Posted 5.12.2022 at 4:00pm by JAD

SELECT BOARD
AGENDA
Tuesday, May 17, 2022
7:00pm

The Select Board Regular Meeting is being held virtually in accordance with legislation S. 2475, an act relative to extending certain COVID-19 measures adopted during the Covid Pandemic state of emergency. Interested individuals can listen in and participate by phone and/or online by following the link and phone # below.

UpperTH ProWebinar is inviting you to a scheduled Zoom meeting.
Topic: Select Board
Time: May 17, 2022 07:00 PM Eastern Time (US and Canada)
Join Zoom Meeting
https://us02web.zoom.us/j/83133853666?pwd=UFFyd2poMHRmSkpJcVcwUDVwSU1Fdz09
Meeting ID: 831 3385 3666
Passcode: 192131
Find your local number: https://us02web.zoom.us/u/kbjYRhpdjV

+1 253 215 8782 US
+1 301 715 8592 US

One tap mobile
+13126266799,,123906012# US (Chicago)
+19294362866,,12390012# US (New York)

AGENDA ITEM

1) Harvard General Store Liquor License Hearing – alteration of on-premise beer/wine license (7:00)
2) Meet with the Agricultural Advisory Commission to discuss their proposal for new Right to Farm signs (7:15)
3) Review Plan Summary prepared by the Harvard Devens Jurisdiction Committee and draft letter to Mike Kennealy, Executive Office of Housing and Economic Development at Commonwealth of MA (7:25)
4) Approve minutes 4/12 & 4/26 (7:45)
5) Public Communication (7:50)
6) Harvard Climate Initiative Committee (HCIC) update (8:00)
7) Staff Report/Updates (8:20)
8) Action/Discussion items: (8:30)
    a) Discuss replacing tree on the common with Tree Warden
    b) Act to increase the price of mattresses from $10 to $25 per piece effective July 1, 2022 as MassDEP is going to require mattress recycling which increases the cost for collection and disposal
    c) Act on Ginny Thurston Scholarship
    d) Acknowledge Eagle Scouts/Girl Scout Gold Awards with proclamations
    e) Act on resale request for 15 Littleton Road Unit 1A (Local Initiation Program Home)
    f) Recognize resignation of Michelle Lauria from the Park & Recreation Commission
    g) Discuss response from MRPC & DOT and next steps on the Ayer Road TIP project
    h) Vote to surplus Fire Truck in Still River and act on out state travel request for the Fire Chief
    i) Discuss grant submission under the Rural and Small-Town Grant Program
    j) Act on entertainment license dates for Carlson Orchards
9) Farewell Comments

Next Regular Select Board Meeting
Tuesday, June 7, 2022
7:00pm

All times are approximate except for scheduled public hearings.

OFFICES OF THE
SELECT BOARD AND
TOWN ADMINISTRATION

13 Ayer Road, Harvard, Massachusetts 01451
(978) 456-4100

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

May 6, 2022

To Whom It May Concern:

Hello, you are receiving this notice, which is required by law and Harvard's policies and procedures, due to the fact the Harvard General Store, 1 Still River Road, has filed for a change of premise on their existing on-premise wine/malt license. The notice below will give you the date and time of the public hearing as well as when and where you can view the application.

If you have any questions or concerns, please feel free to contact Julie Doucet in the Select Board office at 978-456-4100 ext. 312 or by email: jdoucet@harvard-ma.gov.

TOWN OF HARVARD
PUBLIC HEARING

The Harvard Select Board will hold a public hearing on Tuesday, May 17, 2022 at 7pm virtually via Zoom to consider a request from the Harvard General Store, 1 Still River Road, to make an alteration of their on-premise wine/malt license. The hearing is being held in accordance with MGL Chapter 138, Section 12. Please contact the Select Board office at 978-456-4100x312 Monday through Thursday 8AM to 4:30PM or via email jdoucet@harvard-ma.gov for more information or to view the application. The Select Board meeting agenda will be posted 48hrs prior with the remote access information.

The Commonwealth of Massachusetts
Alcoholic Beverages Control Commission
95 Fourth Street, Suite 3, Chelsea, MA 02150-2358
www.mass.gov/abcc

MAY 03 REC'D

RETAIL ALCOHOLIC BEVERAGES LICENSE APPLICATION
MONETARY TRANSMITTAL FORM

AMENDMENT-Change or Alteration of Premises Information

APPLICATION SHOULD BE COMPLETED ON-LINE, PRINTED, SIGNED, AND SUBMITTED TO THE LOCAL LICENSING AUTHORITY.

ECRT CODE: RETA

Please make $200.00 payment here: ABCC PAYMENT WEBSITE

PAYMENT MUST DENOTE THE NAME OF THE LICENSEE CORPORATION, LLC, PARTNERSHIP, OR INDIVIDUAL AND INCLUDE THE PAYMENT RECEIPT

ABCC LICENSE NUMBER (IF AN EXISTING LICENSEE, CAN BE OBTAINED FROM THE CITY) 04123-RS-0500

ENTITY/ LICENSEE NAME HGS DINING LLC

ADDRESS 1 STILL RIVER ROAD

CITY/TOWN HARVARD **STATE** MA **ZIP CODE** 01451

For the following transactions (Check all that apply):

- ☐ New License
- ☐ Transfer of License
- ☐ Change of Manager
- ☐ Change of Officers/Directors
- ☐ Change of Ownership Interest
- ☐ Change Corporate Name
- ☐ Change of DBA
- ☒ Alteration of Licensed Premises
- ☐ Change of Location
- ☐ Other
- ☐ Change of Class (i.e. Annual / Seasonal)
- ☐ Change of License Type (i.e. club / restaurant)
- ☐ Change of Category (i.e. All Alcohol/Wine, Malt)
- ☐ Issuance/Transfer of Stock/New Stockholder
- ☐ Change Corporate Structure (i.e. Corp / LLC)
- ☐ Change of Hours
- ☐ Pledge of Collateral (i.e. License/Stock)
- ☐ Management/Operating Agreement

THE LOCAL LICENSING AUTHORITY MUST SUBMIT THIS APPLICATION ONCE APPROVED VIA THE ePLACE PORTAL

Alcoholic Beverages Control Commission
95 Fourth Street, Suite 3
Chelsea, MA 02150-2358

Payment Confirmation

YOUR PAYMENT HAS PROCESSED AND THIS IS YOUR RECEIPT

Your account has been billed for the following transaction. You will receive a receipt via email.

Transaction Processed Successfully
INVOICE # d3398b61-c6d6-4675-954a-3da0b4265124

FILING FEES-RETAIL	HGS DINING LLC	$200.00
		$200.00

Total Convenience Fee: $4.70

Date Paid: 4/28/2022 1:30:19 PM EDT

Total Amount Paid: $204.70

Payment On Behalf Of

License Number or Business Name:
HGS DINING LLC

Fee Type:
FILING FEES-RETAIL

Billing Information

First Name:
Scott

Last Name:
Hayward

Address:
1 STILL RIVER ROAD

City:
Harvard

State:
MA

Zip Code:
01451

Email Address:
office@harvardgeneralstore.com

The Commonwealth of Massachusetts
Alcoholic Beverages Control Commission
95 Fourth Street, Suite 3, Chelsea, MA 02150-2358
www.mass.gov/abcc

AMENDMENT-Change or Alteration of Premises Information

☐ Change of Location

- Payment Receipt
- Monetary Transmittal Form
- Chg of Location/Alteration of Premises Application
- Financial Statement
- Vote of the Entity
- Supporting financial records
- Legal Right to Occupy
- Floor Plan
- Abutter's Notification
- Advertisement

☒ Alteration of Premises

- Payment Receipt
- Monetary Transmittal Form
- Chg of Location/Alteration of Premises Application
- Financial Statement
- Vote of the Entity
- Supporting financial records
- Legal Right to Occupy
- Floor Plan
- Abutter's Notification
- Advertisement

1. BUSINESS ENTITY INFORMATION

Entity Name	Municipality	ABCC License Number
HGS DINING LLC	HARVARD, MA	01423-RS-0500

Please provide a narrative overview of the transaction(s) being applied for. Attach additional pages, if necessary.

ALTERATION OF PREMISES TO EXTEND PATIO AREA TO INCLUDE ALL OF PATIO (3600 SQFT) AND CREATE ALCOHOL STORAGE AREA OF 112 SQ FT ON FIRST FLOOR

APPLICATION CONTACT

The application contact is the person who should be contacted with any questions regarding this application.

Name	Title	Email	Phone
SCOTT HAYWARD	OWNER	SCOTT@HARVARDGENERALSTORE.COM	[redacted]

2. ALTERATION OF PREMISES

2A. DESCRIPTION OF ALTERATIONS

Please summarize the details of the alterations and highlight any specific changes from the last-approved premises.

ALTERATION OF PREMISE TO EXTEND PATIO AREA TO INCLUDE ALL OF PATIO (3600 SQ FT) AND CREATE AN ALCOHOL STORAGE AREA OF 112 SQ FT ON THE FIRST FLOOR

2B. PROPOSED DESCRIPTION OF PREMISES

Please provide a complete description of the proposed premises, including the number of floors, number of rooms on each floor, any outdoor areas to be included in the licensed area, and total square footage. You must also submit a floor plan.

1ST FLOOR/ TWO ROOMS/ ON PREMISE DRINKING 1350 SQ FT / ON PREMISE STORAGE 112 SQ FT. 2ND FLOOR / TWO ROOMS/ ON PREMISE DRINKING 2025 SQ FOOT / ON PREIMISE STORAGE 112 SQ FT. OUTDOOR PATIO ON PREIMISE DRINKING 3600 SQ FT

Total Sq. Footage	7199	Seating Capacity	150	Occupancy Number	SAME
Number of Entrances	2	Number of Exits	2	Number of Floors	2

AMENDMENT-Change or Alteration of Premises Information

3. CHANGE OF LOCATION

3A. PREMISES LOCATION

Last-Approved Street Address	1 STILL RIVER ROAD HARVARD, MA 01451
Proposed Street Address	1 STILL RIVER ROAD HARARD MA, 01451

3B. DESCRIPTION OF PREMISES

Please provide a complete description of the premises to be licensed, including the number of floors, number of rooms on each floor, any outdoor areas to be included in the licensed area, and total square footage. You must also submit a floor plan.

1ST FLOOR / TWO ROOMS / ON PREMISE DRINKING 1350 SQ FT / ON PREMISE STORAGE 112 SQ FT. 2ND FLOOR / TWO ROOMS / ON PREMISE DRINKING 2025 SQ FT / ON PREMISE STORAGE 112 SQ FT. OUTDOOR PATIO ON PREMISE DRINKING 3600 SQ FT

Total Sq. Footage	7199	Seating Capacity	150	Occupancy Number	SAME
Number of Entrances	2	Number of Exits	2	Number of Floors	2

3C. OCCUPANCY OF PREMISES

Please complete all fields in this section. Please provide proof of legal occupancy of the premises. (E.g. Deed, lease, letter of intent)

Please indicate by what means the applicant has to occupy the premises: Lease

Landlord Name	EVELYN HOROWITZ		
Landlord Phone	[redacted]	Landlord Email	[redacted]
Landlord Address	[redacted]		
Lease Beginning Date	7/1/2017	Rent per Month	$1,850
Lease Ending Date	7/1/2022	Rent per Year	$22,200

Will the Landlord receive revenue based on percentage of alcohol sales? ○ Yes ◉ No

4. FINANCIAL DISCLOSURE

Associated Cost(s): (i.e. Costs associated with License Transaction including but not limited to: Property price, Business Assets, Renovations costs, Construction costs, Initial Start-up costs, Inventory costs, or specify other costs):

Associated Cost(s):	NO ASSOCIATED COSTS NECESSARY AT THIS TIME ASIDE FROM ABUTTER FEE AND ALTERATION OF PREMISE FEE

SOURCE OF CASH CONTRIBUTION

Please provide documentation of available funds. (E.g. Bank or other Financial institution Statements, Bank Letter, etc.)

Name of Contributor	Amount of Contribution
Total:	

SOURCE OF FINANCING

Please provide signed financing documentation.

Name of Lender	Amount	Type of Financing	Is the lender a licensee pursuant to M.G.L. Ch. 138.
			◯ Yes ◯ No
			◯ Yes ◯ No
			◯ Yes ◯ No
			◯ Yes ◯ No

APPLICANT'S STATEMENT

I, SCOTT HAYWARD (Authorized Signatory) the: ☐ sole proprietor; ☐ partner; ☐ corporate principal; ☒ LLC/LLP manager

of HGS DINING LLC (Name of the Entity/Corporation)

hereby submit this application (hereinafter the "Application"), to the local licensing authority (the "LLA") and the Alcoholic Beverages Control Commission (the "ABCC" and together with the LLA collectively the "Licensing Authorities") for approval.

I do hereby declare under the pains and penalties of perjury that I have personal knowledge of the information submitted in the Application, and as such affirm that all statements and representations therein are true to the best of my knowledge and belief. I further submit the following to be true and accurate:

(1) I understand that each representation in this Application is material to the Licensing Authorities' decision on the Application and that the Licensing Authorities will rely on each and every answer in the Application and accompanying documents in reaching its decision;

(2) I state that the location and description of the proposed licensed premises are in compliance with state and local laws and regulations;

(3) I understand that while the Application is pending, I must notify the Licensing Authorities of any change in the information submitted therein. I understand that failure to give such notice to the Licensing Authorities may result in disapproval of the Application;

(4) I understand that upon approval of the Application, I must notify the Licensing Authorities of any change in the ownership as approved by the Licensing Authorities. I understand that failure to give such notice to the Licensing Authorities may result in sanctions including revocation of any license for which this Application is submitted;

(5) I understand that the licensee will be bound by the statements and representations made in the Application, including, but not limited to the identity of persons with an ownership or financial interest in the license;

(6) I understand that all statements and representations made become conditions of the license;

(7) I understand that any physical alterations to or changes to the size of the area used for the sale, delivery, storage, or consumption of alcoholic beverages, must be reported to the Licensing Authorities and may require the prior approval of the Licensing Authorities;

(8) I understand that the licensee's failure to operate the licensed premises in accordance with the statements and representations made in the Application may result in sanctions, including the revocation of any license for which the Application was submitted; and

(9) I understand that any false statement or misrepresentation will constitute cause for disapproval of the Application or sanctions including revocation of any license for which this Application is submitted.

(10) I confirm that the applicant corporation and each individual listed in the ownership section of the application is in good standing with the Massachusetts Department of Revenue and has complied with all laws of the Commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting of child support.

Signature: Scott Haywards Date: 5.3.22

Title: owner Manager

ADDITIONAL INFORMATION

Please utilize this space to provide any additional information that will support your application or to clarify any answers provided above.

WE WOULD LIKE TO CONTINUE SERVING OUR COMMUNITY AND WE WOULD LIKE MORE SPACE TO DO SO.
OUR ENTIRE PATIO IS ENCLOSED BY A ROCKWALL AND FENCING

ENTITY VOTE

The Board of Directors or LLC Managers of HGS DINING LLC
Entity Name

duly voted to apply to the Licensing Authority of HARVARD,MA and the
City/Town

Commonwealth of Massachusetts Alcoholic Beverages Control Commission on _____
Date of Meeting

For the following transactions (Check all that apply):

☒ Alteration of Licensed Premises

☐ Change of Location

☐ Other _____

"VOTED: To authorize SCOTTHAYWARD
Name of Person

to sign the application submitted and to execute on the Entity's behalf, any necessary papers and do all things required to have the application granted."

A true copy attest,

Scott Hayward
Corporate Officer / LLC Manager Signature

SCOTT HAYWARD
(Print Name)

For Corporations ONLY
A true copy attest,

_____
Corporation Clerk's Signature

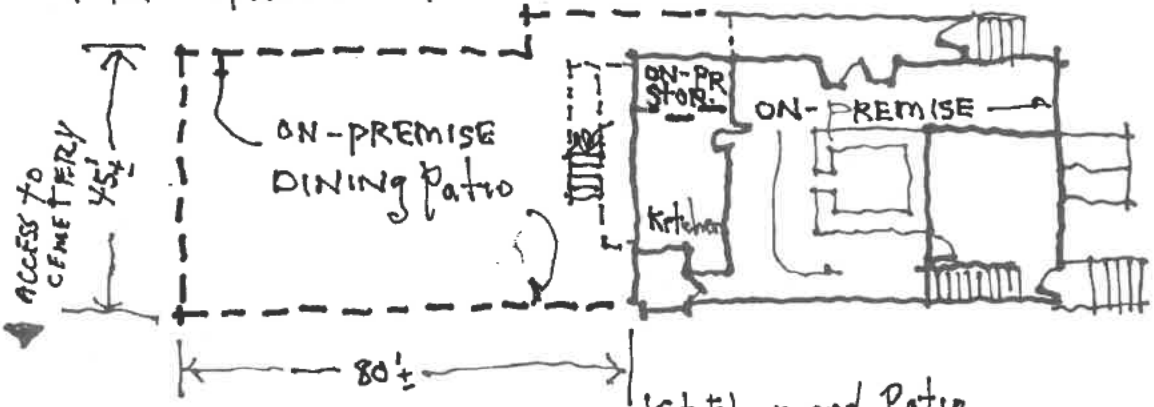
_____
(Print Name)

ON-PREMISE
Pouring License
Premises

AREA CALCULATIONS

2nd Floor on Prem.	2,025	$
2nd Floor Alc. Stor. (on premise)	112	$
1st Floor on-prem.	1,350	$
1st Floor Alc. Stor (on-premise)	112	$
Dining Patio on-prem	3,600	$
Total on-premise	7,199	$

2nd Floor Plan
ON-PREMISE AREA



1st Floor and Patio
ON-PREMISE AREA

Harvard-Devens Jurisdiction Committee
Plan Summary
Version: 04/07/2022

Background

Passage of Ballot Question #4 at the 2017 Town Elections directed the Select Board to "begin planning for and initiate discussions with appropriate parties with the goal of presenting a plan to the Town of Harvard voters to resume jurisdiction over the land presently part of Devens formerly under the jurisdiction of the Town of Harvard…"

The Harvard-Devens Jurisdiction Committee (HDJC) was subsequently formed by the Select Board in February 2018 and charged with developing the plan. This "Plan Summary" is intended to provide an *overview* of the major elements to be addressed in a comprehensive plan for Harvard's resumption of jurisdiction of its historical lands within Devens.

