions of the business districts on Massachusetts Avenue, Broadway, and Medford Street (incentives may include more than zoning)	LU, ED	ARB	BOS	Near-Term	Yes	Consultant
Amend the Zoning Bylaw to clarify that mixed-use development is permitted along sections of Massachusetts Avenue, Broadway, and Medford Street, and clarify regulations and procedures	LU, ED, H	ARB	Staff	Near-Term	Yes	Consultant
Create a Facilities Manager position; transfer the maintenance budget and building maintenance personnel from the School Department to Facilities Manager.	PS	TM	BOS, APS, DPW	Near-Term	Yes	New Staff
Consider additional staffing and funding to maintain the Town's outdoor facilities: parks, recreational, and open spaces.	OS, PS	DPW	PRC, OSC	Mid-Term	Yes	Funding
Create an Affordable Housing Plan (Housing Production Plan) and submit to DHCD for approval under Chapter 40B.	LU, H	ARB	PCD	Near-Term	No	Consultant
Initiate a complete, safe Sidewalks Plan town-wide, in coordination with the Safe Routes to School (SRTS) program. Prioritize improvements for new and existing sidewalks.	T, PS	DPW	APS, TAC	Near-Term	No	Existing Staff Consultant
Adopt a plan for future sidewalk paving design treatments according to density and road geometry, consistent with the Sidewalks Plan.	PS, T	DPW	PCD	Near-Term	No	Existing Staff
Amend the Zoning Bylaw to strengthen bicycle parking regulations in and adjacent to business districts and multifamily developments	T, H, ED	ARB	BAC	Near-Term	Yes	Consultant
Implement the recommendations in the 2014 Arlington Center parking study;	T, PS, ED	BOS	ARB, DPW	Near-Term	No	TBD
Allocate CDBG and CPA resources to meet local housing needs and work toward meeting Town's affordable housing goal of 1.5 percent land area for affordable housing (or 10 percent affordable units, if achievable sooner).	H, LU	BOS	PCD	Near-Term	Yes	Existing Staff

IMPLEMENTATION PROGRAM: SUMMARY						
Action	**Elements(s)**	**Lead Entity**	**Support**	**Approximate Timeline**	**Town Meeting Action Required**	**Resources Needed**
Work with DHCD and the Town's state representatives and senator to determine Arlington's status under the Chapter 40B 1.5 percent land area rule.	H, LU	PCD	TMgr, BOS	Near-Term	No	Existing Staff
Create a comprehensive plan for the Mill Brook study area.	LU, OS, ED, H, HCRA, T	ARB	CC, BOS	Near-Term	Yes	Consultant
Complete a comprehensive historic resources inventory and survey, including buildings, structures and landscapes	HR, ED	HC	PCD	Near-Term	Possibly	Consultant
Seek Massachusetts Survey and Planning Grant funds to complete historic resources survey	HR	HC	PCD	Near-Term	No (unless local match is required)	Existing Staff & Volunteers; Consultant
Develop a plan for universal access to recreation facilities, parks, and trails.	PS, OS	DPW, PRC	DC	Near-Term	Yes	Existing Staff & Volunteers; Consultant
Develop a Tree Inventory and Management Plan, to include locations for new and replacement trees, planned maintenance, and appropriate tree species selection.	OS, ED, H	DPW	Tree Comm.	Short-Term	No	Existing Staff &, Volunteers
Address ADA requirements, improved lighting, signs and signalization at street crossings, for the Minuteman Bikeway to give more visibility to pedestrians and bicyclists, and speed control to drivers.	T, OS, PS	DPW	DC, BAC	Near-Term	Yes	Consultant
Implement the Community Preservation Act funding process.	OS, H, HCRA, PS	BOS	HC, OS, AHC	Near-Term	Yes	Existing Staff, Technical Assistance from CPA Coalition
Conduct a parking study of residential neighborhoods, starting in East Arlington, of both unregulated all day parking and overnight parking.	H, LU, T	TAC	Staff	Mid-Term	Yes	Consultant
Determine "right size" parking requirements based on actual parking need for different zoning districts.	T, LU, H, ED	TAC	Staff	Near-Term	Yes	Consultant
Amend the Zoning Bylaw to update parking requirements	H, PS, T	BOS	TAC	Near-Term	Yes	TBD
Review and strengthen demolition delay bylaw; consider bylaw amendment for procedures and administration of demolition delay. Consider technical administrative support to HC for Demolition Delay.	CR, LU	HC, ARB	Staff	Near-Term	Yes	Existing Volunteers & Staff; possibly Consultant or Technical Assistance from MHC

IMPLEMENTATION PROGRAM: SUMMARY						
Action	**Elements(s)**	**Lead Entity**	**Support**	**Approximate Timeline**	**Town Meeting Action Required**	**Resources Needed**
Consider Zoning Bylaw amendments to allow flexibility in dimensional requirements and use regulations for projects that will preserve historic properties.	LU, CR	ARB	Staff	Near-Term	Yes	Consultant
Identify intersections with pedestrian safety issues and prioritize improvements for problem intersections.	T	DPW	TAC	Near-Term	Yes	TBD
Seek Certified Local Government (CLG) designation for the Arlington Historical Commission.	HCRA	HC	BOS	Near-Term	No	Existing Staff & Volunteers
Establish a Planned Preventive Maintenance (PPM) program for all Town-owned buildings and infrastructure.	PS	TMgr	DPW, BMC	Near-Term	Yes	Consultant, Existing and New Staff
Study and develop a plan for addressing Arlington's long-term cemetery needs.	PS	DPW	BOS	Near-Term	Yes	TBD
Identify options for, and resolve, the Town's land needs for snow storage and other emergency needs.	PS	DPW	BOS	Mid-Term	Yes	Consultant
Monitor parking trends in all commercial districts.	T, ED	BOS	TAC, DPW, APS	Near-Term	No	Existing Staff
Consider Parking Management Study for Arlington Heights.	T, ED	BOS	TAC, DPW	Near-Term	Yes	Consultant
Revisit East Arlington commercial district parking study from Koff Commercial Revitalization Study. Identify deficiencies (if any) and develop parking management strategies.	T, ED	BOS	TAC, DPW, APS	Ongoing	Possibly	Consultant & Existing Staff
Evaluate aging-in-place needs as part of Housing Plan.	H	CoA	PCD, AHA	Mid-Term	No	Consultant & Existing Staff
Evaluate amending the Zoning Bylaw to allow Transfer of Development Rights (TDR), identifying both sending areas and receiving areas.	LU, H, OS	ARB	CC, PCD	Mid-Term	Yes	Consultants
Work with a non-profit entity to function as a TDR land bank.	LU, H, OS	PCD	CC, OSC	Mid-Term	Possibly	Consultant, Existing Staff
Pursue strategies to protect vacant land in the southeast corner of Arlington near Alewife Station and Thorndike Field.	LU, OS	ARB	CC, OS	Mid-Term	Yes	Consultant
Develop long-term capital improvement and maintenance plans for town-owned historic buildings, structures, parks, cemeteries, and monuments	CR, CPC, PS	PCD	HC, BOS, PCD, DPW	Mid-Term	Yes	Consultant
Establish asset management policies and institute a regular process for evaluating need to retain Town-owned properties; institute surplus property policy.	PS	TMgr	BOS, CPC	Mid-Term	No	Existing Staff & Volunteers

IMPLEMENTATION PROGRAM: SUMMARY						
Action	**Elements(s)**	**Lead Entity**	**Support**	**Approximate Timeline**	**Town Meeting Action Required**	**Resources Needed**
Provide safe connections between the Minuteman Bikeway and the three main commercial centers. Equip corridors with wayfinding signage to direct path users between the path and the commercial centers, including a map directory of local businesses along the path.	T, OS, ED	DPW	TAC, TMgr	Mid-Term	Yes	Consultant, construction spending
Develop a plan to review condition of private ways and work with residents for a program to improve condition of private ways.	T, PS	DPW	CPC	Mid-Term	Yes	TBD
Work with MassDOT, DCR and City of Cambridge to improve the efficiency of Massachusetts Avenue/Route 16 signal in Cambridge.	T	DPW	TAC	Mid-Term	No	TBD
Include bicycle friendly design and technology in new road projects.	T	DPW	BAC, TAC	Mid-Term	No	TBD
Work with the MBTA to reduce bus bunching and improve the efficiency of bus service.	T	TAC	N/A	Mid-Term	No	TBD
Create commercial district design guidelines and cross-reference them in the Zoning Bylaw.	LU, ED	ARB		Mid-Term	Yes	Consultant
Update Industrial district zoning to reflect current needs of today's industrial and innovation uses and markets.	ED, LU	ARB	ED	Mid-Term	Yes	Consultant
Allow and promote development of new collaborative work spaces to attract small business ventures, innovative companies, entrepreneurs, and currently home-based businesses.	ED	PCD, BOS	A-TED	Mid-Term	No	TBD
Consider designating single-building historic districts	HCRA	HC	HDC	Mid-Term	Yes	Consultant, Existing Staff
Create a bylaw to prevent the use of identified invasive species of trees, shrubs, and other plants on Town property and streetscapes.	OS	CC	BOS, DPW	Mid-Term	Yes	Technical Assistance
Place preservation restrictions on town-owned historic properties not already protected.	CR, PS	HC, BOS	PCD	Mid-Term	Yes	TBD
Review the extension of the regional bikeshare program into Arlington.	T	BOS	BAC	Long-Term	No	TBD
Add bicycle lanes on Massachusetts Avenue from Swan Place to Pond Lane to connect lanes created by the Massachusetts Avenue Rebuild Project and the Arlington Safe Travel Project.	T	BOS, DPW	BAC, TAC	Long-Term	Yes	TBD
Advocate to further extend the Green Line Extension to Mystic Valley Parkway.	T, ED	BOS	ARB, TAC	Long-Term	No	TBD

IMPLEMENTATION PROGRAM: SUMMARY						
Action	**Elements(s)**	**Lead Entity**	**Support**	**Approximate Timeline**	**Town Meeting Action Required**	**Resources Needed**
Revisit the recommendations contained in the Koff & Associates Commercial Center Revitalization report and implement where compatible with Master Plan recommendations.	ED, LU, PS	Multiple (see narrative)	Multiple	Ongoing	Yes	TBD
Develop Implementation Plan, including measurable indicators of progress, times of completion/milestones, responsible parties, public involvement	ALL	PCD	ARB	Near-Term	No	Existing Staff
Develop schedule and reporting program on Implementation progress	ALL	PCD	ARB	Near-Term	No	Existing Staff
Select an Implementation Committee of interested MPAC members to oversee implementation in first year, with new members added for subsequent years	ALL	TMgr, MPAC	ARB, BOS	Near-Term	No	Existing & New Volunteers
Integrate master plan implementation within the Board of Selectmen/Town Manager annual goal-setting process.	ALL	TMgr	BOS	Ongoing	No	Existing Staff
Work with appropriate town committees to assist with an annual process of evaluating master plan implementation and identifying potential amendments to the plan, as appropriate.	ALL	TMgr, PCD	BOS, ARB, Vision 2020	Ongoing	No	Existing Volunteers
Integrate master plan recommendations and implementation actions with the goals, objectives, and action plan of the Town's current Open Space and Recreation Plan	OS, PS	OSC	CC, PCD	Ongoing	No	Existing Volunteers & Staff
Continue to support and expand the Safe Routes to School program to encourage more biking and walking to school.	T	APS	BOS, TAC	Ongoing	Yes	TBD
Install wayfinding signage for public parking lots, including maps and parking limits. Post regulations and policies on Town's website.	T, ED	PCD	DPW	Ongoing	Yes	TBD
Address the quality and condition of aging housing stock, including financial assistance programs for homeowners and landlords, as part of Housing Production Plan	H	PCD	BOS	Ongoing	Possibly	CDBG, HOME
Promote policies that support Arlington's magnet businesses, which boost the overall health of the business districts.	ED	BOS	A-TED	Ongoing	Possibly	Existing Staff & Volunteers
Address street tree problems, including the replacement of trees lost due to age, storms and the failed survival of many newly planted trees. Coordinate tree care between the Town and property owners.	PS, OS	DPW	BOS	Ongoing	Yes	Funding
Develop a plan and schedule to reduce unnecessary roadway pavement in Town street intersections	PS	DPW	PCD	Ongoing	No	Existing Staff

