



**WARRANT ARTICLE EXPLANATIONS  
FILED BY PETITIONERS FOR THE  
NOVEMBER 19, 2019 SPECIAL TOWN MEETING**

**ARTICLE 1**

Submitted by: Select Board

This article is inserted in the Warrant for every Town Meeting in case there are any unpaid bills from a prior fiscal year that are deemed to be legal obligations of the Town. Per Massachusetts General Law, unpaid bills from a prior fiscal year can only be paid from current year appropriations with the specific approval of Town Meeting.

**ARTICLE 2**

Submitted by: Human Resources

This article is inserted in the Warrant for any Town Meeting when there are unsettled labor contracts. Town Meeting must approve the funding for any collective bargaining agreements.

**ARTICLE 3**

Submitted by: Select Board

This article is inserted in the Warrant for any Town Meeting when budget amendments for the current fiscal year are required. For FY2020, the warrant article is necessary to balance the budget based on higher than projected State Aid and marijuana-related revenue, appropriate ride-share revenue, and to adjust the debt service budget to reflect the cost of the BAN issued for the Oak Street properties.

**ARTICLE 4**

Submitted by: C. Scott Ananian, TMM 10, (correspondent), Dave Gacioch, TMM 13, Beth Gilligan, Jesse Gray, TMM 10, Andreas Liu, TMM 10, Kim Loscalzo, A. Nicole McClelland, TMM 11.

This is a duplicate of special appropriation item 32 under Article 9 submitted by the Advisory Committee for the May 2019 Town Meeting warrant. The special appropriation was converted to a resolution at the May 2019 Town Meeting; the resolution stated “that Town Meeting urges the Select Board to prepare a debt exclusion question specifically for a 4-section Driscoll School and to place said question on the ballot of a special town election, to be held no later than the Special Town Meeting in Fall 2019.” This resolution passed by a vote of 153-57-15. In anticipation of the Select Board potentially placing the called-for debt exclusion question on the ballot after the warrant closes, the original special appropriation is being resubmitted for the Fall Special Town Meeting warrant. As in the Spring, this article could be used to either appropriate the funds authorized by a debt exclusion passed by the voters before Town Meeting, converted to an appropriation contingent on a debt exclusion vote scheduled no more than 90 days after Town Meeting, or converted again to a resolution.

As of the closing of the warrant, it is expected that the School Committee’s Capital Subcommittee will vote on a recommendation for a long-term capital plan including the Driscoll School at their

September 10 meeting, and will present this recommendation to the full School Committee on September 12. The Select Board would have to vote to authorize a debt exclusion ballot by October 1 to hold an election on November 5, the traditional “first Tuesday in November” election day. There are no competing state or national elections this year. Delaying the election date past November 5 conflicts first with the Veterans Day weekend, and then with Town Meeting the following week.

#### **ARTICLE 5**

Submitted by: Mariah Nobrega, TMM4, Neil Wishinsky, TMM5, Ben Franco, Select Board Member

In furtherance of the proposed Baldwin School project, Town Meeting authorized the purchase of three residential condominiums at 15-19 Oak Street in December of 2018. The transaction was completed in early 2019 and the cost of debt service for the acquisition was incorporated into the debt exclusion referendum which was rejected by Brookline voters at the Annual Town Election on May 7, 2019. Annual debt service is expected to average about \$333,477 for a 25-year borrowing period. With the failure of the debt exclusion referendum, the matter of whether the Town should sell the properties has been raised since the reason for the acquisition has not come to pass and there may be alternative uses for the funds. This warrant article is being filed to preserve the Town’s ability to sell the units and to insure that this debate happens at the November Town Meeting.

Recently, the School Committee proposed using the Oak Street condominiums as office space in the fall of 2020 as part of their overall space planning. The Building Commissioner has raised a number of zoning and building code requirements to convert the Oak Street residential properties into office use. It is likely that there are more cost effective approaches to providing the required office space but that would need to be further analyzed. If the Town decides to sell the Oak Street properties, the School Department would be required to issue a Request for Proposals (RFP) to identify other leased space for administrative offices. Sale of property requires an open and competitive process to realize the highest price possible. Note that should this be approved by Town Meeting, the Select Board would not be required to sell the properties. This is merely an authorization to sell. The Select Board would also determine the timing of such a sale, if one occurs.

#### **ARTICLE 6**

Submitted by: Nicole McClelland TMM11, Mariah Nobrega TMM4, Neil Wishinsky TMM5

The objective of this resolution is two-fold:

**1) To professionalize the board and compensate for increased expectations.** Town government is a 335 million dollar enterprise (FY20). The town has been very fortunate to have had Select Board members thus far who have had the dedication and skills to run it effectively. However, the pressures on Town government are continuing and the challenges appear to be growing more complex; the skills these positions demand, and the time commitment, are likely to grow. We need to proactively ensure that we are attracting the best candidates for the job, but many of the most-qualified people have other opportunities to spend their time, including compensated opportunities. Providing a larger stipend may overcome that challenge, while still representing a miniscule fraction of the overall cost of town government; increasing the stipend

value from \$18,500 total per year to \$220,000 per year will cost just over \$200,000 (.06% of the budget). While this amount is substantial and reduces resources available elsewhere, it is time for the Town to finally bite the bullet and pay what these positions are really worth.

Further, the expectations on our Select Board members have increased: with the advent of cell phones and e-mail, they are expected to be “on” 24/7, in addition to attending multiple meetings and community events each week. It is an unrealistic expectation that a volunteer Select Board member, currently compensated at approximately \$0.35/hr, would have the capacity to respond to constituents and engage with the community at the same level as a properly paid municipal official. An additional advantage of proper compensation for the Select Board is that members may be able to reduce or cut back on other obligations, thus allowing for more responsiveness.

**2) Remove a major barrier to participation at the executive level of town government and attract a broader array of candidates.** Many Brookline inhabitants face serious financial pressure to live here. As documented in “Understanding Brookline”<sup>1</sup> almost one-third of Brookline residents live in households below the 300% poverty threshold, a marker of economic insecurity. Even for the other 70% of inhabitants who do not fall below that line, it may be very hard to afford to participate: childcare is frequently \$15/hour or more, meaning a Select Board member could easily pay \$500 a month in childcare just to attend the biweekly meetings. Increasing the number of people who can afford to participate as a member of the Select Board is an inclusive practice that is likely to result in competitive elections, the hallmark of thriving democracy. To date the Select Board has not been representative of much of Brookline inhabitants, skewing older/retired and white. Though Brookline is nearly 20% Asian, there has been no Asian member; the first Hispanic/Latino member was elected this year, the first Black member elected in 2015.

Several quotes from Newton City Councilors provided in the report illustrate why economic support enables better government and are also applicable to Brookline:

- “no one becomes a City Councilor to become rich, but there is middle ground between becoming rich, and not needing to be compensated. A large swath of our population falls into that middle ground.” (page 34)
- “I am not comfortable with my city government being run by a group of well-meaning volunteers. I want representation that illustrates a range of different life experiences, understands the value of a dollar, and in some cases, not necessarily all, can only engage in work that is paid as a matter of financial survival. Their finances do not allow for 10-20 hours a week of volunteer work...That voice on the council is necessary to represent a faction of our city.” (page 35)

The Newton report also provides a good overview of why compensation is appropriate on pages 8-9:

*The Commission concluded that, despite the fact that both Council and School Committee roles are part time and outside employment is permitted, the City Council and School Committee perform necessary functions which only they may perform by charter. The Commission concluded that it is in the interest of every citizen that those duties be*

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<sup>1</sup> Report available at <https://www.brooklinema.gov/DocumentCenter/View/4332/Understanding-Brookline-Report--Brookline-Community-Foundation-May-2013-PDF>

*performed at the highest possible level by the most qualified representatives chosen from a diverse pool of candidates.*

*With that understanding in mind, the Commission concluded that compensation is required to encourage delivery of this type of public service regardless of an individual's economic status. In fact, the current levels of compensation are relatively modest and may currently operate as a de facto disqualification for economically challenged citizens to serve. It was the Commission's thought that higher compensation might serve the community by tending to increase the economic diversity of the candidate pool, or at the very least minimizing barriers to economic diversity, resulting in more contested elections and a more representative group of elected officials. The Commission concluded that the electorate gains when an increased range of talent, perspectives and views is contributed to the governing process and that higher compensation might facilitate that objective.*

*As the Commission found, the part-time positions of Councilor and School Committee member require a substantial time commitment, most of which takes place in the evening. While these officials are not required to relinquish outside employment, they do incur costs in meeting the time commitments of these positions, both in terms of time rendered unavailable for other engagements and for out-of-pocket expenses. While not legally prohibited, as a practical matter, City Councilors and School Committee members would be challenged to work a second job or take extra hours at their primary employment given the hours required by their elected capacities. The Commission concluded that modest compensation helps offset these costs. Furthermore, the prospect of modest compensation might attract candidates for office who would decline to run and serve without compensation.*

#### Rationale for Action at this Time

There are several reasons to approve this stipend at this point in time:

- The new cannabis revenue may provide additional flexibility to take this action without reducing elsewhere in the budget
- This is relatively low-hanging fruit related to the recent Town Meeting vote affirming our commitment to inclusion (Spring 2019 Town Meeting, Warrant Article 29)

While not a principal rationale, it is also noted that there has been significant discussion in town in recent years to pursuing city status. One benefit of this revision is that it would make the cost of the Select Board somewhat cost-neutral to that of a mayor, thus removing that issue from the overall calculus of which municipal structure to pursue, if and when the discussion advances to that stage.

#### History of Select Board Compensation

One of the earliest references to the SB stipend is the town budget of 1895, when the stipend was set at \$1,200 for the chair and \$400 for members. The next reference found was in 1901 where the stipend was set at \$1,350 for the chair and \$750 for members. Starting in 1902, there is data for all years. The full history is in the table below.

Year	Chair Stipend (\$)	Current Value (\$)²	Member Stipend (\$)	Current Value (\$)
1895	1,200	36,592	400	12,197
1901	1,350	40,750	750	22,639
1902-1915	1,500	44,676	1,000	29,784
1916-1947	2,500	58,748	1,500	35,249
1948-2010	3,500	37,199	2,500	26,570
2011-	4,500		3,500	

So if Town Meeting accepts \$60,000 and \$40,000, we are roughly restoring the Select Board back to the buying power of the stipend as it existed in 1916.

At this time the compensation does not include health insurance. Brookline Select Board members were previously eligible for health insurance and there are many people for whom health insurance would be extremely valuable, e.g. people who are self-employed, work part-time, or otherwise don't receive insurance through their jobs. Many of these people might have the most flexibility to devote to town activities. This is something we may choose to consider in the future. As noted in the comment by one Newton Councilor: "I am concerned that doing this will eliminate the candidacies of those who have part time jobs, are self-employed, or don't receive health care coverage at work. Note – some of our most productive Councilors fall into these categories. It will markedly reduce the pool to those who have full time jobs." (page 39)

#### Executive Compensation in other Municipalities

The table below reports on selected Massachusetts municipalities. Brookline is the largest town in the Commonwealth, so its peer communities are mostly cities with mayors who receive a salary. Information on Plymouth, the only town comparable to Brookline in size, was not available. Smaller towns are also included for context. As shown, Brookline's peer municipalities are paying more for their elected executives both overall and per capita. The average executive cost per person of the first seven peer communities (cities) is \$4.41, which is also the cost of the proposed increase in Brookline's stipend.

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<sup>2</sup> according to the CPI Inflation calculator at <http://www.in2013dollars.com/us/inflation/>. Calculation on current value done for first year of range, i.e. current \$ values done for years of 1902, 1916 and 1948.

			Compensation					
			Select Board		Mayor/City Council			
	Structure	Pop	Members	Chair	Councilors	Mayor	# of members of SB or Council	Exec \$/person
Brookline	Town	59,000	3,500	4,500			5	\$0.37
Boston	City	694,600			103,500	207,000	13	\$2.24
Cambridge	City	119,000			83,600	118,000	9	\$7.31
Quincy	City	94,600			29,700	150,000	9	\$4.41
Newton	City	89,000			9750	125,000	24	\$4.03
Somerville	City	75,800			25,000	145,000	11	\$5.54
Malden	City	61,000			17,500	105,000	11	\$4.88
Medford	City	57,888				142,000	7	\$2.45
Lexington	Town	31,400	0	0			5	\$0.00
Easton	Town	23,100	1,800	1,800			5	\$0.47
Grafton	Town	17,800	1,000	1,000			5	\$0.34
Raynham	Town	13,400	6,200	6,200			3	\$1.85

**ARTICLE 7**

Submitted by: Christi Electris, TMM7; Robert M. Miller, TMM8

In recent years the idea that streets should be safe for all users has become an increasing priority, in Brookline, the Commonwealth of Massachusetts and around the world. For example, the Massachusetts Department of Transportation created the Complete Streets Funding Program to support projects that will improve safety, ADA accessibility, pedestrian and bike mobility, transit access and operations, and vehicular and freight operations. In 2019 Brookline applied for and was awarded a Complete Streets Funding Program grant of \$234,968.

The Town has not maintained all street markings steadfastly. Pedestrian and bicycle markings are more likely to be faded, incomplete, or otherwise more difficult to see than are other street markings. If we are committed to this infrastructure, it is not enough to do it once. It must be maintained. Just as the Town doesn't prioritize replacing one color light bulb over another when it burns out in a traffic signal, the Town should repaint on street markings on streets with equal priority. This resolution makes that policy directive clear.

**ARTICLE 8**

Submitted by: Select Board

When the revised rate structure for FY2020 was reviewed with the Select Board the potential of expanding the availability of the discount offered to senior water uses was explored. The Town would need to file legislation in order provide the discount recommended by the Water and Sewer

Director. The intent is to expand the exemption to seniors also enrolled in the Tax Deferral and Senior Work-Off Exemption programs through the Assessing Department. The article would give the Select Board the authority to determine the specific discount offered, which would be voted during the annual rate setting process.

## **ARTICLE 9**

Submitted by: Wendy MacMillan, TMM4; David Lescohier, TMM11; Deborah Brown, TMM1

### **Resolution to Request that the Legislature Grant the Town of Brookline Authority to Levy a Real Estate Transfer Tax Fee**

The purchase and financing of a house in Brookline is increasingly difficult and near out of reach for far too many. The high cost of real estate is also a significant impediment in developing affordable housing for lower-income and working families in Brookline. A real estate transfer tax fee (RETT) would help to raise resources to create a housing stock for families, the elderly, disabled and veterans. The Town of Brookline has relied largely on the Brookline Housing Authority and MA Chapter 40B to satisfy the housing needs of those who lack the income to purchase or rent a home in Town, but that is far from enough to meet a significant current and projected housing needs.

The Town's proposed RETT would fund affordable housing and does not extend to funding schools, green space other purposes. We believe that by focusing on the Town's most significant issue, affordable housing, the Legislature is far more likely to vote in favor of our home ruel petition. The Town would be putting residents in a better position to maintain our existing housing stock. Benefits of a RETT in Brookline are as follows. We will be able to expand our current housing stock. First time home-buyers will have a better chance at home ownership. The RETT will play an essential role in providing housing for those most in need. This RETT is progressive. The proposed tax is also very low impact and inexpensive to administer.

Finally, a RETT would allow the Town through established committees and financial policies and processes to build the necessary funding to act quickly when the Town becomes aware of market opportunities. The Town would be able to anticipate opportunities and trends. It will increase the Town's capacity to adjust its priorities and manage its resources, as circumstances require. The aim of this warrant article is to introduce a new model into the mix of Brookline's means and methods for protection, creation, and preservation of Brookline's housing values.

### **Critical Timing for Approval**

The Town of Brookline's Land Bank Study Committee has researched a real estate transfer fee to expand Brookline affordable housing, among the possible purposes. Since the State House, however, will be considering transfer fee legislation for Somerville and Cambridge beginning in January 2020, it is urgent that the Town file its petition at the beginning of this upcoming legislative session so that Brookline may join this official conversation prior the scheduling of the session's hearings.

