

TOWN OF HARVARD HOUSING PRODUCTION PLAN



Adopted by the
Harvard Planning Board and
Board of Selectmen

Submitted to the Massachusetts Department of Housing and Community Development (DHCD)
in accordance with the Regulations for Housing Production Plans, 760 CMR 56.03(4)

June, 2017

**OFFICES OF THE
BOARD OF SELECTMEN
TOWN ADMINISTRATOR**

13 AYER ROAD HARVARD, MA 01451
978-456-4100 EXT. 312

www.harvard.ma.us
(978) 456-4107 (fax)



May 18, 2017

Phillip DeMartino, Technical Assistance Coordinator
DHCD, Office of Sustainable Communities
100 Cambridge St., Suite 300
Boston MA 02114-2010

Re: Approval of Harvard's Housing Production Plan

Dear Mr. DeMartino:

At our meeting of May 16, 2017 the Board of Selectmen voted to adopt the update to the Town's Housing Production Plan. The Planning Board also voted to adopt the Plan at its meeting of April 10, 2017. This document therefore is now the Town's official Housing Production Plan.

We request your approval of the document at your earliest convenience. If you have any questions, please contact Timothy Bragan, the Town Administrator at tbragan@harvard.ma.us or 978-456-4100 ext. 313.

We look forward to working with DHCD to attain the Town's housing production goals.

Sincerely

A handwritten signature in blue ink, which appears to read "Lucy Wallace", is written over a horizontal line.

Lucy Wallace, Chair

HOUSING PRODUCTION PLAN

HARVARD, MASSACHUSETTS

TABLE OF CONTENTS

SECTION I: INTRODUCTION	1
Background	1
Purpose.....	2
Organization.....	2
SECTION II: COMPREHENSIVE HOUSING NEEDS ASSESSMENT	3
Population Profile	3
Group Quarter Population.....	7
Age	7
Income.....	8
Poverty	9
Disabilities	10
Educational Attainment.....	10
Existing Housing.....	11
Average Single Family Tax Bills and Tax Rates	18
Trends in New Construction	19
Rents and Home Prices	21
Housing Cost Burden.....	23
Affordability Gap.....	26
Population Projections	27
Subsidized Housing Inventory	29
Regional Supply of Affordable Housing.....	34
Development Constraints.....	36
A. Environmental Constraints and Protected Open Space.....	36
B. Infrastructure Capacity.....	40
C. Municipal Facilities	42
D. Zoning for Housing.....	43
Housing Needs Identified in Citizen Surveys	47
Summary of Housing Assessment	48
Overview of Housing Needs	51
Section III: Housing Goals.....	53
Section IV: Housing Production Program	54
Section V: Implementation Strategies.....	56
Assessing Progress since the 2011 Housing Production Plan.....	56
Implementation Strategies for Housing Production, 2017 - 2021.....	58
Appendix 1: Master Plan Housing Surveys	69

LIST OF TABLES

Table 1 Population Change without Devens	3
Table 2 Population and Households at Devens, 2000 - 2010	4
Table 3 Racial Makeup, 2014	5
Table 4 Household Characteristics, 2000 - 2010	6
Table 5 Type of Family and Non-Family Households, 2014.....	6
Table 6 Group Quarter Population, 2010.....	7
Table 7 Age.....	8
Table 8 Change in Median Household Income	9
Table 9 Poverty in Harvard, 2000 and 2014	9
Table 10 Federal Poverty Level, 2014.....	9
Table 11 Disabled Population	10
Table 12 Housing Tenure.....	12
Table 13 Housing Structures.....	14
Table 14 Comparison of Housing Units, Harvard and the State.....	15
Table 15 Age of Housing Stock.....	15
Table 16 New Dwelling Units, 2004 - 2015	20
Table 17 Median Sale Prices of Single Family Homes and Condominiums, 2013-2015.....	22
Table 18 Gross Rent.....	23
Table 19 Household Income for Owner and Renter Households, 2014.....	24
Table 20 Housing Cost Burden.....	26
Table 21 Affordability Gap in Harvard.....	27
Table 22 Population Projections by Age to 2030 Status Quo Scenario	29
Table 23 Subsidized Housing Inventory	32
Table 24 SHI Units in the Pipeline	34
Table 25 Land Available for Development.....	38
Table 26 Zoning Districts by Area.....	43
Table 27 Housing Production Program.....	54
Table 28 Planning Targets to Achieve 10% Affordable Housing.....	55
Table 29 Actions Taken on Recommendations of the 2011 – 2016 Housing Production Plan	57
Table 30 Summary of Implementation Strategies.....	67

LIST OF MAPS

Map 1 Owner Occupancy	13
Map 2 Affordable Housing and Multiple-Unit Dwellings	17
Map 3 Chapter 40B Status of Surrounding Towns, December 2014.....	35
Map 4 Development Constraints.....	37
Map 5 Land Available for Development	39
Map 6 Town Center Water and Sewer Systems	41
Map 7 Zoning.....	44

LIST OF FIGURES

Figure 1 Educational Attainment, Population 25 and Older	11
Figure 2 Housing Units and Number of Bedrooms, 2014	16
Figure 3 Average Single Family Tax Bill: Surrounding Towns	18
Figure 4 Tax Rates: Harvard v. Median.....	19
Figure 5 Living Area of Single Family Homes.....	21
Figure 6 Assessed Values of Single Family Homes, 2016	22
Figure 7 Household Income of Owners and Renters	25
Figure 8 Projections by Age	29

Credits for Cover Pictures:

Left: Rendering of proposed cottage at Craftsman Village, a proposed affordable housing project on Ayer Road, Weston Development Group

Right: Trail Ridge Condominiums, an affordable housing project partially constructed

SECTION I: INTRODUCTION

The Town of Harvard, located 31 miles northwest of Boston, is a residential community of approximately 6,520 residents based on the 2010 Census. Excluding Devens, the Town had 5,063 people according to the Census. The day-to-day operations of the Town are managed by a Town Administrator who oversees a Town hall staff of 8 full-time and 8 part-time employees. Harvard does not have an engineer, but in 2012 hired a consulting Town Planner. Land use boards retain other consultants as needed on a case-by-case basis. Most other aspects of Town governance are handled by volunteer boards and committees. The development of an affordable housing agenda is no exception. The original Affordable Housing Plan (now known as a Housing Production Plan) was prepared by the Town's Housing Partnership with pro bono assistance from housing professionals in the community and the Montachusett Regional Planning Commission. This revision has been developed by the Town Planner, Planning Board, the Harvard Municipal Affordable Housing Trust Fund (MAHTF) and representatives from the community.

Background

For most of its existence, development in Harvard has been dependent upon soils characteristics to accommodate on-site septic systems in conformance with state and local regulations. Just recently Harvard created a municipal sewer system in the Town Center to serve existing homes and institutional uses, and the system began operations in 2013. The district comprises about 167 acres and has a limited capacity of 23,000 gallons per day (gpd). With a small ground water infiltration system, there is little capacity to accept additional development. The Town Center has had a limited municipal water system for some time. A newly created three-member Water and Sewer Commissions oversees both systems. Most households and businesses in Harvard are served by on-site private wells and septic disposal systems.

Over the past several decades, Harvard has become a community with few housing options available to any but those seeking detached single-family homes on large lots. Its first "affordable housing" units were created in 1985, with the acquisition and preservation of four moderately priced rental units at the Harvard Inn in the Town Center, by the local nonprofit Harvard Conservation Trust. As of April 2016, the Town has 110 qualified units in its official register of such units, the Subsidized Housing Inventory (SHI). Most of these units are a result of permit applications by private developers. The Town has attempted on several occasions to sponsor affordable units on Town land but has so far been unsuccessful.

Recent market rate development has begun to diversify the housing stock in Harvard to respond to the demands for alternative living arrangements, most notably for seniors. However, the current housing stock still consists chiefly of large single family homes on large lots, which meet the needs of just a fraction of the people who would like to move to or remain in the Town. Harvard is still beset with the problems of increasing housing cost and limited choices. With few opportunities for higher density development due to soils constraints, production has not kept pace with demand, and housing costs have continued to rise. Demographic projections suggest that the degree to which needed housing is not available will only grow more acute over the next decade.

Purpose

This Housing Production Plan has been designed to guide the expansion of affordable housing opportunities in the Town of Harvard. The Plan represents a management tool for ensuring that timely progress is made toward meeting the Town's affordable housing goals. It is based on a comprehensive needs assessment and a thorough analysis of existing conditions, demographic trends and local and regional market forces. It identifies the constraints that have limited affordable housing production in Harvard, and the Town's efforts to mitigate them. It also identifies opportunities and lays out the strategies the Town will pursue in order to meet its goal of providing housing for families across a broad range of income, age and needs.

The Plan describes the mix of housing units required to address the identified needs and a time frame for their production. It recommends a number of regulatory reforms and strategies to expand local development capacity. It includes preservation strategies as well as new production initiatives, and it anticipates a significant role for both private and Town-initiated development.

Organization

This amendment to the Plan is submitted to comply with the Massachusetts Department of Housing and Community Development's (DHCD's) Housing Production Plans, 760CMR56.03(4):

- Section 1 Introduction
- Section 2 Comprehensive Housing Needs Assessment
- Section 3 Affordable Housing Goals
- Section 4 Implementation Strategies

The Housing Production Plan builds upon several planning documents, including the Harvard Master Plan, November 2002, prepared by Community Opportunities Group, the recently completed Master Plan in 2016, and the Town of Harvard Needs Assessment, prepared by the Harvard Housing Partnership in 2001 and updated in the spring of 2004.

SECTION II: COMPREHENSIVE HOUSING NEEDS ASSESSMENT

This section summarizes the housing requirements of Harvard residents and identifies gaps between their needs and the existing resources available to meet them. It also provides data on regional housing needs and anticipates future needs. It identifies the Town's existing and planned affordable housing resources, those officially recognized on the Commonwealth's Subsidized Housing Inventory (SHI) as well units on the private market, and reports on the Town's organizational, administrative and regulatory framework as they relate to affordable housing. Lastly, it looks at challenges and opportunities specific to Harvard.

Population Profile

According to the Census Bureau, the population of Harvard without Devens was 5,063 on April 1, 2010. By virtually all economic indicators (household income, home values, educational attainment, occupation, and equalized valuation per capita) the Town ranks among the most affluent in the state.

For a time, Harvard avoided the post WW II housing boom; between 1950 and 1960, Harvard gained 525 people. By the 1960's, however, the opening of the interstate highway system and easy commuting to major employment centers brought about a sharp uptick in growth. From 1960 – 1970, Harvard witnessed the largest population gain of the last 8 decades when it gained 1,122 people for a 61% increase. The '70's and '80's also were a period of significant growth when the Town gained 782 and 918 people, respectively. The 21st century, however, shows a slow-down of population growth, with the Town's population actually declining by 167 people (-3.2%) in the first decade.

**Table 1
Population Change without Devens**

Year	Local Population (without Devens)	Change	Percent Change	Worcester County Population	Percent Change
1930	987			490,737	
1940	1,119	132	13.4%	504,470	2.8%
1950	1,315	196	17.5%	546,401	8.3%
1960	1,840	525	39.9%	583,228	6.7%
1970	2,962	1,122	61.0%	638,114	9.4%
1980	3,744	782	26.4%	646,352	1.3%
1990	4,662	918	24.5%	709,705	9.8%
2000	5,230	568	12.2%	750,963	5.8%
2010	5,063	-167	-3.2%	798,552	6.3%

Source: U.S. Census

Population at Devens has fluctuated widely in the recent past. Thousands of soldiers and civilians lived on the base while it was an active Army facility. In 1990, for example, just prior to the closure of the base, Harvard's entire population was 12,329 people. The largest component of population today at Devens is the Federal Medical Center (FMC) operated by the Bureau of Prisons. The 1,194 inmates show up in 2010 Census records as "group quarter" population, and the inmates are counted as Harvard residents by the Census. Since the base closure, MassDevelopment has renovated existing units or created new units for families, and the non-group quarter population is beginning to rise. The Devens Reuse Plan limits the number of housing units to 282¹. The cap can only be changed by votes of concurrent Town Meetings in Harvard, Ayer and Shirley. In 2010, Devens had 80 occupied housing units with a population of 219 people; 61 residents were under 18 years old, and 158 residents were over 18. Of the 80 households in 2010, 51 were family households.

Table 2
Population and Households at Devens, 2000 - 2010

	2000	2010	Change
Group Quarters (Correctional)	747	1,194	447
Group Quarters (Non-Institutionalized)	0	44	44
Population In Occupied Units	4	219	215
Total	751	1,457	706
Total Households		80	
Family Households		51	
- Family Married Couple Households		41	
- Family Not Married Households		10	
Non-Family Households		16	
Primary Householder > 65		13	
Population in Households Under 18		61	
Population in Households Over 18		158	
Source: 2000 and 2010 U.S. Census. Comparison with 2000 population and households is not possible as the 2000 Census reported 4 people living in housing units			

The 2010 Census designated Harvard as one Census Tract, 7614, which consists of six Block Groups. Devens is a separate block group (number 6), which allows for a separation of demographic data for analysis purposes. (In 2000, Devens was a separate Census Tract, 7141, from the rest of Harvard, 7142.) By the time of the American Community Survey in 2014, a portion of the allowable housing units had been built in Devens, but the principal population center was still the Federal Medical Center. In addition, Table 3 below reveals a significant discrepancy in race and Hispanic population between

¹ In 2015 the Reuse Plan was amended to allow a 120-unit senior housing development in Shirley; these units are outside of (in addition to) the 282-unit cap.

Devens and the remainder of Harvard. About 90% of Harvard without Devens is white, while at Devens 65.1% of the population is white. Hispanics are not considered a separate race, and consist of white and black Hispanics. About 3.1% of Harvard's population without Devens are Hispanics, while about 18% of the Devens population are Hispanics.

Table 3
Racial Makeup, 2014²

	Harvard without Devens		Devens		Entire Town	
	Number	%	Number	%	Number	%
Total Population	5,281	100.0%	1,277	100.0%	6,558	100.0%
White alone	4,764	90.2%	831	65.1%	5,595	85.3%
Black or African American alone	228	4.3%	261	20.4%	489	7.5%
American Indian and Alaska Native alone	19	0.4%	37	2.9%	56	0.9%
Asian alone	190	3.6%	33	2.6%	223	3.4%
Native Hawaiian and Other Pacific Islander alone	0	0.0%	0	0.0%	0	0.0%
Some other race alone	8	0.2%	32	2.5%	40	0.6%
Two or More Races	72	1.4%	83	6.5%	155	2.4%
Hispanic or Latino	164	3.1%	227	17.8%	391	6.0%
<i>Source: American Community Survey, 2014</i>						

As shown in Table 4, Harvard remains a predominantly family household community with a rate well above the state norm. Families constituted nearly 83 percent of the Town's households in 2000, and in 2014, the percentage was still quite high, 79.9%. In comparison, 65 percent of households in the State were families in 2000, and 63.5% were families in 2010.

² In a Census, individuals self-identify their race and may report more than one race group. People of any race may be of any ethnic origin.

Table 4
Household Characteristics, 2000 - 2010

	2000		2010		2014	
	Number	%	Number	%	Number	%
Family Households	1,494	82.6%	1,523	80.5%	1,527	79.9%
Non-Family Households	315	17.4%	370	19.5%	384	20.1%
Total Households	1,809	100%	1,893	100%	1,911	100%
Average Household Size	2.86	NA	2.76	NA	2.86	NA
Average Family Size	3.18	NA	3.10	NA	3.11	NA

Table 5 reveals that 68.1% of Harvard households were married couples. 43.6% of the family households had their own children under 18 in 2014. 81.5% of these families have two parents present (the statewide figure is 76%). Non-family households make up 20.1% of all households, and householders 65 and over make up 5.6% of Harvard households.

Table 5
Type of Family and Non-Family Households, 2014

	2014	
	Number	Percent
Married Couple, Family	1,302	68.1%
-- with own children under 18	680	35.6%
Male householder, no wife present	124	6.5%
-- with own children under 18	72	3.8%
Female householder, no husband present	101	5.3%
-- with own children under 18	82	4.3%
Total Family Households	1,527	79.9%
-- with own children under 18	834	43.6%
Non-Family Households	384	20.1%
-- householder living alone	206	10.8%
-- householder 65 years and older	107	5.6%

Group Quarter Population

Care should be taken in analyzing demographic trends in Harvard due to the presence of Devens. As noted above, Devens has a large population living in Group Quarters, whose residents are not counted as household population. The FMC is a correctional facility that provides specialized or long-term medical care for incarcerated prisoners. As shown in Table 6 below, Harvard had a group quarter population of 1,292 people in 2010, most of whom are male inmates at the FMC; 20% of Harvard's population in 2010 lived in group quarters. A 60% growth rate of group quarter population since 2000 accounts for a large portion of the Town's overall population growth, yet this population has little impact on Harvard's municipal or educational services.

Table 6
Group Quarter Population, 2010

	2000	2010	Change 2000 – 2010	
			Number	Percent
Total Population	5,981	6,520	539	9%
Household Population	5,174	5,228	54	1%
Group Quarter Population	807	1,292	485	60%
Institutionalized	747	1,194	447	60%
Male		1,147		
Female		47		
Non-Institutionalized	60	98	38	63%
Male		40		
Female		58		

Age

Harvard's median age population is 45.3 years compared to the statewide median of 39.3 years, although it may be somewhat skewed due to the adult population at the FMC. The total population presented in Table 7 removes the group quarter population to determine the percentages of age groups for the remainder of the count. Harvard has a lower percentage of preschool children than the State (4.0% v. 5.5%), but has a significantly higher rate of school age children than the State (23.5% v. 15.6%). It may be that new families have worked longer to achieve the income to move into Harvard and have fewer children of preschool age than is the norm statewide. As might be expected for a community without a college in a state that has many, Harvard has a smaller percentage of college age persons than the State (6.0% v. 10.4%). The largest difference occurs in the older adult group (ages 45 to 64), where 44.7% of the Harvard population occurs while 26.3% of the statewide population falls in this range. Households in the latter end of the range typically have grown children who have "left the nest" and the parents are occupying much larger dwellings than their current needs require. Harvard's senior population, ages 65+ is now larger than the state rate (15.8% v. 14.4%). The 2011 Affordable Housing Plan had noted that Harvard generally had a smaller percentage of seniors than the State as a whole, but the senior

population was growing at a faster pace and would soon exceed the state rate. That prediction has now come true.

In summary, it is apparent that the excellent public schools in town attract new families with school-age children, and these households may eventually desire to find an alternative home with fewer bedrooms, less total space, and lower property maintenance responsibilities.

Table 7
Age

	Harvard (1)		Massachusetts	
	Number	% of Total	Number	% of Total
Total	5,466	100%	6,657,291	100%
Preschool (0 to 4)	221	4.0%	365,403	5.5%
School Age (5 to 17)	1,286	23.5%	1,037,209	15.6%
College Age (18 to 24)	329	6.0%	693,333	10.4%
Young Adult (25 to 44)	1,414	25.9%	1,749,783	26.3%
Older Adult (45 to 64)	2,444	44.7%	1,852,963	27.8%
Older (65 plus)	864	15.8%	958,600	14.4%
Median Age (includes Devens)	45.3		39.3	
(1) The total population count for Harvard in 2014 was 6,558. Subtracting the group quarter population of 1,092 (largely the FMC at Devens), yields a non-group quarter population of 5,466. The ACS only provides a total group quarter count. <i>Source: American Community Survey, 2014.</i>				

Income

Table 8 below compares the median household income (MHI) of Harvard to Worcester County and Massachusetts. In 1989, Harvard's median household income was 32% higher than that of Worcester County and 28% higher than the State as a whole. By 2014, the gap had widened considerably; Harvard's MHI was double that of the County and 94% higher than the state. During this 25-year period, Harvard's MHI nearly tripled while the County and State MHI increased 83% and 84% respectively.

Table 8
Change in Median Household Income

	Harvard	Worcester County	Harvard as % of Worcester County	Mass.	Harvard as % of Mass.
Median HH Income, 1989	47,299	35,774	132%	36,952	128%
Median HH Income, 1999	107,934	47,874	225%	50,502	214%
Median HH Income, 2014	131,563	65,453	201%	67,846	194%
% Change, 1989 – 2014	278%	183%		194%	
<i>Source: 1990 and 2000 Census and 2010 – 2014 ACS</i>					

Poverty

While Harvard as a whole has one of the highest incomes in the state, there are still local residents with incomes below poverty level. In 2014, 9.0% of the population, or 499 people met the poverty criteria. This is almost five times the number of people below poverty in 2000. Of the 2014 number, 209 persons were under the age of 18 and 39 persons were 65 years or older. The extent of poverty in Harvard is somewhat surprising given the high median income of the community. It indicates that a significant number residents have difficulty meeting the cost of housing in town. Table 9 shows the change in poverty from the 2000 Census, and Table 10 presents the 2014 poverty level by family size, as determined by the U.S. Department of Health and Human Services, at the time of the 2014 ACS.

Table 9
Poverty in Harvard, 2000 and 2014

Census 2000			2010 – 2014 ACS			Change
2000 Population	Number Below Poverty	% Below Poverty	Population (1)	Est. Below Poverty	% Est. Below Poverty	Change in % of Population Below Poverty
5,239	106	2.0	5,525	499	9.0%	7.0%
(1) Population for whom poverty status is determined						
Source: “Coordinated Public Transit – Human Services Plan Update”, MRPC ³ , 2014, page 10.						