In 2019, MassDevelopment, the quasi-public state agency that manages Devens, aided in the formation of the Devens Jurisdiction Framework Committee (DJFC) which is composed of representatives from Ayer, Harvard, and Shirley, MassDevelopment, the Devens Enterprise Commission, and Devens residents and businesses. The task of the DJFC is to coordinate the efforts of the Devens stakeholders in determining local municipal governance of Devens and to submit a recommendation to the Governor and Legislature, as required by Chapter 498 of the Acts of 1993.

The DJFC's task is similar to that of the HDJC but is broader in scope. It can consider a range of options for the future governance of Devens, such as the creation of Devens as a standalone town, for example.

Consultant Services

The HDJC has taken the position that MassDevelopment should fund the cost of the consultant services required to develop a complete plan for Devens future governance. Funding for consultant services is seen as an appropriate and required expense of the Devens redevelopment project.

HDJC Plan Summary

The essence of the HDJC plan is that Devens will be returned to Harvard and by extension to each of the other two towns from which it was assembled by the Army in 1917. This plan is explained below.

Residential Community – Devens residents have previously requested that their residential community be kept together and not be split up among separate towns. An element of Harvard's "resumption of its historical lands" plan is that the entire residential community of Devens will become part of Harvard. This will add all 282 homes authorized under the Reuse Plan to Harvard.

Harvard-Devens Jurisdiction Committee
Plan Summary
Version: 04/07/2022

Boundary Changes – The historical boundary will be changed to include the approximately 40 housing units on Bates and Autumn Streets, now part of the Town of Ayer, thus keeping the Devens residential community together.

Municipal Services – Harvard will be responsible for providing all municipal services, including education (which Harvard now provides by contract with MassDevelopment). This can be accomplished by a variety of means:

- Expanding existing staff, facilities and equipment where needed within existing Harvard departments;
- Contracting with third parties for services; or
- Regionalizing specific services with other communities.

Utilities - Obtain legislative approval for the creation of a Devens "super" municipal utility which will be managed by an independent commission for the benefit of ratepayers. This retains the present organization and operation of Devens utilities for providing electric, gas, water, and for servicing wastewater, and additionally, storm water services.

A local utility commission, appointed for staggered long terms would replace the MassDevelopment Board. This proposal changes the management structure but would not change the geographic area currently served by Devens utilities. Legislation must include provision for adequate initial capital for infrastructure maintenance and rate stabilization.

Unified Permitting – There will be no change except that members of the Devens Enterprise Commission will be locally appointed as terms of current commissioners expire, rather than being appointed by the Governor.

Zoning/Reuse Plan - No changes are contemplated at this time, although the rezoning of Vicksburg Square for residential development may be sought by MassDevelopment. The HDJC advocates agreement on future governance before Vicksburg Square is rezoned to allow up to 300 additional housing units.

Public Lands – MassDevelopment should transfer ownership and operation of Mirror Lake as a public facility to the state Department of Conservation and Recreation. Future ownership and management of other open space areas now owned by MassDevelopment must be resolved. Entities holding conservation restrictions or other interests in open space must be consulted.

Harvard-Devens Jurisdiction Committee
Plan Summary
Version: 04/07/2022

Connectivity, Traffic and Transportation – Consider a limited re-opening of Old Mill Road to Patton Road. This access would be gated and available only for pedestrians, bikes, and emergency vehicles. Also, consider adding another access road (perhaps reconnecting Depot Rd with Salerno Circle) which would exclude trucks by design.

Environmental – Maintain existing agreements with US Army, EPA and the Massachusetts Department of Environmental Protection to ensure the high-level protections are maintained. Harvard must have status as a party of interest in these agreements.

Taxation and Municipal Finance – The HDJC believes that a thorough understanding of the impact on local taxes and municipal finance is critical to any discussion of Harvard resuming jurisdiction over its former lands at Devens. This applies equally to both Harvard and Devens.

Tasks to be considered include:

- Develop combined operating and capital budgets, including potential long term debt schedules.
- Merge Harvard and Devens property assessments.
- Develop projected tax rates assuming residential/commercial-industrial split rates.
- Analyze impact of split tax rate (residential vs. commercial/industrial) on Harvard's existing tax base.
- Review projected life of major capital investments (utilities, roads and equipment).
- Develop potential future capital obligations.

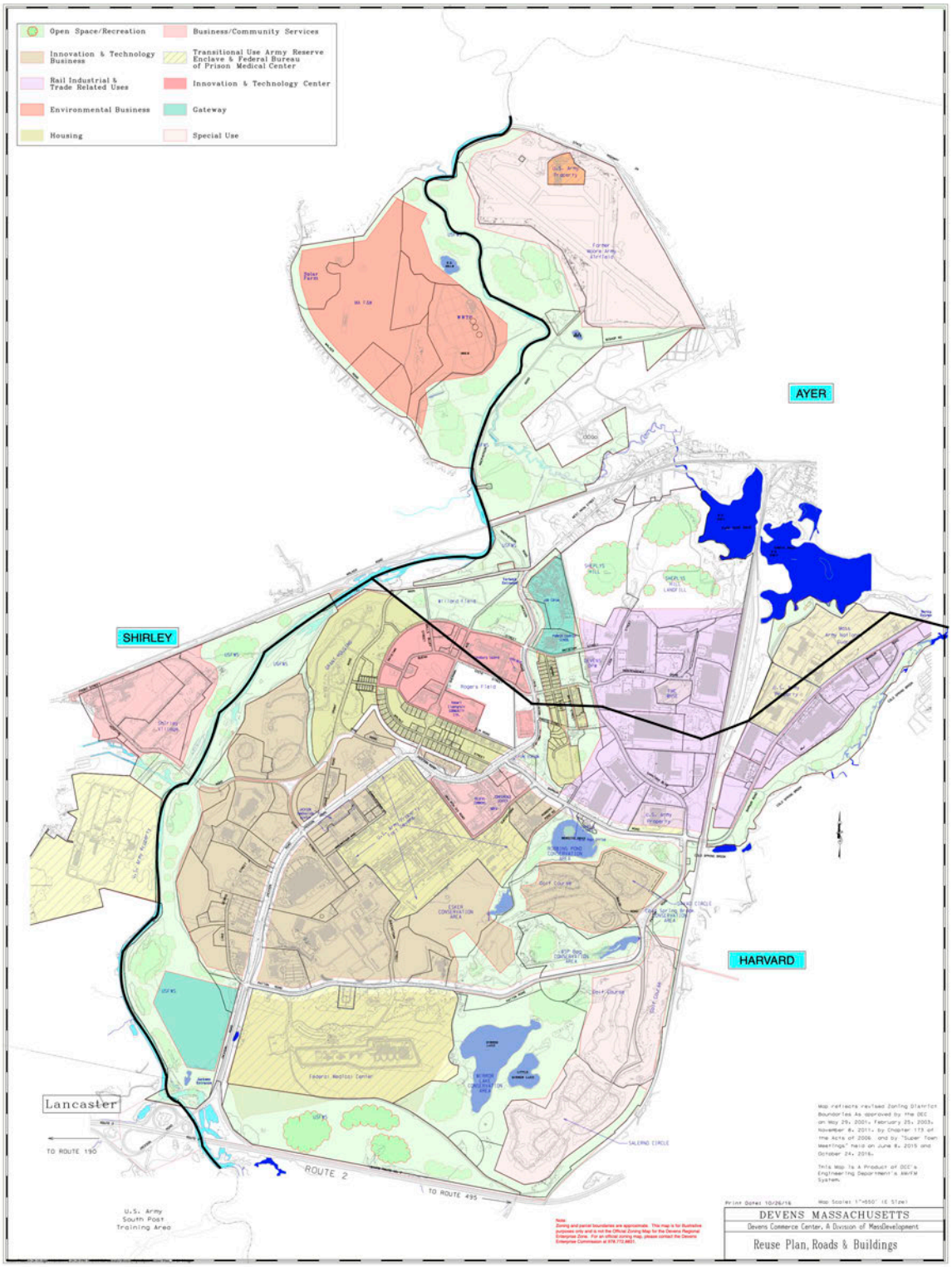
In short, a thorough analysis by consultants with municipal finance experience is required.

In Conclusion

While this summary plan represents a future vision for a combined Devens-Harvard community, many details still need to be addressed; there will be questions raised, and various options presented. The current efforts of the larger Devens Jurisdiction Framework Committee (DJFC) are progressing slowly and it will likely take years for the DJFC to reach a consensus. This summary provides a basis for citizen engagement within Harvard as well as the larger Devens community.

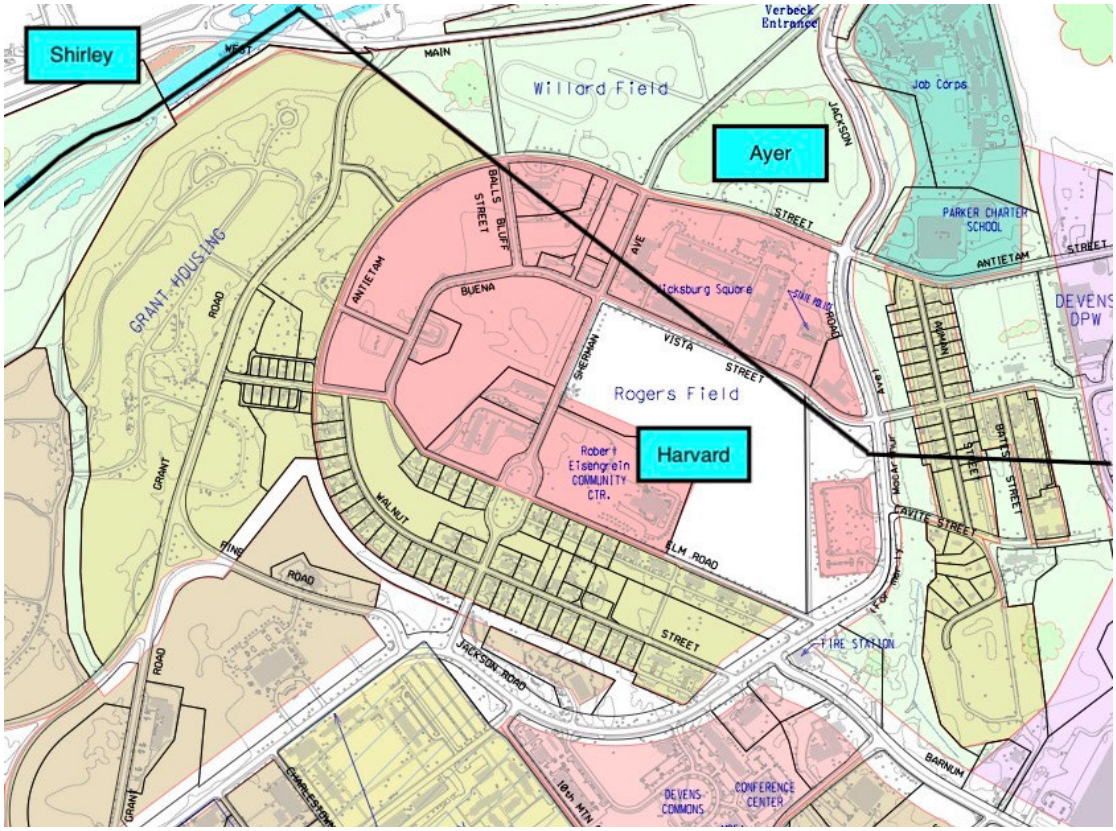
Harvard-Devens Jurisdiction Committee
Plan Summary
Version: 04/07/2022

Appendix A. Map of Devens showing Historical Town Boundaries



Harvard-Devens Jurisdiction Committee
Plan Summary
Version: 04/07/2022

Appendix B. Devens Housing Areas



Devens housing areas, shown in yellow, are along Grant Road, Walnut Street, Elm Road, Cavite Street, Bates Street, and Auman Street. Bates and Auman Street straddle the Harvard-Ayer town boundary.

The yellow area at the bottom of the image is a portion of the U.S. Army Fort Devens compound and is not used for civilian purposes.

Dear Chairman Kennealy:

It is with surprise and regret that the Select Board in Harvard was informed that MassDevelopment was withdrawing its participation from the Devens Jurisdiction Framework Committee (DJFC). For more than two years the members of this committee have invested a great deal of time and effort planning for the future of permanent government at Devens.

I am writing to you because senior management at MassDevelopment has been unresponsive to the Harvard Select Board on matters relating to Devens. A letter to Mr. Rivera sent in May of last year has gone unanswered and other requests by the Town of Harvard from its staff and appointed volunteers on the matter of funding for the DJFC have been ignored, as have requests for engagement over the future of Vicksburg Square in the heart of Devens.

Despite the legislative requirement that MassDevelopment engage with all parties to the Devens Reuse Plan in planning for permanent government at Devens, your senior staff has now concluded on its own that such engagement should not begin until 2030, mistakenly interpreting the "not later than" language as a starting point rather than a deadline.

I have been informed that MassDevelopment will not provide any funding for this planning effort in its next Devens operating budget. Previously, MassDevelopment had made it a requirement that the three host communities of Ayer, Harvard and Shirley participate in this cost. These funding decisions appear to be a clear affront to the Towns. The Devens project presently holds over $100 million in net assets, more than half of that in cash, on its balance sheet. Those funds belong to the Devens project which by many measures is coming to an end.

MassDevelopment has done a superior job implementing the Devens Reuse Plan as it was envisioned by the three towns and the Commonwealth. As the designated redevelopment authority for Devens it has coordinated the successful environmental cleanup efforts of the Army, MassDEP, and the EPA; replaced the neglected utility infrastructure completely, redesigned and built new roadways, demolished or repurposed abandoned buildings, and most importantly replaced all of the jobs lost when the military realigned away from Devens with a broad spectrum of mostly higher skilled jobs. It would be unfortunate to have its accomplishments diminished as it begins to exit the stage.

In addition to its role as a redevelopment authority, MassDevelopment was given the role as the interim government at Devens. As its redevelopment tasks diminish, its function as the local government has increased. As the residential portion of the Reuse Plan has been carried out and more residents arrive, the need to know what permanent government will look like and when the residents will become fully enfranchised, takes on greater importance. While MassDevelopment's stewardship of Devens has been noteworthy, nonetheless, Devens residents have a right to fully participate in self government.

Finally, it needs to be made clear that bringing about the end of MassDevelopment's role as the interim government does not mean that its responsibilities to complete the work of the Reuse Plan has also ended. Once its role as the interim government ends, MassDevelopment will continue to operate at Devens just as it does in every other community where it has projects.

By participating in the Devens Jurisdiction Framework Committee, MassDevelopment brings almost 30 years of experience and important professional expertise to the effort. By fully funding the same level of outside consultant services in community development and municipal finance as was committed to the crafting of the Devens Reuse Plan in 1991, the complete success of the project can be assured.

Your action to bring about the full engagement both professionally and financially will be greatly appreciated.

Sincerely,

Select Board Minutes
Tuesday, April 12, 2022
7:00pm

The Select Board Regular Meeting was held virtually in accordance with the Governor's Executive Order Suspending Certain Provisions of the Open Meeting Law, G.L.c.30A. S.20.

Select Board participants:
Stu Sklar, Rich Maiore, Erin McBee, Kara Minar, Alice von Loesecke
Town Department attendees:
Town Administrator Tim Bragan, Assistant Town Administrator Marie Sobalvarro, Executive Assistant Julie Doucet, Community & Economic Development Director Chris Ryan, Town Clerk Lynn Kelly
Additional participants:
Planning Board Chair Justin Brown, Community & Economic Development Director Chris Ryan, Fivesparks Rep. Mark Mikitarian

Community briefing on the draft MBTA Multi-Family Guidelines
Community & Economic Development Director Chris Ryan gave the briefing which included a background, summary of the draft guidelines, compliance Issues, the comments submitted to state, Important dates and resources. Stu Sklar and Planning Board Chair Justin Brown will draft the comment letter together with input from all stakeholders. Chris Ryan will submit the community information form that is the next step in the process.

Minutes
By a roll call vote, Maiore – aye, von Loesecke – aye, McBee – aye, Minar – aye, von Loesecke – aye, Sklar – aye, the board voted unanimously to approve the minutes of 3/15, as presented.
By a roll call vote, Maiore – aye, von Loesecke – aye, McBee – aye, Minar – aye, Sklar – aye, the board voted unanimously to approve minutes of 3/16, as presented.

Public Communication
Paul Green, Littleton Road, noted the importance for the MBTA multi-family zoning to consider Devens with respect to affordable housing. He referenced potential housing in Vicksburg Square and the importance of including Devens as part of this discussion.

Rebecca Kelley asked about her request for benches in the common area and a sign for town hall building.

Staff Report/Updates (Attachment A)

Resignation of Lisa Foley from Warner Free Lecture
By a roll call vote, Minar – aye, von Loesecke - aye, Maiore – aye, McBee – aye, Sklar – aye, the board voted unanimously to announce the vacancy. They thanked Lisa for all her years of service.