## **Background**

By way of background, Brookline has a population of 59,157 people and is the 18th largest community in Massachusetts. It is a largely white-collar town, with fully 96.76% of the workforce employed in white-collar jobs, well above the national average. Overall, Brookline is a town of professionals, managers, and sales and office workers. There are especially a lot of people living in Brookline who work in management occupations (14.98%), teaching (12.36%), and healthcare (12.13%). The per capita income in Brookline in 2010 was \$65,189, which is wealthy relative to Massachusetts and the nation. This equates to an annual income of \$260,756 for a family of four. On average Asians earn approximately \$72,500 and Whites earn \$65,668. Approximately 11.4% of the Town lives in poverty. However, Brookline contains both very wealthy and poor people as well. The Town's racial demographics are: 71.4% white, 15.7% Asian American, 5.9% Latinix, 3.9 two or more races, 3% African American, and 0.1% Native American. (SCOUT 2019)

Brookline was once a town of renters but over time – and in response to homeownership demand – the multifamily market has gradually declined to just over half of all Brookline households now renting the unit they occupy. It has approximately 24,716 residential properties that vary widely in price. The median home price is \$892,959 . In 2018, there were approximately 1400 sales transactions. Approximately 38% of Brookline homes are valued at over \$1.2 million; 16% are valued between \$900,000 - \$1.2 million; and 25.5% range from \$600,000 to \$909,000. Therefore, approximately 80% of the Town's home values far exceed over \$900,000. In terms of housing sizes they are: 2 bedrooms at 30%, 3 bedrooms at 23.2%, 4 bedrooms at 11.6% and greater than five bedrooms at 8.4%. Most of the Town's housing stock is old. Approximately 50.3% is pre 1939 housing, 25.8% was built between 1940-1969, 20% between 1970 to 1999 and 3.9% of homes were built after 2000. In terms of types of homes, 20.9% are single family homes, 22.8% are small buildings, 51.7% are apartment complexes and 4.6% are townhomes. (SCOUT 2019)

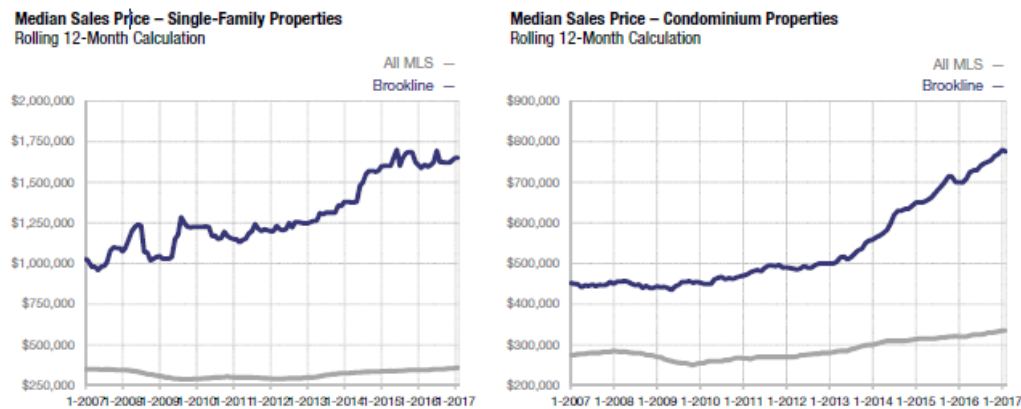
## **Financial Benefits and Tax Implications**

We appreciate that many Brookline homeowners are understandably concerned about the impact of increasing our tax burden. The RETT is not an override and will not increase property tax levy. It will not increase the automobile excise tax, the meals tax, the hotel occupancy tax, or other recurring taxes. It will not increase fees or fines. The RETT would actually shift the burden to more expensive properties, making it more progressive because it exempts at least the first \$500,000 of the sale price. Furthermore, lower income owners tend to stay put while more affluent owners move more frequently. (Sexton 2010)



Any acquisitions for commercial development would contribute to the growth of the tax base. Since assessed property values in Brookline have recently increased consistently at rates of up to 7 - 10% per year (Table 1), virtually every Brookline seller has surely realized a gain, often reaching hundreds of thousand dollars. In effect, even if the real estate transfer tax fee reduces the sale price a small fraction of 2%, the sellers still reap a very substantial benefit from having property located in a community with excellent schools, parks, services, infrastructure, walkability, and transportation.

Table 1. Brookline Real Estate Trends



MAR MASSACHUSETTS ASSOCIATION OF REALTORS® REALTY

All data from the Berkshire County MLS, Cape Cod & Islands Association of REALTORS®, Inc. and MLS Property Information Network, Inc. | Provided by MAR. | Powered by ShowingTime IDX.

Therefore, it seems fair and appropriate for sellers and buyers to return a small portion of their change in property value to support the infrastructure from which they have, or will, benefit. The RETT payment, like impact fees are often employed in other parts of the country in areas experiencing rapid development (Been 2005), represents partial compensation for the Town’s contribution to increasing property value. (Bahl 2010)

For investors and developers in the business of owning, managing, and trading in properties, real estate is an asset. However, residential, owner-occupied real estate with the benefits of household occupancy is, first and foremost, a home that, in the Brookline market, happens to be very likely to appreciate and may reap tax advantages. When a home appreciates, the growth in value is generally viewed as at least partially due to the schools, the high quality public domain, a robust commercial sector, and the desirability of the location. It happens that the real estate appreciation in Brookline overwhelmingly offsets the property tax and RETT burdens. In this way, the RETT is a mechanism to return a small portion of this net change for sellers and buyers to the Town as fair compensation for services and infrastructure maintenance and investment that, clearly, has added substantially to the sale price and value of the property. (Bahl 2010)

Specifically, the empirical case studies presented indicate that there is no statistically significant impact of transfer tax rates on either home price or sales at the local level. This actually makes sense in a more rudimentary framework as well. Given that commissions, fees, closing costs, inspections, and other fees can run as high as 8% of the sales price of a property, the 0.45% increase in transfer rates on the most expensive homes is a proverbial drop in the bucket.” (Thornberg 2012)

Not all taxes are broad-based. (Capital Gains, gift, and Inheritance are examples.) Equitable taxation depends on a mix of broad-based as well as some narrower, more targeted taxes. The targeting of the RETT is equitable within a broad context as long as it does not constitute too great a proportion of the overall tax burden. The rate ceiling and exemption floor minimize any risk that the RETT will be excessive or cause significant deadweight losses (market distortion). “Our state and local tax system remains “upside-down”: low- and moderate-income households pay a larger share of their income in taxes than do households with higher incomes. In fact, the highest-income households in Massachusetts – those in the top 1 percent – pay a smaller share of their income in state and local taxes than does any other income group. (Baxandall and Kurt Wise 2019)

Compounding these problems, Congress enacted federal tax cuts at the end of 2017 that are skewed heavily toward the highest-income households, delivering to those in the top one percent of Massachusetts households a total cut in federal taxes of some \$2.58 billion in 2019. Nationwide, the federal revenue loss from these tax cuts is anticipated to reach \$1.9 trillion over a decade, according to the Congressional Budget Office. The lost revenues will curtail the federal government’s ability to support programs in Massachusetts and throughout the nation for years to come. (Baxandall and Wise 2019)

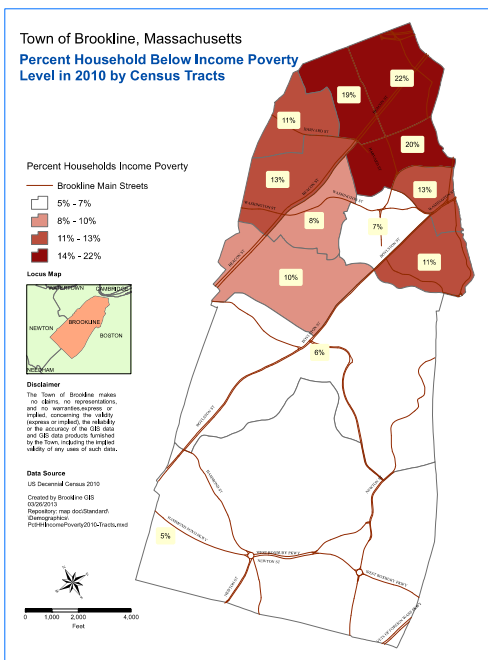
It is usually the case that a particular tax doesn’t perfectly match a taxpayer’s ability to pay. Equitable taxation generally depends on a mix of taxes so that inequity in some taxes is off-set by features of others. We all support the schools, services for the elderly, and veterans through our taxes, even though a minority of households in Brookline have school age children, and many others are not elderly, or veterans or use the Town’s plentiful parks and greenspace or other services, and therefore may not benefit directly from various specific services their taxes support.

### **Homeownership and Intergenerational Wealth**

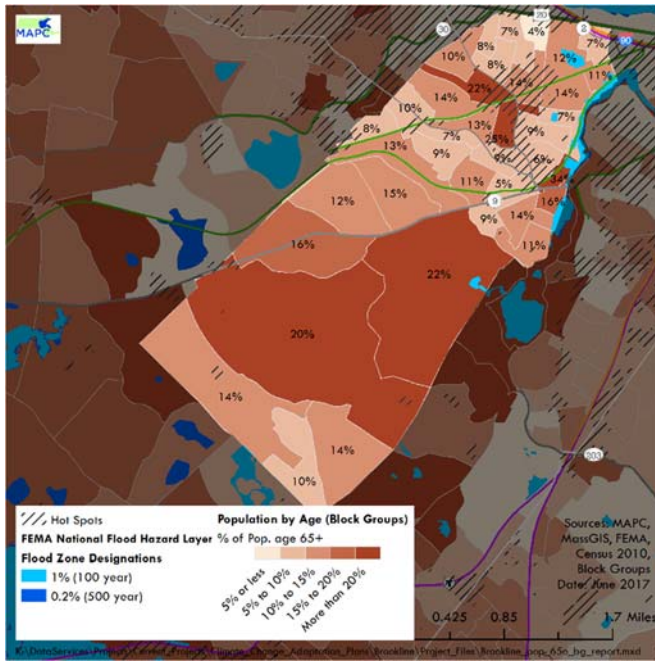
Wealth concentration is high and rising in the US, reigniting an old debate within economics about the role that intergenerational wealth transmission plays in understanding savings and wealth accumulation. ([Laura Feiveson](#) and [John Sabelhaus](#)) Moreover, there is a strong relationship between homeownership and intergenerational wealth. An Urban Land Institute study found that “having a home owning parent increases a young adult’s likelihood of being a homeowner by 7 to

8 percentage points. Additionally, a 10 percent increase in parental wealth increases a young adult’s likelihood of owning by 0.15 to 0.2 percentage points. For example, if parental wealth is \$200,000, the young adult would have a 50 percent likelihood of owning a home. Parental wealth includes financial assets and nonfinancial assets, such as homes and automobiles, minus any debt. Parents’ tenure status and wealth explains 12 to 13 percent of the difference in homeownership between black and white young adults. Young adults are more likely to be homeowners if their parental wealth is above \$200,000. More than 50 percent of white parents and only 10 percent of black parents hold more than \$200,000 of wealth.” (Jung Hyun Choi Jun Zhu Laurie Goodman) Table 2 below, highlights where the Town’s most significant poverty exists. There is also a h correlation between where poverty exists in Brookline and race. Moreover, our research has found that these areas are also most likely to be impacted by climate change, because they live in close proximity to flood zone. (Town of Brookline GIS)

Table 2 – Housing and Income in Brookline



Flood Zones by Income

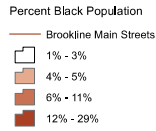


## Segregated Housing Patterns in Brookline

Finally, data supports that a RETT will help to minimize Brookline’s housing segregation patterns, which is also an intergenerational wealth problem as described above. A Boston Federal Reserve study found that “the typical white household in Boston is more likely than nonwhite households to own every type of liquid asset. For example, close to half of Puerto Ricans and a quarter of U.S. blacks don't have either a savings or checking account, compared to only 7% of whites. The typical white household in Boston is more likely than nonwhite households to own every type of liquid asset. For example, close to half of Puerto Ricans and a quarter of U.S. blacks don't have either a savings or checking account, compared to only 7% of whites. Whites and nonwhites also exhibit important differences in assets that associated with homeownership, basic transportation, and retirement. Close to 80% of whites own a home, whereas only one-third of U.S. blacks, less than one-fifth of Dominicans and Puerto Ricans, and only half of Caribbean blacks are homeowners. (Ana Patricia Muñoz, Marlene Kim, Mariko Chang, Regine O. Jackson, Darrick Hamilton, and William A. Darity Jr.) And while Brookline is not Boston, we believe that these trends may be quite similar in Brookline.

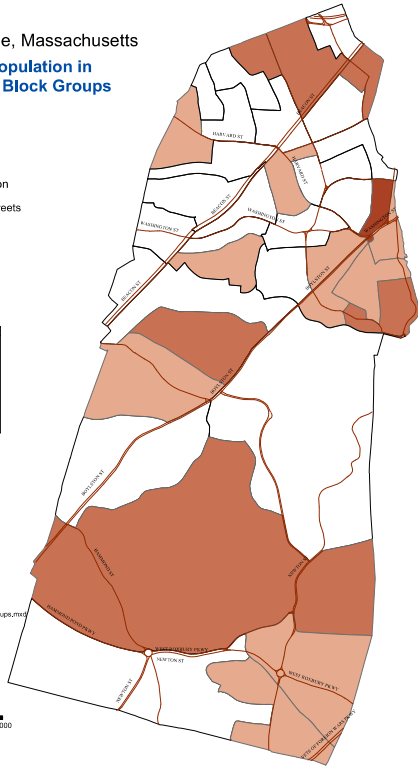
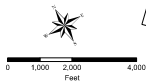
Table 3 below includes maps that highlight housing segregation patterns. You will see that maps below that people of color are concentrated in particular areas of Town.

Town of Brookline, Massachusetts  
**Percent Black Population in 2010 by Census Block Groups**

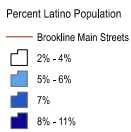


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**Data Source**  
 US Decennial Census 2010  
 Created by Brookline GIS 05/22/2013  
 Repository: map.doc@standard-demographics.com  
 P:\MapAmerica\Population2010-BKG\pop.mxd

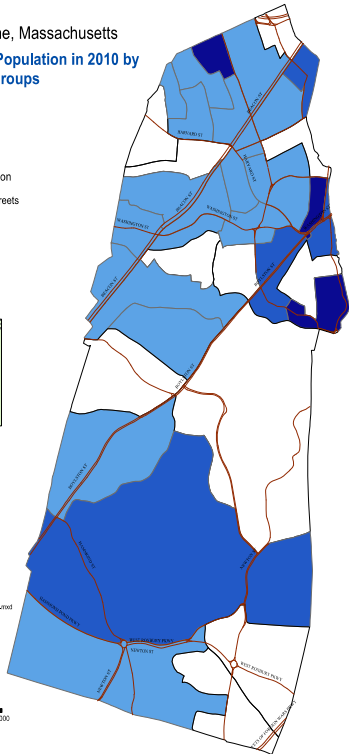
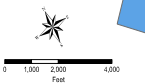


Town of Brookline, Massachusetts  
**Percent Latino Population in 2010 by Census Block Groups**



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**Data Source**  
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 Repository: map.doc@standard-demographics.com  
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Housing is Brookline's third rail, it can and will drive our future. While the RETT will not solve all aspects of our housing problems, it is an essential step if we are to better serve our current and future residents. For the above reasons, we believe that the RETT would benefit the entire community.

**Summary:** A resolution [to see if the Town will authorize Select Board to file a petition for legislation to](#) authorize it to levy a real estate transfer tax for affordable housing.

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Moreover, "[The Greater Boston Housing Report Card 2019: Supply, Demand and the Challenge of Local Control](#), helps explain how these dynamics work. Municipalities with zoning codes that make it difficult to build multifamily housing tend instead to produce only single-family homes accessible only to a small segment of the population—this is referred to as “exclusionary zoning.” Our mental model for “segregation” often leads us to picture urban neighborhoods of color, but some of our region’s most intense segregation is also in our affluent white suburbs. These communities have produced very little multi-family housing and instead are composed mostly of expensive single-family homes affordable only to higher-income families, most of whom tend to be white. In addition to analyzing problems with our current approach to local zoning, the Housing Report Card also analyzes which cities and towns aren’t producing their fair share of housing for lower-income residents.”

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**ARTICLE 10**

Submitted by: Select Board

The Committee on Campaigns was established by Town Meeting in 2006 following the work of the Moderator's Committee on Campaign Finance. The Committee recommended a series of reporting requirements, which were also established at the 2006 Special Town Meeting. The Committee has not met or taken any action in several years. Since the Committee was established via the General By-Laws, the purpose of this article is to remove the committee from the By-Laws.

**ARTICLE 11**

Submitted by: Department of Public Works, Peter Ditto, Town Engineer

In connection with the development of the Homewood Suites at 111 Boylston Street the town conveyed a small piece of land (500 s.f. +/-) in the former Kerrigan Place to the developer. The town requested that the developer relocate the existing sewer and drainage system in Kerrigan Place and grant an easement back to the town for the new location. The relocation of the sewer and drainage system and related work was completed as part of the construction for the hotel. The developer paid for the design and installation of the new drainage system in accordance with the plans and specifications approved by the town. The new drainage system is in a better location and the upgraded design and plastic pipes are an improvement to the older system located in Kerrigan Place and installed in the late 1800's. This article will allow for the formal termination and abandonment of the old sewer and drainage easements and the acceptance of the new easement for the town will be recorded at the Norfolk County Registry of Deeds.

## **ARTICLE 12**

Submitted by: Select Board

The Town of Brookline has committed to prioritize planning to achieve zero greenhouse gas emissions by 2050, Town- and community-wide. This Warrant Article seeks authorization for the Select Board to enter into solar Power Purchase Agreements (PPAs) on six properties. Over the next several years, the Town anticipates potentially installing solar systems via PPAs on the following roofs:

<b><i>Proposed Roof Locations for the Solar Systems</i></b>	<b><i>Size (Estimated DC kW)</i></b>
Coolidge Corner School	292
Runkle School	174
High School	146
Municipal Service Center	292
Heath School	217
Kirrane Pool & Gym	263
TOTAL	1,384

Overview: There are typically two principal paths available to the Town for acquiring solar energy systems. The first path is direct ownership: the Town purchases a solar system and owns and operates it, using the electricity and retaining its “environmental attributes” (known as Renewable Energy Certificates “RECs”). The second option is to use third-party financing and contract for a Power Purchase Agreement (PPA) with a company that owns and operates the system and sells the electricity back to the Town (through so-called “net metering credits,” which appear as reductions on the Town’s electricity bill). Both approaches have advantages and disadvantages, and different implications for financing the systems’ capital cost and meeting the Town’s climate-neutral goal.

