



## **Public Facilities Committee Report**

### **City of Newton**

### **In City Council**

**Wednesday, December 4, 2019**

Present: Councilors Crossley (Chair), Leary, Norton, Kelley, Danberg, Lappin, Gentile, Norton and Laredo  
Also Present: Councilor Downs

City Staff Present: City Engineer Lou Taverna, Commissioner of Public Buildings Josh Morse, Chief Operating Officer Jonathan Yeo, Director of Transportation for Public Works Jason Sobel, Chief of Staff for Public Works Shawna Sullivan

#### **Referred to Public Facilities and Finance Committees**

##### **#443-19      Appropriate \$300,000 for the site remediation at 687 Watertown Street**

HER HONOR THE MAYOR requesting authorization to appropriate and expend the sum of three hundred thousand dollars (\$300,000) from Free Cash for the continuation of the site remediation project at Newton Early Childhood Program, 687 Watertown Street.

**Action:**      **Public Facilities Approved 8-0**

**Note:**      Commissioner of Public Buildings Josh Morse explained that the oil leak at 687 Watertown Street occurred decades ago. The \$300,000. is to complete remediation of the site. If follow up testing is unsuccessful then the City will need to request additional funds to install a sub slab depressurization system at the school.

Committee Member Questions:

##### **How will the City know that all hazardous materials were successfully removed?**

Answer: The post-remediation laboratory analysis must confirm either that the department has reached its goal of background or the maximum allowable levels above background.

##### **When will the City know if a sub slab depressurization is needed at 687 Watertown Street?**

Answer: If the \$300,000 is approved by the City Council on December 16<sup>th</sup>, the total process will take approximately 4 weeks. At that point Commissioner Morse will update the Committee on the findings and the NECP project.

##### **What is the process and the number of tests that the state will require to close out this project?**

Answer: The requirements will not be known until the test results come back. If all goes as planned with remediation, then the project could be closed out within 2 to 3 months. If the sub slab depressurization needs to be added to the site; there will be additional requirements and tests from the state.

Councilor Leary motioned to approve which passed unanimously.

##### **#440-19      Comcast petition for a Grant of Location on Langley Road**

COMCAST petitioning for a grant of location to install 141' of 4" conduit from Pole #229/3 westerly to a proposed manhole at the intersection of Langley Road/Centre Green (in front of 10 Langley Road) thence turning in a northerly direction and placing 50' of 4" conduit to the property line at 10 Langley Road.

**Action:** **Public Facilities Approved 8-0**

**Note:** David Flewelling a representative from Comcast presented the request for a Grant of Location for conduit under Langley Road, in order to bring service to the Brookline Bank at 10 Langley Road. A committee member asked how long this project will take? The petitioner stated that the work will take approximately 5 days depending on weather conditions, once the permit is issued. The public hearing was opened, but with no member of the public wishing to speak, the public hearing was closed.

Councilor Danberg motioned approval which passed unanimously.

**#439-19 Verizon petition for a Grant of Location on Clark Street**

VERIZON petitioning for a grant of location to relocate one pole (JO Pole #18) approximately 14' easterly from its existing location and 86' westerly from existing JO Pole #19, located northerly of Clark Street.

**Action:** **Public Facilities Approved 8-0**

**Note:** City Engineer Lou Taverna presented the request to relocate an existing utility pole toward the retaining wall on Clark Street to accommodate an existing driveway. A Verizon representative was not present. The public hearing was opened, but with no member of the public wishing to speak, the public hearing was closed. Committee members expressed no concerns relative to the pole relocation. Councilor Danberg motioned approval which passed unanimously.