Table 10
Federal Poverty Level, 2014

Family Size	1	2	3	4	5	6	7	8
Annual Income	\$11,670	\$15,730	\$19,970	\$23,850	\$27,910	\$31,970	\$36,030	\$40,090

³ MRPC: Montachusett Regional Planning Commission

Disabilities

According to the 2014 ACS, 334 people, or 6.3% of the civilian, non-institutionalized population, has some type of disability: defined as a long-lasting physical, mental, or emotional condition that severely limits activities such as walking, dressing, bathing, learning, or remembering. A disability can make it very difficult or impossible for people to leave their home alone or go to work. In Harvard, men account for 54% of the population with disabilities, and seniors (aged 65+, including men and women) make up 34% of the total. About 15% of the senior population has some form of disability. The largest category of disability for seniors is having difficulty with independent living. Given the significant senior population in Harvard, and understanding that many senior households wish to downsize from large single family homes, new housing targeted to seniors should provide design features that can accommodate independent living.

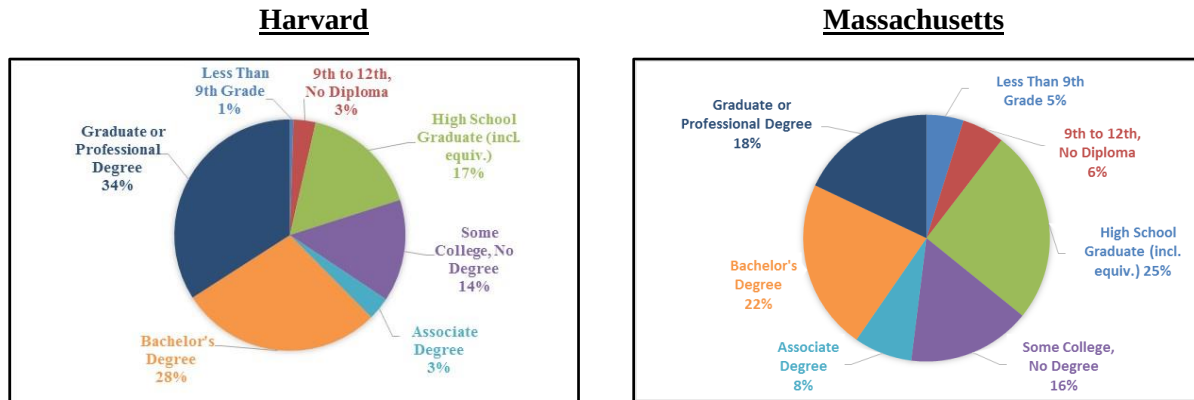
Table 11
Disabled Population

Total Population by Sex	Town Total	Number with a Disability	Percent with a Disability
Male	2,848	179	6.3%
Female	2,708	155	5.7%
Total	5,557	334	6.0%
Population 65 years and over	748	115	15.4%
With a hearing difficulty		38	5.1%
With a vision difficulty		34	4.5%
With a cognitive difficulty		10	1.3%
With an ambulatory difficulty		32	4.3%
With a self-care difficulty		21	2.8%
With an independent living difficulty		73	9.8%

Educational Attainment

Harvard residents are well educated, and many have advanced degrees. 60% of Massachusetts residents 25 and over have attained an Associate's degree, while 38% of Harvard residents have met the requirement. However, 62% of Harvard residents have a Bachelor's Degree or higher compared to 40% for the Commonwealth. With advanced degrees, Harvard residents are able to engage in high-wage professions and earn the incomes needed to afford the cost of housing. This high education level among adults no doubt translates into the desire to provide a high quality education in the public schools.

Figure 1
Educational Attainment, Population 25 and Older



Existing Housing

Table 12 below contains basic information about the housing stock in Harvard. In 2014 Harvard had 2,027 housing units, but the number of units actually declined by 8.9% from 2000 to 2014. In 2000, the Census reported one occupied housing unit in Harvard's portion of Devens and 313 vacant units. MassDevelopment has now completed demolition of all of the poor quality housing on the base, which would explain the overall loss in the number of units. The percentage of occupied units increased to 94.3% by 2014, which is consistent with the elimination of the high number of vacant units at Devens. In addition, it is likely that improvement in the housing market after the recession in the previous decade cut into the large number of vacant units.

Harvard has few rental units, just 9.2% of all units in 2014. The Town gained 4 rental units since the 2000 Census, which includes the 42 units of senior rental housing which came on line at Bowers Brook in 2011. Nevertheless, the housing market is still dominated by ownership units. Map 1 displays the ownership pattern in Harvard⁴. 90% of all units are owner occupied, up from 88% in 1990 and 85 percent in 1980. Given the high cost of housing in Harvard and the lack of rental housing, there is little housing choice for those of modest means to move to Harvard. Single-family homes still constitute much of the rental inventory, and these units are often only temporarily in the rental pool, the result of an owner's inability to sell, or a leave of absence from Town.

⁴ In Assessors' data, a different owner mailing address from the property address was a proxy for non-owner-occupied dwellings. The data does not allow for a determination of owner-occupancy of condominiums.

Table 12
Housing Tenure

	2000		2014		Change	
	No.	Percent	No.	Percent	No.	Percent
Total Housing Units	2,225	100%	2,027	100%	-198	-8.9%
Occupied Housing Units	1,809	81.3%	1,911	94.3%	102	5.6%
Owner Occupied Units	1,638	90.5%	1,736	90.8%	102	6.0%
Renter Occupied Units	171	9.5%	175	9.2%	4	-2.3%
Vacant Housing Units	416	18.7%	116	5.7%	-300	-72.1%
Owner Vacancy Rate	11	0.7%	19	1.1%	8	0.4%
Renter Vacancy Rate	5	2.8%	0	0%	-5	-2.8%
Ave. Household Size of Owner-Occupied Units	2.96	NA	2.95	NA	-0.01	-0.3%
Ave. Household Size of Renter-Occupied Units	1.91	NA	1.94	NA	.03	1.6%

Owner Occupancy

Map 1

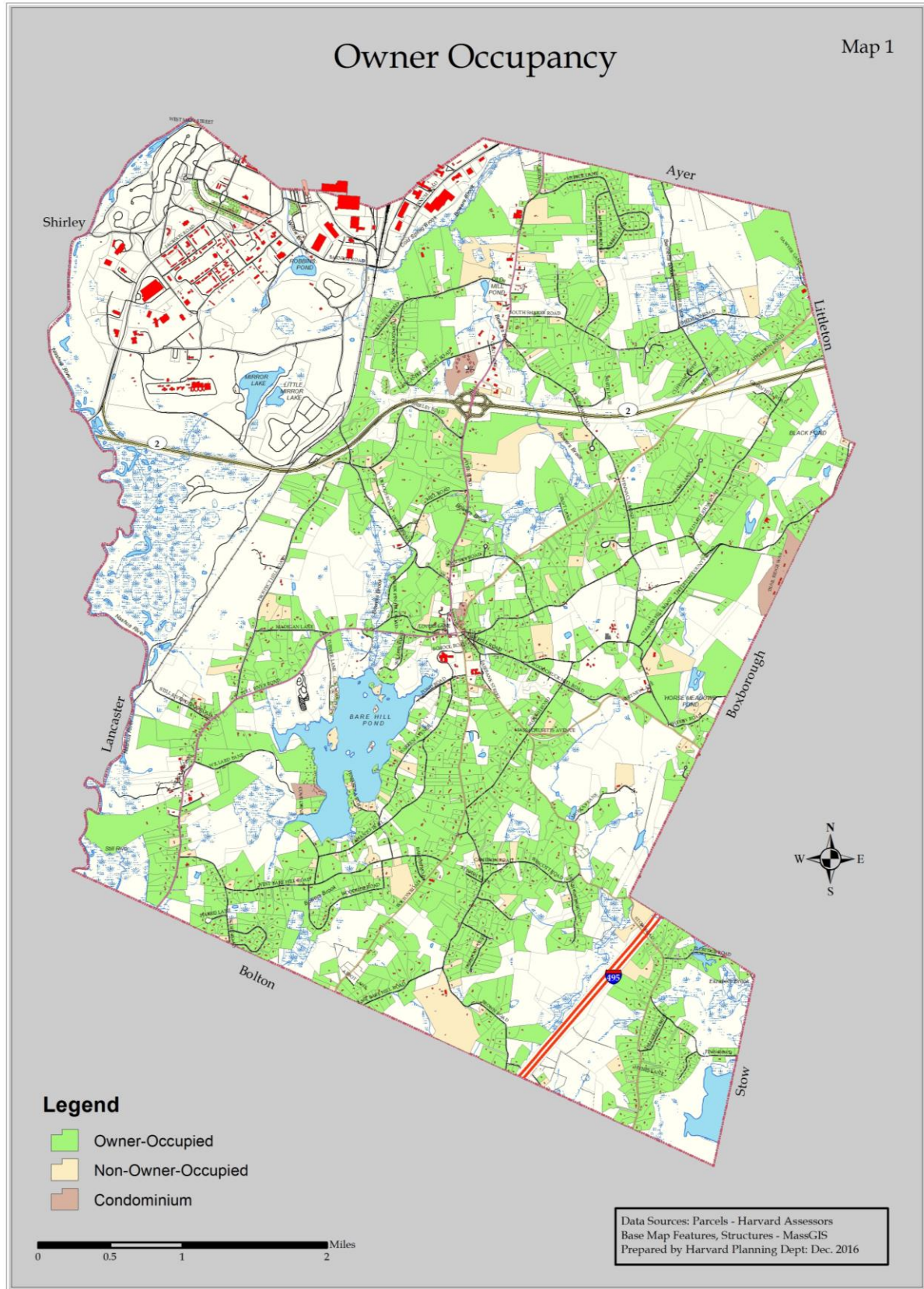


Table 13 shows the type of housing units in Harvard today based on records from the Harvard Assessors, but excludes Devens since the Assessors do not assess property there. The counts show the number of parcels in each category. Harvard by and large is a community of single family residences. There are just 25 two and three family dwellings and four multiple family dwellings. The two largest of these are Foxglove Apartments (24 units) and Bowers Brook (42 units), both of which serve elderly residents. The locations of multi-dwelling properties are shown on Map 2.

Condominiums now make up a significant portion of the housing market. These include Trail Ridge (still under construction), Harvard Commons at 15 Littleton Road, Deer Run off Lancaster County Road, Harvard Green on Lancaster County Road, the former Harvard Inn at 11 Fairbank Street in the Town Center, and Clinton Shore Drive on the west shore of Bare Hill Pond. It appears there is a significant demand for condominium units due to the low maintenance responsibility of the unit owners. Some long-term Harvard residents no doubt find this lifestyle appealing since they may downsize from a large residence after their children leave home yet still reside in Harvard.

The Assessors do not code single family homes with an accessory apartment, and it is unknown how many exist in Harvard today. Town Meeting adopted an accessory apartment provision in 1982 and modified it to its current form in 2012. The provision has seen little use in its over 20 years of existence, perhaps because it requires a special permit, and the main dwelling must have been in existence for five years before an owner can apply for the special permit.

Table 13
Housing Structures

Type of Structure	No. of Parcels
Single Family Residential	1,704
Single Family Residential-Waterfront	64
Two Family	23
Three Family	2
Condominiums	125
Four or More Units in a Structure	4
Multiple Houses on One Parcel	27
Total	1,949
Total Parcels in Harvard	2,562
Percent of Parcels in Residential Use	76.1%
<i>Source: Harvard Assessors, 2016, Dept. of Rev.</i>	

The American Community Survey data is consistent with the parcel coverage. Nearly 95% of the units in Harvard are single family attached or detached, while just 57.5% of the units statewide are of the single family variety. In turn, a much higher percentage of units statewide are multiple family than in Harvard. Harvard has no mobile homes.

Table 14
Comparison of Housing Units, Harvard and the State

	Harvard		Massachusetts	
	Units	% of Total	Units	% of Total
1-Unit (Attached or Detached)	1,917	94.6%	1,625,127	57.5%
2 - 9 Units	79	3.9%	752,212	26.6%
10 - 19 Units	10	1.0%	128,538	4.5%
20 or more Units	21	1.0%	297,926	10.5%
Other	0	0	24,789	0.9%
Total	2,027	100.0%	2,828,592	100.0%
<i>Source: American Community, 2010 – 2014</i>				

Fifty-nine percent of Harvard's housing units were built after 1970, and just 17% were built prior to 1940. While most residents consider Harvard to be an historic New England community most homes in Town do not qualify as historic. Since most homes in Harvard are relatively new, it is likely that few homes have serious deficiencies that would require major rehab. In contrast, in Massachusetts one-third of all units pre-date 1940, and this older housing stock requires significant investment to maintain housing quality standards.

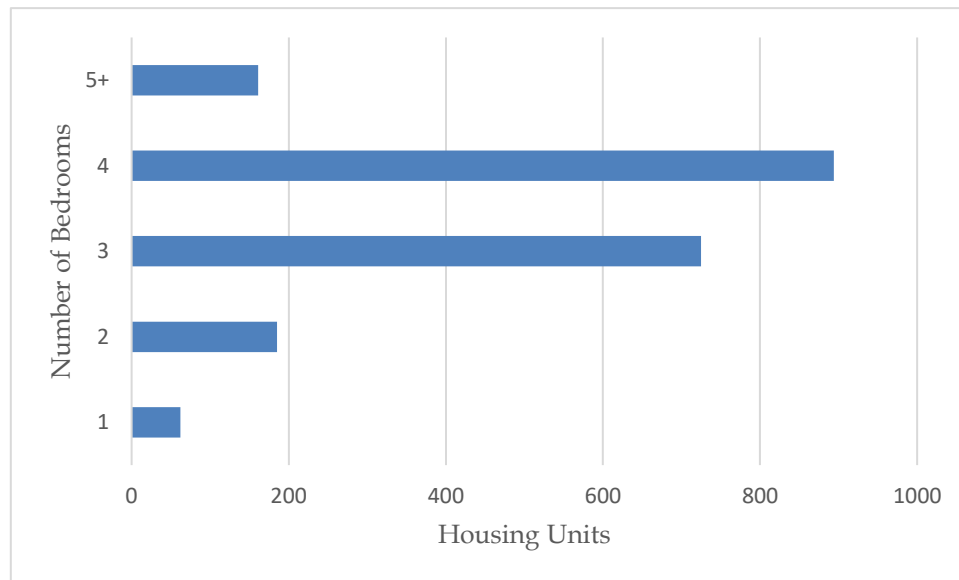
Table 15
Age of Housing Stock

	Harvard	
	Units	% of Total
Units Built 1970 - 2014	1,190	58.7%
Units Built 1940 – 1970	495	24.4%
Units Built Before 1940	342	16.9%
Total Housing Units	2,027	100.00%
<i>Source: American Community, 2010 – 2014</i>		

Units in Harvard are generally much larger than the state norm. In Harvard, the median number of rooms per housing unit is 8.0, and 52% of the units have four or more bedrooms. Massachusetts as a whole has 5.5 rooms per housing unit (reflecting a high percentage of rental units) and 20% have four or more

bedrooms. The 2014 American Community Survey reported zero units in Harvard lacking complete plumbing facilities or complete kitchen facilities, an indicator that all units meet minimum standards. Lead paint, outlawed for use in housing in 1978, is most problematic in homes built prior to 1950, which would include less than 20% of Harvard's units. A greater problem for many homeowners is the possibility of septic failure. Harvard slowly infiltrating soils can make septic system repair or replacement very costly with the State's Title 5 regulations. Ongoing home maintenance of all types presents a challenge for older and low income homeowners.

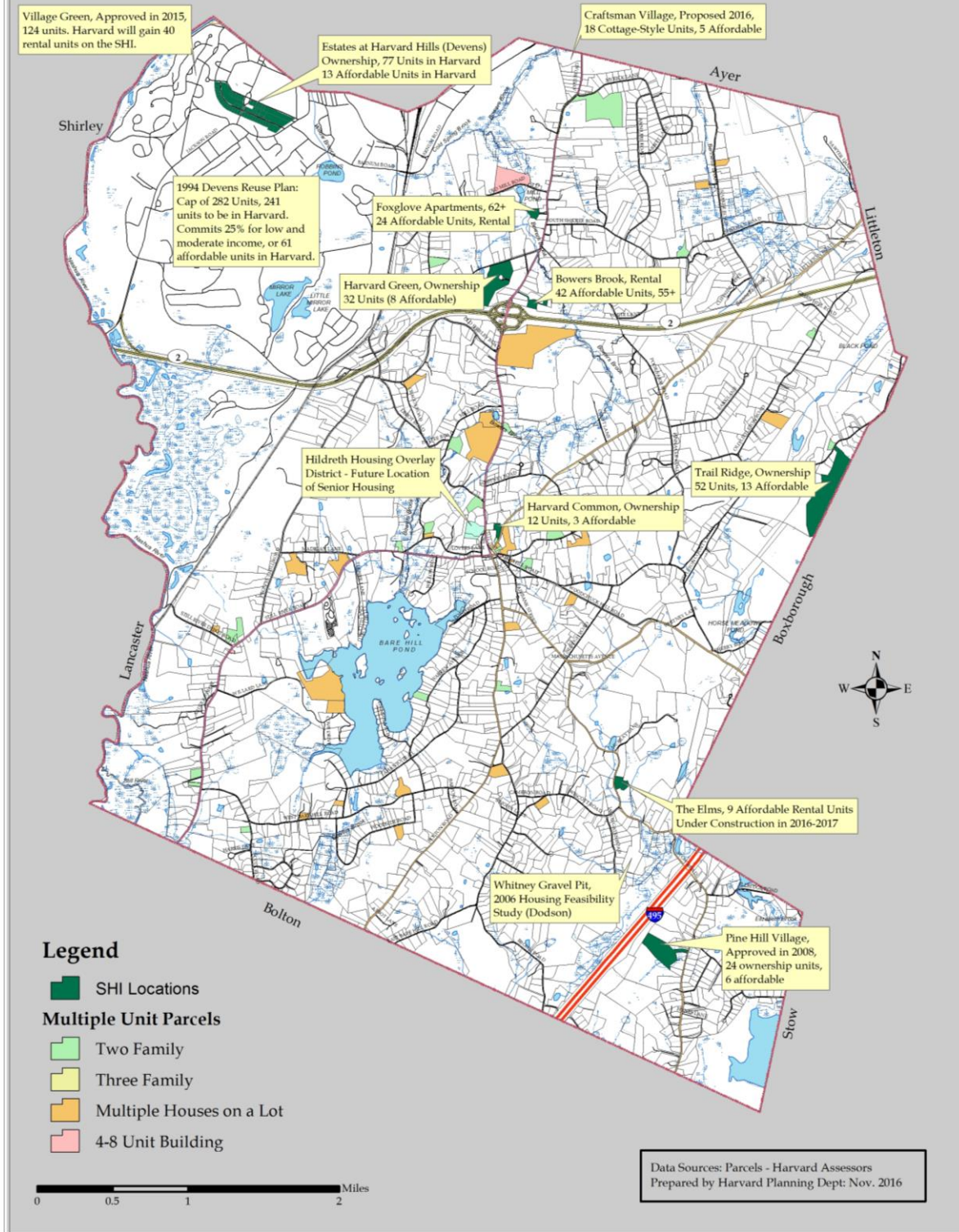
Figure 2
Housing Units and Number of Bedrooms, 2014



In summary, Harvard's housing stock is fairly homogenous. Single family homes dominate the inventory. As is true of many communities of similar size and location at the edge of major metropolitan areas, there is not much variety in terms of size, tenure, or value. A recurring theme in Harvard is the demolition or expansion of smaller homes and replacement with larger dwellings. Homes around Bare Hill Pond are particularly vulnerable to this trend as the highly desirable location attracts affluent buyers who desire to build luxury homes. Many of the original cottages around the Pond no longer exist. This further reduces the variety of housing types and sizes and the opportunity for older residents to down-size to a smaller unit in the community.

Affordable Housing and Multiple Unit Dwellings

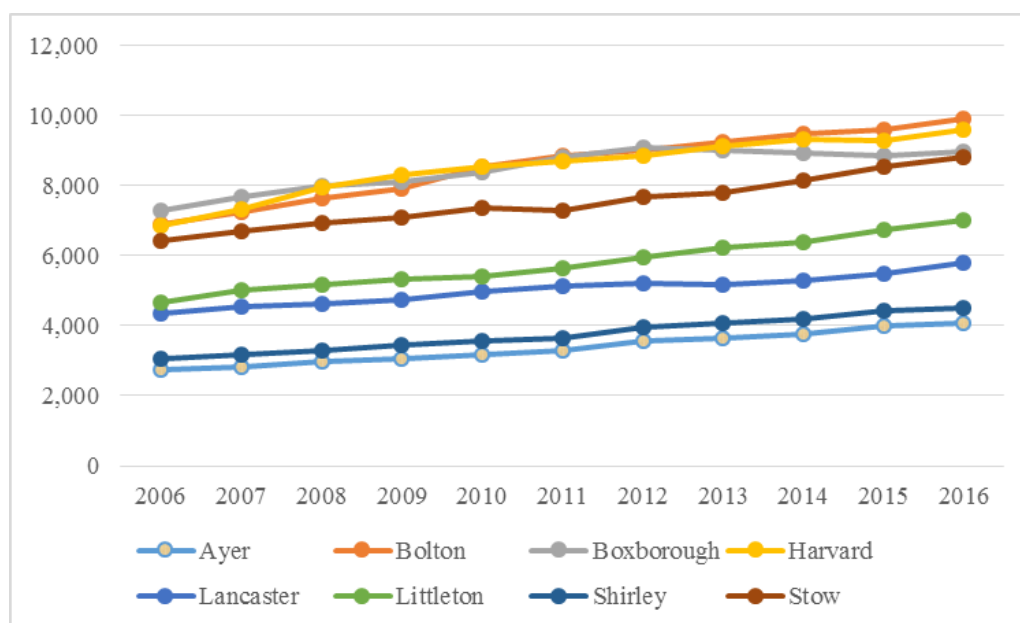
Map 2



Average Single Family Tax Bills and Tax Rates

A contributing factor to housing costs is the local real estate property tax. Tax bills comprise two components, the assessed value and the tax rate. The property tax is the principal mechanism for funding local services. As shown in Figure 3 below, Harvard⁵ routinely ranks as having one of the highest single family tax bills among surrounding towns. Harvard, Bolton, and Boxborough consistently vie for the top spot with the highest tax bill. In FY 2016, Harvard had the highest tax bill. From 2006 – 2016, Littleton (50%), Ayer (49%), Shirley (48%), and Bolton (44%) showed a greater percentage increase in tax bills than did Harvard (40%). All communities, of course, show an upward trend. The relatively high property taxes in Harvard is one reason the local school system consistently ranks as one of the best in the State. For FY 2016, Harvard ranked as the 24th highest community in the state for single family tax bill. (Weston, Sherborn and Lincoln were 1, 2, and 3.) Harvard ranks 49th in the State in average assessed value of single family homes.