Direct financing and ownership allows the Town to use the energy produced and retain ownership of the projects’ RECs. Using this approach to procure and install solar systems, the Town would need to raise or allocate funds (e.g. through a bond offering) to cover the projects’ costs. At approximately \$3.15/watt installed cost<sup>3</sup>, the six proposed solar locations would cost about \$4.5 million. As a municipality, the Town cannot benefit from certain investment credits and incentives available to private tax equity investors, such as the solar Investment Tax Credit (ITC) and accelerated depreciation. However, the Town could participate in the Commonwealth’s current Solar Massachusetts Renewable Target (SMART) program, but under that program would not own the RECs produced with the electricity from the solar systems.

Solar Massachusetts Renewable Target (SMART): By participating in the SMART program (either under the recommended PPAs or via direct ownership), the Town is helping to meet the State’s Renewable Portfolio and Clean Energy Standards (RPS and CES). However, as is required when participating in the SMART program, the electric utility company — not the Town — owns the RECs. In this case, the Town cannot “count” SMART RECs toward its emissions reduction

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<sup>3</sup> Memorandum regarding Solar Pricing from Cadmus (the Town’s solar consultant), dated 3/18/2019

goal because the RECs are counted by the electric utility toward the RPS and CES; for the Town to count them toward its own goal would be “double counting.” To achieve greenhouse gas reductions within the Town’s operations, if participating in the SMART program, the Town would need to purchase the equivalent amount of RECs on the market.

Alternatively, the Town could forgo SMART incentives, and then could own and retire the RECs from the market. In this case, as noted, the Town would need to (1) pursue a direct ownership model (not under SMART), or (2) use a third-party financing model in which the Town is specifically entitled to the RECs through the contracting arrangement.

Third-party financing with a PPA needs no capital investment from the Town, and does not cost the Town anything to maintain and operate the projects. With each PPA, the Town makes regular, fixed-rate energy payments (for the length of the contract), at a price per kilowatt-hour stipulated in the PPA.

This Warrant Article is seeking authorization for the Select Board to enter into solar Power Purchase Agreements at the six designated sites, for the following reasons:

- 1) The Town of Brookline has committed to prioritize planning to achieve zero greenhouse gas emissions by 2050, Town- and community-wide. The energy grid and buildings are important sectors for climate action. Substituting fossil fuel electricity with renewable energy through the installation of solar systems on Town buildings is an important step in achieving the Town’s greenhouse gas reduction goals.
- 2) The PPAs give the Town a timely, no-cost path forward with a vendor/investor for a major group of solar installations. The PPAs framework has been pre-negotiated by PowerOptions, a non-profit energy-buying consortium, on behalf of municipal and other participants.<sup>4</sup> The pricing methodology used is transparent and consistent.
- 3) The PPAs are designed to take advantage of the incentives offered through the Commonwealth’s SMART program, as well as the federal solar ITC and rapid depreciation.
- 4) By participating in the SMART program through these PPAs, the Town is helping to meet the State’s Renewable Portfolio and Clean Energy Standards (RPS and CES). Because greenhouse gas emission reductions do not have a geopolitical boundary for environmental impact, participating in the SMART program is a meaningful form of climate action.
- 5) There are advantages to moving forward with these PPAs now, as both the SMART incentives and the ITC decline over the next few years—with a corresponding increase in PPA prices. That is, there may be an opportunity cost to waiting.
- 6) A 20-year term for the PPAs fixes the Town’s energy cost for the term, insulating the Town from market volatility for the quantity of energy produced.
- 7) While other solar procurement approaches might have advantages, they have not yet been explored in depth; a direct ownership approach would require a funding process that would take, at minimum,

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<sup>4</sup> Public entities may participate in the PowerOptions solar PPA program without conducting individual procurement (MGL Chap. 164, Sec. 137).

several years. Until such options can be explored and analyzed, it is unknown whether they might be more or less advantageous than implementing these PPAs.

- 8) Until the Town further explores options for direct ownership and its feasibility by site, an *immediate* alternative to these options is the recommended PPAs.
- 9) PPAs can allow the Town, at one or more points during the term, to buy out the contract and own the system after a minimum holding period (usually seven years, which is the time an investor needs to realize fully the value of the tax incentives). This buy-out provision—once it is examined by the Town—may be a way for the Town to acquire rights to the RECs. This provides the Town with critical optionality in the future.
- 10) These PPAs would apply only to the six roof locations for which designs have been completed.<sup>5</sup>
- 11) The PPAs in no way prevent the Town from considering other approaches to solar in the future, and in fact provide potential flexibility with these six solar projects, given the buyout provision.

If Brookline contracts with a third party under the PPAs, the Town will enter a Payment In Lieu Of Taxes (PILOT) agreement with the Provider. This provides cost certainty over the term while capturing a fair value that reflects comparably to personal property tax.

### **ARTICLE 13**

Submitted by: The Department of Planning & Community Development\*

Co-petitioners: Blake Cady; David Lescohier, TMM11; David Lowe, TMM11; Scott Englander, TMM6; Willy Osborn.

\*Principal petitioner for point-of-contact.

Zoning By-Law Amendment to permit accessory Ground-Mounted Solar Photovoltaic Installations under certain circumstances.

If passed, this proposed Zoning By-Law amendment would allow for ground-mounted solar photovoltaic installations in the Zoning By-law, which currently prohibits them outside of two municipally-owned properties: a portion of the municipally-owned transfer station site on Newton Street and Singletree Hill Reservoir just south of Route 9. The proposal does this by adding text specifically allowing ground-mounted solar systems to Use 61, which describes allowable accessory uses. The amendment does not change any setback or other siting requirements for accessory buildings and structures in the zoning by-law, and further, adds a minimum 25 foot setback from all lot lines by requiring adherence to site plan review and other use regulations described in Section 5.06.4.h(3-13). Accessory ground-mounted solar photovoltaic installations would be limited to 50 kWdc and any system larger than 10 kWdc (a footprint of roughly 460 square feet) would require a special permit.

Solar modules have significantly increased in power and decreased in cost over the last 10 years, and solar projects are increasingly regarded as both desirable investments and a tangible way for individuals and organizations to address global warming. Brookline homeowners and businesses

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<sup>5</sup> Two of these projects—the Heath School and the Municipal Service Center—may end up not being included, depending on the CIP roofing schedule.

are allowed to put solar modules on their roofs, but many are prevented from doing so because of poor roof orientation or shading from trees or buildings. This amendment expands the solar options available to property owners by allowing the installation of ground-mounted solar systems anywhere a small outbuilding or other accessory use structure might be sited, such as to the side or rear of a house.

Given the Town's commitment to prioritize planning to achieve zero greenhouse gas emissions by 2050 (no reliance on fossil fuels), we should be doing everything reasonable and possible to encourage property owners to reduce their carbon footprints. Ground-mounted solar is a proven technology that has great potential for emissions reduction and as such should be permitted by the Town. If the Zoning By-law allows accessory structures such as sheds and out-buildings, there is good reason to also permit accessory ground-mounted solar systems.

The proposed zoning by-law amendment protects against excessively large installations by limiting "as-of-right" (without special permit) ground-mounted systems to 10 kWdc, approximately the footprint of two parking spaces. The capacity limit of 10 kW would accommodate up to approximately 30 330-watt solar modules, on racks attached to the ground or acting as a canopy over vehicle parking. It would also allow for the installation of more innovative and efficient systems such as dual-axis trackers on high-strength pole supports. With power levels of 330 watts per module, a 30-module system could produce on average about 1,000 kilowatt-hours per month—a supply of clean, carbon-free energy that could more than meet the electricity needs of a moderately-sized house.

#### **ARTICLE 14**

Submitted by: C. Scott Ananian, TMM 10, (correspondent) Jesse Gray, TMM 10

Section 1.00 of Brookline's Zoning By-law declares its purpose to be "promotion of the public health, safety, convenience, and welfare" by, among other things, "assisting in the economical provision of transportation [...] and other public facilities". Climate change is a public health crisis. Our sustainability goal for the Town of Brookline is to increase transport efficiency and electrify all motorized transportation. This warrant article advances the latter goal by ensuring that our public transportation facilities are compatible with the electrified-transport future; it complements and does not conflict with other Town efforts to reduce the number of cars necessary and reduce the amount of land surface required to store them: it just helps ensure that whatever parking is provided in town is consistent with the electrification goal.

This article does not increase the amount of parking required or permitted, and it does not mandate that an EV READY parking space be reserved for electric vehicle use. The EV READY parking space simply has the infrastructure required for charging.

A zoning amendment very similar to the present one was introduced in Fall 2016. At the time, no definition of an EV READY parking space appeared in the Massachusetts building code, and a concern was raised that the necessary definitions and wiring requirements in the Fall 2016 article veered too closely to "methods and materials of construction", which by state law only the building code (and not zoning regulations) can regulate. In March 2019 the state Board of Building Regulations and Services approved amendments to the state building code that define "EV READY parking space", clearing the way for a reintroduction of this article.

The Fall 2016 article was referred to a committee, who reported back to Town Meeting in Spring 2017. Recommendation #2 of the 2017 Report to Annual Town Meeting of the Electric Vehicle Charging Station Sub-Committee of the Select Board's Climate Action Committee (April 20, 2017) was to:

2) Amend Zoning By-Law utilizing one of several possible alternative approaches, (See Section 8 for a more detailed discussion of a variety of regulatory approaches). One such approach would be to amend Article 6 – relating to off-street parking facilities, to require or encourage EVSE installation or EVSE-ready wiring for projects of a certain threshold size. Action: Fall 2017 Warrant Article.

<https://www.brooklinema.gov/DocumentCenter/View/18795/Report-to-Annual-Town-Meeting-2017-v4>

Although the full subcommittee report discusses other possible forms for a zoning by-law amendment, the introduction of a State EV READY definition cleared the obstacles from implementing what that report labeled “Path 1”.

It is worth noting that EV charging infrastructure is especially needed in the transition to fully-electric vehicles, when plug-in hybrids are expected to be the most common and cost-effective zero-emission option for many owners. Plug-in hybrid electric vehicles typically have very small batteries, and are only “zero emission” if that battery is kept charged! Once you drive past the limited range of the battery, a plug-in hybrid is just a plain polluting greenhouse-gas-emitting internal combustion engine car. So widespread charging infrastructure is even more important for plug-in hybrids, which might need to be topped off after every trip to keep them driving clean, than it is for a modern long-range fully battery-electric vehicle, which might need to be charged only once a week.

This by-law exempts parking lots with 6 or fewer spaces to mitigate impact on small residential homeowners. In our existing zoning, parking is allowed by principal use #22 (“Residential parking garage or parking area, whether as the sole use of a lot or as a secondary use, solely for the storage of cars of residents of other lots located within 1,400 feet.”), but this existing zoning use only allows business L, G, O, and industrial I zones to park more than 5 cars by right. Residential T, F, and M zones already require a special permit to have more than 5 cars, and S and SC currently require a variance to do so. Lots with 7 or more spaces are not typical in our Town.

Further, there are robust grandfather clauses to ensure the zoning change in this article does not unduly affect existing buildings. State law (MGL Ch 40A sec 6) provides that “a zoning ordinance or by-law shall not apply to structures or uses lawfully in existence or lawfully begun [...] but shall apply to any change or substantial extension of such use [...] except where alteration, reconstruction, extension or structural change to a single or two-family residential structure does not increase the nonconforming nature of said structure.” The key phrase is “increase the nonconforming nature of said structure”; doing unrelated renovation work (adding a mudroom, for example) does not increase the “nonconforming nature” of its parking spaces. In addition, our local Brookline zoning bylaw states in 6.01 (1): “Structure and land uses in existence or for which building permits have been issued at the date of adoption of this By-law shall not be subject to the requirements of this Article so long as the kind or extent of use is not changed, provided that any parking facilities now serving such structures or uses shall not in the future be reduced below such requirements.” Repaving an existing parking lot or adding drainage, for example, doesn’t change “kind or extent of use”, and so would not trigger the new EV READY requirements added by this

warrant article. For any remaining unusual cases which might slip through the cracks, this warrant article allows the Zoning Board of Appeals to issue a special permit as a final loophole.

Given all these exceptions, the 15% EV READY requirement in this article is probably too low to meet our state and town electrification goals. As part of the Multi-State ZEV Task Force ([zevstates.us](http://zevstates.us)) Massachusetts has committed to putting 300,000 ZEVs on the road by 2025. In 2016, we had 2.3 million vehicles registered in Massachusetts. Simple math indicates that 13% of our statewide fleet will need to be electric in the next six years to meet the state goal. Our Brookline goal, as proposed in another article in the warrant for this Town Meeting, is for 30% of our Town vehicles to be electric by 2030. Given the slow rate of new building construction in town, the number of electric vehicles in town will quickly outpace the EV READY spaces provided for by this article. I hope that we will increase our EV READY guidelines for major impact projects substantially (currently 2% EV READY + “capacity” for an additional 15%), and take further efforts to incentivize the creation of both public and private chargers for “garage orphans” in this town. This warrant article is but a modest first step.

### **ARTICLE 15**

Submitted by: Linda Olson Pehlke, TMM Pct. 2, and Paul Saner, TMM Pct. 13

This Warrant Article seeks to remove minimum parking requirements and establish maximum parking ratios for most commercial store front uses within the Transit Parking Overlay District. The TPOD covers most of North Brookline and is defined as all parcels within 0.5 miles of a Green Line transit stop. The TPOD was adopted in 2016. The purpose of establishing the TPOD was to better align Brookline’s residential parking requirements with household vehicle ownership and travel behavior as well as achieving better alignment with historic land use patterns within areas served by public transportation.

Subject to Town permitting review, commercial property owners and businesses would be free to propose any amount of parking considered appropriate, up to a reasonable maximum. The proposed maximum is equivalent to the current town wide minimum parking requirements for commercial storefront uses as identified in Section 6.02, paragraph 1, Table of Off-Street Parking Space Requirements. In general, the current minimum parking requirements range between 3 -5 spaces per 1,000 sq. ft. for ground floor retail and general office uses. Upper floor general retail and office parking requirements range from 1 space to 2.5 spaces per 1,000 sq. ft. Required parking for restaurants is calculated based on the number of seats the restaurant, (or other uses considered “public assembly”) have, ranging between requiring one parking space per 3 seats to one space per 5 seats. This often results in a parking requirement that is much higher for restaurants than for general retail, causing permitting issues when a restaurant wishes to locate in an existing retail storefront. It’s interesting to note that the Selectmen’s Parking Committee (2010) documented that 68% of Brookline’s commercial businesses that are primarily retail or restaurant had no on-site, off-street parking.

An impact of this Article would be to allow greater flexibility and case-by-case consideration of parking for a commercial change of use within existing storefronts. This same flexibility would apply to any proposed new commercial development within the TPOD. Existing storefront uses which have on-site private parking could repurpose some or all of their on-site parking if they deemed it to be unnecessary, subject to Town permitting, licensing and review. This could have



the beneficial result of allowing for more shared parking between adjacent uses and public use of our existing private parking resources.

The principle reasons for taking this step are as follows:

1. Our compact, walkable neighborhood commercial areas succeed because of their transit access, shared public parking resources, dense neighborhoods within walking and biking distance, and the juxtaposition of multiple civic, shopping and entertainment destinations. Most of the buildings devoted to store front uses in these areas were built prior to the advent of minimum parking requirements for such uses, and therefore do not have on-site private parking. This fact contributes to the compact, inviting, pedestrian-friendly commercial areas we enjoy today. Requiring a minimum amount of on-site private parking for new commercial projects or for a change of use within our existing storefronts limits economic activity. In addition, meeting such requirements is often not possible or desirable if we wish to maintain our historical and current land use patterns and walkable accessibility. Inadequate room for new parking on existing sites prevents the renovation of older buildings, or can result in replacing storefronts (or entire stores) and street trees with garage entrances and associated curb cuts, and/or blank facades hiding floors of parking, all of which substantially degrade the pedestrian environment. When everyone parks at their destination, with no reason to use the sidewalk, street life is eliminated, and storefront businesses in the vicinity of the destination see less foot traffic.<sup>6</sup>

2. Transportation accounts for approximately 40% of Brookline’s greenhouse gas emissions. The Town’s commitment to prioritize planning to achieve zero carbon emissions by 2050 requires a reconsideration of old planning norms based on automobile-centric design and land use patterns. We must take steps to improve and support active and public transportation options. Incentivizing car parking through private parking requirements—when transit, walking, and biking alternatives are readily available and heavily used—works against this goal.