**#438-19 Discussion to limit or prohibit the installation of fossil fuel infrastructure**

COUNCILORS CROSSLEY, KELLEY, LEARY, NORTON, ALBRIGHT, GREENBERG, AUCHINCLOSS, MARKIEWICZ, NOEL, BROUSAL-GLASER, COTE, DANBERG, KALIS, AND DOWNS requesting a discussion with the Sustainability Team to create an ordinance to limit or prohibit the installation of fossil fuel infrastructure in new construction and substantially renovated buildings, as well as to clarify the Council's authority to prohibit the extension of gas mains subject to the condition of the existing infrastructure

**Action:** **Public Facilities Held 8-0**

**Note:** Councilor Crossley explained that this preliminary discussion is meant to introduce the topic and get feedback from the Committee on both process and content, to lay the groundwork for action in the new term. The sustainability team was not available, and the Law Department would rather respond to questions from the committee. Brookline recently passed a By-law Article 21, which bans new

fossil fuel infrastructure in all new construction and significant rehabilitation, exempting cooking, back-up generators, central hot water heaters, labs medical offices, and emergency repairs.( the following is a link to Article 21: <http://www.newtonma.gov/civicax/filebank/documents/100512/438-19%20Article%2021%20-%20Supplement%2011.pdf> ). Brookline sent their By-law to the Attorney General's Office, as required for a town, to establish its legal authority to enact the By-law. The Attorney General has 90 days to render its decision. If the Council wishes to pursue an ordinance of similar intent, the City is advised to wait for the Attorney General's decision on the Brookline by-law. Depending on the outcome, Council may choose to proceed to adopt a similar ordinance or file a Home Rule Petition.

#### Questions and Comments by Committee Members:

- Should the Committee hold off on a substantial effort to craft an ordinance until the legal process plays out in Brookline?

The Chair noted that the Brookline By-law provides a template for us to consider substantive matters, which we may wish to think through in advance.

- Should there be a size threshold in the ordinance for new construction?
- Will the ordinance include renovations and if so, how would we define a threshold level of renovations?
- What would the cost be to homeowners doing renovations?
- What would the added cost be for new construction?
- Can these requirements be implemented incrementally?
- What impact will this have on the affordability of housing?
- What will be the lifetime per unit cost to run an all-electric home?

The Chair noted that several developers have committed to use high efficiency electric for heating in recently permitted and upcoming special permit projects.

Betsy Harper and Jonathan Kantar represented Green Newton Building Standards Committee, who submitted a draft memo summarizing aspects of Brookline ordinance and issues for Council to consider (attached). They noted the many exceptions in the Brookline by-law, to accommodate both new technology and user preferences. Ms. Harper explained that there is almost cost parity in new construction, between an all-electric home and a fossil-fuel powered home. The market is driving a switch to electric heating in multiple communities. Over the past five years, advances in technology have decreased the cost. The size of the market will continue to drive the price down. In addition, there are rebates available to the public for a high efficiency heat pumps and water heaters, offered by Department

of Energy Resources Mass Save Program, to make high efficiency electric heating systems more affordable.

- Will there be a need to educate contractors and architects working on smaller projects?
- Is it more or less cost effective for multi-family developments or one to two family homes to go all electric?
- The committee would like to see a price break-down on building using all electric versus fossil fuel powered homes.
- What will the carbon footprint be after a home goes all electric?
- The committee would like to hear from both sides of the issue.
- What will happen to costs and service if everyone switches over to electric?

It was generally agreed that the committee would like the Sustainability Team to meet in the new year to continue discussion.

Councilor Laredo motioned to hold the item which passed unanimously.

### **Referred to Public Facilities and Finance Committees**

**#444-19**

**Appropriate of \$129,250 from the State's Transportation Infrastructure Fund**

HER HONOR THE MAYOR requesting authorization to appropriate and expend one hundred twenty-nine thousand two hundred and fifty dollars (\$129,250) from the City's FY19 allocation from the Commonwealth Transportation Infrastructure Fund to be used for concept design engineering services for the Complete Streets design of the Wells-Nahanton Traffic Signalization and Intersection Improvement Project.

**Action:**

**Public Facilities Approved 6-0-2 (Councilors Kelley and Laredo abstaining)**

**Note:**

City Engineer Lou Taverna explained that the Department of Public Works and Planning Department have worked together with Environmental Partners Group to study and develop 5 to 6 concept designs, seeking to improve the Wells Ave/ Nahanton intersection. The consulting engineer surveyed the right of way and found it wider than expected. However, on the south side there is a conservation restriction and on the north side there is ledge. The departments will further analyze the concept designs with the consulting engineer and bring one or two concepts forward to a public meeting. Questions and Comments by Committee members:

**How much money has been spent so far and what was done with those funds?**

Answer: \$105,000 has been spent on the following: a topographic and right of way survey, traffic data counts and analysis, assessment of pedestrian and bike access and five or six concept designs.