Figure 3
Average Single Family Tax Bill: Surrounding Towns

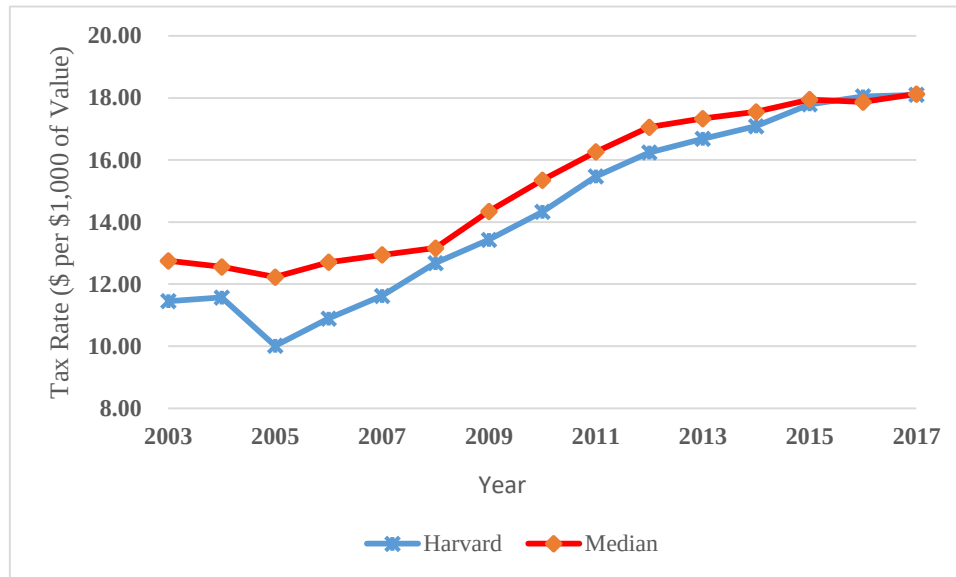


Source: Mass. Department of Revenue

Tax rates are the second factor that determine a property's tax bill. Taking the same comparison communities, Harvard had the third lowest residential tax rate of the eight communities for the period 2003 to 2017. Its average residential tax rate was \$14.36 per thousand dollars of value; Ayer had the lowest average tax rate, \$11.73 and Bolton had the highest, \$17.37. Tax rates have generally increased over time, with the median tax rate changing from \$12.75 in 2003 to \$18.13 in 2017. In 2017, Harvard's tax rate of \$18.10 put it in 4th place (low to high) among the eight towns. Figure 4 below displays Harvard's tax rate in relation to the median value of the eight towns, which shows that Harvard typically has a lower tax rate than its neighboring towns.

⁵ Source: Mass. DOR, Municipal Databank Reports, Average Single Family Tax Bill, 2016.

Figure 4
Tax Rates: Harvard v. Median



Source: Mass. Department of Revenue

Trends in New Construction

New construction since 2004 has consisted largely of detached single-family homes on large lots. Table 15 below shows the trends in building permits for new dwellings. The Zoning Bylaw's alternative residential development provisions, mini-subdivisions, accessory apartments, and Open Space and Conservation – Planned Residential Development (OSC-PRD) provisions are rarely used. The OSC-PRD (cluster) provision has been used just once, in 2004, for approval of a four-unit condominium project off Lancaster County Road. In the fall of 2016, the Planning Board was working with MRPC to make wholesale changes to this section to remove obstacles that have discouraged its use.

In general, the pace of new housing construction is quite slow, and typically the number of new single family homes is fewer than 10 per year. The 12-year average from Table 15, including multi-family and condominium units is 13 per year. If one removes the anomaly of the 42 multi-family units in 2011, the average is about 10 new dwelling units per year. (The 42-unit project is the Bowers Brook senior apartments on Ayer Road near the Route 2 interchange. This project met a strong demand for rental units among seniors, and vacancies are typically of short duration.)

Table 16
New Dwelling Units, 2004 - 2015

Year	Single Family Homes	Condos	Multi-Family	Accessory Apartments	Total
2015	5	0	0	0	5
2014	5	4	0	1	10
2013	3	0	0	1	4
2012	8	0	0	0	8
2011	6	0	42	1	48
2010	5	6	0	0	11
2009	5	3	0	0	8
2008	3	4	0	0	7
2007	10	8	0	0	18
2006	5	8	0	0	13
2005	10	0	0	0	10
2004	12	0	0	1	13
Total	77	33	42	4	156
Avg.	6.4	2.8	3.5	0.3	13.0 ⁶

Source: Harvard Building Department

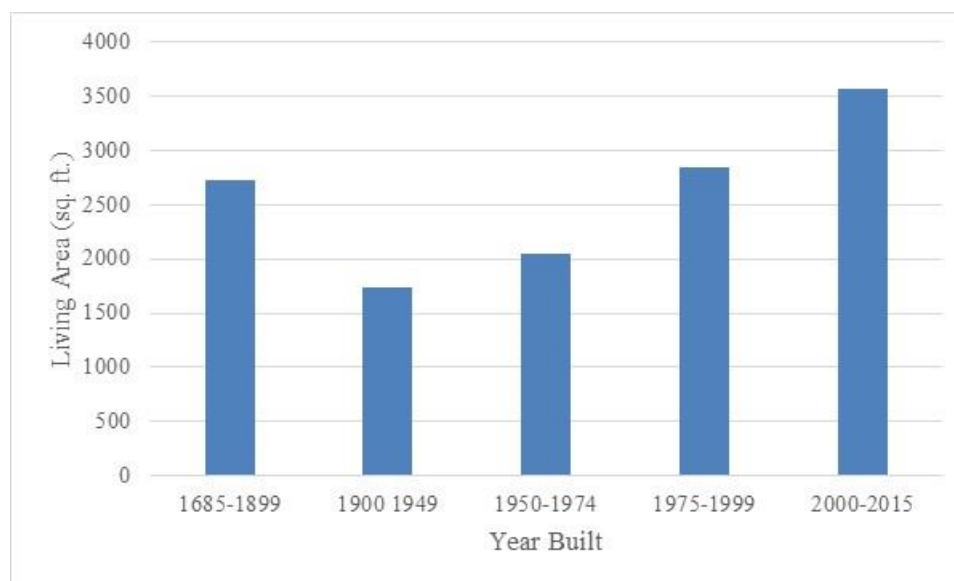
Some of the new single family homes have been on backland or hammerhead lots (4.5 acre minimum lot size) and Approval Not Required (ANR) frontage lots that exceed the 1.5-acre minimum. Analysis of Assessors' data reveals that the 136 single family homes built from 2000 forward occupy an average of 4.2 acres per home, well above the basic lot minimum of 1.5 acres. (The median lot size is 2.69 ac. per home.) The combined lot area of these 136 new homes resulted in the conversion of 568 acres of open space to private residential use. Clearly single family home development in Harvard is very land intensive. If present trends continue, at build-out most of the privately-owned land will be carved into a relatively small number of large lots, which will provide privacy and quietude for those that can afford the price.

Furthermore, most development has been targeted to the high end of the home buying market. The median size of single family homes built from 2000 forward contains 3,560 gross square feet of floor area. It is apparent that the housing market responds to the demands of an affluent clientele who are able to afford large homes on large lots. It is interesting to note how home sizes in Harvard have increased

⁶ In 2011, the 42-unit Bowers Brook apartments for senior came on-line. This is an anomaly and skews the average. Excluding this project, the annual average number of new units is 9.6 per year.

over time. Homes built from 2000 – 2015 are over 1,500 sq. ft. larger than their predecessors from 1950 – 1974, representing an increase of 73%.

Figure 5
Living Area of Single Family Homes



Source: Harvard Assessors' Data, 2016

As noted previously, Harvard's homes are much larger than the state norm. 52% of Harvard dwelling units have four or more bedrooms, while just 20% of the units statewide have four or more bedrooms. Similarly, the median number of rooms for a dwelling in Harvard is 8, while across the State it is 5½. Eventually, families that purchase large homes become over-housed and have more space than they need or desire. In Harvard, many seniors are now looking for smaller units to remain in town close to friends, but the inventory of small, older homes is shrinking due to conversions.

Some exceptions to large lot single family homes do occur from time to time that offer housing alternatives. These include the 24 one-bedroom units for seniors at Foxglove Apartments, the 32 two and three-bedroom units at Harvard Green Condominiums, the 52 two and three-bedroom units under construction at Trail Ridge and the 12 condominiums at Harvard Commons. These locally supported initiatives, each requiring comprehensive permits, provided dwelling units of more modest size and enable residents in large single family homes to downsize to smaller units with greatly reduced maintenance responsibilities.

Rents and Home Prices

Figure 5 displays the assessed values of the 1,764 single family homes as valued by the Board of Assessors for FY 2016. The data displays the total assessed value of parcels, including land and improvements. Just 2% of the single family homes in Harvard have assessed values less than \$250,000; 85% of Harvard's homes are assessed between \$250,000 and \$750,000. Three percent of the parcels with single family homes have assessed values over \$1.0 million. The median figure is \$497,500.

Figure 6
Assessed Values of Single Family Homes, 2016

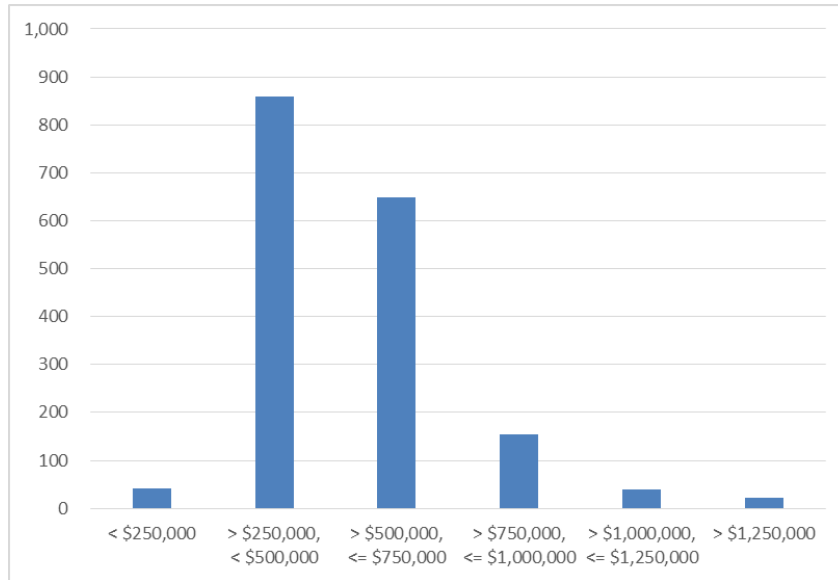


Table 17 below provides data on the median sales price of single family homes and condominiums for the calendar years 2013 – 2015.⁷ Single family homes show a slow upward trend, increasing by just 1% over the three-year period. Condominium prices show greater variation as values increased by 23% from 2013 to 2014, then declined by 13% from 2014 to 2015. Overall, condominiums showed a greater appreciation in value, rising 8% over the period. The median value of a condominium in Harvard is 70% that of a single family home. (Care should be taken with the condominium data as only about 10 units sold each year. In addition, it is unknown whether some of the condominium sales were affordable units with deed restrictions that limit the sale price to that which is affordable to low and moderate income households.)

Table 17
Median Sale Prices of Single Family Homes and Condominiums, 2013-2015

	2013		2014		2015		3 Year Median	
	\$	% Change	\$	% Change	\$	% Change	\$	% Change 2013-2015
Single Family	533,000	---	564,800	6%	537,500	-5%	540,000	1%
Condo	360,000	---	445,000	23%	389,000	-13%	380,000	8%

The rental data from the American Community Survey is interesting. In 2014, 157 households paid rent. Over half of the households paid more than \$1,500 in monthly rent and the median rent was \$1,522 per month. 18% of the renters paid between \$1,000 and \$1,499 per month for rent, and 23% paid between \$300 and \$499 per month. Furthermore, 59% of the renter households paid more than 30% of their

⁷ Source: Harvard Assessors LA3 Reports. Data is for arm's length (valid) sales only.

income for rent. (Housing analysts general agree that when a low or moderate-income household pays more than 30% of its income for housing costs, it has difficulty affording other basic necessities.) A fortunate few, 25%, paid less than 15% of their household income on rent.

Table 18
Gross Rent

Gross Rent	Number of Units	Percent
Occupied units paying rent	157	100%
Less than \$200	0	0%
\$200 to \$299	0	0%
\$300 to \$499	36	23%
\$500 to \$749	0	0%
\$750 to \$999	10	6%
\$1,000 to \$1,499	29	18%
\$1,500 or more	82	52%
Median (dollars)	\$1,522	
Gross Rent as a Percentage of Household Income	Number of Units	Percent
Occupied units paying rent	157	100%
Less than 15.0 percent	40	25%
15.0 to 19.9 percent	0	0%
20.0 to 24.9 percent	9	6%
25.0 to 29.9 percent	14	9%
30.0 to 34.9 percent	21	13%
35.0 percent or more	73	46%
<i>Source: ACS, 2014</i>		

Housing Cost Burden

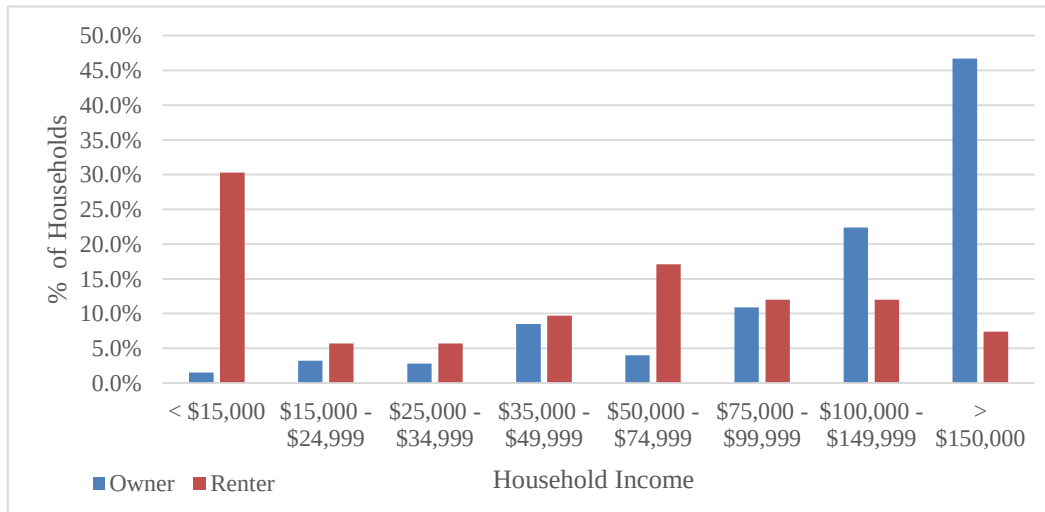
As noted above, a general rule of thumb is that a household should pay no more than 30% of its income for housing expenses. Cost burden is the ratio of housing costs to household income. A household that pays over 30% of its income on housing is said to be ‘housing cost burdened’ and if paying over 50% of household income, it is ‘severely housing cost burdened’. For owner housing, costs include principal, interest, insurance, association fees, and property taxes. For renter housing, costs include the contract rent plus utilities. Upper income households have greater flexibility to pay over 30% without hardship, but lower income households are at a severe disadvantage if housing costs occupy a disproportionate share of income.

Table 19 reveals the differences in household income for owner and renter units. About 68% of owner occupied households have income over \$100,000, while just 19% of renter households exceed that figure. Conversely, 30% of renter households have incomes less than \$15,000, while just 1.5% of owner households have such an income. The median household income in Harvard in 2014 was \$131,563. One might therefore expect that with about 50% of renter households earning less than \$50,000 per year, substantially below the median income, and with most rents in Harvard exceeding \$1,000 per month (Table 18, Gross Rent) that a substantial number of renter households would be cost burdened. The data below indeed reveals this to be the case.

Table 19
Household Income for Owner and Renter Households, 2014

Household Income in the Past 12 Months	Occupied Housing Units	Owner Occupied Units		Renter Occupied Units	
		Number	%	Number	%
Less than \$15,000	79	26	1.5%	53	30.3%
\$15,000 to \$24,999	66	56	3.2%	10	5.7%
\$25,000 to \$34,999	59	49	2.8%	10	5.7%
\$35,000 to \$49,999	165	148	8.5%	17	9.7%
\$50,000 to \$74,999	99	69	4.0%	30	17.1%
\$75,000 to \$99,999	210	189	10.9%	21	12.0%
\$100,000 to \$149,999	410	389	22.4%	21	12.0%
\$150,000 or more	824	811	46.7%	13	7.4%
Total	1911	1736	100%	175	100%
Median household income (dollars)	\$131,563				

Figure 7
Household Income of Owners and Renters



Households earning less than 80% of the Area Median Income (AMI) are eligible for housing assistance and may qualify for a subsidized ownership or rental unit. About 85% of Harvard's households earn over 80% of the AMI, compared to 67% for Worcester County and 64% for the State. With relatively high housing costs in Harvard, 100% of households earning less than 30% of the AMI are cost burdened. 71% of households earning between 30% and 50% of AMI are cost burdened, compared to 61% for the County and 67% for the state. And 74% of households earning between 50% and 80% of the AMI are cost burdened in Harvard, compared to 49% for both the County and the State. **In summary, for all cost burdened categories, a greater percentage of Harvard households are cost burdened than is true for Worcester County and Massachusetts.**

For owner housing, the discrepancies in cost burden with the County and State are not substantial. That is, 29% of ownership households are cost burdened in Harvard, and 29% and 31% of such households are cost burdened in the County and State, respectively. And roughly the same percentage of severely cost burdened households exists across all three geographies. **However, renter households in Harvard exhibit a significantly greater rate of cost burden than the County and State.** A very high 56% of all renter households in Harvard pay more than 30% of their income on gross rent, and 42% pay more than 50% of their income on rent. It is also interesting to note that 21% of elderly *family* households are cost burdened, **but 50% of elderly non-family households (largely single person households) are cost burdened.**

Table 20
Housing Cost Burden

	Harvard	Worcester County	Mass. (State)
% Households with income:			
< 30% AMI (Area Median Income)	6%	11%	11%
30 - 50% AMI	5%	10%	10%
50 - 80% AMI	5%	12%	11%
80 - 100% AMI	3%	10%	9%
> 100% AMI	82%	57%	55%
% of households that are cost burdened:			
< 30% AMI	100%	82%	81%
30 - 50% AMI	71%	61%	67%
50 - 80% AMI	74%	49%	49%
80 - 100% AMI	54%	36%	39%
> 100% AMI	14%	12%	14%
Severity			
% Owner occupied households that are cost burdened	29%	29%	31%
% Owner occupied households that are severely cost burdened	14%	11%	12%
% Renter occupied households that are cost burdened	56%	45%	47%
% Renter occupied households that are severely cost burdened	42%	21%	23%
Household Type			
% Elderly Family households that are cost burdened	21%	23%	25%
% Small Family households that are cost burdened	22%	26%	30%
% Large Family households that are cost burdened	35%	29%	31%
% Elderly Non-Family households that are cost burdened	50%	49%	48%
% Other households that are cost burdened	31%	40%	42%
<i>Source: Housing Data Profile, Metropolitan Area Planning Council, from ACS 2013</i>			

Affordability Gap

Affordability Gap is a measure that compares the number of housing units available to low and moderate income households that are affordable to such households within a study area. The units must be available for sale or lease that will require no more than 30% of a household's monthly income. Table 20 reveals that there is a gap of 107 housing units for households with incomes less than 50% of the AMI, but the gap narrows to just 5 units for households with incomes between 50% and 80% of the AMI. (A positive number indicates a shortage of units at that income level, a negative number a surplus.)

The gap is particularly acute for owner-occupied housing units, as there are 111 more households earning less than 50% of the AMI than there are affordable units available, and there is a shortage of 55 owner occupied units for households earning between 50% and 80% of the AMI. Combined, a gap of 166 owner-occupied units exists for households earning less than 80% of the AMI. A surprising, opposite result occurs for renter-occupied units. Harvard has a surplus of four units for households earning less than 50% of the AMI, and a surplus of 50 units for households with incomes between 50% and 80% of the AMI. Thus, based on the current demographics of the Town, there is a much greater need for affordable ownership units than affordable renter units.