3. Traditional minimum parking requirements are based on outmoded planning and engineering concepts. The basis for the parking demand estimates embedded in traditional parking requirements derive from parking occupancy counts at isolated commercial properties in suburban and rural settings. Therefore, these requirements do not reflect conditions in compact, mixed-use, transit-oriented settings such as Brookline’s commercial districts and historic transit corridors. Such requirements were developed “without considering parking prices, the cost of parking spaces, or the wider consequences for transportation, land use, the economy, and the environment.”<sup>7</sup>

4. In our neighborhood commercial areas, new businesses seeking to lease an existing storefront can sometimes be forced through the special permit process, adding expense and delay to their business plans, simply because the use they are proposing requires more parking under our Zoning By-Law than the business previously occupying the same location—even when the previous business occupied a storefront with no on-site parking. Additionally, to avoid a special permit or variance request, proposed restaurants often have to limit the amount of seating they could otherwise provide because the minimum parking requirements are tied to the number of seats.

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<sup>6</sup> Speck, Jeff, 2018. *Walkable City Rules: 101 Steps to Making Better Places*, (Washington DC: Island Press) pp 38-39

<sup>7</sup> Shoup, Donald, 2018. “Truth in Transportation Planning”, in Donald Shoup (ed.). *Parking and the City*, (New York: Routledge) pg. 72

These added burdens can sometimes be too much for a small local business, causing new entrepreneurs to look elsewhere to open, or to close rather than adapt their business model within their current location. With the advent of this Warrant Article, change of use requests for storefront uses can be reviewed and permitted by Town Building Department personnel, without resulting in new small businesses having to get a special permit for these storefront uses.”

5. Small businesses contribute to Brookline’s quality of life. Moreover, expanding our commercial tax base will help the Town close a forecasted structural revenue shortfall—an important town wide goal. Based on tax revenue per square foot of land area, businesses in our walkable, compact commercial areas are exceptionally valuable to the Town from a tax revenue standpoint. Private on-site parking is an extremely inefficient use of our limited land resources and works against commercial productivity. Almost all of our recent overlay zoning districts have removed minimum parking requirements for commercial uses and capped the number of parking spaces allowed by including a maximum number of parking spaces. This more flexible approach has proven successful in the market for which these projects secured financing.

6. Maximum parking standards for businesses in mixed-use, transit-oriented districts make sense because parking in excess of what is actually needed could invite automobile trips that would otherwise be shifted to transit, walking, bicycling, or carpooling. Numerous jurisdictions around the United States have adopted maximum parking requirements in transit-oriented commercial settings, and the MBTA’s transit-oriented development policy encourages communities to set reasonable maximums within their station areas. For Brookline, the current town wide minimum parking requirements represent a reasonable set of *maximum* requirements for storefront uses within the TPOD: from a zoning perspective, these requirements have already been deemed to provide adequate parking capacity for businesses located anywhere in town, including those that lack proximity to Green Line stops or shared parking resources. It is reasonable to expect that businesses within the TPOD would not need more parking, on a dedicated, on-site basis, than these maximum standards would allow. In exceptional cases, a property owner would have the usual right to seek relief through the Zoning Board of Appeals.

7. The urban form of North Brookline was established long ago, before the automobile became ubiquitous. Land use patterns were based on access to public transportation, biking and walking. Many studies have documented the desirability and value-added of walkable settings, and this is a part of Brookline’s historical legacy that we should maintain. The resulting density and compactness of our commercial areas are key to the charm, usefulness, economic efficiency and support for small and local businesses that these areas provide. Adding significant quantities of on-site private parking works against Brookline’s core values, strengths, and character in such a setting.

Though not addressed directly by this warrant article, our shared, public parking resources, both on-street and in our Town-owned lots, should be better managed to meet customer demand and encourage customer parking turnover, utilizing best practices, such as performance pricing.<sup>8</sup> Generally speaking, the term performance pricing refers to implementing a dynamic parking pricing strategy based on demand that achieves a performance target, usually set at a goal of 85%

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<sup>8</sup> Shoup, Donald, 2018. “Free Parking or Free Markets”, in Donald Shoup (ed.). *Parking and the City*, (New York: Routledge) pg. 270

parking utilization, thus always having 15% of spaces available. Such a strategy significantly reduces circling the block, etc. and provides available parking where it is most desired.

Additionally, to better manage our public parking resources, the Town should pursue Transportation Demand Management to incentivize active and public transportation use by employees. New solutions, such as merchant employee parking at the Coolidge Corner School during non-school hours, would effectively increase the public parking supply. Public shared parking is much more efficient than single-use private parking, with several businesses enjoying customer and employee utilization of a single parking space. If it is determined that additional parking resources are necessary, the Town should consider expanding shared public parking, as well as encouraging the shared use of existing excess capacity on private sites.

## **ARTICLE 16**

**Submitted by:** Paul Warren, TMM1 and Heather Hamilton, Select Board Member

The Select Board launched an E-Scooter pilot program to identify and evaluate potential demand, community issues, benefits and costs of a permanent E-Scooter Share Program in Brookline.

The pilot program, based on usage data and user survey results supplied by the vendors, indicates that in Brookline there appears to be significant demand for shared E-Scooter services. The level of reported demand and replaced automobile trips appears to be consistent with what has been reported by other communities that have deployed shared E-Scooter services.

The pilot program has also highlighted that the operation and parking of motorized scooters on sidewalks has raised concerns with respect to pedestrians, and in particular, the elderly, disabled and the very young. These concerns include the risk of injury from collisions as well as tripping and fall hazards from improperly parked E-Scooters.

The pilot program also highlighted gaps in State and local regulations governing E-Scooters. Brookline has been working in a leadership role to address these gaps by participating in the planning and development of a regional, regulatory and operating framework with other local municipalities including Boston, Cambridge, Watertown and Somerville.

Contemporaneously, several bills have been introduced in the legislature to address E-Scooters and other micro-mobility devices regarding the operation of such devices on public sidewalks. Thus far, the filed legislation permits the operation of these devices on sidewalks other than in business districts. It does, however, preserve local control of sidewalks by allowing municipalities to pass local ordinances and regulations limiting any operation on sidewalks whether in or outside of business districts. But, of course, there is no assurance that the final legislation will preserve the local option.

This first resolution seeks to postpone additional piloting or the permanent deployment of E-Scooters and other micro-mobility devices in Brookline until the State legislature updates and clarifies its existing laws and until the Brookline Transportation Board holds public hearings and develops rules and regulations to govern the use of such devices in Brookline.

The second resolution urges our State legislative delegation to work with the State Legislature to ensure that, in any legislation involving E-Scooters and other micro-mobility devices, Brookline retains local control to regulate its sidewalks with respect to the use and operation of such devices.

### **ARTICLE 17**

Submitted by: C. Scott Ananian, TMM 10, (correspondent) Jesse Gray, TMM 10

One of the surprising findings of the Electric Vehicle Charging study committee was the large percentage of “garage orphans”: Brookline residents who face obstacles switching to an electric vehicle because of the lack of a dedicated charger. The solution to the garage orphan challenge in our town must be multifold, including ensuring that Major Impact Projects in town provide sufficient charging capacity in parking structures, supporting a renters/condo-owners “bill of rights” to ensure they are able to install chargers at their own expense, and providing public chargers, for example in town lots and in town-provided overnight parking, to accommodate those without their own dedicated charger. This article addresses one additional piece of that challenge, in attempting to increase the number of rented parking spaces which provide electric vehicle charging facilities. A small pilot program of, for example, \$10,000 could provide \$500 rebates to the first 20 open-air parking license holder applicants, and would provide feedback on whether this incentive would be effective in increasing EV charger availability in our town.

It is time to broaden the adoption of Electric Vehicles to those who rent or who cannot afford to own property with dedicated parking.

### **ARTICLE 18**

Submitted by: Scott Gladstone and Isaac Silberberg

The Building Department currently interprets the definition of “Lodger” under the Zoning By-Law to mean a lodger for 30 days or more. This warrant article makes explicit the interpretation that the Town has been using for the proposition that short term lodging, such as those offered by Air Band B and similar services, are not a permitted use in Brookline. As a consequence, based on complaints, the Building Department has been shutting down advertised Air B and B’s and similar short term rentals.

This warrant article also adds a new definition for “short term lodgers” and adds a new use that explicitly permits short term lodging under conditions similar to those already allowed for lodgers for 30 says or more, which is permitted under the existing Use 51. The proposed new Use 51C, includes the same restrictions as the existing Use 51: renting of not more than two rooms, which rooms cannot have separate cooking facilities, to not more than two short term lodgers and in no event can all more than 4 of unrelated persons dwell at one time in a dwelling unit.

The proposed new use would have the following additional requirements:

1. The owner would need to be registered under the Commonwealth’s short term rental registration system created by G.L. c. 62C, Section 7;
2. The owner would need to comply with any additional registration or regulatory requirements the Town may choose to impose through amendments to the Town By-Law;

3. The owner of the dwelling unit, or a Lodger (long term) living in the dwelling unit, must sleep in the dwelling unit being rented to a short term lodger for each night of such short term lodger's rental in order to avoid a scenario wherein (i) an owner-occupier vacates the unit in order to facilitate the short-term lodger or (ii) the owner occupier of a two, three or multi-family building rents the units in which the owner does not live to short term lodgers.

Town Meeting previously accepted the terms of G.L. c. 64G, Section 3A in order to be able to facilitate a local use tax on hotels. By operation of G.L. c. 62C, Section 7, such taxes are now automatically applicable to short term rentals. That being the case, every Air B&B renter, who has not been shut down by the Town, will in theory be paying the local tax into the Commonwealth and the Town will then start collecting that tax payment as of July 1, 2019. This warrant article will legalize at least some of the uses for which the Town will be collecting that tax.

The primary motivation for starting with the proposed new Use 51A is to permit low and fixed income people to be able to take advantage of short term rentals in order to supplement their income and facilitate their staying in their homes. Such owners may prefer to supplement their income in this fashion, as opposed to taking on long term lodgers as roommates, in order to maintain their autonomy and privacy when the spare bedroom(s) are not rented. Also, long term lodgers may be more difficult to evict if they become a problem for the owner, which is less of a concern when it comes to short term renters. Thus, this proposal has a strong economic justice component.

## **ARTICLE 19**

Submitted by: Roger Blood

An accessory dwelling unit ("ADU") is a self-contained or segregated space within a single-family home, comprised of a kitchen, bathroom and living/sleeping area and subject to size, design, ownership and use restrictions.

In 2009, Town Meeting considered an ADU-authorizing zoning bylaw amendment. While a strong majority voted in favor of that article, it fell several votes short of the 2/3 required super majority for adoption of all zoning articles. This current ADU article for single family homes differs in some respects from the prior article, while adopting some provisions from the Newton ADU ordinance which became effective in 2017.

Under Article \_\_, the principal residence or the ADU must be owner-occupied; the ADU, if granted by right, can be no greater than 750 square feet or 30 percent of the home's total habitable space, whichever is less, and by Special Permit, under certain conditions may be up to 950 square feet. The property must be under a single common ownership, i.e., it cannot be 'condo'd'. The exterior of the house must continue to appear as a single-family home and can have only one set of metered utilities.

All approved ADU's would require initial and periodic certifications of owner-occupancy of the subject property. Based upon the many specific restrictions included in the article, a single-family home containing an authorized ADU would be very different than a two-family home.

In recommending this Article, the Brookline Housing Advisory Board (HAB) has observed the growing popularity of ADU's in urban, suburban and rural communities, both in Massachusetts and nationwide. This trend is mainly a result of households becoming smaller; the continued aging of our population with a desire of many homeowners to 'age in place'; and more inclusive definitions of "family". The AARP, among others, has reported very favorable research on accessory dwelling units, and many of our neighboring communities now authorize and encourage ADU's.

A review of numerous Greater Boston area communities that have adopted an ADU Bylaw indicates on the one hand significant variations in specific bylaw provisions and, on the other hand, remarkable uniformity in the overall volume of resulting activity, which has been low everywhere. The HAB has found no evidence that these communities have experienced any adverse neighborhood effects.

The HAB sees ADU's as one component of a strategy that encourages a diversity of housing types to serve many legitimate social, economic and housing needs of our increasingly diverse Brookline citizenry.

In particular, ADU's are seen as potentially helpful to:

- Young families or single working parents seeking stable childcare options;
- Middle-aged parents helping adult children to become independent;
- Frequent travelers, or retirees who winter in warmer climes, concerned about leaving homes unattended;
- Older homeowners seeking to remain in homes, while needing personal assistance/companionship;
- Adult children seeking to care for older parents while maintaining independence for both;
- Families with disabled members seeking stable and convenient options for in-house care;
- Homeowners of all ages struggling to pay their living and home maintenance costs;
- Renters seeking lower cost living options. Short term rentals would be prohibited.

In summary, the Housing Advisory Board believes that Article \_\_ will enable some homeowners—especially older adults--to reduce their own housing (or other life) costs and/or for the occupants of ADU's to live more economically, thereby increasing affordability in general without public cost or further new development.

Finally, this ADU article will promote greater personal safety and security by providing an opportunity for owners of currently unauthorized dwelling units to have their units inspected for fire, health and safety code compliance and allowing their existing illegal units to be legalized.

## **ARTICLE 20**

Submitted by: Robert Zuker

Currently, Micro Unit Dwellings as defined in the Zoning By-Law are residential units no greater than 500 square feet in gross floor area per unit. *See*, Section 2.04 (3)(f) of the Brookline Zoning By-Law. Micro Unit Dwellings have been recognized by the town as a useful way to provide housing for individuals at a relatively affordable cost. In addition, because of the smaller size of these units they have a smaller ecological footprint than larger 1 bedroom units. Several years ago when the Town approved the Emerald Island Special Overlay District (EISD) Micro Unit Dwellings were allowed in the EISD. However, no other zoning district in town permits the development of Micro Unit Dwellings. To date, no Micro Unit Dwellings have been developed or proposed in the EISD. This article seeks to allow Micro Unit Dwellings in the G-1.75 (CC); the Coolidge Corner General Business District with a special permit from the Zoning Board of Appeals. This article also seeks to provide more flexibility for Micro Unit Dwellings to use Public Incentive Benefits by eliminating the requirement that the lot contain a minimum of 20,000 square feet. In addition to providing much needed housing to individuals, Micro Unit Dwellings can also provide a boost to the nearby retail businesses. The Coolidge Corner General Business District is a suitable spot for Micro Unit Dwellings due to the existing density, many nearby retail and civic establishments and public transit options.

## **ARTICLE 21**

Submitted by: Jesse Gray (TMM-10), Werner Lohe (TMM-13), Alan Leviton, Lisa Cunningham (TMM-15), Diane Sokal, Daria Mark, Cora Weissbourd, Kathleen Scanlon (TMM-3), Heather Hamilton (SB), Raul Fernandez (SB), and Nancy Heller (SB)

### **Summary**

This by-law will prohibit installation of fossil fuel piping in new buildings and in major renovation of existing buildings. Consequently, this policy will require heat, hot water, and appliances that are installed during new construction and gut renovation to be all-electric. For situations in which electric is not practical or cost effective, this by-law provides for exemptions, including for fuel piping for backup generators. An exception is also included for the Waldo-Durgin development, because it is the only major commercial project requiring a zoning change that has not yet pulled a building permit.

### **Rationale**

We are facing a global climate crisis. This climate crisis directly affects Brookline residents and businesses. Massachusetts is one of the fastest-warming states in the country<sup>9</sup>. We have seen a rapid increase in extreme heat events that threaten the health of our children, our seniors, and those who need to work outside, not to mention our fragile ecosystem, our plants and wildlife. Rising seas and increased flooding threaten Boston and coastal communities<sup>10</sup>. Public health risks include an increase in heat-related illnesses and deaths, as well as outbreaks of insect-borne and waterborne

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<sup>9</sup> <https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-america/>

<sup>10</sup> [https://ss2.climatecentral.org/#13/42.3232/-71.1423?show=satellite&projections=0-K14\\_RCP85-SLR&level=5&unit=feet&pois=hide](https://ss2.climatecentral.org/#13/42.3232/-71.1423?show=satellite&projections=0-K14_RCP85-SLR&level=5&unit=feet&pois=hide)

diseases<sup>11</sup>. As natural ecosystems change or collapse, Massachusetts farmers, fishermen, and residents will suffer<sup>12</sup>.

In its Climate Action Plan, Brookline has committed to reducing its carbon emissions to zero by 2050<sup>13</sup>. Every new building constructed with fossil fuel infrastructure makes this goal harder to achieve, by lighting a new fire that will burn, on and off, for thirty years or more. To meet our climate goal, each of these fires will need to be put out through the retrofitting of buildings, which account for 60-70% of our Town emissions<sup>14</sup>. It is unfair to the next generation to continue to install infrastructure that we already know will need to be replaced in a very short time.

Worsening gas leaks in underground pipes constitute their own significant dangers. Recent gas explosions in the Merrimack Valley<sup>15</sup>, which killed one person and injured many more, and non-injurious explosions in Brookline<sup>16</sup>, have put citizens at risk. 25% of the natural gas pipelines in Massachusetts are leak-prone and need repair and replacement<sup>17</sup>. Gas utilities, including in Brookline, are not adequately maintaining natural gas infrastructure by fixing unsafe leaks. Gas leaks have also killed trees in many places in Brookline.