**After spending the \$105,000, is the department where they expected to be?**

Answer: Yes, the department is studying a large area. In addition to the Wells and Nahanton Intersection, all of Wells Avenue and Nahanton Street, from the bridge at the Needham Town Line to east of Winchester Street, is included.

**Why weren't the 5 to 6 concepts brought to the Committee?**

Answer: The department did not want to bring the committee half a dozen options, instead they would like to narrow down the list first. Some were not viable options. In this next phase the department will involve the Ward councilors in this process.

**What road work has been done in this area?**

Answer: The department has paved Wells Ave. There was a new bonded wearing course installed on Nahanton Street.

**What is the budget for this project and what will be done with the additional \$129,250?**

Answer: A detailed breakdown of the 129,500 will be presented to the Finance Committee on 12/09. In the Capital Improvement Plan the intersection project budget totals \$4,000,000.

**What was the total traffic count?**

Answer: Around 13,000 cars a day go through the intersection.

The scope of the project will include bike lanes, pedestrian safety measures and will accommodate vehicular traffic from the Needham Town Line through Winchester Street in Newton.

Councilor Lappin motioned to approve which passed 6-0-2 with Councilors Kelley and Laredo abstaining.

**Referred to Public Facilities and Finance Committees**

#445-19

**Appropriate \$500,000 for removing and disposing of sediment**

HER HONOR THE MAYOR requesting authorization to appropriate and expend five hundred thousand dollars (\$500,000) from the Stormwater Management Fund Surplus- available for appropriation account for the purpose for removing and disposing of an estimated 3,720 cubic yards of sediment from the three City Hall Ponds and the influent culverts of Cold Spring and Hammond Brook.

**Action:**

**Public Facilities Approved 8-0**

**Note:** City Engineer Lou Taverna explained the three ponds at City Hall are meant to collect sediment and prevent that sediment from going into Billows Pond. The sediment needs to be removed to make more room for additional sediment. There needs to be testing to see what is in the sediment to

determine how the sediment will be disposed of. The sediment can come from vehicular traffic. This was last done in 2013 and the City should be at a 5 to 10 year schedule with removing the sediment.

Questions and Comments by Committee Members:

**Is there any way to minimize the amount of sediment going into the ponds?**

Answer: There was a conversation about not adding an upstream filtration system at the Library. This would be an elaborate filtration system which would require continuous maintenance in order to remove the sediment before it gets into the pond. But pond #1 was designed to collect the sediment instead of the filtration system.

**When time of year is the sediment removed?**

Answer: Removal will take place in the winter to mitigate the smell of the sediment.

Councilor Lappin motioned to approve which passed unanimously.

**Referred to Public Facilities and Finance Committees**

**#446-19 Appropriate \$1,500,000 for the purchase of individual parking meter heads**

HER HONOR THE MAYOR requesting authorization to appropriate and expend one million five hundred thousand dollars (\$1,500,000) and authorize a general obligation borrowing of an equal amount for the purchase, delivery and installation of individual parking meter heads for on-street metered parking, and where appropriate, kiosks in city-owned parking lots and on-street locations and authorization to apply any premium received upon the sale of the bonds or notes, less the cost of preparing, issuing, and marketing them, and any accrued interest received upon the delivery of the bonds or notes to the costs of the project and to reduce the amount authorized to be borrowed for the project by like amount.

**Action: Public Facilities Approved 7-0 (Councilor Laredo not voting)**

**Note:** Jason Sobel, Director of Transportation for the Department of Public Works presented the request to replace all parking meters on streets and municipal lots. The goal is to have kiosks in all the municipal lots instead of individual meters. These are to be smart meters equipped with solar panels, rechargeable batteries and wireless data collection. The meter height will not exceed 48 inches, as per ADA accessibility requirements.

