



## BOARD OF SELECTMEN

### CALENDAR FOR

### TUESDAY, NOVEMBER 22, 2016 SELECTMEN'S HEARING ROOM

- Neil Wishinsky-  
Chairman
- Nancy A. Daly
- Benjamin J. Franco
- Nancy S. Heller
- Bernard W. Greene
- Melvin A. Kleckner –  
Town Administrator

1. **OPEN SESSION**

6:45 P.M. Question of whether the Board of Selectmen shall enter into Executive Session for the purpose of discussing strategy with respect to litigation in certain matters pending at the Department of Industrial Accidents.

2. **PROPOSED EXECUTIVE SESSION  
LITIGATION**

Assistant Human Resources Director Leslea Noble will appear to discuss strategy with respect to litigation in matters pending at the Department of Industrial Accidents.

3. **ANNOUNCEMENTS/UPDATES**

7:30 P.M. Selectmen to announce recent and/or upcoming Events of Community Interest.

4. **PUBLIC COMMENT**

Public Comment period for citizens who requested to speak to the Board regarding Town issues not on the Calendar.

5. **MISCELLANEOUS**

Approval of miscellaneous items, licenses, vouchers, and contracts.

- A. Question of approving the minutes of November 9, 2016.
- B. Question of approving the minutes of November 15, 2016.  
Question of accepting a grant in the amount of \$102,012.00 from the Massachusetts Department of Transportation for the TRIPPS program (Transportation, Resources, Information, Planning and Partnership for Seniors).
- C. Question of executing a Resolution Adopting the Town of Brookline Hazard Mitigation Plan 2016 Update pursuant to the requirements of the Federal Disaster Mitigation Act of 2000 for all communities applying to receive FEMA funding for hazard mitigation grants.
- D. Question of approving and executing a contract with The Galante Architecture Studio in the amount of \$516,600.00 for the preparation of design documents in connection with the Brookline Fire Department Vehicle Repair Facility & Fire Fighter Training Facilities project.
- E. Question of approving Change Order #3 in the amount of \$450.73 for work performed by Contractor Network, Inc. in connection with the Municipal Service Center Renovation project.
- F. Question of approving the application of Taberna de Haro, Inc., d/b/a Taberna de Haro, holder of an All Kinds of Alcoholic Beverages, Common Victualler, and Entertainment license at 999 Beacon Street for the appointment of Sabrina Da Cunha as an Alternate Manager.
- G. Question of granting a Temporary All Kinds Alcohol Sales License to Fotene Andreadis for a Holiday Party to be held on Saturday, December 3, 2016 from 8pm-1am at 162 Goddard Avenue (Annunciation Greek Orthodox Cathedral).
6. **CALENDAR**  
Review and potential vote on Calendar Items
7. **BUILDING COMMITTEE FOR THE BROOKLINE HIGH SCHOOL EXPANSION**  
Question of approving the Charge for the Committee and a Slate of Membership.
8. **COUNCIL ON AGING - PERSONNEL**

**Question of authorizing the filling of the Bus Driver (GN-3) vacancy in the Council on Aging Department.**

**9.**

**BOARDS AND COMMISSIONS - APPOINTMENTS**

**Question of making appointments/reappointments to the following Boards, Commissions, and Committees:**

**9th School at Baldwin Project Oversight Committee**

**Dave Gacioch – School Parent Representative  
John Co – School Parent Representative**

**10.**

**CHANGE OF MANAGER  
TRANSFER OF STOCK  
NEW OFFICER**

**8:00 P.M. Public Hearing on the application of The Brothers Restaurant Corp. d/b/a The Brothers Restaurant, Concepcion Perez, Owner, holder of a license To Expose, Keep for Sale and To Sell All Kinds of Alcoholic Beverages to Be Drunk on the Premises as a Seven Day Common Victualler License at 404 Harvard Street, for a Change of Manager, Transfer of Stock and New Officer as follows:**

<b>From: Manager</b>	<b>Concepcion Perez</b>	<b>To: Albeiro</b>
<b>Lopera</b>		
<b>Transfer of Stock</b>	<b>Concepcion Perez</b>	<b>Albeiro</b>
<b>Lopera</b>		
<b>New Officer</b>	<b>Concepcion Perez</b>	<b>Albeiro</b>
<b>Lopera</b>		

**11.**

**NEW COMMON VICTUALLER LICENSE**

**Question of approving the application of Caffe Nero Americas, Inc., d/b/a Caffe Nero, Michael Ford-Deegan, President, for a Common Victualler License at 1 Harvard Street, seating capacity of 20 seats; hours of operation Monday-Sunday 5:30am-10pm.**

**12.**

**NEW FOOD VENDOR LICENSE**

**Question of approving the application of Green Line Growers, LLC, d/b/a Brookline Grown, Robert Zuker, Owner and Emily Schwartz, Manager, for a Food Vendor License at 14 Pleasant Street, hours of operation Monday-Friday 10am-8pm and Saturday-Sunday 11am-6pm.**

13.

**NOISE BY-LAW WAIVER**

**8:15 P.M. Public Hearing on the request of KCEKOB LLC for a Waiver of the Noise By-Law in connection with landscaping services at 34 White Place to be performed on Tuesday, November 29th at 1:30 a.m. and if necessary the following night.**

*The Town of Brookline does not discriminate on the basis of disability in admission to, access to, or operations of its programs, services or activities. Individuals who need auxiliary aids for effective communication in programs and services of the Town of Brookline are invited to make their needs known to Lloyd Gellineau, Town of Brookline, 11 Pierce Street, Brookline, MA 02445. Telephone (617) 730-2328; TDD (617) 730-2327; or e-mail at [Lgellineau@brooklinema.gov](mailto:Lgellineau@brooklinema.gov)*



## **MINUTES**

### **BOARD OF SELECTMEN**

#### **IN BOARD OF SELECTMEN WEDNESDAY, NOVEMBER 9, 2016 6<sup>th</sup> FLOOR HEARING ROOM**

Present: Selectman Neil Wishinsky, Selectman Nancy Daly,  
Selectman Benjamin J. Franco, Selectman Nancy S.  
Heller, Selectman Bernard W. Greene

#### OPEN SESSION

Question of whether the Board of Selectmen shall enter into Executive Session for the purposes described in Agenda Items 2, 3, and 4 below.

*In Open Session- the Chair must state the purpose for Executive Session, stating all subjects that may be revealed without compromising the purpose for which the Executive Session was called.*

*To discuss strategy with respect to collective bargaining or litigation if an open meeting may have a detrimental effect on the bargaining or litigating position of the public body and the chair so declares;*

#### PROPOSED EXECUTIVE SESSION/COLLECTIVE BARGAINING

Human Resources Director Sandra Debow will appear to discuss strategy with respect to Collective Bargaining (Fire Department).

#### PROPOSED EXECUTIVE SESSION/LITIGATION

For the purpose of discussing litigation strategies in the matter of Prentice Pilot and Estifanos Zerai-Misgun v. the Town of Brookline et, al.

#### PROPOSED EXECUTIVE SESSION/LITIGATION

For the purpose of discussing strategy with respect to litigation in the matter of Town of Brookline et al v. MassDevelopment et al.

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On motion it was,

Voted to enter into executive session.

Roll call: Aye: Selectmen Wishinsky, Daly, Franco, Heller, Greene.

### ANNOUNCEMENTS/UPDATES

Selectmen to announce recent and/or upcoming Events of Community Interest.

*Selectman Heller stepped out*

### PUBLIC COMMENT

Public Comment period for citizens who requested to speak to the Board regarding Town issues not on the Calendar.

*Up to fifteen minutes for public comment on matters not appearing on this Calendar shall be scheduled each meeting. Persons wishing to speak may sign up in advance beginning on the Friday preceding the meeting or may sign up in person at the meeting. Speakers will be taken up in the order they sign up. Advance registration is available by calling the Selectmen's office at 617-730-2211 or by e-mail at [SOrsini@brooklinema.gov](mailto:SOrsini@brooklinema.gov). The full Policy on Public Comment is available at <http://www.brooklinema.gov/376/Meeting-Policies>*

### MISCELLANEOUS

Approval of miscellaneous items, licenses, vouchers, and contracts.

Question of approving the minutes of November 1, 2016.

On motion it was,

Voted to approve the minutes of November 1, 2016 as amended.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Bernard Greene

Absent: Nancy Heller

### FIRE PERSONNEL *\*item taken out of order*

Fallon Ambulance Service will appear to present certificates to 19 Brookline Fire Fighters who arrived on scene where Fallon Ambulance Service responded to 9-1-1 calls for ST Elevation Heart Attacks. Fallon Ambulance presents these certificates as part of their receiving the highest level of commendation: American Heart Association's Mission Life Line Gold Award.

Chief Ward introduced Kevin Mont from Fallon. Mr. Mont noted that this is a nationwide award given by the American Heart Association acknowledging medical responders for their high quality care and recognition of heart attacks, and fast transportation to the hospital. Fallon

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Ambulance was the only ambulance company to receive the Gold Award. He added it is an honor to recognize Brookline Firefighters as part of this team.

Dr. Schoenfeld added that this award and recognition is a source of pride for the community and shows how effective the public safety team is here in Brookline. The citizens are getting amazing care.

The Brookline firefighters recognized are:

Incident on 1/13/15:

Lt. Steven Gropman, FF Robert O'Connor, Jr., FF Joseph Mello, FF Daniel Breen

Incident on 2/18/15:

Lt. Todd Cantor, FF Dean Inchierca, FF F. Tarantino

Incident on 3/31/15:

Lt. Christopher Merrick, FF Richard Buckley, FF John Sullivan, Jr., FF James Kirby

Incident on 5/7/15:

FF David McCann, FF Ryan Buckley, FF James Clinton, FF Edward Gilbert, Jr.

Incident on 9/13/15:

Captain Daniel Carroll, Curtis Stafford, David Munoz, Daniel Teahan

The Board congratulated Fallon Ambulance and the Brookline Fire Department for their service, and appreciate the great training the firefighters receive.

POLICE PERSONNEL *\*item taken out of order*

Question of appointing the following student officers as Probationary Police Officers effective November 9, 2016:

Grainne D. Maunsell  
Nicholas C. Goon  
Audrey K. Underwood  
Kerry C. Keaveney  
Christopher K. Elcock  
Brian Merrigan  
Michael J. Miczek  
Stephen E. Burke  
David A. Pilgrim  
Megan Keaveney

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Superintendent Morgan reviewed the candidates' qualifications, adding that 6 of the candidates have previous experience with the Police Department in a civilian capacity. The candidates' went through a vigorous training and hiring process and succeeded outstandingly.

The Board congratulated the officers and recognized their dedication to public service, and acknowledged their family's support.

On motion it was,

Voted to appoint the following student officers as Probationary Police Officers effective November 9, 2016:

Grainne D. Maunsell  
Nicholas C. Goon  
Audrey K. Underwood  
Kerry C. Keaveney  
Christopher K. Elcock  
Brian Merrigan  
Michael J. Miczek  
Stephen E. Burke  
David A. Pilgrim  
Megan Keaveney

Town Clerk Pat Ward swore in the officers.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Bernard Greene  
Absent: Nancy Heller

*7:30 Selectman Heller arrived*

#### GRANT

Question of accepting a grant in the amount of \$2,500.00 from FM Global, Fire Service Programs to continue to help fund the cost of installing smoke and carbon monoxide detectors in the homes of Brookline Seniors.

Chief Ward reviewed this successful program, and said that the department was able to receive a grant to continue it.

Selectman Daly added that Brookline is an age friendly community, and thanked the department for their service to this population.

Chief Ward gave an update on a recent fire on Cypress Street. One resident was seriously

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hurt, and recently released from the hospital.

On motion it was,

Voted to accept a grant in the amount of \$2,500.00 from FM Global, Fire Service Programs to continue to help fund the cost of installing smoke and carbon monoxide detectors in the homes of Brookline Seniors

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

GRANT

Question of accepting a grant in the amount of \$81,646.12 from the Executive Office of Public Safety to continue the Brookline Police SMART policing initiative.

Superintendent Morgan stated that this grant will allow the department to use a software program that enhances data retrieval for police efforts.

On motion it was,

Voted to accept a grant in the amount of \$81,646.12 from the Executive Office of Public Safety to continue the Brookline Police SMART policing initiative.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

TEMPORARY ALL KINDS ALCOHOL SALES

Question of granting two (2) All Kinds Alcohol Sales Licenses to Hellenic Association of Boston d/b/a Annunciation Greek Orthodox Cathedral of New England for the following events at 162 Goddard Avenue:

Cretan Annual Dance

Saturday, November 12, 2016  
8:00pm – 1:00am

Social Event

November 19, 2016  
7:00pm – 1:00am

On motion it was,

Voted to grant two (2) All Kinds Alcohol Sales Licenses to Hellenic Association of Boston d/b/a Annunciation Greek Orthodox Cathedral of New England for the following events at 162 Goddard Avenue:

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Cretan Annual Dance  
Saturday, November 12, 2016  
8:00pm – 1:00am

Social Event  
November 19, 2016  
7:00pm – 1:00am

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

TEMPORARY WINE AND MALT ALCOHOLIC BEVERAGES SALES LICENSE

Question of granting a Temporary Wine and Malt Alcoholic Beverages Sales License to Larz Anderson Auto Museum for a Fashion Show to be held on Monday, November 14, 2016 from 5:30pm – 11:30pm at 15 Newton Street.

On motion it was,

Voted to grant a Temporary Wine and Malt Alcoholic Beverages Sales License to Larz Anderson Auto Museum for a Fashion Show to be held on Monday, November 14, 2016 from 5:30pm – 11:30pm at 15 Newton Street.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

TEMPORARY WINE AND MALT ALCOHOLIC BEVERAGES SALES LICENSE

Question of granting a Temporary Wine and Malt Alcoholic Beverages Sales License to the Olive Connection for a Private Event to be held on Saturday, November 19, 2016 from 6:30pm-9:30pm at 1426 Beacon Street.

On motion it was,

Voted to grant a Temporary Wine and Malt Alcoholic Beverages Sales License to the Olive Connection for a Private Event to be held on Saturday, November 19, 2016 from 6:30pm-9:30pm at 1426 Beacon Street.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

TEMPORARY WINE AND MALT ALCOHOLIC BEVERAGES SALES LICENSE

Question of granting a Temporary Wine and Malt Alcoholic Beverages Sales License to Ted X Beacon Street/Ideas in Action, Anne Turner, Volunteer for a Party-Escape Velocity to be held on Friday, November 18, 2016 from 7pm-9pm at the Brookline Teen Center, 40 Aspinwall Ave.

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On motion it was,

Voted to grant a Temporary Wine and Malt Alcoholic Beverages Sales License to Ted X Beacon Street/Ideas in Action, Anne Turner, Volunteer for a Party-Escape Velocity to be held on Friday, November 18, 2016 from 7pm-9pm at the Brookline Teen Center, 40 Aspinwall Ave.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

### TEMPORARY ALL KINDS ALCOHOL BEVERAGES SALES LICENSES

Question of granting two (2) Temporary All Kinds Alcohol Beverages Sales Licenses to Pine Manor College for the following events at 400 Heath Street:

Corporate Dinner  
November 17, 2016  
6:00pm – 9:30pm

Holiday Party  
December 9, 2016  
6:30pm – 11:00pm

On motion it was,

Voted to grant two (2) Temporary All Kinds Alcohol Beverages Sales Licenses to Pine Manor College for the following events at 400 Heath Street:

Corporate Dinner  
November 17, 2016  
6:00pm – 9:30pm

Holiday Party  
December 9, 2016  
6:30pm – 11:00pm

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

### CALENDAR

Review and potential vote on Calendar Items

9th SCHOOL AT BALDWIN PROJECT OVERSIGHT COMMITTEE *\*item taken out of order*

Question of approving the Charge of the Committee and a Slate of Membership.

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Town Administrator Kleckner reviewed his memo:

With the 9th Elementary School project at Baldwin moving forward, it is important at this time to establish a “building committee” to facilitate its further study and design and to interface with the public and key stakeholders. Since this project will not be participating in the Massachusetts School Building Authority (MSBA) program, it is not necessary to follow the prescriptive composition or charge for building committees required by this agency. Rather, it is suggested that the Town follow a local process creating a Project Oversight Committee (POC) that has been used in the past. To date, the Building Commission, Board of Selectmen and the School Committee have formally endorsed this concept and appointed a member to serve as the co-chair of the POC.

Please find attached the proposed composition and Charge for a POC for the 9th Elementary School at Baldwin using the format and language from prior Town project oversight committees. The Superintendent and I have worked together and canvassed our respective boards to recommend the following slate of candidates for this committee pursuant to the Charge.

There shall be established a Building Committee for the 9th Elementary School at Baldwin. In keeping with recent practice on the Devotion School project, this committee shall be modeled using the MSBA Building Committee guidelines as a starting point. The Committee shall consist of a member of the Building Commission, Board of Selectmen and School Committee, each selected by their designated boards, who together shall serve as co-chairs of the Committee. The other members of the Committee shall be as listed below. The Board of Selectmen, working with the Town Administrator and staff, shall provide candidates to fill the Park and Recreation Commission representative and the two greater Baldwin neighborhood positions. The School Committee, working with the Superintendent and staff, shall provide candidates to fill the two school parent community positions. The Superintendent shall designate the school principal representative. The slate of members shall be ratified by the Board of Selectmen and the School Committee.

- 1 member of the Park and Recreation Commission
- 2 persons representing the school parent community (School Council or PTO)
- 2 persons representing the interests of the greater Baldwin neighborhood.
- The Town Administrator or designee
- The Building Commissioner or designee
- The Superintendent of Schools
- The Deputy Superintendent of Schools for Administration and Finance
- The Deputy Superintendent of Schools for Teaching and Learning
- A School Principal Representative

On motion it was,

Voted to approve the proposed charge and committee members for the 9th School at Baldwin Project Oversight Committee.

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Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

GRANT OF LOCATION

1. Public Hearing on the petition of Crown Castle NG East, LLC for permission to construct, and a location for, such a line of conduits and manholes with the necessary cables therein under the following public way:

Carlton Street – easterly side, conduit southerly from the Town Line a distance of 19 feet to a new manhole thence turning and running easterly a distance of 3 feet to an existing streetlight.

Applicant Kosta Jovanovic representing Crown Castle said that Crown Castle allows wireless carriers to operate in an efficient fashion. The current capacity in this location is maxed out, and they will be adding some electronics and an antenna to this location and feed it with fiber optic cable. The project should take 4-5 hours.

Public hearing:

Jim Franco TMM#1 said that there is a lot of activity in this area, and there was a recent electrical outage that caused damage to residents' personal property. He hopes that precautions are taken to avoid an outage.

On motion it was,

Voted to grant the petition of Crown Castle NG East, LLC for permission to construct, and a location for, such a line of conduits and manholes with the necessary cables therein under the following public way:

Carlton Street – easterly side, conduit southerly from the Town Line a distance of 19 feet to a new manhole thence turning and running easterly a distance of 3 feet to an existing streetlight.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

2. Public Hearing on the petition of NStar Electric Company d/b/a Eversource Energy for permission to construct, and a location for, such a line of conduits and manholes with the necessary cables therein under the following public way:

Cottage Street – conduit southerly approximately 287 feet northeasterly of Goddard Avenue a distance of 13 feet to 88 Cottage Street.

Sheila Gillis representing Eversource stated that this is related to service to a residence. The work will be done on the sidewalk, and there will be no interruption of service.

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Selectman Franco noted the outage referenced previously, the outage caused damages to appliances etc. He hopes that safety measures are made to prevent this from happening again.

An Eversource representative addressed the incident that occurred a couple of weeks ago when an Nstar contractor took out a primary line, and there was no way to back feed, so they put in a generator, that caused some damages. There have been some claims submitted to Eversource.

Public Hearing: no speakers.

On motion it was,

Voted to grant the petition of NStar Electric Company d/b/a Eversource Energy for permission to construct, and a location for, such a line of conduits and manholes with the necessary cables therein under the following public way:

Cottage Street – conduit southerly approximately 287 feet northeasterly of Goddard Avenue a distance of 13 feet to 88 Cottage Street.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

#### BOARDS AND COMMISSIONS - INTERVIEWS

The following candidates for appointment/reappointment to Boards and Commissions will appear for interview:

##### Conservation Commission

Pamela Harvey

Pam Harvey is currently serving as an Associate member of the Conservation Commission; this position is a non-voting member. Ms. Harvey was employed at the Dept. of Environmental Protection, as an attorney related to policy and regulatory work around wetland matters. Now that she is no longer working in State Government, she would like to be appointed as a full member because there are no conflicts relating to her membership to the commission.

##### Diversity, Inclusion and Community Relations

Yvette Johnson

Yvette Johnson is interested in serving on the commission, and has been following their meetings. Ms. Johnson was employed as an auditor for the Commonwealth of Massachusetts and is familiar with fair housing, and fair credit regulations. She recently sat on the River Road Committee and is the Chair of the Village Tenant Association, and serves on the Brookline Improvement Coalition.

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WARRANT ARTICLES

Question of reconsidering the Board's vote on the following Warrant Articles for the November 15, 2016 Special Town Meeting:

Article 6 Plastic Bags  
Article 23 Consolidated Leaf Blower By-Law  
Article 24 Resolution Leaf Blower Control Officer  
Article 22 FAR

Article 6 Plastic Bags

Co-petitioner Andrew Fischer reviewed some revisions to the Article that relate to product bags; the product bags would only pertain to supermarkets larger than 6,000k feet of retail space.

Selectman Daly referred to the marine degradable language; she is concerned that it is indicated in the language when there is no product readily available to consumers at this time. A Co-petitioner has indicated that they would like to keep this language in the Article (8.33.2 a). This may prompt merchants to spend time researching for a product that is not available.

Selectman Greene replied that the materials do exist, and keeping the language in may encourage manufacturers to develop such a product.

Selectman Heller added that the Climate Action Committee is concerned about the marine degradable plastic bags, because it is not clear at this point if those materials would be harmful to animals. This committee recommended taking out the language referring to marine degradable plastic bags.

The Board made some revisions to Section 8.33.2.

Selectman Franco referred to section 8.33.2b, where it refers to section c; this is confusing to where section c is.

The Board revised 8.33.2.b to remove "*subsection c of*" in the first sentence.

On motion it was,

Voted to reconsider Article 6.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

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1. On motion it was

Voted 2-3 Motion failed on Selectmen's Daly's revisions to take out:  
[*or a plastic bag that is compostable as well a marine degradable plastic bags*] in section 8.33.2a.

Aye: Nancy Daly, Nancy Heller  
Nay: Benjamin Franco, Bernard Greene, Neil Wishinsky

2. On motion it was,

Voted 5-0 Favorable Action on the revisions submitted by the petitioners with the Board's revision to 8.33.2.b to remove "subsection c of " in the first sentence.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

3. On motion it was,

VOTED: To amend the General By-Laws by revising the Article 8.33 as follows (additions are underlined and deletions are in strikeout):

### ARTICLE 8.33 SUSTAINABLE PLASTIC BAGS REDUCTION

#### SECTION 8.33.1 Definitions

The following words shall, unless the context clearly requires otherwise, have the following meanings:

"Director", the Director of Public Health Services or his/her designee.

"ASTM D6400", the American Society for Testing and Materials (ASTM) International "Standard Specification for Compostable Plastics".

"ASTM D7081", ASTM International "Standard Specification for Biodegradable Plastics in the Marine Environment".

"Checkout bag", a carryout bag provided by a store to a customer at the point of sale. Checkout bags shall not include bags, whether plastic or not, in which loose produce or products are placed by the consumer to deliver such items to the point of sale or check out area of the store.

"Compostable plastic bag", a plastic bag that (1) conforms to the current ASTM D6400 for compostability; (2) is certified and labeled as meeting the ASTM D6400 standard specification by a recognized verification entity; and (3) conforms to any other standards deemed acceptable

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by this section.

“Department”, the Brookline Department of Public Health.

“Marine degradable plastic bag”, a plastic bag that conforms to the current ASTM D7081 standard specification for marine degradability; and conforms to any other standards deemed acceptable by the Director, provided additional, Director-approved standards are as stringent as ASTM D7081.

“Product Bag” bags in which loose produce, bulk items, unwrapped baked goods or prepared food, or other products are placed by the consumer to deliver such items to the point of sale or check out area of the store.

“Reusable bag”, a bag that is either (a) made of cloth or other machine washable fabric; or (b) made of plastic other than polyethylene or polyvinyl chloride that is durable, non-toxic, and generally considered a food-grade material that is more than 4 mils thick.

“Reusable check-out bag”, a sewn reusable bag with stitched handles that is specifically designed for multiple reuse and is either (1) made of cloth or other machine washable fabric; or (2) made of durable plastic that is at least 2.25 mils thick; or (3) made of other durable material can carry 25 pounds over a distance of 300 feet.

“Retail establishment”, any retail store that satisfies at least one of the following requirements: (a) a retail space of 2,500 square feet or larger or at least three (3) locations under the same name within the Town of Brookline that total 2,500 square feet or more; or (b) a retail pharmacy with at least two locations under the same ownership within the Town of Brookline; or (c) a full-line, self-service supermarket that had annual gross sales in excess of \$1,000,000 during the previous tax year, and which sells a line of dry grocery, canned goods or nonfood items and some perishable items;

#### SECTION 8.33.2

(a) If a retail establishment as defined in Ssection 1 provides plastic checkout bags to customers, the plastic bags shall comply with the requirements of being either a recyclable paper bag, a reusable checkout bag, or a compostable plastic bag that is compostable as well as marine degradable plastic bag.

(b) If a supermarket, a retail establishment described in the definition set forth in section 8.33.1, with more than 6,000 square feet of retail space, provides product bags to customers, the bags shall comply with the requirements of being either a recyclable paper bag, reusable bag, or a compostable plastic bag. (a) Nothing in this section shall be read to preclude any establishment from making reusable checkout bags available for sale to customers or utilizing recyclable paper bags as defined in this section at checkout.

(c) The Director may promulgate rules and regulations to implement this section.

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**SECTION 8.33.3 PENALTIES AND ENFORCEMENT**

(a) Each Retail Establishment as defined in Section 1, above, located in the Town of Brookline shall comply with this by-law.

(1) If it is determined that a violation has occurred the Director shall issue a warning notice to the Retail Establishment for the initial violation. (2) If an additional violation of this by-law has occurred within one year after a warning notice has been issued for an initial violation, the Director shall issue a notice of violation and shall impose a penalty against the retail establishment.

(3) The penalty for each violation that occurs after the issuance of the warning notice shall be no more than:

A) \$50 for the first offense

B) \$100 for the second offense and all subsequent offenses. Payment of such fines may be enforced through civil action in the Brookline District Court. (4) No more than one (1) penalty shall be imposed upon a Retail Establishment within a seven (7) calendar day period.