IMPLEMENTATION PROGRAM: SUMMARY						
Action	**Elements(s)**	**Lead Entity**	**Support**	**Approximate Timeline**	**Town Meeting Action Required**	**Resources Needed**
Consider establishing an open space, parks, and recreation facilities maintenance manager position.	OS, PS	DPW	CC, PRC, PCD	Mid-Term	Yes	Funding (New Position)
Identify and implement priority development areas and priority preservation areas.	LU	ARB	PCD	Mid-Term	Yes	Existing Staff & Volunteers
Increase budgets for outdoor facilities maintenance	PS, OS	TMgr	DPW	Ongoing	Yes	Additional Funding
Prepare maintenance and management plan to support preservation of civic buildings and historic resources (i.e., art, documents, sculpture, historic objects); promote a sense of place for historic districts and landscapes.	HCRA	HC, DPW, CPC	BOS	Ongoing	Yes	Preservation Architect, Consultant
Develop and install identifying and educational signage for historic structures and locations;	HCRA	HC, HDC, A-TED	BOS	Ongoing	Yes	Consultant
Develop regional cooperative relationships to support the maintenance and care of Arlington's water resources, most of which are shared with neighboring communities.	OS	BOS, TMgr	CC, ABC/ FG	Ongoing	No	Existing Volunteers
Develop and strengthen relationship with Arlington's neighboring communities to address projects with regional impacts.	OS	TMgr, BoS	PCD	Ongoing	No	Existing Staff & Volunteers
Review open space requirements in Zoning Bylaw. Consider roof gardens and other useable open space.	LU, OS	ARB	ZBA	Near-Term	Yes	Existing Staff & Volunteers
Adopt a complete streets policy to accommodate all street users when improving public streets and sidewalks.	LU, T, PS, ED	BOS	TAC, DPW	Near-Term	Yes	Existing Staff, Consultant (possibly)
Adopt a plan to reduce congestion on north/south roads connecting to Route 2, including consideration of new technology and business models.	T	BOS	TAC, PCD	Mid-Term	No	Existing Staff & Volunteers
Adopt a policy that recognizes and conveys the importance of Arlington's arts, culture and historical significance in economic development and tourism	HCRA, ED	BOS	A-TED, PCD, HC	Ongoing	No	Existing Staff & Volunteers
Expand storefront and sign enhancement program	ED, LU	PCD	BOS	Ongoing	No	Existing Staff
Adopt a policy to employ recognized preservation standards when maintaining and repairing the Town's historic properties.	HCRA, ED, PS	BOS, TMg	DPW, ARB, HHS	Ongoing	No	Existing Staff & Volunteers
Act on 2000 and 2001 Town Meeting votes to acquire the Mugar Land	LU, OS, PS	PCD	OSC, BOS	Ongoing	Yes	Existing Staff, Volunteers; Funding

IMPLEMENTATION PROGRAM: SUMMARY						
Action	**Elements(s)**	**Lead Entity**	**Support**	**Approximate Timeline**	**Town Meeting Action Required**	**Resources Needed**
Identify actions to further reduce Combined Sewer Overflows into Alewife Brook	OS	BOS, TMgr.	DPW, BOH	Ongoing		
Perform a space needs analysis for Town-owned buildings	PS	TMgr	PCD	Mid-Term	Yes	Consultant & Existing Staff
Develop a feasible plan for acquiring the state-owned Ed Burns arena	PS	PRC	BOS	Long-Term	Yes	Funding
Prepare a feasibility study for an updated Community Center/Senior Center	PS	PCD	HHS	Mid-Term	Yes	Consultant

appendix

Appendix A: Road Classification Definitions

(Source: MassDOT, 2014)

Arterials: Arterials provide the highest level of mobility at the greatest vehicular speed for the longest uninterrupted distances and are not intended to provide access to specific locations. Arterials are further subdivided into Principal Arterials and Minor Arterials. Interstates are considered to be arterials but are given their own category in these maps.

Collectors: Collectors provide some level of both mobility and access. They collect traffic from local roads and funnel it to arterials. In rural areas, collectors are further subdivided into Major Collectors and Minor Collectors.

Local roads: Local roads provide access to abutting land with little or no emphasis on mobility. The term "local road" should not be confused with local jurisdiction. Most, though not all, functionally classified local roads are under city or town jurisdiction.

Appendix B. Traffic Counts, 2000-2009

(Source: MassDOT)

Average Daily Traffic at Area Counting Stations

Location/AADT*	AADT 2000	AADT 2001	AADT 2002	AADT 2003	AADT 2004	AADT 2005	AADT 2006	AADT 2007	AADT 2008	AADT 2009	% Change
Arlington – Route 2 at Lexington T.L.							75,300	68,000		67,100	-11%
Somerville—Broadway west of Medford St.	22,800			21,400			19,500				-14%
Somerville – Route 28 at Boston C.L.				32,000			32,700				2%
Somerville – I-93 at Medford C.L.		148,371	148,763		130,255		143,540	144,751	142,078		-4%
Somerville – I-93 North of Rte. 1 SB on-ramp				137,200	93,900	106,300			151,400		10%
Medford – I-93 at Stoneham T.L.	185,262	186,902	184,305	175,654	177,852	181,066		163,239	161,316		-13%
Medford – I-93 btwn Harvard St & Rte. 38 conn.	183,321		167,568	165,853	170,445		164,260	172,729	169,670		-7%
Medford – I-93 South of Roosevelt Circle	178,144	175,432	174,524	167,964	169,015		179,755	176,608	174,258		-2%
Medford – I-93 South of Rte. 60 Rotary	167,327		164,643	163,506	166,090	168,909	171,830	172,222	169,605		1%
Cambridge – Columbia St. north of Main Street				6,200			4,900			3,450	-44%
Cambridge— Land Blvd west of Cambridge Pkwy	39,000	34,600	32,400	30,300	32,000	31,100	32,900			30,500	-22%
Cambridge—O'Brien Hwy north of Land Blvd	34,300	32,000	30,900	32,200	32,100	30,400	30,300			30,300	-12%
Lexington—Rte. 2 east of I-95				78,400			74,000			69,400	-11%
Lexington – Rte. 2 west of Waltham/ Lexington Streets					73,712	71,714		73,271			-1%
Lexington – Route 2A east of I-95		10,800			11,200			11,000			2%
Lexington – I-95 north of Rte. 2A	169,897			159,600	159,000	171,800	159,735	157,159	153,710	153,214	-10%
Lexington – I-95 north of Rte. 4					170,600	163,400	162,500	157,400	164,700	153,500	-4%

Appendix C: Estimated Retail Sales Leakage in Arlington (2013)

Source: Neilsen-Claritas, Inc.

Retail Stores	2013 Demand (Consumer Expenditures)	2013 Supply (Retail Sales)	Opportunity Gap/Surplus
Total Retail Sales Including Eating & Drinking Places	$889,960,453	$334,048,348	$555,912,105
Motor Vehicle and Parts Dealers-441	$162,259,021	$136,216,327	$26,042,694
Automotive Dealers-4411	$140,519,473	$130,084,056	$10,435,417
Other Motor Vehicle Dealers-4412	$7,540,149	$5,393,190	$2,146,959
Automotive Parts/Accsrs, Tire Stores-4413	$14,199,399	$739,081	$13,460,318
Furniture and Home Furnishings Stores-442	$20,788,880	$1,521,469	$19,267,411
Furniture Stores-4421	$11,519,663	$952,703	$10,566,960
Home Furnishing Stores-4422	$9,269,217	$568,766	$8,700,451
Electronics and Appliance Stores-443	$19,058,490	$3,359,739	$15,698,751
Appliances, TVs, Electronics Stores-44311	$14,299,137	$815,947	$13,483,190
Household Appliances Stores-443111	$2,416,820	$331,869	$2,084,951
Radio, Television, Electronics Stores-443112	$11,882,317	$484,078	$11,398,239
Computer and Software Stores-44312	$4,179,404	$330,952	$3,848,452
Camera and Photographic Equipment Stores-44313	$579,949	$2,212,840	-$1,632,891
Building Material, Garden Equip Stores -444	$90,703,825	$24,871,262	$65,832,563
Building Material and Supply Dealers-4441	$82,106,231	$24,376,766	$57,729,465
Home Centers-44411	$33,447,472	$5,670,518	$27,776,954
Paint and Wallpaper Stores-44412	$1,377,357	$4,286,505	-$2,909,148
Hardware Stores-44413	$7,936,058	$5,765,656	$2,170,402
Other Building Materials Dealers-44419	$39,345,344	$8,654,087	$30,691,257
Building Materials, Lumberyards-444191	$15,737,644	$3,383,744	$12,353,900
Lawn, Garden Equipment, Supplies Stores-4442	$8,597,594	$494,496	$8,103,098
Outdoor Power Equipment Stores-44421	$933,206	$494,496	$438,710
Nursery and Garden Centers-44422	$7,664,388	$0	$7,664,388
Food and Beverage Stores-445	$105,284,402	$42,929,700	$62,354,702
Grocery Stores-4451	$90,063,904	$38,192,823	$51,871,081
Supermarkets, Grocery (Ex Conv) Stores-44511	$85,764,691	$36,083,677	$49,681,014
Convenience Stores-44512	$4,299,213	$2,109,146	$2,190,067
Specialty Food Stores-4452	$7,536,438	$1,367,759	$6,168,679
Beer, Wine and Liquor Stores-4453	$7,684,060	$3,369,118	$4,314,942

Note: in this table a positive number in the "Gap/Surplus" column indicates a retail type that Arlington "exports" to other towns, i.e., retail sales lost to stores in other communities. A positive number indicates a type of retail that "imports" sales from non-local customers.

Retail Stores	2013 Demand (Consumer Expenditures)	2013 Supply (Retail Sales)	Opportunity Gap/Surplus
Health and Personal Care Stores-446	$44,842,570	$54,354,779	-$9,512,209
Pharmacies and Drug Stores-44611	$35,323,734	$53,425,713	-$18,101,979
Cosmetics, Beauty Supplies, Perfume Stores-44612	$3,093,412	$238,200	$2,855,212
Optical Goods Stores-44613	$2,445,032	$384,197	$2,060,835
Other Health and Personal Care Stores-44619	$3,980,392	$306,669	$3,673,723
Gasoline Stations-447	$83,914,450	$15,336,709	$68,577,741
Gasoline Stations With Conv Stores-44711	$60,407,801	$3,993,503	$56,414,298
Other Gasoline Stations-44719	$23,506,649	$11,343,206	$12,163,443
Clothing and Clothing Accessories Stores-448	$44,631,149	$8,201,209	$36,429,940
Clothing Stores-4481	$32,862,768	$4,308,135	$28,554,633
Men's Clothing Stores-44811	$1,804,505	$0	$1,804,505
Women's Clothing Stores-44812	$7,400,113	$3,003,808	$4,396,305
Children's, Infants Clothing Stores-44813	$2,122,891	$0	$2,122,891
Family Clothing Stores-44814	$17,162,050	$837,485	$16,324,565
Clothing Accessories Stores-44815	$1,455,240	$110,376	$1,344,864
Other Clothing Stores-44819	$2,917,969	$356,466	$2,561,503
Shoe Stores-4482	$4,550,051	$933,642	$3,616,409
Jewelry, Luggage, Leather Goods Stores-4483	$7,218,330	$2,959,432	$4,258,898
Jewelry Stores-44831	$6,809,967	$2,959,432	$3,850,535
Luggage and Leather Goods Stores-44832	$408,363	$0	$408,363
Sporting Goods, Hobby, Book, Music Stores-451	$18,122,101	$6,143,953	$11,978,148
Sporting Goods, Hobby, Musical Inst Stores-4511	$13,500,534	$4,376,018	$9,124,516
Sporting Goods Stores-45111	$7,132,071	$2,346,836	$4,785,235
Hobby, Toys and Games Stores-45112	$3,716,238	$1,113,681	$2,602,557
Sew/Needlework/Piece Goods Stores-45113	$1,054,905	$587,489	$467,416
Musical Instrument and Supplies Stores-45114	$1,597,320	$328,012	$1,269,308
Book, Periodical and Music Stores-4512	$4,621,567	$1,767,935	$2,853,632
Book Stores and News Dealers-45121	$3,730,126	$1,767,935	$1,962,191
Book Stores-451211	$3,457,850	$1,142,867	$2,314,983
News Dealers and Newsstands-451212	$272,276	$625,068	-$352,792
Prerecorded Tapes, CDs, Record Stores-45122	$891,441	$0	$891,441
General Merchandise Stores-452	$111,223,272	$903,594	$110,319,678
Department Stores Excl Leased Depts-4521	$46,827,535	$345,884	$46,481,651
Other General Merchandise Stores-4529	$64,395,737	$557,710	$63,838,027
Miscellaneous Store Retailers-453	$23,131,611	$4,951,786	$18,179,825
Florists-4531	$1,241,066	$1,193,361	$47,705
Office Supplies, Stationery, Gift Stores-4532	$8,384,875	$583,679	$7,801,196
Office Supplies and Stationery Stores-45321	$4,722,910	$0	$4,722,910
Gift, Novelty and Souvenir Stores-45322	$3,661,965	$583,679	$3,078,286