In addition, the burning of fossil fuels inside buildings produces harmful indoor emissions<sup>18</sup> that emit nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), and formaldehyde (HCHO), each of which can cause various respiratory and other health ailments<sup>19,20</sup>. Cooking with gas has been linked to asthma and other adverse health effects, with children and low-income households particularly affected<sup>21,22</sup>. Nitrogen dioxide from gas stoves is linked to increased asthma rates among low-

<sup>11</sup> <https://www.annualreviews.org/doi/full/10.1146/annurev.publhealth.21.1.271>

<sup>12</sup> <https://www.mass.gov/service-details/climate-change-in-massachusetts-and-its-impacts> and <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-ma.pdf> and <https://www.massaudubon.org/our-conservation-work/climate-change/effects-of-climate-change>

<sup>13</sup> <https://www.nature.com/articles/s41586-019-1364-3>

<sup>14</sup> <https://www.brooklinema.gov/ArchiveCenter/ViewFile/Item/628> (see footnote on sidebar)

<sup>15</sup> [https://en.wikipedia.org/wiki/Merrimack\\_Valley\\_gas\\_explosions](https://en.wikipedia.org/wiki/Merrimack_Valley_gas_explosions)

<sup>16</sup> <https://boston.cbslocal.com/2019/05/26/brookline-hammond-street-closed-manhole-fire-explosions/>, <https://patch.com/massachusetts/brookline/manhole-explosion-coolidge-corner-shuts-down-area>, <https://www.youtube.com/watch?v=Rbc11T8Vynw>.

<sup>17</sup> <https://eeaonline.eea.state.ma.us/DPU/Fileroom/dockets/bynumber> (search by number for 18-GLR-01)

<sup>18</sup> Additional footnotes for statement on indoor emissions from: <https://healthyindoors.com/2018/07/cooking-indoor-air-pollution-emissions-natural-gas-stoves/>

1. Klug VL, et al. Cooking Appliance Use in California Homes—Data Collected from a Web-based Survey. LBNL-5028E. Berkeley, CA:Lawrence Berkeley National Laboratory (August 2011). Available: <http://homes.lbl.gov/sites/all/files/lbnl-5028e-cooking-appliance.pdf> [accessed 5 December 2013].

2. Jarvis D, et al. The association of respiratory symptoms and lung function with the use of gas for cooking. *Eur Respir J* 11(3):651–658 (1998); <http://www.ncbi.nlm.nih.gov/pubmed/9596117>.

3. Jarvis D, et al. Association of respiratory symptoms and lung function in young adults with use of domestic gas appliances. *Lancet* 347(8999):426–431 (1996); [http://dx.doi.org/10.1016/S0140-6736\(96\)90009-4](http://dx.doi.org/10.1016/S0140-6736(96)90009-4).

4. EPA. Formaldehyde: Hazard Summary [website]. Washington, DC:U.S. Environmental Protection Agency (updated 18 October 2013) Available: <http://www.epa.gov/ttnatw01/hlthef/formalde.html> [accessed 5 December 2013].

<sup>19</sup> <https://www.nytimes.com/2019/05/01/opinion/climate-change-gas-electricity.html>

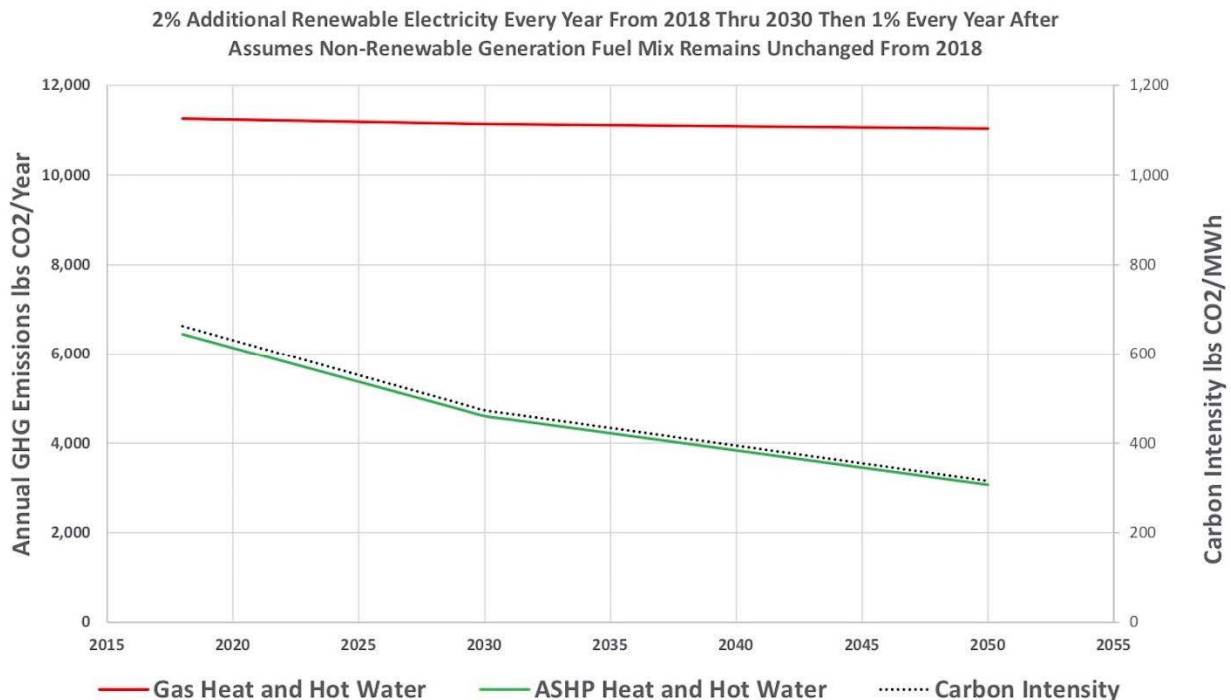
<sup>20</sup> <https://www.nytimes.com/2019/05/01/opinion/climate-change-gas-electricity.html>

<sup>21</sup> <https://www.sciencedaily.com/releases/2014/09/140929180523.htm> and <https://www.ncbi.nlm.nih.gov/pubmed/22082993> and <https://scopeblog.stanford.edu/2018/03/06/use-your-range-hood-for-a-healthier-home-advises-indoor-air-quality-researcher/> and <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.277.9376&rep=rep1&type=pdf>

<sup>22</sup> <https://www.nytimes.com/2019/05/01/opinion/climate-change-gas-electricity.html>



income preschoolers, and gas stoves are especially dangerous in smaller apartments with poor ventilation<sup>23</sup> and when they are used for supplemental heat. If the Clean Air Act applied inside homes, the air quality produced by cooking with gas would be illegal<sup>24</sup>.



**Figure 1: Comparing the Greenhouse Gas Emissions of an All-Electric House With Air Source Heat Pumps to a House With Natural Gas Heat and Hot Water**

All-electric buildings are healthier and can operate immediately with zero emissions through the purchase of 100% renewable electricity with programs like Brookline Green Electricity<sup>25</sup>. Even buildings using the default New England electrical grid mix become greener every year as the electrical grid incorporates more and more renewable electricity generation, with a state-mandated minimum 60% renewable energy by 2050<sup>26,27</sup>. Figure 1 compares projected carbon emissions for a single family home built in Massachusetts using air-source heat pumps to provide electric heat and hot water with a similar home that uses gas heat and gas hot water. This projection assumes the home uses the default provider of electricity, which will become more renewable overtime. An all-electric home that elects to use 100 percent renewable electricity will have no carbon emissions from heat and hot water.

All-electric construction is practical and feasible now. Numerous all-electric buildings have been built recently in Massachusetts (Appendix D), demonstrating the feasibility and practicality of all-electric construction. Assuming that 0.5% of the building stock in Brookline is rebuilt or significantly renovated per year, this by-law would decarbonize 15% of our buildings by 2050.

<sup>23</sup> <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.277.9376&rep=rep1&type=pdf>

<sup>24</sup> <https://well.blogs.nytimes.com/2013/07/22/the-kitchen-as-a-pollution-hazard/> and <http://rebuildgreenexpo.com/wp-content/uploads/2019/06/ElectricMFGuide.pdf>

<sup>25</sup> <https://www.brooklinema.gov/1340/Brookline-Green-Electricity>

<sup>26</sup> <https://www.greenribboncommission.org/wp-content/uploads/2019/01/Carbon-Free-Boston-Report-web.pdf>

<sup>27</sup> [blog.greenenergyconsumers.org/blog/rps-res-in-plain-english](http://blog.greenenergyconsumers.org/blog/rps-res-in-plain-english)

Decarbonizing in this manner, during new construction or major renovations is by far the most cost-effective way to decarbonize.

### **Practicality of all-electric buildings**

All-electric construction is, in most cases, highly practical and essentially cost neutral. For example, one model commissioned for MassSave estimates a \$754 construction cost premium for a 2,500 sq ft all-electric single family home<sup>28</sup>, compared to the same home fitted with the most efficient gas heat and hot water systems and electric central air conditioning<sup>29</sup>. This premium is less than a 0.1% increase in cost for a typical new home like this in Brookline<sup>30</sup>.

A relevant cost operations comparison comes from the same MassSave model cited above. Under this model, operation of a brand-new all-electric home in Massachusetts would be slightly more expensive than that of a brand-new gas home (by \$41 per month). However, this \$41 per month cost premium must be put into context. First, it is less than 1% of expected monthly costs on a newly built 2,500 sq ft Brookline home, including utilities, mortgage, and real estate tax payments. Second, if an electric ground source heat pump were used instead of an air source heat pump, the all-electric home would actually be less expensive to operate than the gas home. Third, when a new all electric building is compared with an existing building, the new all-electric one will be significantly less expensive to operate than gas, due to the far better air sealing and insulation required in new buildings.

Notably, building operation costs vary widely depending on building type, whether a building is new or retrofitted, whether a ground source or air source heat pump is used, whether solar is installed, the extent of air sealing and insulation, and other variables. To cite one example, buildings that are air sealed and insulated to Passive House standards can use less than 90% of the energy of buildings built to the minimal air sealing and insulation standards in the Massachusetts building code.

### *Space heating and cooling*

Heat pumps are air conditioners that can operate in reverse. Even in cold weather, they extract heat from outside air and move it into the building. Because they move heat rather than generating it, they are very efficient. Dramatic improvements in heat pump technology and building envelope technology now make it practical and cost-effective to heat new buildings with electricity in our climate<sup>31</sup>. (Electric heat pump heating should not be confused with electric resistance heat, which is inefficient and expensive<sup>32</sup>.)

Buildings are becoming better insulated and more tightly sealed every year. As this happens, less and less heating and cooling is needed, and the cost of the HVAC systems decreases. Because

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<sup>28</sup> built to the Massachusetts stretch energy code (a requirement in Brookline for new construction).

<sup>29</sup> [http://ma-eeac.org/wordpress/wp-content/uploads/RLPNC\\_17-14\\_MiniSplitCost\\_27NOV2018\\_Final.pdf](http://ma-eeac.org/wordpress/wp-content/uploads/RLPNC_17-14_MiniSplitCost_27NOV2018_Final.pdf)

<sup>30</sup> Assumes \$1,000,000 purchase price.

<sup>31</sup> [http://ma-eeac.org/wordpress/wp-content/uploads/RLPNC\\_17-14\\_MiniSplitCost\\_27NOV2018\\_Final.pdf](http://ma-eeac.org/wordpress/wp-content/uploads/RLPNC_17-14_MiniSplitCost_27NOV2018_Final.pdf)

<sup>32</sup> Most electric heat in existing Brookline buildings is baseboard resistance heat, in which heat is generated, not moved. Electric resistance heat costs about three times as much to operate as a modern heat pump. In the past, heat pumps in MA were typically installed with electric resistance backup for the very coldest days of the year. Due to continual improvement of heat pump technology, the cold climate heat pumps recommended for use in New England either no longer include resistance heating elements or only use it a few days each year.

more and more buildings are being built with air conditioning, heat pumps save money in two ways. First, only a single system needs to be installed rather than separate air conditioning and heating systems. Second, heat pumps are more efficient than old-fashioned air conditioning and save on electricity costs.

#### *Cooking -- additional benefits of modern electric induction cooktops*

Induction cooking has additional benefits beyond improved indoor air quality, health, and emissions reductions. Induction cooking is safer, more precise, and faster than cooking with gas.<sup>33</sup> Local professional Chef Ming Tsai of Blue Ginger and Blue Dragon fame has been using induction cooking for 20 years<sup>34</sup>. Local chef Barbara Lynch has one in her professional home kitchen<sup>35</sup>. Induction cooking keeps the kitchen cooler -- a major advantage in commercial kitchens -- and it can be so finely regulated that it can be used to melt chocolate without a double-boiler.<sup>36</sup>

*Hot water heating.* An electric heat pump hot water heater can be purchased from local home improvement stores and costs about the same to buy and operate as a gas-fired hot water heater. Costs of gas, electric resistance, and electric heat pump hot water heaters are described in Appendix B.

*Clothes dryers.* Many buildings already use electric resistance dryers. An alternative option, less expensive to operate, is the heat pump electric dryer. Compared to gas or most electric resistance dryers, heat pump dryers have the advantage of not requiring any outside venting. Costs of gas, electric, and electric heat pump dryers are described in Appendix C.

### **Appendix A -- Frequently Asked Questions**

Q: If Brookline bans new fossil fuel infrastructure in major construction, do I get to keep my gas stove?

A: Yes. You can even replace it with a new one. You just can't install a new one in a brand new building or as part of a gut renovation. By 2050, 15% of Brookline's buildings would lack gas infrastructure, so even at that point there would under this policy be a lot of choice.

Q: Does this bylaw apply if I want to build an addition to my house?

A: It applies only if the project also includes major renovations to the existing part of your house AND if the renovated portion exceeds 50% of the area of the original building.

Q: Will this measure be effective (even if adopted beyond Brookline), or will the consequence simply be that more fossil fuels will be consumed in electricity generation?

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<sup>33</sup> <https://www.consumerreports.org/electric-induction-ranges/pros-and-cons-of-induction-cooktops-and-ranges/>

<sup>34</sup> <http://sponsored.bostonglobe.com/frigidaire/induction/>

<sup>35</sup> <https://www.nytimes.com/video/dining/100000004082419/in-the-kitchen-with-barbara-lynch.html?action=click&module=RelatedCoverage&pgtype=Article&region=Footer>

<sup>36</sup> Induction cooking should not to be confused with the dramatically inferior but often very similar-looking electric resistance cooking.

If the occupant of a new all-electric building chooses to buy 100% renewable electricity, that all-electric building will be carbon-free from the moment it begins to operate.

Assuming the occupant relies on the standard grid mix, a new all-electric building built today would have lower overall emissions than an otherwise identical building with gas heat and appliances in the first year of operation (see chart above). These emissions savings will increase each additional year, as the grid greens through an existing statewide legislative mandate that requires a minimum 60% carbon-free grid by 2050. This grid greening is likely to be accelerated further at the state level and through Brookline's Green Electricity program. Thus, the emissions savings are very large compared to a building that burned natural gas over the course of those 31 years.

Q: Is there a good alternative for gas cooking, particularly in commercial settings?

Induction cooking is amazing. Many chefs who've tried it don't ever want to go back to gas, particularly in commercial settings<sup>37,38</sup>. It's safer, faster, and easier to control. It keeps the kitchen much cooler. The entire Bradley wing of LAX is all-electric<sup>39</sup>, and the 24 restaurants there have induction and electric cooking but no gas ovens, stoves, or other gas infrastructure.

Q: What happens if the electricity goes out? Will we be able to have gas back-up generators? Do you have exemptions or waivers for certain facilities that would need back-up systems such as nursing homes or daycares?

In short this policy would not affect what happens when the power goes out, which is that most buildings would lose their heat. The reason is that today's boilers and furnaces typically require both the gas AND the electrical grid, because they have electronic ignition systems that lack battery backups. Therefore, most buildings in Brookline are already fully dependent on the electrical grid for their heat.

For the few buildings, including schools and nursing homes, that need or want backup heating, the proposed policy includes an exemption for fuel pipes for backup generators.

Q: In light of the heat wave and the power outages in NYC, if we go all electric what happens to the stress or overloading of the Grid? Will there be more power outages as a result?

Electrical demand is currently declining in New England due to solar panels on building roofs and gains in energy efficiency (e.g., LEDs). There are declines in both annual and peak demand, and these declines are expected to continue<sup>40</sup>. The proposed bylaw policy affects too few buildings, too slowly, to affect the electrical grid significantly. It is the job of the utilities and the grid operator ISO-NE to keep the electricity flowing, and they should be capable of it -- and held to it.

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<sup>37</sup> <http://sponsored.bostonglobe.com/frigidaire/induction/>

<sup>38</sup> Drifter's Wife in Portland ME is recommended for best new restaurant that focuses on natural wines. "The entire kitchen is two induction burners and an oven," Li said. "The food they're putting out is amazing, and the wine experience overall is fantastic." <https://www.boston.com/travel/travel/2017/04/22/this-new-england-city-is-a-favorite-food-destination-for-boston-chefs>

<sup>39</sup> <https://www.urwairports.com/lax/retailer-category/dine/>

<sup>40</sup> <https://www.iso-ne.com/about/key-stats/electricity-use/>

Nonetheless, both the gas and electrical grids do fail sometimes, as we saw last winter with the explosions and fires caused by the Columbia Gas infrastructure failure in the Merrimack Valley.