(5) A Retail Establishment shall have fifteen (15) calendar days after the date that a notice of violation is issued to pay the penalty.

**SECTION 8.33.4**

All of the requirements set forth in this by-law shall take effect December July 1, 20137. In the event that compliance with the effective date of this by-law is not feasible for a food service establishment because of either unavailability of alternative checkout bags or economic hardship, the Director may grant a waiver of not more than six months upon application of the owner or the owner's representative. The waiver may be extended for one (1) additional six-month period upon showing of continued infeasibility as set forth above.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

Article 23 Consolidated Leaf Blower By-Law

Co-petitioner John Doggett reviewed some revisions to Article 23 from the Advisory Committee.

A key change is that the responsibility of compliance is now shared between the property owner and the contractor. The 5 acre provision has been reinstated, and section 8.31.9 has been deleted because it is duplicated in section 8.31.8.

On motion it was,

Voted to reconsider Article 23.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

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On motion it was,

Voted 5-0 Favorable Action

1) That Article 8.15 (Noise Control) be amended by

a) Adding the following to Section 8.15.2 (b):

4. Noise regulations concerning Leaf Blowers are found in Article 8.31.

b) Deleting references to leaf blowers in Section 8.15.6 (c) - Maximum Noise Level Chart; and

c) Deleting the text of Section 8.15.6 (f) and replacing it with the words "Text Deleted";

and

1) That the current Article 8.31 (Leaf Blowers) be replaced with the following:

Article 8.31  
Leaf Blowers **Control**

### SECTION 8.31.1: STATEMENT OF PURPOSE

The reduction of noise and emissions of particulate matter resulting from the use of leaf blowers as well as reducing the use of gasoline and oil fuels and reducing carbon emissions into the environment are public purposes of the Town, as are protecting the health, welfare and environment public purposes of the Town. Therefore, this By-law shall limit and regulate the use of leaf blowers as defined and set forth herein.

### SECTION 8.31.2: DEFINITIONS

a. "Leaf Blowers" governed by this By-law are defined as any portable powered machine used to blow leaves, dirt and other debris off lawns, sidewalks, driveways, and other horizontal surfaces.

b. "Property Owner" as used in this By-law shall mean the legal owner of record of real property as listed by the tax assessor's records.

c. "Property Manager" shall mean any tenant in possession or person or entity in control of real property, including, but not limited to, a condominium association.

d. "User" means the person or entity using the Leaf Blower at the time of the violation.

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### SECTION 8.31.3: LIMITATIONS ON USE

a. No Property Owner or **Property** Manager shall authorize **or permit** the operation of leaf blowers on property under their control, **or on the sidewalks or ways contiguous to such property, nor shall any person operate a leaf blower,** except between March 15th and May 15th and between October 1st and December 31st in each year, and except for leaf blowers powered by electricity which are exempt from this seasonal usage limitation. The provisions of this Section 3.a. shall not apply to **nonresidential property owners but only with respect to** parcels of land that contain at least ~~two~~ **five** acres of open space.

b. No Property Owner or **Property** Manager shall authorize **or permit** the operation of leaf blowers on property under their control, **or on the sidewalks or ways contiguous to such property, nor shall any person operate a leaf blower,** except between the hours of 8 (eight) A.M. to 8(eight) P.M.

Monday through Friday, and from 9 (nine) A.M. to 6(six) P.M. on Saturdays, Sundays and legal holidays.

c. On land parcels equal to or less than 7,500 (seven thousand five hundred) square feet in size, no Property Owner or **Property** Manager **or User** shall **operate or** authorize the operation of more than 2 (two) leaf blowers **on such property** simultaneously. This limitation shall **also** apply to sidewalks and roadways contiguous to such parcel.

d. No Property Owner or Manager shall authorize the operation of any **leaf blower and no person shall operate a** leaf blower which does not bear an affixed manufacturer's label or a label from the Town indicating the model number of the leaf blower and designating a noise level not in excess of sixty-seven (67) dBA when measured from a distance of fifty feet utilizing American National Standard Institute (ANSI) methodology on their property. Any leaf blower bearing such a manufacturer's label or Town label shall be presumed to comply with the approved ANSI Noise Level limit under this By-law. However, Leaf Blowers must be operated as per the operating instructions provided by the manufacturer. Any modifications to the equipment or label are prohibited. However, any leaf blower(s) that have been modified or damaged, as determined visually by anyone who has enforcement authority for this By-law, may be required to have the unit tested by the Town as provided for in this section, even if the unit has an affixed manufacturer's ANSI or Town label. The Controller of any leaf blower without a manufacturer's ANSI label on such equipment may obtain a label from the Town by bringing the equipment to the town's municipal vehicle service center or such other facility designated by the Town for testing. Such testing will be provided by the Town's designated person for no more than a nominal fee (which shall be non-refundable) and by appointment only at the Town's discretion. If the equipment passes, a Town label will be affixed to the equipment indicating Decibel Level. In the event that the label has been destroyed, the Town may replace it after verifying the specifications listed in the Controller's manual that it meets the requirements of this By-law.

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The provisions of this Article 8.31.3 shall not apply to the use of leaf blowers by the Town, its employees or contractors while performing work for the Town.

### **SECTION 8.31.4: REGULATIONS**

- a. The Commissioner of Public Works shall have the authority to promulgate regulations to implement the provisions of this By-law, subject to the approval of the Board of Selectmen.
- b. The Commissioner of Public Works shall have the authority to waive temporarily any of the limitations on the use of Leaf Blowers set forth in this By-law in order to aid in emergency operations and clean-up associated with severe storms. In the event of issuing a temporary waiver, the Commissioner of Public Works shall post a notice prominently on the Town of Brookline's internet home page and make other good faith efforts to notify the public including, but not limited to, social media.

### **SECTION 8.31.5: DUTIES AND RESPONSIBILITIES OF TOWN DEPARTMENTS**

#### **a. Departmental Actions**

All Town departments and agencies shall, to the fullest extent consistent with other laws, carry out their programs in such a manner as to further the objectives of this By-law.

#### **b. Departmental Compliance with Other Laws**

All Town departments and agencies shall comply with federal and state laws and regulations to the same extent that any person is subject to such laws and regulations.

#### **c. Town Exemption**

The Department of Public Works shall be exempt for day and night time operations for routine maintenance. However, the DPW shall make every effort to reduce noise in residential areas, particularly during the limited use hours set forth in Section 8.31.3.b of this By-law.

#### **d. Town Leaf Blower Equipment**

Prior to purchasing new equipment, the Town must consider equipment with the lowest Decibel rating for the performance standard required.

### **SECTION 8.31.6: PERMITS FOR EXEMPTIONS FROM THIS BY-LAW**

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(a) The Board of Selectmen, or its designee, may grant a special permit to a Property Owner or **Property** Manager:

- (i) for any activity otherwise prohibited under the provisions of this By-law,
- (ii) for an extension of time to comply with the provisions of this By-law and any abatement orders issued pursuant to it,
- (iii) when it can be demonstrated that bringing a source of noise into compliance with the provisions of this By-law would create an undue hardship on a person or the community. A Property Owner or Manager seeking such a permit should make a written application to the Board of Selectmen, or its designee. The Town will make reasonable efforts to notify all direct abutters prior to the date of the Selectmen's meeting at which the issuance of a permit will be heard.

(b) The Board of Selectmen, or designee, may issue guidelines defining the procedures to be followed in applying for a special permit.

The following criteria and conditions shall be considered:

- (1) the cost of compliance will not cause the applicant excessive financial hardship;
- (2) additional noise will not have an excessive impact on neighboring citizens.
- (3) the permit may require portable acoustic barriers during night use.
- (4) the guidelines shall include reasonable deadlines for compliance or extension of non-compliance.
- (5) the number of days a person seeking a special permit shall have to make written application after receiving notification from the Town that (s)he is in violation of the provisions of this By-law.
- (6) If the Board of Selectmen, or its designee, finds that sufficient controversy exists regarding the application, a public hearing may be held. A person who claims that any special permit granted under (a) would have adverse effects may file a statement with the Board of Selectmen, or designee, to support this claim.

**SECTION 8.31.7: HEARINGS ON APPLICATION FOR SPECIAL PERMITS**

Resolution of controversy shall be based upon the information supplied by both sides in support of their individual claims and shall be in accordance with the procedures defined in the appropriate guidelines, **if any**, issued by the Board of Selectmen, or designee.

**SECTION 8.31.8: ENFORCEMENT AND PENALTIES**

a. This By-law may be enforced in accordance with Articles 10.1, 10.2 and/or 10.3 of the General By-laws by a police officer, the Building Commissioner or his/her designee, the Commissioner of Public Works or his/her designee and/or the Director of Public Health or his/her designee.

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~~b. The Property Owner and/or Manager of any real property upon which a Leaf Blower is operated in violation of this By law, or upon any abutting sidewalk or way in connection with such operation, shall be liable for all violations of this By law. Any User in violation of this By law other than the Property Owner or Manager shall be issued a written notice, whenever practical, notifying the User of the enforcement action to be taken against the Property Owner or Manager for the violation.~~

**b. Violations of this By-law shall be subject to the following penalties:**

**1)** For the first violation in each calendar year a written warning will be issued ~~to the Property Owner or Manager.~~

**2) For** second and subsequent violations ~~occurring on the same property under the same ownership or management~~ Property shall be issued to **in each calendar year, both** the Property Owner or **Property** Manager **and the User shall be fined** according to the following schedule **table below:**

- ~~1. \$100.00 for the second offense;~~
- ~~2. \$200.00 for the third offense;~~
- ~~3. \$300.00 for the each subsequent offense;~~
- ~~4. plus~~

	<b><u>Property Owner or Property Manager</u></b>	<b><u>User, if other than Property Owner or Property Manager</u></b>
<b><u>First Offense</u></b>	<b><u>Written Warning</u></b>	<b><u>Written Warning</u></b>
<b><u>Second Offense</u></b>	<b><u>\$50.00</u></b>	<b><u>\$50.00</u></b>
<b><u>Third Offense</u></b>	<b><u>\$100.00</u></b>	<b><u>\$100.00</u></b>
<b><u>Each Subsequent Offense</u></b>	<b><u>\$150.00</u></b>	<b><u>\$150.00</u></b>

**3) Applicable** court costs for any enforcement action taken.

**SECTION 8.31.9: ENFORCEMENT**

~~The Health, Building, Police and Public Works Departments shall have enforcement authority for this By law. On complaint by any individual not an employee or agent of the Town, complainant is required at a minimum to provide her/his name and contact information as well as address of alleged violation for the complaint.~~

**SECTION 8.31.10: — EFFECTIVE DATE**

The provisions of this By-law shall be effective as provided in M.G.L. c. 40, s.32

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Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

Article 24 Resolution Leaf Blower Control Officer

The Board noted that the Advisory Committee made some recommendations to Article 24. The recommendations refer to the shared responsibility of enforcement between the Police Department and the Department of Public Works. It also removes the responsibility of the Selectmen of appointing a designated position of enforcement.

Andrew Fischer added that this is a convoluted plan that prohibits police officers from giving out citations. The process appears to be cumbersome.

Neil Gordon PAX member stated that PAX voted no action on Articles 23 & 24.

On motion it was,

Voted to reconsider Article 24.

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

On motion it was,

Voted 5-0 Favorable Action

VOTED: That the Town adopt the following Resolution:

~~Resolution to Appoint a Leaf Blower Code Enforcement Officer~~ **With Respect to Administration of the Leaf Blower By-Law**

WHEREAS the Police Department is currently the sole **primary** enforcer of the Leaf Blower By- laws and is using valuable resources that do not directly concern public safety;

WHEREAS many Town residents have expressed concern about calling the Police to report violations of the Leaf Blower By-Law;

WHEREAS, accordingly, there are believed to be, ~~apparently,~~ many current leaf blower by-law violations that are not reported and therefore not resolved;

~~WHEREAS noise deemed excessive and/or annoying which is within the legal scope of the current and proposed By law could be reduced through negotiation with the parties involved;~~

~~WHEREAS the Police Department estimates that about 30% of noise complaints involved exempt Town operations and 50% of leaf blower complaints originate from a small number of "hot spots" around Town, a more systemic approach working with Town Departmental~~

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~~managers, residents, and landscape contractors might be more successful in reducing noise overall;~~

~~WHEREAS negotiating with neighbors and/or landscape service providers with a focus on education and best practices is likely to be productive in reducing noise pollution;~~

~~WHEREAS the Town and its contractors performing Town work are exempt from Leaf Blower By-laws;~~

WHEREAS the Department of Public Works has an environmental enforcement program, pursuant to which it is already enforcing other By-laws; **and**

WHEREAS a modest added expense may be required in order for the Department of Public Works to handle additional duties to administer the Leaf Blower By-law; ~~now, therefore, be it~~

**THEREFORE, be it RESOLVED** resolved, that **Town Meeting urges**

~~F the Board of Selectmen appoint a Leaf Blower Code Enforcement Officer, or equivalent officer, who should not be part of the Police Department, who reports to the Board of Selectmen or its designee, and whose duties to~~ consider assigning additional duties to the Department of Public Works that would include:

1. ~~Take~~ **Taking** calls during Town Hall business hours;
2. ~~Investigate~~ **Investigating** and ~~attempt~~ **attempting** to resolve complaints with the parties involved;
3. ~~Work~~ **Working** with the landscape service provider community to build awareness of the leaf blower noise concerns, help further the use of best practices and promote use of protective equipment for operators;
4. ~~Liaise~~ **Working** with the Police Department Community Service Officer designated to support leaf blower complaint resolution;
5. ~~Issue~~ **Issuing** warnings and citations as appropriate;
6. ~~Call~~ **Calling** on the Police Department for support and/or enforcement, as appropriate;
7. ~~Track~~ **Tracking**, ~~monitor~~ **monitoring** and ~~report~~ **reporting** periodically to the Board of ~~Selectmen~~ on complaint statistics and resolutions;
8. ~~Communicate~~ **Communicating** and ~~educate~~ **educating** Town residents as to their responsibilities to reduce leaf blower noise; **and**
9. ~~Recommending~~ **ing** regulation changes as appropriate.

~~And be it further:~~

~~RESOLVED that:~~

~~The Department of Public Works work closely with the Leaf Blower Code Enforcement Officer or equivalent officer to adopt practices and equipment standards that adhere as near as practical to the Leaf Blower By-Laws.~~

Aye: Neil Wishinsky, Nancy Daly, Benjamin J. Franco, Nancy Heller, Bernard Greene

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Article 22 FAR

Deputy Town Administrator Melissa Goff stated that the petitioner has revised the article and offered additional explanation.

Chairman Wishinsky stated that these revisions are intended to solve a problem that has been observed in single family district homes relating to unfinished attic and basement space, and restrictions added. This Article could be applied to T districts, and 2 families. The petitioner only submitted language that refers to single family home districts. He added that this is a complicated Article.

Petitioners expanded explanation:

This submission includes the option of a divided vote on Article 22, providing a format for a separate vote by Town Meeting on the question of whether the exemptions in Section 5.22 of the Zoning By-Law (allowing FAR to be exceeded) should apply in T, F and M Districts, where the base FAR (even without the exemptions) is already high.

The First Vote includes changes to the Zoning By-Law proposed by the Moderator's Committee to address core issues, including abuse of the By-Law through the construction of "unfinished" spaces in "basements" and "attics" that add to bulk without being subject to any abutter notice or design review. The First Vote would thus introduce special permit review, including notice to abutters and the requirement of consistency with the scale of the neighborhood, for the construction of space that exceeds the otherwise-allowable FAR. This would effectively treat the construction of both "finished" and "unfinished" spaces uniformly, in recognition of the fact that both types of spaces contribute equally to building bulk, and also treat uniformly all such construction and additions to new and existing buildings. The First Vote would also introduce a special permit requirement for exterior modifications in connection with basement and attic conversions, again assuring notice to abutters and consistency with the neighborhood, and treating basement and attic conversions consistently with other conversions and additions, which already require a special permit. It includes the Planning Department's recommendation that all conversions result in no more than 130% of FAR, and includes changes assuring consistency of language within the By-Law. (See Petitioner's Explanation).

What the First Vote does not include is By-Law changes that would eliminate the application of the Section 5.22 exemptions (which allow buildings at 120%, 130% or, now, even 150% of the otherwise-allowable FAR) in T, F and M districts. The Second Vote, if approved, would eliminate those Section 5.22 exemptions in T, F and M districts. The divided vote poses the issue if Town Meeting wishes to address the T, F and M issue separately.

On the one hand, as set forth in the report of the Moderator's Committee to the May 2016 Town Meeting, the base FAR in T, F and M Districts is already high, and, for example, the Section 5.22 exemptions would potentially allow the density of properties in T Districts to increase even more, to 200% or 250% of the current density, with corresponding impacts on

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population, school population, congestion, and so on. The actual incursions of incompatible buildings in T Districts have in recent years led to proposals for downzoning and for Neighborhood Conservation Districts. Although the base FAR in those districts would remain the same until rezoned, the potential to significantly exceed that FAR would be eliminated by the Second Vote.

On the other hand, the Moderator's Committee recognized that elimination of the Section 5.22 exemptions did not address the very high base FAR limits in T, F and M districts, and that eliminating the exemptions would potentially make some homes non-conforming and affect some individuals seeking to expand their homes. Since Article 22 was filed, several existing homes in T Districts that have applied for building permits for conversions would be affected by the elimination of the Section 5.22 exemptions.

Therefore, a divided vote is attached. If only the First Vote is passed, the Section 5.22 exemptions would continue for homeowners in T, F and M District exemptions but there could be substantial increases in density in those districts. If the Second Vote is also passed, the exemptions would be eliminated in T, F and M districts, reducing the potential increases in density, but existing homeowners would not be able to utilize Section 5.22. The decision is ultimately for Town Meeting, and this submission is an effort to facilitate that decision.

The Board did not offer a motion to reconsider.

There being no further business, the Chair adjourned the meeting at 9:05 p.m.

ATTEST



## **MINUTES**

### **BOARD OF SELECTMEN TUESDAY, NOVEMBER 15, 2016 BROOKLINE HIGH SCHOOL ROOM 209**

Present:

Selectman Neil Wishinsky, Selectman Nancy Daly,  
Selectman Benjamin J. Franco, Selectman Nancy S.  
Heller, Selectman Bernard W. Greene

#### OPEN SESSION

Question of whether the Board of Selectmen shall enter into Executive Session for the purpose of discussing strategy with respect to litigation in the matter of Town of Brookline et al v. MassDevelopment et al.

In Open Session- the Chair must state the purpose for Executive Session, stating all subjects that may be revealed without compromising the purpose for which the Executive Session was called.

The Chair then stated the reason(s) for the Executive Session:

*To discuss strategy with respect to collective bargaining or litigation if an open meeting may have a detrimental effect on the bargaining or litigating position of the public body and the chair so declares;*

#### PROPOSED EXECUTIVE SESSION LITIGATION

For the purpose of discussing strategy with respect to litigation in the matter of Town of Brookline et al v. MassDevelopment et al.

On motion it was,

Voted to enter into Executive Session.

Roll Call: Aye: Wishinsky, Daly, Franco, Heller, Greene

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### ANNOUNCEMENTS/UPDATES

Selectmen to announce recent and/or upcoming Events of Community Interest.

*Selectman Greene stepped out at 6:00 p.m.*

### PUBLIC COMMENT

Public Comment period for citizens who requested to speak to the Board regarding Town issues not on the Calendar.

*Up to fifteen minutes for public comment on matters not appearing on this Calendar shall be scheduled each meeting. Persons wishing to speak may sign up in advance beginning on the Friday preceding the meeting or may sign up in person at the meeting. Speakers will be taken up in the order they sign up. Advance registration is available by calling the Selectmen's office at 617-730-2211 or by e-mail at sorsini@brooklinema.gov. The full Policy on Public Comment is available at <http://www.brooklinema.gov/376/Meeting-Policies>*

### MISCELLANEOUS

Approval of miscellaneous items, licenses, vouchers, and contracts.

Question of approving the minutes of November 9, 2016.

This agenda item was postponed.

### CALENDAR

Review and potential vote on Calendar Items

### BUILDING DEPARTMENT – PERSONNEL

Question of authorizing the filling of the Local Building Inspector (GN-12) vacancy in the Building Department.

Building Commissioner Dan Bennett stated that this position is available due to a recent resignation.

On motion it was,

Voted to authorize the filling of the Local Building Inspector (GN-12) vacancy in the Building Department.

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller

Absent: Bernard Greene

### FIRE DEPARTMENT – PERSONNEL

Question of offering conditional employment to the following applicants for positions as Fire Fighters:

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Aaron Cecil  
Stephen Chin  
Matthew McMahon  
Grayson Russell  
James Goff  
Seth Mucha-Kangas  
David Heavey

Town Administrator Mel Kleckner noted that Chief Ward has a relative that is in this group's training program, and he has recused himself from the hiring process. That candidate is not in this current list, but may appear on a future list.

On motion it was,

Voted to offer conditional employment to the following applicants for positions as Fire Fighters:

Aaron Cecil  
Stephen Chin  
Matthew McMahon  
Grayson Russell  
James Goff  
Seth Mucha-Kangas  
David Heavey

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller  
Absent: Bernard Greene

HOLIDAY PARKING WAIVER

Economic Development Director Kara Brewton appeared to request a waiver of metered parking fees on behalf of local merchants and merchant associations for the following events in support of visiting, supporting, and shopping in Brookline business and commercial districts:

November 26, 2016 for Small Business Saturday (all day)  
December 1, 2016 for First Light Festival (5-8pm)

Economic Development Director Kara Brewton reviewed the parking areas and the national Small Business Saturday, an event to promote local shopping.

On motion it was,

Voted to approve a waiver of metered parking fees on behalf of local merchants and merchant associations for the following events in support of visiting, supporting, and

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shopping in Brookline business and commercial districts:

November 26, 2016 for Small Business Saturday (all day)  
December 1, 2016 for First Light Festival (5-8pm)

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller  
Absent: Bernard Greene

### BOARDS AND COMMISSIONS - APPOINTMENTS

Question of making appointments/reappointments to the following Boards, Commissions, and Committees:

Conservation Commission  
9<sup>th</sup> School at Baldwin Project Oversight Committee

#### Conservation Commission

On motion it was,

Voted to appoint Pamela Harvey to a full member of the Conservation Commission for a term ending August 31, 2019 or until a successor can be appointed.

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller  
Absent: Bernard Greene

#### 9th School at Baldwin Project Oversight Committee

Town Administrator Kleckner noted that they have not received the PTO candidates yet for membership review.

This agenda item was held.

### WARRANT ARTICLES

Question of reconsidering the Board's vote on the following Warrant Articles for the November 15, 2016 Special Town Meeting:

Article 4	Tobacco
Article 22	FAR

#### Article 4    Tobacco

Selectman Daly stated that a Tobacco Control Committee has already been assembled

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and met. They have received this revised motion from the petitioner and support it. She noted that the Selectman have previously voted to refer this Article to Committee.

Some highlights in this motion:

- The age to purchase tobacco products is raised to 21.
- The minimum price for cigars would be \$2.50 each.
- Flavored tobacco or e-cigarette products are limited to retail tobacco stores (Brookline has one retail establishment)

Selectman Daly said that these provisions are in-line with neighboring communities. The Tobacco Control Committee will incorporate this Article into their recommendations.

On motion it was,

Voted 4-0 to reconsider Article 4.

Roll Call:

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller

Absent: Bernard Greene

On motion it was,

Voted 4-0 Favorable Action on Article 4 as revised by the petitioner as Supplement No. 1.

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller

Absent: Bernard Greene

*Selectman Greene returned 6:25*

Article 22      FAR

Chairman Wishinsky stated that the Board previously voted favorable action on this Article as proposed by the petitioners. There have been some concerns raised about the zoning districts.

Selectman Heller added that there appears to be a difference of opinion in the interpretation of the Article; the Building Inspector's interpretation differs from others who have reviewed it in relation to "T" districts.

Petitioner Richard Benka explained that the best way to clarify the Article's intent was to divide it into two separate votes.

From explanation:

What the First Vote does not include is By-Law changes that would eliminate the application of the Section 5.22 exemptions (which allow buildings at 120%, 130% or, now, even 150% of the otherwise-allowable FAR) in T, F and M districts. The Second Vote, if approved, would

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eliminate those Section 5.22 exemptions in T, F and M districts. The divided vote poses the issue if Town Meeting wishes to address the T, F and M issue separately.

This would not prevent anyone from finishing attics; it would address large newly created unfinished space that would be pushed over the proposed FAR limit if they were finished. Also considered was non-conformity for existing dwellings.

Conversion of Attic or Basement Space in Single-Family and Two-Family Residential Dwellings.

“Conversions of attics or basements to habitable space for use as part of an existing single- or two-family dwelling, not as a separate dwelling unit, and effectively increasing the gross floor area of the dwelling, shall be allowed as of right in S and SC Districts provided the following conditions are met in addition to the conditions set forth in paragraph 1 of this Section”:

Mr. Benka supports vote 2.

On motion it was,

1. Voted 5-0 to reconsider Article 22.

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller, Bernard Greene

On motion it was,

2. Voted 5-0 To divide the votes for Article 22.

Aye: Neil Wishinsky, Nancy Daly, Benjamin Franco, Nancy Heller, Bernard Greene

3. Voted 5-0 Favorable Action on

### FIRST VOTE –

That the Town amend the Brookline Zoning By-Law as follows (additions appear as underlined bold text; deletions appear with strike-throughs):

#### A. By amending Section 5.09.2 (Design Review, Scope) as follows:

2. Scope.

In the following categories all new structures and outdoor uses, exterior alterations, exterior additions, and exterior modifications or changes, including exterior demolitions, which require a building permit from the building department under the Building Code, shall require a special permit subject to the community and environmental impact and design review procedures and standards hereinafter specified. Exterior alterations, exterior additions and exterior changes

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**(except as provided below)**, including fences, walls, and driveways, to residential uses permitted by right in S, SC, T, and F districts; signs as regulated in §§ 7.02, and 7.03; and regulated facade alterations as defined and regulated in §7.06 shall be exempt from the requirements of this section.

....

j. any exterior addition **or exterior modification** for which a special permit is requested pursuant to §5.22

.....