Retail Stores	2013 Demand (Consumer Expenditures)	2013 Supply (Retail Sales)	Opportunity Gap/Surplus
Used Merchandise Stores-4533	$2,539,662	$764,340	$1,775,322
Other Miscellaneous Store Retailers-4539	$10,966,008	$2,410,406	$8,555,602
Non-Store Retailers-454	$68,104,348	$0	$68,104,348
Foodservice and Drinking Places-722	$97,896,334	$35,257,821	$62,638,513
Full-Service Restaurants-7221	$45,983,411	$18,275,330	$27,708,081
Limited-Service Eating Places-7222	$39,489,353	$14,270,861	$25,218,492
Special Foodservices-7223	$7,699,213	$2,468,097	$5,231,116
Drinking Places -Alcoholic Beverages-7224	$4,724,357	$243,533	$4,480,824
GAFO *	$222,208,767	$20,713,643	$201,495,124
General Merchandise Stores-452	$111,223,272	$903,594	$110,319,678
Clothing and Clothing Accessories Stores-448	$44,631,149	$8,201,209	$36,429,940
Furniture and Home Furnishings Stores-442	$20,788,880	$1,521,469	$19,267,411
Electronics and Appliance Stores-443	$19,058,490	$3,359,739	$15,698,751
Sporting Goods, Hobby, Book, Music Stores-451	$18,122,101	$6,143,953	$11,978,148
Office Supplies, Stationery, Gift Stores-4532	$8,384,875	$583,679	$7,801,196

Appendix D: Documented Historic Structures

Name	Date	Location
Mystic Dam	1864	Edgewater Place
Menotomy Rocks Park – Hill Pond	1875	Jason Street
Lexington Railroad Bridge over Mill Brook	1890	Mill Brook
Lexington Railroad Bridge over Mill Brook	1892	Mill Brook
Mystic Valley Parkway – Mystic Lakes Segment	1896	
Lexington Railroad Bridge over Brattle Road	1900	Brattle Street
Lexington Railroad Bridge over Forest Street	1900	Forest Street
Lexington Railroad Bridge over Grove Street	1900	Grove Street
Park Avenue Bridge over B & M Railroad	1900	Park Avenue
Mystic Valley Parkway – Central Segment	1905	
Mystic Valley Parkway – Alewife Brook Bridge	1908	
Lexington Railroad Bridge over Whittemore Street	1910	Whittemore Street
Mystic Valley Parkway West	1913	
Garden of the Guardian Angel Rock	1920	Claremont Avenue
Winfield-Robbins Memorial Garden	1913	730 Massachusetts Avenue
Arlington Town Hall Gardens	1913	730 Massachusetts Avenue
Mystic Valley Parkway – Beacon Street Island	1920	Beacon Street
Mystic Valley Parkway – Decatur Street Island	1920	Decatur Street
Mystic Valley Parkway – Meadow Brook Culvert	1920	
Mystic Valley Parkway – Medford Street Rotary	1920	
Mystic Valley Parkway Tree Canopy	1920	
Arlington Reservoir Standpipe	1921	Cedar Avenue
Lexington Railroad Bridge over Pond Lane	1930	Pond Lane
Old B & M Railroad Bridge – Lexington Line #4	1934	Route 2
Lowell Street Bridge over B & M Railroad	1937	Lowell Street
S. E. Kimball Windmill	1938	225 Mystic Street
Mount Gilboa Conservation Land		Mount Gilboa
(no historic name)		50R Westmoreland Avenue
Source: MACRIS, Accessed August 26, 2013		

Appendix E: National Register Listings

Historic Name	Location	Date Listed	Number of Properties
Historic Districts			
Arlington Center Historic District	Bounded by Mass Ave, Academy, Pleasant, and Maple Sts	7/18/1974	11
Kensington Park Historic District	Roughly bounded by Kensington Pk, Brantwood and Kensington Rds	9/27/1985	44
Orvis Road Historic District	Roughly bounded by Mass Ave, Freeman, Randolph, and Newcomb Sts on Orvis Road	9/27/1985	25
Pierce Farm Historic District	Roughly bounded by Claremont and Oakland Aves	9/27/1985	3
Robbins Memorial Town Hall	730 Mass Ave	7/18/1974	1
Winfred Robbins Memorial Garden	730 Mass Ave	7/18/1974	1
Individual Listings[1]			
Phillip M. Allyn House	94 Oakland Ave	9/29/1985	1
Arlington Coal and Lumber Company	41 Park Ave	4/18/1985	1
Arlington Gaslight Company	Grove Street	4/18/1985	3
Arlington Pumping Station	Brattle Court	4/18/1985	1
Arlington Reservoir Standpipe	Cedar Ave	9/27/1985	1
Baptist Society Meeting House	3-5 Brattle St	4/18/1985	2
Maria Bassett House	8 College Ave	9/27/1985	1
Belcher House	64 Old Mystic St	4/14/1975	1
Butterfield-Whittemore House	54 Mass Ave	3/30/1978	1
Henry Call - Professor George Bartlett House	216 Pleasant St	4/18/1985	1
Calvary Methodist Church	300 Mass Ave	6/23/1983	1
Capitol Theater	202-208 Mass Ave	4/18/1985	1
Chapel of St. Anne	Claremont Ave	4/18/1985	1
Cushman House	104 Bartlett Ave	4/18/1985	1
A. P. Cutter House #2	89 Summer St	4/18/1985	1
Ephraim Cutter House	4 Water St	3/29/1978	1
Gershom Cutter House	1146 Mass Ave	11/12/1999	1
Jefferson Cutter House	1 Whittemore Park	1/23/1992	10
Damon House	275 Broadway	4/18/1985	4
Edmund Dwight House (Winchester/Arlington)	5 Cambridge Street, Winchester	7/5/1989	1
Kimball Farmer House	1173 Mass Ave	4/18/1985	1
First Parish Church Parsonage	232-234 Pleasant St	4/18/1985	3
Greek Orthodox Church	735 Mass Ave	6/23/1983	1
Edward Hall House	187 Pleasant St	4/18/1985	1
Highland Hose House	1007 Mass Ave	4/18/1985	1
Addison Hill House	83 Appleton St	9/27/1985	2
William W. Kimball House	13 Winter St	9/27/1985	2
Locke School	88 Park Ave	4/18/1985	1
Capt. Benjamin Locke House	21 Appleton St	7/21/1978	1

Historic Name	Location	Date Listed	Number of Properties
Lt. Benjamin Locke Store	11-13 Lowell St	4/18/1985	2
Milestone	Appleton St and Paul Revere Rd	9/27/1985	1
Old Schwamb Mill	17 Mill Ln and 29 Lowell St	10/7/1971	3
Pleasant Street Congregational Church	75 Pleasant St	6/23/1983	1
Prentiss-Payson House	224-226 Pleasant St	4/18/1985	2
William Prentiss House	252 Gray St	9/27/1985	1
Prince Hall Mystic Cemetery	Gardner Street	11/25/1998	2
William Proctor House	390 Mass Ave	4/18/1985	1
Warren Rawson House	37-49 Park St	4/18/1985	1
Warren W. Rawson Building	68-74 Franklin St	9/27/1985	1
Alfred E. Robindreau House	28 Lafayette St	4/18/1985	2
Robinson-Lewis-Fessenden House	40 Westminster Ave	4/18/1985	1
Robinson House	19 Winter St	4/18/1985	1
Russell Commons	2-10 Park Terr	4/18/1985	1
Jason Russell House	7 Jason St	10/9/1974	1
Ralph W. Shattuck House	274-276 Broadway	9/27/1985	1
Ella Mahalla Cutter House	93 Summer St	4/18/1985	1
Thomas Swadkins House	160 Westminster St	4/18/1985	1
Henry Swan House	418 Mass Ave	9/27/1985	1
Stephen Symmes Jr. House	215 Crosby St	4/18/1985	1
Jack Taylor-Cyrus Edwin Dallin House	69 Oakland Ave	9/27/1985	1
U.S. Post Office – Arlington Main Branch	10-14 Court St	6/18/1986	1
Wayside Inn	393 Mass Ave	9/27/1985	2
Whittemore- Robbins House	670-672 Mass Ave	7/18/1974	3
Whittemore House	267 Broadway	4/18/1985	2
5 Willow Court	5 Willow Ct	4/18/1985	1
Winn Farm	57 Summer St	4/18/1985	1
5-7 Winter Street	5-7 Winter St	4/18/1985	2
Multiple Property Submission			
Metropolitan Park System of Greater Boston		2/4/2003	8
Mystic Valley Parkway		1/18/2006	
Thematic Resource Area			
Mystic Dam	Water Supply System of Metropolitan Boston between Lower and Upper Mystic Lakes	1/18/1990	
Water Supply System of Metropolitan Boston	8 districts and 19 individual properties in 23 towns	1/18/1990	
[1] In some instances, individually-listed National Register (NRIND) properties are also designated within one of Arlington's local historic districts (LHD).			

Appendix F: Long-Term K-12 Enrollment Trends and Projections

Year		K	1	2	3	4	5	6	7	8	9	10	11	12	Tot		% Change
2006-2007	84	442	391	386	394	385	357	356	339	347	302	309	301	323	4716	-18	
2007-2008	79	409	439	399	384	381	382	337	354	317	316	271	299	292	4659	-57	-1.2%
2008-2009	82	456	405	439	387	376	374	369	344	354	296	308	266	300	4756	97	2.1%
2009-2010	64	457	451	411	423	387	366	365	373	343	320	295	323	272	4850	94	2.0%
2010-2011	60	450	442	435	399	427	367	349	350	365	306	325	296	311	4882	32	0.7%
2011-2012	47	434	455	421	426	390	412	355	335	348	308	304	342	299	4876	-6	-0.1%
2012-2013	57	453	472	446	420	429	395	379	337	337	322	313	309	354	5023	147	3.0%
2013-2014	60	477	478	483	464	434	429	357	393	328	299	320	321	314	5157	134	2.7%
2014-2015	65	516	488	466	483	456	433	401	348	376	319	309	324	342	5326	169	3.3%
5 Year Average Continuity Rate	1	0.880	1.029	0.979	0.998	1.002	0.985	0.936	0.976	0.982	0.904	1.011	1.022	1.018			
Projected																	
2015-2016	65	495	531	478	465	484	449	405	391	342	340	322	316	330	5413	256	5.0%
2016-2017	65	480	510	520	477	466	477	420	395	384	309	344	329	321	5497	83	1.5%
2017-2018	65	525	493	499	519	478	459	446	410	388	347	312	351	335	5628	132	2.4%
2018-2019	65	542	541	483	498	520	470	429	435	403	351	351	319	357	5764	136	2.4%
2019-2020**	65	528	558	529	482	499	512	440	419	427	364	355	359	325	5861	97	1.7%

Appendix G: Public Facilities Inventory

Building Name	Address	Footprint (sq. ft.)	Year Built	Year of Completion Last Major Renovation	Estimated Year of Completion of Next Major Renovation
Community Safety Buildings					
Tower Fire Station (Park Circle)	291 Park Ave	2,700	2007		
Highland Fire Station	1005 Massachusetts Ave	6,503	1929	2011	
Central Fire Station	220 Broadway	12,738	1926		2017
Community Safety Building	112 Mystic Street	20,780	1983		2020
Dog Pound	112 Mystic Street	1,214			
Public School Buildings					
Bishop Elementary School	25 Columbia Road	51,367	1950	2002	
Brackett Elementary School	66 Eastern Avenue	57,670	2000		
Dallin Elementary School	185 Florence Avenue	65,578	1956	2005	
Hardy Elementary School	52 Lake Street	55,107	1926	2001	
Peirce Elementary School	85 Park Avenue Extension	48,500	2002		
Stratton Elementary School	180 Mountain Avenue	63,300	1962	1968 & 2011	
Thompson Elementary School	60 North Union Street	59,000	1956	2013	
Ottoson Middle School	63 Acton Street	154,380	1920	1998	
Arlington High School (4 buildings)	869 Massachusetts Avenue	394,106	1914-1980		
Peirce Field "Snack Shack"	869 Massachusetts Avenue		2007		
Spy Pond Field House	50 Pond Ln	870			
Libraries					
Robbins Library	700 Massachusetts Ave	48,003	1892	1992	
Fox Branch Library	175 Massachusetts Ave	6,683	1940	1952	
Managed by Arlington Redevelopment Board					
Former Central School Building	27 Maple Street	18,746	1894	1985	
Former Crosby School Building	34 Winter St	40,167	1895	1991	
Former Gibbs School Building	41 Foster St	53,769	1928	1972	
Jefferson Cutter House	Corner of Mystic St. and Massachusetts Ave	3,444	1817	1989	
Former Parmenter School Building	17 Irving St	27,616	1926	1988	
Former Dallin Library Building		4,164	1937	1999	
23 Maple Street (group home)	23 Maple St	4,760	1862	2008	