Issue liquor license to the Bowling Lanes
Executive Assistant Julie Doucet confirmed the fire safety certificate, insurance coverage and payment have been received. She reported a temporary certificate of occupancy will be issued for renovations made to the building based on feedback from the Building Inspector.

By a roll call vote, von Loesecke – aye, Maiore -aye, Minar – aye, McBee – aye, Sklar – aye, the board voted unanimously to issue license as suggested pending certificate of occupancy.

Act on Mass Works Infrastructure grant application
By a roll call vote, Minar – aye, McBee– aye, Maiore – aye, von Loesecke – aye, Sklar – aye, the Board voted unanimously to submit the 2023 Mass Works Infrastructure grant application for road safety improvements on Stow Rd.

Girl scouts bake sale at Town Meeting
By a roll call vote, McBee – aye, Minar – aye, Maiore – aye, von Loesecke – aye, Sklar – aye, the board voted unanimously to approve the girl scouts bake sale at the annual town meeting and further requests for similar activities be vetted through appropriate town hall staff.

Girl Scouts request to plant flowers on the town common near the war monument
By a roll call vote, Minar – aye, McBee – aye, Maiore – aye, von Loesecke – aye, Sklar – aye, the board voted unanimously to approve plantings in coordination with War Monument Restoration Committee for the monument on town common.

Town Clerk request to establish an annual $50 fee for Certificates of Registration
Town Clerk Lynn Kelly noticed there is no fee established for flammable storage. She did research from other comparable communities and is suggesting a $50 annual fee. By a roll call vote, von Loesecke – aye, Minar – aye, McBee – aye, Maiore – aye, Sklar – aye, the board voted unanimously to establish a $50 annual fee for certificates of registration similar to other communities.

Discuss terms of lease for the Bromfield House
Stu Sklar asked his fellow board members to consider finalizing details of the lease tonight. His reasoning is to have the lease in place so when the probate court takes action there will be nothing to hold up Ascentria (refugee resettlement services) in their next steps. Assistant Town Administrator Marie Sobalvarro has been working with town counsel on the draft lease. Lease terms to note are waiving of the security deposit, town knowledge of who and how many renters there will be, renters will assume all utilities, any major system failures will be handled at the discretion of the owner and the long-term intent is to sell property. The board members offered their input with respect to maintenance/repairs, insurance/town liability and the expectation the property will be returned in the same condition if not better. They agreed on monthly payments for up to one year with a six-month extension based on the commencement date. They discussed the lease option to end no later than December of 2023. Sobalvarro will continue to work with town counsel to finalize the details within the lease.
By a roll call vote, von Loesecke – aye, Minar -aye, Maiore – aye, McBee -aye, Sklar -aye, the board voted unanimously to accept residential lease agreement as presented with following changes, to be organized and worked on through Marie Sobalvarro and town counsel and those changes/clarifications are security deposit, status of required liability insurance with a June 1, 2022 commencement date and June 1, 2023 end of lease date with a month to month extension end date of extension to be December 2023 and authorize the chair to sign the lease.

Discuss terms of lease for the old library
Stu Sklar will not be voting on this agenda item due to a potential conflict of interest. The board members are sensitive to the fact of how Covid has hampered the operations of the community center and are grateful for efforts Fivesparks has made to help the town attain grant funds for improvements to the building. They discussed seeking input from town counsel on appropriate language for the lease as

well as possible monthly rental amounts for a five-year lease beginning at $450 a month up to possibly $800. Fivesparks representative Mark Mikitarian will follow up with the Fivesparks board. They decided to finalize the lease at their next meeting after input from town counsel and the Fivesparks board.

Meeting schedule change
The board agreed to hold their next meeting on April 26th instead of on May 3rd. They agreed to hold a meeting on May 10th if need be prior to the annual town meeting.

Discuss the Transportation Improvement Program Project for Ayer Road Reconstruction
Tim Bragan began the discussion confirming comments to the state are due by tomorrow. Three members of the board were able to attend the MassDOT 25% hearing on this project. Bragan reminded the Select Board they voted unanimously in favor of the project after the 10% hearing. He said if the board has changes, they would like made there should be a vote of the board to do that. Stu Sklar has been involved with the project from the beginning and is concerned the town's objective to provide traffic calming measures is not being heard. He explained because Ayer Road is considered a principal roadway MassDOT is interested in moving traffic along. Erin McBee noted the project as proposed does include traffic calming measures such as narrowing the lanes and crosswalks however, they are not highlighted as such by DOT. They discussed varying ways to address their concerns and ideas on traffic calming measures that could be taken. Kara Minar expressed her apprehension with respect to future needs on the roadway not being addressed adequately. The board members remain in agreement they do not want to jeopardize the town's position in the TIP program or severely delay or increase project costs. Sklar and Town Administrator Tim Bragan will draft a letter outlining the boards' concerns, questions and specific items as listed below:

- the structural soundness of the bridge by the post office
- how best to incorporate green areas?
- adequacy of future growth planning
- possibility of including a windy multi-use path instead of straight paralleling the roadway; more astatically pleasing.
- the boards preference for 4ft shoulders with an 11' travel lane with shared path
- Ramifications if changes requested; could we lose prioritization or be removed from TIP program
- Was Indian Hill in Groton considered; likely to increase cut through traffic on Ayer Road
- Preference toward Roadway Section on slide #20

The meeting was adjourned at 10:00pm

Documents referenced:
MBTA Communities Draft Multifamily Guidelines Briefing – dated 4.12.2022
Foley resignation letter – dated 4.6.2022
Mass Works letters – dated 4.12.20222
Town Clerk request – dated 4.14.2022
Bromfield House draft lease – dated 3.31.2022
Fivesparks letter/draft lease – dated 4.6.2022
DOT presentation for reconstruction of Ayer Road (RT 110/111) – dated 3.30.2022

Attachment A

Staff Report
April 12, 2022

1. As you are aware Mass Development sent the attached email to all participants in the Devens Jurisdictional Framework Committee (DJFC) explaining that they, effective immediately, are discontinuing their participation in the discussions related to permanent governance of Devens.

2. Building Updates:

    a. Marie has informed me, the Old Library Mobilization will occur on Thursday, 4/14. The General Contractor's expectation is completion by 6/30.

    b. 16 Lancaster County: Marie in working with the architect has this project almost ready for bidding. Current calendar is sub-bids due 5/18, GC bids 5/27.

    c. School Committee voted last night to officially and legally relinquish the Bromfield House to the Select Board and they also wish the Board consider the property for a potential educational use in the future (see attached email).

3. Shade Tree Hearing Update: Julie has worked with the Tree Warden (JC Ferguson) and since the project does not involve construction there is no Planning Board involvement per the by-law. There are two hearings that will be held by the Tree Warden on May 10th (Underpin Hill Road) at 9 AM and another hearing on May 12th (Slough Road) at 9 AM. (see attached draft notices)

4. Spraying updates: (Mosquito and Pan Am Vegetative)

    a. Attached is a communication from Mary Dagoberto, Northeast Organic Farming Association, with updated guidance for 2022 Application for Municipality Opt-Out of broadcast mosquito spraying. The Board of Health is reviewing this material and will be providing the Board with input. This year applications to opt-out are due on May 27, 2022.

    b. Pan Am Railways provided us with the attached notice regarding their vegetative spraying along the rail lines which will start on May, 1, 2022 and go through August 15, 2022. We have provided the Conservation Agent with a copy of the notice for review.

5. State Updates: (see SHN articles attached)

    a. March proved to be another successful month for the State tax receipts with $3.8 billion collected in March which was $427 million more than expected and $802 million more than collected last March.

b. The MBTA still poses a threat to the budget especially after it exhausts the $2 billion it received from the Federal Government

c. The State will be receiving $525 million from the Opioid Settlement and will be distributing ~$210 million to cities and towns who have participated in the settlement, which Harvard has. There are guidelines on the use of these funds and the current estimate is that Harvard could receive ~$346,500 or 0.165% of the ~$210 million, which will be paid out over a 17-year period.

d. The House is looking to keep hybrid hearings as part of their long-term plan and will also remain hybrid until next January. By then they should have put in place new rules for them to be able to have hybrid meetings permanently. Hopefully they will pass legislation allowing cities and towns the same latitude for their public meetings too.

e. A recent report highlights hybrid and remote work are here to stay and that the legislature will have to address this issue with new legislation. Also, the Massachusetts Gaming Commission, with two years of hybrid working conditions under their belt, is looking at their office leases that will be expiring next year and determining what their smaller real estate leasing footprint will look like.

6. National Grid News Release:
   a. Attached is a news release from National Grid regarding their recent transfer of 199 acres of land to the Harvard Conservation Trust. This includes parcels from 2 acres to 52 acres in size.

7. Road Funding (update):

   a. Attached are article from the State House News from March 28 and 30, regarding Chapter 90 funding. The State has set the original $200 million and set aside $100,000 which is not yet determined how this will be spent or distributed. There is a notion that it will be distributed based of road miles, which was used in the past for a now defunct road funding program that included road miles and the amount a community spent on policing (vehicles and personnel). We will wait and see what twill come of this.

8. ABCC Advisory and Notice regarding Patio/Outdoor Expansions:

   a. Patio and outdoor expansions may continue (see attached), with approval of the Local Licensing Authority (LLA)(HSB). Providers are encouraged to apply for an alteration of premises with the LLA.

   b. ABCC set guidelines for outdoor alcoholic beverage service areas (see attached) which need to be complied with.

9. Town Meeting:

   a. The Finance Committee will finish the Book this week and it will be sent off to the printers. The FinCom and SB will get electronic copies of it sometime within the next week or two. The only change was the amount to be paid to NABH which the BOH was able to get reduced by approximately ~$2k.

   b. Julie has coordinated the tent, chairs and sound system and given the rise of the new Covid variant it looks like the SB made the right decision to hold this meeting outdoors.

   c. The Town Clerk, Lynn Kelly, has passed a request (see attached) from the 6th grade Girl Scout Troop on to the SB to determine if it is ok for the Troop to have a bake sale at the Town Meeting.

10. Notice and Reminders:

   a. (New) Holy Trinity Catholic Parish sent us the attached notice regarding their 14 annual Procession of the Cross, which will start on Friday, April 15, 2022 at 3:30 PM in Harvard and will end in Bolton at 6:00 PM.

   b. (New)There is a public hearing regarding Harvard's Hazard Mitigation Plan on Thursday, April 14, 2022 at 4:30 PM on Zoom (see attached). The consultants will provide an update and there will be plenty of opportunity for public input (see attached).

   c. Town wide Clean Up Day and Garlic Mustard pull is happening on Thursday April 28, 2022 at 8 AM to Sunday, May 1, 2022 at 12:00pm. If you have questions, you can email Harvard.cleanup@gmail.com.

   d. Earth Day Show and Tell Around Town will be happening on Saturday, April 30, 2022 from 11am to 4pm, with a rain date on Sunday May 1, 2022. You can register at https://tinyurl.com/3w4efcky

Select Board Minutes
Tuesday, April 26, 2022
7:00pm

The Select Board Regular Meeting was held virtually in accordance with the Governor's Executive Order Suspending Certain Provisions of the Open Meeting Law, G.L.c.30A. S.20.

Select Board participants:
Stu Sklar, Rich Maiore, Erin McBee, Alice von Loesecke
Town Department attendees:
Town Administrator Tim Bragan, Assistant Town Administrator Marie Sobalvarro, Executive Assistant Julie Doucet
Additional participants:
Open Space Chair Peter Dorward, Fivesparks Rep. Mark Mikitarian

Open Space Committee (OSC)
Membership
OSC Chair Peter Dorward came on behalf of his committee to request the Select Board address two issues, the future of the OSC and budget/funding sources for open space acquisition. Dorward reported while the OSC has made progress but their work is not finished. They are requesting the SB modify the original charter to make the OSC a standing committee. The SB members agreed this request makes sense. Dorward confirmed the Conservation Commission is supportive of this request as well.
By a roll call vote, Maiore – aye, von Loesecke – aye, McBee – aye, Sklar – aye, the board voted unanimously to make the Open Space Committee a standing committee with staggered terms.
In addition, he asked the DPW Director be replaced by the Director of Community Education & Recreation. By a roll call vote, Maiore – aye, von Loesecke – aye, McBee – aye, von Loesecke – aye, the board voted unanimously to replace the DPW Director by the Director of Community Education & Recreation.

Budget/Funding
Peter Dorward asked what is the best way for the OSC to fund their endeavors and if there are other mechanisms available for funding. Alice von Loesecke explained the Community Preservation Fund (CPA) and/or Capital Plan as the best approaches and recommends having possible projects added to the que in anticipation. Erin McBee mentioned the idea of increasing the CPA percentage as another mechanism to increase available funding.

Minutes
By a roll call vote, Sklar – aye, Maiore – aye, von Loesecke – aye, McBee – aye, the board voted unanimously to approve minutes of 3/29 and 4/5, as presented.

Annual Appointments
Board members will follow up with their liaison assignments with those volunteers who have not yet responded.

Public Communication
Dan Daley, member on various sub committees, asked the Select Board to not forget about the land swap idea and the capital request to accommodate current/future demand for athletic fields.
He admitted this will take continued collaboration for this to come to fruition.
Wade Holtzman, Bolton Road, thanked the public safety department for their increase in presence on Bolton Road to provide traffic mitigation.
Kara Minar entered the meeting at this time.

Staff Report/Updates (Attachment A)

Ayer Road Project/Update

Stu Sklar reported he along with Tim Bragan and DPW Director Tim Kilhart met with the Dept of Transportation (DOT) and TEC to discuss possible ramifications to making changes to the project with respect to delays and prioritization of the project/being removed from the Transportation Improvement Program (TIP) altogether. He explained there were no assurances made on how delays may impact the overall project however they did agree to conduct another traffic study. Sklar said they explained to DOT Harvard's focus on Ayer Road is to provide traffic calming measures and learned DOT strives to move traffic along. The board members agreed public support for the project is crucial. Alice von Loesecke encouraged her fellow board members to remember a vast majority of town residents rely on their elected officials to act financially responsible and for the greater good of the town especially with a project of this magnitude. They decided on sending letters to DOT and MRPC outlining possible changes the town would like to see made to the project including a roundabout and if an increase can be made to the project budget to accommodate this. In addition, they decided to wait until the traffic count is completed before making a final decision on adding a roundabout. The board members understand a roundabout may jeopardize TIP ranking and therefore will need to make further decisions on that piece of the project at their next meeting. Sklar with work with Tim Bragan to draft the letters.

Fivesparks Lease

Assistant Town Administrator Marie Sobalvarro and Stu Sklar discussed a longer-term lease option however Fivesparks is not prepared to enter into a lease of that length at this time. They discussed in length various points related to the lease including the slow start they have had due to the pandemic and their assistance in helping the town attain grant funds for capital improvements. They decided $450 per month for the first three years and $600 in years four and five was reasonable all things considered. Rich Maiore attempted to make a motion to include nullifying the current addendum of the lease however there was some confusion. Alice von Loesecke requested the lease include a clause relative to the elevator in the event it was to breakdown that the town would not be responsible to fix it instead limiting use of the building if need be. By a roll call vote, Maiore – aye, McBee – aye, Minar – aye, von Loesecke – aye, Sklar – abstain, the board voted to approve a five-year lease for Fivesparks contingent upon review/approval by Town Counsel and to be signed by the Chair.

Carlson Entertainment license

The board decided to act on the requested dates once rain dates are also provided.

Kara Minar exited the meeting due to illness.

Town Meeting Warrant

The board reviewed the warrant deciding on who will speak to which articles. They are supportive of the ATM articles and voted on their approval. By a roll call vote, Maiore – aye, McBee – aye, von Loesecke – aye, Sklar – aye, the board voted unanimously to approve all articles for the May 14, 2022 town meeting.

Select Board Reports

Erin McBee reported there has been no response yet from the probate court on the petition file for the Bromfield House.

Announcement: town beach is in need of Beach Director.

The meeting was adjourned at 9:45pm.

Documents referenced:

OSC docs – dated 4.22.2022

FY23 – annual appointment lists

Staff Report
April 26, 2022

1. We need two volunteer Board members to review and make decisions regarding the Ginny Thurston Scholarship Applications. The deadline for applications is this Friday the 29th of April.

2. The Lion's Club is looking to pull an Entertainment License for an event to be held at Carlson's Orchard, not in the barn or on the patio, but on the grassy area(?). If allowed we will be having a hearing for this on the 17th.

3. The Fire Department received a thank you from the Devens Fire Chief for the mutual aid help Harvard Fire Department provided in fighting the South Post fire last month (see attached).

4. Mosquito Spraying:

    a. The BOH is working on this and will have communication for the SB on the 17th.

5. State Updates: (See SHN articles attached)

    a. The House budget is being debated this week and the plan that is on the floor of the House adds $1.398 billion to the Governor's proposed budget. This makes the total budget, to be debated, $49.629 billion.

    b. The State's PFAS Interagency Task Force has filed a report that will produce legislation, in the next legislative session, to restrict the sale of consumer products that contain PFAS and will also increase public awareness about the dangers of these chemicals. (See attached article as well as electronic PDF of report)

    c. The Senate will be voting on their version of legalized sports betting which is different from the version already passed by the House. Maine, New Hampshire, and Rhode Island have already legalized sports betting and Connecticut is working to pass legislation as well. If this passes then there will be a joint committee assembled to work out the differences between the two pieces of legislation.

    d. Here is a link to the Mass Taxpayers Foundation overview of the House Budget.
    https://www.masstaxpayers.org/sites/default/files/publications/2022-04/MTF%20Summary%20FY%202023%20HWM%20Budget.pdf

    e. The House has rejected a number of tax relief amendments offered during the budget process by republicans. (See attached).