Committee Questions and Comments:

**How long will the new meters last?**

Answer: The estimated life expectancy as reported from the manufacturer is 7 to 10 years.

**If there is a 2 hour meter does the phone app allow the driver to extend the time?**

Answer: Mr. Sobel will investigate this further.

**Will the new meters take coins?**

Answer: The new individual parking meters and kiosks will except coins, credit cards and the app.

**Are installing kiosks in municipal lots cheaper than individual parking meters?**

Answer: Yes, the cost of kiosk including installation is \$10,000 and the cost to install a single parking meter is \$1,200. One kiosk could replace 50-60 parking meters.

Committee members are concerned that kiosks are more difficult to use than individual parking meters.

Councilor Danberg moved approval of the \$1.5 million with the condition that the \$110,000 for kiosks is not spent until after an update to the Public Facilities and Finance Committees relative to the parking kiosk is given, which passed 7-0 with Councilor Laredo not voting.

**Referred to Public Facilities and Finance Committees**

**#447-19 Appropriate \$5,750,000 for the Walnut St. and Austin St Newtonville Project**

HER HONOR THE MAYOR requesting authorization to provide construction project funds in the amount of five million seven hundred fifty thousand dollars (\$5,750,000) for the Walnut Street and Austin Street Newtonville Rehabilitation Project as follows. Authorization to appropriate and expend the sum of four million and fifty thousand dollars (\$4,050,000) and to authorize a general obligation borrowing of an equal amount for the costs of the Walnut Street and Austin Street Rehabilitation Project to apply any premium received upon the sale of the bonds or notes, less the cost of preparing, issuing, and marketing them, and any accrued interest received upon the delivery of the bonds or notes to the costs of the project and to reduce the amount authorized to be borrowed for the project by like amount, and; authorization to appropriate and expend the remaining one million seven hundred thousand dollars (\$1,700,000) from the Austin Street mitigation funds provided for as a condition of the Special Permit Board Order #119-15.

**Action:** Public Facilities Approved 7-0 (Councilor Laredo not voting)

**Note:** City Engineer Lou Taverna explained that bids were received for the Walnut and Austin Streets Improvement Project in Newtonville this fall. A.R. Belli, Inc. was the lowest bidder and is waiting for a contract from the City to start construction. The bid is \$5,109,130 but the original budget was predicted to be \$4.1 million. Mr. Taverna noted that a 20%-25% increase in construction costs is happening for all Public Works projects. The advantage to using A.R. Belli is that the company is local, so they do not need a staging area; their bid was about \$500,000 less than the next lowest bidder.

Questions from Committee Members

**Does this budget include traffic signalization?**

Answer: The Cabot Street signal is included in the bid.

Councilor Norton motioned to approve which passed 7-0 with Councilor Laredo not voting.

**Respectfully Submitted,**

**Deborah Crossley, Chair**

DFAFT RECOMMENDATIONS TO PUBLIC FACILITIES BY THE BSC  
November 26, 2019

The full body of the Green Newton Building Standards Committee (BSC) has not yet had an opportunity to review the specifics of the recommendations in this draft to the PF Committee. However, in an effort to be helpful, as PF begins to think about this proposal, we recommend that discussion be organized around the following issues.

1. Relationship of this language to the “electrification” placeholder recently adopted for special permits of projects over 20,000 sf.
2. Legal: what are the permitted points of intervention (where special permits are not involved), learning from Brookline’s future experience with the AG office
3. Project size: whether this ordinance apply to all projects, regardless of size
4. For renovations, how to describe where this should apply
5. Whether there should be exemptions for residential cooking
6. Whether exemptions for hot water generation would include all sizes of hot water systems, or only those for large, central systems
7. Other building types to be exempted (similar to Brookline)

Newton’s overarching goal, as expressed in the CCAP and endorsed by the BSC is to reduce any extension of the existing gas and oil infrastructure. Once established, any new infrastructure will be in place for 50+ years, and it will increasingly be difficult to wean off of. In order to successfully meet Newton’s carbon goals, moving from gas/oil to electric systems and appliances is a fundamental requirement.