**n. any construction of newly created space, whether or not habitable, finished or built out, where such space substantially satisfies the requirements for habitability under the State Building Code or could with the addition of windows or doors and without other significant alterations to the exterior of the building be modified to substantially meet such habitability requirements, and which space if finished or built out or converted to habitable space would result in the total Gross Floor Area of the structure being greater than the permitted Gross Floor Area in Table 5.01. In granting any such special permit, the Board of Appeals, in addition to the requirements of §5.09 and §§9.03 to 9.05, shall be required to find that the massing, scale, footprint, and height of the building are not substantially greater than, and that the setbacks of the building are not substantially less than, those of abutting structures and of other structures conforming to the zoning by-law on similarly sized lots in the neighborhood. In granting a special permit for construction of such non-habitable space, the Board of Appeals shall set forth as a condition of the special permit the extent to which such space may or may not be converted to habitable space in the future pursuant to Section 5.22 or otherwise, with the allowed future conversion to habitable space no greater than the applicant's representation of the intended amount of future conversion.**

### B. By amending Section 5.09.3.c.4 (Procedure, Photographs) as follows:

4. Photographs – Photographs show the proposed building site and surrounding properties, and of the model (if required). Applications for alterations, **modifications** and additions shall include photographs showing existing structure or sign to be altered and its relationship to adjacent properties.

### C. By amending Section 5.09.4.c (Design Review Standards, Relation to Streetscape) as follows:

c. Relation of Buildings to the Form of the Streetscape and Neighborhood—Proposed development shall be consistent with the use, scale, **massing, height,** yard setbacks and architecture of existing buildings and the overall streetscape of the surrounding area, **including existing abutting buildings and existing buildings that conform to the zoning by-law on lots of similar size in the neighborhood.** The Board of Appeals may require modification in massing, **scale, height, setbacks** or design so as to make the proposed building more consistent with the form of **such existing buildings and** the existing streetscape, and may rely upon data gathered that documents the character of the existing streetscape in making such a determination. Examples of changes that may be required include addition of bays or roof types consistent with

those nearby; alteration of the **massing, scale, setbacks and** height of the building to more closely match **such** existing buildings **and the existing streetscape**, or changes to the fenestration. The street level of a commercial building should be designed for occupancy and not for parking. Unenclosed street level parking along the frontage of any major street as listed in paragraph 2., subparagraph a. of this section is strongly discouraged. Otherwise, street level parking should be enclosed or screened from view.

**D. By amending Sections 5.22.1.a, 5.22.1.b and 5.22.1.c (Exceptions to Maximum Floor Area Ratio (FAR) Regulations for Residential Units, General Provisions) as follows:**

- a. Any expanded unit (individual residential units subject to an increase in gross floor area as per this Section) shall not be eligible to be subsequently divided into multiple units. **If the limitations set forth in this paragraph 1, subparagraph a, or the limitations in paragraph 2 regarding separate dwelling units, should be found to be invalid, § 5.22 shall be deemed null and void in its entirety, and no increase in gross floor area shall be allowed pursuant to § 5.22.**
- b. Insofar as practicable, the additional floor area allowed pursuant to this Section shall be located and designed so as to minimize the adverse impact on abutting properties and ways, and interior conversions shall be considered preferable to exterior additions. **Any exterior additions or modifications shall further comply with the provisions of §5.09, including §5.09.4.c, §§ 9.03 to 9.05, and this Section. The limitations and standards set forth in such provisions shall also guide the Zoning Board of Appeals in determining under G.L. c.40A, §6 whether a change, extension or alteration is substantially more detrimental to the neighborhood than an existing nonconforming use.**
- c. Additional floor area shall be allowed pursuant to this Section only if the Certificate of Occupancy for the original construction was granted at least ten years prior to the date of the application for additional gross floor area under this section or if there is other evidence of lawful occupancy at least ten years prior to the date of such application. **In the case of the substantial demolition of a structure or of an increase in the number of units, the time period prior to such demolition or unit increase shall not be counted toward the required ten-year waiting period, and the ten-year waiting period shall be deemed to commence with the grant of a new Certificate of Occupancy after such demolition or unit increase. As used in this paragraph 1, subparagraph c, “substantial demolition” shall mean the act of pulling down, destroying, removing or razing a structure or a significant portion thereof, by removing one or more sides of the structure, or removing the roof, or removing 25% or more of the structure.** If the limitation set forth in this paragraph 1, subparagraph c should be found to be invalid, § 5.22 shall be deemed null and void in its entirety, and no increase in gross floor area shall be allowed pursuant to § 5.22.

In Board of Selectmen  
Tuesday, November 15, 2016  
Page 9 of 10

**E. By amending Section 5.22.2 (Exceptions to Maximum Floor Area Ratio (FAR) Regulations for Residential Units, Conversion of Attic or Basement Space) as follows:**

2. Conversion of Attic or Basement Space in Single-Family and Two-Family Residential Dwellings.

Conversions of attics or basements to habitable space for use as part of an existing single- or two-family dwelling, not as a separate dwelling unit, and effectively increasing the gross floor area of the dwelling, shall be allowed ~~as-of-right~~, provided the following conditions are met in addition to the conditions set forth in paragraph 1 of this Section:

a. Any exterior modifications that are made to the structure to accommodate the conversion shall be subject to **the procedures, limitations, and conditions specified in §5.09, §§9.03 to 9.05, and this Section.** ~~the façade and sign design review process as provided in §7.06, paragraph 1 of the Zoning Bylaw.~~ No exterior modifications made under the provisions of this subparagraph may project above the ridge of the roof nor project beyond the eaves.

b. Any increase in gross floor area through such basement or attic conversion shall be limited such that the total resulting gross floor area of the building(s) after such conversion is no more than **130%** ~~150%~~ of the total permitted in Table 5.01 (the “permitted gross floor area”).

**F. By amending Sections 5.22.3.a., 5.22.3.a.1 and 5.22.3.a.2 (Special Permit for Exceeding Gross Floor Area for Residential Dwellings) as follows:**

a. The Board of Appeals may allow, by special permit, a maximum gross floor area greater than permitted gross floor area for an existing residential building(s) on a single lot, subject to the procedures, limitations, and conditions specified in §5.09, **§§9.03 to 9.05**, and this Section for an existing residential building which meets the following basic requirements:

- 1) The existing building(s) is located on a lot (or part of a lot) in a district with a permitted maximum floor area ratio no greater than 1.5.
- 2) The existing building contains at least one residential unit but no more than ~~four~~ **two** total units. For the purpose of this paragraph 3, subparagraph (a)(2), total units shall be defined to include all residential dwellings, offices, and commercial spaces within the building.

**G. By amending Section 7.06.1.c (Regulated Façade Alterations) as follows:**

~~Conversion of attic or basement space in Single Family and Two Family Residential Dwellings where exterior modifications beyond that required by the State building code are made.~~

4. On motion it was,  
**SECOND VOTE --**

## A. - 33

In Board of Selectmen  
Tuesday, November 15, 2016  
Page 10 of 10

VOTED: That the Town amend the Brookline Zoning By-Law as follows (additions appear as underlined bold text; deletions appear with strike-throughs; changes from First Vote are shaded):

**H. By amending Section 5.22.2 (Exceptions to Maximum Floor Area Ratio (FAR) Regulations for Residential Units, Conversion of Attic or Basement Space) as follows:**

2. Conversion of Attic or Basement Space in Single-Family and Two-Family Residential Dwellings.

Conversions of attics or basements to habitable space for use as part of an existing single- or two-family dwelling, not as a separate dwelling unit, and effectively increasing the gross floor area of the dwelling, shall be allowed ~~as of right~~ **in S and SC Districts** provided the following conditions are met in addition to the conditions set forth in paragraph 1 of this Section:

**I. By amending Sections 5.22.3.a.1 (Special Permit for Exceeding Gross Floor Area for Residential Dwellings) as follows:**

a. The Board of Appeals may allow, by special permit, a maximum gross floor area greater than permitted gross floor area for an existing residential building(s) on a single lot, subject to the procedures, limitations, and conditions specified in §5.09, ~~§§9.03 to 9.05~~, and this Section for an existing residential building which meets the following basic requirements:

1) The existing building(s) is located on a lot (or part of a lot) in ~~a~~ **an S or SC District with a permitted maximum floor area ratio no greater than 1.5.**

**J. By amending Section 5.22.3.b.2 as follows:**

~~In all T, F, M-0.5, M-1.0, and M-1.5 Districts, a special permit may be granted for an increase in floor area that is less than or equal to 20% of the permitted gross floor area, whether it be for an exterior addition, interior conversion, or a combination of the two. The total increase in floor area granted by special permit for all applications made under this paragraph 3, subparagraph (b)(2), or any prior version of Section 5.22, shall not exceed 20% of the permitted gross floor area.~~

WARRANT ARTICLES

Further review and possible reconsideration of the Board's vote on Warrant Articles for the November 15, 2016 Special Town Meeting.

No other Articles taken up.

There being no further business, the Chair adjourned the meeting at 6:45 p.m.

ATTEST



**Stephanie Orsini**

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**From:** Ruthann Dobek  
**Sent:** Thursday, November 17, 2016 11:43 AM  
**To:** Stephanie Orsini  
**Subject:** FW: GrantsPlus+: Competitive Application: Approval Notice

Stephanie,  
Please see the approval notice below.

**From:** [system@blackcatgrants.com](mailto:system@blackcatgrants.com) [<mailto:system@blackcatgrants.com>]  
**Sent:** Wednesday, June 22, 2016 10:33 AM  
**To:** Ruthann Dobek  
**Subject:** GrantsPlus+: Competitive Application: Approval Notice

Dear **Town of Brookline**,

Congratulations! I am pleased to notify you that **Town of Brookline** has been competitively selected to receive a State Fiscal Year 2017 **Section 5310: Enhanced Mobility for Seniors and Individuals with Disabilities** grant for **MOBILITY MANAGEMENT (5302(A)(1)(L)) (BCG0005232)** in the amount of **\$102,012**. The grant funds will be used for State Fiscal Year 2017 transit service/improvements as part of the annual Community Transit Grant Program. I want to thank you for your commitment to improving transportation options across the commonwealth. Through this funding and your continued support, we hope to ensure meaningful transportation options continue to be provided across the commonwealth, as they serve as an essential component to our economic success.

You will be receiving further instructions from the Massachusetts Department of Transportation on next steps, and please feel free to contact Michael J. Lambert, ([michael.j.lambert@state.ma.us](mailto:michael.j.lambert@state.ma.us)) if you have any questions.

Sincerely,

Governor Charles D. Baker

Lt. Governor Karyn E. Polito

The substance of this message, including any attachments, may be confidential, legally privileged and/or exempt from disclosure pursuant to Massachusetts law. It is intended solely for the addressee. If you received this in error, please contact the sender and delete the material from any computer.

**Massachusetts Department of Transportation  
CONTRACTOR AUTHORIZED SIGNATORY LISTING**



**CONTRACTOR LEGAL NAME:**  
**CONTRACTOR VENDOR/CUSTOMER CODE: VC**

**INSTRUCTIONS:** Any Contractor (other than a sole-proprietor or an individual contractor) must provide a listing of individuals who are authorized as legal representatives of the Contractor who can sign contracts and other legally binding documents related to the contract on the Contractor's behalf. In addition to this listing, any state department may require additional proof of authority to sign contracts on behalf of the Contractor, or proof of authenticity of signature (a notarized signature that the Department can use to verify that the signature and date that appear on the Contract or other legal document was actually made by the Contractor's authorized signatory, and not by a representative, designee or other individual.)

**NOTICE:** *Acceptance of any payment under a Contract or Grant shall operate as a waiver of any defense by the Contractor challenging the existence of a valid Contract due to an alleged lack of actual authority to execute the document by the signatory.*

For privacy purposes **DO NOT ATTACH** any documentation containing personal information, such as bank account numbers, social security numbers, driver's licenses, home addresses, social security cards or any other personally identifiable information that you do not want released as part of a public record. The Commonwealth reserves the right to publish the names and titles of authorized signatories of contractors.

AUTHORIZED SIGNATORY NAME	TITLE

I certify that I am the President, Chief Executive Officer, Chief Fiscal Officer, Corporate Clerk or Legal Counsel for the Contractor and as an authorized officer of the Contractor I certify that the names of the individuals identified on this listing are current as of the date of execution below and that these individuals are authorized to sign contracts and other legally binding documents related to contracts with the Commonwealth of Massachusetts on behalf of the Contractor. I understand and agree that the Contractor has a duty to ensure that this listing is immediately updated and communicated to any state department with which the Contractor does business whenever the authorized signatories above retire, are otherwise terminated from the Contractor's employ, have their responsibilities changed resulting in their no longer being authorized to sign contracts with the Commonwealth or whenever new signatories are designated.

\_\_\_\_\_  
Signature

Date:

Title:

Telephone:

Fax:

Email:

[Listing can not be accepted without all of this information completed.]

A copy of this listing must be attached to the "record copy" of a contract filed with the department.

**Massachusetts Department of Transportation  
CONTRACTOR AUTHORIZED SIGNATORY LISTING**



CONTRACTOR LEGAL NAME:  
CONTRACTOR VENDOR/CUSTOMER CODE: VC

**PROOF OF AUTHENTICATION OF SIGNATURE**

**It is a requirement of MassDOT to obtain authentication of signatures  
for all signatories listed on the attached Contractor Authorized Listing**

**This Section MUST be completed by the Contractor Authorized Signatory in presence of notary.**

Signatory's full legal name (print or type):

Title:

**X**

Signature as it will appear on contract or other document (Complete only in presence of notary):

**AUTHENTICATED BY NOTARY OR CORPORATE CLERK (PICK ONLY ONE) AS FOLLOWS:**

I, \_\_\_\_\_ (NOTARY) as a notary public certify that I witnessed the signature of the  
aforementioned signatory above and I verified the individual's identity on this date:

\_\_\_\_\_, 20 \_\_\_\_.

My commission expires on:

**AFFIX NOTARY SEAL**

I, \_\_\_\_\_ (CORPORATE CLERK) certify that I witnessed the signature of the  
aforementioned signatory above, that I verified the individual's identity and confirm the individual's authority as an  
authorized signatory for the Contractor on this date:

\_\_\_\_\_, 20 \_\_\_\_.

**AFFIX CORPORATE SEAL**





TOWN OF BROOKLINE  
*Massachusetts*  
DEPARTMENT OF PUBLIC WORKS

Andrew M. Pappastergion  
Commissioner

November 16, 2016

Board of Selectmen  
Town Hall  
Brookline, MA 02445

Dear Board Members:

Pursuant to the requirements of the Federal Disaster Mitigation Act of 2000, all communities applying to receive FEMA funding for hazard mitigation grants must adopt a local Multi-Hazard Mitigation Plan. To accomplish this goal, the Metropolitan Area Planning Council (MAPC) received a grant from FEMA to prepare a regional plan for Brookline, Boston and seven other abutting communities. The regional plan includes a local annex for each community that details specific data for that community and must be updated in five (5) year intervals.

Hazard mitigation planning is the process of determining how to reduce the loss of life and property damage resulting from natural disasters that include floods, hurricanes, severe storms and earthquakes. Long term strategies are developed that include planning, policy changes, programs and capital projects that will allow the community to achieve the intended goal.

The attached *Town of Brookline Hazard Mitigation Plan 2016 Update* provides detailed analysis of each natural disaster category relative to the severity and occurrence frequency for the Town and includes specific mitigation measures for potential events. The most prevalent hazards for Brookline were identified as flooding and winter storms with lesser hazards identified for hurricane and severe storm events. Mitigation measures listed for these events are included in the *Update* and are continually evaluated by the Emergency Management Team.

The final step required by FEMA is the execution of a formal resolution by the Board of Selectmen for adoption of the 2016 Plan Update. Once received, FEMA will approve the local plan for a five year period. On behalf of the Emergency Management Team and Chief Daniel O'Leary, your approval is respectfully requested.

Sincerely,

  
Andrew M. Pappastergion  
Commissioner of Public Works

Cc: Melvin Kleckner, Town Administrator  
Daniel O'Leary, Chief of Police





# TOWN of BROOKLINE *Massachusetts*



**BOARD OF SELECTMEN**

NEIL A. WISHINSKY, Chairman  
NANCY A. DALY  
BENJAMIN J. FRANCO  
NANCY S. HELLER  
BERNARD W. GREENE

MELVIN A. KLECKNER  
Town Administrator

333 WASHINGTON STREET  
BROOKLINE, MASSACHUSETTS 02445

(617) 730-2200  
FAX: (617) 730-2054  
[www.BrooklineMA.gov](http://www.BrooklineMA.gov)

## **A RESOLUTION ADOPTING THE TOWN OF BROOKLINE HAZARD MITIGATION PLAN 2016 UPDATE**

*WHEREAS*, the Town of Brookline established a Committee to prepare the *Town of Brookline Hazard Mitigation Plan 2016 Update*; and

*WHEREAS*, the *Town of Brookline Hazard Mitigation Plan 2016 Update* contains several potential future projects to mitigate potential impacts from natural hazards in the Town of Brookline; and

*WHEREAS*, duly-noticed public meetings were held by the EMERGENCY MANAGEMENT TEAM on March 27, 2014, and June 9, 2016; and

*WHEREAS*, the Town of Brookline authorizes responsible departments and/or agencies to execute their responsibilities demonstrated in the plan; and

*NOW, THEREFORE BE IT RESOLVED* that the Town of Brookline BOARD OF SELECTMEN adopts the *Town of Brookline Hazard Mitigation Plan 2016 Update*, in accordance with M.G.L. 40 §4 or the charter and bylaws of the Town of Brookline.

**ADOPTED this the 22<sup>nd</sup> Day of November, 2016.**

**BY THE BROOKLINE BOARD OF SELECTMEN**

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# TOWN OF BROOKLINE HAZARD MITIGATION PLAN 2016 UPDATE



Final Plan  
FEMA Approval Pending Adoption  
October 19, 2016



**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

**ACKNOWLEDGEMENTS AND CREDITS**

This plan was prepared for the Town of Brookline by the Metropolitan Area Planning Council (MAPC) under the direction of the Massachusetts Emergency Management Agency (MEMA) and the Massachusetts Department of Conservation and Recreation (DCR). The plan was funded by the Federal Emergency Management Agency's (FEMA) Pre-Disaster Mitigation (PDM) Grant Program.

**MAPC Officers**

President:	Keith Bergman
Vice President:	Erin Wortman
Secretary:	Sandra Hackman
Treasurer:	Taber Keally
Executive Director:	Marc. D. Draisen

**Credits**

Project Manager and Lead Project Planner:	Martin Pillsbury
Mapping/GIS Services:	Susan Brunton Eliza Wallace Francisco Rodriguez

**Massachusetts Emergency Management Agency**  
Director: Kurt Schwartz

**Department of Conservation and Recreation**  
Commissioner: Leo Roy

**Brookline Local Hazard Mitigation Planning Team**

Alan Balsam	Department of Public Health
Dan Bennett	Building Department
Thomas Brady	DPW, Arborist
Paul D. Ford	Fire Department, Chief
Lara Curtis Hayes	Planning Department
Dan O'Leary	Police Department, Chief
Bill McGroarty	Veterans Services
Andrew Pappastergion	Department of Public Works, Commissioner
Michael Raskin	Police Department
Alison Steinfeld	Planning Department

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

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**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

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**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

**I. EXECUTIVE SUMMARY**

Hazard Mitigation planning is a proactive effort to identify actions that can be taken to reduce the dangers to life and property from natural hazard events. In the communities of the Boston region of Massachusetts, hazard mitigation planning tends to focus most on flooding, the most likely natural hazard to impact these communities. The Federal Disaster Mitigation Act of 2000 requires all municipalities that wish to be eligible to receive FEMA funding for hazard mitigation grants, to adopt a local multi-hazard mitigation plan and update this plan in five year intervals.

**Planning Process**

Planning for the Hazard Mitigation Plan update was led by the Brookline Local Hazard Mitigation Planning Team, composed of staff from a number of different Town Departments. This team met on October , 2013, and October 10, 2014 and discussed where the impacts of natural hazards most affect the Town, goals for addressing these impacts, updates to the Town's existing mitigation measures and new or revised hazard mitigation measures that would benefit the Town.

Public participation in this planning process is important for improving awareness of the potential impacts of natural hazards and to build support for the actions the Town takes to mitigate them. The Town's Emergency Management Team hosted two public meetings, the first on March 27 2014 and the second on June 9, 2015, and the draft plan update was posted on the Town's website for public review. Key town stakeholders and neighboring communities were notified and invited to review the draft plan and submit comments. Comments were received from members of the Selectmen's Climate Action Committee regarding updates to the Town's *2012 Climate Action Plan*, which were incorporated into the final draft of this plan update.

**Risk Assessment**

The Brookline Hazard Mitigation Plan assesses the potential impacts to the Town from flooding, high winds, winter storms, brush fire, geologic hazards, extreme temperatures, and drought. Flooding, driven by hurricanes, northeasters and other storms, clearly presents the greatest hazard to the Town, most especially in the Muddy River. These are shown on the map series (Appendix B).

The Brookline Local Hazard Mitigation Planning Team identified 126 Critical Facilities. These are also shown on the map series and listed in Table 21, identifying which facilities are located within the mapped hazard zones.

A HAZUS-MH analysis provided estimates of damages from Hurricanes of category 2 and 4 (\$51 million to \$209 million as well as earthquakes of magnitudes 5 and 7 (\$825 million to \$9.1 billion). Flood damage estimates range from \$41 million to \$208 million.

**Hazard Mitigation Goals**

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

The Brookline Local Hazard Mitigation Planning Team identified the following hazard mitigation goals for the Town:

**Goal 1: Ensure that critical infrastructure sites and functions are protected from natural hazards.**

- Ensure that emergency communication facilities are protected from hazards.
- Ensure that flooding in areas near critical infrastructure does not worsen.

**Goal 2: Work with surrounding communities to ensure regional cooperation and to mitigate those hazards that affect multiple communities.**

- Work with other communities in the region to plan evacuation routes and improve the sharing of information related to transportation systems.
- Seek opportunities to partner with other communities or state and regional entities to mitigate larger and/or regional natural hazards.

**Goal 3: Make efficient use of public funds for hazard mitigation.**

- Prioritize resources to those areas with greatest impacts or potential for greatest impacts.
- Encourage state agencies to allocate resources to areas most affected and most vulnerable to natural hazards.
- Encourage private property-owners to take steps to protect their properties from various natural hazards.

**Goal 4: Ensure that the transportation system can function before, during and after a natural disaster or event.**

- Ensure that major evacuation routes, such as Route 9 and Beacon Street, are protected from natural hazards.
- Work with neighboring communities, DCR, MassDOT the MBTA, and others to ensure that the transportation system can withstand various natural hazards.

**Goal 5: Complete the Muddy River Restoration Project.**

- Continue to seek financial assistance and support to complete this critical project.

**Goal 6: Increase resilience by protecting and enhancing natural resources**

- Make green infrastructure a central part of the Town's development strategy
- Protect natural areas to ensure that they buffer impacts to built areas during a natural disaster.
- Protect and increase urban tree canopy
- Manage stormwater with Low Impact Development techniques
- Preserve and restore the functions of natural resource systems such as wetlands.
- Promote green roofs and cool roofs
- Encourage future development in areas that are not prone to natural hazards.

**Hazard Mitigation Strategy**

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

The Brookline Local Hazard Mitigation Planning Team identified a number of mitigation measures that would serve to reduce the Town’s vulnerability to natural hazard events. The most important of these is the Muddy River Flood Damage Reduction and Environmental Restoration Project, a cooperative project involving the US Army Corps of Engineers, the Town of Brookline, the City of Boston, and the Commonwealth of Massachusetts. This project will address the only part of Brookline that experiences severe flooding impacts, and will also restore the quality of an urban waterway that is integral to the renowned “Emerald Necklace” greenway designed by Frederick Law Olmstead.

Overall, the hazard mitigation strategy recognizes that mitigating hazards for Brookline will be an ongoing process as our understanding of natural hazards and the steps that can be taken to mitigate their damages changes over time. Global climate change and a variety of other factors impact the Town’s vulnerability and in the future, and local officials will need to work together across municipal lines and with state and federal agencies in order to understand and address these changes. The Hazard Mitigation Strategy will be incorporated into the Town’s other related plans and policies.

**Plan Review and Update Process**

**Table 1 Plan Review and Update**

Chapter	Reviews and Updates
III – Public Participation	The Local Hazard Mitigation Planning Team placed an emphasis on public participation for the update of the Hazard Mitigation Plan, discussing strategies to enhance participation opportunities at the first local committee meeting. During plan development, the plan was discussed at two public meetings hosted by the Emergency Management Team. The plan was also available on the Town’s website for public comment. Comments received from the Climate Action Committee were incorporated into the plan.
IV – Risk Assessment	MAPC gathered the most recently available hazard and land use data and met with Town staff to identify changes in local hazard areas and development trends. Town staff reviewed critical infrastructure with MAPC staff in order to create an up-to-date list. MAPC also used the most recently available version of HAZUS and assessed the potential impacts of flooding using the latest data.
V - Goals	The Hazard Mitigation Goals were reviewed and endorsed by the Brookline Local Hazard Mitigation Planning Team.
VI – Existing Mitigation Measures	The list of existing mitigation measures was updated to reflect current mitigation activities in the Town.
VII & VIII – Hazard	Mitigation measures from the 2008 plan were reviewed and assessed as to whether they were completed, in-progress, or deferred. The

TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE

Mitigation Strategy	Local Hazard Mitigation Planning Team determined whether to carry forward measures into the 2016 Plan Update or modify or delete them. The Plan Update's hazard mitigation strategy reflects both new measures and measures carried forward from the 2008 plan. The Local Hazard Mitigation Team prioritized all of these measures based on current conditions.
IX – Plan Adoption & Maintenance	This section of the plan was updated with a new on-going plan implementation review and five year update process that will assist the Town in incorporating hazard mitigation issues into other Town planning and regulatory review processes and better prepare the Town for the next comprehensive plan update.

As indicated on Table 26, Brookline made some progress on implementing mitigation measures identified in the 2008 Hazard Mitigation Plan. Several projects have been completed, including flood proofing of the Water and Sewer Garage and Lynch Center near the Muddy River, separation of stormwater and sanitary sewers at Brook Street, drainage improvement in the Capital Investment Program, and protection of trees during construction activities. Other projects were partially completed, most notably Phase 1 of the Muddy River Project, as well as implementing the town's Stormwater Management Plan, removal of Inflow and Infiltration near Saw Mill Brook and the High School, preventative tree trimming, and implementing a ban on outdoor burning. These mitigation measures will be continued in this 2016 Plan Update

Several projects that were not completed will also be continued into this plan update, most notably Phase 2 of the Muddy River Flood Damage Reduction project as well as the Phase 2 Environmental Restoration components. The federal share of funding for the latter project has not yet been provided, and the Town of Brookline, City of Boston, and Commonwealth of Massachusetts are working to secure federal funding for this project.