Table 21
Affordability Gap in Harvard

Affordability Gap Criteria	# of Units
Affordability Gap for housing units with household income less than or equal to 50% of Area Median Income (AMI)	107
Affordability Gap for housing units with household income greater than 50% but less than or equal to 80% of AMI	5
Affordability Gap for owner-occupied housing units with household income less than or equal to 50% of AMI	111
Affordability Gap for owner-occupied housing units with household income greater than 50% but less than or equal to 80% of AMI	55
Affordability Gap for renter-occupied housing units with household income less than or equal to 50% of AMI	-4
Affordability Gap for renter-occupied housing units with household income greater than 50% but less than or equal to 80% of AMI	-50
<i>Source: Metropolitan Area Planning Council, from ACS 2013</i>	

Population Projections

The Metropolitan Area Planning Council (MAPC) prepared population and housing projections in 2014 for 164 communities in eastern and central Massachusetts for a long-range planning study, *MetroFuture: Making a Greater Boston Region*. MAPC prepared assumptions for two planning scenarios, ‘Status Quo,’ and ‘Stronger Region’. Given its current zoning preference for single family homes, Harvard seems to fit the Status Quo scenario, which is based on the continuation of existing trends of births, deaths, migration, and housing occupancy. The Stronger Region scenario incorporates emerging trends that could result in higher population and employment growth, although its effects are less pronounced in Harvard than elsewhere. Some of the assumptions of the Stronger Region scenario include:

- The region will attract and retain more people, especially young adults, than it does today;

- Younger householders (born after 1980) will be more inclined toward urban living than were their predecessors, and less likely to seek out single family homes; and
- An increasing share of senior-headed households will choose to downsize from single family homes to apartments or condominiums.

If these assumptions hold true, the effects on Harvard would be profound. Harvard has had difficulty attracting young adults, and the Town does not offer an urban life-style, which many young adults now find compelling. The increasing share of senior-headed households looking to downsize to apartments or condominiums is certainly true for Harvard.

Neither scenario projects significant growth for Harvard. Including Devens, under Status Quo Harvard's 2030 population declines by 52 people, while under Stronger Region, it gains just 39 people. Table 22 below shows the change in population between 2010 and 2030 by age cohorts. Of particular interest is the forecast of how Harvard's population will change. The population under age 20 will decline by 597, which will naturally have implications for the school system. While some may welcome the relief from expensive education costs, fewer children will affect the family-oriented culture of the Town. Conversely, the Town's 60 and over population will gain 342 people. Not only will growth of this cohort affect municipal services, especially those provided by the Council on Aging, but this growth will change the housing dynamic in Harvard.

With a much smaller population of children, demand for family housing will decrease, while demand for senior housing will increase significantly. The stock of single family homes should continue to attract non-Harvard residents who seek a small-town lifestyle, but the high cost may preclude children who grew up in Harvard from buying homes similar to those their parents purchased. Seniors typically seek smaller housing units with lower maintenance costs, and may look for assisted living facilities or senior-only apartments or condominiums. With Harvard's predominance of detached single family homes, the housing sector is ill-prepared to satisfy this housing alternative. If the assumptions of the demographers hold true, Harvard could align itself with the changing regional demographic forces needs by offering higher-density choices geared to the senior or young professional market.

The MAPC demographers project a substantial increase in the group quarter population, 269 people, from 2010 to 2030 under the Status Quo scenario. Most likely this would occur at the FMC at Devens. However, it is unclear if the demographers had knowledge of an expansion at the facility or if their statistical model just assumes an increase from past trends. It is also possible that Harvard could approve an alternate type of group quarter housing (e.g. nursing homes, group homes) before 2030, which could also result in an increase.

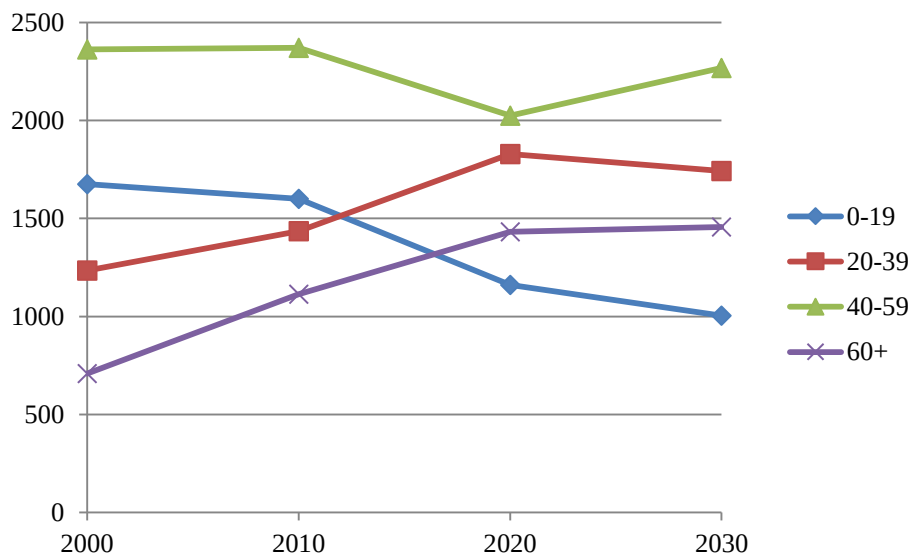
Interestingly, the Status Quo model shows a decrease in household population of 321 people by 2030. Thus, it is entirely possible that all age cohorts except the senior population will experience a decline. The loss in the general population (-321) is somewhat offset by the increase in group quarter population (269), resulting in the net change of -52 people by 2030.

The outlook for the Region tells quite a different story. The Stronger Region scenario results in a healthy population gain of 12.6% between 2010 and 2040. The population under 15 would still decline, but by just 4.6% from 2010 to 2040, compared to Harvard's 36.3%.

Table 22
Population Projections by Age to 2030⁸
Status Quo Scenario

Cohort	2000	2010	2020	2030	Change 2010 - 2030	% Change 2010 - 2030
0-19	1,675	1,600	1,162	1,003	-597	-37%
20-39	1,235	1,435	1,829	1,742	307	21%
40-59	2,362	2,371	2,024	2,267	-104	-4%
60+	709	1,114	1,432	1,456	342	31%
Total	5,981	6,520	6,446	6,468	-52	-1%

Figure 8
Projections by Age



Subsidized Housing Inventory

Most towns have some types of modestly priced housing, such as small, post-war single-family homes, multi-family units, or lakeside cottages converted for year-round occupancy. These units stay affordable as long as the market will allow. Under Chapter 40B, the state's affordable housing law, all communities are supposed to have housing that remains affordable to low-income households even when home values appreciate under robust market conditions. The units retain their affordability under a deed restriction that lasts for many years, if not in perpetuity. Both types of affordable housing meet a variety of needs. However, the market determines the price of unrestricted affordable units while a recorded legal instrument regulates the price of deed restricted units. Any household (regardless of income) may

⁸ Source: "Population and Housing Demand Projection for MetroBoston", MAPC, 2014. Figures include Devens.

purchase or rent an unrestricted unit, but only a low-income household may purchase or rent a deed restricted unit.

Chapter 40B allows qualified developers to apply to the Zoning Board of Appeals (ZBA) for a single comprehensive permit to build affordable housing. When less than 10% of a town's year-round housing stock is restricted for occupancy at prices lower-income households can afford, Chapter 40B all but requires approval of comprehensive permits for affordable or mixed-income housing developments. "Year-round housing" is the town's total number of housing units minus the number of seasonal or vacation units, as determined by the decennial census. The year-round housing total is the denominator in the formula to calculate a community's 40B percentage; as a town grows, the denominator also grows, and the 40B percentage decreases when the Census Bureau releases the decennial housing numbers.

A comprehensive permit is a type of unified permit: a single permit that replaces the approvals otherwise required from separate town permitting authorities and requires one single permit from the local Zoning Board of Appeals (ZBA). Under Chapter 40B, the ZBA may approve, conditionally approve, or deny a comprehensive permit, but in communities that do not meet the 10% statutory minimum, developers may appeal to the state Housing Appeals Committee (HAC). The HAC, in turn, may overturn the ZBA's decision.

The record of affordable units that count toward a community's 10 percent statutory minimum is the Subsidized Housing Inventory (SHI). Table 23 tabulates Harvard's current SHI and reveals that the Town is presently over halfway to the 10% goal. As of the January 2017, Harvard has 5.7% of its year-round units on the SHI. Compared to larger communities with extensive public water and sewer systems, most of Harvard's subsidized housing projects are modest in size. The lack of good, developable land restricts where public water supplies and shared septic systems can permit density greater than the 1.5-acre minimum lot size that is the standard for the entire Town. Some projects have successfully navigated the state and local water and wastewater approvals. For example Bowers Brook apartments, 42 units for seniors, has a public water supply permit from DEP and Board of Health approval of a shared septic system. Interestingly, this project did not proceed through a comprehensive permit. Rather, the applicant received an Ayer Road Village Special Permit (ARVSP) from the Planning Board. This zoning provision encourages mixed use development in the Commercial District on Ayer Road to help meet the Town's goals for housing, and especially affordable housing. Higher density development is more suitable here than in rural parts of Town due to the good transportation access and presence of near-by commercial services.

In 2004 the Montachusett Regional Planning Commission submitted a regional application for housing rehabilitation funds with the Towns of Lancaster, Lunenburg and Sterling. The Department of Housing and Community Development (DHCD) approved the project, and five units in Harvard received assistance. These units qualify for placement on the SHI and carry a 15-year deed restriction for affordability, which will expire in 2020. Unfortunately, a second application, which sought funding for a feasibility study to build senior housing on Town-owned land, was denied.

MassDevelopment, the lead agency for the redevelopment of the former Fort Devens, oversees all development including transitional, affordable and market-rate housing on Harvard lands within the Devens Regional Enterprise Zone (DREZ). The Devens Reuse Plan places a hard cap of 282 units of permanent housing in the DREZ, of which 241 will be located in Harvard, and 25% (60 units) are to be affordable. Former officers' quarters in the Walnut Street - Elm Road neighborhood were converted to

permanent housing in 2002. Harvard's share of the 102-unit homeownership development amounted to 77 units and 13 affordable units (17%) were added to the SHI in September 2003. With approval of the 124-unit Village Green development, about 25 units are left to develop under the cap.

In 2016, MassDevelopment reported 133 occupied housing units in Devens, of which 82 were in Harvard and 51 were in Ayer. 16% of the units in Harvard qualify for the SHI and 24% of the units in Ayer qualify; in total, 19% of all units are on the SHI. In addition, 14 units in Devens are devoted to Veterans Housing, which meets an important housing need even though such units do not appear on the SHI. Finally, Devens also hosts a transitional women's shelter, which meets an important social service need in the surrounding region, but these units are not eligible for inclusion on the SHI.

The Harvard Conservation Trust acquired and preserved the Harvard Inn and Great Elms as affordable housing. The Trust created four affordable units in the Inn in Harvard Center and five affordable units in the Great Elms on Stow Road. The Trust decided to exit the housing arena and the Inn went into foreclosure. The four units later became market-rate condominiums. The Great Elms contained four affordable units within the existing dwelling and one affordable unit in a cottage. With the pending foreclosure of the Great Elms, the Chelmsford Housing Authority, through its development entity, CHOICE⁹, purchased the property to create additional affordable housing. It proposed to redevelop the existing dwelling for two units, preserve the cottage, and add three duplexes for a total of nine affordable units. However, preservation of the existing structures proved uneconomical and CHOICE instead will build nine new affordable units on the site containing 12 bedrooms. It received a comprehensive permit in 2015 and construction commenced in 2016.

Trail Ridge is a 52-unit residential condominium complex located on a cul-de-sac, Trail Ridge Way, off of Littleton County Road near the Boxborough line. The original proposal submitted in 2002 consisted of 102 units, 34 of which would be affordable. In 2004, the Board of Appeals approved the comprehensive permit for 52 ownership units, reduced partly due to the presence of wetlands and endangered species habitat; 13 of the units (25%) will be affordable. The complex lies on a 40-acre tract and contains 2- and 4-unit structures; 24 units are for residents aged fifty-five and older, and 28 units are for families. Approval of the comprehensive permit also provided for a conservation restriction on 28 acres for wildlife habitat protection and promotion of other conservation values. As of 2016, twenty-eight units have been constructed.

The Foxglove elderly and handicapped apartments at 253 Ayer Road received a comprehensive permit in 1992 and opened in 1993. Units are rented to eligible households with an income up to 60% of the area median income. The project received funding from the USDA Farmers Home Administration and offers 24 apartments on 3.2 acres. The building size is 24,572 sq. ft. with access off a common driveway serving two other commercial uses. The project has an on-site well and septic system. Unlike current policy, which generally restricts use of the property for affordable housing in perpetuity, the restriction here has a 50-year term and will expire in 2042. The Town of Harvard has a right of first refusal to purchase the property at the price of a bona fide offer.

The Harvard Commons Condominiums at 15 Littleton Road contains 12 two-bedroom ownership units in four buildings on a parcel of 2.3 acres. The project received a comprehensive permit in 2007. 25% of the units (3 units) are set aside for households earning up to 80% of the area median income. The use

⁹ CJOICE: Chelmsford Housing Opportunities for Intergenerational and Community Endeavors

restriction for affordable housing lasts in perpetuity and affordable units may only be sold to households earning up to 80% of the AMI. The development receives its potable water from the Town Center system but has a private wastewater system.

Table 23
Subsidized Housing Inventory

Project Name	Address	Type	Restrictions	Number of SHI Units	Total Units in project
The Elms (1) (aka, Great Elms	105 Stow Road	Rental		9	5
Harvard Elderly / Foxglove Apts.	253 Ayer Road	Rental	Over age 62; or disabled of any age Expires 2042	24	24
Harvard Green	Lancaster County Road	Ownership	Approved as a LIP	8	32
Estates at Harvard Hills	Walnut Street and Elm Road (Devens)	Rental		13	n/a
Harvard Housing Rehab Program	Various Single Family Homes	Ownership		5	5
Trail Ridge (2)	Littleton County Road	Ownership	50 percent: age 55+	9	24
Harvard Commons Condominiums	15 Littleton Road	Ownership		3	12
Bowers Brook	196 Ayer Road	Rental	Age 55+ Approved as an ARVSP	42	42
Total SHI Units				113	
Year-Round Units				1,982	
% of SHI Units				5.7%	
(1) Great Elms and Harvard Inn were listed together on the DHCD inventory with a total of 9 units. The Harvard Inn sold for market-rate housing after foreclosure of the property in 2012, resulting in a loss of 4 units. Five units remained at Great Elms. In 2014, the Board of Appeals approved a comprehensive permit for 9 units at the site by the Chelmsford Housing Authority. Renamed The Elms, the new project will replace those lost at the Harvard Inn and Great Elms, for no net change. The Elms received a building permit in the fall of 2016, and the 9 units will remain on the SHI. (2) Trail Ridge is still under construction. At build out the project will consist of 52 units, 13 of which will be affordable. Of the 52 units, 24 will be restricted to persons 55 years or older and 28 units will be set aside for families. <i>Source: Harvard Planning Department, January 2017</i>					

Harvard Green received a comprehensive permit in 1997 for 32 single family (condominium) units under the Local Initiative Program (LIP). 25% of the ownership units, or 8 units, are affordable. The site contains 22 acres. The project has a public water supply permit from MassDEP and a private wastewater system. As an added benefit, the developer donated a 5.5-acre portion of the site to the Town, which became the Charles Waite Soccer Field, an integral component of the Town's recreational program.

Table 24 provides information on affordable housing projects that have a strong likelihood of completing construction before 2020. Pine Hill Village (Transformations) received a comprehensive permit in 2008, and could move forward to construction in the near term. Twenty-five percent of the 24 ownership units will be affordable. Craftsman Village is an 18-unit cottage-style development on Ayer Road for which MassHousing granted site approval in 2016. The ownership project will yield five affordable units. Trail Ridge has been under construction since its approval in 2005. Buildout slowed during the recession, but new permits indicate a resumption of construction of the remaining units; 7 new affordable units are in the pipeline. Finally, Village Green is under construction at Devens in 2016 and will yield 40 rental units on the SHI. As originally proposed, the project would not have qualified for the SHI, but a monetary payment by the MAHTF resulted in making ten of the 40 apartment units eligible for the SHI. (DHCD permits all rental units to be counted on the SHI if 25% of the units are affordable; for ownership projects, only the actual affordable units count.)

Based upon a 2010 Census count of 1,982 year-round housing units, the Chapter 40B goal that 10% of the year-round units be affordable establishes a target of 198 units on the SHI (until the 2020 federal census). This includes the housing units at Devens, both market-rate and affordable. Recent housing developments in Harvard, including affordable units for seniors, have strengthened the town's SHI. In addition, Harvard has a combination of rental and owner-occupied affordable units; 35 of the 110 SHI units are homeownership units and 65 are rental. Thus, Harvard today has a shortfall of 88 units. The gap will narrow with the addition of the approved projects noted above. However, the Town will also lose the five Housing Rehab Program units upon the expiration of their affordable housing restrictions in 2020. **If the projects in the pipeline come to fruition by 2020, Harvard will have over 8% of its year-round housing units on the SHI.**

With Devens approaching its residential build-out of 282 units, it is interesting to note progress in achieving the goal of making 25% of the units there affordable. As noted above, the Reuse Plan calls for 25% of the units to be affordable, which amounts to 60 units in Harvard. Harvard's interpretation is that such units should be affordable to households earning no more than 80% of the AMI, thereby 1) providing housing that is actually available to low and moderate-income households, and 2) helping the Town to make progress in meeting Chapter 40B's 10% goal. To date, 13 units in Devens meet the 80% standard, and with completion of Village Green, 10 new units will meet the standard, thus yielding 23 affordable units at completion of the development. Under DHCD's rules for counting units, 40 units at Village Green will qualify for the SHI, bringing the total SHI units at Devens (in Harvard) to 53.

Table 24
SHI Units in the Pipeline

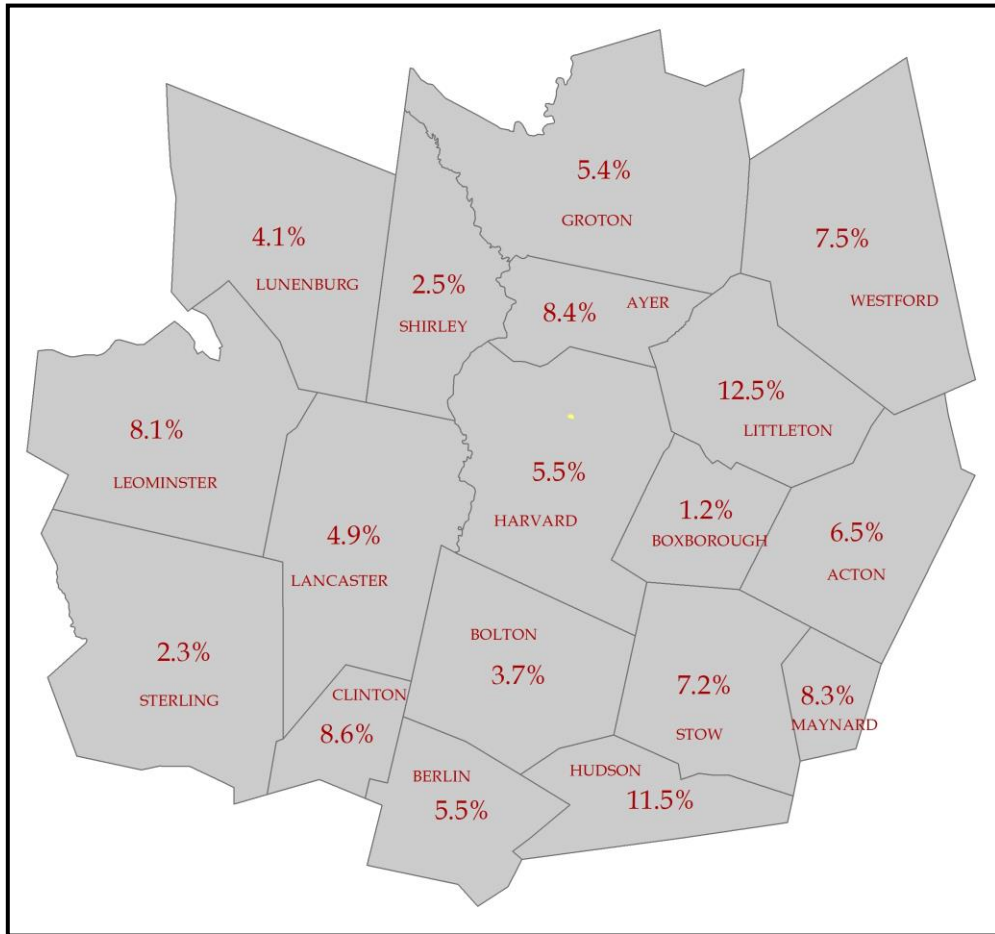
Project Name	Address	Type	Restrictions	Number of SHI Units	Total Units
Pine Hill Village	Stow Rd.	Ownership		6	24
Craftsman Village	361 Ayer Rd.	Ownership		5	18
Devens Village Green (1)	Grant Rd., Devens	Rental		40	124
Trail Ridge (see Table 22)	Littleton County Rd.	Ownership	50 percent: age 55+	4	28
Loss of HOR Units				-5	
Net of New SHI Units				50	198
Existing SHI Units				113	
Est. Total SHI Units				163	
Est. % of SHI Units in 2019 (3)				8.3%	
(1) Devens Village Green is a mixed income/mixed housing type development under construction in Devens in 2016. The Harvard Municipal Affordable Housing Trust Fund offered a contribution of \$140,000 to the developer to subsidize 8 units in two 20-unit apartment buildings to rents that will be affordable to households earning up to 80% of the AMI. As a rental project, all 40 units will qualify for placement on the SHI. (2) The above total assumes a no change between the loss of 9 units at the Harvard Inn/Great Elms and the 9 new units under construction at The Elms in 2016. (3) The SHI percentage will decrease when the new number of year-round housing units (the denominator in the equation) becomes available from the 2020 decennial census.					