Building Name	Address	Footprint (sq. ft.)	Year Built	Year of Completion Last Major Renovation	Estimated Year of Completion of Next Major Renovation
Department of Public Works					
Building A (Director/Engineer/ Inspection)	51 Grove St	16,608	1920	1987?	
Building B (Assembly Hall)	51 Grove St	8,568	1950	1987?	
Building C (Maintenance Garage)	51 Grove St	40,000			
Building D (Snow Fighting Garage)	51 Grove St	6,402			
Building E (Small Salt Shed)	51 Grove St	2,304			
Building F (Large Salt Shed)	51 Grove St				
Transfer Station		1,332			
Ryder Street Garage		5,292	1950		
Cemetery Department					
Cemetery Building A (Chapel & Office)	70 Medford St	2,016	1903		2015
Cemetery Garage	70 Medford St	825	c. 1952		
Recreation Department					
Ed Burns Arena Ice Skating Rink/ Indoor facility	422 Summer St	25,680	1969		
Bath House at Arlington Reservoir	Lowell St	815			
Pump House at Arlington Reservoir	Lowell St				
Other Town-Owned Buildings					
Arlington Town Hall & Annex	730 Massachusetts Ave	45,612	1913	2011	In process
Jarvis House (Town Legal Department)	50 Pleasant St	(included above)	1955	2011	In process
Mt. Gilboa House		1,960	1924		
Whittemore Robbins House	670R Massachusetts Ave	1,236	1799	1995	
Source: Arlington Capital Planning Committee, 2013 Report to Town Meeting					

Appendix H: Energy Conservation Measures in Town Buildings

Measure		Status	Energy Data			Financial Data	Reference Data	
Category/Building	Energy Conservation Measure	Status (Completed with month/year or planned Qtr/year)	Projected Annual Electricity Savings (kWh)	Projected Annual Natural Gas Savings (therms)	Projected Annual Gasoline Savings (gallons)	Projected Annual Cost Savings ($)	Funding Source(s) for Net Costs	Source for Projected Savings
Elementary School (Hardy School)	Installation of Energy Management System	Jun-11	20,018	2,270		$3,561	N/A	Energy Working Group Analysis
High School (Arlington High School)	Replacement of Steam Traps	Mar-11		17,680		$1,857	N/A	Energy Working Group Analysis
High School (Arlington High School)	Boiler Replacement	Nov-10		66,860		$7,024	EECBG and Town Capital	Energy Working Group Analysis
High School (Arlington High School)	Motion Light Sensor Installation	Jan-11	63,473			$10,561	Town Capital Plan	NStar
Elementary School (Hardy School)	Variable Speed Drive Installation	Jun-11	32,540			$5,402	School Facilities Budget	Johnson Controls
Elementary School (Stratton School)	Boiler Replacement	Jul-11		3,000		$315	Town Capital Plan	Energy Working Group Analysis

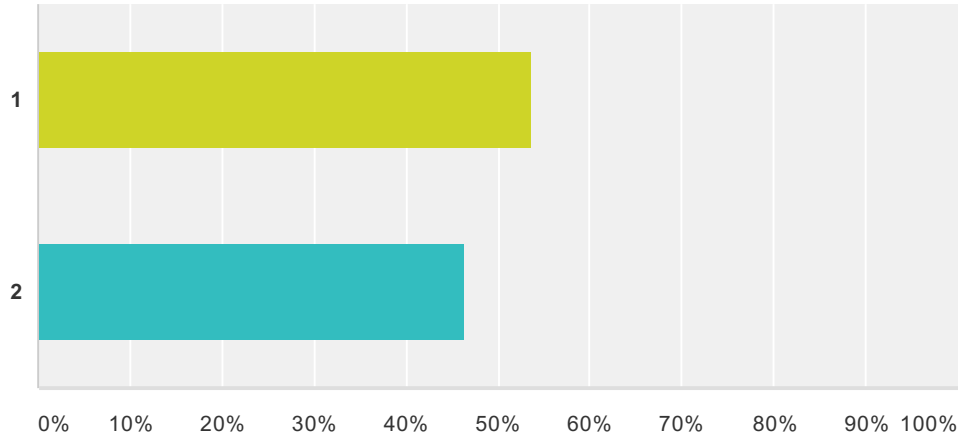
Measure		Status	Energy Data			Financial Data	Reference Data	
Rental Property (Parmenter School)	Boiler Replacement	Jun-13		160		$17	Town Capital Request	Energy Working Group Analysis
Various School & Library Buildings	Variable Speed Drive Installation	Mar-13	151,162			$24,186		NSTAR//AECOM
High School (Arlington High School)-Added	Sixth Floor HVAC Project	Jun-13	290,000			$48,140		
Rental Property (Gibbs School)	Steam Traps	Jun-12		23,760		$2,496	Town Capital Plan	Energy Working Group Analysis
BUILDINGS SUBTOTAL			557,193	113,730	0	$103,559		
Street Lights	LED Street Lights	Dec-11	207,123			$34,382	Town Capital Plan	Energy Working Group Analysis
Street Lights - Updated	LED StreetLights	Nov-13	496,230			$82,374	Town Capital Plan	Energy Working Group Analysis
STREET AND TRAFFIC LIGHTS SUBTOTAL			703,353	0	0	$0		

Measure		Status	Energy Data			Financial Data	Reference Data	
WATER/SEWER/PUMPING SUBTOTAL			0	0	0	$0		
Town Wide	Purchaseof Fuel Efficient Vehicles	Ongoing			13,704	$41,112	Town Capital Plan	Energy Working Group
VEHICLES SUBTOTAL			0	0	13,704	$41,112		
TOTAL Projected Savings			1,260,546	113,730	13,704	$144,671		
TOTAL MMBtu SAVINGS		17,373.28	4,300.98	11,373.00	1,699.30			

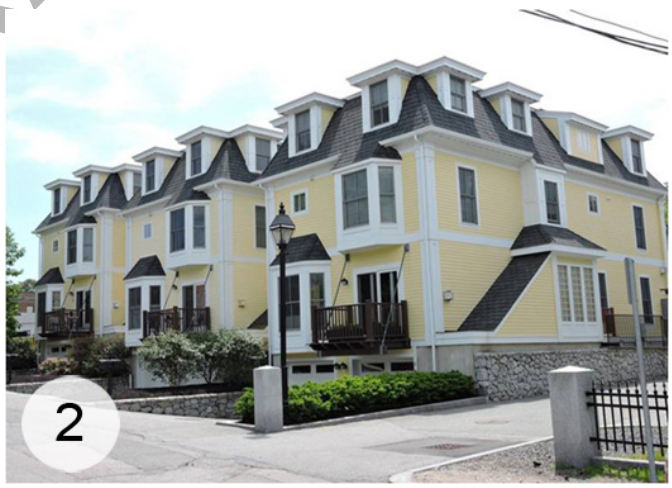
Appendix I: Visual Survey Preference Results (Summary)

Q1 In terms of building style, I prefer...

Answered: 618 Skipped: 18

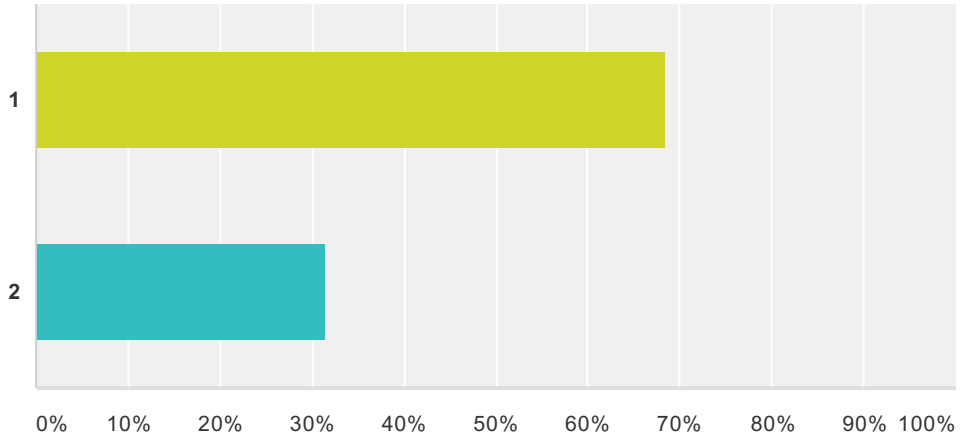


Answer Choices	Responses	
1	**53.72%**	332
2	**46.28%**	286
Total		**618**



Q2 In terms of building style, I prefer:

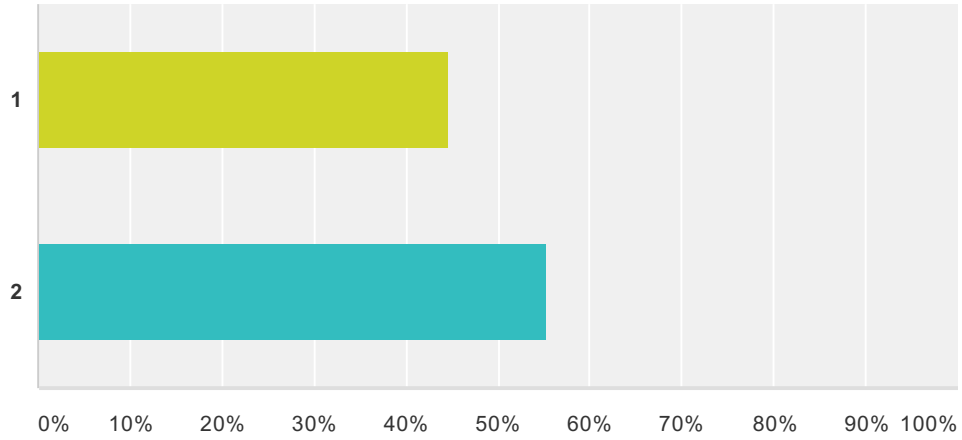
Answered: 623 Skipped: 13



Answer Choices	Responses	
1	**68.54%**	427
2	**31.46%**	196
Total		**623**

Q3 In terms of building style, I prefer:

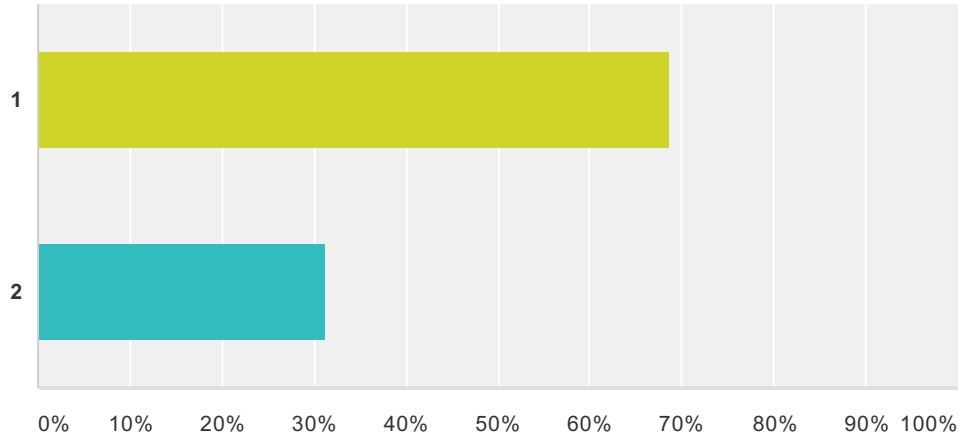
Answered: 606 Skipped: 30



Answer Choices	Responses	
1	**44.72%**	271
2	**55.28%**	335
Total		**606**

Q4 In terms of building style, I prefer:

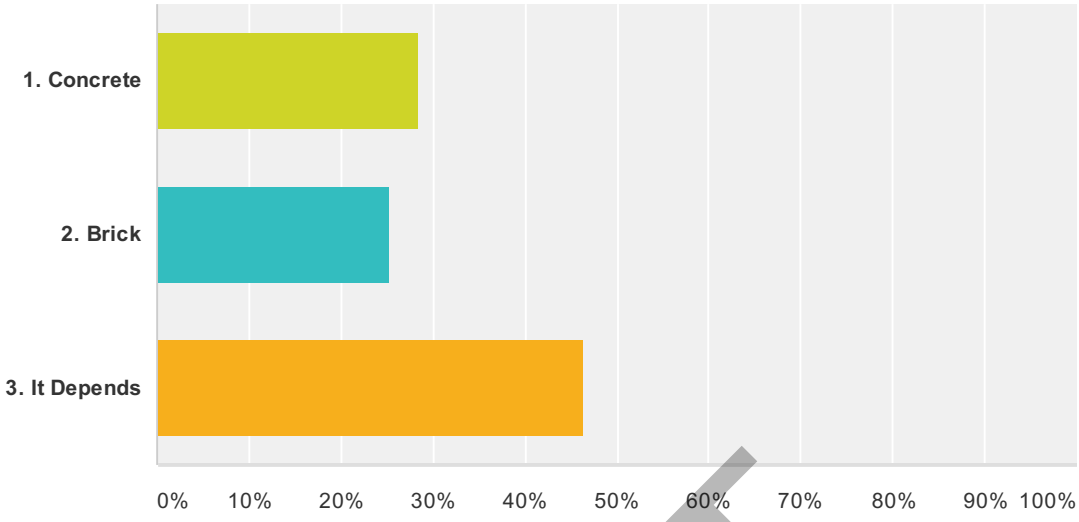
Answered: 623 Skipped: 13



Answer Choices	Responses	
1	**68.70%**	428
2	**31.30%**	195
Total		**623**

Q5 In terms of sidewalk material, I prefer:

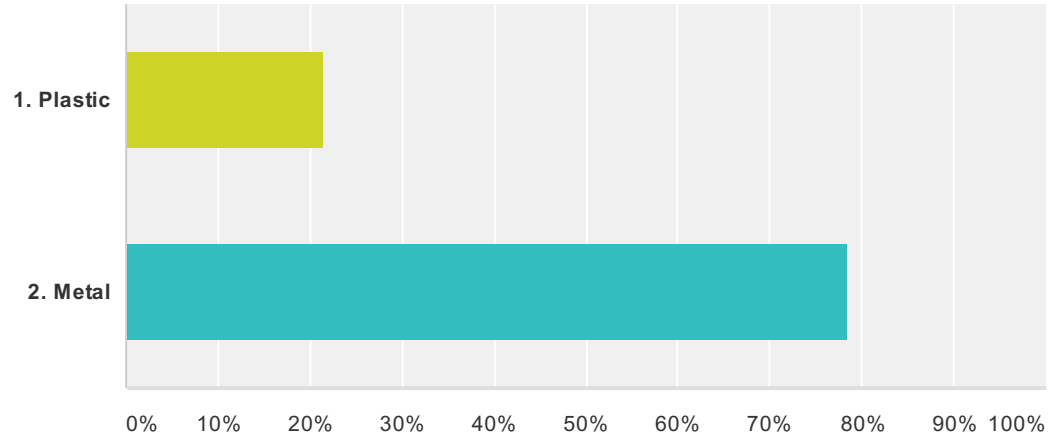
Answered: 629 Skipped: 7



Answer Choices	Responses	
1. Concrete	**28.30%**	178
2. Brick	**25.28%**	159
3. It Depends	**46.42%**	292
Total		**629**

Q6 In terms of street furniture, I prefer:

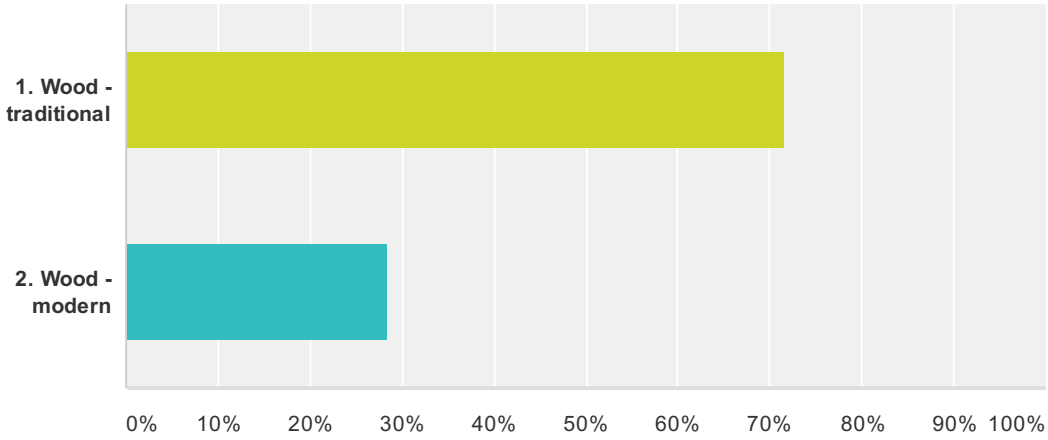
Answered: 616 Skipped: 20



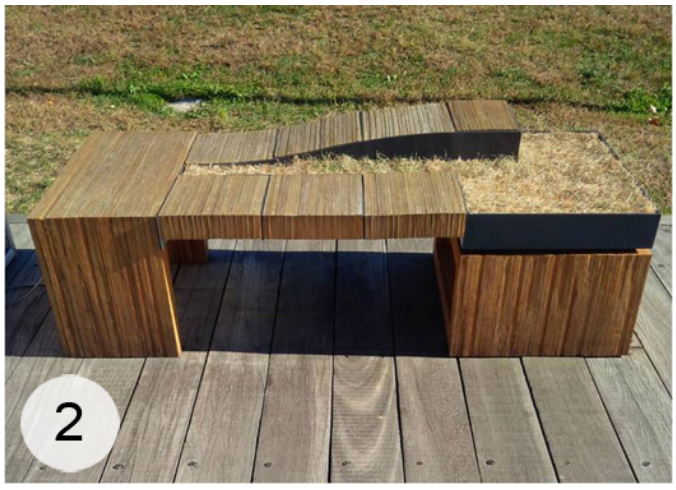
Answer Choices	Responses	
1. Plastic	**21.43%**	132
2. Metal	**78.57%**	484
Total		**616**

Q7 In terms of street furniture, I prefer:

Answered: 622 Skipped: 14

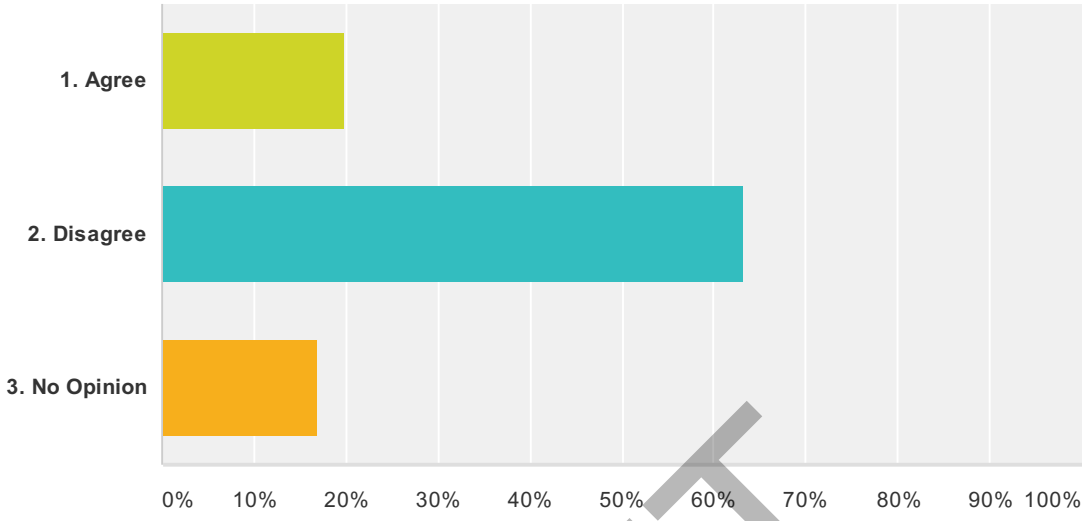


Answer Choices	Responses	
1. Wood - traditional	**71.54%**	445
2. Wood - modern	**28.46%**	177
Total		**622**



Q8 In terms of parking buffers, this is an appropriate response:

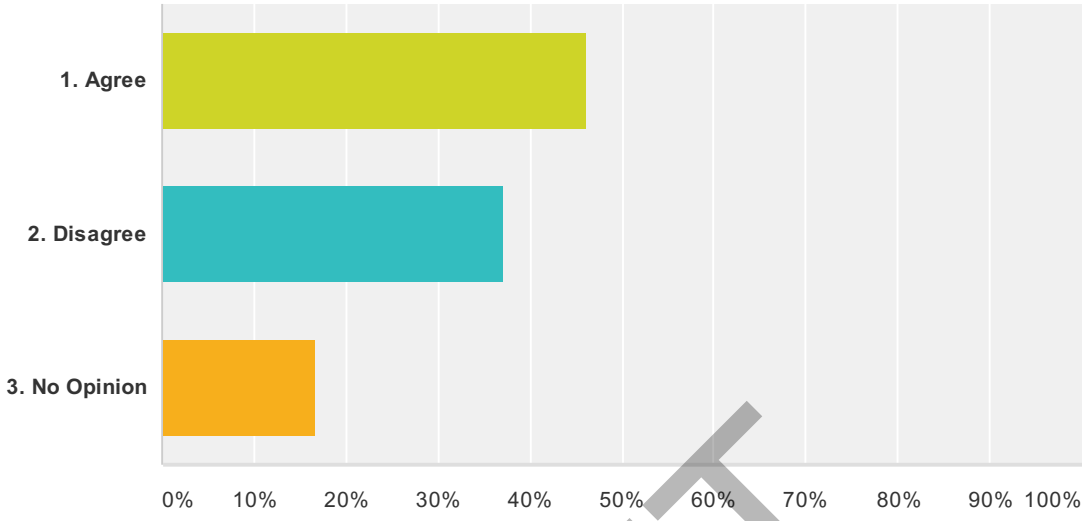
Answered: 620 Skipped: 16



Answer Choices	Responses	
1. Agree	**19.84%**	123
2. Disagree	**63.23%**	392
3. No Opinion	**16.94%**	105
Total		**620**

Q9 In terms of parking buffers, this is an appropriate response:

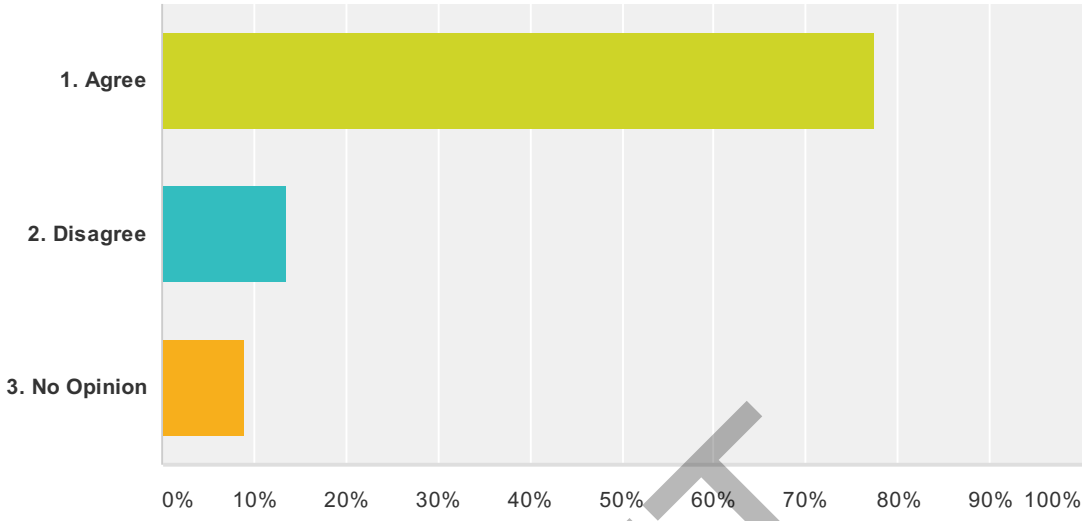
Answered: 625 Skipped: 11



Answer Choices	Responses	
1. Agree	**46.24%**	289
2. Disagree	**37.12%**	232
3. No Opinion	**16.64%**	104
Total		**625**

Q10 In terms of parking buffers, this is an appropriate response:

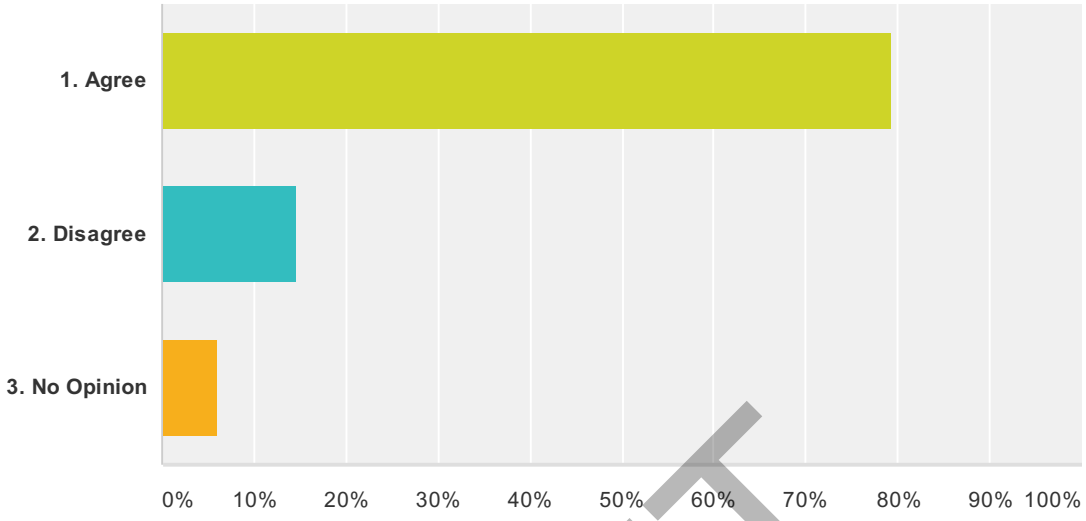
Answered: 625 Skipped: 11



Answer Choices	Responses	
1. Agree	**77.44%**	484
2. Disagree	**13.60%**	85
3. No Opinion	**8.96%**	56
Total		**625**

Q11 This is an appropriate scale for development along Mass Ave. / Broadway:

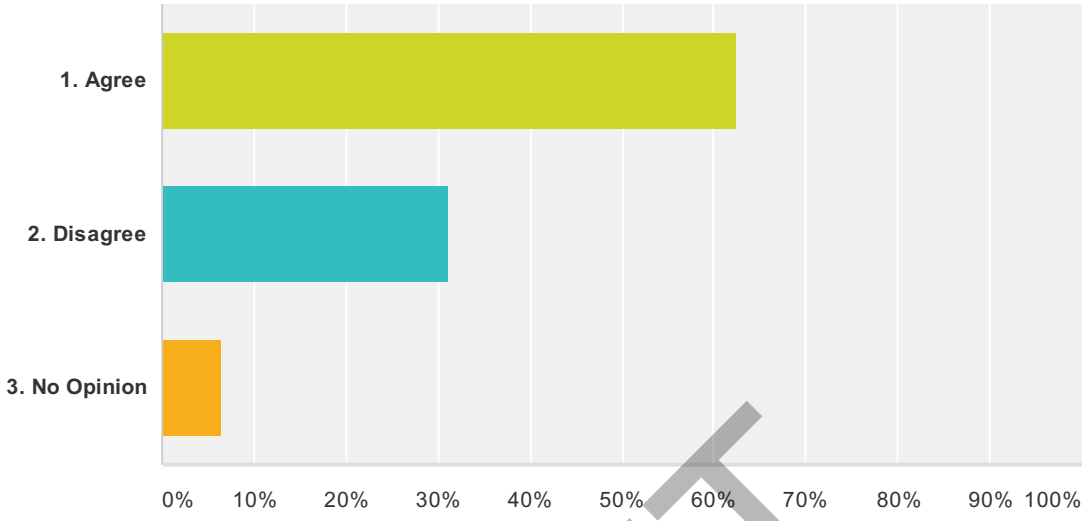
Answered: 624 Skipped: 12



Answer Choices	Responses	
1. Agree	**79.33%**	495
2. Disagree	**14.58%**	91
3. No Opinion	**6.09%**	38
Total		**624**

Q12 This is an appropriate scale for development along Mass Ave. / Broadway:

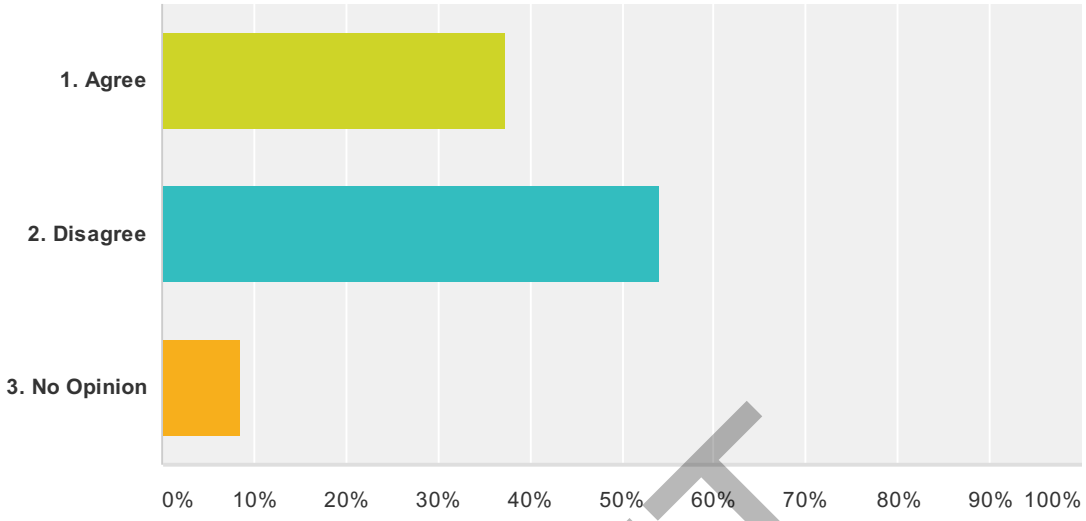
Answered: 625 Skipped: 11



Answer Choices	Responses	
1. Agree	**62.40%**	390
2. Disagree	**31.20%**	195
3. No Opinion	**6.40%**	40
Total		**625**

Q13 This is an appropriate scale for development along Mass Ave. / Broadway

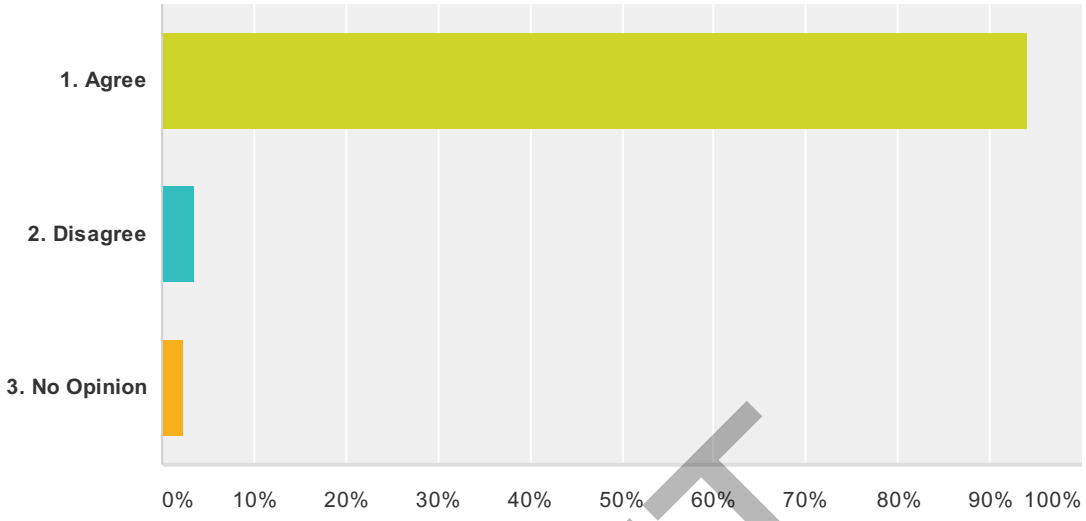
Answered: 624 Skipped: 12



Answer Choices	Responses	
1. Agree	**37.34%**	233
2. Disagree	**54.17%**	338
3. No Opinion	**8.49%**	53
Total		**624**

Q14 This is an appropriate scale for development along Mass Ave. / Broadway

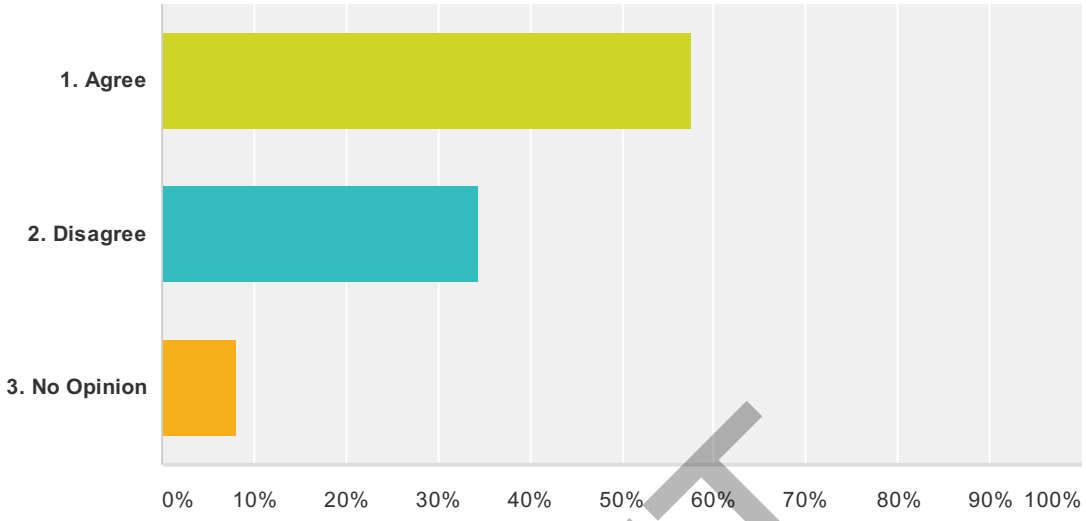
Answered: 623 Skipped: 13



Answer Choices	Responses	
1. Agree	**94.22%**	587
2. Disagree	**3.53%**	22
3. No Opinion	**2.25%**	14
Total		**623**

Q15 This is an appropriate scale for development along Mass Ave. / Broadway

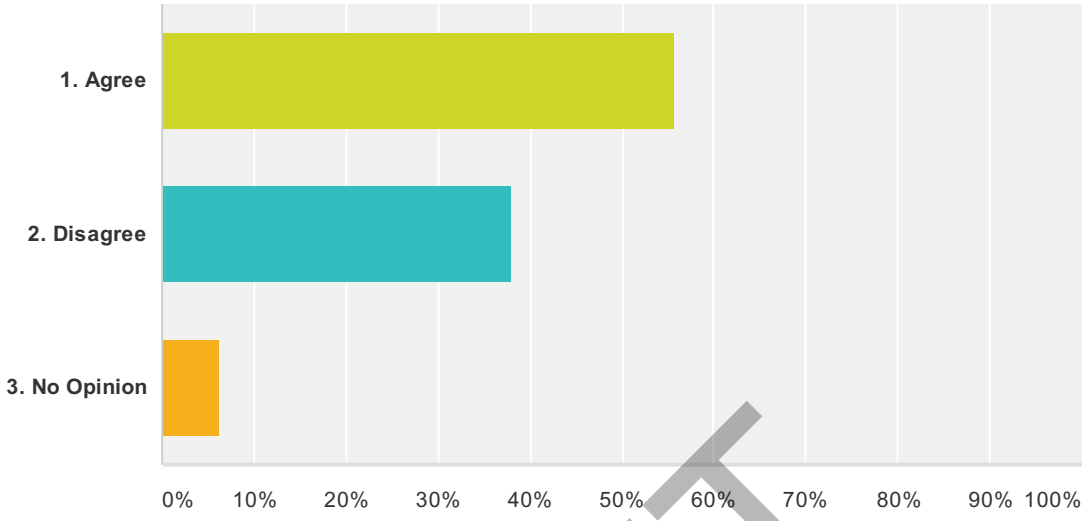
Answered: 622 Skipped: 14



Answer Choices	Responses	
1. Agree	**57.56%**	358
2. Disagree	**34.41%**	214
3. No Opinion	**8.04%**	50
Total		**622**