Moving forward into the next five year plan implementation period there will be many more opportunities to incorporate hazard mitigation into the Town's decision making processes.

Though not formally done in the 2008 Plan, the Town will document any actions taken within this iteration of the Hazard Mitigation Plan on challenges met and actions successfully adopted as part of the ongoing plan maintenance to be conducted by the Brookline Hazard Mitigation Implementation Team, as described in Section IX, Plan Adoption and Maintenance.

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

**II. INTRODUCTION**

**Planning Requirements under the Federal Disaster Mitigation Act**

The Federal Disaster Mitigation Act, passed in 2000, requires that after November 1 2004, all municipalities that wish to continue to be eligible to receive FEMA funding for hazard mitigation grants, must adopt a local multi-hazard mitigation plan and update this plan in five year intervals. This planning requirement does not affect disaster assistance funding.

Federal hazard mitigation planning and grant programs are administered by the Federal Emergency Management Agency (FEMA) in collaboration with the states. These programs are administered in Massachusetts by the Massachusetts Emergency Management Agency (MEMA) in partnership with the Department of Conservation and Recreation (DCR).

Massachusetts has taken a regional approach and has encouraged the regional planning agencies to apply for grants to prepare plans for groups of their member communities. The Metropolitan Area Planning Council (MAPC) received a grant from the Federal Emergency Management Agency (FEMA) under the Pre-Disaster Mitigation (PDM) Program, to assist the Town of Brookline and seven other Inner Core urban communities to update their local Hazard Mitigation Plans, which were first adopted in 2008 as a multijurisdictional plan. Though the multi-jurisdictional hazard mitigation model is no longer being used, an Inner Core Regional Hazard Mitigation Committee still served as a sounding board to address multi-jurisdictional and regional issues. The local Hazard Mitigation Plan updates produced under this grant are designed to individually meet the requirements of the Disaster Mitigation Act for each community while listing regional concerns and hazards that impact the town or city creating the plan.

**What is a Hazard Mitigation Plan?**

Natural hazard mitigation planning is the process of determining how to systematically reduce or eliminate the loss of life and property damage resulting from natural hazards such as floods, earthquakes, and hurricanes. Hazard mitigation means to permanently reduce or alleviate the losses of life, injuries, and property resulting from natural hazards through long-term strategies. These long-term strategies include planning, policy changes, programs, projects, and other activities.

**Previous Federal/State Disasters**

The Town of Brookline has experienced 19 natural hazards that triggered federal or state disaster declarations since 1991. These are listed in Table 2 below. The majority of these events involved flooding, while five were due to hurricanes or nor'easters, and four were due to severe winter weather.

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Table 2 Previous Federal/State Disaster Declarations

DISASTER NAME (DATE OF EVENT)	TYPE OF ASSISTANCE	DECLARED AREAS
Hurricane Bob (August 1991)	FEMA Public Assistance Project Grants	Counties of Barnstable, Bristol, Dukes, Essex, Hampden, Middlesex, Plymouth, Nantucket, Norfolk, Suffolk
	Hazard Mitigation Grant Program	Counties of Barnstable, Bristol, Dukes, Essex, Hampden, Middlesex, Plymouth, Nantucket, Norfolk, Suffolk (16 projects)
No-Name Storm (October 1991)	FEMA Public Assistance Project Grants	Counties of Barnstable, Bristol, Dukes, Essex, Middlesex, Plymouth, Nantucket, Norfolk
	FEMA Individual Household Program	Counties of Barnstable, Bristol, Dukes, Essex, Middlesex, Plymouth, Nantucket, Norfolk
	Hazard Mitigation Grant Program	Counties of Barnstable, Bristol, Dukes, Essex, Middlesex, Plymouth, Nantucket, Norfolk, Suffolk (10 projects)
March Blizzard (March 1993)	FEMA Public Assistance Project Grants	All 14 Counties
January Blizzard (January 1996)	FEMA Public Assistance Project Grants	All 14 Counties
May Windstorm (May 1996)	State Public Assistance Project Grants	Counties of Plymouth, Norfolk, Bristol
October Flood (October 1996)	FEMA Public Assistance Project Grants	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk
	FEMA Individual Household Program	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk
	Hazard Mitigation Grant Program	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk (36 projects)

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<b>DISASTER NAME (DATE OF EVENT)</b>	<b>TYPE OF ASSISTANCE</b>	<b>DECLARED AREAS</b>
1997	Community Development Block Grant-HUD	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk
June Flood (June 1998)	FEMA Individual Household Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
	Hazard Mitigation Grant Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester (19 projects)
(1998)	Community Development Block Grant-HUD	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
March Flood (March 2001)	FEMA Individual Household Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
	Hazard Mitigation Grant Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester (16 projects)
February Snowstorm (Feb 17-18, 2003)	FEMA Public Assistance Project Grants	All 14 Counties
January Blizzard (January 22-23, 2005)	FEMA Public Assistance Project Grants	All 14 Counties
Hurricane Katrina (August 29, 2005)	FEMA Public Assistance Project Grants	All 14 Counties
May Rainstorm/Flood (May 12-23, 2006)	Hazard Mitigation Grant Program	Statewide
April Nor'easter (April 15-27, 2007)	Hazard Mitigation Grant Program	Statewide
Flooding (March, 2010)	FEMA Public Assistance FEMA Individuals and Households Program SBA Loan	Bristol, Essex, Middlesex, Suffolk, Norfolk, Plymouth, Worcester
	Hazard Mitigation Grant Program	Statewide

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<b>DISASTER NAME (DATE OF EVENT)</b>	<b>TYPE OF ASSISTANCE</b>	<b>DECLARED AREAS</b>
Tropical Storm Irene (August 27-28, 2011)	FEMA Public Assistance	Statewide
Hurricane Sandy (October 27-30, 2012)	FEMA Public Assistance	Statewide
Severe snowstorm and Flooding (February 8-09, 2013)	FEMA Public Assistance; Hazard Mitigation Grant Program	Statewide
Blizzard of 2015 (January 26-28, 2015)	FEMA Public Assistance; Hazard Mitigation Grant Program	Statewide

Source: database provided by MEMA)

**FEMA Funded Mitigation Projects**

Town of Brookline has received funding from FEMA for three mitigation projects under the Hazard Mitigation Grant Program (HMGP). These projects totaled \$84.7 million, with \$51.5 million covered by FEMA grants and \$21.2 million by local funding. The projects are summarized in Table 3 below.

**Table 3 FEMA-Funded Mitigation Projects**

<b>Grant</b>	<b>Project Title</b>	<b>Scope of Work</b>	<b>Total Cost</b>	<b>Federal Funding</b>	<b>Local Funding</b>
HMGP 1142-07	Tannery Brook Drainage Improvement	Sealing of abandoned CSOs to prevent surcharging of Muddy River floodwaters.	\$38,500.00	\$17,986.00	\$9,625.00
HMGP 1142-08	Brook Street Backflow Prevention	Design services for a sewer separation project in the Brook street neighborhood	\$38,280.00	\$28,710.00	\$9,570.00
HMGP 1224-16	Manhole Pressurization Project	Install 7 watertight manhole frames and covers to prevent sewer surcharging.	\$7,900.00	\$4,772.59	\$1,975.00

(Source: database provided by MEMA)

**Community Profile**

The Town of Brookline – which was created by a number of land grants by neighboring Boston – was incorporated in 1705. At the time, the town was primarily agricultural. With good transportation access to Boston, Brookline emerged as a “suburb” to Boston.

Brookline is located in Norfolk County. The town is bordered by Boston to the north, east and south and by Newton to the west. The Massachusetts Turnpike traverses the

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northern section of the town. Brookline is served by four bus routes and the C and D lines of the MBTA Green Line. State Routes include 9 and 30.

The town is 6.8 square miles and in 2010 was home to 58,732 persons, with 26,448 housing units. Just over half of the housing units were built before 1940. According to the town's Comprehensive Plan, there are 2,500 businesses in Brookline. Table 4 provides key Brookline population and housing stock characteristics. Three quarters of the town is zoned for single-family residences. Brookline is home to a number of institutional uses including museums, private elementary schools, and colleges.

Public water supply and wastewater services are provided by the Massachusetts Water Resources Authority, a regional wholesale provider to over 50 cities and towns.

The town has a Town Meeting – Selectman form of government. The Town Administrator, appointed by the Selectmen, carries out the day-to-day governing functions of the town. The town's website is at <http://www.brooklinema.gov>

Challenges facing Brookline when planning for natural disasters include:

- Over half of the housing units are old (built before modern building codes)
- Over half of the units are renter-occupied
- 23% of households do not own a car, posing challenges for evacuations
- Almost 10% have limited English skills
- The town is densely populated
- Brookline has aging infrastructure that is costly to maintain, repair and upgrade

**Table 4 - Brookline Characteristics**

<p>Population = 58,732</p> <ul style="list-style-type: none"> <li>• 5.5% are under age 5</li> <li>• 17.7% are under age 18</li> <li>• 12.8% are over age 65</li> <li>• 9.6% speak English less than "very well" (over age 5)</li> <li>• 23.2% of households have no vehicle</li> <li>• 12.3% have a disability (over age 5)</li> <li>• 3.2% live in group quarters</li> </ul> <p>Number of Housing Units = 26,482</p> <ul style="list-style-type: none"> <li>• 50.4% are renter-occupied housing units</li> <li>• 54.7% of housing units were built before 1940</li> </ul>
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Source: U.S. Census, 2010 and American Community Survey 2013.

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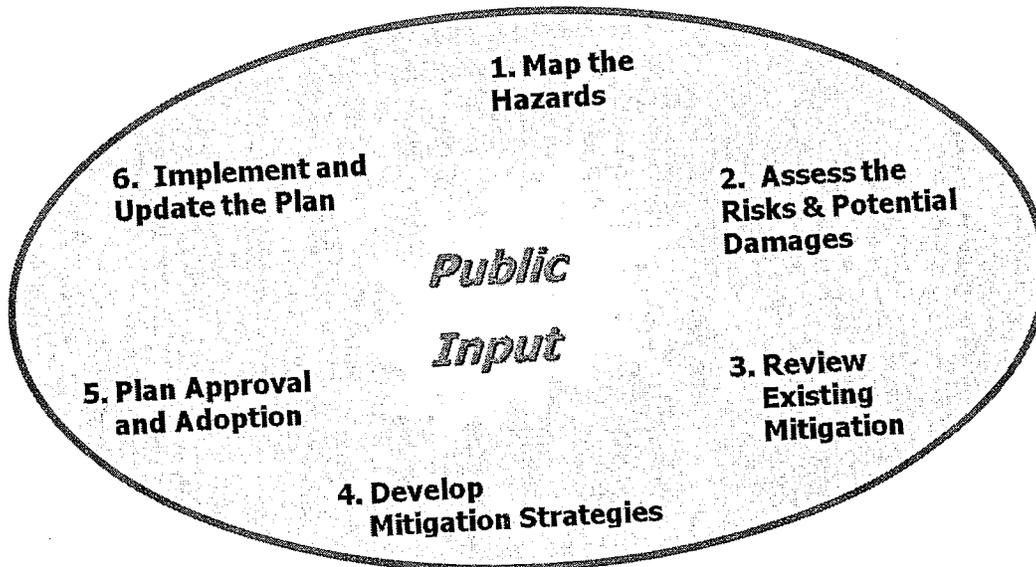
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**III. PLANNING PROCESS AND PUBLIC PARTICIPATION**

MAPC employs a six step planning process based on FEMA's hazard mitigation planning guidance focusing on local needs and priorities but maintaining a regional perspective matched to the scale and nature of natural hazard events. Public participation is a central component of this process, providing critical information about the local occurrence of hazards while also serving as a means to build a base of support for hazard mitigation activities. MAPC supports participation by the general public and other plan stakeholders through Regional and Local Hazard Mitigation Planning Teams, two public meetings hosted by the local Hazard Mitigation Team, posting of the plan to the Town's website, and invitations sent to neighboring communities, Town boards and commissions, the local chamber of commerce, and other local or regional entities to review the plan and provide comment.

**Planning Process Summary**

The six-step planning process outlined below is based on the guidance provided by FEMA in the Local Multi-Hazard Mitigation Planning Guidance. Public participation is a central element of this process, which attempts to focus on local problem areas and identify needed mitigation measures based on where gaps occur in the existing mitigation efforts of the municipality. By working on municipal hazard mitigation plans in groups of neighboring cities and towns, MAPC is able to identify regional opportunities for collaboration and facilitate communication between communities. In plan updates, the process described below allows staff to bring the most recent hazard information into the plan, including new hazard occurrence data, changes to a municipality's existing mitigation measures, and progress made on actions identified in previous plans.



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- Map the Hazards – MAPC relies on data from a number of different federal, state, and local sources in order to map the areas with the potential to experience natural hazards. This mapping represents a multi-hazard assessment of the municipality and is used as a set of base maps for the remainder of the planning process. A particularly important source of information is the knowledge drawn from local municipal staff on where natural hazard impacts have occurred, which is collected. These maps can be found in Appendix B.
- Assess the Risks & Potential Damages – Working with local staff, critical facilities, infrastructure, vulnerable populations, and other features are mapped and contrasted with the hazard data from the first step to identify those that might represent particular vulnerabilities to these hazards. Land use data and development trends are also incorporated into this analysis. In addition, MAPC develops estimates of the potential impacts of certain hazard events on the community. . MAPC drew on the following resources to complete the plan:
  - Town of Brookline, General Bylaws
  - Town of Brookline, Zoning Bylaw
  - Town of Brookline Comprehensive Plan 2005-2015
  - Town of Brookline Open Space Plan,
  - Town of Brookline Capital Improvement Program
  - Massachusetts State Hazard Mitigation Plan.2013
  - FEMA, Local Mitigation Plan Review Guide; October 1, 2011
  - FEMA, Flood Insurance Rate Maps for Norfolk County, MA, 2012
  - Massachusetts State Hazard Mitigation Plan.2013
  - Metropolitan Area Planning Council, GIS Lab, Regional Plans and Data.
  - New England Seismic Network, Boston College Weston Observatory, <http://aki.bc.edu/index.htm>
  - NOAA National Climatic Data Center, <http://www.ncdc.noaa.gov/>
  - Northeast States Emergency Consortium, <http://www.nesec.org/>
  - Supplemental Final Environmental Impact Report. Phase 1 Muddy River Flood Control, Water Quality and Habitat Enhancement and Historic Preservation Project.
  - USGS, National Water Information System, <http://nwis.waterdata.usgs.gov/usa/nwis>
  - US Census, 2010
- Review Existing Mitigation – Municipalities in the Boston Metropolitan Region have an active history in hazard mitigation as most have adopted flood plain zoning districts, wetlands protection programs, and other measures as well as enforcing the State building code, which has strong provisions related to hazard resistant building requirements. All current municipal mitigation measures must be documented.

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- Develop Mitigation Strategies – MAPC works with the local municipal staff to identify new mitigation measures, utilizing information gathered from the hazard identification, vulnerability assessments, and the community’s existing mitigation efforts to determine where additional work is necessary to reduce the potential damages from hazard events. Additional information on the development of hazard mitigation strategies can be found in Chapter VII.
- Plan Approval & Adoption – Once a final draft of the plan is complete it is sent to MEMA for the state level review and, following that, to FEMA for approval. Typically, once FEMA has approved the plan the agency issues a conditional approval (Approval Pending Adoption), with the condition being adoption of the plan by the municipality. More information on plan adoption can be found in Chapter IX and documentation of plan adoption can be found in Appendix D.
- Implement & Update the Plan – Implementation is the final and most important part of any planning process. Hazard Mitigation Plans must also be updated on a five year basis making preparation for the next plan update an important on-going activity. Chapter IX includes more detailed information on plan implementation.

**Brookline’s Participation in the Metro Boston Regional Hazard Mitigation Team**

The eight Inner Core communities were notified by MAPC of the formation of the Metro Boston Hazard Mitigation Planning Team and requested that the Chief Elected Official designate a minimum of two municipal officials to represent the team. The following individuals were designated by the Town Administrator to represent Brookline on the regional team:

Dan O’Leary	Police Chief
Andy Pappastergion	Commissioner of Public Works
Michael Raskin	Police Department

The Metro Boston Regional Hazard Mitigation Team provided an opportunity for the eight neighboring communities to discuss hazard mitigation issues of shared concern. The team met on April 13, 2011 and was attended by representatives from the surrounding cities of Boston, Cambridge, Chelsea, Everett, Malden, Medford, Melrose, and Somerville. At that meeting, the communities began the process of reviewing and revising their 2008 Natural Hazard Mitigation Plans and were re-introduced to the following items:

- The Massachusetts State Hazard Mitigation Plan and the FEMA hazard mitigation planning and grant process;
- The concept of each community engaging staff and the public to update its current Natural Hazard Mitigation Plan;

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- FEMA plan overview and requirements and plan eligibility;
- Review of the overall scope of work and plan revision schedule
- Question and of Discussion of local issues, inter-community and Metro Boston Region hazard mitigation issues and how to address.
- Re-introduction to identifying and mapping municipal Critical Facilities, municipal Areas of Concern, Inter-Community Areas of Concern, and Regional Shared areas of Concern.
- Municipal representatives were also briefed on the importance of trying to create a diversified presence on the local Multiple Hazard Community Planning Team in advance of local team meetings, being asked to contact major employers, business owners, schools, and non-profit organizations to participate in the process.

In addition, as the same group of MAPC staff is working on each community's plan, these issues of shared concern, and other issues that may arise between neighboring communities, are discussed in greater detail in local committee meetings and resulting actions are reflected in the identified mitigation measures, as noted in Chapter VI.

**The Local Multiple Hazard Community Planning Team**

In addition to the regional committee meetings, MAPC worked with the local community representatives to organize a Local Hazard Mitigation Planning Team for Brookline. MAPC briefed the local representatives as to the desired composition of that team as well as the need for public participation in the local planning process.

The Local Hazard Mitigation Planning Team is central to the planning process as it is the primary body tasked with developing a mitigation strategy for the community. The local team was tasked with working with MAPC to set plan goals, provide information on the hazards that impact the town, existing mitigation measures, and helping to develop new mitigation measures for this plan update. The Local Hazard Mitigation Planning Team membership can be found in Table 5 below.

The Local Hazard Mitigation Planning Team met on: October 17, 2013 and October 22, 2014. The purpose of the first meeting was to introduce the Hazard Mitigation planning program, review and update hazard mitigation goals, and to gather information on local hazard mitigation issues and sites or areas related to these. The second meeting focused on verifying information gathered by MAPC staff and discussion of existing mitigation practices, the status of mitigation measures identified in the 2008 hazard mitigation plan, and potential new or revised mitigation measures.

The agendas for these meetings are included in Appendix A.

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Name	Representing
Alan Balsam	Department of Public Health
Dan Bennett	Building Department
Paul D. Ford	Fire Department, Chief
Lara Curtis Hayes	Planning Department
Dan O'Leary	Police Department, Chief
Bill McGroarty	Veterans Services
Andrew Pappastergion	Department of Public Works, Commissioner
Michael Raskin	Police Department
Alison Steinfeld	Planning Department

**Public Meetings**

Public participation in the hazard mitigation planning process is important, both for plan development and for later implementation of the plan. Residents, business owners, and other community members are an excellent source for information on the historic and potential impacts of natural hazard events and particular vulnerabilities the community may face from these hazards. Their participation in this planning process also builds understanding of the concept of hazard mitigation, potentially creating support for mitigation actions taken in the future to implement the plan. To gather this information and educate residents on hazard mitigation, the Town hosted two public meetings, one during the planning process and one after a complete draft plan is available for review.

Natural hazard mitigation plans unfortunately rarely attract much public involvement in the Boston region, unless there has been a recent hazard event. One of the best strategies for overcoming this challenge is to include discussion of the hazard mitigation plan on the agenda of an existing board or commission. With this strategy, the meeting receives widespread advertising and a guaranteed audience of the board or commission members plus those members of the public who attend the meeting. These board and commission members represent an engaged audience that is informed and up to date on many of the issues that relate to hazard mitigation planning in the locality and will likely be involved in plan implementation, making them an important audience with which to build support for hazard mitigation measures. In addition, these meetings frequently receive press coverage, expanding the audience that has the opportunity to hear the presentation and provide comment.

The public had an opportunity to provide input to the Brookline hazard mitigation planning process during a meeting of the Emergency Management Team, on March 27, 2014 held in the Pierce Building next to Town Hall. The draft plan update was presented at an Emergency Management Team meeting held on June 9, 2015 in Brookline Town Hall. Both meetings were publicized as regular meetings of the Emergency Management Team according to the Massachusetts Public Meeting Law. The attendance list for each meeting can be found in Table 6. See public meeting notices in Appendix C.

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MAPC received comments from members of the Selectmen's Climate Action Committee regarding updates to the Town's 2012 *Climate Action Plan*, which were incorporated into the final draft of this plan update.

Table 6 Brookline Public Meetings	
Name	Representing
<b>Meeting #1 March 27, 2014</b>	
Alan Balsam	Department of Public Health
Annmarie Cedrone	Public Health/Veterans
Casey Hatchett	Police Department
Mel Kleckner	Town Administrator
Bill McGroarty	Veterans Services
Dan O'Leary	Police Department, Chief
Pat Maloney	Public Health
Andrew Pappastergion	Department of Public Works, Commissioner
Martin Pillsbury	MAPC
Deborah Rivers	Brookline Climate Action Comm. & Greenspace Alliance
<b>Meeting #2 June 9, 2015</b>	
Alan Balsam	Department of Public Health
Thomas Brady	DPW-Arborist
Paul Ford	Fire Chief
Casey Hatchett	Police Department
Laura Curtis Hayes	Planning Department
Holly Jacobson	Linnean Solutions
David Lescossier	Selectmen's Climate Action Committee
Bill McGroarty	Veterans Services
Dan O'Leary	Police Department, Chief
Stephanie Orsine	Information Technology
Andrew Pappastergion	Department of Public Works, Commissioner
Martin Pillsbury	MAPC
Michael Raskin	Police Department
Deborah Rivers	Selectmens Climate Action Comm. & Greenspace Alliance
Peter Rowe	
Alison Steinfeld	Planning Department
Robert Ward	Fire Department

In addition, MAPC Environmental Director Martin Pillsbury participated on a panel and made a presentation for Brookline Climate Week Forum on February 5, 2015.

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**Local Stakeholder Involvement**

The local Hazard Mitigation Planning Team was encouraged to reach out to local stakeholders that might have an interest in the Hazard Mitigation Plan including neighboring communities, agencies, businesses, nonprofits, and other interested parties. Notice was sent to the following organizations and neighboring municipalities inviting them to review the Hazard Mitigation Plan and submit comments to the Town: See Appendix C for public meeting notices.

- |                                  |                           |
|----------------------------------|---------------------------|
| City of Boston                   | Low Cardiovascular Center |
| City of Newton                   | Coolidge House            |
| The New England Institute of Art | Hellenic College          |
| Chamberlain Nursing Home         | O'shea Elderly Housing    |
| Newbury College                  | Epoch Senior Living       |
| Goddard House                    | Morse House Elderly       |
| Kickham Elderly housing          | Brookline Health Center   |

Comments were received from the Climate Action Committee on updates to the 2012 *Climate Action Plan*, which were incorporated into the final draft of the plan.

**Town Web Site**

The draft Brookline Hazard Mitigation Plan Update was posted on the Town's website for the second public meeting. Members of the public could access the draft document and submit comments or questions to the Town (see Appendix C).

**Continuing Public Participation**

Following the adoption of the plan update, the planning team will continue to provide residents, businesses, and other stakeholders the opportunity to learn about the hazard mitigation planning process and to contribute information that will update the town's understanding of local hazards. As any updates and reviews of the plan are conducted by the Hazard Mitigation Implementation Team, these will be placed on the Town's web site, and any meetings of the Hazard Mitigation Implementation Team will be publicly noticed in accordance with town and state open meeting laws.

**Planning Timeline**

April 13, 2010	Meeting of the Metro Boston Regional Mitigation Committee
October 17, 2013	Meeting of the Brookline Local Hazard Mitigation Planning Team
March 27, 2014	First Public Meeting with Brookline Emergency Management Team
October 22, 2014	Meeting of the Brookline Local Hazard Mitigation Planning Team
February 5, 2015	Brookline Climate Week Panel and Presentation
June 9, 2015	Second Public Meeting with Brookline Emergency Management Team
June 19, 2015	Draft Plan Update submitted to MEMA
December 30, 2015	Revised Draft Plan Update submitted to MEMA
October 3, 2016	Revised Draft Plan Update submitted to MEMA
October 19, 2016	Approval Pending Adoption issued by FEMA

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**IV. RISK ASSESSMENT**

The risk assessment analyzes the potential natural hazards that could occur within the Town of Brookline as well as the relationship between those hazards and current land uses, potential future development, and critical infrastructure. This section also includes a vulnerability assessment that estimates the potential damages that could result from certain large scale natural hazard events.

**Update Process**

In order to update Brookline’s risk assessment, MAPC gathered the most recently available hazard and land use data and met with Town staff to identify changes in local hazard areas and development trends. MAPC also used FEMA’s damage estimation software, HAZUS (described below).

**Overview of Hazards and Impacts**

The Massachusetts Hazard Mitigation Plan provides an in-depth overview of natural hazards in Massachusetts. Previous state and federal disaster declarations since 1991 are summarized in Table 2. Table 7 below summarizes the hazard risks for Brookline. This evaluation takes into account the frequency of the hazard, historical records, and variations in land use. This analysis is based on the vulnerability assessment in the Massachusetts State Hazard Mitigation Plan. The statewide assessment was modified to reflect local conditions in Brookline using the definitions for hazard frequency and severity listed below. Based on this, the Town set an overall priority for each hazard.