Our electrical grid is currently adding a lot of renewable generation -- utility-scale wind and solar. This new building policy will affect such a small fraction of buildings on the grid (~1% turnover in any one year, even if adopted across the entire New England grid territory), that it should not have an appreciable impact on the power grid, which already has year-on-year variation exceeding 1%<sup>41</sup>.

Peak consumption is already a significant challenge to manage. But right now peak consumption is a summer problem, when AC kicks in on hot days. In the winter the bigger problem is actually natural gas shortages, which should be slightly alleviated by this policy. Because winter heating and summer AC are the biggest consumers of electricity in buildings, the proposed all-electric requirement would not have a very large impact on summer peaks. (People already use electricity for AC.)

**Q: If this by-law is challenged in court, will it pass muster?**

Like any ground-breaking law, this bylaw may be challenged. But its rationale has been carefully thought through, and it is based on several months of legal consultations and research. We consulted with 14 lawyers, including the Berkeley outside counsel and the head of the Massachusetts Attorney General's Municipal Law Unit. Brookline Town Counsel then also provided advice. We believe that it will withstand a challenge, but the only way to find out for sure is to pass it. A crucially important strategy in fighting the fossil fuel industry is to win in court in defending new legal approaches to decarbonization.

**Q Will there be only a few contractors that can design build these systems? Will that drive cost up?**

This is very simple technology and many HVAC contractors have significant experience installing ASHPs. Ground source heat pump systems (GSHPs, sometimes referred to as "geothermal systems") have also been installed all over Massachusetts and the country for several decades.

**Q: What if this by-law triggered the need for a significant upgrade of the electrical service to an existing building? For example, a 50-unit building that has original wiring from the street to the building from the 1940's. What if the electrical upgrade costs \$200,000?**

If one were doing a significant rehab of such a building, one would be spending millions to tens-of-millions of dollars. The \$200,000 must be considered in that context. This is precisely why the trigger is major rehabilitations and new construction.

**Q: Renovations and expansions are the most problematic. Think of a situation where someone has previously installed efficient gas boilers, etc. and they are trying to add on to their house, but they want to just use the same infrastructure. Are we really telling them that half of their house can still be gas but they need all new equipment for the second half?**

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<sup>41</sup> <https://www.iso-ne.com/about/key-stats/electricity-use/>

As currently written, the work area *in the original space* would have to be over 50% of the original structure to trigger the by-law in the context of an addition. Just an addition alone without major rehabilitation in the existing portions of the building would not trigger this by-law. The vast majority of additions, such as adding a porch or remodeling a kitchen, do not meet this threshold.

Even if the work area *in the original space* exceeded the 50% floor area threshold, it would still be permissible to keep the efficient gas boiler. In other words ducts or water/steam pipes could be extended from the existing boiler or furnace into the addition. However, in this instance, fuel piping could not be installed into the new addition.

## Appendix B -- Comparing Hot Water Heater Options

Manufacturer	Model	Type	Description	Price	Annual Energy Cost
A O Smith	ATI 240H 101	Tankless	Gas: Condensing	\$912	\$280
Rinnai	(RU1601) REU-N2530FF-US	Tankless	Gas: Condensing	\$1,460	\$280
Rinnai	(RUR1991) REU-NP3237FF-US	Tankless	Gas: Condensing	\$2,014	\$280
Rinnai	REU-VC2025FFU-US	Tankless	Gas: Condensing	\$687	\$282
Westinghouse	WGR050**076	Tank	Gas: Condensing	\$1,951	\$290
Rheem	XE80T10HD50U1	Tank	Electric: ASHP	\$1,700	\$306
A O Smith	HPTU-50N	Tank	Electric: ASHP	\$1,380	\$346
A O Smith	HPTU-66N 120	Tank	Electric: ASHP	\$1,679	\$356
Rheem	XG50T12HE40U0	Tank	Gas: Non-Condensing	\$689	\$407
Rheem	XE50M09EL55U1	Tank	Electric: Resistance	\$524	\$796

### Comparing the Price and Operating Cost of a Variety of Hot Water Options

New homes in Brookline typically have a water heater with an Energy Star rating from the US Department of Energy. High efficiency (condensing) gas hot water heaters are available as hot water tanks and on-demand (tankless) models. High efficiency air source heat pump (ASHP) hot water tanks are another option. This table compares various types of hot water heaters based on data from the US Department of Energy. The prices are from Home Depot or similar outlets. The energy costs are based on what Brookline customers would be charged by Eversource and National Grid



## Appendix C -- Comparing Clothes Dryer Options

Make	Model	CEF				Drum Size, Cubic Feet	Annual Energy Use	Price
Miele	PDR980 HP	9.75	Electric	Heat Pump	Ventless	4.6	87 kWh/Yr	
Miele	TWB120 WP	6.37	Electric	Heat Pump	Ventless	4.1	133 kWh/Yr	
Miele	TWF160 WP	6.37	Electric	Heat Pump	Ventless	4.1	133 kWh/Yr	\$1,499
Samsung	DV22N685*H*	5.85	Electric	Heat Pump	Ventless	4.0	145 kWh/Yr	
Whirlpool	WHD560CH**	5.2	Electric	Hybrid Heat Pump	Ventless	7.4	460 kWh/Yr	\$1,259
Whirlpool	WHD862CH**	5.2	Electric	Hybrid Heat Pump	Ventless	7.4	460 kWh/Yr	
Whirlpool	WGD6620H**	3.48	Gas		Vented	7.4	687 Equivalent kWh/Yr	\$900
Whirlpool	WGD9500EW*	3.48	Gas		Vented	8.2	687 Equivalent kWh/Yr	
Bosch	WTG86401UC	2.73	Electric	Condensing	Ventless	4.0	311 kWh/Yr	\$1,125
Bosch	WTG86402UC	2.73	Electric	Condensing	Ventless	4.0	311 kWh/Yr	
Haier	QFT15ES*N***	2.68	Electric	Condensing	Ventless	3.1	317 kWh/Yr	

Price Range is roughly \$600 to \$1,000 for Conventional Electric Dryers

Price range is roughly \$700 to \$1,200 for Conventional Gas Dryers

### Comparing the Price and Efficiency of Clothes Dryers

Stores have recently added a new option for buyers of clothes dryers: heat pump clothes dryers. The prices above are from Home Depot or similar outlets. Heat pump clothes dryers cost about the same to buy, but they are more efficient than gas dryers, so at current gas and electricity pricing, both cost about the same to operate. In addition, they don't have to be vented to the outside so they can be good for use in apartments and condominiums. The efficiency rating, CEF, is used by the US Department of Energy to rate the performance of clothes dryers. The higher the CEF, the higher the efficiency.



## Appendix D - Partial list of buildings in New England with electric systems

### Residential (up to 3 family)

Building name	Heating and Cooling	Hot water	Location
All-electric house, rehabilitated in 2018	ASHP	Electric	Fisher Hill, Brookline, MA
David Green's house	ASHP	Electric	Dover, MA
Holland House, Passive, LEED Platinum	ASHP	Electric	Vineyard Haven, MA
Torcellini residence	ASHP, GSHP	Electric	Eastford, CT
South End Row home by ZED	ASHP	Electric	Boston, MA
Dartmouth Oceanfront House by ZED	ASHP	Electric	Dartmouth, MA
Wellfleet modern house by ZED	ASHP	Electric	Wellfleet, MA
Thoughtforms Net positive farmhouse by ZED	ASHP	Electric	Lincoln, MA
Mediterranean style green home by ZED	ASHP	Electric	Newton, MA
Marshview house by ZED	ASHP	Electric	Chatham, MA

ASHP = Air Source Heat Pump, an all-electric technology for cooling and heating a building that is similar to an air conditioner but can also function in reverse to provide heat.

GSHP = ground source heat pump, similar to an ASHP but is more efficient due to its use of the ground, rather than the air, for heat transfer to and from the building.

### Office buildings

Building name	Heating and Cooling	Hot Water	Location
Walden Pond Visitor Center, LEED, Passive, 5,575 sf	ASHP	Electric	Concord, MA
Bennington Superior Courthouse, Net Zero ready	GSHP		Bennington, VT
Massachusetts Fish & Wildlife Headquarters, Net Zero	GSHP	Electric	Westborough, MA
The Studio for High-Performance Design and Construction, Passive	ASHP	Electric	Newton, MA
185 Dartmouth	Heat pumps		Boston, MA
Olympia Place	Heat pumps	Propane	Amherst MA

**ASHP = Air Source Heat Pump, an all-electric technology for cooling and heating a building that is similar to an air conditioner but can also function in reverse to provide heat.**

**GSHP = ground source heat pump, similar to an ASHP but is more efficient due to its use of the ground, rather than the air, for heat transfer to and from the building.**

**Educational facilities (including universities and schools)**

Building name	Heating and Cooling	Hot water	Location
King Open School (middle school, elementary school, administrative offices, public pool)	GSHP	Electric	Cambridge, MA
Lexington Children’s Place, Net Zero	Heat pumps	Electric	Lexington, MA
Hastings School, Net Zero	GSHP	Electric	Lexington, MA
The Putney School Field House, New Zero, LEED Platinum	ASHP	Electric	Putney, VT
R.W. Kern Center, Hampshire College	ASHP	Electric	Amherst, MA
Smith College, Bechtel Environmental Classroom	ASHP	Electric	Whately, MA
Trustees of Reservations, Powisset Net Positive Barn (demo kitchen with induction stoves, administrative offices, educational learning space, root cellar)	ASHP		Dover, MA

**ASHP = Air Source Heat Pump, an all-electric technology for cooling and heating a building that is similar to an air conditioner but can also function in reverse to provide heat.**

**GSHP = ground source heat pump, similar to an ASHP but is more efficient due to its use of the ground, rather than the air, for heat transfer to and from the building.**

**Housing projects (large-scale)<sup>42</sup>**

Building name	Heating and Cooling	Hot water	Location
Auburn Court Lot C. 9	Heat pumps		Cambridge, MA
Concord Highlands □	VRF ASHP		Cambridge, MA

<sup>42</sup> Some central hot water systems for very large buildings are serviced by gas or oil. Those are indicated with a blank space in the Hot Water column.

Bayside Anchor, Passive House ☐	Electric baseboard heating <sup>43</sup> , electric ventilation		Portland, ME
Bristol Common, Lexington Gardens ☐	ASHP		Taunton, MA
Highland Woods ☐	ASHP		Williamstown, MA
Parsons Village ☐	Heat pumps		Easthampton, MA
Millbrook Apartments	Heat pumps		Somerville, MA
Hyatt Centric Hotel	Heat pumps		Boston, MA
Distillery North	Heat pumps		Boston, MA
One East Pleasant	Heat pumps		Amherst, MA
Kendrick Place	Heat pumps		Amherst, MA
Whittier Street Apartments ☐	Heat pumps		Boston, MA
Factory 63	Heat pumps		Boston, MA

☐ = Affordable housing

**ASHP = Air Source Heat Pump, an all-electric technology for cooling and heating a building that is similar to an air conditioner but can also function in reverse to provide heat.**

**GSHP = ground source heat pump, similar to an ASHP but is more efficient due to its use of the ground, rather than the air, for heat transfer to and from the building.**

## **ARTICLE 22**

Submitted by: Donald Warner

The exhaust of gasoline-powered leaf blowers contributes to air pollution, including carbon monoxide, nitrogen oxides, particulate matter and carbon dioxide. While auto emissions have been on the decline, the emissions from gas-powered leaf blowers have stayed the same or increased. Electric leaf blowers have no emissions.

The Center for Disease Control has identified gas leaf blowers as a source of harmful noise. The noise from gasoline-powered leaf blowers is not only damaging to the hearing of the operator and those standing nearby, but the strong low frequency component of that noise travels over long

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<sup>43</sup> While generally inefficient, resistance electric heating is highly affordable in Passive House buildings due to their extremely low heating load.

distances, and penetrates walls and windows. Electric leaf blowers do not have that low frequency component.

This proposed amendment to the General Bylaw would prohibit the use of gasoline-powered leaf blowers, except for leaf blowers operated by Town employees or contractors while performing work for the Town.

### **ARTICLE 23**

Submitted by: Donald Warner

Currently, it is common practice for leaves to be blown onto public sidewalks, tree lawns and ways, from private properties. This often results in air borne debris impacting the general public. Besides, leaves and other yard waste, this debris contains many unwanted and toxic pollutants, including, but not limited to, dust, lead, pesticides, fertilizers and fecal matter which exacerbates asthma, emphysema and allergies. This practice also results in unnecessary carbon emissions and undesired noise.

The proposed amendment to the General Bylaw would restrict the use of leaf blowers from the blowing of leaves, yard waste and other debris onto public sidewalks, tree-lawns and ways.

### **ARTICLE 24**

Submitted by: Arthur Wellington Conquest III, TMM6

The purpose of this article is to have the Town of Brookline take responsibility for rectifying racial discrimination (and other discrimination) complaints by requiring a Town board to investigate such complaints and make written findings as to their merit and to recommend appropriate actions to resolve such complaints. The existing procedures do not go far enough in ameliorating the complaints and concerns of people who feel they have been disrespected and aggrieved.

### **ARTICLE 25**

Submitted by: Amy Hummel, TMM12

#### **Summary**

- Face surveillance technology is an affront to a free society, effectively forcing everyone to wear a permanent ID badge in public;
- The software disproportionately misclassifies women and people of color;
- Face surveillance technology poses unprecedented threats to civil liberties; examples include:
  - Creating due process harms, such as shifting the current principle of “presumed innocent” to “people who have not been found guilty of a crime, yet;”
  - Normalizing the elimination of practical obscurity; and
  - Chilling the exercise of constitutionally protected free speech.
- There is no state or federal law regulating government use of face surveillance technology, meaning there are no civil rights protections in place.

- Facial surveillance supports and amplifies surveillance capitalism and the monetization of individuals' privacy.
- This warrant article furthers the goals of bills currently before the Massachusetts House and Senate (Senate Bill 1385, and House Bill 1538) which seek to place a moratorium on government use of face surveillance technology statewide. Senator Cindy Creem is the lead sponsor of the Senate bill.

## **Explanation**

### **1. Facial Recognition Technology is an affront to a free society**

The fundamental effect of facial recognition technology is that it is tantamount to forcing **everyone to wear a personal ID badge at all times**. Free people do not and should not be compelled to wear ID badges, let alone ones that are permanent, immutable and biometric.

Ordinary people who want to seek treatment for substance use disorder, visit AA meetings, seek reproductive health care, visit friends and family, attend political protests, and more cannot leave their faces at home. This technology makes it easy to track every person's public movements, habits, and associations—with the push of a button.

Facial recognition technology uses statistical measurements of people's facial features to digitally identify them in still photos, videos and in real-time footage. Tech companies claim these systems can also determine age, gender, mood, and other personal characteristics. The data gathered can easily be stored, shared and aggregated to map out individuals' activities, liaisons, patterns and preferences.

These capabilities are an anathema in a free society.

### **2. The Software is badly flawed and disproportionately misclassifies women and people of color**

Compounding the problems inherent in facial recognition technology is that it is also highly inaccurate in classifying the faces of women, young people, and people of color. These inaccuracies disproportionately put some individuals and groups at a greater risk of harmful and traumatic "false positive" identification. The problem is exacerbated by the fact that racial and other biases are often already baked into existing databases. For example mugshots images, which are taken upon arrest, include the faces of individuals who may be entirely innocent. Moreover, when there are false positives, the trauma and the stigma impacting victims of the mistake continues long after errors are officially corrected.

### **3. Legislation and policies are either wholly absent or inadequate.**

Like many new and emerging technologies, the use of facial recognition software is quickly becoming ubiquitous in both public and private sectors, long before most communities are able to respond with legislation. And, the monetization and ease of acquisition of surveillance technology, including facial recognition technology, make the spread of unregulated use not only certain, but swift. For example, Ring doorbell, now owned by Amazon, has partnerships with a variety of police departments, which is turning many communities in police surveillance surrogates, without meaningful civil rights and civil liberties protections. This past summer, at least one police department raffled off Ring doorbells in exchange for

information sharing. The surveillance infrastructure, created entirely outside of any regulatory oversight or framework, is bad enough in-and-of-itself. Permitting unregulated facial recognition—for which Ring already has a patent—only compounds this problem, encouraging the proliferation of a surveillance state, predicated on suspicion and distrust of everyone in our community.