With some exceptions to be discussed below, we support the overall intention of the Brookline Article 21, to disallow new fossil fuel infrastructure, as summarized in the table below.

Types of construction	Building types	Exemptions
All new construction and Significant Rehabilitations, the latter defined by: Commercial: 50% or more of the “work area,” not including the sf of additions (per existing ordinance); Residential: 75% or more of the “work area,” not including the sf of additions	All Commercial and Residential – meaning for all SF homes, as well as MF residential developments of all sizes.  The focus is primarily on new construction, as the % allowances for Rehabilitations are for large, “gut renovations,” are which would very likely already require new	<ol style="list-style-type: none"> <li>1. All cooking appliances</li> <li>2. Backup generators</li> <li>3. Outdoor cooking and heating</li> <li>4. Large central hot water heaters</li> <li>5. Waldo Durgin (not relevant for Newton)</li> <li>6. Labs and certain medical offices</li> <li>7. Repair unsafe conditions</li> <li>8. Wavers if “financially”</li> </ol>



	HVAC, electrical, water & sewer systems.	infeasible or impractical
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**Municipal Experience:**

The Brookline Article 21 goes beyond those programs that have been adopted by the six cities in CA in that it includes not just New Construction, but also Significant Rehabilitations, as defined above. However, Brookline includes a caveat that in the case of Significant Rehabilitation, it would be permissible to extend ducts or water/steam pipes from an existing boiler or furnace – although new fuel piping could not be installed into the addition.

In addition, in a concession to public input, the Brookline Article 21 allows the continued installation of gas stoves for all building types – not just an exemption for commercial kitchens, as has been adopted in some of the cities in CA.

A similar chart can be made as a first pass of Newton's Committee on Green Building Standards, outlining the differences from Brookline in bold.

Types of construction	Building types	Exemptions
<p>All new construction and Significant Rehabilitations, the latter defined by:            Commercial: <b>50% or more of the "gross floor area of the existing premises," not including the sf of additions;</b>            Residential <b>75% of the "gross square footage of the existing structure," not including the sf of additions.</b>  <i>Note, the precise definition for Significant Rehabilitations in Newton's will be used</i></p>	<p>All Commercial and Residential – meaning for all SF homes, as well as MF residential developments of all sizes.</p> <p>The focus is primarily on new construction, as the % allowances for Rehabilitations are for large, "gut renovations," are which would very likely already require new HVAC, electrical, water &amp; sewer systems.</p>	<ol style="list-style-type: none"> <li>1. <b>All cooktops, with a preference for electric induction (rather than resistance) cooktops in market rate developments (Note: when cooktops are separated from stoves, electric stoves are readably available at no cost premium to gas stoves)</b></li> <li>2. Back-up generators</li> <li>3. Outdoor cooking and heating</li> <li>4. Large central hot water heaters, <b>with a preference for a petitioner to avoid central hot water systems when possible</b></li> <li>5. Labs and certain medical offices <b>(including hospitals)</b></li> <li>6. Repair unsafe conditions</li> <li>7. Waivers if "financially or physically" infeasible, <b>with documentation from a petitioner that they have considered potential designs which include all electric systems, including heating/cooling, electric cooking, electric washing machines, etc.</b></li> </ol>

We recommend that Newton also adopt Brookline's caveat that in the case of Significant Rehabilitation, it would be permissible to extend ducts or water/steam pipes from an existing boiler or furnace – although new fuel piping could not be installed into the addition.

We would also recommend that a petitioner for a development of >20,000 sf be required to have analyzed the potential for rooftop solar, and be required to install it when financially and physical feasible (covered in a future portion of the Green Building Requirements under Special Permits). If rooftop solar is not feasible, we would recommend that the solar portion of the requirements identify other possible ways that the petitioner can comply – e.g. purchasing renewable off-set credits.

Note: that developments pursuing the Passive House metric, non-fossil fuel heating/cooling and appliances are heavily discouraged, and any exceptions to that need to be identified with a bone fide reason. Three fundamental rationales to support electric systems are: 1) that they are more easily off-set by renewables, 2) indoor air quality is significantly improved, and 3) obviously it decreases fossil fuel carbon emissions. It is extremely hard to meet the Passive House metric without primarily using electric systems and appliances.