**Table 7 - Hazard Risks Summary**

Hazard	Frequency		Severity		Town Priority
	Massachusetts	Brookline	Massachusetts	Brookline	
Flooding	High	Medium	Serious	Serious	High
Dam failures	Very Low	Very Low	Extensive	Serious	Low
Coastal Hazards	High	N/A	Serious	N/A	N/A
Tsunamis	Very low	N/A	Extensive	N/A	N/A
Hurricane/Trop Storm	Medium	Medium	Serious	Serious	Medium
Tornadoes	Medium	Very Low	Serious	Serious	Low
Thunderstorms	High	High	Minor	Minor	Medium
Nor'easter	High	High	Minor	Minor	Medium
Winter-Blizzard/Snow	High	High	Minor	Minor	Medium
Winter-Ice Storms	Medium	Medium	Minor	Minor	Medium
Earthquakes	Very Low	Very Low	Serious	Serious	Low
Landslides	Low	Very Low	Minor	Minor	Low
Brush fires	Medium	Very Low	Minor	Minor	Low
Major urban fires	Low	Very Low	Minor	Minor	Very Low
Extreme Temperatures	Medium	Medium	Minor	Minor	Medium
Drought	Low	Low	Minor	Minor	Low

Source, Massachusetts State Hazard Mitigation Plan, 2013, modified for Brookline

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It should be noted that several of the hazards listed in the 2013 Massachusetts State Hazard Mitigation plan are not applicable to the town of Brookline or are a very low priority. Being an inland community not located on the coast, the hazards of Coastal Storm Damage, Sea Level Rise, and Tsunamis are not applicable in this local Hazard Mitigation Plan. In addition, due to the lack of significant wildfire hazards in close proximity to urbanized areas, Major Urban Fires are considered by the town to be a very

**Definitions used in the Commonwealth of Massachusetts State Hazard Mitigation Plan**

Frequency

**Very low frequency:** events that occur less frequently than once in 1,000 years (less than 1% per year)  
**Low frequency:** events that occur from once in 50 years to once in 100 years (1% to 2% per year);  
**Medium frequency:** events that occur from once in 5 years to once in 50 years (2% to 20% per year);  
**High frequency:** events that occur more frequently than once in 5 years (Greater than 20% per year).

Severity

**Minor:** Limited and scattered property damage; limited damage to public infrastructure and essential services not interrupted; limited injuries or fatalities.  
**Serious:** Scattered major property damage; some minor infrastructure damage; essential services are briefly interrupted; some injuries and/or fatalities.  
**Extensive:** Widespread major property damage; major public infrastructure damage (up to several days for repairs); essential services are interrupted from several hours to several days; many injuries and/or fatalities.  
**Catastrophic:** Property and public infrastructure destroyed; essential services stopped; numerous injuries and fatalities.

low priority.

**Flood Related Hazards**

Flooding was the most prevalent serious natural hazard identified by local officials in Brookline. Flooding is generally caused by hurricanes, nor'easters, severe rainstorms, and thunderstorms. Global climate change has the potential to exacerbate these issues over time with the potential for changing rainfall patterns leading to heavier storms.

Regionally Significant Floods

There have been a number of major floods that have affected the Metro Boston region over the last fifty years. Significant historic flood events in Brookline have included:

- The blizzard of 1978 - Flooding, heavy snowfall, and long storm duration.
- January 1979
- April 1987
- October 1991 ("The Perfect Storm") Considered to be a 100-year storm.
- October 1996 – Major flooding of the Muddy River and MBTA.
- June 1998 – Flooding of the Muddy River area
- March 2001
- April 2004
- May 2006
- April 2007

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- March 2010
- December 2010

Local data for previous flooding occurrences are not collected by the Town of Brookline. The best available local data is for Norfolk County through the National Climatic Data Center (see Table 8). Norfolk County, which includes the Town of Brookline, experienced 45 flood events from 1996 –2014. No deaths or injuries were reported and the total reported property damage in the county was \$26.2 million dollars. Of that total, \$24.9 million is attributed to the two major events of March 2010.

**Table 8 Norfolk County Flood Events, 1996-2014**

Location	Date	Type	Deaths	Injuries	Property Damage
WESTERN NORFOLK	01/27/1996	Flood	0	0	0.00K
NORFOLK	09/18/1996	Flood	0	0	0.00K
WESTERN NORFOLK	10/21/1996	Flood	0	0	0.00K
WESTERN NORFOLK	05/12/1998	Flood	0	0	0.00K
WESTERN NORFOLK	06/13/1998	Flood	0	0	570.00K
WESTERN NORFOLK	06/15/1998	Flood	0	0	0.00K
EASTERN NORFOLK	03/05/2001	Flood	0	0	0.00K
WESTERN NORFOLK	03/22/2001	Flood	0	0	0.00K
WESTERN NORFOLK	03/22/2001	Flood	0	0	0.00K
WESTERN NORFOLK	04/01/2001	Flood	0	0	0.00K
PLYMOUTH / PART OF NORFOLK	03/28/2005	Flood	0	0	0.00K
WESTERN NORFOLK	10/15/2005	Flood	0	0	30.00K
WESTERN NORFOLK	10/15/2005	Flood	0	0	40.00K
PLYMOUTH / PART OF NORFOLK	10/15/2005	Flood	0	0	200.00K
WESTERN NORFOLK	10/15/2005	Flood	0	0	60.00K
EASTERN NORFOLK	10/15/2005	Flood	0	0	40.00K
PLYMOUTH / PART OF NORFOLK	10/15/2005	Flood	0	0	140.00K
PLYMOUTH / PART OF NORFOLK	10/25/2005	Flood	0	0	35.00K
NORFOLK	05/13/2006	Flood	0	0	5.00K
NORFOLK	06/07/2006	Flood	0	0	20.00K
NORFOLK	06/07/2006	Flood	0	0	0.00K
NORFOLK	06/07/2006	Flood	0	0	0.00K
NORFOLK	10/28/2006	Flood	0	0	8.00K
NORFOLK	11/24/2006	Flood	0	0	0.00K
NORFOLK	03/02/2007	Flood	0	0	5.00K
NORFOLK	04/18/2007	Flood	0	0	5.00K

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NORFOLK	02/13/2008	Flood	0	0	10.00K
NORFOLK	07/02/2008	Flood	0	0	5.00K
NORFOLK	08/15/2008	Flood	0	0	3.00K
NORFOLK	05/24/2009	Flood	0	0	0.00K
NORFOLK	06/27/2009	Flood	0	0	15.00K
NORFOLK	03/14/2010	Flood	0	0	16.640M
NORFOLK	03/29/2010	Flood	0	0	8.320M
NORFOLK	04/01/2010	Flood	0	0	0.00K
NORFOLK	07/24/2010	Flood	0	0	20.00K
NORFOLK	08/05/2010	Flood	0	0	0.00K
NORFOLK	08/25/2010	Flood	0	0	8.00K
NORFOLK	08/28/2011	Flood	0	0	0.00K
NORFOLK	08/15/2012	Flood	0	0	0.00K
NORFOLK	10/29/2012	Flood	0	0	0.00K
NORFOLK	06/07/2013	Flood	0	0	0.00K
NORFOLK	07/29/2013	Flood	0	0	0.00K
NORFOLK	08/09/2013	Flood	0	0	15.00K
NORFOLK	10/22/2014	Flood	0	0	0.00K
NORFOLK	10/23/2014	Flood	0	0	0.00K
<b>TOTAL</b>			<b>0</b>	<b>0</b>	<b>26.2 M</b>

Source: NOAA, National Climatic Data Center

Overview of Town-Wide Flooding

All of Brookline drains to the Charles River. In addition to the Muddy River, there are three other open streams, six covered streams, and six ponds in Brookline. Wetlands provide an important role in flood control. Major wetland systems in Brookline include Hall's Pond, Lost Pond, D. Blakely Hoar Sanctuary, Allandale Farm, Sargent's Pond, areas along Hammond Pond Parkway, and areas along Putterham Meadows Golf Course.

Similar to other built-up, urban communities most of the town's natural waterways have been placed in culverts and many wetlands historically have been filled. The town's man-made drainage system collects storm water throughout town and outfalls into either the Muddy River or the Charles River.

Flooding in the Town of Brookline is primarily a result of precipitation and storm water run-off overwhelming the capacity of natural and structured drainage systems to convey water, causing it to overflow the system. Flooding in Brookline is caused by precipitation associated with severe rainstorms, thunderstorms, Nor'easters, and hurricanes.

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Although the town is entirely within the Charles River watershed the Charles River does not flow through Brookline, but through neighboring Boston and Newton. The most significant waterway in Brookline is the Muddy River, a tributary to the Charles River that forms the border between Brookline and Boston. As described below, the Muddy River is by far the most significant flood hazard in the town.

### Potential Flood Hazard Areas

Information on potential flood hazard areas was taken from two sources. The first was the National Flood Insurance Rate Maps. The FIRM flood zones are shown on Map 3 in Appendix B and their definitions are listed below. Mapped flood plains are located along the Muddy River, Sargent's Pond, Longwood Playground, Putterham Meadows Golf Course, and Hall's Pond. The Muddy River is the largest and is within the Zone A and Zone AE flood hazard zones.

#### **Flood Insurance Rate Map Zone Definitions**

**Zone A (1% annual chance)** - Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study (FIS) by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs (base flood elevations) or depths are shown within this zone. Mandatory flood insurance purchase requirements apply.

**Zone AE and A1-A30 (1% annual chance)** - Zones AE and A1-A30 are the flood insurance rate zones that correspond to the 100-year floodplains that are determined in the FIS by detailed methods. In most instances, BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

**Zones X500 (.2% annual chance)** - Zone X500 is the flood insurance rate zone that correspond to the 500-year floodplains that are determined in the Flood Insurance Study (FIS) by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs (base flood elevations) or depths are shown within this zone.

**Zone VE (1% annual chance)** - Zone VE is the flood insurance rate zone that corresponds to the 100-year coastal floodplains that have additional hazards associated with storm waves. BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

In addition, information on areas subject to flooding was provided by local officials. The Locally Identified Areas of Flooding described below were identified by Town staff as areas where flooding is known to occur. All of these areas do not necessarily coincide with the flood zones from the FIRM maps. Some may be areas that flood due to inadequate drainage systems or other local conditions rather than location within a flood zone. The numbers correspond to the numbers on Map 8, "Local Hazard Areas."

#### *Flooding - Muddy River (1)*

The Muddy River is Brookline's major natural resource corridor and the location of most of Brookline's flooding problems. In the 1880's the river was incorporated into the Emerald Necklace park system by the prominent landscape architect Frederick Law

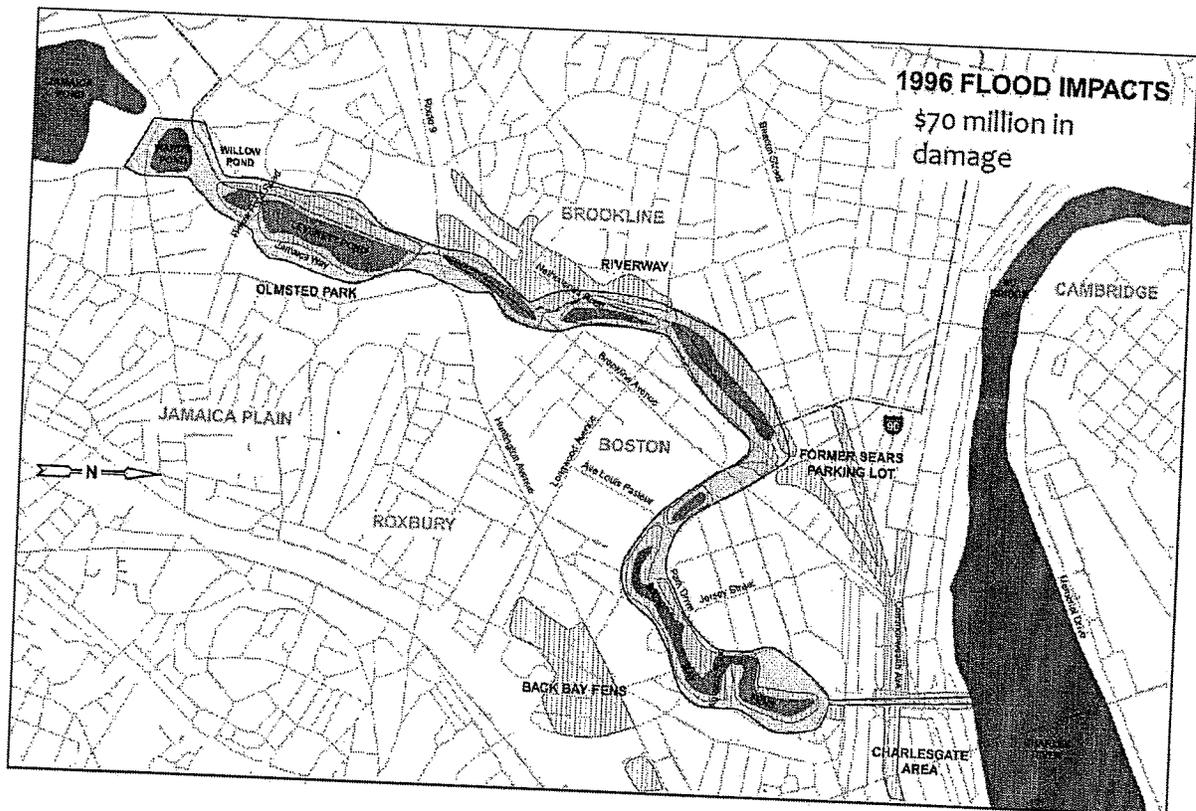
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Olmstead. The river flows 3.5 miles from Jamaica Pond to the Charles River, forming the border between Brookline and Boston. Three entities own and manage parts of this park system – the Town of Brookline, the City of Boston, and the Massachusetts Department of Conservation and Recreation (DCR). The watershed area is 7.5 square miles.

While the park system was originally designed to help with flood storage, over the years sediment has built up in the river thereby restricting the channel and most of the watershed has become impervious, reducing flood storage capacity. Sediment and debris come from erosion along banks and upland areas, decayed leaves and brush, street sanding, construction sites, and litter and animal waste. Also, some culverts are undersized and restrict flow. As a result, the Muddy River flood plain has experienced severe flooding that impacts both Brookline and Boston. This flooding is the subject of a major ongoing mitigation project described below in Section VII.

Past flooding has caused tremendous damage in the area – an October 1996 storm caused \$70 million in damage, including damage to the MBTA subway system (see Figure XX).. The Kenmore Square station on the Green Line was flooded and closed for two months (see Figure 1). Flooding of the Muddy River also occurred in June 1998 and March 2010.

Figure 1 Muddy River 1996 Flood Impacts



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**Figure 2 Kenmore Square Station Flooded in 1996 Flood**



The area surrounding the Muddy River is densely populated – over 92,000 people live within ½ mile of the area. In addition to MBTA transit facilities, a number of other important land uses are affected by flooding including schools, hospitals, and cultural institutions, including Northeastern University, Simmons College, Emmanuel College, Wentworth Institute, Beth Israel Deaconess Hospital, and the Museum of Fine Arts.

**Figure 3 - Muddy River Flooding 1996**

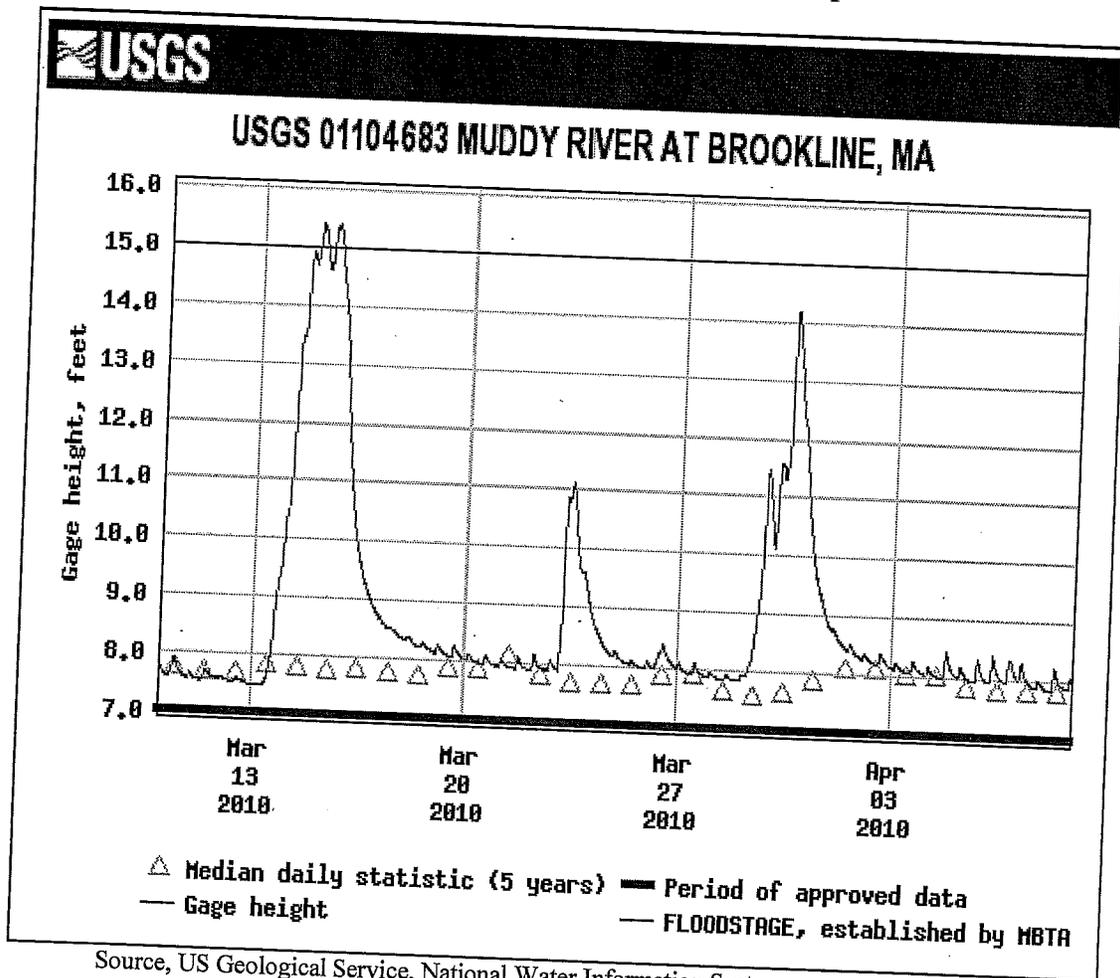


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The most severe flooding since the previous plan occurred during March 2010, when a total of 14.83 inches of rainfall accumulation was recorded by the National Weather Service (NWS). The weather pattern that consisted of early springtime prevailing westerly winds that moved three successive storms, combined with tropical moisture from the Gulf of Mexico, across New England. Torrential rainfall caused March 2010 to be the wettest month on record.

One indication of the extent of flooding is the gage height at the nearest USGS streamflow gauging station, which is on the Muddy River in Brookline at Netherlands Road. The USGS gage height, shown in Figure 4, exceeded 16 feet on March 16, 2010 and exceeded 14 feet on March 31, 2010. Normal gage height in March is about 8 feet.

Figure 4 Muddy River Gage Heights, March-April 2010



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*Other Locally Identified Areas of Flooding*

Fortunately, aside from the Muddy River, flooding is not a frequent event or large concern to public officials. The town identified several other local areas of potential flooding. However the impacts of these areas are minor compared to the Muddy River.

*Amory Playground and Halls Pond (2)*

Flooding is minimal and restricted to Amory Playground, which was constructed on a wetland over 100 years ago. This is an ecologically important area – Halls Pond is a wildlife sanctuary.

*Griggs Park (3)*

Flooding is minimal and restricted to Griggs Park. The park is intended to provide flood storage.

*Brook Street (4)*

This area used to be an open brook and drains to the Muddy River. The area floods and was especially affected during the 1996 storm. Impacts include basement flooding.

*Brookline High School (5)*

There is some flooding, though minimal, in this area – Cypress Field and the school floods. While the flooding does not have large impacts, the school does serve as a primary shelter during emergencies.

*Saw Mill Brook (6)*

The west branch of Sawmill Brook also floods. The brook originates near the Newton border, flows through Newton and West Roxbury and converges with the east branch of the river. Flooding occurs due to a surcharged storm drain along the open channel of the brook during larger rain events. Flooding here can also impact water quality and some basements and garages flood during very heavy rains.

Repetitive Loss Structures

As defined by the National Flood Insurance Program (NFIP), a repetitive loss property is any property which the NFIP has paid two or more flood claims of \$1,000 or more in any given 10-year period since 1978. For more information on repetitive losses see <https://www.fema.gov/repetitive-flood-claims-grant-program-fact-sheet>

There are three repetitive loss structures in Brookline an increase of one since the 2008 plan. One is located near the Muddy River in the A Zone; the other two are in areas not designated as flood hazard zones in central and southern Brookline. Two of the properties are single family residences and one is categorized as “other residence.”

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Table 9 summarizes the number and type of repetitive loss structures located within Brookline and the number of losses and total claims associated with them.

Table 9 Summary of Repetitive Losses and Claims

	Single Family Residential	Other Residential	Non-Residential	Total
Number of Properties	2	1	0	3
Number of Losses	5	2	0	7
Total Claims	\$29,604.65	\$330,824.65	0	\$360,429.30

Source: Department of Conservation and Recreation, FEMA Repetitive Loss data

Based on the record of previous occurrences flooding events in Brookline are a High frequency event as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard may occur more frequently than once in five years, or a greater than 20% chance per year.

Dams and Dam Failure

Dam failure can occur as a result of structural failure, independent of a hazard event, or as the result of the impacts of a hazard event such as flooding associated with storms or an earthquake. In the event of a dam failure, the energy of the water stored behind even a small dam can cause loss of life and property damage if there are people or buildings downstream. The number of fatalities from a dam failure depends on the amount of warning provided to the population and the number of people in the area in the path of the dam's floodwaters.

Dam failure is a highly infrequent occurrence but a severe incident could result in loss of lives and significant property damage. Since 1984, three dams have failed in or very near to Massachusetts, one of which resulted in a death. There have been no recorded dam breaches in Brookline.

According to data provided by the Massachusetts Department of Conservation and Recreation and the town, there are two dams located in Brookline. The Fisher Hill Reservoir Dam is associated with an abandoned water supply reservoir and is owned by the MA DCR. It is classified as a small unregulated dam. The Brookline Reservoir Dam is owned by the Town of Brookline and is classified as a high hazard dam by DCR.

DCR defines dam hazard classifications as follows:

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*High:* Dams located where failure or mis-operation will likely cause loss of life and serious damage to homes(s), industrial or commercial facilities, important public utilities, main highways(s) or railroad(s).

*Significant:* Dams located where failure or mis-operation may cause loss of life and damage home(s), industrial or commercial facilities, secondary highway(s) or railroad(s) or cause interruption of use or service of relatively important facilities.

*Low:* Dams located where failure or mis-operation may cause minimal property damage to others. Loss of life is not expected.

The Brookline Reservoir Dam impounds a former water supply reservoir that was part of the early Boston Water supply system, prior to the construction of the Quabbin Reservoir. The 21.1 acre reservoir was built in 1848 to store water from Lake Cochituate in Natick and Framingham, which was delivered through the Cochituate Aqueduct. It has not been used for public water supply since 1951, and currently serves as a town park.

The town of Brookline has conducted an Emergency Action Plan for the Brookline Reservoir Dam in 2013. That plan describes the dam and potential impacts as follows:

The horseshoe shaped Brookline Reservoir Dam is approximately 1400 feet long. The main feature of the dam is the original 160 year-old Romanesque revival style granite block gatehouse at the east end of the reservoir. The pit of the gatehouse, which is sectioned into several chambers, is filled with water to the same elevation as the reservoir. The primary water retaining structure is a granite gravity wall with a wedge-shaped section that forms the back wall of the first chamber

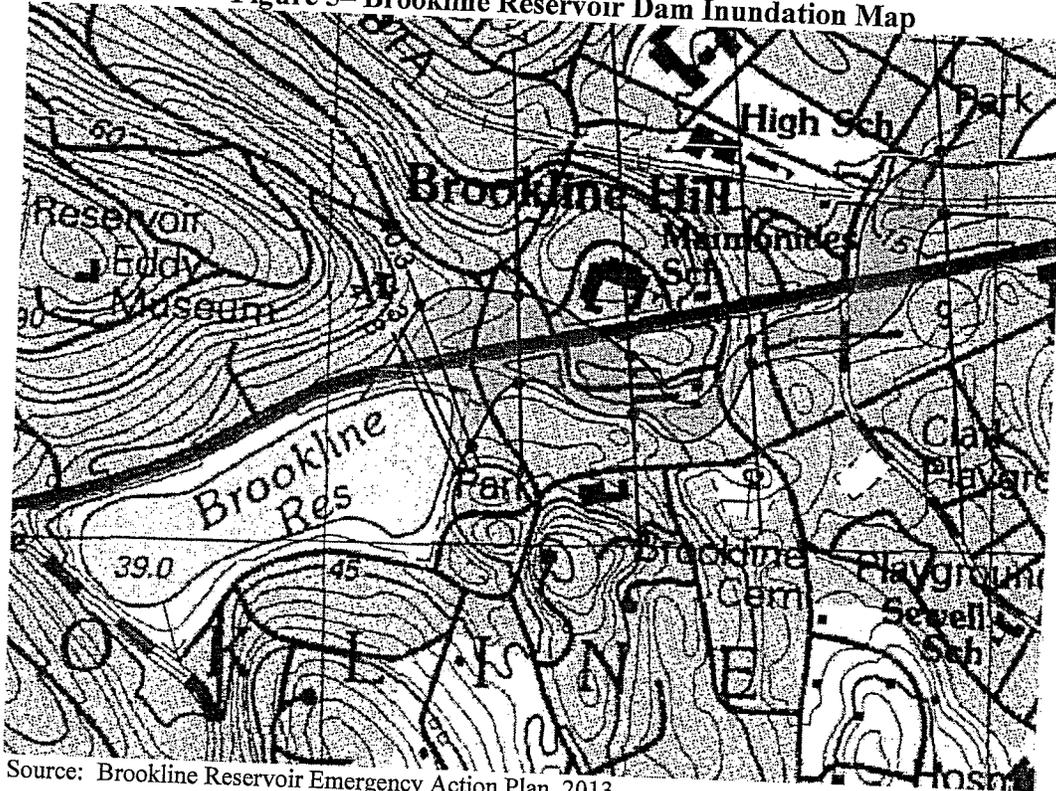
The dam currently does not have an emergency spillway, though there is a paved drive just south of the gatehouse, which would certainly act as a spillway if water were to ever overtop the dam crest. The dam has a maximum structural height of approximately 15 feet. The normal dam impoundment volume, with approximately 5 feet of freeboard to the crest, is estimated to be 200 acre-feet. The maximum dam impoundment volume is estimate to be 300 acre-feet.

The most realistic mode for a major failure to occur at the dam would be if the gatehouse structure were to sustain massive damage, as by an earthquake, explosion, or impact causing structural damage or collapse of the structure. This could create a full depth sudden breach of the core retaining wall, which could progress laterally quickly. It would be advisable, considering the age of the building and the high hazard potential, for it to be structurally evaluated, with particular attention to the inner, wedge-shaped water-retaining wall.

The potential area of inundation downstream from the dam is generally along the Route 9 (Boylston Street) corridor extending east of the dam, as shown in Figure 5. Potentially vulnerable development includes residences and small businesses along this corridor.