Q16 This is an appropriate scale for development along Mass Ave. / Broadway

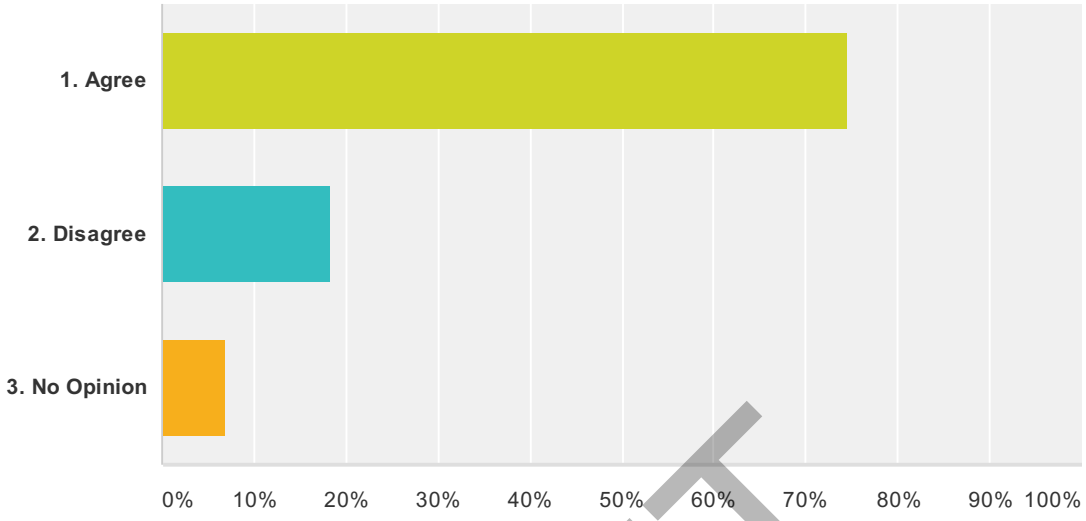
Answered: 625 Skipped: 11



Answer Choices	Responses	
1. Agree	**55.84%**	349
2. Disagree	**37.92%**	237
3. No Opinion	**6.24%**	39
Total		**625**

Q17 This is an appropriate scale for development along Mass Ave. / Broadway

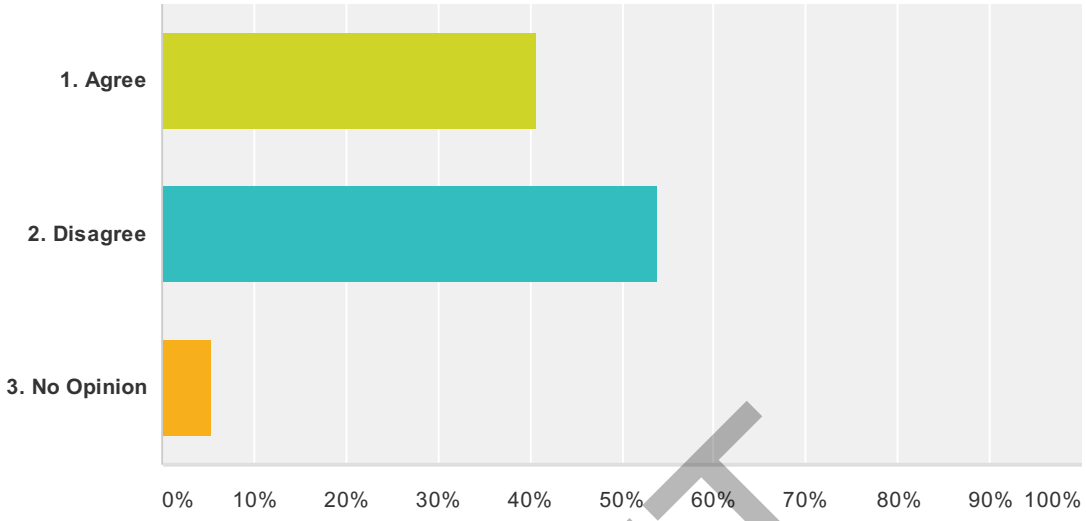
Answered: 618 Skipped: 18



Answer Choices	Responses	
1. Agree	**74.60%**	461
2. Disagree	**18.45%**	114
3. No Opinion	**6.96%**	43
Total		**618**

Q18 This is an appropriate scale for development along Mass Ave. / Broadway

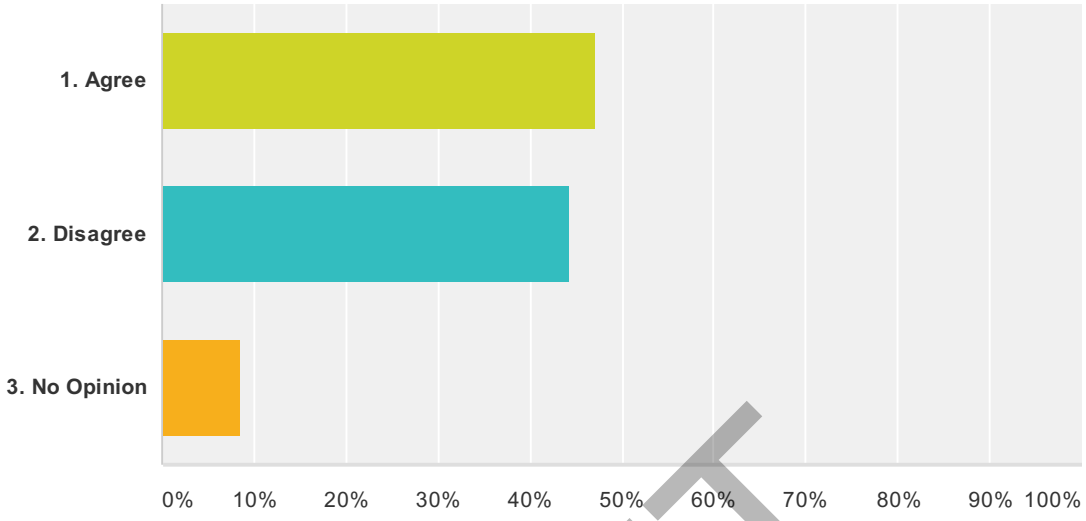
Answered: 619 Skipped: 17



Answer Choices	Responses	
1. Agree	**40.71%**	252
2. Disagree	**53.96%**	334
3. No Opinion	**5.33%**	33
Total		**619**

Q19 This is an appropriate scale for development along the Bikepath

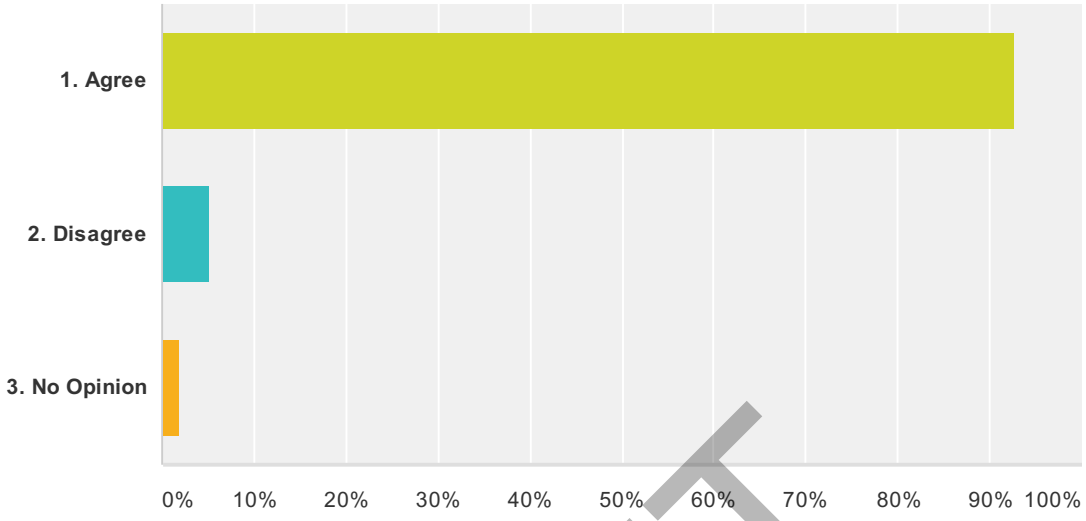
Answered: 624 Skipped: 12



Answer Choices	Responses	
1. Agree	**47.12%**	294
2. Disagree	**44.23%**	276
3. No Opinion	**8.65%**	54
Total		**624**

Q20 This is an appropriate response to building onto an existing building:

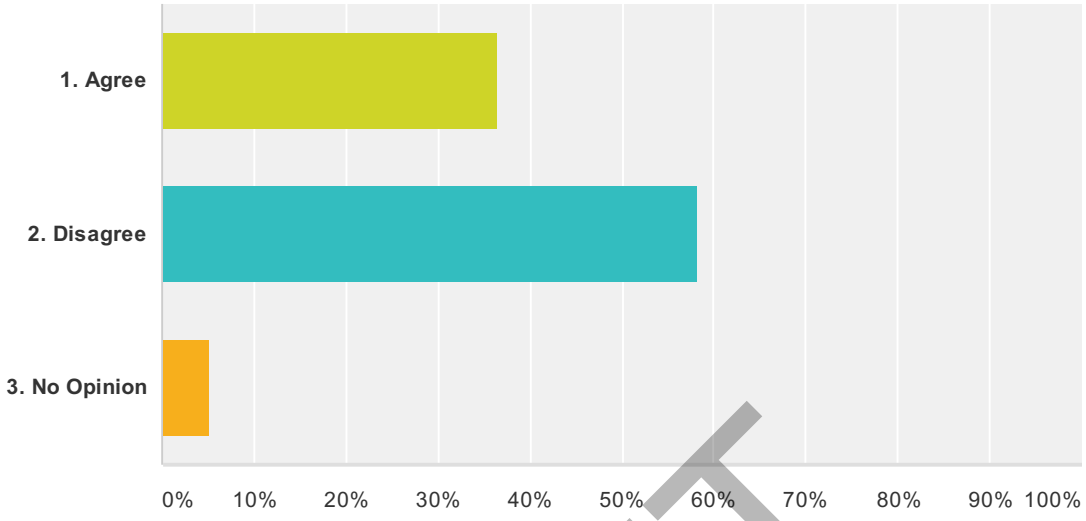
Answered: 622 Skipped: 14



Answer Choices	Responses	
1. Agree	**92.77%**	577
2. Disagree	**5.31%**	33
3. No Opinion	**1.93%**	12
Total		**622**

Q21 This is an appropriate response to building onto an existing building:

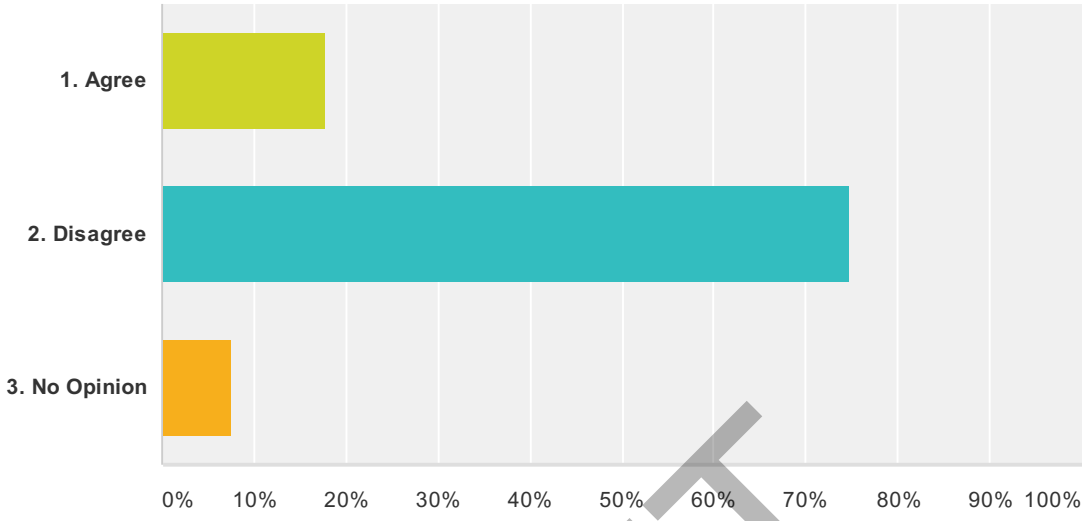
Answered: 623 Skipped: 13



Answer Choices	Responses	
1. Agree	**36.60%**	228
2. Disagree	**58.27%**	363
3. No Opinion	**5.14%**	32
Total		**623**

Q22 This is an appropriate response to building onto an existing building:

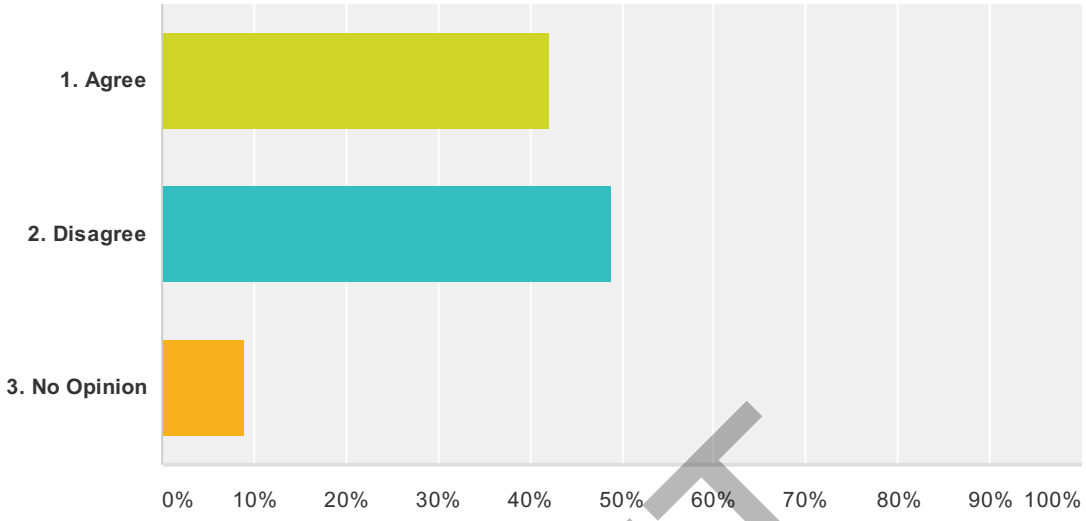
Answered: 620 Skipped: 16



Answer Choices	Responses	
1. Agree	**17.74%**	110
2. Disagree	**74.68%**	463
3. No Opinion	**7.58%**	47
Total		**620**

Q23 This is an appropriate response to building onto an existing building:

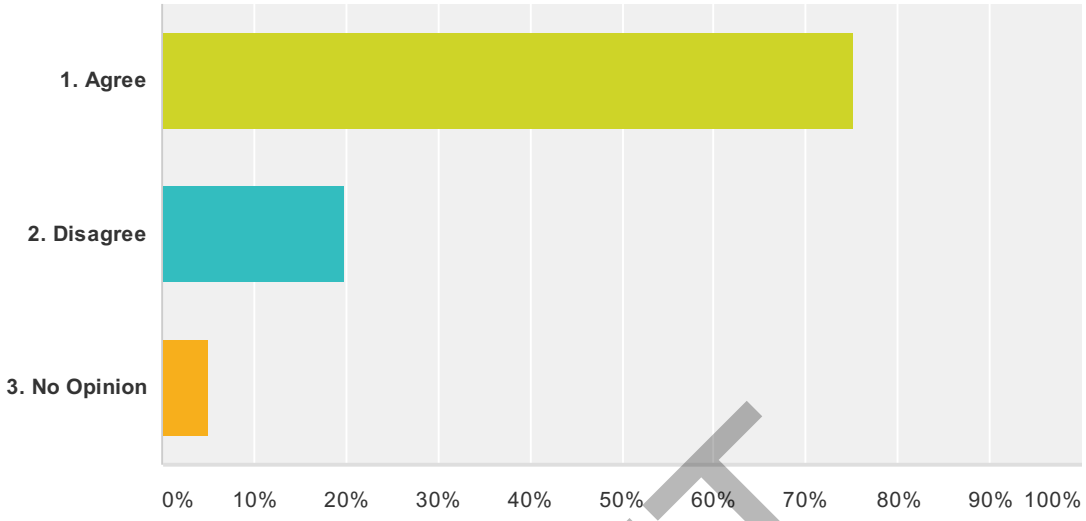
Answered: 618 Skipped: 18



Answer Choices	Responses	
1. Agree	**42.07%**	260
2. Disagree	**48.87%**	302
3. No Opinion	**9.06%**	56
Total		**618**

Q24 This is an appropriate response to building onto an existing building:

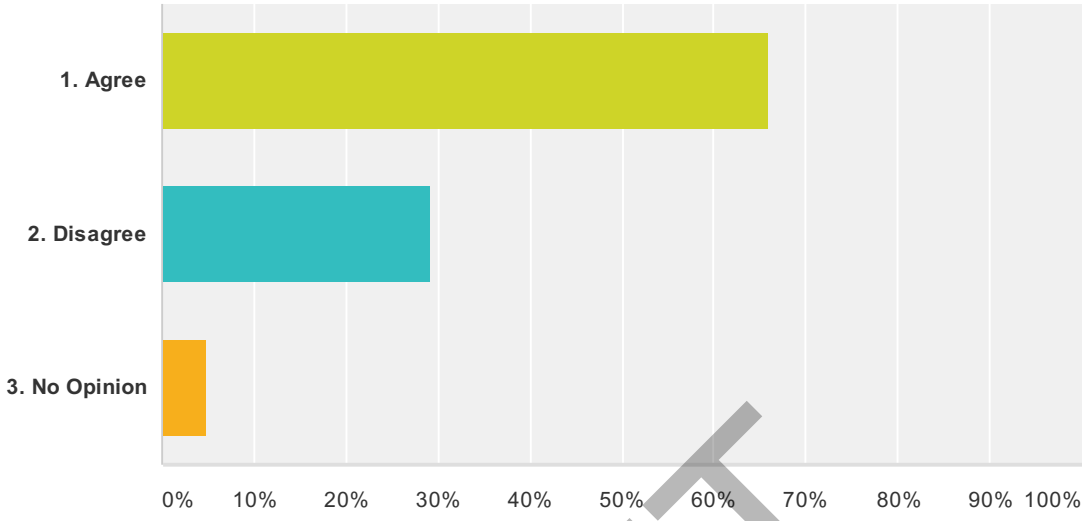
Answered: 619 Skipped: 17



Answer Choices	Responses	
1. Agree	**75.12%**	465
2. Disagree	**19.87%**	123
3. No Opinion	**5.01%**	31
Total		**619**

Q25 This is an appropriate response to building onto an existing building:

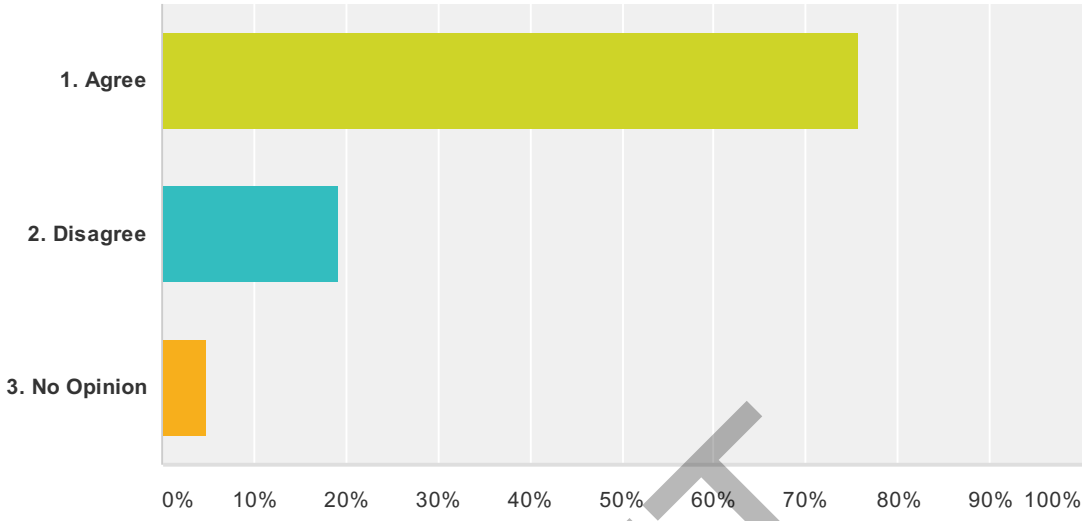
Answered: 619 Skipped: 17



Answer Choices	Responses	
1. Agree	**65.91%**	408
2. Disagree	**29.24%**	181
3. No Opinion	**4.85%**	30
Total		**619**

Q26 The house on the left is recent construction. Is this an appropriate scale?

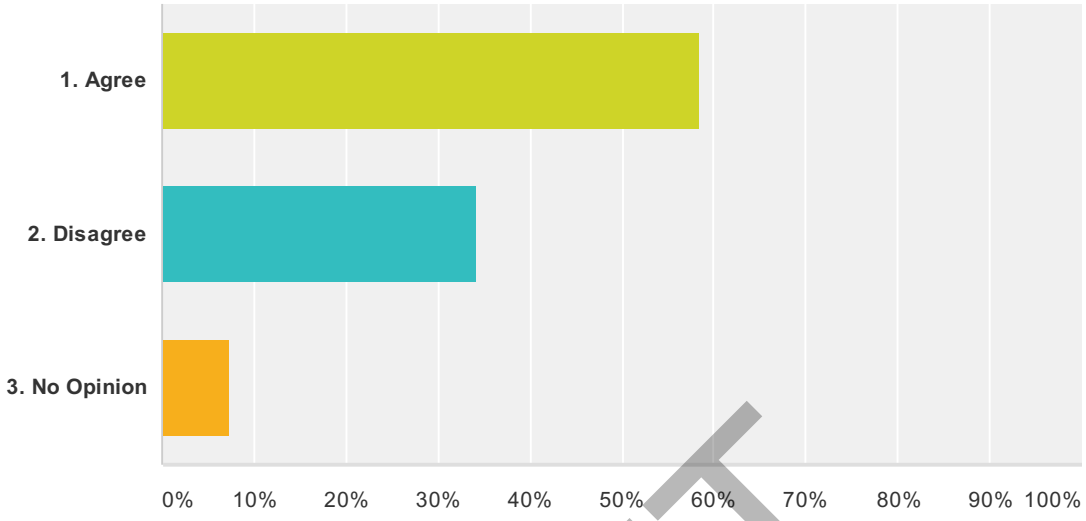
Answered: 617 Skipped: 19



Answer Choices	Responses	
1. Agree	**75.85%**	468
2. Disagree	**19.29%**	119
3. No Opinion	**4.86%**	30
Total		**617**

Q27 The house on the right is recent construction. Is this an appropriate scale?

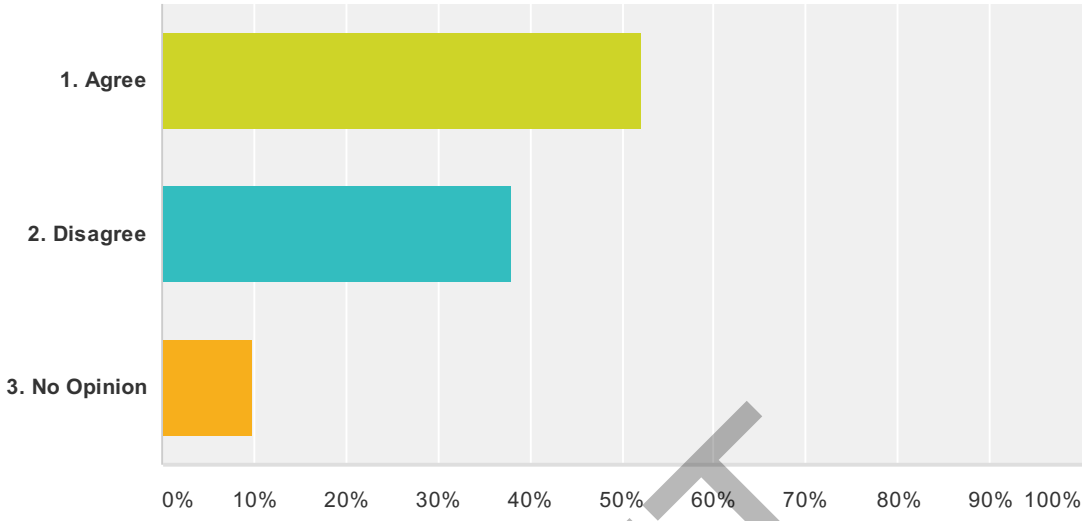
Answered: 619 Skipped: 17



Answer Choices	Responses	
1. Agree	**58.48%**	362
2. Disagree	**34.25%**	212
3. No Opinion	**7.27%**	45
Total		**619**

Q28 The house in the middle is recent construction. Is this an appropriate scale?

Answered: 613 Skipped: 23



Answer Choices	Responses	
1. Agree	**52.20%**	320
2. Disagree	**38.01%**	233
3. No Opinion	**9.79%**	60
Total		**613**