6. Police Department:
    a. Chief Babu completed the Sergeant's selection process. We are happy to announce that the new Sergeant, Sergeant Dirienzo, brings over 27 years of full-time police experience and knowledge and will continue to lead our officers in striving to do their best. He will be attending FBI LEEDA Training (Law Enforcement Executive Development Association) and MPTC required training for all new supervisors, including suicide prevention, wellness and leadership training.

    b. The new camera system has been installed and is fully operational. The system added 16 digital cameras inside and outside the public safety building. We now have full compliance with the state in regards to recording interviews and booking room video with audio. This replaced the 20+ year old one that had died recently. Thank you to the Finance Committee for the RFT.

    c. The Police Department took delivery of its newest police vehicle. This will be their second hybrid vehicle in the fleet and the Chief is hoping to replace the whole fleet with hybrid vehicles. He is currently evaluating a full electric vehicle which would be an administrative vehicle. Chief Babu says numerous police chiefs are evaluating this platform and it's a great vehicle for administrative and detective functions. He is working with Peter Joseph Kelly and Mr. Fay on obtaining grant funding for the next hybrid or electric vehicle.

    d. The Jail Diversion (JD Associates) has been a great new program that they are using and it is paramount in providing follow up services to citizens with mental health issues. Interviews are being conducted weekly and he is hoping to have our full-time Harvard-Stow member soon. In order to be more successful at attracting candidates, Stow reposted the job with a Monday through Friday schedule and a $3,000 sign-on bonus. Just to reiterate, all benefits and salaries are paid for directly by JD Associates through a four-year grant from Department of Mental Health.

    e. The Chief partnered with the Worcester County DA office and CIMS Critical Incident Management Services to provide follow-up services for people that overdose on opioids. GAAMHA was selected as one of the subcontractors for the Comprehensive Opioid, Stimulant and Substance Abuse Program (COSSAP). This project is supported by Award No. 2020- ARBX-0073 provided by the Bureau of Justice Assistance, Department of Justice in collaboration with the office of District Attorney Joseph D. Early, Jr. They provide coverage for 32 cities and towns located in the Northern Region of Worcester County. They will be providing follow up recovery coaching services to those who have experienced a non-fatal overdose.

    f. The department continues its traffic enforcement efforts especially on Ayer Rd., Bolton Rd., Still River Rd., and Mass Avenue. The last month saw six citations totaling $1,620. with twenty-three warnings being issued as well.

7. Notice and Reminders:

   a. Town wide Clean Up Day and Garlic Mustard pull is happening this Thursday April 28, 2022 at 8 AM to Sunday, May 1, 2022 at 12:00pm. If you have questions, you can email Harvard.cleanup@gmail.com.

   b. Earth Day Show and Tell Around Town will be happening on Saturday, April 30, 2022 from 11am to 4pm, with a rain date on Sunday May 1, 2022. You can register at https://tinyurl.com/3w4efcky

   c. Shade Tree Hearings reminder: There are two hearings that will be held by the Tree Warden on the following dates and times.
      i. May 10th (Underpin Hill Road) at 9 AM, and
      ii. May 12th (Slough Road) at 9 AM.

Presentation to Select Board – May 17, 2022

Harvard Climate Initiative Committee and Harvard Energy Advisory Committee

Presentation to Select Board, May 17, 2022

- HCIC Climate Action Plan Development
- HEAC Municipal Decarbonization Plan
- HCIC Education and Outreach
- Next Steps/Select Board Support

HCIC Climate Action Plan:
Development Status

Climate Action Plan (CAP) History and Goals

❖Plan Development under CRWG

- Agricultural Climate Action Plan
- Apple Country Report
- Draft Outline of CAP, materials from other towns

❖HCIC

- Focus on implementable, achievable, measurable thus managing number of goals and actions
- In synch with Master Plan

Guiding Principles for Plan Development

❖ 6 Focus Areas will have:

- A lead board or committee
- A liaison from HCIC
- Additional committees in partnership

❖ Approach

- For each focus area:
  - ➔ Develop 1st draft of goals and actions with lead committee
  - ➔ Meet with additional stakeholder committees to review and collect feedback
  - ➔ Based on feedback, develop 2nd draft of goals and actions
  - ➔ Potential future (but unprioritized) actions should be documented for later consideration
- Share with Select Board for feedback and guidance
- Socialize 2nd draft of CAP with town community for citizen feedback
- Build out rest of CAP: initial metrics, background, comprehensive problem statement (climate is not just about decarbonization)

Collaboration Partners for each Focus Area

	HCIC Liaisons	Lead Committees	Stakeholder Committees	
Energy	Ellen Brian	HEAC	Permanent Bldg Bldg Commissioner Finance	
Buildings	Ellen Brian	HEAC Schools	Planning Board Permanent Bldg Bldg Commissioner Finance	
Transportation	Jefferson	Transportation	HEAC Planning Agriculture School	DPW Public Safety Town Admin CoA
Natural Resources	Jefferson Lucy Jaye Adam	ConCom Planning Board	HCT Pond Open Space DPW	Agriculture CPC Park and Rec Elm
Agriculture	Christiane	Agriculture	HCT ConCom	
Preparedness	Sharon Lucy	Public Safety	BoH Emergency CoA	Schools HEAC

CAP Development Status

	1st Draft	2nd Partner Mtg	2nd Draft
Energy	Done	Done	Done
Buildings	Done	Done	Done
Transportation	In progress, pending work by consultant on Transportation Plan	TBD	TBD
Natural Resources	Done	Prep underway To be scheduled after town mtg	TBD
Agriculture	Done	To be scheduled in May	TBD
Preparedness	In Progress, first draft may be ready by June.	TBD	TBD

Buildings – Example Goals/Actions

Municipal Goal: Convert Harvard's municipal buildings from carbon-based fuel combustion to high efficiency electric heating

- Develop a detailed electrification, upgrade and financial analysis plan of municipal heating systems.
- Adopt the updated Massachusetts Stretch Energy code
- Reduce municipal town waste by reusing and recycling construction, office and school supplies and materials by 10% per year.
- Expand purchasing of recycled office supplies through joint purchasing across all municipal departments.

Residential Goal: Replace residential building's fossil fuel consumption with high efficiency electric heating

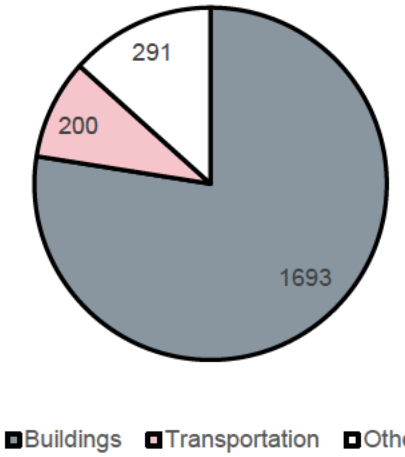
- Evaluate and adopt ways to encourage conversions of fossil fuel to efficient electric heating systems, which may include incentives and bylaw changes.
- Educate and assist homeowners to evaluate the costs and benefits of efficient electric heating and cooling systems including available financial incentives.

HEAC Decarbonization Plan

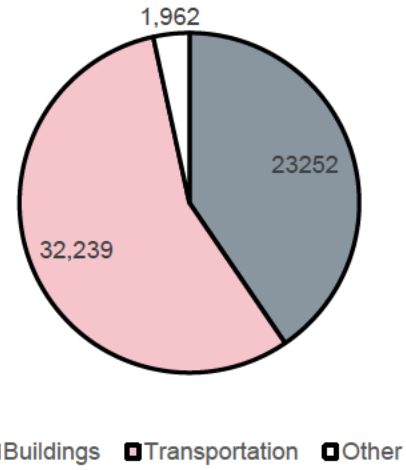
Town of Harvard Decarbonization

- Why Decarbonization?
  - Align with MA Goals, emissions reductions < 1990 levels: 50% by 2030; 85% by 2050
  - Reduce emissions to mitigate the long-term environmental, financial and sustainability impacts
- Funding
  - Awarded DOER grant funds through MRPC in July 2021
  - MRPC → John Snell - Town of Harvard Municipal Decarbonization plan by Sep 2022
- Emission Sources (2018 KLA GHG Inventory)

Municipal Emissions $MtCO_2e$



Community Emissions $MtCO_2e$



Municipal Decarbonization Plan

❖ **Framework to achieve decarbonization**

Reduce emissions 30% by 2030 and 89% by 2050; aligns with MA goals.

- Energy Reduction/Efficiency – Continue long term efforts
- Building Electrification – converting heating systems to electric
- Vehicles – converting to electric; focus on light duty short term
- Vehicles - charging stations
- Energy Source – Add PV Solar Installations
- Energy Source – Renewable Supply

❖ **Next Steps**

1. Finalize Decarbonization plan with stakeholder feedback.
2. Share plan with MRPC, DOER, NGRID
3. Technical and financial analysis/plan – grants to review buildings, vehicles, solar PV
4. Community Outreach

HCIC Education and Outreach

HCIC Education and Outreach

- Website: harvardsclimateinitiative.org
- Harvard Energize
- Sendpulse
- Events:
  - Zoom Presentations – EV, Net Zero Home, Heating and Cooling Systems, Trash
  - Earth Day Show and Tell around Town
- Grants
  - Apple Country
  - Application: MVP for Culvert Assessment and Design
  - Future MVP Application: Bylaw research

Request of Select Board

How to get started with an Environmental Assessment Process?

The scope of a municipal environmental assessment process might include:

❖ Guidelines and requirements of Boards/Committees/Administration

- New Construction and Renovation (energy, efficiency, natural environment impacts, lifecycle costs)
- Purchasing/Procurement (reuse, recycle, useful life)
- Land Use (e.g. biodiversity, tree and soil protection)
- Policy (e.g. Bylaw changes)
- Integrated with town budgeting
- Included in initial town processes

❖ Required by Town Charter or Select Board

Select Board Considerations

- HCIC and HEAC request assistance from the Select Board and relevant committees to design and implement an environmental assessment process

- Commitment of staff to support the above work and grant proposals and management
  - Lost funding opportunities if we don't make progress

Montachusett Regional Planning Commission and John Snell LLC

By Emily Cotter - CBT architects, CC BY-SA 4.0, https://commons.wikimedia.org/w/index.php?curid=73747292

85% Decarbonization by 2050 Plan
for
The Town of Harvard's
Municipal Facilities and Operations – 4th Draft
April 11, 2022

Town of Harvard
Municipal Facilities and Operations Decarbonization Plan
4th Draft – JS/BS
April 11, 2022

Town of Harvard,

Thank you for the opportunity to help develop a path for Harvard to decarbonize its municipal facilities and operations. With financial assistance from the MA Department of Energy Resources (MA DOER), the Montachusett Regional Planning Commission (MRPC) has prepared the following municipal decarbonization plan for the Town of Harvard's facilities and operations.

The plan was developed by MRPC and its consultant John Snell LLC who are solely responsible for the accuracy of this report. We have worked closely with the Energy Advisory Committee to confirm the information in this report and to shape the timing and scale of potential activities designed to meet the state's 2030 and 2050 decarbonization goals.

The process that we followed to produce this report included:

1. Prepared a preliminary carbon emission assessment
2. Developed a preliminary set of recommendations and timeline to meet the State's decarbonization goals
3. Reviewed the draft recommendations and timeline with town staff, management, and committees
4. Prepared a final draft report and providing Harvard with the supporting analysis files for future reference

Contact information:

John Snell
jsnail56@gmail.com
(617) 510-4198

Karen Chapman
kchapman@mrpc.org
(978) 798-6168

Draft

Table of Contents

Decarbonization Road Map *4*

Heating and Domestic Hot Water 4

Vehicles 6

Electricity 8

Net Carbon Emissions Reduction *10*

Carbon Emissions Reduction 11

Carbon Offsets 11

Net Carbon Emissions 12

Next Steps *12*

1. Share the roadmap with Harvard's technical and financial partners at MA DOER and MRPC 12

2. Work closely with National Grid and Mass Save to shape, manage, and fund Harvard's transition to high efficiency electric equipment and vehicles. 13

3. Develop a financial model to implement the roadmap 14

4. Communicate the findings and recommendations 14

Conclusion *14*

Appendix A: Decarbonization Summary *15*

Appendix B: Carbon Emissions Summary *16*

Appendix C: Potential Energy Efficiency Impacts *17*

Appendix D: Facility Fuel to Electricity Conversions *18*

Appendix E: Vehicle Fuel to Electricity Conversions *19*

Appendix F: Solar Photovoltaic Installations *22*

Appendix G: Carbon Offsets *23*

Draft

Decarbonization Road Map

Harvard's municipal facilities and operations emit about 1,493 mTonsCO2e[1] greenhouse gas emissions per year. The three primary sources of carbon emissions that we identified for Harvard's municipal facilities and operations were fuel combustion for heating and domestic hot water (DHW), the town's vehicles, and utility provided non-renewable energy electricity generation. Recommendations to reduce carbon emissions from these sources include:

1. Convert heating and domestic hot water (DHW) systems from fuel to high efficiency electricity
2. Convert town vehicles from internal combustion engines to electric motors
3. Convert all electricity generation from fuel to renewable energy

This approach focusses on fossil fuel replacement with electric equipment. However, converting heavy equipment to electric is not realistic in the near term. Unknown technologies like hydrogen or biodiesel might be better solutions longer term for heavy equipment.

The following sections detail our findings and specific recommendations for these three areas.

Appendices A-G include detailed facility-by-facility and vehicle-by-vehicle carbon emissions, potential energy savings, fuel reductions, conversion costs, electricity use increases, local renewable energy, and carbon offset opportunities.

[1] Metric tons of carbon dioxide equivalent
[2] We selected FY2019 utility data for the baseline energy conditions because FY2019 was the last full year pre-COVID19.

Heating and Domestic Hot Water

Harvard has 12 facilities with about 337,648 square feet that burn natural gas, oil, and propane for heat and domestic hot water (DHW). Total energy use for these facilities in fiscal year 2019[2] included:

- Natural Gas – 133,878 therms
- Oil – 3,606 gallons
- Propane – 1,246 gallons

This energy use is equivalent to 14,002 MMBtu[3]. In addition, these facilities consumed about 1,667,351 kWh of electricity which is equivalent to about 5,689 MMBtu[4].

Energy Efficiency Projects

Energy efficiency investments are the most cost-effective solution to reduce total energy use in Harvard's facilities. Energy efficient buildings are often more comfortable, durable, and healthier to work in than less efficient buildings. In addition, energy efficient buildings use smaller heating systems, require less electricity, and are less susceptible to high energy use and cost spikes caused by extreme weather conditions than less efficient buildings.

A reasonable energy performance target for new construction is about 25 kBtu[5] per square foot for all energy use including electricity. This metric is termed energy use intensity (EUI) standard. We used this value to identify potential energy efficiency opportunities for buildings with heating and DHW

[3] Million British Thermal Units
[4] All utility and facility data is from MassEnergyInsight
[5] Thousand British Thermal Units

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EUIs higher than 25 kBtu/SF. These measures can be implemented as part of scheduled building maintenance and/or major renovation and rehabilitation investments.

Table 1 includes the energy savings assumptions and target implementation dates for the potential energy efficiency opportunities that we identified. Please refer to Appendix C for additional detail.

Facility name	Gross Floor Area (SF)	FY 2019 Heat/DHW (MMBtu)	FY 2019 Heat/DHW (kBtu/SF)	Target Heat/DHW (kBtu/SF)	Heat/DHW Reduction (%)	Target Efficiency Project Date (Year)
bromfield school	180,921	6,631	37	25	32%	2045
hildreth school	68,732	3,942	57	35	39%	2025
new library	22,199	1,394	63	50	20%	2040
highway department	10,180	447	44	25	43%	2030
police/ambulance station	9,345	97	10	10	0%	2035
center fire station	5,712	384	67	35	48%	2035
town hall	11,686	297	25	25	2%	2040
old library	9,881	251	25	25	2%	2045
hildreth house	8,778	204	23	23	1%	2035
bromfield house	6,134	188	31	25	18%	2040
still river fire station	1,792	150	84	40	52%	2035
old ambulance building	2,288	17	7	7	0%	2030
Total	337,648	14,002				

Table 1. Energy efficiency project assumptions and savings

Energy efficiency investments require close coordination with related building renovations and upgrades. Harvard will need to request and review more detailed energy engineering assessments to identify specific energy efficiency recommendations as part of these projects. The incremental cost for high performance building best practices should be about 10% or less of total project costs.

Fuel to Electricity Conversions

Converting Harvard's buildings from fuel combustion to high efficiency electric heating and domestic hot water equipment is key to the town's decarbonization efforts. Carbon emission rates will remain high until this equipment is replaced. Table 2 lists very preliminary estimated replacement costs[6] for the existing equipment and the estimated cost to install three alternative types of high efficiency electric heat pump equipment[7]. Please refer to Appendix D for additional detail.

Facility name	Gross Floor Area (SF)	Estimated Standard Replacement Cost ($)	$10,000 Ductless Cost ($)	$16,000 VRF Cost ($)	$26,000 Ground Cost ($)
bromfield school	180,921	633,224	3,517,908	5,628,653	9,146,562
hildreth school	68,732	240,562	1,336,456	2,138,329	3,474,784
new library	22,199	77,697	431,647	690,636	1,122,283
highway department	10,180	35,630	197,944	316,711	514,656
police/ambulance station	9,345	32,708	181,708	290,733	472,442
center fire station	5,712	19,992	111,067	177,707	288,773
town hall	11,686	40,901	227,228	363,564	590,792
old library	9,881	34,584	192,131	307,409	499,539
hildreth house	8,778	30,723	170,683	273,093	443,777
bromfield house	6,134	21,469	119,272	190,836	310,108
still river fire station	1,792	6,272	34,844	55,751	90,596
old ambulance building	2,288	8,008	44,489	71,182	115,671
Total	337,648	$1,181,768	$6,565,378	$10,504,604	$17,069,982

Table 2. Estimated fuel conversion equipment costs

[6] The replacement cost for existing equipment assumes $100,000 per MMBTU heating output.