In terms of enforcement, Brookline Article 21 proposes the creation of a Sustainability Review Board in order to evaluate requested waivers. In Newton, we would hope that such a review board would be able to be staffed by volunteer professionals with extensive design and construction knowledge, in addition to the proposed Energy Coach.

**In addition, in Newton, single family or small multi-family developments (for new construction, significant renovation, and small additions), there will be other efforts under development aimed at the education of homeowners and contractors by several entities. These include the city's intended new Energy Coach employee, as well as the program supported by Green Newton to create an electric challenge similar to the previous Solarize Newton challenge.**

Issues for PF to consider:

1. The largest concern will be the legal viability of a new ordinance, as evaluated by the city's staff counsel. We recommend that the legal staff coordinate with the extensive group of legal experts that Brookline brought together. Since the town of Brookline needs Attorney General review, this team performed extensive legal work in order to most likely pass the AG's review. Newton should take advantage of this extensive knowledge.
2. While this initiative may feel bold, it is in keeping with current discussions in other cities and towns which are facing the same carbon reduction goals and recognize the primary importance of electrification. In addition, efforts by

the state – particularly the Department of Energy Resources (DOER) – aggressively support the cessation of further non-fossil fuel infrastructure. Professionals there have had conversations with state legislators who may be willing to support regulation to this effect.

It's important to remember the genesis of the Green Communities Act (which established the Stretch Code, among other things) came from the leadership of a few progressive communities (including Newton), which took bold action to amend local zoning requirements. So leadership from a few municipalities has precedent in urging state support for major zoning changes.

3. The requirements presented will be relatively straightforward for new construction. Advancement in technologies, a reduction in their cost, and some MassSave subsidies have brought the cost of electric systems to be at parity with those of gas or oil. For example, in new construction, several developers for large projects (Northland and Riverside) have determined that the cost of air source heat pump heat/cooling is actually cheaper than that for a gas system. The same is often true for single family and moderate-sized developments.

In addition, we are seeing the market adoption of electric systems of higher efficiency than older electric systems – further advancing the argument for electric systems. For example, the cost of high efficiency heat pump water heaters (with a \$600 rebate), is now on par with lower efficiency standard electric water heaters. (This product is only currently viable for small-medium size developments without a central water heating system, but we envision continual technology evolution to eventually include central water heating systems.)

4. The requirements for significant rehabilitations is much more important to consider carefully, due to the uniqueness of each existing building. For buildings >20,000 sf, electrification requirements will ultimately be covered under the Special Permit requirements for Green Buildings. These buildings undergoing gut rehabs are very likely to be replacing most of the HVAC, electrical, plumbing and water systems anyway and will be motivated both by market demand and lower costs to move to electric systems. For example, if a development is required to utilize all electric systems and appliances except for cooktops, then a developer must decide whether the significant cost of adding or upgrading an existing gas line is worth the additional cost just for gas cooktops. We anticipate several developers not wanting to incur those costs.

Rehabilitations for single family or developments <20,000 SF may be more complex, due to the uniqueness of each building and the existing systems. The proposed generous allowances for % of gross sq effectively describe the

same level of gut renovation, where the walls are opened up and most of the major systems are being replaced. As already envisioned by the city, it will be critical to provide education to this group of property owners as to why electric systems are preferable.

5. We recommend that the PF Committee carefully evaluate the list of exemptions offered in this proposal. The largest public concern to date (expressed in Brookline and elsewhere) has been for electric cooktops. (Electric stoves are cost-effective and much less controversial.) By providing an exemption for electric cooktops, this eliminates the most commonly expressed concern. The other exemptions are widely accepted as necessary with today's technology.

The methodology to consider waivers is perhaps the most important element that needs careful consideration. We have suggested a professionally-strong volunteer committee, plus the future Energy Coach. The criteria for waivers will need to be established carefully in order to ensure equal treatment amongst petitioners.