Regional Supply of Affordable Housing

For purposes of this discussion, the “Region” includes Harvard and a ring two communities around Harvard, consisting of 18 communities. Map 3 displays the percentage of units for each community on the SHI.¹⁰ Only two communities have met their Chapter 40B 10% goal – Littleton’s SHI percentage is 12.5% and Hudson’s is 11.5%. Boxboro, Sterling, and Shirley have less than 3% of their units on the SHI. The Regional median is 6%; thus, Harvard falls just below the median of its neighboring communities. Leominster has the largest number of affordable units, 1,442, of all communities in the comparison area. The Region as a whole provides 6,195 affordable units or 7.3% of the total year-round housing stock. The regional shortfall is 2,295 units. This data supports the argument that there remains a significant demand within the Region for additional affordable units.

¹⁰ Source: “Subsidized Housing Inventory”, Mass. DHCD, December 2014

Map 3
Chapter 40B Status of Surrounding Towns, December 2014



Development Constraints

A. Environmental Constraints and Protected Open Space

While many communities along the I-495 Corridor have experienced a great deal of suburbanization in recent decades, Harvard has been able to retain its rural character through a combination of physical limitations for development, and conscious decisions to slow growth through zoning policies and open space acquisition. From an environmental perspective, development is difficult in Harvard. Map 4 shows environmental constraints for development and open space where development is prohibited.

Wetlands are prevalent throughout Town. In addition to restrictions imposed by the Wetlands Protection Act, the Town has enacted a higher level of protection, including a no-disturb zone within a 50-foot buffer zone of a wetland, and a no-structure zone within a 75-foot buffer of a wetland. The wetlands displayed on Map 4 are based on an aerial photo interpretation and provide a general sense of the extent of wetlands in Harvard. However, in most cases, on-the-ground wetlands surveys uncover a much greater extent of regulated wetlands than appear on the map.

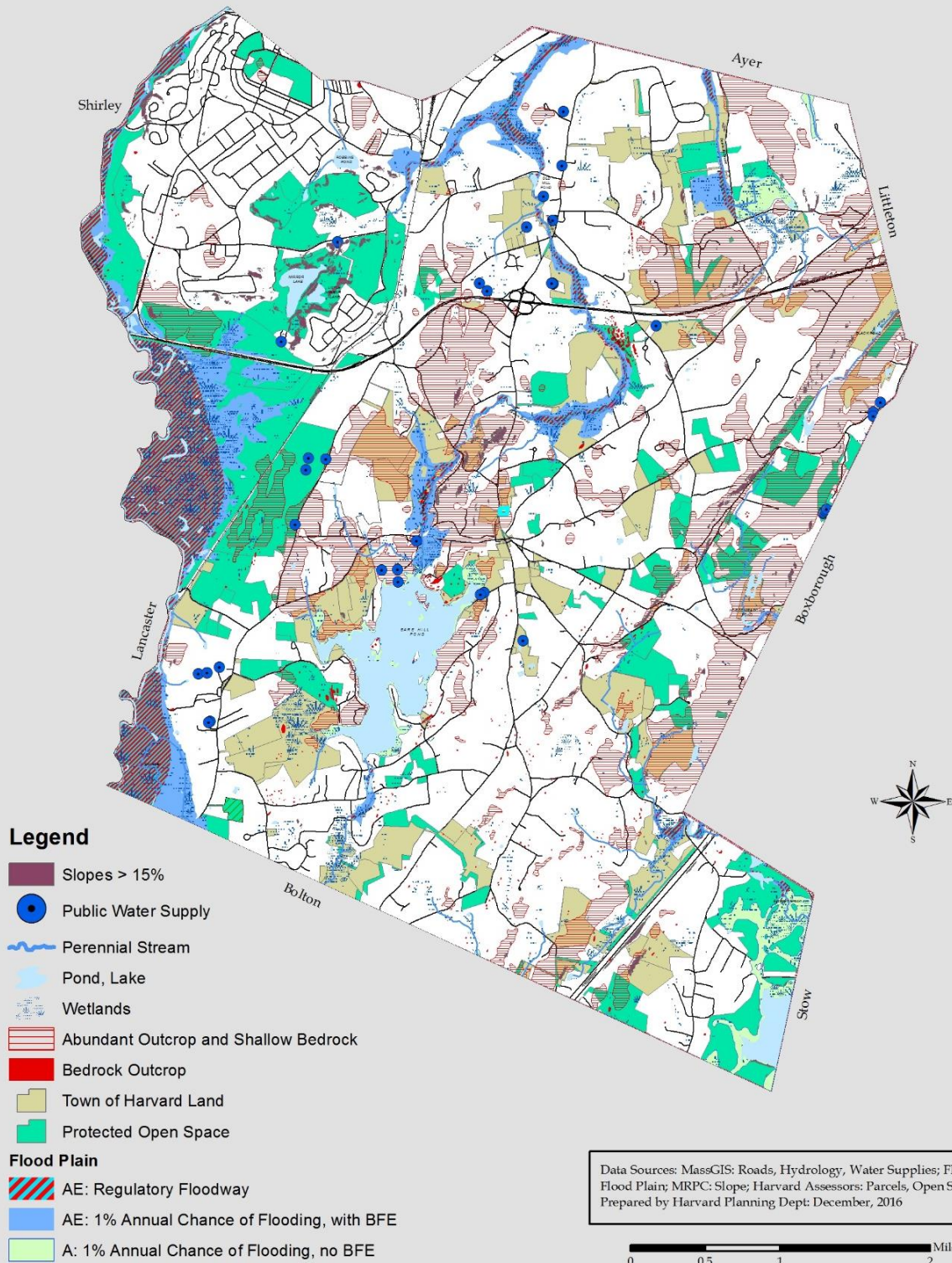
The Federal Emergency Management Agency (FEMA) completed a flood plain mapping project for Worcester County in 2014. Flood plain locations displayed on Map 4 are from this recent effort. Extensive flood plains occur along the Nashua River, which comprises much of the western border of the Town. To a large extent, most of this flood plain is in federal ownership and is part of the Oxbow National Wildlife Refuge. A second large flood plain occurs in the southeastern part of Harvard and is also immune from development by state ownership in the Delaney Wildlife Management Area, which the State purchased for flood control in the upper Assabet River watershed. Most of Harvard is actually headwaters to major river basins and, with the exception of the two sites described above, the Town does not have long expanses of flood plain that might cause extensive damage during flood events.

Harvard's soils are poorly suited for development. In fact, soils maps for the Town prepared by the Natural Resources Conservation Service denote that all soils in Town have severe limitations for septic systems. Ledge outcrops occur in many locations, and bedrock is usually not far from the surface. Map 4 shows the general locations where bedrock poses constraints for development, but again, actual site investigations may reveal that bedrock is more extensive than appears on the map.

The citizens of Harvard have a strong land conservation ethic. Many landowners have donated large parcels to the Town as a means of insuring their land remains undeveloped. In addition, when faced with a choice of allowing development to occur on a resource-laden property, the Harvard Conservation Trust will frequently join forces with the Town to purchase the property for conservation purposes. As of the 2016 Open Space and Recreation Plan, 29% of the Town is protected from development either through public ownership or by a voluntary conservation or agricultural preservation restriction.

Harvard, Massachusetts Development Constraints

Map 4



Map 5 displays land available for development in Harvard today, excluding Devens, based upon the Assessors' land use codes. The map shows vacant parcels that the Assessors have determined are developable or potentially developable and are over 5 acres in size. The map also displays properties under a tax abatement program for open space preservation that have a minimum of five acres. These include land in forestry (Chapter 61), agriculture (Chapter 61A), and recreation (Chapter 61B). By agreeing to manage their properties for these open space purposes, landowners enjoy reduced property taxes; however, protection is temporary as owners may remove the property at any time, pay back taxes as required by law, and sell the land for development. Finally, Map 5 shows parcels of 10 acres or more that already have a home for which there is no legal restriction on development of the land in excess of current zoning. With the high cost of land in eastern Massachusetts, there is a powerful inducement to sell off lots from larger parcels. Scenarios when this might occur include senior households who have difficulty making ends meet due to reduced income, or when a property turns over and the new owner seeks to recoup some of the cost of the purchase by selling off one or more lots. The Harvard Conservation Trust has used this technique on occasion to help finance acquisition of large parcels of open space.

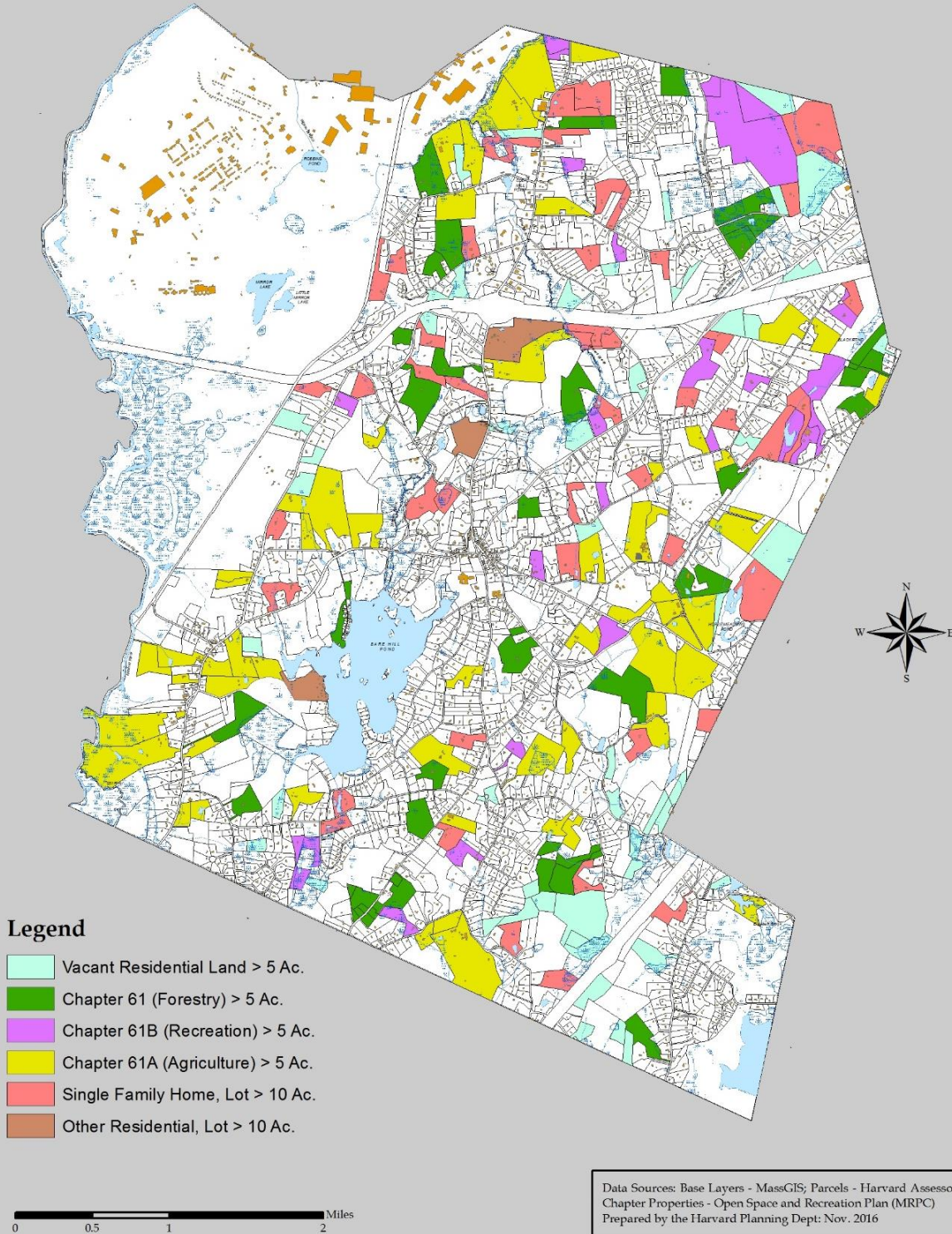
Table 24 indicates the acreage available in each of these categories, which sum to 4,950 acres. (However, this does not take into account the environmental constraints noted in the previous section.) As noted above, the average lot size of new single family homes built between 2000 and 2015 is 4.2 acres. Under a scenario that past trends would continue into the future, 4,950 acres could support an upper limit of 1,179 new single family homes. Of course, physical constraints, the requirement to provide 180 feet of frontage for a buildable lot, the Town's aggressive efforts to acquire open space, and Harvard property owners' land conservation ethic will make this amount of new development unlikely to occur.

Table 25
Land Available for Development

Land Use Category	Acres
Vacant Residential Land, Lot > 5 acres	650
Chapter 61, Forestry, Lot > 5 acres	1,189
Chapter 61A, Agriculture, Lot > 5 acres	381
Chapter 61B, Recreation, Lot > 5 acres	594
Single Family Home, Lot > 10 acres	1,839
Other Residential Use, Lot > 10 acres	296
Total	4,950

Land Available for Development

Map 5



B. Infrastructure Capacity

Harvard has limited public water and sewer systems, and as a result, most new development depends on obtaining sufficient well yields on the lot for the proposed use and finding soils that can comply with Title 5 standards for septic systems. Small municipal water and sewer systems serve only the Town Center. (See Map 6.). There are no high yield aquifers within Harvard proper to develop other water supplies, and the low density development pattern would make it very costly to develop new sewer systems elsewhere. (When the Army built Fort Devens in the early 20th century, it needed a productive aquifer and found one in Harvard's historical bounds; however, the cost of permitting and construction make it unlikely that Harvard will tap into the aquifer there.)

The Water Department provides drinking water to a small service area of about eighty properties within the Town Center. Water is pumped from two bedrock wells located east of Bare Hill Pond, both drilled to a depth of approximately 500 feet, and delivered to customers through a 13-mile network of recently upgraded water mains. A third well on Bolton Road is available for emergency backup, but it is rarely used, and activating it requires Mass. Department of Environmental Protection (MassDEP) approval. The Town pumps approximately 7 million gallons per year from the two wells combined. MassDEP considers both water supplies to be at moderate or high risk of contamination due to their proximity to underground fuel tanks, storage of hazardous materials, lawns, and septic systems. The public water system is regulated by an appointed Water and Sewer Commissions and operated by the DPW.

In 2015 Harvard began to investigate options for developing an additional water supply in the Town Center. The intent is to develop a new well that will be less susceptible to contamination from the area's concentrated development, including recreation fields, school sites, and residences. Previous searches revealed high levels of radon in the groundwater that would require expensive treatment to meet acceptable drinking water limits. The Town Center does not have an underlying sand and gravel aquifer, and a new source would most likely drill into bedrock. The Committee's charge is just for the Town Center, and does not include an analysis of developing water sources in other parts of Town.

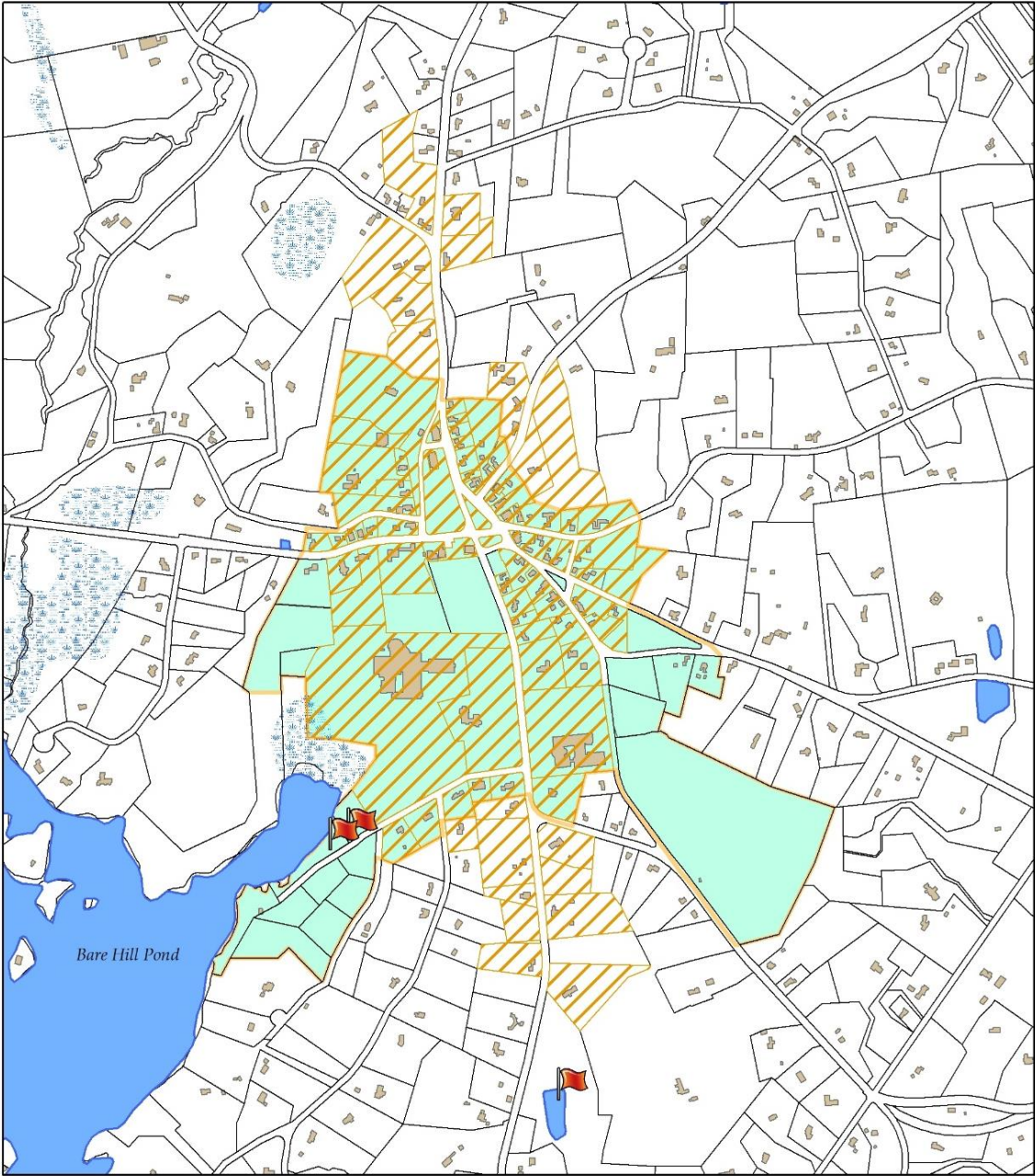
The Water and Sewer Commissions also oversees a new sewer district that Harvard established with approval from the state Legislature (Chapter 37, Acts of 2010). The sewer district falls in the same general area as the water district and includes portions of Ayer Road, Mass. Avenue, Elm Street, Pond Road, Still River Road, and Fairbank Street. Its service area is limited to 12 nonresidential properties, 43 multifamily dwelling units, 38 single-family homes, and 8 public buildings.

The primary purpose of the sewer district was to provide existing uses in the Town Center with reliable treatment and to remove failing septic systems that posed a threat to the municipal wells. Chapter 37 specifically restricts connections of a new use, a use that has been reconstructed resulting in a greater flow, or a facility that has undergone a change in use to the wastewater system, and prohibits an increase in the design flow of an existing facility unless it could have met Title 5 standards for a new septic system. However the Commission may make exceptions if a connection is necessary for the public health and safety or creates a demonstrable benefit to the Town. Practically speaking, the system will not allow a significant increase in residential density or promote new commercial growth.

The sewer system has an unused portion of its total capacity of approximately 3,000 gallons per day (gpd). The Commission has allocated that 3,000 gpd to development of a senior housing project adjacent to the Hildreth House, the Town's Senior Center, since it would provide a benefit to the Town by addressing an important housing need. In 2016 Town Meeting voted to establish a housing overlay

Town Center Water and Sewer Systems

Map 6



Legend

-  Municipal Well
-  Water System Lots
-  Sewer District
-  Parcels

0 500 1,000 2,000 Feet



district of about 7 acres in that location to allow the use to proceed. The capacity is sufficient to permit up to 20 units of senior housing. The Selectmen established a special ad hoc Committee in 2016, the Housing @ Hildreth House Committee (H@HHC), to shepherd the project along.

C. Municipal Facilities

Schools: Harvard has chosen to operate and manage its own public school system rather than become part of a regional school district. Town Meeting consistently appropriates more than its minimum contribution and with a strong emphasis on education, Harvard's school children are among the best prepared students in the State. According to the US News and World Report high school rankings, the Bromfield School placed 20th out 353 public high schools in the state. Because of the school system's consistently high performance, Harvard is attractive to families who desire a good public education for their children. This helps to maintain home values during economic recessions, although as shown in Figure 3, Harvard has one of the highest single family tax bills among surrounding towns.

In January 2016, Harvard was accepted into the Massachusetts School Building Authority (MBSA) grant approval process for renovation of the Hildreth Elementary School. The kindergarten wing, built in the 1950's, is now in need of a major redevelopment. Additional upgrades to the main building, built in the 1980's will also be considered to bring the entire building up to code and ADA compliance. The Town will assume a large debt to help pay for the school project, and the property tax increase may have a dampening effect on home values, or at least affect some families who could no longer afford to live in Harvard.

Harvard's school population peaked in 2006 when total enrollment reached 1,307 students (549 at the Elementary School and 758 at the Bromfield School). This population exceeded recommended size limits, which are 488 at the Elementary School and up to 740 at Bromfield. With smaller household size and graying of the population, K-12 enrollments declined. Between 2006 and 2015, school population decreased by 174 students. Over the summer of 2015 the schools experienced a sharp upswing in the number of families moving into Harvard with school-aged children (perhaps filling the homes of seniors who had been waiting for an improved real-estate market). The Village Green housing development (124 units) on Grant Road in Devens is also expected to bring in an additional 60-80 students over the next few years, prompting some to believe that the decline in enrollment may be reversing. These trends will be taken into account when designing the new Elementary School.