[7] Actual equipment costs will vary significantly depending on site specific conditions. The emphasis here is that ductless heat pumps are significantly less expense to install than VRF and ground source heat pumps. Estimated costs per ton are from an oil-fired steam retrofit to high efficiency electric conversion engineering analysis in 2018 for Newburyport City Hall.

The first two heat pump technologies are air-source. Ductless heat pumps are used both in residential and commercial applications and are the most cost-effective fuel conversion option. Variable refrigerant flow (VRF) heat pumps are primarily used in commercial applications.

The third heat pump option is ground-source heat pumps (Ground) sometimes referred to as geothermal. Ground source heat pumps require a large water source in the form of a pond, stream, or well. Ground source heat pumps are used both in residential and commercial applications.

Ductless heat pumps serve one or two rooms and require multiple systems to serve a large room. VRF and ground source heat pumps serve multiple rooms. The cost for VRF and ground source heat pump systems is higher than ductless heat pump systems because they include the cost to install custom heating and cooling distribution components and advanced control systems. Ductless heat pumps are essentially "plug and play".

As another ground source heat pump alternative, Harvard has discussed the possibility of installing a ground source heat pump system that serves multiple buildings. Harvard should assume that all existing HVAC equipment should be removed or abandoned in place when new heat pump technology is installed. All three heat pump technologies will provide better occupant comfort in buildings with adequate insulation and airsealing. In addition, temperature recovery from night or vacation temperature setbacks or power outages will take longer with heat pump systems than fossil fuel-fired systems.

Domestic hot water conversion options include solar, heat pump, and electric resistance water heating systems. Solar and hybrid heat pump domestic hot water systems are better for high-use municipal systems such as school kitchens. Small well insulated electric resistance or heat pump domestic hot water systems are better for low-use municipal settings such as rest rooms.

Vehicles

Harvard has 48 vehicles and other equipment that have gasoline or diesel-powered internal combustion engines. Please refer to the Appendix E for a complete list of these vehicles and equipment[8]. Total energy use for these vehicles in fiscal year 2019 was:

- Gasoline – 14,995 gallons
- Diesel – 12,002 gallons

This fuel use is equivalent to about 3,753 MMBtu. Individual vehicle fuel use was unavailable for this report. For the purposes of this report, we estimated the average gasoline and diesel fuel use per vehicle.

Light-Duty Vehicles

Light-duty vehicles are the primary source of gasoline fuel consumption. Affordable electric motor vehicles exist right now that can replace the town's light-duty vehicles that are scheduled for retirement in the next few years. The replacement cost for electric-powered light-duty vehicles has dropped significantly and is close to or on par with internal combustion engine vehicle costs.

[8] Data source: 2019 Town vehicle insurance records

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Heavy-Duty Vehicles

Heavy-duty vehicles are the primary source of diesel fuel consumption. Few affordable electric-powered vehicles exist to replace the town's heavy-duty vehicles. In addition, heavy-duty vehicles provide services such as around-the-clock snowplowing that may be challenging for electric-powered vehicles to provide.

Heavy-duty vehicle conversions will most likely need to wait until the electric-powered heavy-duty vehicle market develops further. Interim retrofit options exist for heavy-duty vehicles including brake-assist and engine idling management systems.

Harvard outsources school bus services and does not own its school buses. Fuel consumption for the school buses does not have to be and is not included in Harvard's Green Community energy use. Harvard could include school bus fuel consumption as part of the town's municipal facility and operations or the town's community-wide decarbonization efforts.

Future school bus transportation contract negotiations could include discussions with school bus vendors regarding school bus fuel to electric conversions. The negotiations could include a discussion about parking the buses near the schools and purchasing Bi-directional charging stations. The large batteries in school buses may offer Harvard important load management and/or emergency power supply opportunities. Bi-directional charging stations allow vehicle batteries to both charge from and discharge to the electrical distribution system.

Bi-directional charging stations combined with an intelligent charging system will allow Harvard to use school bus and other vehicles to reduce peak electrical load conditions, charge the vehicles during periods of low demand, supplement electrical loads at night, and support emergency electrical power when the electrical system is down. Electric school bus batteries are particularly important because the batteries are very large.

Charging Stations and Load Management

Part and parcel with converting vehicles from fuel to electricity, Harvard needs to anticipate how to pay for, locate, and manage associated electric charging stations. Harvard will need to purchase and place electric charging stations in convenient locations and get approval to connect them to the utility grid. Vehicles that Harvard should consider with its electric charging station deployment include town-owned vehicles, town staff-owned vehicles, and town resident-owned vehicles.

We recommend that Harvard develop a charging station plan for 100% community-wide electric-vehicle market penetration for the town. Harvard can then work backwards to determine the location for Harvard's first wave of electric charging stations. Rapid changes in EV vehicle technology combined with the investment in EV charging stations included in the recently approved Infrastructure bill will undoubtedly create a long-term need for more electric charging stations. On the flip side, most homes might install their own EV chargers and public charging stations may be less important than they are now.

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Harvard will need to develop a load management plan with National Grid with this information and coordinate a phased installation plan with the utility company. Charging multiple vehicles rapidly and concurrently will add significant electrical load to the existing utility distribution infrastructure. On a more positive note, connecting multiple electric vehicles with large batteries to the utility distribution system will also offer significant load management opportunities.

Electricity

Harvard uses electricity for its buildings, other structures, streetlights, and other services. Total municipal facility and operations electricity used in fiscal year 2019 was 1,936,032 kWh or about 6,606 MMBtu.

Electricity that Harvard purchased from National Grid in fiscal year 2019 included electricity generated from fossil-fuel and multiple grades of renewable energy electrical generation plants. National Grid's electricity generation sources in 2019 were 80% fossil fuel (mostly natural gas) and 20% renewable energy.

Table 3 summarizes the projected increase in the default percent (%) renewable electricity supply that utility companies must provide customers. State legislation requires National Grid to increase the percent of renewable energy generation 2% each year until 2029 when the increase is reduced to 1% each year. In addition, the state added a 20% existing clean energy generation requirement in 2021.

Year	Total	Class I	Class II	Class II Biomass	Estimated CES-E
2019	20.2%	14.0%	2.7%	3.5%	
2025	54.1%	26.0%	3.6%	3.5%	21.0%
2030	63.1%	35.0%	3.6%	3.5%	21.0%
2035	68.1%	40.0%	3.6%	3.5%	21.0%
2040	73.1%	45.0%	3.6%	3.5%	21.0%
2045	78.1%	50.0%	3.6%	3.5%	21.0%
2050	83.1%	55.0%	3.6%	3.5%	21.0%

Table 3. Renewable Energy Portfolio Standard and Clean Existing Generation[9]

Variables to consider regarding grid-level renewable energy procurement include class, source (local, regional, or national), and renewable energy credit (REC) status. Class I local renewable energy that have not sold the renewable energy credits are the highest quality. Harvard can consider transitioning from "lower quality" to "high quality" renewable energy over time to keep grid-level renewable energy procurement more cost-effective.

According to US EPA[10], "on-site power generation provides local governments with the most direct access to renewable energy. In addition to the overall benefits, on-site projects also provide a hedge against financial risks and improve power quality and supply reliability." Overall benefits from local and regional renewable energy include:

- Reduced demand on our regional electricity and gas utility infrastructure to generate and supply electricity from large fossil-fuel power plants

[9] Per H3708. See https://www.cityofbostoncce.com/ma-renewable-energy-requirement/ for more detail

[10] https://www.epa.gov/statelocalenergy/local-renewable-energy-benefits-and-resources

- Direct public health benefits from reduced fossil fuel power plant operation
- Direct economic benefits from local jobs created to install local and regional renewable energy systems

In addition to grid-purchased electricity, Harvard purchased supply electricity through a solar photovoltaic (PV) power purchase agreement from a solar farm in Athol and produced electricity from a small PV installation located on the Hildreth Elementary School. A much larger PV PPA is installed on the new Hildreth Elementary School. Harvard has a renewable energy procurement option for residential and commercial electric customers. However, Harvard does not have a municipal facility renewable energy electricity supply contract.

We project that the total electricity use by Harvard's facilities and operations will increase by about 75% by 2050. This includes additional electricity use for proposed electric heating and DHW fuel to electric conversions and proposed vehicle fuel to electricity conversions. It also takes into consideration proposed energy efficiency projects. Other variables that will affect future electricity use include the economy and the electricity industry's historic 3% per year increase. Recent events and technologies have disrupted and will most likely continue to disrupt small, predictable annual electricity use increases.

Grid Electricity

We project that the source of Harvard's electricity will shift away from grid-provided electric generation sources to about 90% local and regional renewable generation by 2050. Harvard will continue to connect to the local and regional ISO NE[11] electric grid but the source of electricity will increasingly shift to local sources.

Figure 1 summarizes our projected transition for Harvard's electricity use and mix of electricity generation through 2050.

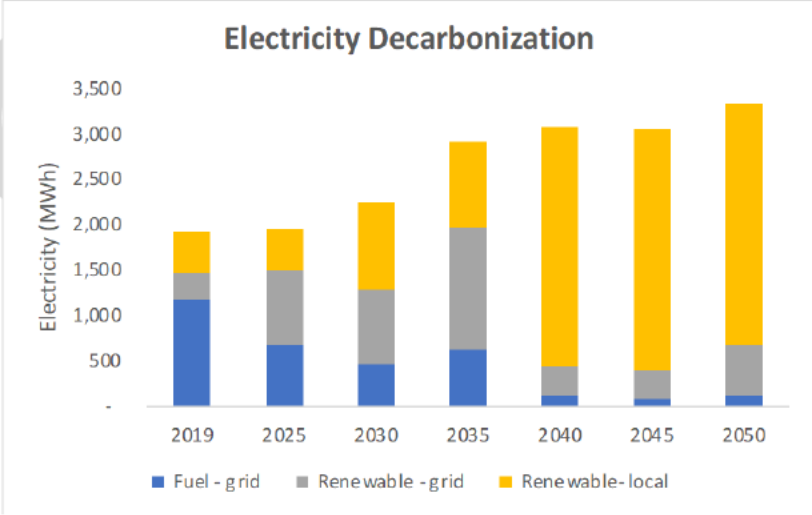

Figure 1. Projected electricity load and fuel mix

[11] **ISO New England Inc.** (ISO-NE) is an independent, non-profit organization that oversees the operation of New England's bulk electric power system and transmission lines.

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Figure 1 on the previous page demonstrates a steady decline in fossil fuel grid electricity. State law requires investor-owned utility companies to increase the amount of renewable energy that they provide as part of their standard offer by 2% per year. In addition, we recommend that the town increase the amount of local renewable energy that it produces or procures. The chart highlights the impact of two proposed local renewable energy solar PV initiatives. One suggested initiative would be in 2030 for town facilities and parking lot installations. The second suggested initiative would be in 2040 for a large ground-mounted installation(s).

Local Renewable Electricity

Table 3 identifies current and potential solar PV installation locations on town facilities, town-owned land, and independent power purchase agreements. Please refer to Appendix F for additional detail.

Facility name	Available Roof Area (SF)	Available Land Area (Acres)	Estimated Solar PV Peak Output (kW)	$3,496 < 250 kW Roof ($)	$5,000 < 1 MW Parking ($)	$1,500 <1 MW Ground ($)	$1,200 >1 MW Ground ($)	Solar Electric kWh	Target Installation Date (Year)
bromfield school	36,184		109.3	382,103				139,357	2030
hildreth school	13,746		41.5	145,161				52,942	2030
new library	4,440		13.4	46,884				17,099	2030
highway department	2,036		6.2	21,500				7,841	2030
police/ambulance station	1,869		5.6	19,737				7,198	2030
center fire station	1,142		3.5	12,064				4,400	2030
town hall	2,337		7.1	24,681				9,001	2030
old library	1,976		6.0	20,869				7,611	
hildreth house	1,756		5.3	18,539				6,761	
bromfield house	1,227		3.7	12,955				4,725	
still river fire station	358		1.1	3,785				1,380	2030
old ambulance building	458		1.4	4,832				1,762	
school parking lots		2.0	263.2		1,315,789			335,526	2030
DPW parking lot		0.2	26.3		131,579			33,553	2030
Police parking lot		0.2	26.3		131,579			33,553	2030
Fire parking lot		0.2	26.3		131,579			33,553	2030
Library parking lot		0.2	26.3		131,579			33,553	
Athol PPA		2.2	289.5			434,211		369,079	
Other PPA		10.0	1,315.8				1,578,947	1,677,632	2040
	67,530	15.0	2,007.3	$713,109	$1,842,105	$434,211	$1,578,947	2,776,525	

Table 3. Solar PV costs, output, and target installation dates

We recommend that Harvard prepare or hire a consultant to assess all potential solar PV sites on municipally owned or controlled land for public review. Sites to review include the rooftop, parking lot, and potential open land sites listed in Table 3. The assessment should include aerial surveys of the sites, potential electricity peak output and annual electricity generation, estimated costs, and solar site ratings.

Depending on the solar PV site assessment findings, we envision Harvard signing a power purchase agreement in 2040 to supply about 1.5 MWh of local or regionally located solar PV electricity. This will require about 10 acres of ground-mounted solar PV panels.

Harvard will need to stay attuned to potential grant opportunities, rapidly changing Federal and State incentive programs, and the price of large-scale renewable energy installations. Current municipal sector best practice is to negotiate a solar PV power purchase agreement.

Net Carbon Emissions Reduction

The actions recommended in this decarbonization plan will reduce overall carbon emissions from Harvard's municipal facilities and operations by about 30% in 2030 and about 89% by 2050[12]. These fall short of the State's 50% carbon reduction target by 2030 and exceed the State's 85% by 2050 carbon reduction target.

[12] These percent reductions do not include potential carbon offset program benefits discussed later in this report. Harvard could reach 100% decarbonization by 2050 if the town purchased 100% renewable energy supply electricity.

Carbon Emissions Reduction

Figure 2 represents the projected transition for Harvard's carbon emissions reduction through 2050.

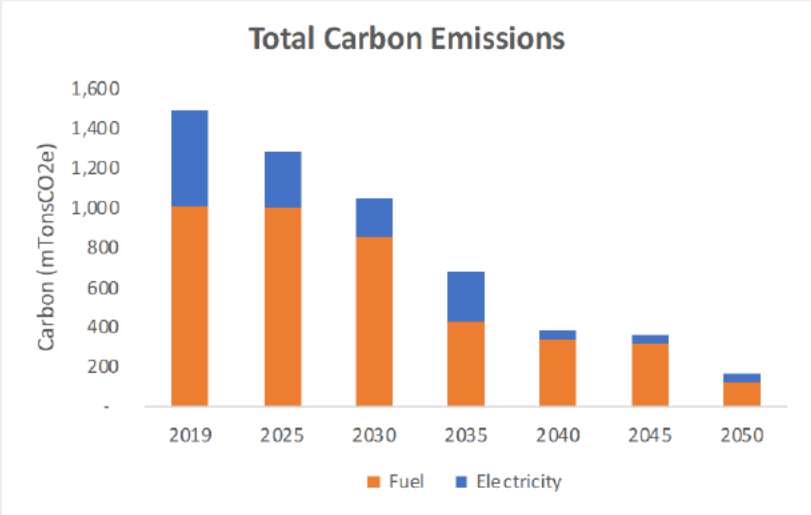

Figure 2. Total carbon emissions reduction

As figure 2 indicates, the primary source of municipal facility and operations carbon emissions is fuel combustion. In 2019, about 75% of Harvard's carbon emissions were from building and vehicle-related fuel combustion and about 25% of the carbon emissions are from electricity generation fuel consumption.

Fuel-related carbon emissions will drop in close correlation with the speed and scale that Harvard can convert fuel-based combustion equipment to electric-powered equipment. At the same time, Harvard needs to transition to local and grid renewable energy electricity generation.

Carbon Offsets

Table 4 includes preliminary information for potential local carbon offset opportunities with town-owned or town-controlled land.

Type	Owner	Total Land Area (Acres)	Net Carbon Offset Land Area (Acres)	Carbon Offset Land Area (%)	Forest Management (Carbon Credits)	Voluntary Carbon Market ($)	Carbon Project Developer Fee ($)
Forest		3,000	2,400	100%	4,800	24,000	9,600
Forest		2,000		0%			
Forest		500		0%			
Forest		400		0%			
Field		100		0%			
Field		100		0%			
Total		6,100	2,400	49%	4,800	$24,000	$9,600

Note 1: 1 carbon credit = 1 metric ton of CO2 (mTonCO@e)
Note 2: The total project size must be 3,000 acres or more

Table 4. Forest management carbon offset program details

Massachusetts is working on a plan (unreleased) to incorporate carbon sequestration opportunities in forests and fields to offset carbon emissions with the state's decarbonization initiatives. In addition, MA DER and MA Audubon have developed supporting material for municipal carbon offset initiatives.

Based on these efforts, we recommend that Harvard investigate opportunities to enroll town-owned or controlled land into carbon sequestration-focused forest management programs. The minimum recommended size for a formal carbon offset project is about 3,000 acres. A carbon offset project of this scale would allow Harvard to prepare a sequestration forest management plan.

Harvard could either sell the carbon credits to offset the cost of the forest management plan and sequestration forest management tasks or not. Selling the carbon credits would

allow a buyer the opportunity to continue emitting carbon but offset the emissions with Harvard's carbon sequestration efforts. MA Audubon is the best resource to contact for more information and regional examples of successful projects.