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Figure 5– Brookline Reservoir Dam Inundation Map



Based on the record of previous occurrences dam failure in Brookline is a Very Low frequency event as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard may occur less frequently than once in 100 years (less than 1% chance per year).

**Coastal Hazards, Sea Level Rise, and Tsunamis**

Coastal Hazards are included in the Massachusetts State Hazard Mitigation Plan 2013, however the Town of Brookline is not a coastal community subject to these hazards, thus coastal hazards, sea level rise, and Tsunamis are not included in this local plan update.

**Wind Related Hazards**

Wind-related hazards include hurricanes, tropical storms, and tornadoes as well as high winds during Nor'easters and thunderstorms. As with many communities, falling trees that result in downed power lines and power outages are an issue in Brookline. Information on wind related hazards can be found on Map 5 in Appendix B

Hurricanes and Tropical Storms

A hurricane is a violent wind and rainstorm with wind speeds of 74-200 miles per hour. A hurricane is strongest as it travels over the ocean and is particularly destructive to

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coastal property as the storm hits the land. Given its location near the coast, the town's entire area is vulnerable to hurricanes. Hurricanes occur between June and November. A tropical storm has similar characteristics, but wind speeds are below 74 miles per hour.

Since 1900, 39 tropical storms have impacted New England (NESEC). Massachusetts has experienced approximately 32 tropical storms, nine Category 1 hurricanes, five Category 2 hurricanes and one Category 3 hurricane. A hurricane or storm track is the line that delineates the path of the eye of a hurricane or tropical storm. There have been no recorded storm tracks through Brookline. However, Brookline experiences the impacts of hurricanes and tropical storms regardless of whether the storm track passes directly through the town, and numerous hurricanes have affected the communities of eastern Massachusetts (see Table 10) The hazard mapping indicates that the 100 year wind speed in Brookline is 110 miles per hour (see Appendix B).

**Table 10 Hurricane Records for Massachusetts, 1938 - 2012**

Hurricane Event	Date
Great New England Hurricane*	September 21, 1938
Great Atlantic Hurricane*	September 14-15, 1944
Hurricane Doug	September 11-12, 1950
Hurricane Carol*	August 31, 1954
Hurricane Edna*	September 11, 1954
Hurricane Diane	August 17-19, 1955
Hurricane Donna	September 12, 1960
Hurricane Gloria	September 27, 1985
Hurricane Bob	August 19, 1991
Hurricane Earl	September 4, 2010
Tropical Storm Irene	August 28, 2011
Hurricane Sandy	October 29-30, 2012

\*Category 3. Source: National Oceanic and Atmospheric Administration

Hurricane intensity is measured according to the Saffir/Simpson scale, which categorizes hurricane intensity linearly based upon maximum sustained winds, barometric pressure, and storm surge potential. These are combined to estimate potential damage. The following gives an overview of the wind speeds, surges, and range of damage caused by different hurricane categories:

Scale No. (Category)	Winds(mph) Storm	Surge (ft)	Potential Damage
1	74 - 95	4 - 5	Minimal
2	96 - 110	6 - 8	Moderate
3	111 - 130	9 - 12	Extensive
4	131 - 155	13 - 18	Extreme
5	> 155	>18	Catastrophic

Source: NOAA

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Hurricanes typically have regional impacts beyond their immediate tracks. Falling trees and branches are a significant problem because they can result in power outages when they fall on power lines or block traffic and emergency routes. Hurricanes are a town-wide hazard in Brookline. Potential hurricane damages to Brookline have been estimated using HAZUS-MH. Total damages are estimated at \$51.1 million for a Category 2 hurricane and \$208.9 Million for a Category 4 hurricane. Other potential impacts are detailed in Table 22.

Based on records of previous occurrences, hurricanes in Brookline are a Medium frequency event as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard occurs from once in 5 years to once in 50 years, or a 2% to 20% chance per year.

Tornados

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. These events are spawned by thunderstorms and occasionally by hurricanes, and may occur singularly or in multiples. They develop when cool air overrides a layer of warm air, causing the warm air to rise rapidly. Most vortices remain suspended in the atmosphere. Should they touch down, they become a force of destruction. Evacuation of high-risk areas may be required on short notice. Sheltering and mass feeding efforts may be required along with debris clearance, search and rescue, and emergency fire and medical services.

The frequency of tornadoes in eastern Massachusetts is low; on average, there are six tornadoes that touchdown somewhere in the Northeast region every year. The strongest tornado in Massachusetts history was the Worcester Tornado in 1953 (NESEC). The most recent tornado events in Massachusetts were in Springfield in 2011 and in Revere in 2014. The Springfield tornado caused significant damage and resulted in 4 deaths in June of 2011. The Revere tornado touched down at in Chelsea just south of Route 16 and moved north into Revere's business district along Broadway and ended near the intersection of Routes 1 and 60. The path was approximately two miles long and 3/8 mile wide, with wind speeds up to 120 miles per hour. Approximately 65 homes had substantial damages and 13 homes and businesses were uninhabitable.

Tornado damage severity is measured by the Fujita Tornado Scale, in which wind speed is not measured directly but rather estimated from the amount of damage. As of February 01, 2007, the National Weather Service began rating tornados using the Enhanced Fujita-scale (EF-scale), which allows surveyors to create more precise assessments of tornado severity. The EF-scale is summarized below:

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Fujita Scale			Derived		Operational EF Scale	
F Number	Fastest ¼ mile (mph)	3-second gust (mph)	EF Number	3-second gust (mph)	EF Number	3-second gusts (mph)
0	40-72	45-78	0	65-85	0	65-85
1	73-112	79-117	1	86-109	1	86-110
2	113-157	118-161	2	110-137	2	111-135
3	158-207	162-209	3	138-167	3	136-165
4	208-260	210-261	4	168-199	4	166-200
5	261-318	262-317	5	200-234	5	Over -200

Source: Massachusetts State Hazard Mitigation Plan, 2013

Although there have been no recorded tornados within the limits of the Town of Brookline, since 1956 there have been 10 tornadoes in surrounding Norfolk County recorded by the Tornado History Project. One of these was an F2 tornado, and three were F1. These 10 tornadoes resulted in a total of one fatality and six injuries and up to \$3.6 million in damages, as summarized in Table 11.

**Table 11 - Tornado Records for Norfolk County**

Date	Fujita	Fatalities	Injuries	Width	Length	Damage
11/21/1956	2	0	0	17	0.1	\$500-\$5000
8/9/1972	1	1	6	30	4.9	\$5K-\$50K
9/6/1973	1	0	0	10	1.1	\$5K-\$50K
7/10/1989	0	0	0	23	0.1	\$500-\$5000
5/18/1990	0	0	0	10	0.2	\$500-\$5000
5/18/1990	0	0	0	10	0.2	\$500-\$5000
6/30/2001	0	0	0	80	0.1	-
8/21/2004	1	0	0	40	6	\$1,500,000
5/9/2013	0	0	0	50	0.38	\$20,000

Source: The Tornado History Project

Buildings constructed prior to current building codes may be more vulnerable to damages caused by tornadoes. Evacuation of impacted areas may be required on short notice. Sheltering and mass feeding efforts may be required along with debris clearance, search and rescue, and emergency fire and medical services. Key routes may be blocked by downed trees and other debris, and widespread power outages are also typically associated with tornadoes.

Although tornadoes are a potential town-wide hazard in Brookline, tornado impacts are relatively localized compared to severe storms and hurricanes. Damages from any tornado in Brookline would greatly depend on the track of the tornado. Generally the northern portion of the town, north of Route 9, is more densely developed and would likely be subject to more damage in the event of a tornado.

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Based on the record of previous occurrences since 1950, Tornado events in Brookline are a Medium frequency event as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard may occur from once in 5 years to once in 50 years, or a 2% to 20% chance per year.

Nor'easters

A northeast coastal storm, known as a nor'easter, is typically a large counter-clockwise wind circulation around a low-pressure center. Featuring strong northeasterly winds blowing in from the ocean over coastal areas, nor'easters are relatively common in the winter months in New England occurring one to two times a year. The storm radius of a nor'easter can be as much as 1,000 miles and these storms feature sustained winds of 10 to 40 mph with gusts of up to 70 mph. These storms are accompanied by heavy rains or snows, depending on temperatures.

Previous occurrences of Nor'easters include the following which are listed in the Massachusetts State Hazard Mitigation Plan 2013:

February 1978	Blizzard of 1978
October 1991	Severe Coastal Storm ("Perfect Storm")
December 1992	Great Nor'easter of 1992
January 2005	Blizzard/ oreaster
October 2005	Coastal Storm/Nor'easter
April 2007	Severe Storms, Inland & Coastal Flooding/Nor'easter
January 2011	Winter Storm/Nor'easter
October 2011	Severe Storm/Nor'easter

Many of the historic flood events identified in the previous section were precipitated by nor'easters, including the "Perfect Storm" event in 1991. More recently, blizzards in December 2010, October 2011, and February 2013 were both large nor'easters that caused significant snowfall amounts.

Brookline is vulnerable to both the wind and precipitation that accompanies nor'easters. High winds can cause damage to structures, fallen trees, and downed power lines leading to power outages. Intense rainfall can overwhelm drainage systems causing localized flooding of rivers and streams as well as urban stormwater ponding and localized flooding.

The entire Town of Brookline could be at risk from the wind, rain or snow impacts from a nor'easter, depending on the track and radius of the storm, but due to its inland location the town would not be subject to coastal hazards.

Based on the record of previous occurrences, nor'easters in Brookline are high frequency events as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard may occur more frequently than once in 5 years (greater than 20% per year).

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Severe Thunderstorms

While less severe than the other types of storms discussed, thunderstorms can lead to localized damage and represent a hazard risk for communities. Generally defined as a storm that includes thunder, which always accompanies lightning, a thunderstorm is a storm event featuring lightning, strong winds, and rain and/or hail. Thunderstorms sometime give rise to tornados. On average, these storms are only around 15 miles in diameter and last for about 30 minutes.

A severe thunderstorm can include winds of close to 60 mph and rain sufficient to produce flooding. The town's entire area is potentially subject to severe thunderstorms. The town does not keep records of thunderstorms, but estimates that at least six to eight occur each year.

The best available data on previous occurrences of thunderstorms in Brookline is for Norfolk County through the National Climatic Data Center (NCDC). Between n the years 1995 and 2014 NCDC records show 24 thunderstorm events in Norfolk County (Table 12). These storms resulted in a total of \$155,000 in property damages. There were no injuries or deaths reported.

**Table 12 Norfolk County Thunderstorm Events, 1995-2014**

LOCATION	BEGIN_DATE	EVENT_TYPE	MAGNITUDE	DEATHS	INJURIES	DAMAGE
NORFOLK CO.	4/4/1995	Thunderstorm	53	0	0	0
NORFOLK CO.	7/15/1995	Thunderstorm	55	0	0	0
NORFOLK CO.	10/28/1995	Thunderstorm	0	0	0	0
NORFOLK CO.	5/21/1996	Thunderstorm	63	0	0	0
NORFOLK CO.	7/6/1999	Thunderstorm	70	0	0	0
NORFOLK CO.	7/24/1999	Thunderstorm	50	0	0	0
NORFOLK CO.	4/9/2000	Thunderstorm	61	0	0	0
NORFOLK CO.	6/2/2000	Thunderstorm	50	0	0	0
NORFOLK CO.	6/27/2000	Thunderstorm	50	0	0	0
NORFOLK CO.	7/18/2000	Thunderstorm	50	0	0	0
NORFOLK CO.	8/10/2001	Thunderstorm	50	0	0	5,000
NORFOLK CO.	7/15/2002	Thunderstorm	62	0	0	25,000
NORFOLK CO.	7/23/2002	Thunderstorm	50	0	0	5,000
NORFOLK CO.	8/5/2005	Thunderstorm	50	0	0	5,000
NORFOLK CO.	8/14/2005	Thunderstorm	50	0	0	15,000
NORFOLK CO.	5/21/2006	Thunderstorm	51	0	0	15,000
NORFOLK CO.	7/21/2006	Thunderstorm	50	0	0	10,000
NORFOLK CO.	6/28/2007	Thunderstorm	50	0	0	5,000
NORFOLK CO.	7/2/2008	Thunderstorm	50	0	0	2,000

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NORFOLK CO.	7/2/2008	Thunderstorm	54	0	0	15,000
NORFOLK CO.	5/24/2009	Thunderstorm	50	0	0	1,000
NORFOLK CO.	6/20/2010	Thunderstorm	50	0	0	25,000
NORFOLK CO.	6/24/2010	Thunderstorm	50	0	0	2,000
NORFOLK CO.	6/23/2012	Thunderstorm	50	0	0	25,000
<b>TOTAL</b>				<b>0</b>	<b>0</b>	<b>\$155,000</b>

Source: NOAA, National Climatic Data Center Magnitude refers to maximum wind speed.

Severe thunderstorms are a town-wide hazard for Brookline. The town's vulnerability to severe thunderstorms is similar to that of Nor'easters. High winds can cause falling trees and power outages, as well as obstruction of key routes and emergency access. Heavy precipitation may also cause localized flooding, both riverine and urban drainage related.

Based on the record of previous occurrences, severe thunderstorms in Brookline are high frequency events as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard may occur more frequently than once in 5 years (greater than 20% per year).

**Winter Storms**

Winter storms, including heavy snow, blizzards, and ice storms, are the most common and most familiar of the region's hazards that affect large geographic areas. The majority of blizzards and ice storms in the region cause more inconvenience than they do serious property damage, injuries, or deaths. However, periodically, a storm will occur which is a true disaster, and necessitates intense large-scale emergency response. The Town of Brookline has a strict policy governing school closings, road uses, parking, and other factors that could facilitate the management of a serious winter storm emergency.

Heavy Snow and Blizzards

Winter storms are a combination hazard because they often involve wind, ice and heavy snow fall. The average annual snowfall for the northern portion of Brookline is 36-48 inches; the central and southern parts of the Town are the range of 48 - 72 inches (see Map 6 in Appendix B).

The Northeast Snowfall Impact Scale (NESIS) developed by Paul Kocin of The Weather Channel and Louis Uccellini of the National Weather Service (Kocin and Uccellini, 2004) characterizes and ranks high impact northeast snowstorms. These storms have large areas of 10 inch snowfall accumulations and greater. NESIS has five categories: Extreme, Crippling, Major, Significant, and Notable. NESIS scores are a function of the area affected by the snowstorm, the amount of snow, and the number of people living in the path of the storm. The largest NESIS values result from storms producing heavy snowfall over large areas that include major metropolitan centers. The NESIS categories are summarized below:

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Category	NESIS	Value Description
1	1–2.499	Notable
2	2.5–3.99	Significant
3	4–5.99	Major
4	6–9.99	Crippling
5	10.0+	Extreme

Source: Massachusetts State Hazard Mitigation Plan, 2013

Blizzards include all of the hazards associated with heavy snows but are also accompanied by sustained or frequent wind gusts of 35 mph or more, along with falling or blowing snow reducing visibility to below ¼ mile. These conditions must be the predominant condition over a 3 hour period. Extremely cold temperatures are often associated with blizzard conditions, but are not a formal part of the definition. The hazard created by the combination of snow, wind and low visibility significantly increases, however, with temperatures below 20 degrees. Historical occurrences of blizzards and severe winter storms in Massachusetts are shown in Table 13.

The most significant winter storm in recent history was the “Blizzard of 1978,” which resulted in over 3 feet of snowfall and multiple day closures of roadways, businesses, and schools. In Brookline severe winter storms have occurred in the following years:

**Table 13 Blizzard and Severe Winter Storms in Massachusetts**

Blizzard of 1978	February 1978
Blizzard	March 1993
Blizzard	January 1996
Severe Snow Storm	March 2001
Severe Snow Storm	December 2003
Severe Snow Storm	January 2004
Severe Snow Storm	January 2005
Severe Snow Storm	April, 2007
Severe Snow Storm	December 2010
Severe Snow Storm	January 2011
Blizzard of 2013	February 2013
Blizzard of 2015	January 2015

Source: National Oceanic and Atmospheric Administration

The Town of Brookline does not keep local records of winter storms. Data for Norfolk County, which includes Brookline, is the best available data to help understand previous occurrences and impacts of heavy snow events. According to National Climate Data Center (NCDC) records, from 1996 to 2014 Norfolk County experienced 68 heavy snowfall events, resulting in no deaths, one injury, and \$8.8 million dollars in property damage. See Table 14 for and heavy snow events and impacts in Norfolk County.

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Table 14 - Heavy Snow events and Impacts in Norfolk County 1996 -2014

Date	Type	Deaths	Injuries	Property Damage
1/2/1996	Heavy Snow	0	0	-
1/7/1996	Heavy Snow	0	0	1,400,000
1/7/1996	Heavy Snow	0	0	2,000,000
1/10/1996	Heavy Snow	0	0	-
2/2/1996	Heavy Snow	0	0	-
2/16/1996	Heavy Snow	0	0	-
3/2/1996	Heavy Snow	0	0	-
3/7/1996	Heavy Snow	0	0	-
4/7/1996	Heavy Snow	0	0	-
4/9/1996	Heavy Snow	0	0	-
12/6/1996	Heavy Snow	0	0	-
1/11/1997	Heavy Snow	0	0	-
2/16/1997	Heavy Snow	0	0	-
3/31/1997	Heavy Snow	0	0	-
4/1/1997	Heavy Snow	0	0	2,500,000
12/23/1997	Heavy Snow	0	0	-
1/15/1998	Heavy Snow	0	0	-
1/15/1998	Heavy Snow	0	0	-
12/24/1998	Heavy Snow	0	0	-
1/14/1999	Heavy Snow	0	0	-
2/25/1999	Heavy Snow	0	0	-
3/6/1999	Heavy Snow	0	0	-
3/15/1999	Heavy Snow	0	0	-
1/13/2000	Heavy Snow	0	0	-
2/18/2000	Heavy Snow	0	0	-
12/30/2000	Heavy Snow	0	0	-
1/20/2001	Heavy Snow	0	0	-
2/5/2001	Heavy Snow	0	0	-
3/5/2001	Heavy Snow	0	0	-
3/9/2001	Heavy Snow	0	0	-
3/26/2001	Heavy Snow	0	0	250,000
12/8/2001	Heavy Snow	0	0	-

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Date	Type	Deaths	Injuries	Property Damage
12/5/2002	Heavy Snow	0	0	-
3/16/2004	Heavy Snow	0	0	-
2/21/2005	Heavy Snow	0	0	-
2/24/2005	Heavy Snow	0	0	-
12/13/2007	Heavy Snow	0	0	-
12/16/2007	Heavy Snow	0	0	7,500
12/19/2007	Heavy Snow	0	0	-
1/14/2008	Heavy Snow	0	0	36,000
1/14/2008	Heavy Snow	0	0	30,000
1/14/2008	Heavy Snow	0	0	55,000
1/27/2008	Heavy Snow	0	0	-
2/22/2008	Heavy Snow	0	0	-
12/19/2008	Heavy Snow	0	0	10,000
12/19/2008	Heavy Snow	0	0	3,000
12/31/2008	Heavy Snow	0	0	-
1/18/2009	Heavy Snow	0	0	-
1/19/2009	Heavy Snow	0	0	-
2/3/2009	Heavy Snow	0	0	-
3/1/2009	Heavy Snow	0	0	-
3/2/2009	Heavy Snow	0	0	-
12/19/2009	Heavy Snow	0	0	-
2/16/2010	Heavy Snow	0	0	-
12/20/2010	Heavy Snow	0	0	-
1/12/2011	Heavy Snow	0	0	-
1/26/2011	Heavy Snow	0	0	-
1/21/2012	Heavy Snow	0	0	-
12/29/2012	Heavy Snow	0	0	5,000
2/8/2013	Heavy Snow	0	0	-
3/7/2013	Heavy Snow	0	0	-
3/18/2013	Heavy Snow	0	0	-
12/14/2013	Heavy Snow	0	0	-
12/17/2013	Heavy Snow	0	0	-
1/2/2014	Heavy Snow	0	0	-

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Date	Type	Deaths	Injuries	Property Damage
1/21/2014	Heavy Snow	0	0	-
2/5/2014	Heavy Snow	0	0	-
2/15/2014	Heavy Snow	0	0	5,000
<b>Total</b>	<b>50</b>	<b>0</b>	<b>1</b>	<b>8.8 M</b>

Blizzard and heavy snow are considered to be high frequency events based on past occurrences, as defined by the Massachusetts State Hazard Mitigation Plan, 2013. This hazard occurs more than once in five years, with a greater than 20 percent chance of occurring each year.

Ice Storms

The ice storm category covers a range of different weather phenomena that collectively involve rain or snow being converted to ice in the lower atmosphere leading to potentially hazardous conditions on the ground. Hail size typically refers to the diameter of the hailstones. Warnings and reports may report hail size through comparisons with real-world objects that correspond to certain diameters:

Description	Diameter (inches)
Pea	0.25
Marble or Mothball	0.50
Penny or Dime	0.75
Nickel	0.88
Quarter	1.00
Half Dollar	1.25
Walnut or Ping Pong Ball	1.50
Golf ball	1.75
Hen's Egg	2.00
Tennis Ball	2.50
Baseball	2.75
Tea Cup	3.00
Grapefruit	4.00
Softball	4.50

While ice pellets and sleet are examples of these, the greatest hazard is created by freezing rain conditions, which is rain that freezes on contact with hard surfaces leading to a layer of ice on roads, walkways, trees, and other surfaces. The conditions created by freezing rain can make driving particularly dangerous and emergency response more

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difficult. The weight of ice on tree branches can also lead to falling branches damaging electric lines.

Town-specific data for previous ice storm occurrences are not collected by the Town of Brookline. The best available local data is through the National Climatic Data Center for the adjacent county of Middlesex, which experienced three ice storm events from 1998 to 2008, causing a total of \$3,155,000 in damages. No injuries or deaths were reported (see Table 15).

**Table 15 Middlesex County Ice Storm Events, 1998 –2008**

BEGIN_DATE	EVENT_TYPE	DEATHS	INJURIES	DAMAGE
1/9/1998	Ice Storm	0	0	5,000
11/16/2002	Ice Storm	0	0	150,000
12/11/2008	Ice Storm	0	0	3,000,000
<b>TOTAL</b>		<b>0</b>	<b>0</b>	<b>3,155,000</b>

Source: NOAA, National Climatic Data Center.

Ice storms are considered to be medium frequency events based on past occurrences, as defined by the Massachusetts State Hazard Mitigation Plan, 2013. This hazard occurs once in 5 years to once in 50 years, with 2% to 20% chance of occurring each year.

The impacts of winter storms, including heavy snow, blizzards, and ice storms, are often related to the weight of snow and ice, which can cause roof collapses and also causes tree limbs to fall which can in turn cause property damage and potential injuries, as well as power outages.

Winter storms are a potential town-wide hazard in Brookline. The Town’s vulnerability is primarily related to restrictions to travel on roadways, temporary road closures, school closures, and potential restrictions on emergency vehicle access. Transit operations may also be impacted, as they were in the 2015 blizzard which caused the closure of the MBTA system for one day and limited services on several transit lines for several weeks. Another winter storm vulnerability is power outages due to fallen trees and utility lines.

**Geologic Hazards**

Geologic hazards include earthquakes and landslides. Although new construction under the most recent building codes generally will be built to seismic standards, there are still many structures which pre-date the most recent building code. Information on geologic hazards in Brookline can be found on Map 4 in Appendix B.

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Earthquakes

Damage in an earthquake stems from ground motion, surface faulting, and ground failure in which weak or unstable soils, such as those composed primarily of saturated sand or silts, liquefy. The effects of an earthquake are mitigated by distance and ground materials between the epicenter and a given location. An earthquake in New England affects a much wider area than a similar earthquake in California due to New England's solid bedrock geology (NESEC).

Seismologists use a Magnitude scale (Richter Scale) to express the seismic energy released by each earthquake. The typical effects of earthquakes in various ranges are summarized below.

Richter Magnitudes	Earthquake Effects
Less than 3.5	Generally not felt, but recorded
3.5- 5.4	Often felt, but rarely causes damage
Under 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 km. across where people live.
7.0- 7.9	Major earthquake. Can cause serious damage over larger areas.
8 or greater	Great earthquake. Can cause serious damage in areas several hundred meters across.

Source: Nevada Seismological Library (NSL), 2005

According to the State Hazard Mitigation Plan, New England experiences an average of five earthquakes per year. From 1668 to 2007, 355 earthquakes were recorded in Massachusetts (NESEC). Most have originated from the La Malbaie fault in Quebec or from the Cape Anne fault located off the coast of Rockport. The region has experienced larger earthquakes, including a magnitude 5.0 earthquake in 1727 and a 6.0 earthquake that struck in 1755 off the coast of Cape Anne. More recently, a pair of damaging earthquakes occurred near Ossipee, NH in 1940, and a 4.0 earthquake centered in Hollis, Maine in October 2012 was felt in the Boston area. Historical records of some of the more significant earthquakes in the region are shown in Table 16.

**Table 16 Historical Earthquakes in Massachusetts or Surrounding Area**

Location	Date	Magnitude
MA - Cape Ann	11/10/1727	5
MA - Cape Ann	12/29/1727	NA
MA - Cape Ann	2/10/1728	NA
MA - Cape Ann	3/30/1729	NA
MA - Cape Ann	12/9/1729	NA
MA - Cape Ann	2/20/1730	NA
MA - Cape Ann	3/9/1730	NA

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MA - Boston	6/24/1741	NA
MA - Cape Ann	6/14/1744	4.7
MA - Salem	7/1/1744	NA
MA - Off Cape Ann	11/18/1755	6
MA - Off Cape Cod	11/23/1755	NA
MA - Boston	3/12/1761	4.6
MA - Off Cape Cod	2/2/1766	NA
MA - Offshore	1/2/1785	5.4
MA - Wareham/Taunton	12/25/1800	NA
MA - Woburn	10/5/1817	4.3
MA - Marblehead	8/25/1846	4.3
MA - Brewster	8/8/1847	4.2
MA - Boxford	5/12/1880	NA
MA - Newbury	11/7/1907	NA
MA - Wareham	4/25/1924	NA
MA - Cape Ann	1/7/1925	4
MA - Nantucket	10/25/1965	NA
MA - Boston	12/27/74	2.3
VA - Mineral	8/23/11	5.8
MA - Nantucket	4/12/12	4.5
ME - Hollis	10/17/12	4.0

Source: Boston HIRA

One measure of earthquake risk is ground motion, which is measured as maximum peak horizontal acceleration, expressed as a percentage of gravity (1 g). The range of peak ground acceleration in Massachusetts is from 10g to 20g, with a 2% probability of exceedance in 50 years. Brookline is in the middle part of the range for Massachusetts, at 14g to 16g, making it a moderate area of earthquake risk within the state, although the state as a whole is considered to have a low risk of earthquakes compared to the rest of the country. There have been no recorded earthquake epicenters within Brookline.