Other Capital Needs: Harvard is facing a variety of other building and infrastructure needs over the next 10 years, including:

- Building a new Fire Station
- Implementing Phase 2 of the Senior Center renovation
- Implementing road and pedestrian improvements in the Town Center, particularly with respect to enhance child safety when walking to school
- Renovations to Bromfield House, currently the home of the School Administration
- Upgrading the Hapgood Library with accessibility improvements
- Improving Ayer Road in the Town's Commercial District

D. Zoning for Housing

Harvard's zoning regulations are primarily intended to preserve its rural-residential character by stipulating a 1.5-acre minimum lot size throughout Town. Lacking developed public water and sewer services, Harvard has managed to retain numerous farms dotting the countryside, and it has one of the highest amounts of protected open space in the state. These policies make it difficult to promote moderate-cost, market-rate housing. In general, Harvard's zoning policies encourage large single family homes for families on large lots throughout most of the Town, and the Bylaw offers few avenues to construct alternative housing types needed by other segments of the community.

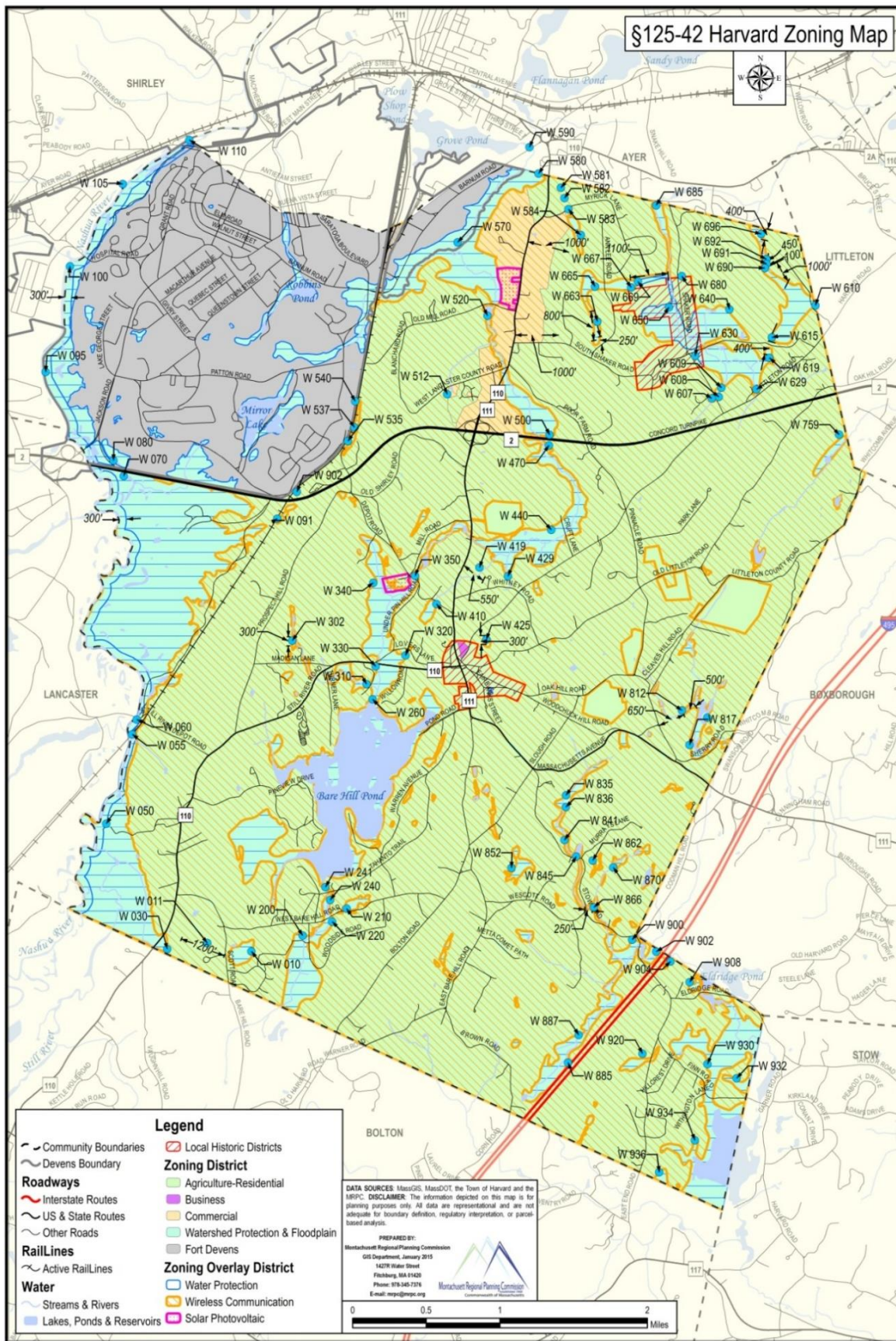
Town Meeting adopted Harvard's first zoning bylaw in 1951 with one district defined for the entire town, which was a common practice in rural areas. Separate use districts followed in 1965, including Agricultural/Residential (AR), Business (B), Commercial (C), and Industrial (I). Like many environmentally conscious towns, Harvard established a Watershed Protection (W) District in 1968, a few years before the State passed the Wetlands Protection Act (WPA). In 1972, the Town adopted commercial use regulations and abolished the industrial zone. Nearly all of Harvard's developable land is in the AR district, with the C District accounting for about 2.3% of the Town. A noteworthy feature of Harvard's zoning is that in 1970 the Town established regulations for a Multiple Residence (MR) District, but no land has ever been placed in the district. The only practical ways to develop multi-family housing in Harvard are with a Chapter 40B comprehensive permit and in a mixed use development approved with an Ayer Road Village Special Permit. Map 7 shows the existing zoning districts in Harvard today.

Table 26
Zoning Districts by Area

District	Acres	Percent
Agricultural Residential	11,753	77.9%
Business	3	.02%
Commercial	346	2.3%
Multiple Residence	0	0%
Watershed Protection and Floodplain	2,985	19.8%
Acres subject to Harvard Zoning	15,088	100%
Acres of Devens in Harvard	2,275	
Source: MRPC, Harvard Zoning Coverage, 2015		

Resuming jurisdiction of Devens would cause a considerable change in Harvard's zoning scheme by increasing the percentage of land available to commercial uses. A combined Harvard and Devens Zoning Map would have approximately 70% residential, 18% open space (including Harvard's W district and Devens Open Space District), and 11% non-residential. This would create a more balanced residential-commercial-industrial zoning mix and would provide some relief for homeowners as residential property today makes up 95% of the Town's total assessed value¹¹.

¹¹ Harvard Master Plan, 2016, page 70.



Harvard has four overlay districts, which impose different procedures, opportunities, or requirements on the underlying land. Three are non-housing related: the Watershed Protection and Flood Hazard (WFH) District (a subset of the W District), the Large Scale Ground Mounted Solar Photovoltaic Facilities Overlay District, and the Wireless Communications Towers Overlay District. In 2016 the Town adopted a fourth overlay district, the Hildreth Housing Overlay District, to allow a senior housing development on Town-owned land adjacent to the Hildreth House, the Town's senior center. Additional details on this effort follow later in this report.

Harvard allows the following residential land uses by right or by special permit:

- **Residential Uses.** These include a limited range of building types: by-right single-family homes only; and by special permit - accessory apartments (in a residence or an accessory structure) and cluster developments (that may include multiple-unit structures of up to six attached units each). Detached single-family dwellings are allowed in all three districts (AR, B and C), though restricted in the C District to parcels that existed in 1972. Cluster developments (aka Open Space and Conservation – Planned Residential Developments (OSC-PRD)) are permitted in the AR and B districts. Since 2004, multi-family buildings have been allowed as part of an Ayer Road Village Special Permit, a provision that requires a special permit and applies only to property in the Commercial District that has 300 feet of frontage on Ayer Road.
- **Backland Lots and Mini-Subdivisions:** In an effort to avoid land-altering, suburban-style subdivisions, the Zoning Bylaw allows for alternative lot configurations. Backland and hammerhead lots (by special permit) for single family homes require a minimum lot size of 4.5 acres and just 50 feet of frontage. This helps to preserve road-side character through the development of long driveways to reach buildable land away from well-traveled roads. Common driveways (which may serve up to 4 lots) also require a special permit but help to preserve rural character by eliminating the need for new subdivision roads and allow access ways to be built to less rigorous standards. Mini-subdivisions also help to avoid large conventional subdivisions. Lots must be at least 3 acres and have 180' of frontage. Mini-subdivisions require a special permit from the Planning Board, but if the roads remain private, they too may be built to less strict standards.
- **Agricultural Uses.** Like most towns, Harvard regulates farming by parcel size. State law provides an exemption from local zoning for commercial agriculture on parcels of five or more acres of land in areas not zoned for agriculture, including an accessory farm stand, and Harvard's zoning mimics the statute. Agriculture on smaller tracts (less than five acres), known as "home agriculture," has to comply with modest performance standards. Examples of home agriculture include renting out horse stalls, selling home-grown produce, and "you-pick" harvesting of crops. The Bylaw does not contain the recent amendment to the Zoning Act, and may be in conflict with the amendment, which provides an additional exemption to parcels of two acres or more in areas not zoned for agriculture if the sale of agricultural products annually generates at least \$1,000 per acre based on gross sales dollars. Since nearly 78% of Harvard is zoned for agriculture (AR), farmers have wide latitude to operate here.
- **Mixed Uses.** Harvard's zoning does not specifically allow mixed-use buildings (e.g. first floor commercial space and upper-story residential space) except through an Ayer Road Village Special Permit, which is available under limited circumstances in the C district. Still, most farm properties

have mixed uses, such as a farmer's residence and commercial agriculture, and home occupations are conducted throughout the Town.

- **Ayer Road Village Special Permit (ARV-SP):** As its name implies, the intent of this provision is to encourage a mix of residential and commercial uses in the C-District to create village-like settings. It offers density incentives and relaxation of dimensional standards to encourage applications, and it is one of the few instances where multi-family developments are allowed. The Planning Board approved one ARV-SP that resulted in a medical building and the 42-unit Bowers Brook senior apartment building at 200 Ayer Road north the Route 2 interchange. In 2016, Town Meeting authorized assisted living facilities as permissible uses within an ARV-SP development.

Harvard has adopted an unusual approach to regulating the amount of development that can occur across town. With minor exceptions, the same lot area, frontage, and intensity of use regulations apply globally to the AR, B, C, and W districts. In addition to minimum lot area and maximum floor area ratio (FAR) requirements, Harvard regulates lot coverage, shape, and dimensions, e.g., frontage, minimum lot width, along with front, side and rear setbacks, building height, and driveway access. The Ayer Road Village Special Permit, planned residential development (cluster) bylaw, and comprehensive permits enable more creative or sensitive site designs because they provide for waivers from these requirements.

- **Intensity of Development.** Standards such as maximum FAR, maximum lot coverage, and minimum lot area per dwelling unit yield a low density development pattern in a way that preserves rural character but sets the stage for high land values. Harvard limits the amount of development on a lot by imposing a maximum FAR of 0.10 or 8,000 sq. ft. of floor space, whichever is larger. FAR controls the amount of built floor space (including all levels) that can be built based on the area of the lot. In order to construct a 10,000 sq. ft. commercial building in Harvard, for example, a developer would need a lot with at least 100,000 sq. ft. of land ($100,000 \times 0.10 \text{ FAR} = 10,000$).
- **Average Lot Size.** In Harvard today, the average residential lot size is 3.59 acres per single family home.¹² The average FAR of a single family home is 0.03, and just 3% of single family homes exceed the maximum FAR of 0.10. The average living area of a single family home is 2,630 sq. ft., and that of a condominium, 1,730 sq. ft. Moreover, as a direct reflection of zoning, 243 single family lots (14%) are sized near the regulatory minimum of 1.5 acres.¹³
- **Building Height.** The maximum building height for all buildings (except churches) is less than 35 feet and three stories. In areas where more intensive development could occur, such as the C District and perhaps the Town Center, the regulation of building height to protect town character is crucial.
- **Cluster Housing.** Harvard's Open Space and Conservation-Planned Residential Development (OSC-PRD) special permit provision seeks to minimize residential land consumption and protect open space. It provides building area bonuses and relaxed dimensional requirements on parcels of at least 4.5 acres. The OSC-PRD provides a series of incentives for increased density, up to 25 percent additional units overall, in exchange for large, contiguous areas of open space, small (not more than two bedrooms) housing units, senior housing, or low- or moderate-income units. Though adopted 10 years ago, OSC-PRD has produced just one development in Harvard. The benefits of

¹² Calculated from the Harvard Assessing Database, 2016

¹³ Ibid. Number of single family lots that are between 1.45 and 1.55 acres.

shorter roads and less site disturbance may not compensate for Harvard's high site construction costs. In 2016, the Planning Board enlisted the services of the MRPC to revise the OSC-PRD section to increase its utility as an open space preservation tool and as a means to promote housing units more attuned to the needs of the community.

Housing Needs Identified in Citizen Surveys¹⁴

In 2014, the Master Plan Steering Committee developed a citizen survey to assess residents' sentiments on important topics affecting Harvard's growth and preservation over the next 10 years. Understanding citizens' desires is an important element of the planning process, and surveys help to place in perspective the perceived merits of various choices.

The Phase 2 Master Plan survey in 2014 contained six demographic/identification questions and 51 public policy questions. Presented below is a summary of key findings on the topic of Housing. The tabulation of responses is in [Appendix 1](#), including a brief synopsis of the results for each question.

Harvard's housing stock consists principally of single family dwellings on large lots, and many respondents see a need to diversify the housing stock. In particular, respondents believe there is a need for housing that would allow older homeowners to move to a smaller unit and remain near-by even if it means increasing density in some locations. A high percentage of respondents believe that ethnic, generational, and economic diversity are important for the health and vitality of Harvard. Respondents feel that the Commercial District (C District) is an appropriate location for mixed use development (locations that provide a mix of residential and commercial uses), but they were divided on whether or not the C District is an appropriate location for affordable housing. A majority of respondents believe that Harvard needs more affordable housing, but not special needs housing. Respondents believe that Devens provides opportunities to broaden the housing mix for the Town.

Phase 1 of the Master Plan, completed in 2012, is the Vision and Goals element of the Plan. The intent of Phase I was to create a shared Community Vision and to develop supporting goals through a public outreach process. The visioning work included a citizen survey centered on five important Focus Areas: Conservation, Housing, the Commercial District, the Town Center, and Devens. The results of the Housing questions are also in [Appendix 1](#). The following paragraphs are excerpts of the analysis.

“Providing more housing for persons over 55 and small single family homes was supported by the majority of respondents in the age 46 and up groups. Provision of affordable housing was more important to those over 55 and the least important to those between 26 and 45.

The majority of respondents in all income categories supported more housing for persons over 55. Adding affordable housing was supported by the majority of those in the \$50K to \$100K income categories and was least supported by those earning more than \$150K.

Those who indicated the Town needed more affordable housing were most favorable of housing for persons over 55 (71%) as well as for small single family homes (64%) and assisted living (63%). Those who supported creation of more large single-family homes did not generally support creation of more rental units, multi-family dwellings, or accessory apartments.”

¹⁴ Harvard Master Plan, Phase 1, 2012 and Phase 2, 2016, available on the Town web site.

Summary of Housing Assessment

The preceding sections presented a discussion of population and housing trends, physical constraints for development, infrastructure capacity (or lack thereof), adopted zoning policy affecting housing production, and the Town's current status of meeting its affordable housing obligation. It may be helpful at this point to provide a summary of the information presented thus far to help put into perspective the various forces affecting the Town's ability to grow its housing stock.

Population

1. The outlook for population growth in Harvard is stagnant. Under MAPC's Status Quo assumptions, Harvard may lose 52 people by 2030. However, the makeup of the Town's population will undergo a significant shift.
2. The population is growing older. The median age in Harvard, including Devens, is 45.3 years, compared to 39.3 years statewide. MAPC demographers predict that the population under age 20 will decline by 597 people and the Town's 60 and over population will gain 342 people.
3. The buildout of the housing cap at Devens (124 units at Village Green started in 2016) may create a growth spurt in the near-term and have an impact on Harvard's school enrollment.
4. With a projected decline in the school-age population over the long-term, Harvard will not need to worry about expanding classroom space to accommodate an influx of new children into the school system.
5. With a 282-unit housing cap at Devens, the Town will not experience a significant population increase once Devens achieves housing buildout, probably by the end of the decade.
6. Harvard remains a predominantly family household community with a rate of about 80% of all households. In comparison, about 63 percent of households in the State are families.
7. In 2014, 334 people, or 6.3% of the non-institutionalized population, has some type of disability. About 15% of the senior population has a disability, with the largest category of seniors having difficulty with independent living. With a growing senior population, the number of residents with a disability is likely to grow as well. New housing targeted to seniors should provide design features to assist those having difficulty living independently.

Housing Supply

1. Harvard is predominantly a community of detached single family homes. However, the market has begun to respond to changing demographics by offering alternative housing types.
2. Harvard has few rental units, just 9.2% of all units in 2014. 90.8% of the housing stock consists of owner-occupied units, and the percentage increased from 85% in 1980.
3. The relative lack of rental units limits the ability of those with modest means to live in Harvard.
4. Since zoning allows few alternative housing types, developers have resorted to the comprehensive permit process to over-ride local zoning. One exception is the 42-unit Bowers Brook apartment building, which took advantage of the Ayer Road Village Special Permit provision.

5. Harvard has few multiple-unit dwellings. There are 25 two and three family dwellings and four dwellings with four or more units. About 95% of the units in Harvard are single family detached or attached.
6. Some diversity of housing type has taken place with the development of several condominium projects, including Harvard Green, Trail Ridge, and the Harvard Inn. Projects built with comprehensive permits do provide a lower entry fee into the housing market for those that earn less than 80% of the AMI.
7. Homes in Harvard are larger than the state norm. The median number of rooms per unit in Harvard is 8.0 compared to 5.5 statewide; and 52% of the units in Harvard have four or more bedrooms compared to 20% statewide. As grown children have moved away from Harvard, many older homeowners now find they have more space than they require or desire to maintain. There is an inadequate supply of smaller homes to accommodate those who might wish to down-size and continue to live in Harvard.
8. As a desirable residential location, many of the original cottages surrounding Bare Hill Pond have been expanded or replaced with much larger single family homes, and few vacant lots remain for development. While the character of the housing has changed, these conversions require replacement of older cesspools and non-complying septic systems with modern Title 5 systems; as a result, the water quality of the Pond has not degraded from this trend.
9. The pace of new housing construction has maintained a relatively even keel in recent years. The average number of units from 2004 to 2015 was 12.8 units per year, and for single family attached and detached units, the average was 9.6 units per year. This pace appears sustainable for the near term as vacant land converts to new houses.
10. Single family housing development is land intensive. As noted previously, the average lot size for all single family homes in Harvard is 3.59 acres. Between 2000 and 2015, the average lot size for a single family home was 4.18 acres, further continuing the trend to larger lot sizes. This pattern of development is counter to Town goals of preserving open space and increasing the supply of affordable housing.

Income

1. Harvard's median household income of \$131,563 in 2014 was double the County median of \$65,453, and the gap has widened in recent years.
2. Despite the relative affluence of Harvard's residents, about 9.0% of the population have incomes below poverty. In 2014, 209 persons under the age of 18, and 39 persons 65 years or older, met the definition of poverty. This is a strong indicator of the need for more subsidized rental housing in Harvard, as applicants in deed-restricted units pay 30% of their gross income toward rent.
3. There is a significant discrepancy in income between renters and homeowners. 68% of owner households have incomes greater than \$100,000 compared to 19% of renter households. Conversely, 30% of renter households have incomes under \$30,000, compared to 1.5% of owner-occupied households.

Housing Cost

1. The median sale value of single family homes (from the Assessors LA3 report) in 2015 was \$537,500. Values are relatively stable, showing a 1% increase from 2013.

2. The median rent in Harvard in 2014 was \$1,522 per month. 29% of renters paid less than \$1,000 per month. However, 59% of renter households paid more than 30% of their income on rent, the threshold, when exceeded, housing planners believe low and moderate-income households will have difficulty affording other basic necessities.
3. Households that pay over 30% of their income for housing expenses are said to be housing cost burdened, and if paying over 50% of their income, are severely housing cost burdened. A higher percentage of renter households are cost burdened than owners. 56% of renter households are cost burdened, and 42% are severely cost burdened; 29% of owner households are cost burdened, and 14% are severely cost burdened.
4. 50% of elderly non-family households (largely single person households) are cost burdened, while 21% of elderly family households are cost burdened.
5. There is a gap of 111 housing units for owner occupancy for households with incomes less than 50% of the AMI and a gap of 55 units for households with incomes between 50% and 80% of the AMI.

Supply of Affordable Housing

1. With a subsidized housing inventory of 5.7%, Harvard is over half-way to meeting the Chapter 40B obligation that each community should have 10% of its housing stock affordable to households earning less than 80% of the AMI.
2. Devens is helping the Town meet its 10% goal by providing units on the SHI. In addition, Devens will come close to, and may exceed, the goal of providing 25% of the units in the DREZ on the SHI.
3. If all of the affordable units proposed in projects in the development pipeline come to fruition, Harvard's SHI percentage will exceed 8% before the 2020 Census housing count becomes available.
4. There is a clear need for additional affordable units in the near-by region. In the 18 communities surrounding Harvard, 7.3% of the year-round housing stock is on the SHI, and the regional shortfall is 2,295 units.