Net Carbon Emissions

The proposed fuel conversions, renewable energy generation, energy efficiency, and carbon offset recommendations in this report, offer Harvard the resources necessary to meet Massachusetts 2030 and 2050 decarbonization goals. Figure 3 provides the forecast net carbon emissions glide path through 2050.

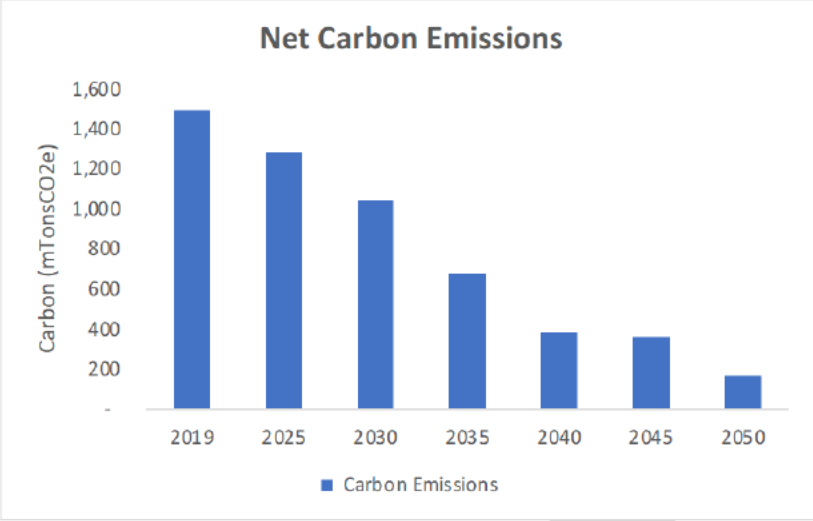

Figure 3. Net carbon emissions with no carbon offset

Next Steps

1. Share the roadmap with Harvard's technical and financial partners at MA DOER and MRPC

The Green Communities program run by MA DOER is the primary conduit between municipalities and the State's decarbonization efforts. Sharing this roadmap with Harvard's Green Community Regional Coordinator is an opportunity to help inform the State how Harvard and other community's decarbonization efforts align with the State's 2050 plan. MRPC can assist with this communication.

In addition, Harvard will need additional technical and financial support to plan for and implement the building, vehicle, and renewable energy actions recommended in the roadmap. MRPC can continue to help Harvard submit grant requests for technical and financial planning resources from MA DOER as they become available. Specific planning needs for building, vehicle, and renewable energy actions recommended in the roadmap include:

a. Buildings

Each building should receive a more detailed technical and financial analysis for one of two options. The first option is to focus exclusively on replacing the existing fossil fuel mechanical equipment with high efficiency electric mechanical equipment. The second option is to integrate the high efficiency electric mechanical equipment installation and comprehensive building envelope upgrades with a major building renovation.

The reports should document each buildings current energy performance, utility bill rates and cost, existing equipment, and provide budget level cost estimates for the proposed equipment and building energy performance upgrades. The report should include examples of comparable upgrades to similar buildings in Massachusetts and lessons learned.

In addition, on a building portfolio wide basis, the town would benefit from town facility management staff agreement on preferred approaches and associated preferred technology for high efficiency electricity and energy performance upgrades. Managing buildings with different technologies and equipment is very challenging. Building controls will play an increasingly important role as the primary tool to connect multiple pieces of equipment and every changing electrical loads and manage associated electric costs. Harvard should anticipate deploying a portfolio-wide building (and vehicle charging/solar PV/battery) control system. The town's budget should include regular (every 2-3 years) software and hardware updates.

b. Vehicles

Harvard will need to align the implementation of its vehicle conversions with the state's EV infrastructure upgrades, vehicle procurement, and vehicle incentive programs. The state's EV deployment plan is available at https://www.mass.gov/doc/transportation-sector-technical-report/download

Vehicle procurement will continue through the state's COMMBUYS program. Additional procurement opportunities may arise that are part of the Green Communities program. MRPC can alert the town about these opportunities. EV incentive programs are available for light, medium, and heavy-duty vehicles at https://www.mass.gov/service-details/mor-ev-rebate-program

c. Renewable Electricity

Harvard should request technical and financial support to develop a solar PV blueprint for the town. The blueprint would identify potential local solar PV sites on rooftops, parking lots, and open space and rank them based on community-developed criteria. Criteria can include but not be limited to potential electricity generation, ease of construction, competing land use values, and visual impact.

2. Work closely with National Grid and Mass Save to shape, manage, and fund Harvard's transition to high efficiency electric equipment and vehicles.

National Grid and Mass Save are the primary conduits for the state's renewable energy and energy efficiency project implementation support.

National Grid serves two roles in the implementation process. The first role is faciliatory. National Grid can help identify and coordinate technical and financial support that's available through Mass Save and National Grid. The second role is to help coordinate the nuts-and-bolts details of connecting proposed projects to the local electric grid.

The proposed actions in this roadmap will have a significant impact on the local electrical grid. Advanced discussions with

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National Grid about the proposed scale and timing of these actions will assist National Grid with their local grid upgrade plans. Local and regional electrical grid upgrades often require 2-5 years to implement. The state and National Grid will need to anticipate and plan for similar actions by Harvard's citizens and businesses as well.

Mass Save is the primary source for high efficiency project funding support. The town and all vendors will need to apply for and comply with Mass Save's programs. Harvard should be aware that Mass Save's programs are reviewed and updated every three years. Financial incentives and program requirements may change from one triennial program term to another. Harvard should at a minimum be aware of the incentive programs that are approved every three years. Vendors that Harvard hires are responsible for requesting financial assistance and managing the documentation required for specific energy-related projects.

3. Develop a financial model to implement the roadmap

Financing and procuring the projects and equipment recommended in this roadmap will be a major challenge and test Harvard's financial resiliency. The town will need to weave funding for these projects with ongoing funding requirements and financial limitations imposed on municipal governments.

Harvard should charge a task force with representatives from the Business Manager's office and the Finance and Capital Planning Committees to investigate and report back on financial alternatives to support these projects. Financial alternatives should include but not be limited to municipal ownership, private ownership, and lease-to-own and related power purchase agreement options. The financial framework should be flexible enough to integrate more detailed reports as they are developed for the proposed building, vehicle, and renewable energy projects.

4. Communicate the findings and recommendations

The scale of the proposed projects in this roadmap are significant. The scale of effort proposed in this roadmap reflects the urgent call for rapid change in the State's 2050 Decarbonization Roadmap[13]. Effective, transparent communication with the town's citizens, businesses, and industry will be critical to the success of these projects.

Conclusion

Harvard's municipal facilities and operations emit about 1,493 mTonsCO2e of greenhouse gas emissions per year. Methodical replacement of fuel-powered equipment with electric-powered equipment and fuel-generated electricity with local renewable energy-generated electricity provides a framework to help the town reduce carbon emissions 30% by 2030 and 89% by 2050. Our report's recommendations and proposed implementation timeline balance the town's need for rapid deployment and prudent fiscal town management.

[13] https://www.mass.gov/info-details/ma-decarbonization-roadmap

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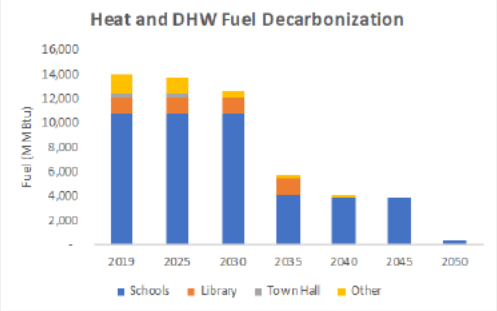
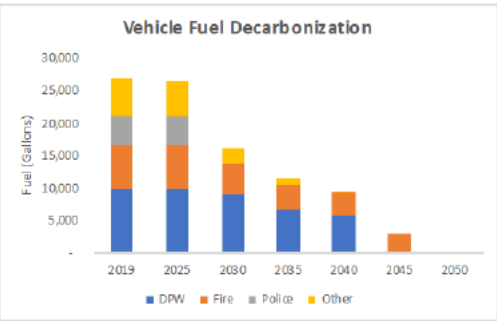
Appendix A: Decarbonization Summary



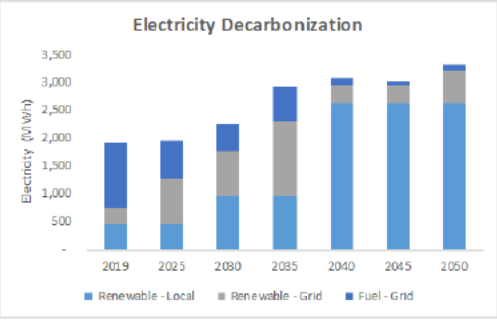
Heating and Domestic Hot Water (DHW) Fuel Decarbonization

Year (Fiscal)	Schools Fuel (MMBtu)	Library Fuel (MMBtu)	Town Hall Fuel (MMBtu)	Other Fuel (MMBtu)	Total Fuel (MMBtu)
2019	10,761	1,394	297	1,550	14,002
2025	10,761	1,394	297	1,383	13,835
2030	**10,761**	**1,394**	**-**	**552**	**12,707**
2035	4,130	1,394	-	251	5,775
2040	3,942	-	-	251	4,193
2045	3,942	-	-	-	3,942
2050	**461**	**-**	**-**	**-**	**461**



Vehicle Fuel Decarbonization

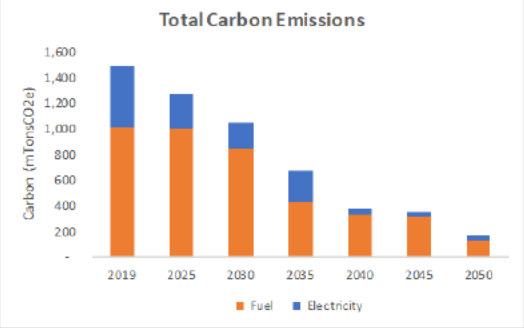
Year (Fiscal)	DPW Fuel (Gallons)	Fire Fuel (Gallons)	Police Fuel (Gallons)	Other Fuel (Gallons)	Total Fuel (Gallons)
2019	10,108	6,519	4,410	5,959	26,997
2025	10,108	6,519	4,410	5,572	26,610
2030	**9,226**	**4,755**	**-**	**2,044**	**16,025**
2035	6,579	3,873	-	1,162	11,615
2040	5,805	3,486	-	388	9,679
2045	-	3,099	-	-	3,099
2050	**-**	**-**	**-**	**-**	**-**



Grid Electricity Decarbonization

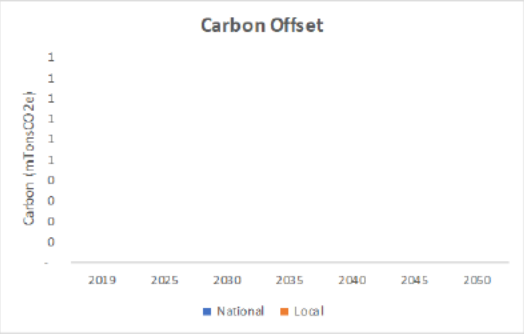
Year (Fiscal)	Fuel - Grid Electricity (MWh)	Renewable - Grid Electricity (MWh)	Total - Grid Electricity (MWh)	Renewable - Local Electricity (MWh)	Total Electricity (MWh)
2019	1,180	299	1,479	456	1,935
2025	689	812	1,500	457	1,957
2030	**477**	**816**	**1,293**	**962**	**2,255**
2035	628	1,340	1,968	963	2,931
2040	119	322	441	2,640	3,081
2045	90	322	412	2,641	3,054
2050	**116**	**570**	**686**	**2,643**	**3,330**

Appendix B: Carbon Emissions Summary



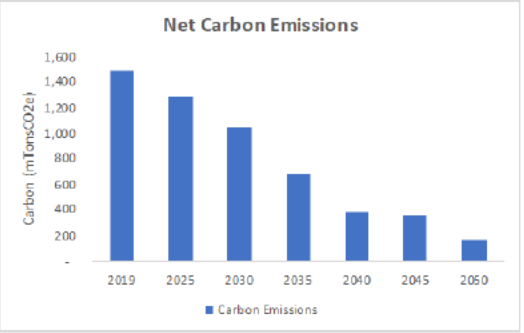
Total Carbon Emissions

Year (Fiscal)	Fuel Carbon (mTonsCO2e)	Electricity Carbon (mTonsCO2e)	Fuel (MMBTU)	Electricity Fuel (MWh)
2019	1,012	482	17,755	1,180
2025	1,002	282	17,588	690
2030	**854**	**195**	**14,988**	**478**
2035	424	257	7,443	630
2040	334	49	5,861	121
2045	320	38	5,610	93
2050	**121**	**49**	**2,129**	**121**



Carbon Offset

Year (Fiscal)	Total Carbon Offset (mTonsCO2e)	National Carbon Offset (mTonsCO2e)	Local Carbon Offset (mTonsCO2e)
2019	-	-	-
2025	-	-	-
2030	**-**	**-**	**-**
2035	-	-	-
2040	-	-	-
2045	-	-	-
2050	**-**	**-**	**-**



Net Carbon Emissions

Year (Fiscal)	Net Carbon Emissions (mTonsCO2e)	Total Carbon Emissions (mTonsCO2e)	Total Carbon Capture (mTonsCO2e)
2019	1,493	1,493	-
2025	1,284	1,284	-
2030	**1,049**	**1,049**	**-**
2035	681	681	-
2040	383	383	-
2045	358	358	-
2050	**171**	**171**	**-**

Appendix C: Potential Energy Efficiency Impacts

Building floor area, energy use (MMBtu), current and target energy use (kBtu/SF), proposed project dates, and estimated building heat loss and DHW energy (MMBtu) documentation.

Facility name	Gross Floor Area (SF)	FY 2019 Diesel (MMBtu)	FY 2019 Electric (MMBtu)	FY 2019 Gas (MMBtu)	FY 2019 Gasoline (MMBtu)	FY 2019 Oil (MMBtu)	FY 2019 Propane (MMBtu)	FY 2019 Total (MMBtu)	FY 2019 Heat/DHW (MMBtu)	FY 2019 Heat/DHW (kBtu/SF)	Target Heat/DHW (kBtu/SF)	Heat/DHW Reduction (%)	Target Efficiency Project Date (Year)	Estimated Baseline Fuel Efficiency (%)	Estimated Building Heat/DHW (MMBtu)
bromfield school	180,921		3,106	6,631				9,738	6,631	37	25	32%	2045	75%	4,973
hildreth school	68,732		1,001	3,941				4,942	3,942	57	35	39%	2025	75%	2,957
new library	22,199		698	1,394				2,092	1,394	63	50	20%	2040	75%	1,046
highway department	10,180		107			351	96	555	447	44	25	43%	2030	75%	335
police/ambulance station	9,345		397	97				494	97	10	10	0%	2035	75%	73
center fire station	5,712		64	384				448	384	67	35	48%	2035	75%	288
town hall	11,686		125	297				422	297	25	25	2%	2040	75%	223
old library	9,881		51	251				302	251	25	25	2%	2045	75%	188
hildreth house	8,778		48	204				252	204	23	23	1%	2035	75%	153
bromfield house	6,134		40	188				228	188	31	25	18%	2040	75%	141
still river fire station	1,792		8			150		158	150	84	40	52%	2035	75%	113
old ambulance building	2,288		44				17	61	17	7	7	0%	2030	75%	13
Total	337,648	0	5,689	13,387		501	113	19,692	14,002						10,502

Note: The "Estimated building heat/DHW" MMBtu is the current (FY 2019) fuel consumption in MMBtu times the estimated baseline heating and DHW system fuel efficiency. Shaded areas represent entries and assumptions that can be changed or adjusted.