Although New England has not experienced a damaging earthquake since 1755, seismologists state that a serious earthquake occurrence is possible. There are five seismological faults in Massachusetts, but there is no discernible pattern of previous earthquakes along these fault lines. Earthquakes occur without warning and may be followed by aftershocks. Most older buildings and infrastructure were constructed without specific earthquake resistant design features.

Earthquakes are a hazard with multiple impacts beyond the obvious building collapse. Buildings may suffer structural damage which may or may not be readily apparent. Earthquakes can cause major damage to roadways, making emergency response difficult. Water lines and gas lines can break, causing flooding and fires. Another potential vulnerability is equipment within structures. For example, a hospital may be structurally engineered to withstand an earthquake, but if the equipment inside the building is not

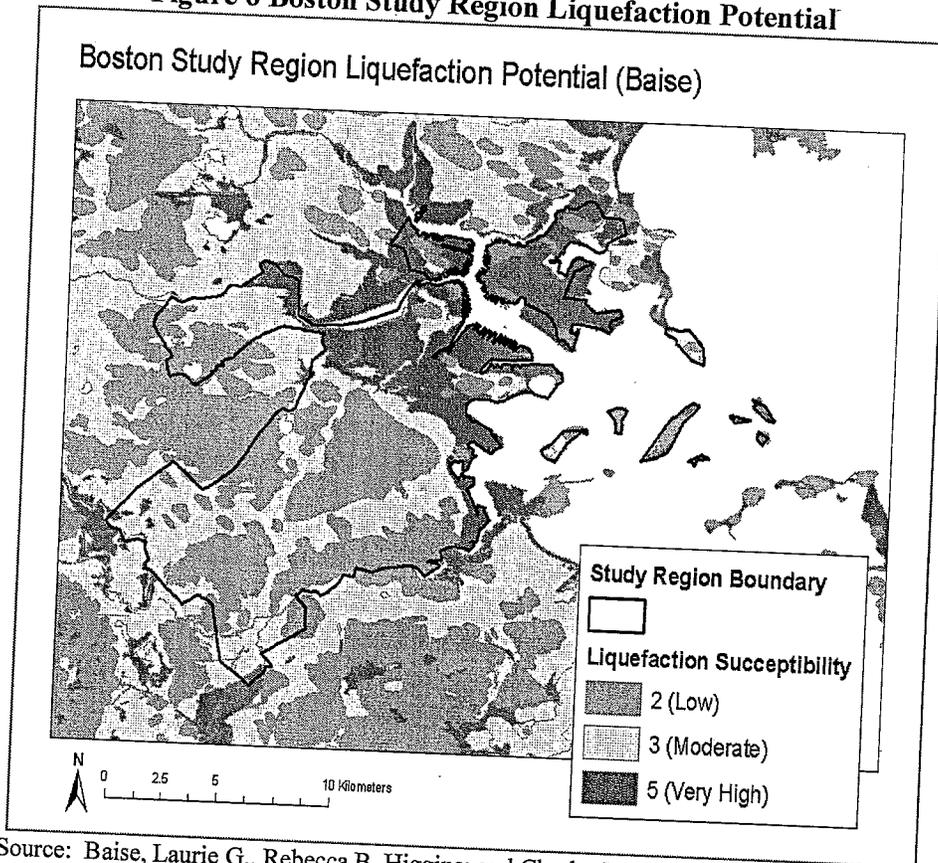
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properly secured, the operations at the hospital could be severely impacted during an earthquake. Earthquakes can also trigger landslides.

One additional impact that is of particular concern in the Boston metropolitan area is liquefaction (see Figure 6 below). This is due to the prevalence of filled land in some areas. Liquefaction means that loosely packed, water-logged sediments lose strength and therefore move in large masses or lose bearing strength. Soil units susceptible to liquefaction include: non-engineered artificial fill, alluvial deposits, fluvial deposits, and flood plain deposits. Non-engineered artificial fill is what is typically known locally as filled land. An earthquake with a magnitude of 5.5 or greater can trigger liquefaction.

Earthquakes are a potential town-wide hazard in Brookline, although the figure below indicates that a very small area along the Muddy River has a very high susceptibility to liquefaction, while most of the northeastern side of Brookline has moderate susceptibility, and the majority of the town has a low susceptibility to liquefaction.

Figure 6 Boston Study Region Liquefaction Potential



Source: Baise, Laurie G., Rebecca B. Higgins; and Charles M. Brankman, Tufts University

The Town has many older buildings that pre-date current building code which could be vulnerable in the event of a severe earthquake. Potential earthquake damages to Brookline have been estimated using HAZUS-MH. Total building damages are

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estimated at \$825 million for a 5.0 magnitude earthquake and \$9.1 billion for a 7.0 magnitude earthquake. Other potential impacts are detailed in Table 23.

According to the Boston College Weston Observatory, in most parts of New England, there is a one in ten chance that a potentially damaging earthquake will occur in a 50 year time period. The Massachusetts State Hazard Mitigation Plan classifies earthquakes as "very low" frequency events that occur less frequently than once in 100 years, or a less than 1% per year.

Landslides

According to the USGS, "The term landslide includes a wide range of ground movement, such as rock falls, deep failure of slopes, and shallow debris flows. Although gravity acting on an over steepened slope is the primary reason for a landslide, there are other contributing factors." Among the contributing factors are: erosion by rivers or ocean waves over steepened slopes; rock and soil slopes weakened through saturation by snowmelt or heavy rains; earthquakes create stresses that make weak slopes fail; and excess weight from accumulation of rain or snow, and stockpiling of rock or ore, from waste piles, or from man-made structures.

Landslides can result from human activities that destabilize an area or can occur as a secondary impact from another natural hazard such as flooding. In addition to structural damage to buildings and the blockage of transportation corridors, landslides can lead to sedimentation of water bodies. Typically, a landslide occurs when the condition of a slope changes from stable to unstable. Natural precipitation such as heavy snow accumulation, torrential rain and run-off may saturate soil creating instability enough to contribute to a landslide. The lack of vegetation and root structure that stabilizes soil and human activity can destabilize hilly terrain.

There is no universally accepted measure of landslide extent but it has been represented as a measure of the destructiveness. The table below summarizes the estimated intensity for a range of landslides. For a given landslide volume, fast moving rock falls have the highest intensity while slow moving landslides have the lowest intensity.

Most of the Town has been classified as having a low risk for landslides, and the remainder moderate. The areas west of Coolidge Corner and Brookline Village are classified as "Low landslide incidence (less than 1.5 % of the area is involved in land sliding)." The eastern portion of the Town is classified as "Moderate susceptibility to land sliding and low incidence"(see Map 4, Appendix B). Should a landslide occur the potential damages would depend on the extent, based on how many properties were affected. Given the relatively high assessed value of property in Brookline, damages affecting a single residence could exceed \$500,000, and damages affecting several homes or business properties could theoretically extend from \$1 million to tens of millions. However, there are no data available on landslide damages in Brookline, as there are

no records of any	<b>Expected Landslide Velocity</b>
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damages caused by landslides in Brookline. <b>Estimated Volume</b> (m <sup>3</sup> )			
	Fast moving landslide (Rock fall)	Rapid moving landslide (Debris flow)	Slow moving landslide (Slide)
<0.001	Slight intensity		
<0.5	Medium intensity		
>0.5	High intensity		
<500	High intensity	Slight intensity	
500-10,000	High intensity	Medium intensity	
10,000 – 50,000	Very high intensity	High intensity	Slight intensity
>500,000		Very high intensity	Medium intensity
>>500,000			High intensity
			Very high intensity

Source: *A Geomorphological Approach to the Estimation of Landslide Hazards and Risks in Umbria, Central Italy*, M. Cardinali et al, 2002

Should a landslide occur in the future, the type and degree of impacts would be highly localized, and the town’s vulnerabilities could include damage to structures, damage to transportation and other infrastructure, and localized road closures. Injuries and casualties, while possible, would be unlikely given the low extent and impact of landslides in Brookline.

Based on past occurrences and the Massachusetts Hazard Mitigation Plan, landslides are of Low frequency, events that can occur once in 50 to 100 years (a 1% to 2% chance of occurring each year).

**Fire Related Hazards**

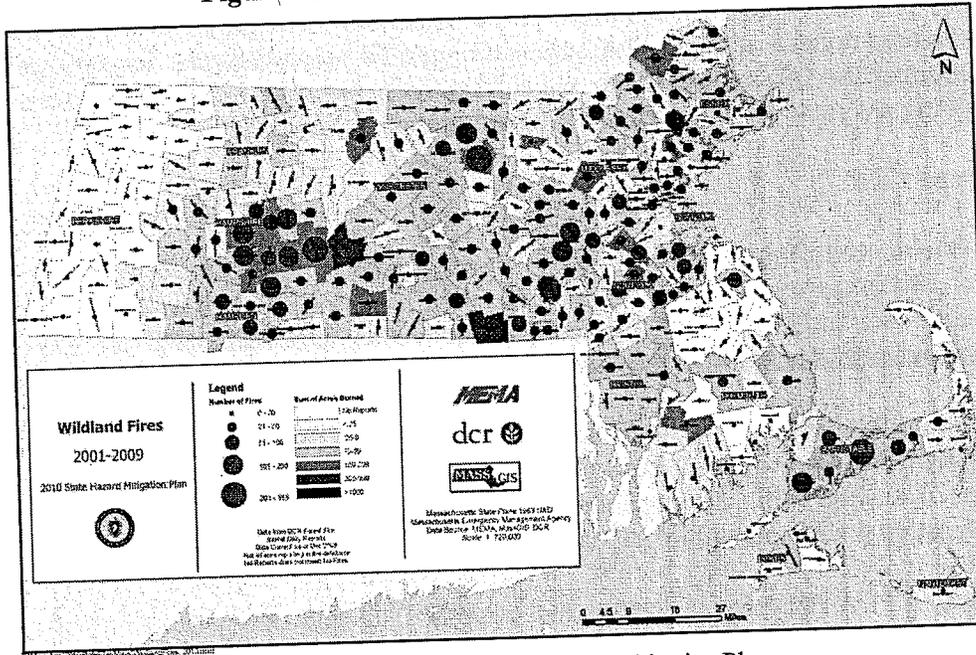
A brush fire is an uncontrolled fire occurring in a forested or grassland area. In the Boston Metro region these fires rarely grow to the size of a wildfire as seen more typically in the western U.S. As their name implies, these fires typically burn no more than the underbrush of a forested area. Wildfire season can begin in March and usually ends in late November. The majority of wildfires typically occur in April and May, when most vegetation is void of any appreciable moisture, making them highly flammable. Once "green-up" takes place in late May to early June, the fire danger usually is reduced somewhat.

These fires can present a hazard where there is the potential for them to spread into developed or inhabited areas, particularly residential areas where sufficient fuel materials might exist to allow the fire the spread into homes. However Brookline is nearly fully developed and has few open uninhabited areas with conditions for wild fires. According to the Brookline Fire Chief, natural fires in Brookline are not a significant issue. The town has seen one brush fire in 30 years, which occurred near Allandale Road with no notable damage.

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Wildfires in Massachusetts are measured by the number of fires and the sum of acres burned. The most recent data available for wildfires in Massachusetts, shown in Figure 7 below, indicates that the wildfire extent in Brookline consists of less than 9 acres burned, with fewer than 20 recordable fires from 2001 to 2009.

**Figure 7 Massachusetts Wildfires 2001-2009**



Source: Massachusetts State Hazard Mitigation Plan

Potential vulnerabilities to wildfires include damage to structures and other improvements, and impacts on natural resources such as marshlands along the Muddy River. Smoke and air pollution from wildfires can be a health hazard, especially for sensitive populations including children, the elderly, and those with respiratory and cardiovascular diseases. However, given the very low extent of wildfires in the town and the immediate response times to reported fires in Brookline, the likelihood of injuries and casualties is minimal. Potential damages from wildfires in Brookline would depend on the extent and type of land affected. There could be the need for post-fire revegetation to restore a burned property, which could cost from a few thousand dollars to tens of thousands for an extensive area. However, there are no data on actual wildfire damages, as there are none that have been recorded in the past.

Based on past occurrences and the Massachusetts Hazard Mitigation Plan 2013, brushfires are of Medium frequency, events that occur from once in 5 years to once in 50 years (2% to 20% probability per year).

**Extreme Temperatures**

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Extreme temperatures occur when either high temperature or low temperatures relative to average local temperatures occur. These can occur for brief periods of time and be acute, or they can occur over long periods of time where there is a prolonged period of excessively hot or cold weather.

Brookline has four well-defined seasons. The seasons have several defining factors, with temperature one of the most significant. Extreme temperatures can be defined as those, which are far outside of the normal seasonal ranges for Massachusetts. The average temperatures for Massachusetts are: winter (Dec-Feb) Average = 31.8°F and summer (Jun-Aug) Average = 71°F. Extreme temperatures are a town-wide hazard.

*Extreme Cold*

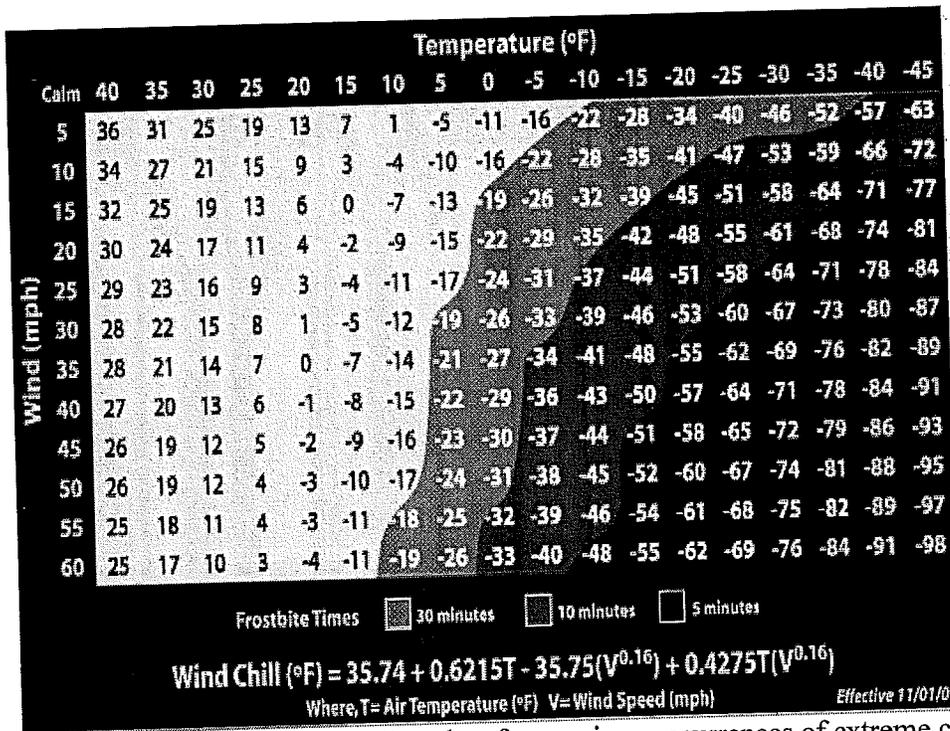
For extreme cold, temperature is typically measured using Wind Chill Temperature Index, which is provided by the National Weather Service (NWS). The latest version of the index was implemented in 2001 and it meant to show how cold conditions feel on unexposed skin. The index is provided in Figure 8 below.

Extreme cold is also relative to the normal climatic lows in a region. Temperatures that drop decidedly below normal and wind speeds that increase can cause harmful wind-chill factors. The wind chill is the apparent temperature felt on exposed skin due to the combination of air temperature and wind speed.

Extreme cold is a dangerous situation that can result in health emergencies for vulnerable people, such as those without shelter or who are stranded or who live in homes that are poorly insulated or without heat.

**Figure 8 - Wind Chill Temperature Index and Frostbit Risk**

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The Town of Brookline does not collect data for previous occurrences of extreme cold. The best available local data are for Norfolk County, through the National Climatic Data Center (NCDC). There is one extreme cold event on record in February 2007, which caused one death and no injuries or property damage (see Table 17).

Table 17 – Norfolk County Extreme Cold and Wind Chill Occurrences

Date	Type	Deaths	Injuries	Property Damage
02/03/2007	Extreme Cold/wind Chill	1	0	0.00K

Source: NOAA, National Climatic Data Center

*Extreme Heat*

While a heat wave for Massachusetts is defined as three or more consecutive days above 90°F, another measure used for identifying extreme heat events is through a Heat Advisory from the NWS. These advisories are issued when the heat index (Figure 9) is forecast to exceed 100 degree Fahrenheit (F) for 2 or more hours; an excessive heat advisory is issued if forecast predicts the temperature to rise above 105 degree F.

Figure 9 Heat Index Chart

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		Temperature (°F)															
		80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
Relative Humidity (%)	40	80	81	83	85	88	91	94	97	101	105	109	114	119	124		
	45	80	82	84	87	89	93	96	100	104	109	114	119	124			
	50	81	83	85	88	91	95	99	103	108	113	118	124				
	55	81	84	86	89	93	97	101	106	112	117	124					
	60	82	84	88	91	95	100	105	110	116	123						
	65	82	85	89	93	98	103	108	114	121							
	70	83	86	90	95	100	105	112	119								
	75	84	88	92	97	103	109	116	124								
	80	84	89	94	100	106	113	121									
	85	85	90	96	102	110	117										
	90	86	91	98	105	113	122										
95	86	93	100	108	117												
100	87	95	103	112	121												
Category		Heat Index					Health Hazards										
Danger		105 °F – 129 °F					Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.										
Extreme Caution		90 °F – 105 °F					Sunstroke, muscle cramps, and/or heat exhaustions possible with prolonged exposure and/or physical activity.										
Caution		80 °F – 90 °F					Fatigue possible with prolonged exposure and/or physical activity.										

Extreme heat poses a potentially greater risk to the elderly, children, and people with certain medical conditions, such as heart disease. However, even young and healthy individuals can succumb to heat if they participate in strenuous physical activities during hot weather. Hot summer days can also worsen air pollution. With increased extreme heat, urban areas of the Northeast are likely to experience more days that fail to meet air quality standards.

The Town of Brookline does not collect data on excessive heat occurrences. The best available local data are for Norfolk County, through the National Climatic Data Center. From 1999 - 2011, there have been a total of 16 excessive heat events, with two reported deaths, no injuries, and no property damage resulting from excessive heat (see Table 17).

Extreme temperature events are projected to be medium frequency events based on past occurrences, as defined by the Massachusetts State Hazard Mitigation Plan, 2013. Both extreme cold and hot weather events occur between once in five years to once in 50 years, or a 2 percent to 20 percent chance of occurring each year.

Table 18 – Norfolk County Extreme Heat Occurrences

DATE	LOCATION	DEATHS	INJURIES	DAMAGE
6/7/1999	EASTERN NORFOLK	0	0	0
6/7/1999	SUFFOLK/PART OF NORFOLK	0	0	0

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7/5/1999	SUFFOLK/PART OF NORFOLK	2	0	0
7/16/1999	EASTERN NORFOLK)	0	0	0
7/17/1999	SUFFOLK/PART OF NORFOLK	0	0	0
7/17/1999	EASTERN NORFOLK	0	0	0
7/18/1999	EASTERN NORFOLK	0	0	0
9/7/1999	EASTERN NORFOLK	0	0	0
9/8/1999	SUFFOLK/PART OF NORFOLK	0	0	0
7/6/2010	EASTERN PLYMOUTH	0	0	0
7/6/2010	WESTERN NORFOLK	0	0	0
7/6/2010	SUFFOLK (ZONE)	0	0	0
7/6/2010	EASTERN NORFOLK	0	0	0
7/22/2011	EASTERN PLYMOUTH	0	0	0
7/22/2011	SUFFOLK	0	0	0
7/22/2011	WESTERN NORFOLK	0	0	0
<b>TOTAL</b>		<b>2</b>	<b>0</b>	<b>0</b>

Source: NOAA, National Climatic Data Center

**Drought**

Drought is a temporary irregularity in precipitation and differs from aridity since the latter is restricted to low rainfall regions and is a permanent feature of climate. Drought is a period characterized by long durations of below normal precipitation. Drought conditions occur in virtually all climatic zones yet its characteristics vary significantly from one region to another, since it is relative to the normal precipitation in that region. Drought can affect agriculture, water supply, aquatic ecology, wildlife, and plant life.

In Massachusetts, droughts are caused by the prevalence of dry northern continental air and a decrease in coastal- and tropical-cyclone activity. During the 1960's, a cool drought occurred because dry air from the north caused lower temperatures in the spring and summer of 1962-65. The northerly winds drove frontal systems to sea along the Southeast Coast and prevented the Northeastern States from receiving moisture (U.S. Geological Survey). This is considered the drought of record in Massachusetts.

Average annual precipitation in Massachusetts is 44 inches per year, with approximately 3 to 4 inch average amounts for each month of the year. Regional monthly precipitation ranges from zero to 17 inches. Statewide annual precipitation ranges from 30 to 61 inches. Thus, in the driest calendar year (1965), the statewide precipitation total of 30 inches was 68 percent of average.

Although Massachusetts is relatively small, it has a number of distinct regions that experience significantly different weather patterns and react differently to the amounts of precipitation they receive. The DCR precipitation index divides the state into six regions: Western, Central, Connecticut River Valley, Northeast, Southeast, and Cape and Islands.

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Brookline is located in the Northeast Region. In Brookline drought is a potential town-wide hazard.

Five levels of drought have been developed to characterize drought severity: Normal, Advisory, Watch, Warning, and Emergency. These drought levels are based on the conditions of natural resources and are intended to provide information on the current status of water resources. The levels provide a basic framework from which to take actions to assess, communicate, and respond to drought conditions. They begin with a normal situation where data are routinely collected and distributed, move to heightened vigilance with increased data collection during an advisory, to increased assessment and proactive education during a watch. Water restrictions might be appropriate at the watch or warning stage, depending on the capacity of each individual water supply system. A warning level indicates a severe situation and the possibility that a drought emergency may be necessary. A drought emergency is one in which mandatory water restrictions or use of emergency supplies is necessary. Drought levels are used to coordinate both state agency and local response to drought situations.

As dry conditions can have a range of different impacts, a number of drought indices are available to assess these various impacts. Massachusetts uses a multi-index system that takes advantage of several of these indices to determine the severity of a given drought or extended period of dry conditions. Drought level is determined monthly based on the number of indices which have reached a given drought level. Drought levels are declared on a regional basis for each of six regions in Massachusetts. County by county or watershed-specific determinations may also be made.

A determination of drought level is based on seven indices:

1. Standardized Precipitation Index (SPI) reflects soil moisture and precipitation.
2. Crop Moisture Index: (CMI) reflects soil moisture conditions for agriculture.
3. Keetch Byram Drought Index (KBDI) is designed for fire potential assessment.
4. Precipitation Index is a comparison of measured precipitation amounts to historic normal precipitation.
5. The Groundwater Level Index is based on the number of consecutive month's groundwater levels are below normal (lowest 25% of period of record).
6. The Stream flow Index is based on the number of consecutive months that stream flow levels are below normal (lowest 25% of period of record).
7. The Reservoir Index is based on the water levels of small, medium and large index reservoirs across the state, relative to normal conditions for each month.

Determinations regarding the end of a drought or reduction of the drought level focus on two key drought indicators: precipitation and groundwater levels. These two factors have the greatest long-term impact on stream flow, water supply, reservoir levels, soil moisture and potential for forest fires.

Previous Occurrences

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Brookline does not collect data relative to drought events. Because drought tends to be a regional natural hazard, this plan references state data as the best available data for drought. The statewide scale is a composite of six regions of the state. Regional composite precipitation values are based on monthly values from six stations, and three stations in the smaller regions (Cape Cod/Islands and West).

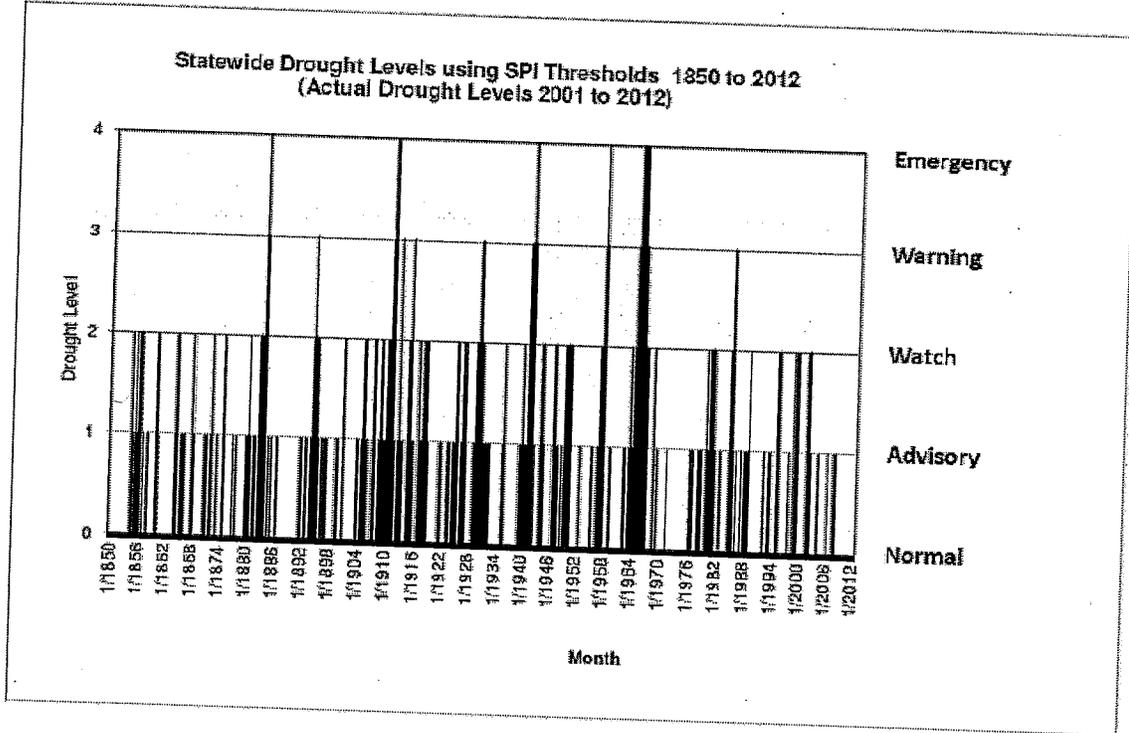
Figure 10 depicts the incidents of drought levels' occurrence in Massachusetts from 1850 to 2012 using the Standardized Precipitation Index (SPI) parameter alone. On a monthly basis, the state would have been in a Drought Watch to Emergency condition 11 percent of the time between 1850 and 2012. Table 19 summarizes the chronology of major droughts since the 1920's.