Development Potential

1. As most residents realize, large swaths of the Town have physical constraints to development, including wetlands, flood plains, steep slope, and shallow bedrock. In addition, 29% of the Town is protected open space.
2. Analysis of Assessors' parcel data indicate privately-owned land without legal restrictions on development could support approximately 1,200 new single family homes if recent trends continue; however, physical constraints, lack of road frontage, and landowners preference for open space preservation will keep the ultimate buildout below this number.
3. The fact that Harvard lacks a productive aquifer has resulted in a low density development pattern. With only a small sewer system in the Town Center, it is becoming increasingly difficult to find land that can accommodate multiple unit projects.

Overview of Housing Needs

Senior Needs

1. The expansion of the senior population will alter the demand for housing in Harvard. Higher density projects will be necessary to meet the need, and seniors will prefer arrangements that reduce their property maintenance chores. Several condominium projects have already come to Harvard.
2. There will be a need for additional smaller housing units as empty nesters look to down-size into less floor space. Many current seniors will undoubtedly desire to continue to live in Harvard.
3. While many seniors will be able to live independently longer than their predecessors thanks to good nutrition, exercise, and advances in medicine, the data indicate that there is a need for units that can accommodate seniors who have difficulty living independently. Public and private housing projects should provide a variety of different housing types to meet the needs of seniors as their physical abilities decline over time.
4. The citizen surveys in both Phase 1 and Phase 2 of the Master Plan indicate that the respondents were very supportive of the need to provide additional housing options for residents over 55, including the need for units smaller than conventional single family homes. Respondents are willing to accept a higher density for senior housing than the 1.5-acre norm for single family homes. Current development patterns are land-consuming and higher density alternatives will meet housing needs with less loss of open space.
5. Town Meeting amended the Zoning Bylaw in 2016 to allow assisted living facilities in an Ayer Road Village Special Permit project. Such a use could meet a local need by allowing seniors with less serious medical conditions to live semi-independently.

Family Needs

1. The movement of seniors into alternative housing types will create turnover in the single family housing market. These homes will attract new family households, but the population will be lower than in previous generations due to changes in average household size.
2. Thus, the demand for new family housing units will remain low. It is likely that the pace of new single family home construction will be similar to the 12-year period from 2004 – 2015, about 10 units per year.
3. With a market predominated by homeownership (90.8% of all units) and expensive single family homes, Harvard lacks diversity in housing. Rental units would add choice to enable non-family households to live in Harvard.
4. Homes affordable to first-time homebuyers are rare in Harvard, which tends to exclude young families from living in Town. Condominiums offer an avenue to buy into the housing market and Harvard school system.
5. Not all families desire to live on a 1.5-acre lot or in a home with 3,560 sq. ft. of floor space (the median size of new homes built from 2000 to 2015). Modifying Harvard's cluster bylaw to encourage smaller-size family housing will help to preserve open space and lower housing costs.

Affordable Housing Needs

1. The Master Plan surveys indicate support for more affordable housing. Provision of affordable housing was more important to those over 55, and respondents felt the greatest need for affordable housing was for persons over 55.
2. With the proposed projects in the pipeline, Harvard could have about 8% of its housing stock included on the SHI. Except for a few senior units at Trail Ridge, most of the new units will not be age-restricted. With the increase in the senior population, there will be a need for more affordable units for seniors.
3. With about 9% of the population having incomes below poverty, many residents would qualify, and welcome, the addition of new subsidized units to lower their housing cost burden. These householders would not qualify for homeownership units and would prefer rental situations.
4. Also attesting to the need for more affordable rental housing is the high percentage of renter households that are cost-burdened (56%) and severely cost burdened (42%).

Section III: Housing Goals¹⁵

Harvard's Housing Goals, as stated in the Master Plan, are the result of an intensive public participation process that occurred during the visioning and goal setting phase of the Master Plan.

1. Increase the diversity of housing types in Harvard to meet the needs of a greater variety of households.
2. Ensure that new housing is harmonious in design with the character of the community.
3. Provide a greater variety of housing throughout Harvard.
4. Be proactive in meeting the state's affordable housing goals.

For purposes of this Housing Production Plan, Harvard will seek to implement the following affordable housing goals:

1. Increase the supply of affordable units for seniors, and encourage the production of small units at a modest price that will allow seniors to downsize from large single family homes. Ensure new units for seniors include universal design features that will allow residents to live independently.
2. Examine the Town's land assets to identify properties that may be suitable for affordable housing.
3. Support housing developments that will provide subsidized rental units for families and special needs persons at densities that do not negatively impact surrounding neighborhoods.
4. Work with affordable housing developers to incorporate design elements that fit with Harvard's rural character.
5. Increase the capacity of the Municipal Affordable Housing Trust to plan for and create affordable housing.
6. Increase affordable homeownership opportunities for first-time homebuyers, including households earning less than 80% of the AMI and households earning between 80% and 100% of AMI.

¹⁵ Harvard Master Plan, 2016, page 4

Section IV: Housing Production Program

Harvard will be proactive in the production of new affordable housing, using a combination of local resources and public-private partnerships. Harvard will work to achieve the creation of new units in order to reach the Chapter 40B goal of providing affordable housing units equal to at least 10% of its year-round housing stock. Attaining an increase of 0.5% affordable housing units annually will enable Harvard to reach this 10% goal in approximately 11 years. With a year round housing stock of 1,982 units (2010 U.S. Census), the 0.5% annual affordable housing production goal equals 10 units per year until the 2020 Census and 11 units per year in the following decade. Table 26 shows that consistently meeting the 0.5% target will enable the Town to reach the 10% goal in the year 2027.

**Table 27
Housing Production Program**

Year	Year-Round Units	0.5% Annual Goal	Net Affordable Units	Percentage of Affordable Units
2016 (Existing)	1,982	NA	110	5.5%
2017	1,982	10	120	6.1%
2018	1,982	10	130	6.6%
2019	1,982	10	140	7.1%
2020	2,282 ¹⁶	11	151	6.6%
2021	2,282	11	162	7.1%
2022	2,282	11	173	7.6%
2023	2,282	11	184	8.1%
2024	2,282	11	195	8.5%
2025	2,282	11	206	9.0%
2026	2,282	11	217	9.5%
2027	2,282	11	228	10.0%

Upon approval of this Housing Production Plan by DHCD, Harvard may gain protection from adverse comprehensive permit applications. Regulations for Housing Production Plans (760 CMR 56.03 [4]) state that once DHCD certifies that a community is in compliance with its annual housing production target it will be deemed to be making progress toward meeting its local affordable housing goals; as a consequence, the Zoning Board of Appeals (ZBA) will have the authority to deny adverse comprehensive permit applications on the grounds that such proposals are not consistent with local

¹⁶ This Table assumes 300 new units will be built in Harvard between 2010 and 2020. This includes existing permits as shown in Table 15, and from 2016 – 2019, the following units: 6 single family homes per year, Village Green in Devens (124 units), CHOICE (9 units), Craftsman Village (18 units), Trail Ridge (24 units) and the Hildreth House senior development (20 Units).

needs. Thus, by proactively promoting the development of new affordable units in accordance with the schedule, the ZBA will be able to deny excessively large or impactful projects that are harmful to the community. By producing affordable units at a rate of 0.5% in one year, the Town will gain protection from detrimental comprehensive permit projects for one year, and by producing affordable units at a rate of 1.0% in a year, the Town will gain protection for two years.

Table 28 forecasts that over this 11 year period, Harvard will produce 118 new affordable units. It is not likely, of course, that this production will occur in such a linear fashion. It is more likely that varying additions will result from new developments with affordable units that arise due to public and/or private actions. As shown above in Table 28, 58 qualifying affordable units are in the pipeline in various stages of development. Assuming construction of all of these units, the Town will require an additional 60 units on the SHI by 2027 to achieve the 10% goal. This can be achieved through a combination of the Town's own initiatives, use of zoning incentives (affordable accessory apartments and Open Space Design bonuses for affordable housing), payments by the Municipal Affordable Housing Trust to subsidize affordable units, and comprehensive permit developments by private parties.

Table 28
Planning Targets to Achieve 10% Affordable Housing

Projects in the Pipeline	SHI Units	Type
Pine Hill Village	6	Owner
Craftsman Village	5	Rental
Devens Village Green	40	Rental
Trail Ridge	7	Owner
<i>Subtotal</i>	<i>58</i>	
Sources of Additional Units		
Town-Sponsored Projects	6	Owner
Affordable Accessory Apartments	2	Rental
Open Space Design Developments	4	Owner
Other Devens Housing	6	Unknown
MAHT Subsidies	10	Unknown
Other Comprehensive Permits	32	Unknown
<i>Subtotal</i>	<i>60</i>	
Total	118	

Section V: Implementation Strategies

Assessing Progress since the 2011 Housing Production Plan

Identifying appropriate strategies targeted to addressing Harvard's housing needs is an important purpose of preparing this Housing Production Plan. This section of the Plan maps out the specific actions Harvard will pursue to achieve its housing goals and planned production targets.

DHCD's HPP Guidelines call for categorizing implementation strategies into five important themes: These are:

1. Identify zoning districts or geographic areas in which the municipality proposes to modify current regulations for the purposes of creating affordable housing developments to meet its production goals.
2. Identify specific sites for which the municipality will encourage the filing of comprehensive permit projects.
3. Identify characteristics of proposed residential or mixed-use developments that would be preferred by the municipality.
4. Identify municipally owned parcels for which the municipality commits to issue requests for proposals to develop affordable housing.
5. Participate in regional collaborations addressing housing development.

The previous HPP (2011) contained a number of important recommendations to further Harvard's housing agenda. Harvard successfully advanced some of these proposals, while others have remained on hold. When planning for the next five-year implementation period, it is helpful to document the work the Town has accomplished in order to identify the next steps the Town can realistically accomplish to broaden housing opportunities across a broad range of incomes and needs. Table 29 places the 2011 recommendations into the relevant HPP category and notes the progress that occurred over the past five years.

Table 29
Actions Taken on Recommendations of the 2011 – 2016 Housing Production Plan

Recommendation from the 2011 Plan	Actions Taken
<i>State Strategy 1: Identify zoning districts or geographic areas in which the municipality proposes to modify current regulations for the purposes of creating affordable housing developments to meet its production goals.</i>	
Pursue development of “new” residential zoning districts (Priority 2) ¹⁷ , The zoning would encourage diversified housing and include affordable and moderate rate units.	In 2016, Town Meeting adopted the Hildreth Housing Overlay District to accommodate an age-restricted development. The 2016 Master Plan recommended re-zoning land to the existing MR (Multiple Residence) district.
Amend the Zoning Bylaw section pertaining to the Conversion for Multiple Residence (Priority 1) i.e. remove the requirement for an additional 0.5 ac per unit beyond the first and remove other impediments to its use.	No action taken.
Amend the cluster bylaw (Priority 1)	In 2016, the Planning Board engaged the MRPC to revise the Open Space and Conservation - Planned Residential Development Bylaw. In the spring of 2017, the Planning Board was reviewing a proposed draft.
Allow development of nonconforming lots for affordable, two bedroom homes provided well and septic regulations are met. (Priority 2)	No action taken.
<i>State Strategy 2: Identify specific sites for which the municipality will encourage the filing of comprehensive permit projects.</i>	
Promote mixed-use development (Priority 2) (In 2004 Town Meeting adopted a mixed use village development option as part of an Ayer Road Village Special Permit in the Commercial district.)	In 2009, the Planning Board approved an Ayer Road Village Special Permit, which included a commercial building and the 42-unit Bowers Brook senior apartment building. The project has helped to meet an important need for senior rental units.
	The MAHTF studied two potential sites for development of an affordable housing project, which led to the purchase of the Poor Farm property.
<i>State Strategy 3: Identify characteristics of proposed residential or mixed-use developments that would be preferred by the municipality.</i>	
Develop Guidelines for LIP projects	The Planning Board adopted LIP Guidelines in 2008.

¹⁷ In the 2011 Plan, priority 1 actions would begin within 2 years and would involve concerted action; priority 2 actions would involve focused attention after year 2 and before the end of year 5.

Recommendation from the 2011 Plan	Actions Taken
	The Planning Board approved Harvard Green as a LIP project in 1997.
Promote mixed-use development (Priority 2)	The Planning Board adopted Commercial Design Guidelines for the Ayer Road Commercial District in 2016, including guidelines for mixed-use projects.
Amend the accessory apartment section of the Zoning Bylaw	No action taken.
<i>State Strategy 4: Identify municipally owned parcels for which the municipality commits to issue requests for proposals to develop affordable housing.</i>	
Make suitable public land available for affordable housing (Priority 2)	Town Meeting re-zoned land by the Hildreth House for a senior development. As currently envisioned, the project will help moderate-income seniors down-size from single family homes.
	The Municipal Affordable Housing Trust purchased the Poor Farm property in 2014 with the intent of developing an affordable housing project. The sole bidder for the project subsequently withdrew its proposal.
<i>State Strategy 5: Participate in regional collaborations addressing housing development.</i>	
Secure housing resources (technical and financial) (Priority 1)	The League of Women Voters held 5 housing forums in 2015-16 to spotlight local needs and opportunities. (Note: Harvard participated in a regional CDBG housing rehabilitation program with MRPC in 2005; five housing units received assistance.)
<i>Other actions recommended in the 2011 Plan that fall outside of the State strategies</i>	
Encourage the use of CPA funds to support affordable housing development by both private and public housing initiatives. (Priority 1)	The Town has allocated considerably more than the minimum requirement to use 10% of its CPA funds for affordable housing purposes.
MAHTF will continue to pursue opportunities for preservation and creation of affordable housing. (Priority 1)	In 2015, the MAHTF committed \$140,000 to the developer of Village Green in Devens to help make 10 units in the 40-unit apartment complex affordable to households earning less than 80% of the AMI.

Implementation Strategies for Housing Production, 2017 - 2021

During the current five-year planning horizon, Harvard will work on a variety of implementation strategies to expand housing diversity. The list below places actions within the framework of the State's five HPP categories, followed by other activities that do not fit neatly within the state Guidelines.

1. IDENTIFY ZONING DISTRICTS OR GEOGRAPHIC AREAS IN WHICH THE MUNICIPALITY PROPOSES TO MODIFY CURRENT REGULATIONS FOR THE PURPOSES OF CREATING AFFORDABLE HOUSING DEVELOPMENTS TO MEET ITS PRODUCTION GOALS

- A. Implement Standards and Map for the Multiple Residence District: The Zoning Bylaw contains a Multiple Residence (MR) district, but has neither designated a specific location for this use, nor does the Bylaw contain use and dimensional regulations and standards to govern development in accordance with community character and physical conditions. The Town will analyze the remaining available land and identify the most suitable locations for this use, and concurrently develop appropriate regulations to accommodate multiple residence use in the district.

Responsible Party: Planning Board, Town Planner

Priority: Two

Timeframe: Year 2: Analyze land base to identify sites to re-zone to MR. Year 3 or 4: Develop regulations and submit warrant article to Town Meeting.

- B. Revise OSC-PRD Bylaw: In 2016, the Planning Board applied to MRPC for District Local Technical Assistance (DLTA) to revise the current Open Space and Conservation – Planned Residential Development bylaw, §125-35 of the Zoning Bylaw. The intent of the Bylaw is laudable, i.e. to allow residential development in a compact manner to preserve open space, minimize site disturbance, and offer a density bonus for affordable housing; however, it has been seldom used due to rather cumbersome requirements and additional engineering costs. MRPC staff has provided the Planning Board with a working draft that seeks to streamline the approval process, uses a formula approach to determine density, and seeks to preserve 60% of the tract as open space. One innovative aspect of the draft is to promote creation of smaller housing units with fewer bedrooms in order to meet the needs previously discussed in this report. The Board will continue to work on the draft to remove obstacles perceived by the development community in order to address important housing needs as well as to help preserve open space and community character. In the spring of 2017, the Town will apply to the Conservation Assistance for Small Communities program to engage a planning team to conduct a financial analysis of the formulas and assess the overall feasibility of the Bylaw.

Responsible Party: Planning Board

Priority: One

Timeframe: Years 1 and 2: Continue to revise the working draft and present a warrant article to the 2018 Annual Town Meeting for adoption.

- C. Allow Development of Nonconforming Lots: The 2011 – 2016 HPP contained an action item to allow development of affordable units on lots that contain less area than the minimum lot size of 1.5 acres provided a lot can conform to well and septic regulations. To determine if this concept has potential to create new affordable units, the Planning Board will search the GIS parcel coverage to establish an inventory of lots that meet this standard. Since the Town's environmental quality is of paramount importance, the Planning Board will seek the advice of the Board of Health to determine under what criteria new housing could take place without detriment to the environment. The Board

will research state law to identify legal impediments. If the idea survives these tests, the Board will craft an infill development bylaw that will allow an affordable unit on a nonconforming lot, perhaps with restrictions on the number of bedrooms or total floor space. This concept may have potential to meet the local need for small units as well as to add units to the Town's SHI.

Responsible Party: Planning Board, Board of Health

Priority: Two

Timeframe: Year 1: Inventory parcel data to create a list of lots that may be suitable for this purpose. Years 2 and 3. Consider legal issues and environmental implications of the concept. Year 4: If deemed workable, prepare a zoning amendment and health regulations to govern the use.

2. IDENTIFY SPECIFIC SITES FOR WHICH THE MUNICIPALITY WILL ENCOURAGE THE FILING OF COMPREHENSIVE PERMIT PROJECTS

- A. Construct Hildreth Senior Housing Project: In 2016, Town Meeting voted to approve the Hildreth Housing Overlay District (HHOD) to include approximately 7.3 acres of land that includes the Hildreth House and Fire Station lots in the Town Center. The district allows for a density of 12 units per acre, which is 18 times greater than the AR district's 1.5-acre minimum lot size for a single family home. The intent of the district is to provide for an age-restricted development (60+) and encourage the development of small units to enable Harvard seniors to down-size from their single family homes yet remain in Town close to friends and family. The Water and Sewer Commissions allocated 3,000 gpd of wastewater capacity to the development; water and sewer lines already exist on the property, which will lower the total cost of developing the property. The Board of Selectmen formed the Housing @ Hildreth House Committee (H@HHC) to shepherd a senior development project at the site. The H@HHC hopes to issue a Request for Proposals to solicit development schemes for the property that comply with the Bylaw and meet local priorities for building and site design. While still in the formative stages, the concept will most likely entail individual unit ownership in a condominium arrangement, with the Town carving out a portion of the tract to sell to the preferred developer.

Responsible Party: H@HHC

Priority: One

Timeframe: Year 1: Complete preferred design, obtain preliminary site plan approval from the Planning Board, issue RFP, and select the preferred developer. Year 2: Transfer the property.

- B. Inventory Town-Owned Land: The Town previously considered developing affordable housing projects on three other town-owned properties: the Poor Farm, Whitney Gravel Pit, and a previous effort at the Hildreth House. All three projects proved unpopular with near-by neighborhoods and were abandoned. The Planning Board will examine the reasons why the projects were not successful and seek to learn lessons that can be applied to future projects. The Poor Farm and Hildreth properties are no longer available (the Hildreth site is moving forward with a different development concept), but the Whitney Gravel Pit could potentially be re-evaluated. The Planning Board, with the assistance of the Town Planner, will inventory

unrestricted Town land and determine if other properties meet criteria for an affordable housing development.

Responsible Party: Planning Board and Town Planner

Priority: Two

Timeframe: Year 2: Review previous efforts that failed and identify lessons learned. From past experience, prepare planning criteria to apply to future projects that will address neighborhood concerns. Year 3: Develop an inventory of Town-owned land that may have potential for development of an affordable housing project. Rank sites and determine the most feasible location(s). Year 4: If a site emerges for consideration, develop zoning overlay district that contains standards that are responsive to neighborhood concerns and the development capability of the site.

- C. Utilize Local Initiative Program (LIP): In 2008 the Planning Board adopted LIP Criteria to develop a cooperative relationship with private developers of affordable housing. Too often comprehensive permit projects create adversarial contests with neighbors, who may feel high density proposals are detrimental to the value of their single family home. A LIP proposal however, sometimes referred to as a “friendly 40B”, creates a different dynamic. The Town can negotiate with the developer to help realize a project that will benefit the community with an appropriate scale, better design, open space and other amenities, and sensitivity to neighborhood concerns. Affordable units created through this process are eligible for the SHI.

Responsible Party: Planning Board

Priority: Two

Timeframe: Initiated by interest of a landowner or developer

3. IDENTIFY CHARACTERISTICS OF PROPOSED RESIDENTIAL OR MIXED-USE DEVELOPMENTS THAT WOULD BE PREFERRED BY THE MUNICIPALITY

- A. Prepare Mixed-Use Development Guidelines: Mixed use developments are permitted (and encouraged through incentives) as part of an Ayer Road Village Special Permit (ARV-SP). The Planning Board will prepare design guidelines that display techniques of integrating residential and commercial uses in a cohesive development. The Board will examine such considerations as density, architectural themes, buffering from residential neighborhoods, and utilizing open space for aesthetic and functional purposes.

Responsible Party: Planning Board, Town Planner

Priority: Two

Timeframe: Year 3: Convene a task force of housing and design professionals to work through the important design elements that will achieve community acceptance and help the ARV-SP process to become more relevant in addressing both affordable and non-affordable housing needs in Town.

- B. Create Town Center Overlay District: The Town Center, with the community schools, recreational fields, Town beach, Town Hall, Library, etc. is the focal point of civic life. The Center is zoned Agricultural Residential (AR), which limits the types of private uses that may

occur there. While commercial uses once played a meaningful role in providing services for residents, only a few, non-conforming commercial properties remain. In addition, any residential use, other than one-family homes and accessory apartments, is not allowed. The Town Center has the potential to offer small scale commercial services as well as a modest residential density. Such uses could add vitality to the Town Center without marring its historic character or diminishing its role in Town affairs. The Planning Board will study opportunities for re-zoning the Town Center to allow a wider mix of land uses, including limited commercial activity and new small-scale residential options, such as two family dwellings and mixed use within an existing structure.