#### 4. Facial recognition technology unequivocally threatens civil liberties

According to privacy scholars Woodrow Hartzog and Evan Selinger: “facial recognition technology enables a host of other abuses and corrosive activities:

- Disproportionate impact on people of color<sup>44</sup> and other minority and vulnerable populations<sup>45</sup>.
- Due process harms, which might include shifting the ideal<sup>46</sup> from “presumed innocent” to “people who have not been found guilty of a crime, yet.”
- Facilitation of harassment<sup>47</sup> and violence.
- Denial of fundamental rights and opportunities, such as protection against<sup>48</sup> “arbitrary government tracking of one’s movements, habits, relationships, interests, and thoughts.”
- The suffocating restraint<sup>49</sup> of the relentless, perfect enforcement of law.
- The normalized elimination of practical obscurity<sup>50, 51</sup>.
- The amplification of surveillance capitalism<sup>52, 53</sup>.

It’s also important to know that the federal government has access to over 400 million non-criminal photos, which include state DMV and State Department photos. A 2016 Georgetown Law Center on Privacy & Technology publication, entitled The Perpetual Line-up, reported that one in two adults in America appear in government face recognition networks.<sup>54</sup>

How we protect our civil rights and civil liberties is up to us. By banning the Town’s use of facial surveillance technology, we act to meaningfully protect our civil rights and civil liberties, and protect our fundamental freedoms to come and go about our lives in relative anonymity, free from overreaching surveillance and without a compulsory biometric ID badge.

<sup>44</sup> <https://www.law.georgetown.edu/privacy-technology-center/events/color-of-surveillance-2017/>

<sup>45</sup> <https://www.theatlantic.com/technology/archive/2016/04/the-underlying-bias-of-facial-recognition-systems/476991/>

<sup>46</sup> <https://www.project-syndicate.org/commentary/dangers-of-biometric-data-by-anne-marie-slaughter-and-stephanie-hare-2018-07>

<sup>47</sup> <https://arstechnica.com/tech-policy/2016/04/facial-recognition-service-becomes-a-weapon-against-russian-porn-actresses/>

<sup>48</sup> [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2394838](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2394838)

<sup>49</sup> <http://www.businessinsider.com/how-china-uses-facial-recognition-technology-surveillance-2018-2>

<sup>50</sup> [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2439866](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2439866)

<sup>51</sup> [https://idlewords.com/2019/06/the\\_new\\_wilderness.htm](https://idlewords.com/2019/06/the_new_wilderness.htm)

<sup>52</sup> <http://www.shoshanazuboff.com/new/recent-publications-and-interviews/big-other-surveillance-capitalism-and-the-prospects-of-an-information-civilization/>

<sup>53</sup> <https://medium.com/s/story/facial-recognition-is-the-perfect-tool-for-oppression-bc2a08f0fe66>

<sup>54</sup> <https://www.perpetuallineup.org>

## **5. What Brookline Can Do: Ban facial recognition technology in our town – and support state legislative action**

Without a ban on facial recognition, the technology is likely to become entrenched without meaningful public knowledge or input, and it will become increasingly difficult to legislate and regulate the longer it is unfettered.

Some communities are beginning to respond and Brookline should be among these leaders. This particular technology threatens civil rights and civil liberties so profoundly that the tech hub of San Francisco in May became the first city in the nation to ban its government from using it; Somerville followed shortly after, and Cambridge is now considering a ban, which seems likely to pass this fall. Other forward thinking communities are working to do the same.

**The Massachusetts state legislature** is currently considering Senate Bill 1385, (an Act Establishing A Moratorium On Face Recognition and Other Remote Biometric Surveillance Systems), and House Bill 1538, (an Act Relative To Unregulated Face Recognition and Emerging Biometric Surveillance Technologies). The bills would make it unlawful for government entities in the Commonwealth to acquire, possess, access, or use face recognition or any at-a-distance biometric surveillance system, or acquire, possess access, or use information derived from a facial recognition system or from biometric surveillance systems operated by another entity.

These bills also create a private right of action with both legal and equitable remedies, as well as sanctions against government officials who violate the provisions contained therein.

By passing a similar law locally, we can join our neighbors who recognize the dangers the technology presents to a free society, and demonstrate our support for the aforementioned House and Senate Bills seeking to do the same. We do not have to wait for digital dystopia; we can and must act now to protect and preserve our freedoms for the next generation of Brookline residents.

### **ARTICLE 26**

Submitted by: School Committee; Deborah Brown, TMM1; Anne Greenwald, TMM8; Maya Norton

In May of 2018, Town Meeting voted favorably on a Warrant Article advanced by Deborah Brown and Anne Greenwald to change the name of the Edward Devotion School. Edward Devotion, for whom the school had been named, was a slave holder. It was the will of Town Meeting as reflected by that vote that individuals who held human beings in bondage should not be honored with schools bearing their name. To continue to name a school after a slave holder would violate the core values of equity, respect, and inclusion that our public schools strive to impart to our students.

Since the beginning of the 2018-19 school year, the school formerly known as Devotion has operated temporarily under the name Coolidge Corner School, after the geographic neighborhood in which it is located. In the fall of 2018, the School Committee, the Superintendent, educators, Coolidge Corner School students, Devotion alumni, and members of the community at large

collaborated jointly to create a naming process. From December 10, 2018 to January 23, 2019, the student-led "Bee-lievers in Change" accepted over 250 nominations for new names from the public. The student group met regularly with the Principal, Assistant Principal, District Leaders, as well as special expert guests, to thoroughly research the nominees, develop summaries about each one, and discuss the suitability of each name based on a rubric that included the town naming criteria, the school's core values, and restorative justice principles. After providing the students with this general information, the students began the candidate review and selection process.

During the months that followed, the Bee-lievers in Change narrowed the field from 119 unique submissions to 15 finalists. 3 public events were held to learn about the 15 finalists and provide feedback. Based on the feedback they narrowed the finalists from 15 to 4. On May 24, 2019, the final four choices were presented to the School Committee. Another series of public meetings followed, where the School Committee solicited input about what to recommend as a final name. The School Committee voted 7-0-1 on June 19, 2019 to recommend that the Florida Ruffin Ridley School become the permanent name of the PK-8 school at 345 Harvard St.

Of the eleven school buildings in Brookline, only one is named for a woman, and none for a person of color. Florida Ruffin Ridley (1861-1943) was a Brookline resident who became the second AfricanAmerican teacher in Boston. A leading African-American civil rights activists, suffragist, educator, writer, and editor, Mrs. Ridley co-founded the Society for the Collection of Negro Folklore, the Association of Colored Women Clubs (NACWC), and the League of Women for Community Service, Inc. (LWCS), the latter of which still exists today., She served as editor of the Woman's Era newspaper and worked as an , anti-lynching activist. Mrs. Ridley and her husband are believed to be the first African-American homeowners in Brookline. They lived at 131 Kent St. and attended the Second Unitarian Church on Sewall Avenue, which Mrs. Ridley co-founded.

Ridley was a life-long learner and teacher. Through her work, she hoped to connect an understanding of history with social justice. She believed all races deserved an equal place in society.

## **ARTICLE 27**

Submitted by: Larry Ruttman

The former Devotion School should be named after the amazing late centenarian Ethel Weiss, who nurtured Devotion School children for seventy-six years from 1939 to practically her dying day in 2015. Ethel Weiss' life was that school, and its life was heavily indebted to her influence. Ethel Weiss was endowed with a singular spirit of moral uprightness, helpfulness, and natural wisdom which she generously shared with the tens of thousands of kids who passed through her tiny store over that enormous span of time. Indeed, she was the heart of the whole surrounding North Brookline community. No person, no matter how famous or honored, can match Ethel Weiss' right to have this legendary school bear her name. It is unlikely that Ethel Weiss' seventy-six continuous years of service to a public school and its children has ever been matched. That service is factually described in a chapter entitled, Ethel Weiss, Guardian Angel, in the book, Voices of Brookline (2005), by Larry Ruttman, which ends with the words, "In August 2004, Ethel Weiss turned ninety, and is still flying around her shop as a guardian angel, with no plans to alight." In fact, Ethel continued to fly around her shop guarding Devotion School children for over another decade until she reached the age of one hundred and one.



## **ARTICLE 28**

Submitted by: Lee L. Selwyn, TMM13

At the Annual Town Meeting in May 2018, Town Meeting adopted the following Motion with respect to Article 23:

SUBSTITUTE MOTION OFFERED BY STANLEY SPIEGEL, TMM2

VOTED: That the Town hereby requests that the School Committee propose a new name for the Edward Devotion School after receiving public input through a process to be determined by the School Committee, and hereby requests the Naming Committee to consider the name so selected by the School Committee and make a recommendation to Town Meeting with respect thereto at the 2019 Annual Town Meeting. In the interim, the name of the School shall be the Coolidge Corner School.

However, no recommendation was offered by the School Committee at the 2019 Annual Town Meeting.

Following the adoption of Article 23, the School Committee initiated a process for selecting a new name for what was then being referred to as the Coolidge Corner School. Nominations were solicited "from all Public Schools of Brookline students, families, and staff; members of the Brookline community; and former students and staff of the Devotion School." A set of specific "Criteria to consider when nominating a person" was provided to those offering nominations:

- (1) A person of excellent reputation and character who has set an example of outstanding citizenship and/or has made an exemplary contribution of time, service, or resources to the Brookline community;
- (2) A national noteworthy public figure or official who represents one or more of the core values of the school (Work Hard, Be Kind, Help Others);
- (3) A person who has made a significant donation or bequest to the town;
- (4) A noteworthy artist, writer, public figure or official who represents Brookline's core values of racial equity and restorative justice;
- (5) An individual who contributed to racial and/or gender justice and equity.

Approximately 104 nominations were submitted, including the name of Dr. Robert I. Sperber. With the exception of item (3), Robert Sperber easily satisfies all of these criteria. The Boston Globe noted just some of his accomplishments in a lengthy obituary: "As superintendent in Brookline from 1964 to 1982, Dr. Sperber was instrumental in the founding of the Metropolitan Council for Educational Opportunity, or METCO. He also implemented innovative curriculum and support programs, including the Brookline Early Education Project; Facing History and Ourselves, a Holocaust education program; and the town's Extended Day Advisory Council and Education Foundation."

Robert Sperber was the Superintendent of the Brookline Public Schools for eighteen (18) years and remained active in Brookline school and national public education affairs for more than three decades following his retirement as Brookline Superintendent. He was a Town Meeting Member from Precinct 6, and regularly attended Town Meeting and frequently spoke on matters relating to school affairs up until his death in 2017. For many years, Dr. Sperber served as founding chair or

co-chair of Brookline's Economic Development Advisory Board (EDAB), a primary objective of which was to provide for a healthy tax base to support Town and School services. Following his retirement from the Brookline School System, Dr. Sperber spent the next 20 years at Boston University as a specialist in urban education and as a professor of urban education.

Dr. Sperber was a nationally recognized leader in the field of public education and made lasting contributions to the Town and to our Schools. The Boston Globe described an event in April 2016 when Dr. Sperber was honored for his Lifetime Achievement at the Brookline Teen Center, where he was a board member. "He was an inspiration to me and many others," said community activist Anne Turner, who chaired the event. "It was a special and poignant thank you, and it meant a lot to us and to him." The event highlight some of Dr. Sperber's core beliefs: a commitment to equality for all students, the importance of creating innovative ideas that last, and using education as an instrument of social justice. Barbara Senecal, who had chaired the Brookline School Committee during Dr. Sperber's tenure (she is currently a Precinct 13 Town Meeting Member), was quoted by the Globe as recalling that "people were standing in line to just have a moment with him" at the celebration, and that "he was the most ethical and moral straight-talking person I ever knew."

The scope and extent of Dr. Sperber's intimate connection with the Public Schools of Brookline is without parallel, and it is fitting and appropriate that he should be honored by naming the school for him.

Brookline has a long tradition of naming our schools in honor of people who have made significant and permanent contributions to the nation and to public education in Brookline. For example, the Runkle School is named for John Daniel Runkle, who was Chairman of the Brookline School Committee and an early advocate of mathematics and technical education. Runkle was also a founder of the Massachusetts Institute of Technology and served as MIT's second president. The Lincoln School's namesake, William H. Lincoln, was a trustee of both Wellesley College and MIT. Lincoln had a great impact on the Town of Brookline. He had a passion for education and contributed to it through his involvement with the Brookline School Committee, both as member and Chair. He served as a member and was chosen chairmen for sixteen consecutive elections, serving on the Brookline School Committee for 22 years in all. Both William Lincoln and John Runkle were strong advocates for manual studies/industrial education (i.e., "shop" and "domestic science"), and the Lincoln School was the site at which this course of studies was inaugurated in 1888. The Driscoll School is named after Michael Driscoll, who served on the Brookline School Board (later the School Committee) from 1874 until his death in 1926. During his 52 years of service to the Brookline Schools, Driscoll oversaw the construction of four new school buildings, and played a key role in the rapid expansion of the Brookline schools that occurred in the first few decades of the 20<sup>th</sup> century.

The extraordinary contributions of Dr. Robert Sperber to public education, to the Brookline School System, to racial equality and diversity, and to the Town of Brookline are easily comparable to the achievements of the namesakes of other Brookline School buildings. These contributions and achievements on behalf of our Town and our Schools easily exceed those of others whose names are being recommended for this honor. It is both fitting and appropriate for the Coolidge Corner School to bear the name of Robert I. Sperber.

## **ARTICLE 29**

Submitted by: Donelle S. O'Neal Sr.

Such as: Happy Valley and the Town of Amherst:

Donation to the town in the amount of \$75,000 made in 3 payments of \$25,000 each. Apical Inc and City of Easthampton

A Payment of \$75,000 or 3% of revenue, Whichever is Greater

Payment of \$15,000 in 2 payments of \$7,500 when Provisional License is approved

Also donated \$2,500 to 4 different entities JOLO CAN LLC and City of Chelsea

3% of revenue.

\$60,000 donation to the City of Chelsea Non-profits

Note Brookline will be the first in the State to implement this sort of Fund. And hopefully Brookline's EEAF if passed hopefully it will be a Model for other Towns Cities to follow giving Equal Opportunities back into their communities. Select Board will review boards and commission's ability to establish and incorporate community engagement plans in its critical work and make necessary personnel changes.

### **ARTICLE 30**

Submitted by: Deborah Brown, TMM1, Mariah Nobrega, TMM4, and Samuel Botsford

The purpose of this warrant article is to develop the formal structure and mandate for a community engagement plan for the Town of Brookline. Brookline, like all local governments, has a responsibility to engage its community members in order to effectively carry out the key functions of government, such as crafting and implementing laws, budgets, plans, directives, and strategic visions. Brookline is strongest when its residents work well with government as full partners. A community engagement plan that is not only meaningful, robust, and effective, but also equitable and inclusive is critical to our growth and sustainability.

An equitable, inclusive community engagement approach to public decisions ensures that everyone, especially those who have been historically left out of these conversations (e.g., low-income people, people of color, recent immigrants, speakers of English as a second language), has a say in the decisions that affect their lives. Inclusive community engagement results in government processes, practices, and decisions that are more responsive to community priorities, avoid many unforeseen consequences, and create relationships that hold local governments accountable. Inclusive community engagement can also lead to decisions that result in a more equitable distribution of resources, like where public transit infrastructure is located or investments in neighborhood parks, schools, or housing. With a greater commitment to intentionally increasing community engagement efforts and specifically equitable community engagement, Brookline will be in a better position to make better decisions, address social inequities and promote access to resources, services, and programs that help people lead healthier, happier lives.<sup>55</sup>

The proposed Community Engagement Plan includes three components.

1. Guidelines. This bylaw does not attempt to proscribe too closely the exact format of the plan, instead providing latitude to the Select Board and Town employees. As noted in the bylaw, the guidelines are not envisioned to be static but rather a living, breathing document that reflects progress against goals and best practices. Brookline will have many reference resources for the development of community engagement

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<sup>55</sup> Inclusive Community Engagement & Equitable Participation to Improve 4 Core Functions of Local Government, Katie Hannon Michel, Cesar De La Vega, & Tina Yuen, ChangeLab Solutions Follow, Oct 15, 2018, <https://medium.com/@changelabsolutions>

plans, including nationally recognized documents like the National Institutes of Health’s Principles of Community Engagement<sup>56</sup>, and locally produced documents like the Metropolitan Area Planning Council’s Community Engagement Guide.<sup>57</sup> The guidelines may complement and extend existing bylaws; for example, although currently Bylaw Article 3.21 states that all electronic meeting notices must be posted 48 hours in advance, the Community Engagement Plan could recommend that meeting notices and agendas be posted at least 5 days (or more) in advance.

2. Indicators that will allow for public review of whether the programming that is being enacted to meet the goals of the Community Engagement Plan is successful. The bylaw requires that at minimum those indicators be available for use in the annual budget process, in the performance evaluations of department heads, and in the reappointment reviews of committee chairs.
3. Evaluation of the CEP itself as well as the programming resulting from the CEP.

The department head for the Office of Diversity, Inclusion and Community Relations has reviewed this warrant article and affirmed that the department would take the lead in developing the initial community engagement plan as well as the annual review process.

### **ARTICLE 31**

Submitted by: Jules Milner-Brage\*, TMM12; Susan Helms Daley\*; Scott Englander\*, TMM6; Heather Hamilton, Select Board Member; Blake Cady; C. Scott Ananian, TMM10; Eileen Berger, TMM15; John Bowman; John Harris, TMM8; Linda Olson Pehlke, TMM2; Willy Osborn.