Estimated efficiency savings potential (MMBtu)

Facility name	Gross Floor Area (SF)	2025 Efficiency Savings (MMBtu)	2030 Efficiency Savings (MMBtu)	2035 Efficiency Savings (MMBtu)	2040 Efficiency Savings (MMBtu)	2045 Efficiency Savings (MMBtu)	2050 Efficiency Savings (MMBtu)	Total Efficiency Savings (MMBtu)
bromfield school	180,921					632		632
hildreth school	68,732	461						461
new library	22,199				85			85
highway department	10,180		58					58
police/ambulance station	9,345							-
center fire station	5,712			55				55
town hall	11,686				1			1
old library	9,881					1		1
hildreth house	8,778			1				1
bromfield house	6,134				10			10
still river fire station	1,792			23				23
old ambulance building	2,288							-
Total	337,648	461	58	79	97	634	-	1,329

Note: The efficiency savings assume a post fuel conversion 250% heat pump efficiency

Appendix D: Facility Fuel to Electricity Conversions

Estimated standard efficiency and high efficiency costs and post conversion electricity (MMBtu) and (MWh) energy use

Facility name	Gross Floor Area (SF)	Estimated Fuel Equipment Output (MMBtu)	Estimated Standard Replacement Cost ($)	Estimated Electric Equipment Output (Tons)	Estimated Electric Efficiency (%)	10% Incremental Cost ($)	$10,000 Ductless Cost ($)	$16,000 VRF Cost ($)	$26,000 Ground Cost ($)	Electric MMBtu	3.412 Electric MWh
bromfield school	180,921	6.3	633,224	352	250%	63,322	3,517,908	5,628,653	9,146,562	1,989	583
hildreth school	68,732	2.4	240,562	134	250%	24,056	1,336,456	2,138,329	3,474,784	1,183	347
new library	22,199	0.8	77,697	43	250%	7,770	431,647	690,636	1,122,283	418	123
highway department	10,180	0.4	35,630	20	250%	3,563	197,944	316,711	514,656	134	39
police/ambulance station	9,345	0.3	32,708	18	250%	3,271	181,708	290,733	472,442	29	8
center fire station	5,712	0.2	19,992	11	250%	1,999	111,067	177,707	288,773	115	34
town hall	11,686	0.4	40,901	23	250%	4,090	227,228	363,564	590,792	89	26
old library	9,881	0.3	34,584	19	250%	3,458	192,131	307,409	499,539	75	22
hildreth house	8,778	0.3	30,723	17	250%	3,072	170,683	273,093	443,777	61	18
bromfield house	6,134	0.2	21,469	12	250%	2,147	119,272	190,836	310,108	56	16
still river fire station	1,792	0.1	6,272	3	250%	627	34,844	55,751	90,596	45	13
old ambulance building	2,288	0.1	8,008	4	250%	801	44,489	71,182	115,671	5	1
Total	337,648		$1,181,768			$118,177	$6,565,378	$10,504,604	$17,069,982	4,199	1,230

Projected fuel use reduction (MMBtu)

Facility name	Gross Floor Area (SF)	Target Conversion Date (Year)	2025 Heat DHW Conversion (MMBtu)	2030 Heat DHW Conversion (MMBtu)	2035 Heat DHW Conversion (MMBtu)	2040 Heat DHW Conversion (MMBtu)	2045 Heat DHW Conversion (MMBtu)	2050 Heat DHW Conversion (MMBtu)	Total Heat DHW Conversion (MMBtu)
bromfield school	180,921	2035			6,631				6,631
hildreth school	68,732	2050						3,481	3,481
new library	22,199	2040				1,394			1,394
highway department	10,180	2030		447					447
police/ambulance station	9,345	2035			97				97
center fire station	5,712	2030		384					384
town hall	11,686	2030		297					297
old library	9,881	2045					251		251
hildreth house	8,778	2035			204				204
bromfield house	6,134	2040				188			188
still river fire station	1,792	2025	150						150
old ambulance building	2,288	2025	17						17
Total	337,648		167	1,128	6,932	1,582	251	3,481	13,541

Note: The Hildreth School conversion savings are adjusted lower to account for the new school construction post 2019.

Appendix E: Vehicle Fuel to Electricity Conversions

Diesel fuel vehicle age, replacement cost, estimated fuel use (gallons), and target electric conversion dates

Department name	Vehicle name	Insurance Year	Insurance Cost New ($)	Estimated Diesel (Gallons)	Target Conversion Date (Year)	2025 Vehicle Conversion (Gallons)	2030 Vehicle Conversion (Gallons)	2035 Vehicle Conversion (Gallons)	2040 Vehicle Conversion (Gallons)	2045 Vehicle Conversion (Gallons)	2050 Vehicle Conversion (Gallons)	Total Vehicle Conversion (Gallons)
department of public works	International dump truck	1990	40,000	387	2045					387		387
department of public works	Elgin pelican sweeper	1999	88,476	387	2045					387		387
department of public works	Caterpillar wheel loader	2000	99,968	387	2045					387		387
department of public works	Mack dump truck	2002	86,568	387	2045					387		387
department of public works	Mack truck	2003	93,885	387	2045					387		387
department of public works	F550 dump truck	2011	50,036	387	2045					387		387
department of public works	F550 dump truck	2012	66,140	387	2045					387		387
department of public works	International dump truck	2012	180,000	387	2045					387		387
department of public works	John Deere loader	2014	162,837	387	2045					387		387
department of public works	F350 pickup	2014	34,250	387	2040				387			387
department of public works	John Deere loader/backhoe	2014	85,400	387	2045					387		387
department of public works	Dump Truck	2015	65,985	387	2045					387		387
department of public works	Mack dump truck	2016	174,990	387	2045					387		387
department of public works	Mack GU712	2018	181,417	387	2045					387		387
department of public works	F550	2019	78,340	387	2045					387		387
department of public works	Mack Granite	2020	194,000	387	2045					387		387
department of public works	F350	2021	63,116	387	2040				387			387
fire department	F450 Ambulance	2018	260,000	387	2040				387			387
fire department	Seagraves Pumper	1930	13,778	387	2050						387	387
fire department	Mack Pumper	1965	28,500	387	2050						387	387
fire department	Mack/Baker Aerialscope	1980	25,000	387	2050						387	387
fire department	International/KME Fire truck	2002	221,068	387	2050						387	387
fire department	Seagrave fire truck	2005	450,000	387	2050						387	387
fire department	F550	2011	140,000	387	2045					387		387
fire department	KME Pumper	2012	525,000	387	2050						387	387
fire department	Seagrave TB40CO	2015	517,002	388	2050						388	388
fire department	KW CONSTR	2018	329,000	388	2050						388	388
school department	F550 super duty	2006	45,000	388	2045					388		388
town administrator	E350 Super Duty	2011	25,705	387	2040				387			387
town administrator	E350 Super Duty	2014	50,000	387	2040				387			387
town administrator	Transit 350	2017	45,000	387	2025	387						387
Total			$4,420,461	12,002		387			1,935	6,580	3,099	12,002

Diesel fuel vehicle projected electric conversion cost ($) and projected electricity use (MWh)

Department name	Vehicle name	2025 Vehicle Conversion ($)	2030 Vehicle Conversion ($)	2035 Vehicle Conversion ($)	2040 Vehicle Conversion ($)	2045 Vehicle Conversion ($)	2050 Vehicle Conversion ($)	Total Vehicle Conversion ($)	2025 Vehicle Conversion (MWh)	2030 Vehicle Conversion (MWh)	2035 Vehicle Conversion (MWh)	2040 Vehicle Conversion (MWh)	2045 Vehicle Conversion (MWh)	2050 Vehicle Conversion (MWh)	Total Vehicle Conversion (MWh)
department of public works	International dump truck					60,000		60,000					8		8
department of public works	Elgin pelican sweeper					132,714		132,714					8		8
department of public works	Caterpillar wheel loader					149,952		149,952					8		16
department of public works	Mack dump truck					129,852		129,852					8		8
department of public works	Mack truck					140,828		140,828					8		8
department of public works	F550 dump truck					75,054		75,054					8		16
department of public works	F550 dump truck					99,210		99,210					8		8
department of public works	International dump truck					270,000		270,000					8		8
department of public works	John Deere loader					244,256		244,256					8		16
department of public works	F350 pickup				59,938			59,938				8			8
department of public works	John Deere loader/backhoe					128,100		128,100					8		8
department of public works	Dump Truck					98,978		98,978					8		16
department of public works	Mack dump truck					262,485		262,485					8		8
department of public works	Mack GU712					272,126		272,126					8		8
department of public works	F550					117,510		117,510					8		16
department of public works	Mack Granite					291,000		291,000					8		8
department of public works	F350				110,453			110,453				8			8
fire department	F450 Ambulance				455,000			455,000				8			16
fire department	Seagraves Pumper						17,223	17,223						8	8
fire department	Mack Pumper						35,625	35,625						8	8
fire department	Mack/Baker Aerialscope						31,250	31,250						8	16
fire department	International/KME Fire truck						276,335	276,335						8	8
fire department	Seagrave fire truck						562,500	562,500						8	8
fire department	F550					210,000		210,000					8		16
fire department	KME Pumper						656,250	656,250						8	8
fire department	Seagrave TB40CO						646,253	646,253						8	8
fire department	KW CONSTR						411,250	411,250						8	16
school department	F550 super duty					67,500		67,500					8		8
town administrator	E350 Super Duty				44,984			44,984				8			8
town administrator	E350 Super Duty				87,500			87,500				8			16
town administrator	Transit 350	90,000						90,000	8						8
Total		$90,000			$757,874	$2,749,563	$2,636,685	$6,234,122	8			40	136	64	240

Gasoline fuel vehicle age, insurance replacement cost, estimated current fuel use (gallons), and target electric conversion dates

Department name	Vehicle name	Insurance Year	Insurance Cost New ($)	Estimated Gasoline (Gallons)	Target Conversion Date (Year)	2025 Vehicle Conversion (Gallons)	2030 Vehicle Conversion (Gallons)	2035 Vehicle Conversion (Gallons)	2040 Vehicle Conversion (Gallons)	2045 Vehicle Conversion (Gallons)	2050 Vehicle Conversion (Gallons)	Total Vehicle Conversion (Gallons)
department of public works	Ford tractor	1994	35,182	882	2035			882				882
department of public works	Ford Explorer	2009	28,000	882	2030		882					882
department of public works	Kubota tractor	2010	96,894	882	2035			882				882
department of public works	F250	2015	38,027	882	2035			882				882
fire department	Tractor	1989	146,500	882	2035			882				882
fire department	Ford Explorer	2014	27,868	882	2030		882					882
fire department	Ford Explorer	2018	35,487	882	2030		882					882
police department	Ford Explorer	2015	29,952	882	2030		882					882
police department	Dodge Charger	2016	41,569	882	2030		882					882
police department	Dodge Charger	2018	34,213	882	2030		882					882
police department	F150	2018	35,086	882	2030		882					882
police department	Ford Explorer	2020	50,353	882	2030		882					882
school department	E350 van	2008	20,260	882	2030		882					882
school department	E150	2008	23,940	882	2030		882					882
school department	F350 pickup	2011	33,454	882	2030		882					882
school department	Econovan	2014	1,000	882	2030		882					882
school department	John Deere tractor	2016	31,000	882	2035			882				882
Total			$708,785	14,995		-	10,585	4,410	-	-	-	14,995

Gasoline fuel vehicle projected electric conversion cost ($) and projected electricity use (MWh)

Department name	Vehicle name	2025 Vehicle Conversion ($)	2030 Vehicle Conversion ($)	2035 Vehicle Conversion ($)	2040 Vehicle Conversion ($)	2045 Vehicle Conversion ($)	2050 Vehicle Conversion ($)	Total Vehicle Conversion ($)	2025 Vehicle Conversion (MWh)	2030 Vehicle Conversion (MWh)	2035 Vehicle Conversion (MWh)	2040 Vehicle Conversion (MWh)	2045 Vehicle Conversion (MWh)	2050 Vehicle Conversion (MWh)	Total Vehicle Conversion (MWh)
department of public works	Ford tractor			38,700				38,700			18				18
department of public works	Ford Explorer		33,600					33,600		18					18
department of public works	Kubota tractor			106,583				106,583			18				18
department of public works	F250			41,830				41,830			18				18
fire department	Tractor			161,150				161,150			18				18
fire department	Ford Explorer		33,442					33,442		18					18
fire department	Ford Explorer		42,584					42,584		18					18
police department	Ford Explorer		35,942					35,942		18					18
police department	Dodge Charger		49,883					49,883		18					18
police department	Dodge Charger		41,056					41,056		18					18
police department	F150		42,103					42,103		18					18
police department	Ford Explorer		60,424					60,424		18					18
school department	E350 van		24,312					24,312		18					18
school department	E150		28,728					28,728		18					18
school department	F350 pickup		40,145					40,145		18					18
school department	Econovan		1,200					1,200		18					18
school department	John Deere tractor			34,100				34,100			18				18
Total		$0	$433,418	$382,363	$0	$0	$0	$815,782	-	216	90	-	-	-	306

Appendix F: Solar Photovoltaic Installations

Preliminary potential Solar PV installation area, output, cost, and estimated electricity generation (kWh and MMbtu)

Solar Array Type	Department name	Facility name	Available Roof Area (SF)	Available Land Area (Acres)	Estimated Solar PV Peak Output (kW)	$3,496 < 250 kW Roof ($)	$5,000 < 1 MW Parking ($)	$1,500 <1 MW Ground ($)	$1,200 >1 MW Ground ($)	Total Solar PV ($)	Solar Electric kWh	Solar Electric MMBtu
Building	school department	bromfield school	36,184		109.3	382,103				382,103	139,357	475
Building	school department	hildreth school			-	-				-	-	-
Building	library	new library			-	-				-	-	-
Building	department of public works	highway department	2,036		6.2	21,500				21,500	7,841	27
Building	police department	police/ambulance station	1,869		5.6	19,737				19,737	7,198	25
Building	fire department	center fire station	1,142		3.5	12,064				12,064	4,400	15
Building	town administrator	town hall	2,337		7.1	24,681				24,681	9,001	31
Building	town administrator	old library	1,976		6.0	20,869				20,869	7,611	26
Building	town administrator	hildreth house	1,756		5.3	18,539				18,539	6,761	23
Building	school department	bromfield house	1,227		3.7	12,955				12,955	4,725	16
Building	fire department	still river fire station	358		1.1	3,785				3,785	1,380	5
Building	town administrator	old ambulance building	458		1.4	4,832				4,832	1,762	6
Parking	school department	school parking lots		2.0	263.2		1,315,789			1,315,789	335,526	1,145
Parking	department of public works	DPW parking lot			-		-			-	-	-
Parking	police department	Police parking lot			-		-			-	-	-
Parking	fire department	Fire parking lot			-		-			-	-	-
Parking	library	Library parking lot			-		-			-	-	-
Ground Fixed	town administrator	Athol PPA		2.2	289.5			434,211		434,211	369,079	1,259
Ground Fixed	town administrator	Other PPA		10.0	1,315.8				1,578,947	1,578,947	1,677,632	5,724
			49,343	14.2	1,902.0	$521,064	$1,315,789	$434,211	$1,578,947	$3,850,011	2,572,274	8,777

Preliminary potential Solar PV installation or procurement dates and electricity use (kWh)

Solar Array Type	Department name	Facility name	Target Installation Date (Year)	2025 Solar PV Electricity (kWh)	2030 Solar PV Electricity (kWh)	2035 Solar PV Electricity (kWh)	2040 Solar PV Electricity (kWh)	2045 Solar PV Electricity (kWh)	2050 Solar PV Electricity (kWh)	Total Solar PV Electricity (kWh)
Building	school department	bromfield school	2030		139,357					139,357
Building	school department	hildreth school	2030		-					-
Building	library	new library	2030		-					-
Building	department of public works	highway department	2030		7,841					7,841
Building	police department	police/ambulance station	2030		7,198					7,198
Building	fire department	center fire station	2030		4,400					4,400
Building	town administrator	town hall	2030		9,001					9,001
Building	town administrator	old library								-
Building	town administrator	hildreth house								-
Building	school department	bromfield house								-
Building	fire department	still river fire station	2030		1,380					1,380
Building	town administrator	old ambulance building								-
Parking	school department	school parking lots	2030		335,526					335,526
Parking	department of public works	DPW parking lot	2030		-					-
Parking	police department	Police parking lot	2030		-					-
Parking	fire department	Fire parking lot	2030		-					-
Parking	library	Library parking lot								-
Ground Fixed	town administrator	Athol PPA								-
Ground Fixed	town administrator	Other PPA	2040				1,677,632			1,677,632
					504,704		1,677,632			2,182,335

Appendix G: Carbon Offsets

Potential Carbon Offset projects and carbon credits

Local Carbon Offset

								Carbon Credits/Acre	Carbon Credits/Acre	Carbon Credits/Acre		Carbon Credits/Acre
						Low		2	0.4	1		3
						High		7	0.6	1		7
				20%		Selected		2	0.4	1		5
Type	Owner	Parcel	Total Land Area (Acres)	Carbon Offset Land Area (Acres)	Carbon Risk Buffer Land Area (Acres)	Net Carbon Offset Land Area (Acres)	Carbon Offset Land Area (%)	Start Date (Fiscal Year)	Forest Management (Carbon Credits)	No Till/ Low Till (Carbon Credits)	Perrenial Grass Planting (Carbon Credits)	Tree Planting (Carbon Credits)	Total (Carbon Credits)
Forest		1	3,000	3,000	600	2,400	100%		4,800				4,800
Forest		2	2,000				0%						
Forest		3	500				0%						
Forest		4	400				0%						
Field		5	100				0%						
Field		6	100				0%						
Total			6,100	3,000	600	2,400	49%		4,800				4,800

Note 1: 1 carbon credit = 1 metric ton of CO2 (mTonCO@e)
Note 2: The total project size must be 3,000 acres or more

Projected carbon credit value, developer fees, and monitoring and verification costs

Local Carbon Offset

			Carbon Revenue/ Credit	Carbon Revenue/ Credit					
			$13	$3	$30,000	$40,000	10%	8%	8%
			$14	$8	$100,000	$65,000	40%	10%	10%
			$14	$5	$60,000	$50,000	40%	10%	10%
Type	Owner	Parcel	Total Land Area (Acres)	Compliance Carbon Market ($)	Voluntary Carbon Market ($)	Total Carbon Credit Revenue ($)	Small Project Carbon Inventory ($)	Verification of Carbon Stocks ($)	Carbon Project Developer Fee ($)	Measurement & Monitoring ($)	Verification ($)
Forest		1	3,000		24,000	24,000			9,600	2,400	2,400
Forest		2	2,000								
Forest		3	500								
Forest		4	400								
Field		5	100								
Field		6	100								
Total			6,100	$0	$24,000	$24,000			$9,600	$2,400	$2,400

April 13, 2022

Town of Harvard Board of Selectmen

emcbee01451@gmail.com
CC: ssklar01451@gmail.com

Dear Select Board,

The Boy Scouts, Troop Leaders, and Committee Members of the Town of Harvard Boy Scouts Troop 1 take great pleasure in announcing that, having completed the requirements for and having successfully passed an Eagle Scout Board of Review, the following scout has achieved the rank of ***Eagle Scout*:**

Sawyer Madison on April 11, 2022

We would appreciate a letter or certificate acknowledging his achievement. It will be compiled with acknowledgements from other national, state and community leaders in a scrapbook and presented publicly at his formal Eagle Ceremony to commemorate this special occasion.