Responsible Party: Planning Board, Historical Commission

Priority: Two

Timeframe: Great care must be taken with this task. There is widespread consensus that only minor changes should be considered so as to not irretrievably alter the beloved character of the Center. While most agree on this point, there are many different points of view on how limited growth here can add to the Town's needs for housing and commercial services and yet still preserve this character. In Year 3 the Planning Board will enlist the services of a professional planning firm with expertise in historic preservation and growth management. A public participation process, perhaps through a day-long charrette, can provide residents with the opportunity to voice their concerns and find common ground. The consultant can then seek to draft proposed zoning language and present the elements at several Planning Board meetings. In Year 4 or 5, the proposed bylaw may be ready for submission to Town Meeting.

- C. Revise Accessory Apartment Provisions: Town Meeting amended the Accessory Apartment Bylaw in 2006 in an effort to make it more usable. The requirement that only relatives or “in-laws” could rent the unit was removed. Several enhancements came into play, including allowing a generous floor area of 1,200 square feet for the accessory unit. (in 2012, Town Meeting also approved an affordable accessory apartment provision with incentives to entice landowners to deed-restrict their property to make the units available to low and moderate households.) Despite these advantages, few homeowners have opted to use the provisions. It may be that the need to obtain a special permit (from the Board of Appeals) is a deterrent, or the fact that the single family home must be in existence for a minimum of five years before the home becomes eligible for the addition of the second unit. The Planning Board and Board of Appeals will study successful bylaws from other communities that enjoy more regular use, and then suggest modifications that fit Harvard's circumstances. The Boards will also collaborate with the MAHTF to consider appropriate financial rewards to incentivize the affordable option.

Responsible Party: Planning Board, Board of Appeals, MAHTF

Priority: 1

Timeframe: Year 2

4. IDENTIFY MUNICIPALLY OWNED PARCELS FOR WHICH THE MUNICIPALITY COMMITS TO ISSUE REQUESTS FOR PROPOSALS TO DEVELOP AFFORDABLE HOUSING

- A. Conduct Screening Analysis of Town-Owned Land: The Planning Board will conduct a screening analysis of Town-owned land to target other opportunities for developing affordable housing. Many parcels of Town land are dedicated to park and conservation purposes, and thus are not available for development. (Article 97 of the Mass. Constitution requires that, in order to withdraw conservation land for other purposes, the Conservation Commission must give its unanimous consent, Town Meeting must provide a 2/3 vote, and the State legislature must also provide a 2/3 vote.) Land that is not otherwise committed to a specific purpose may be suitable for a denser development than is currently allowed under conventional zoning. The screening analysis will filter out properties that are not suitable; factors to consider include environmental constraints, slope, soils, road access, and neighborhood compatibility. If one or more properties offer promise, the Board will propose engaging professionals to perform a feasibility study, including soil testing to estimate septic capacity and installing test wells to judge the quantity and quality of ground water. For those sites with high development suitability, the Planning Board will reach out to the neighborhood and collaborate with other boards to seek to develop a consensus on a preferred housing concept.

Responsible Party: Planning Board, Town Planner

Priority: Two

Timeframe: Year 2: Begin process of analyzing Town-owned land for higher density housing. Rank sites and identify priority locations. Year 3: Hold informational meeting(s) on the process and generate support for proceeding to the next step. Request funding for testing and engineering costs. Year 4: Conduct preliminary site planning process. Year 5: Pending the outcome of the previous phases, prepare a strategy for implementation.

- B. Adopt Housing Overlay Districts: As noted in Table 29, the Planning Board prepared, and Town Meeting adopted, a zoning overlay district to allow a senior housing development on surplus land next to the Hildreth House. This model can be duplicated for other Town property where consensus exists for developing housing that meets local needs. The advantage to this approach is that the Town can regulate the amount and type of development that may occur on its land. Adjacent neighborhoods can have input into the process to protect the investment in their home. For any sites the Town wishes to seek housing proposals, the Planning Board will formulate a zoning overlay district that specifies the Town's objectives. Town Meeting approval of the district will allow an alternative development concept to proceed.

In the formulation of the Hildreth Housing Overlay District, the issue of spot zoning arose. The question was whether or not re-zoning two parcels that conferred a unique benefit to the owner (i.e. the Town), which was not available to others in the district, constituted illegal spot zoning. Town Counsel determined that as long as the community conducted an inclusive planning process, and the re-zoning conferred a public benefit, the action would withstand a claim of illegal spot zoning.

Responsible Party: Planning Board, Town Planner

Priority: Two

Timeframe: On an as-needed basis.

5. PARTICIPATE IN REGIONAL COLLABORATIONS ADDRESSING HOUSING DEVELOPMENT

- A. Seek Housing Rehabilitation Funds: In 2005, Harvard participated in a regional housing rehabilitation program managed by MRPC. Five private residences received grants to correct code violations, upgrade deficient systems, and make energy improvements. MRPC had submitted a successful Community Development Block Grant (CDBG) application and ran the program on behalf of Ayer, Shirley, Lancaster, and Harvard. Eligible homeowners could earn no more than 80% of the AMI; as a result, these properties qualified for placement on the SHI for the term of the loan or until the property changed hands. Harvard will consider participating in future housing rehab programs if MRPC or other organizations provide the opportunity.

Responsible Party: Town Administrator

Priority: Two

Timeframe: Within the five-year time period of this HPP.

- B. Regional Housing Planning: Housing needs do not respect political boundaries, and regional collaboration may lead to innovative solutions. Harvard will cooperate with its neighboring towns to devise regional solutions to common problems. (The region of towns surrounding Harvard has shortfall of 2,295 affordable units; see Map 3.) Harvard will be a willing participant in regional housing planning studies and will cooperate with neighboring communities in applying for state funding if regional housing planning becomes a priority at the state level. Making inroads in the large regional deficit of affordable housing will benefit all communities.

Responsible Party: Planning Board, MAHTF

Priority: Two

Timeframe: Within the five-year time period of this HPP.

6. OTHER HOUSING STRATEGIES

- A. Subsidize Private Housing for Affordability: The mission of the MAHTF is as follows: “The purpose of the Trust is to provide for the creation and preservation of affordable housing in the Town of Harvard for benefit of low and moderate income households.”¹⁸ As the designated entity in Harvard charged with addressing affordable housing needs, the Trust will actively search out opportunities for fostering the development of affordable housing. The Trust may make payments to private parties who propose housing developments in order to subsidize the cost of some units to make them affordable to low and moderate income households. In return, the owner will record a deed restriction on the property to guarantee rent or resale values stay at affordability levels. The units will then be eligible for placement on the SHI. This technique can encourage single family homeowners to participate in Harvard’s affordable accessory

¹⁸ Declaration of Trust, Section 2, Purpose

apartment provision. The MAHTF will utilize its financial resources judiciously to promote the development of affordable housing and increase the Town's percentage of units on the SHI.

Responsible Party: MAHTF

Priority: One

Timeframe: On-going

- B. Encourage Smaller Housing Units: As noted in Figure 5, a noticeable trend in Harvard is the increase in the size of single family homes. Homes built from 2000 to 2015 contain 1,500 more square feet, and are 73% larger, than homes built from 1950 -1975, the post WWII era. Home builders stand to earn a larger profit by building larger homes, and Harvard residents' relatively high incomes have supplied customers for this product. However, as noted previously in this report, this trend is ignoring demographic forces that favor construction of smaller units. Harvard has a large number empty-nesters and active adults who raised family in single family homes who now wish to down-size into smaller units. Recent graduates and couples without children are unable to find starter homes in Town that they can afford. And of course, low and moderate income residents are unable to afford a home in Harvard without a subsidy.

The Planning Board will research methods employed by other communities to incentivize smaller units. The Town has already begun to address this issue. The Board is presently looking at revising the OSC-PRD bylaw to encourage smaller units. And the H@HHC is preparing design plans for a senior housing development in the Hildreth Housing Overlay District, on land the Town owns, to create smaller units than private developers typically offer. This technique, of offering Town-owned land for housing to meet a local need, is a model that can be applied to other properties. With a senior development project underway, the Town may wish to consider a project targeted to first-time homebuyers. When preparing overlay district bylaws (see recommendations 2.B. and 4.B. above) the regulations can drive the development concept to construction of smaller units. When researching this topic, the Board may find examples employed by other communities to foster smaller units and may adapt the approach to Harvard's circumstances.

Responsible Party: Planning Board

Priority: One

Timeframe: On-going

- C. Continue CPC Funding for Affordable Housing: Harvard has adopted the Community Preservation Act (CPA). The Community Preservation Committee (CPC) annually solicits proposals for use of the funds, ranks the submissions, and makes a recommendation to Town Meeting for the best use of program funds. By law, a minimum of 10% of the CPA money must be spent on affordable housing. The CPC has been a strong advocate of affordable housing in Harvard, and will continue to offer financial assistance to worthwhile projects.

Responsible Party: CPC

Priority: One

Timeframe: On-going

- D. Achieve 25% Affordability at Devens: The 1994 Devens Reuse Plan authorized the establishment of 282 housing units in the former Army base, and further prescribed that 25% of the units must be affordable. With the approval of Emerson Green in 2016, about 25 units remain under the 282-unit cap. While MassDevelopment has sole jurisdiction over development at Devens, Harvard can shape the outcome of the remaining units that will arise on its historic lands, if any. When MassDevelopment initiates development of the remaining units, the MAHTF will participate in the planning and approval process to advocate for affordable units that will count on the Town's SHI. If financial resources are necessary to subsidize the development, the MAHTF will consider allocating funds to help create the new units.

Responsible Party: MAHTF, CPC

Priority: One

Timeframe: On-going

- E. Innovative/Alternative Septic Systems: The ability to actually develop multiple residences in Harvard is dependent upon soil conditions. Soils in Harvard typically have slow percolation rates and may only allow a single family home. However, some locations may have favorable soils that will allow for a greater density. The Town's zoning should allow alternative treatment systems for affordable housing projects. At the present time, only ARV-SP projects and OSC-PRD developments allow for common disposal systems. The ability to construct such systems should be extended to affordable housing projects when built under the terms of a local bylaw, such as an overlay district created to accommodate a development on Town land. (The Hildreth senior housing development was unique in that it received an allocation of 3,000 gpd of sewage flow from the Town Center sewer system.) The Planning Board and Board of Health should discuss the means to accomplish this objective while maintaining environmental quality.

Responsible Party: Planning Board, Board of Health

Priority: One

Timeframe: Year 2

Table 30
Summary of Implementation Strategies

			Responsible Parties								
Strategy/Implementing Activity	Priority	Year(s)	PB	TP	ZBA	MAHTF	BoH	TA	CPC	H@HHC	HC
1. Identify zoning districts or geographic areas in which the municipality proposes to modify current regulations for the purposes of creating affordable housing developments to meet its production goals.											
A. Implement Standards and Map for the RM District	2	2-4									
B. Revise OSC-PRD Bylaw	1	1-2									
C. Allow Development of Nonconforming Lots for Affordable Units	2	2-4									
2. Identify specific sites for which the municipality will encourage the filing of comprehensive permit projects											
A. Construct Hildreth Senior Housing Project	1	1-2									
B. Inventory Town-Owned Land	2	2-4									
C. Utilize Local Initiative Program	2	1-5									
3. Identify characteristics of proposed residential or mixed-use developments that would be preferred by the municipality											
A. Prepare Mixed-Use Development Guidelines	2	3									
B. Create Town Center Overlay District	2	3-5									
C. Revise Accessory Apartment Bylaw	1	2									
4. Identify municipally-owned parcels for which the municipality commits to issue requests for proposals to develop affordable housing											
A. Conduct Screening Analysis of Town-Owned Land	2	2-5									

			Responsible Parties								
Strategy/Implementing Activity	Priority	Year(s)	PB	TP	ZBA	MAHTF	BoH	TA	CPC	H@HHC	HC
B. Adopt Housing Overlay Districts	2	As Needed									
5. Participate in regional collaborations addressing housing development											
A. Seek Housing Rehab Funds	2	1-5									
B. Engage in Regional Housing Plan	2	1-5									
6. Other Housing Strategies											
A. Subsidized Private Housing for Affordability	1	On-Going									
B. Encourage Smaller Units	1	On-Going									
C. Continue CPC Funding for Affordable Housing	1	On-Going									
D. Achieve 25% Affordability at Devens	1	On-Going									
E. Study Innovative/Alternative Septic Systems for Affordable Housing	1	2									

Key:

PB:	Planning Board	TP:	Town Planner	MAHTF:	Municipal Affordable Housing Trust Fund
BoH:	Board of Health	ZBA:	Board of Appeals	CPC:	Community Preservation Committee
TA:	Town Administrator	HC:	Historical Commission	H@HHC	Housing at Hildreth House Committee

Appendix 1: Master Plan Housing Surveys

Tabulation of the Housing Questions in the Phase 2 Master Plan Survey of 2014

Question 7: Harvard needs a more diversified housing stock.

Strongly Agree	41	19%	❖	50% of respondents agree or strongly agree that Harvard needs a more diversified housing stock.
Agree	69	31%		
Neither Agree Nor Disagree	50	23%	❖	27% disagree that Harvard needs a more diversified housing stock.
Disagree	44	20%		
Strongly Disagree	16	7%		
Total	220	100%		

Question 8: Encouraging housing in mixed-use developments in the Commercial District (C District) on Ayer Road is appropriate.

Strongly Agree	29	14%	❖	Over half of respondents (55%) feel that mixed use development is appropriate in the C District.
Agree	86	41%		
Neither Agree Nor Disagree	40	19%		
Disagree	40	19%		
Strongly Disagree	17	8%		
Total	212	100%		

Question 9: Seniors would downsize and stay in town if Harvard had more types of housing.

Strongly Agree	43	20%	❖	Only 15% of respondents disagree that Harvard should have more types of housing to allow seniors to downsize.
Agree	84	38%		
Neither Agree Nor Disagree	58	26%		
Disagree	25	11%		
Strongly Disagree	9	4%		
Total	219	100%		

Question 10: Harvard's zoning should encourage smaller housing units, affordable housing, and senior-friendly homes, even if it means allowing more density in some locations.

Strongly Agree	41	19%	❖	Support exists (54%) for alternative housing types, although 31% disagree.
Agree	77	35%		
Neither Agree Nor Disagree	32	15%		
Disagree	39	18%		
Strongly Disagree	28	13%		
Total	217	100%		

Question 11: Harvard needs more affordable housing.

Strongly Agree	34	16%	❖ A majority of respondents (53%) agree that Harvard needs more affordable housing.
Agree	80	37%	
Neither Agree Nor Disagree	43	20%	
Disagree	35	16%	
Strongly Disagree	24	11%	
Total	216	100%	

Question 12: Harvard needs housing for people with special needs.

Strongly Agree	15	7%	❖ Only 30% of respondents agree that Harvard needs housing for people with special needs, but nearly half have no opinion on the matter.
Agree	49	23%	
Neither Agree Nor Disagree	104	48%	
Disagree	38	18%	
Strongly Disagree	10	5%	
Total	216	100%	

Question 13: The variety of housing at Devens makes an important contribution to Harvard's existing housing stock.

Strongly Agree	34	16%	❖ 58% of respondents believe that Devens makes an important contribution to Harvard's housing stock.
Agree	90	42%	
Neither Agree Nor Disagree	50	23%	
Disagree	26	12%	
Strongly Disagree	16	7%	
Total	216	100%	

Question 14: Harvard's tax levy is based almost entirely on residential property taxes.

Strongly Agree	92	42%	❖ It is clear to a large majority (83%) that Harvard relies heavily on residential property to fund municipal services.
Agree	90	41%	
Neither Agree Nor Disagree	33	15%	
Disagree	2	1%	
Strongly Disagree	0	0%	
Total	217	100%	

Question 15: Harvard needs a more robust commercial tax base.

Strongly Agree	53	24%	❖ 62% of respondents would like Harvard to have a larger commercial tax base. Just 19% disagree.
Agree	82	38%	
Neither Agree Nor Disagree	40	18%	
Disagree	29	13%	
Strongly Disagree	13	6%	
Total	217	100%	

Question 16: Ethnic, generational, and economic diversity are important for the health and vitality of all communities, including Harvard.

Strongly Agree	69	32%	❖ 74% of respondents believe diversity is important to the vitality of Harvard.
Agree	90	42%	
Neither Agree Nor Disagree	32	15%	
Disagree	16	7%	
Strongly Disagree	9	4%	
Total	216	100%	

Tabulation of the Housing Questions in the Phase 1 Master Plan Survey of 2014

QUESTION 9

What types of residential development would you like to see more or less of in Harvard?

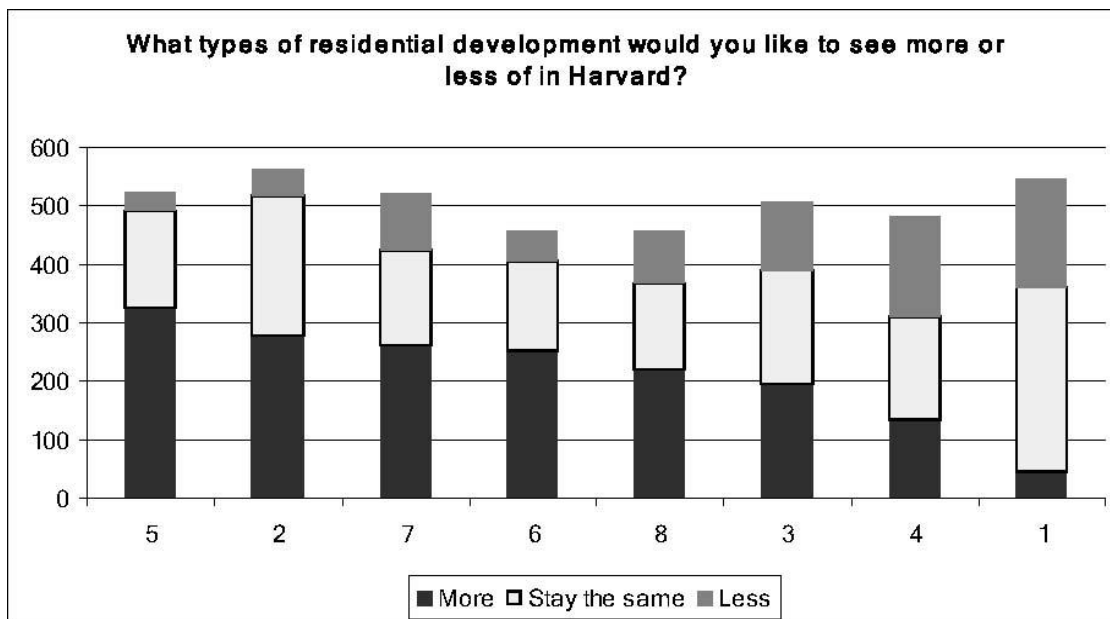
(92.8% answered question)

Answer Option	More of	Less of
5 Housing for persons over 55	55.1%	5.7%
2 Small Single-family residential (1 to 2 bedroom)	46.6%	7.2%
7 Affordable housing	45.1%	16.9%
6 Assisted living	44.6%	9.3%
8 Accessory apartments	38.3%	15.1%
3 Rental units	33.4%	20.7%
4 Multi-Family dwellings	24.1%	30.9%
1 Large single-family residential (3+ bedrooms)	7.7%	32.2%

Providing more housing for persons over 55 and small single family homes was supported by the majority of respondents in the age 46 and up groups. Provision of affordable housing was more important to those over 55 and the least important to those between 26 and 45.

The majority of respondents in all income categories supported more housing for persons over 55. Adding affordable housing was supported by the majority of those in the 50K to 100K income categories and was least supported by those earning more than 150K.

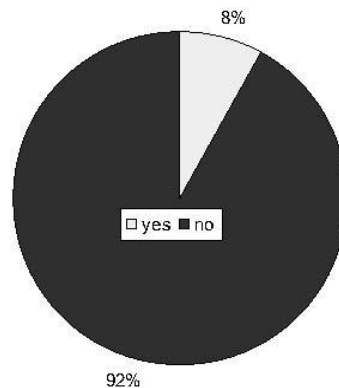
Those who indicated the Town needed more affordable housing were most favorable of housing for persons over 55 (71%) as well as for small single family homes (64%) and assisted living (63%). Those who supported creation of more large single-family homes did not generally support creation of more rental units, multi-family dwellings, or accessory apartments.



QUESTION 10

Anyone considering moving to Harvard in your immediate family?

(83.5% answered question)



QUESTION 11

(27.5% answered question)

Are you or anyone in your immediate family looking for housing for the following reasons?

Downsizing to a smaller house	53.7%
Need something more affordable	38.3%
Care for an aging or ailing relative	19.1%
Want less yard space / land	14.9%
Need to rent	14.4%
First home purchase	11.7%
Want more yard space / land	10.6%
Increasing to a larger house	9.6%

If it was available in Harvard would they/you consider moving here?

58 – Yes 47 – No 16 – Maybe

QUESTION 12

In the next ten years, are you or anyone in your immediate family looking for housing for the following reasons?

(56% answered question)

Downsizing to a smaller house	61.6%
Need something more affordable	32.6%
Care for an aging or ailing relative	29.0%
Want less yard space / land	16.4%
First home purchase	15.9%
Need to rent	8.9%
Increasing to a larger house	8.4%
Want more yard space / land	5.7%

If it was available in Harvard would they/you consider moving here?

124 – Yes 42 – No 40 – Maybe