*\*Co-petitioners’ point-of-contact.*

Warrant Article contributors: Jules Milner-Brage\*, TMM Pct. 12; Susan Helms Daley\*; Scott Englander\*, TMM Pct. 6; Heather Hamilton, Select Board Member; Anne Lusk; Blake Cady; C. Scott Ananian, TMM Pct. 10; David Kroop; David Trevvett; Eileen Berger, TMM Pct. 15; Jan Preheim; John Bowman; John Harris, TMM Pct. 8; Linda Olson Pehlke, TMM Pct. 2; Willy Osborn.

*\*Co-petitioners’ point-of-contact.*

*“What we have is no longer a technological or economic problem,  
but a status quo bias problem.”*

- Speaker at Asilomar Conference on Energy and Transportation (Dutzik, 2019)

### **Introduction**

The goal of this Warrant Article is both to raise awareness in our Town regarding the immediacy of the climate problem and the outsized role that transportation plays in it, as well as to set forth specific suggestions we can follow to reduce our reliance on gas-powered vehicles by (1) providing appealing alternatives to individual car trips and (2) electrifying the remaining car trips.

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<sup>56</sup> PRINCIPLES OF COMMUNITY ENGAGEMENT SECOND EDITION, NIH Publication No. 11-7782, <https://www.atsdr.cdc.gov/communityengagement/>

<sup>57</sup> <https://www.mapc.org/wp-content/uploads/2017/08/MAPC-Community-Engagement-Guide-2016.pdf>

Transportation emissions constitute not only the greatest component of Massachusetts’ greenhouse gas footprint, but also the fastest growing (Commission, 2018). The vast majority of these emissions—and associated toxic pollutants—are from automobiles. At the same time, this year, the Greater Boston Area recently earned the dubious distinction of having the worst gridlock in the country (*Boston Globe*, 2019). Furthermore, the population of Massachusetts is projected to increase by another 600,000 people, predominantly in the eastern part of the state, by 2040 (Commission, 2018).

We believe this Warrant Article is timely in addressing these critical issues, and also in keeping with other states and municipalities demonstrating climate leadership at this critical time, a partial list of which appears in Table 1:

**Table 1. Sample of Carbon Emissions Reduction Targets in US**

Boston Green Ribbon Commission	Aims to make City of Boston carbon-free by 2050
Massachusetts Global Warming Solutions Act	Mandate to reduce greenhouse gas emissions to 80% of 1990 levels by 2050
Connecticut	Mandate to reduce greenhouse gas emissions to 45% below 2001 levels by 2030
California	Goal to reduce the state's greenhouse gas emissions to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050
Hawaii	Commitment to becoming carbon neutral by 2045
US Climate Alliance (includes 25 states and growing)	Implement policies that advance the goals of the Paris Agreement, aiming to reduce greenhouse gas emissions by at least 26-28% below 2005 levels by 2025

There was wide consensus among the authors that Brookline historically was designed around public transit and walkable neighborhoods, and that those historical roots are in large part what makes the town so appealing *and* what gives us ample opportunities to reduce our greenhouse gas emissions from transportation. By the early 20th century, Brookline had electrified trolley lines on Beacon St., Harvard St., Washington St., Boylston St. / Huntington Ave., Commonwealth Ave., and more, plus multi-modal path systems with distinct bridledways for riding (then on horseback) on Beacon St., the Riverway, the Fenway, and western Commonwealth Ave. This kind of reasonably compact development pattern – these good urban “bones” – stand to become the envy of cities and towns around the country trying to decarbonize. We have it already! We need to recognize this inheritance for the gift that it is and decide to better reveal and reinvest in it.

**Trends in Travel Modes and Vehicle Ownership**

A look at current and recent trends in Brookline’s journey-to-work and vehicle ownership data shows promising movement towards more active transportation and lower vehicle ownership rates. While these trends reveal somewhat modest change, they do speak to the potential that, with continued efforts, the Town could sufficiently reduce greenhouse gas emissions and achieve the ambitious target reductions proposed in this Warrant Article through the adoption of healthier, more sustainable personal travel choices. During this time frame, the Town has begun to add bicycling infrastructure and has started to focus on improving travel conditions for pedestrians and public transportation riders.

As Table 2 below illustrates, Brookline’s workers, between 2000 and 2017 are walking, biking and taking public transportation to work more and driving single-occupancy vehicles less. The percentage of SOV work trips has declined from 45.3% in 2000 to 35.3% in 2017. Additionally, over the same time period, the number of households that do not own a car has grown from 20% to 26% town-wide. The percentage of car free households is much higher for particular geographies and sub-populations; for instance an estimated 60% of renter households in Census Tract 4002 (Coolidge Corner) do not own a vehicle, as reported in the 2012-2017 American Community Survey.

**Table 2. Means of Transportation for work trips by Brookline workers 2000 – 2017\***

	2017	%		2010	%		2000	%
Total Workers	32,410			31,878			32,173	
Single-Occupancy Vehicle	11,441	35.3%		12,858	40.3%		14,571	45.3%
Carpool	1,483	4.6%		1,841	5.8%		2,310	7.2%
Public Transportation	9,942	30.7%		9,307	29.2%		9,242	28.7%
Walked	5,284	16.3%		4,290	13.5%		3,073	9.6%
Other (incl. biking)	2,077	6.4%		1,418	4.4%		770	2.4%
Worked at Home	2,183	6.7%		2,164	6.8%		2,207	6.9%

\*Source: DPO3-Selected Economic Characteristics: Census Bureau and American Community Survey

### **Demonstration and Pilot Programs**

Given that so much of the existing development in Brookline is at a walkable and bikeable scale around those old trolley routes (and boulevards with bridle paths) and given that we have sizable existing populations taking trains and busses, riding bikes, and walking for transportation, we could relatively inexpensively demonstrate and pilot installation of substantial public way improvements to the safety and quality of service for these naturally space- and energy-efficient travel modes as a means of finding the best practices for Brookline. We have recently begun to try this approach to exploring change and some of our counterparts in neighboring cities and towns have successfully taken it even further, as shown in Table 3. When combined with robust gathering of community feedback and (as needed) iterative design, these agile, limited programs

have a reasonable chance of building support for more comprehensive planning of more systematic and durable change in the future.

**Table 3. Some Recent Transportation Pilot Programs in Greater Boston**

Back Bay	Massachusetts Ave. protected bike lane; Beacon St. protected bike lane
Cambridge	Cambridge St. protected bike lane; Massachusetts Ave. protected bike and distinct dedicated bus lane; Mt. Auburn St. dedicated bus/bike lane. (Also, The Cycling Safety Ordinance requires streets undergoing significant roadwork to include protected bike lanes in their design if they are part of the city’s priority bicycle route network.)
Brookline	<ol style="list-style-type: none"> <li>1. Beacon Street Buffered Bike Lane</li> <li>2. Greenline TSP on the C-line at Carlton Street</li> <li>3. Electric Scooter Pilot Program</li> </ol>
Concord and Cambridge	Electric school busses to transport students (demonstration of viability)
Everett	Broadway dedicated bus/bike lane
Roslindale	Washington St. dedicated bus/bike lane
Arlington	Massachusetts Ave. dedicated bus/bike lane
Allston	Brighton Ave. dedicated bus/bike lane

**Economic, Health and Social Equity Benefits**

*“MassDOT, municipalities, and other roadway owners should redesign them to prioritize person-throughput rather than vehicle-throughput, so that limited corridor capacity is allocated to moving as many people as possible, while accommodating mobility alternatives.”*  
 - Massachusetts Governor’s Commission on the Future of Transportation in the Commonwealth (2018)

This greater people-moving efficiency referenced by the Governor’s Commission stands to provide profound benefits beyond the reduction of greenhouse gas emissions, especially when leveraged to provide “complete” (and perhaps efficient-mode “priority”) travel facilities on streets, including:

- Increased accessibility for people of varied ages and abilities
- Increased individual affordability through reduced need for personal ownership of expensive vehicles
- Increased local retail and service business and sales tax revenue to local communities through increased access to commercial districts via travel modes where it is easier to stop and where people are more likely to frequent multiple establishments (foot, wheelchair, cycle and similar)<sup>58</sup>
- Increased capacity for people to work in town, which stands to provide customers to local businesses at a broader array of times of day and stands to increase commercial real-estate tax revenue to the Town (a higher rate than residential tax, and a type which we have rather little of currently, especially compared to peer communities)
- Increased social equity, as public transportation, walking, and bicycling disproportionately serve the poor and minorities
- Reduced costs associated with policing, ambulances, hospitals, and time wasted in traffic
- Less money spent by residents on health care associated with diabetes, coronary disease, hypertension, and other diseases
- Reduced traffic injuries and fatalities, which diminish with greater walkability, and disproportionately affect the poor, elderly, and non-white pedestrians<sup>59</sup>
- Reduced premature deaths due to air pollution, the leading cause of which is vehicle emissions<sup>60</sup>

### **Electric Vehicles**

In the hierarchy of sustainable transportation alternatives, the highest priority is to reduce the number of individual car trips taken. But for those car trips that still must be taken, the priority is to enable and encourage those trips to be taken in electric vehicles (EVs).

The automobile market in the US is on the threshold of a major shift away from internal combustion engine (ICE) vehicles to electric vehicles (EV – includes battery electric vehicle, fuel cell electric vehicle and plug-in hybrid electric vehicle). The world’s largest carmakers now sell over 40 EV models, many with long electric-only range (>200 miles) and fast-charge capability, and they plan to double these offerings over the next 5 years. The fastest growing

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<sup>58</sup> “Economic benefits of walking and cycling: Reports, studies and evidence to present the economic benefits of investment in walking and cycling” collected by Transport for London (November 2018): <<https://tfl.gov.uk/corporate/publications-and-reports/economic-benefits-of-walking-and-cycling>>. Also: “Economic Impact Study of Bike Lanes in Toronto's Bloor Annex and Korea Town Neighbourhoods” by the Toronto Centre for Active Transportation (October 2017): <<https://www.tcat.ca/resources/bloor-street-economic-impact-studies/>>.

<sup>59</sup> Speck, Jeff, 2018, Walkable City Rules. Washington, DC: Island Press. Part I.

<sup>60</sup> Fabio Caiazzo, et. al., “Air Pollution and Early Deaths in the United States. Part 1: Quantifying the Impact of Major Sectors in 2005,” (MIT 2013).



segment is the battery electric vehicle. Industry experts anticipate rapid increases in market share for EVs over the next 10-20 years. For example, Bloomberg New Energy Finance forecasts that by 2040 over 50% of new global passenger vehicle sales will be EVs. A major challenge for the rapid growth of EVs and the climate benefits they bring is the lack of charging infrastructure. Most communities committed to EVs are now focused on the accelerated installation of chargers in order to relieve the EV user of range anxiety and encourage accelerated vehicle turn over.

As part of their plans to reduce transportation emissions, many states have set targets for EVs in next two decades to help spur policies to accelerate EV adoption. The targets include both percentage of new car sales and share of overall registrations. The nine states that have adopted California’s Zero Emission Vehicle (ZEV) program and EV sales mandate have all set mid-term targets for EV sales in their states (included in the ZEV program are Massachusetts, Connecticut, New York and New Jersey) based on the requirement under the program that 15% of sales in 2025 must be ZEV sales. In addition, many states have established targets for overall registration of EVs. The targets typically start relatively low – reflecting current low penetration rates – but then quickly climb to large numbers. California wants to see 5 million EVs on the road and 250,000 EV charging stations installed by 2030. New York is planning to achieve targets of 850,000 EVs in 2025 and 2 million in 2030. Massachusetts has a goal of 300,000 EV registrations by 2025.

Here is a snapshot of EV targets for several states in the ZEV Mandate group:

**Near-Term State EV Targets (CA ZEV Mandate NE states)**

	Current Vehicle Registrations (000's)	Current EV Registrations (000's)	Current EV %	New Car Yearly Sales (000's)	2025	State Target	
					15% mandate Vehicle sales Target (000's)	EV Registrations ('000s) Target	Date
California	31,500	480	1.5	2,000	300	5,000	2030
New York	11,700	41	0.35	1,000	150	850 2,000	2025 2030
New Jersey	7,200	23	0.32	580	87	330	2025
Mass	5,400	21	0.39	360	54	300	2025
Conn	3,200	9.8	0.33	170	26		

For Brookline, we are proposing a 2030 registration target of 30% EVs, equivalent to approximately 6,400 vehicles (extrapolating from statewide vehicle registration forecasts). This target requires higher growth in Brookline’s EV share of registrations than is projected for Massachusetts as a whole, and is expected to be met in part through a rapid acceleration in EV sales in Brookline, as projected in the table below.

## Near-Term Brookline EV Registration Target (2030) with EV Forecast Model Results

	2020	2025	2030
<b>Total EV Registrations</b>			<b>30%</b>

### **EV Forecast Model Results**

<b>Total vehicle Registrations</b>	30,000	29,159	21,400
EV Registrations	780	2,563	6,360
EV % of total	1.2%	8.8%	29.7%
 <b>Annual vehicle sales</b>			
EV Annual Sales	3,042	2,890	2,745
EV % of Annual Sales	230	463	1,014
	2.4%	16.0%	36.9%

### **Assumptions**

1. Total vehicle registrations decline due to multi-modal shift from cars: 6% per year starting in 2023
2. 2020 EV registrations from Brookline population % of state adjusted upwards by local estimates
3. New car sales based on Brookline population % of state (might be higher due to faster turnover)
4. New car sales drop 5% over first 5 years and again in second 5 year period to reflect multi-modal shift
5. EV sales growth escalated at 15% per year in years 1-5 (exceeding our proportional share of the state's 15% sales goal 2025) and 18% per year in years 6-10

We believe the higher EV registration target number is achievable in Brookline for several reasons:

- 1) There are another 5 years in the target period (2025-2030) which can be used to accelerate the market.
- 2) The Town has a long history of leadership in climate advocacy and can continue this path by stepping up to promote higher numbers of EVs.
- 3) The EV market and technology are rapidly improving and yesterday's targets are becoming less relevant as rapid market acceleration appears realistic. Some governments – like California and Norway (a cold country where over 50% of new car sales are now EVs) – are increasing their targets and seeing success with policies designed to stimulate the market.
- 4) Brookline is a highly educated community and its citizens are well-informed about global warming and solutions. They also likely to turn over their vehicles at a faster rate than in other places (the average age of vehicles in Massachusetts is 9.8 years vs. 11.6 years for the nation as a whole). In addition, 27% of households have more than one car and relatively short commutes. All of this stands to support high rates of adoption of EVs and shift of some trips to car-alternative transportation options.
- 5) An ambitious target will galvanize the community and advocates into developing and supporting innovative pilots and demonstrations for EVs and chargers that will contribute to faster

adoption. It will also tend to attract the attention of grant makers and other financial supporters outside the community that might be interested in underwriting projects that fast-track EV adoption.

One final note, in addition to encouraging the transition to EVs, we also reference “operating behaviors.” The term refers primarily to idling (which should be avoided) and to timely, regular charging of plug-in hybrids (necessary to maximize operation in electric-only mode).

## **Sources**

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## **ARTICLE 32**

Submitted by: Neil Gordon, TMM1, and Hadassah Margolis, TMM8

In November, 2017, Town Meeting amended the General By-laws, changing all references to “Board of Selectmen” to “Select Board,” and “Selectmen” to “Select Board members.

Concurrently, Town Meeting passed a resolution calling for the use of gender-neutral language in the conduct of Town business.

The observed practice of many of the Town's boards, commissions and committees is to refer to their "Chair" as such, regardless of the language of the current By-law. It seems an appropriate time to amend the By-laws, accordingly.

### **ARTICLE 33**

Submitted by: Neil Gordon, TMM1

This Article is brought in an effort to make the Town's General By-laws more inclusive, and also for clarity and consistency.

Currently, the General By-laws include references to "voters," "citizens," "inhabitants," and "residents." Drafted by many hands, and over time, there is a marked lack of consistency, and an unnecessary, and likely unintended, narrowness of application. The simple changes speak for themselves.

### **ARTICLE 34**

Submitted by: Neil Gordon, TMM1

Some time ago, the Petitioner was made aware of a former resident of the town who was continuing to serve on an appointed board. That led to a review of the By-law as it related to that particular board, and subsequently, to a broader review of the By-laws as they relate to appointments to Town boards, committees and commissions.

Currently, there is no consistent standard for appointment to a Town board, committee or commission. For example, the Audit Committee By-law refers only to the appointment of "members," as is the case for the Commission for Women. To serve on the Council on Aging, on the other hand, you need to be a "citizen." The By-laws are silent with respect to members of the Parks and Recreation Commission. "Residents" serve on the School Committee, but the By-laws are silent with respect to Select Board Members, the moderator and the town clerk.

The proposed By-law amendment (i) makes consistent the language with respect to town wide elected officials, and (ii) sets a consistent standard of "resident," which the Petitioner believes (subject to public hearings on this subject) is the appropriate requirement for appointment to and continued service on a Town board, committee or commission.

### **ARTICLE 35**

Any reports from Town Officers and Committees are included under this article in the Combined Reports. Town Meeting action is not required on any of the reports.