Please send the acknowledgement to:

Harvard Boy Scouts
P.O. Box 346
Harvard, MA 01451

Thank you for taking time from your extremely busy schedule to help our Troop recognize the achievement and service of our new Eagle Scout.

Sincerely,

Randy Furmanick
Troop Committee Chair
Harvard Boy Scouts Troop 1

April 13, 2022

Town of Harvard Board of Selectmen

emcbee01451@gmail.com
CC: ssklar01451@gmail.com

Dear Select Board,

The Boy Scouts, Troop Leaders, and Committee Members of the Town of Harvard Boy Scouts Troop 1 take great pleasure in announcing that, having completed the requirements for and having successfully passed an Eagle Scout Board of Review, the following scout has achieved the rank of ***Eagle Scout*:**

Timothy Zobbi on March 24, 2022

We would appreciate a letter or certificate acknowledging his achievement. It will be compiled with acknowledgements from other national, state and community leaders in a scrapbook and presented publicly at his formal Eagle Ceremony to commemorate this special occasion.

Please send the acknowledgement to:

Harvard Boy Scouts
P.O. Box 346
Harvard, MA 01451

Thank you for taking time from your extremely busy schedule to help our Troop recognize the achievement and service of our new Eagle Scout.

Sincerely,

Randy Furmanick
Troop Committee Chair
Harvard Boy Scouts Troop 1

girl scouts
of central and western
massachusetts

Holyoke Office
301 Kelly Way
Holyoke, MA 01040-9685

Worcester Office
115 Century Drive
Worcester, MA 01606

413-584-2602
gscwm.org

April 2022

Town Administrator
13 Ayer Rd
Harvard, MA 01451

Dear Town Administrator,

I am writing on behalf of Girl Scouts of Central and Western Massachusetts, Inc. to ask you if you would please consider sending us a congratulatory message of commendation from you to our Girl Scouts who have earned the prestigious Girl Scout Gold Award.

The Gold Award is the highest achievement that a girl can earn in Girl Scouting. This is a significant accomplishment as earning the award requires many years of challenge and commitment to service, leadership, career exploration and take action projects. Recipients must demonstrate ability and skill in goal setting, planning, implementation, relating to others, and creating a project which will benefit the greater community in a sustainable way.

We are proud to present for your consideration these Gold Award Girl Scouts on the attached sheet. The work of these young women is a lasting gift of service to their communities. Each Girl Scout listed that is highlighted is a member of your district. The remaining Girl Scouts are other members of Girl Scouts of Central and Western Massachusetts who have earned the Gold Award this year. I leave it to your discretion as to whether you wish to write notes to only your constituents or all of our recipients.

We will be honoring the Gold Award Girl Scouts on Thursday, June 16, 2022 at 6:00 pm. We would be honored to have you join us; please call 508-365-0115 if you would like to attend and leave a message.

Please mail commendations to Girl Scouts of Central and Western Massachusetts, 115 Century Drive, Worcester, MA 01606, Attn. Tammy Breen by June 12, 2022. Thank you very much for your time and consideration in this matter.

Sincerely,
Tammy Breen
Special Events and Project Manager

Girl Scouts of Central and Western MA: Gold Award Class of 2022

First Name	Last Name	City
Pearl	Burns	Holyoke
Helen	Cohen	Great Barrington
Sophia	Coldwell	South Grafton
Emily	Croteau	Milford
Veda	Dave	Grafton
Olivia	Farr	Lunenburg
Genevieve	Farr	Lunenburg
Lily	Fox	Westborough
Carly	Haley	Milford
Arwen	King	Amherst
Lacey-Mae	Mason	Athol
Ava	Mendelsohn	Amherst
Rebecca	Miller	Harvard
Robin	Miller	Harvard
Harshada	Nagarajan	Westborough
Katherine	Noroian	Worcester
Molly	Northrup	Westborough
Pranitha	Polavarapu	Northborough
Olivia	Rice	Westborough
Sophie	Scerbin	Westborough
Brienne	Senez	Southwick
Jade	St. Onge	South Grafton
Kylee	Teixeira	Monson
Arianna	Thornton	Harvard
Spandana	Vagwala	South Grafton

Commonwealth of Massachusetts
DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT
Deval L. Patrick, Governor ◆ Timothy P. Murray, Lt. Governor ◆ Tina Brooks, Undersecretary

SELLING YOUR LOCAL INITIATIVE PROGRAM HOME

Dear Local Initiative Program (LIP) Homeowner:

The following is a summary on how to sell your home under the LIP program. ***We wish to emphasize that before you may begin the process of selling your LIP unit, your town/city and the Department of Housing and Community Development (DHCD) must review your written request to sell, and issue a written response.***

To begin the review process, please mail the following information to both your town/city **and** DHCD:

☒ **Written notice of your intent to sell (Conveyance Notice).** Your written notice should include your name, the property address and a phone number where you can be reached during the day.

☐ A clear **color photograph** of the exterior of your LIP unit for posting on the DHCD Affordable Units for Sale web page.

☒ **A competed copy of the enclosed Property Information form** to assist in the marketing of your unit.

The above documents should be mailed to the following address:

The Department of Housing and Community Development
100 Cambridge Street, Suite 300
Boston, MA 02114
Attn: Division of Housing Development – LIP Program

✓ Please contact your town or city hall for information on who will handle your resale request.
You may inquire at the Board of Selectmen's office, the Housing Authority or the Planning Department.

100 Cambridge Street, Suite 300
Boston, Massachusetts 02114
www.mass.gov/dhcd
617.573.1100

MAXIMUM RESALE PRICE

After receiving the Conveyance Notice, DHCD will send a written response to you stating the price for which you may sell your home. This price is called the ***Maximum Resale Price***, and is determined based on the formula in your Deed Rider. The maximum resale price of your home is calculated by multiplying the appropriate current median income by the maximum resale price multiplier factor listed in the deed rider.

For a period of 90 days, the local community and DHCD reserve the right to restrict the sale of the home to a buyer who is income-eligible under the LIP program. If an eligible buyer is located, but is unable to secure financing within the 90-day period, DHCD has an additional 60 days to locate another eligible buyer.

MARKETING THE UNIT

During the 90-day period, the local community will market the unit to its list of eligible buyers. For communities that do not maintain such a list, DHCD will assign the unit to a local non-profit agency or resale agent for marketing and qualifying applicants.

DHCD will post information about your property on its "Units For Sale" web page as well.

THE NEW BUYER

The new buyer must be income eligible under the LIP program. The local community or resale agent will verify eligibility. When the buyer's eligibility has been verified and has been approved for financing, both the seller and the buyer should retain legal counsel and sign a purchase and sale agreement. DHCD must receive a copy of the purchase and sale agreement, and the loan commitment for the buyer, in order to prepare the closing documents.

If an eligible buyer is not located during the 90-day period (or subsequent 60-day period), you may sell your home to an ineligible buyer, although preference must be given to a household earning between 80% and 120% of area median income. The price to the ineligible buyer is the Maximum Resale Price. The new buyer must sign a deed rider identical in form and substance to the seller's deed rider, and they are subject to the same rights and restrictions.

For more information, please contact Elsa Campbell of DHCD's Division of Housing Development at 617- 573-1321.

Selling my Local Initiative Program Home

Fahey, Kara <Kara.Fahey@ssa.gov>

Mon 5/9/2022 11:03 AM

To: Tim Bragan <tbragan@harvard-ma.gov>;Julie Doucet <jdoucet@harvard-ma.gov>

Cc: rieko.hayashi@mass.gov <rieko.hayashi@mass.gov>;K.Fahey14@yahoo.com <K.Fahey14@yahoo.com>

1 attachments (1 MB)

Intent to sell letter.pdf;

Good Morning

I will be selling my LIP unit and attached you will find my written notice of intent to sell.

It is my understanding the Town of Harvard has the right of first refusal on whether the Town will purchase the unit.

After confirmation of this, I will then forward a copy of the Deed Rider, and a photograph (assume digital is acceptable).

I have attached the Property Info form.

Kara Fahey
15 Littleton Road, 1A
Harvard, MA 01451
508-345-4082

RESALE PROPERTY INFORMATION FORM

Please complete this form and return with your letter of intent to sell

Seller Name: KARA FAHEY

Address: 15 Littleton Road 1A

Phone: Day: [redacted] **Evening:** SAME

Email: [redacted]

Primary Contact: ABOVE

Phone: Day: See above **Evening:**

Seller's Attorney: N/A

Name of Development: Harvard Commons

# of Units/Homes in Development: 6 **Size of Home:** 1161 **sq. ft. Age of Home:** 10

Style of Home: (Check One)

- ☐ Single Family
- ☐ Town Home
- ☐ Detached Condominium
- ☐ Garden Style Condominium

Condominium/Association Fee, if applicable: $169.39 per month

Estimated Annual Taxes: $[illegible] per year

☐ **Town Water** ☐ **Septic System**

Condo Association: Harvard Commons Condominium II

Contact Name: Dan Daly

Address: Harvard Common unit 2 A

Phone: Day: [redacted] **Evening:** [redacted] or cell - preferred

About the Unit:

# of Bedrooms: ☐ One ☑ Two ☐ Three

# of Bathrooms: ☐ 1 ☑ 1½ ☐ 2 ☐ 2½

Garage: ☑ Yes, # of cars (1) or 2 (circle one) ☐ No

Basement: ☑ Yes ☐ No

Heat (check one): ☑ Gas ☐ Electric ☐ Oil ☐ Forced Hot Air ☐ Forced Hot Water

Appliances included in home sale:

Refrigerator	☑ Yes	☐ No	- Not Sure
Stove/Oven	☑ Yes	☐ No	- Not Sure
Microwave	☑ Yes	☐ No	- Not Sure
Dishwasher	☑ Yes	☐ No	- Not Sure
Garbage Disposal	☐ Yes	☑ No	- Not Sure
Washer/Dryer	☑ Yes	☐ No	- Not Sure

Central Air Conditioning: ☑ Yes ☐ No

Hard Wood Floors: ☐ Yes ☑ No

Please list any other applicable description of the unit:

Downstairs freshly ~~painted~~ painted.
Located in a highly desired school district.

Park & Rec to Fin Com

mlauria01451@gmail.com <mlauria01451@gmail.com>

Fri 5/6/2022 10:26 AM

To: Julie Doucet <jdoucet@harvard-ma.gov>;Marie Sobalvarro <msobalvarro@harvard-ma.gov>;Tim Bragan <tbragan@harvard-ma.gov>

Hello Julie

Please consider this email my formal resignation from Park and Recreation

Additionally, please put my name forward for Fin Com

Regards,
Michelle

Michelle Lauria, Esq.
300 Baker Ave, Suite 300
Concord, MA 01742
781 843 5003

Charles D. Baker, Governor
Karyn E. Polito, Lieutenant Governor
Jamey Tesler, Secretary & CEO
Jonathan L. Gulliver, Highway Administrator

massDOT
Massachusetts Department of Transportation
Highway Division

May 10, 2022

Subject: Harvard – Resurfacing and Box Widening on Ayer Road
Project File No. 609213

Select Board – Town of Harvard
Stuart Sklar, Chair
13 Ayer Road
Harvard, MA 02116

Dear Mr. Sklar:

I am responding to your comments submitted following the Public Hearing on March 30, 2022 for the subject project. MassDOT offers the following responses to your comments:

Comment – Refer to attached letter from "The Offices of the Select Board Town Administrator" dated April 13, 2022.

Response – MassDOT and TEC met with representatives from the town of Harvard including Tim Kilhart – Harvard DPW Director, Tim Bragan – Town Administrator, and Stuart Sklar – Selectboard Chair on Thursday April 21, 2022 to discuss the Select Board's comments about the project specifically those outlined in the letter.

Minor changes in the design such as new additional traffic calming measures would likely not create delays in the project. Modifying the design to include a roundabout would be considered a significant change and would require revisiting steps completed to date including, a resubmission of the 25% design plans, revised preliminary right of way plans, coordination with utility companies, and a design public hearing.

The current design includes several elements to help control speeds. These elements include narrowing the travel lanes to 11 feet, adding the grass buffer, adding six crosswalks with high visibility markings and flashing pedestrian warning signs (RRFBs). Additional elements from MassDOT's Safe Speeds Roadway Treatment Technical Toolkit may also be considered, including speed feedback signs, landscaping in the buffer, etc.

Since the Design Public Hearing, the District and the Town have been discussing additional measures and design changes that may be implemented to further reduce speeds.

The proposed 4' shoulder provides an area for off-tracking of vehicles, particularly along curves, and will provide a space for experienced bicyclists to ride. The shoulder helps to keep drainage from ponding into the travel lanes and provides space for snow removal. The shoulder also provides an area for emergency vehicles, delivery vehicles such as FedEx and UPS, and disabled vehicles to pull out of the travel lane.

Ten Park Plaza, Suite 4160, Boston, MA 02116
Tel: 857-368-4636, TTY: 857-368-0655
www.mass.gov/massdot

The current design also includes several elements to improve safety, including the realignment of Gebo Lane, the addition of a left turn lane into Gebo Lane, closing Lancaster County Road and reducing the number of driveways to the post office to improve safety in that area.

A compounded annual growth rate of 1.9% traffic growth was applied per year for ten years in the functional design report submitted with the 25% plans. The town's consultant will, at MassDOT's direction, perform a supplemental analysis that projects traffic using the same 1.9% compounded growth rate to the year 2039. This growth rate is conservative and should account for any additional development along the corridor. Additional counts were obtained the week of 4/25/2022 to determine if there has been an increase in truck traffic since the original 2019 counts were obtained. This information will be shared with the Town of Harvard Select Board when complete.

The bridge over Bower's Brook is a MassDOT bridge and is not scheduled for reconstruction at this time.

If you have any further questions, please feel free to contact the Project Manager, Muazzez Reardon, P.E., at (617) 448-1533 or by email at muazzez.reardon@state.ma.us.

Sincerely,

Marie Joyce Rose

Marie Joyce Rose, P.E.
Director of Roadway Project Management

MJR/mgr

cc: Arthur Frost, District Project Development Engineer
Timothy B. Kilhart, Town of Harvard DPW Director
Christopher J. Ryan, AICP, Director of Community and Economic Development

From: Brad Harris <bharris@mrpc.org>
Date: May 9, 2022 at 2:02:15 PM EDT
To: ssklar01451@gmail.com, "Tim HARVARD (timbragan@harvard-ma.gov)" <timbragan@harvard-ma.gov>
Subject: Harvard TIP Project Response

Dear Mr. Sklar,

I am writing in response to the Select Board letter of April 27, 2022 regarding the Harvard Ayer Road project. Based upon my experience in the development and programming of the Transportation Improvement Program (TIP), a change in the current design for a project would most likely impact when and how it is to be programmed. Currently, the Ayer Road project (MassDOT ID #609213) is slotted in Federal Fiscal Years (FFY) 2026 and 2027 at a total cost of $11,353,264 ($4,928,871 and $6,424,393, respectively). This listing was based on the current design status, the projects TEC score (Transportation Evaluation Criteria as developed by the MRPC) and its projected cost. This listing assumes that the project would be fully designed, permitted, approved and ready to advertise for construction sometime in FFY 2026, i.e., after October 1, 2025. Any changes to the design that therefore results in an additional one to two years for design completion, permitting and approval, would also result in a change to the proposed advertisement date. Subsequently, this project would be moved out of FFY 2026 and into a more realistic FFY. What that exact year would be would need to be determined during the development of future TIPs.

It has always been the goal of the MPO to program as many projects within a federal fiscal year as possible given the constraints of available funding and project readiness. That is why the TEC process is reviewed each year as we develop each subsequent TIP document. Cost and design status is re-evaluated, and this combined with our estimated federal funding target for each FFY drives the project listings for the TIP. Please note also that our target figures for each FFY are provided by MassDOT and can change from TIP to TIP.

To summarize, a delay in the projects design of one to two years would likely result in the project moving out of FFY 2026/2027. To what specific year would need to be determined based on the process described above. Additionally, a cost increase is also likely to impact when it could be accommodated due to what our target figure is and what other projects are scheduled and their estimated costs.

Regarding the question of the smaller changes mentioned, if all parties involved believe that they can be addressed in time to have the project ready to advertise in FFY 2026, there should not be a reason to adjust the current programming of the Ayer Road project.

This project will remain a priority for our MPO due to its TEC score and ranking (4th out of 18 projects) and we will attempt to program it as soon as feasible given the fiscal and

design constraints mention for developing the TIP. As of our newest TIP, we have been operating under the information and assumptions of MassDOT and the town that Ayer Road should be ready for advertisement in FFY 2026. If design and cost changes make this impractical, we would need to work to program it in FFY 2028, 2029, etc. (i.e., in a to be developed TIP).

I hope this information answers some of your questions. If you would like to discuss this further, please feel free to contact me at bharris@mrpc.org.

Sincerely,

Brad Harris
Transportation Project Director
MRPC
464 Abbott Avenue
Leominster, MA 01453
Email: bharris@mrpc.org
Tel. (978) 345-7376 ext. 311
Fax (978) 348-2490

Carlson Orchards, Inc.

115 OAK HILL ROAD
P.O. BOX 359
HARVARD, MA 01451

(978) 456-3916
(978) 456-8760 (FAX)
www.carlsonorchards.com

May 2, 2022
Town of Harvard Selectboard
Re: Entertainment License, Days requested

Apr: 16, 30

May: 7, 8, 14, 21, 26

June: 3, 4, 11, 18, 25

July: 2, 9, 16, 23

August: 5, 6, 7, 12, 13, 14, 20, 27

Sept: 10, 17, 24

Oct: 8, 15, 16

If there are any questions, please get back to me.

Thanks,

Franklyn Carlson, Pres.
Carlson Orchards, Inc.