Drought Emergency

Drought emergencies have been reached infrequently, with 5 events occurring in the period between 1850 and 2012: in 1883, 1911, 1941, 1957, and 1965-1966. The 1965-1966 drought period is viewed as the most severe drought to have occurred in modern times in Massachusetts because of its long duration. On a monthly basis over the 162-year period of record, there is a one percent chance of being in a drought Emergency.

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Figure 10 - Statewide Drought Levels using SPI Thresholds 1850 – 2012



(Source: Mass. State Drought Management Plan 2013)

Drought Warning

Drought Warning levels not associated with drought Emergencies have occurred four times, in 1894, 1915, 1930, and 1985. On a monthly basis over the 162-year period of record, there is a two percent chance of being in a drought Warning level.

Drought Watch

Drought Watches not associated with higher levels of drought generally have occurred in three to four years per decade between 1850 and 1950. In the 1980s, there was a lengthy drought Watch level of precipitation between 1980 and 1981, followed by a drought Warning in 1985. A frequency of drought Watches at a rate of three years per decade resumed in the 1990s (1995, 1998, 1999). In the 2000s, Drought Watches occurred in 2001 and 2002. The overall frequency of being in a drought Watch is 8 percent on a monthly basis over the 162-year period of record.

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Table 19 - Chronology of major droughts in Massachusetts

Date	Area affected	Recurrence interval (years)	Remarks
1929-32	Statewide	10 to >50	Water-supply sources altered in 13 communities. Multistate.
	Statewide	15 to >50	More severe in eastern and extreme western Massachusetts. Multistate.
1957-59	Statewide	5 to 25	Record low water levels in observation wells, northeastern Massachusetts.
1961-69	Statewide	35 to >50	Water-supply shortages common. Record drought. Multistate.
1980-83	Statewide	10 to 30	Most severe in Ipswich and Taunton River basins; minimal effect in Nashua River basin. Multistate.
1985-88	Housatonic River basin	25	Duration and severity unknown. Streamflow showed mixed trends elsewhere.
2016	Statewide	N/A	Drought declaration began in June 2016 and covers 98 percent of the state, with more severe drought in the Central, Northeast, and Southeast regions.

Under a severe long term drought the Town of Brookline could be vulnerable to restrictions on water supply. Potential damages of a severe drought could include losses of landscaped areas if outdoor watering is restricted and potential loss of business revenues if water supplies were severely restricted for a prolonged period. As this hazard has never occurred in Brookline, there are no data or estimates of potential damages, but under a severe drought scenario it would be reasonable to expect a range of potential damages from several million to tens of millions of dollars. However, given the resilience of the MWRA water system due to its large amount of storage in the Quabbin and Wachusett Reservoirs (equivalent to five years of water demand), severe impacts on the town are unlikely. For example, even during the current 2016 drought, the levels in the MWRA's reservoirs are within the normal operating range. Another potential vulnerability of droughts could be increased risk of wildfires. However as described above, as a highly urbanized community Brookline has limited exposure to this hazard due to limited open lands subject to wildfire.

Probability of Future Occurrences

The state has experienced Emergency Droughts five times between 1850 and 2012. Even given that regional drought conditions may occur at a different interval than state data indicates, droughts remain primarily regional and state phenomena in Massachusetts. Emergency Drought conditions over the 162 period of record in Massachusetts are a Low

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Frequency natural hazard event that can occur from once in 50 years to once in 100 years (1% to 2% chance per year), as defined by the Massachusetts State Hazard Mitigation Plan, 2013.

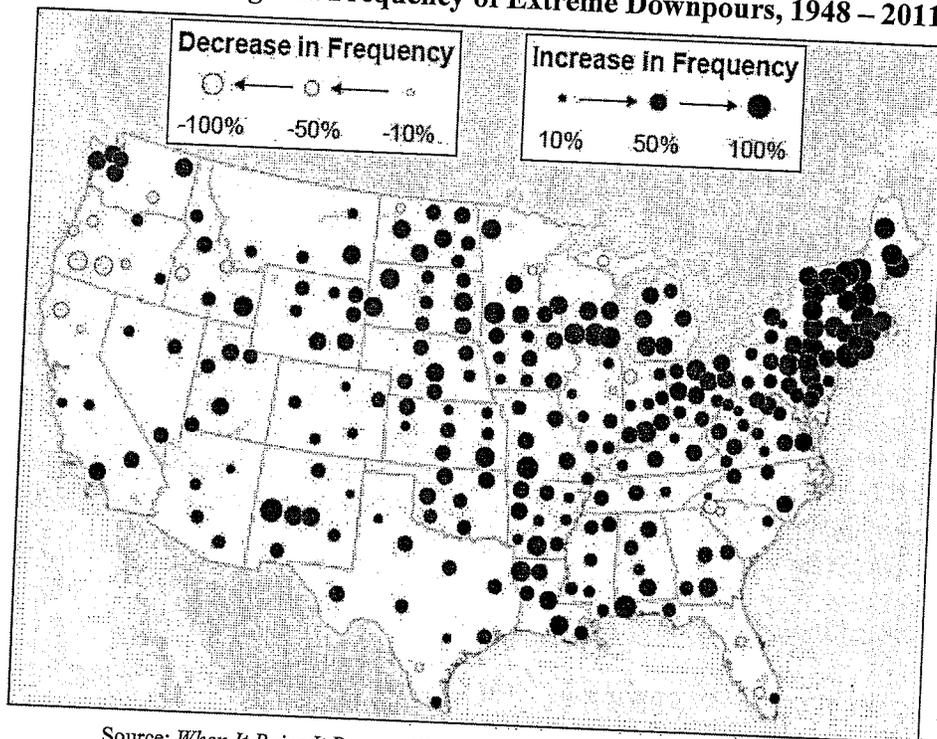
**Impacts of Climate Change**

Many of the natural hazards that Brookline has historically experienced are likely to be exacerbated by climate change in future years. This is particularly true for flooding caused by extreme precipitation and extreme heat. These are described in more detail below.

*Climate Change Impacts: Extreme Precipitation*

Brookline's average annual precipitation is 42 inches. While total annual precipitation has not changed significantly, according to the 2012 report *When It Rains It Pours – Global Warming and the Increase in Extreme Precipitation from 1948 to 2011* intense rainstorms and snowstorms have become more frequent and more severe over the last half century in the northeastern United States. Extreme downpours are now happening 30 percent more often nationwide than in 1948 (see Figure 11). In other words, large rain or snow storms that happened once every 12 months, on average, in the middle of the 20th century, now happen every nine months.

**Figure 11 Changes in Frequency of Extreme Downpours, 1948 – 2011**



Source: *When It Rains It Pours – Global Warming and the Increase in Extreme Precipitation*, Environment America Research and Policy Center, July 2012

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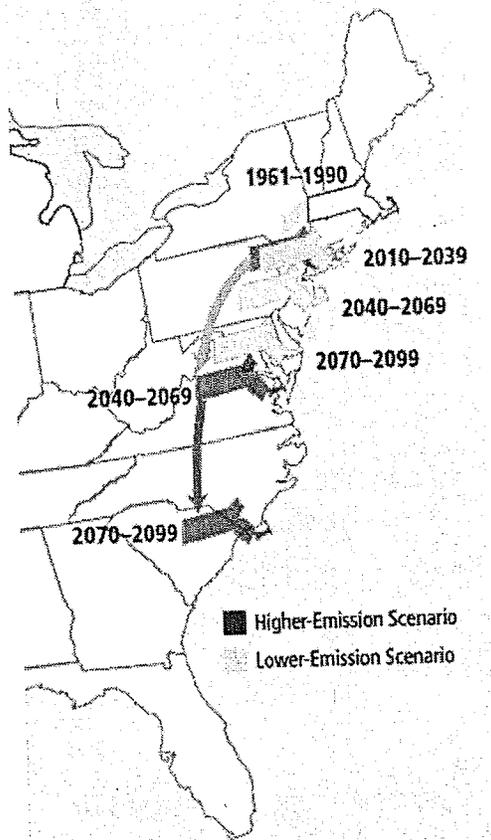
Not only are these intense storm events more frequent, they are also more severe: the largest annual storms now produce 10 percent more precipitation, on average, than in 1948. In particular, the report finds that New England has experienced the greatest change with intense rain and snow storms occurring 85 percent more often than in 1948

At the other extreme, changes in precipitation patterns and the projected future rising temperatures due to climate change (discussed below) will likely increase the frequency of short-term (one- to three-month) droughts and decrease stream flow during the summer.

*Climate Change Impacts: Extreme Heat*

Recent temperature trends suggest greater potential impacts to come due to climate change. In the report "Confronting Climate Change in the U.S. Northeast," (2007), the Union of Concerned Scientists presented temperature projections to 2099 based on two scenarios, one with lower carbon dioxide emissions, and the other with high emissions.

**Figure 12 – Mass. Extreme Heat Scenarios**



Between 1961 and 1990, Boston experienced an average of 11 days per year over 90°F. That could triple to 30 days per year by 2095 under the low emissions scenario, and increase to 60 days per year under the high emissions scenario. Days over 100°F could increase from the current average of one day per year to 6 days with low emissions or 24 days with high emissions. By 2099, Massachusetts could have a climate similar to Maryland's under the low emissions scenario, and similar to the Carolinas' with high emissions (Figure 12). Furthermore, the number of days with poor air quality could quadruple in Boston by the end of the 21<sup>st</sup> century under higher emissions scenario, or increase by half under the lower emissions scenario. These extreme temperature trends could have significant impacts on public health, particularly for those individuals with asthma and other respiratory system conditions, which typically affect the young and the old more severely.

Source: Union of Concerned Scientists

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Land Use and Development Trends

Existing Land Use

The most recent land use statistics available from the state are from aerial photography done in 2005. Table 20 shows the acreage and percentage of land in 20 categories. If the five residential categories are aggregated, residential uses make up 57% of the area of the town (2,493 acres). Commercial and industrial combined make up 4.9% of the town, or 214.6 acres. Recreation, urban public, and golf courses comprise a total of 17.1%, or 748.1 acres.

Table 20 2005 Land Use

Land Use Type	Acres	Percent
Crop Land, Pasture, Orchard	50.5	1.2%
Forest	605.2	13.9%
Non-Forested Wetlands	7.6	0.2%
Forested Wetland	40.6	0.9%
Mining	6.8	0.2%
Open & Urban Open Land	21.3	0.5%
Participation Recreation	200.8	4.6%
Multi-family Residential	784.4	18.0%
High Density Residential	717.1	16.4%
Medium Density Residential	457.7	10.5%
Low Density Residential	336.9	7.7%
Very Low Density Residential	196.5	4.5%
Commercial	206.4	4.7%
Industrial	8.2	0.2%
Transportation	55.7	1.3%
Waste Disposal	5.3	0.1%
Forest	605.2	13.9%
Water	49.9	1.1%
Golf Course Acres	266.8	6.1%
Urban Public Acres	280.5	6.4%
Cemetery Acres	67.3	1.5%
<b>Total Acres</b>	<b>4,365.6</b>	<b>100.0%</b>

For more information on how the land use statistics were developed and the definitions of the categories, please go to <http://www.mass.gov/mgis/lus.htm>.

Economic Elements

Brookline has local economic centers located in multiple areas of the town. Significant centers of economic development include Coolidge Corner, Washington Square, Brookline Village, and Putterham Circle. These areas are complimented by commercial

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corridors along Route 9, Commonwealth Avenue, and along Beacon Street at St. Mary's. There are also smaller neighborhood commercial centers in several areas. These centers and corridors consist of historic structures and businesses as well as more recent developments that include retail, office, and residential uses. There are approximately 2,500 businesses in Brookline, which comprise about 9 percent of the town's tax base.

### Historic, Cultural, and Natural Resource Areas

There are several locations and areas of historical and cultural importance to Brookline, some of which are listed on the State and National historic registers. According to the Brookline Open Space Plan 2010, Brookline has five local historic districts, as well as sixteen National/State Register Districts and over 80 individual properties listed as Historic Places. Since 2000, 3 new historic districts have been added to this list: Graffam-McKay, Chestnut Hill North, and the Harvard Avenue local historic district.

The sixteen National/State Register Districts include: Olmsted Park/Emerald Necklace, Pill Hill/High Street Hill, Longwood, Cottage Farm, Brookline Village Commercial District, Town Green, Beacon Street, Beaconsfield Terraces, Chestnut Hill, Cypress Street/Emerson Garden, Graffam- McKay Development, Green Hill, Larz Anderson Park, Fisher Hill, Strathmore Road, and White Place. Sections of the Cochituate Aqueduct Linear District, Hammond Pond Parkway and West Roxbury Parkway have also been listed in the National Registrar of Historic Places.

The Emerald Necklace, on the border of Brookline and Boston, is one of Frederick Law Olmsted's notable designs. It is a significant landscape not only for its historic value, but also for its values to users and to wildlife. Other historic landscapes include the Walnut Hills Cemetery, and The Old Burying Ground, Linden Park and Linden Square, Emerson Garden, Town Green, Longwood Mall, Mason Square, Larz Anderson Park, Reservoir Park, Amory Woods, Hall's Pond, Fisher Hill Reservoir and Holyhood Cemetery.

Although the majority of the nine streams and brooks that once ran through Brookline have been channelized and piped below ground, the Muddy River remains Brookline's major natural resource corridor. The remaining major wetlands in Brookline are located at Hall's Pond, Lost Pond, D. Blakely Hoar Sanctuary, Allandale Farm, Sargent's Pond, along Hammond Pond Parkway, and at Putterham Meadows golf course. Several smaller wetland systems remain as well. These wetlands continue to provide essential environmental services in the form of flood storage, filtration of polluted runoff, and habitat. The state Wetlands Protection Act governs activities in these wetlands.

### Development Trends

Under current zoning, the Town of Brookline is largely built out. Much of the land area is occupied by existing residential neighborhoods, commercial districts and corridors, open space and recreational spaces, and conservation land and undevelopable wetlands. Most of the larger and more easily developed parcels in Brookline have already been

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developed or protected as conservation land, so the development that is occurring in the Town is largely infill development and redevelopment.

Development trends throughout the metropolitan region are tracked by MAPC's Development Database, which provides an inventory of new development over the last decade. The database tracks both completed developments and those currently under construction. The database includes 12 developments in the Town of Brookline since 2008, of which 7 are completed and 5 were under construction or planned in 2015.

The database also includes several attributes of the new development, including site acreage, housing units, and commercial space. All of the completed projects are housing projects, and those currently under construction or planned are a mix of commercial, housing, office, and retail. The 12 developments in Brookline include a total of 436 housing units, 415,000 square feet of commercial space, and are sited on a total of almost 15 acres (see Table 21).

**In order to characterize any change in the town's vulnerability associated with new developments, a GIS mapping analysis was conducted which overlaid the development sites with the FEMA Flood Insurance Rate Map. The analysis shows that none of the 12 developments are located within a flood zone. The only other hazards that vary with location within the town are snowfall and landslide risk. For snowfall, eight of the developments are located in the zone of 36 to 48 inches average annual snowfall, with the remaining four in the zone of 48 to 72 inches average annual snowfall. For landslide risk, five of the developments are in the area classified as "Low Landslide Incidence" and the remaining seven developments are in the area classified as "Moderate susceptibility and low incidence" for landslides. With respect to wind, there is no variation across different sites in the town; the hazard map depicts the entire town of Brookline in the same category, which is a 100-year wind speed of 120 miles per hour. (See hazard maps in Appendix C).**  
Potential Future Development

MAPC consulted with town planning staff to determine areas that may be developed in the future, based on the Town's comprehensive planning efforts and current trends and projects. These areas are described below. None of these sites are in a flood hazard zone.

A. Coolidge Corner

The town has recently undertaken a planning process for this area. The area will likely include additional infill development, mostly commercial and residential uses.

B. Northeastern University parcel

Though the University has no current plans for this parcel, in the long term it is possible that housing may be developed here. The site is zoned for 2-family residences on 5,000 square foot lots.

C. Pine Manor College

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Though this area currently is a college, there is a long-term possibility that market conditions could encourage redevelopment, most likely housing. The Town plans to do a build-out study to determine the potential development on the site.

**D. Hancock Village**

A 161-unit residential development proposed by Chestnut Hill Realty has been approved by the Zoning Board of Appeals under a Chapter 40B Comprehensive Permit. The permit is being appealed by the Board of Selectmen, and litigation is still pending. A Neighborhood Conservation District has been established by the Town for this area.

**E. Allandale Farm**

This is the last working farm in Brookline (part in Boston). Several homes have been built on the site, and this land may become more residential over the long term. It is possible that it could be developed as an open space subdivision where a large amount of the farm is retained as open space and the residences are clustered on a portion of the site.

**F. Gateway East**

Development in the near term is expected on this portion of Route 9 which is adjacent to Brookline and the border with the City of Boston. A redevelopment proposal by Children's Hospital at Brookline Place is currently under review. The former Red Cab site at 111 Boylston Street is being developed as a Hilton Hotel.

**G. Circle Cinema Site (Chestnut Hill Ave at Beacon Street)**

Most of the former Circle Cinema site is in neighboring Boston. A mix of office, retail, and hotel uses are being considered for redevelopment of the site.

**H. Infant Jesus-St. Lawrence Parish**

It is possible that the land surrounding this church could be redeveloped over the long term, possibly as a mixture of commercial and residential uses.

**I. Chestnut Hill**

This area is currently seeing quite a bit of development in both Brookline and Newton. It is expected that in the near future, additional development will consist mostly of commercial uses with some residential uses.

**J. 82 Dummer Street at St. Paul St.**

The Brookline Housing Authority is developing 32 affordable housing units at this site.

**K. Fisher Hill**

This area will include a new recreation field and housing.

**L. 45 Marion Street**

This is a 40B development of 50 residential units.

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**Table 21 Summary of Brookline Developments 2008-2015**

<b>DEVELOPMENTS COMPLETED 2008-2014</b>	<b>Acres</b>	<b>HOUSING UNITS</b>	<b>COMMERCIAL (SQ FEET)</b>	<b>PROJECT TYPE</b>
Olmstead Hill	4.81	34	0	Housing
109-115 Sewall Ave	1	16	0	Housing
The St. Aidan	1	59	0	Mixed income housing
St. Paul Arms	1	38	0	Housing
311 Hammond Pond Parkway	0	29	0	Housing
310 Hammond Pond Parkway	0	16	0	Housing
74-76 Green Street	1	10	0	Housing
<b>SUBTOTAL</b>	<b>8.81</b>	<b>202</b>	<b>0</b>	
<b>UNDER CONSTRUCTION/PLANNED</b>				
111 Boylston Street	0.6	0	42,500	Hotel
70 Sewall Ave	0.23	7	-	Housing
Circle Cinema	2.54	82	143,500	Mixed Use
5 Washington Street	1	145	12,000	Housing
Two Brookline Place	1.45	0	217,000	Office and retail
<b>SUBTOTAL</b>	<b>5.82</b>	<b>234</b>	<b>415,000</b>	
<b>TOTAL ALL PROJECTS</b>	<b>14.63</b>	<b>436</b>	<b>415,000</b>	

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### Critical Infrastructure in Hazard Areas

Critical infrastructure includes facilities that are important for disaster response and evacuation (such as emergency operations centers, fire stations, water pump stations, etc.) and facilities where additional assistance might be needed during an emergency (such as nursing homes, elderly housing, day care centers, etc.). There are 122 facilities identified in Brookline. These are listed in Table 22 and are shown on the maps in Appendix B.

#### Explanation of Columns in Table 22

**Column 1: ID #:** The first column in Table 10 is an ID number which appears on the maps that are part of this plan. See Appendix B.

**Column 2: Name:** The second column is the name of the site. If no name appears in this column, this information was not provided to MAPC by the community.

**Column 3: Type:** The third column indicates what type of site it is.

**Column 4: Landslide Risk:** The fourth column indicates the degree of landslide risk for that site. This information came from NESEC. The landslide information shows areas with either a low susceptibility or a moderate susceptibility to landslides based on mapping of geological formations. This mapping is highly general in nature. For more information on how landslide susceptibility was mapped, refer to <http://pubs.usgs.gov/pp/p1183/pp1183.html>.

**Column 5: FEMA Flood Zone:** The fifth column addresses the risk of flooding. A "No" entry in this column means that the site is not within any of the mapped risk zones on the Flood Insurance Rate Maps (FIRM maps). If there is an entry in this column, it indicates the type of flood zone.

**Column 6: Snowfall.** Areas designated "low" receive an annual average of 36.1 to 48.0 inches of snow. Areas designated "high" receive an annual average of 48.1 to 72 inches of snow, as shown on Map 6 in Appendix B.

**Column 7: Hurricane Surge Areas.** The final column indicates whether or not the site is located within a hurricane surge area and the potential degree of inundation in the event of a hurricane. Hurricane surge areas are shown on Map 8 in Appendix B. The following explanation of hurricane surge areas was taken from the US Army Corps of Engineers web site:

"Hurricane storm surge is an abnormal rise in sea level accompanying a hurricane or other intense storm. Along a coastline a hurricane will cause waves on top of the surge. Hurricane Surge is estimated with the use of a computer model called SLOSH. SLOSH stands for Sea Lake and Overland Surge from Hurricanes. The SLOSH models are created and run by the National Hurricane Center. There are about 40 SLOSH models from Maine to Texas.

The SLOSH model results are merged with ground elevation data to determine areas that will be subject to flooding from various categories of hurricanes. Hurricane categories are defined by the Saffir-Simpson Scale." See <http://www.sam.usace.army.mil/hesdata/General/hestasks.htm>

**Column 8: Earthquake Liquefaction Risk.** : Whether there is a high risk for liquefaction during an earthquake. This data was provided by Tufts University.

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**Table 22  
Critical Facilities and Relationship to Hazard Areas**

MAP ID	FACILITY NAME	TYPE	Landslides Susceptibility	FEMA Flood Zone	Average Annual Snow Fall (inches)	Hurricane Surge Areas	Earthquake Liquefaction Risk
1	Amory Field House	Recreation	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
2	Rainbow Preschool	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
3	Fire Station 5	Fire Station	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
4	Human Resource Institute Hospital	Hospital	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
5	Baker School	School	Low incidence	No	36.1 - 48.0	0	No
6	Stable/Garage & Office	Municipal Office	Low incidence	No	48.1 - 72.0	0	No
7	Garage & Storage	Storage Facility	Low incidence	No	48.1 - 72.0	0	No
8	Daycare	Child Care	Low incidence	No	48.1 - 72.0	0	No
9	Park Department Office	Municipal Office	Low incidence	No	48.1 - 72.0	0	No
10	Walnut Hill Cemetery	Cemetery	Low incidence	No	48.1 - 72.0	0	No
11	Beaver Country Day School Nursery	Child Care	Low incidence	No	48.1 - 72.0	0	No
12	Etty's Child Develop	Child Care	Mod. susceptibility/ low incidence	No	48.1 - 72.0	0	No
13	Susan's Home School	Child Care	Low incidence	No	36.1 - 48.0	0	No
14	After School Enrichment Program	Child Care	Low incidence	No	48.1 - 72.0	0	No
15	Dean Park Preschool	Child Care	Low incidence	No	48.1 - 72.0	0	No
16	Children's Center	Child Care	Low incidence	No	48.1 - 72.0	0	No
17	Corner Coop	Child Care	Low incidence	No	48.1 - 72.0	0	No
18	Les Petits	Child Care	Low incidence	No	48.1 - 72.0	0	No
19	Runkle School Extended Daycare	Child Care	Low incidence	No	48.1 - 72.0	0	No
20	Mulberry Childcare Daycare	Child Care	Mod. susceptibility/ Low incidence	No	36.1 - 48.0	0	No
21	Temple Emeth	Child Care	Low incidence	No	48.1 - 72.0	0	No
				No	36.1 - 48.0	3	High
				No	48.1 - 72.0	0	No

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Table 22  
Critical Facilities and Relationship to Hazard Areas

MAP ID	FACILITY NAME	TYPE	Landslides Susceptibility	FEMA Flood Zone	Average Annual Snow Fall (inches)	Hurricane Surge Areas	Earthquake Liquefaction Risk
22	Baker School Extended Daycare	Child Care	Low incidence	No	48.1 - 72.0	0	No
23	The Apple Orchard	Child Care	Low incidence	No	48.1 - 72.0	0	No
24	Skating Rink	Cold Storage	Low incidence	No	48.1 - 72.0	0	No
25	Fire Station 6	Fire Station	Low incidence	No	48.1 - 72.0	0	No
26	Lawrence Extended Day Care	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
27	Devotion School Primary Day Care	Child Care	Low incidence	No	36.1 - 48.0	0	No
28	Pierce Extended Day	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
29	Fire Department Training Center	Fire Station	Low incidence	No	48.1 - 72.0	0	No
30	Golf Course Maintenance Shed	Hazardous Materials	Low incidence	No	48.1 - 72.0	0	No
31	Emergency Operations	Emergency Operations Center	Low incidence	No	48.1 - 72.0	0	No
32	Comfort Station	Municipal Office	Low incidence	No	48.1 - 72.0	0	No
33	Salt Shed	Municipal Office	Low incidence	No	48.1 - 72.0	0	No
34	New Municipal Garage	Municipal Office	Low incidence	No	48.1 - 72.0	0	No
35	Boston Trinity Academy	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
36	Dexter School	School	Low incidence	No	48.1 - 72.0	0	No
37	New England Hebrew Academy	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
38	Soule Recreation Center	Recreation	Low incidence	No	48.1 - 72.0	0	No
39	Southfield School	School	Low incidence	No	48.1 - 72.0	0	No
40	Soule Storage Building	Hazardous Materials	Low incidence	No	48.1 - 72.0	0	No
41	Baldwin School	School	Low incidence	No	48.1 - 72.0	0	No
42	St Mary Of The Assumption	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No

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**Table 22  
Critical Facilities and Relationship to Hazard Areas**

MAP ID	FACILITY NAME	TYPE	Landslides Susceptibility	FEMA Flood Zone	Average Annual Snow Fall (inches)	Hurricane Surge Areas	Earthquake Liquefaction Risk
43	Fire Station 4	Fire Station	Low incidence	No	48.1 - 72.0	0	No
44	Heath School	School	Low incidence	No	48.1 - 72.0	0	No
45	Emergency Pumping Station	Water Pumping Station	Low incidence	No	48.1 - 72.0	0	No
46	Lower Gate House	Dam	Low incidence	No	48.1 - 72.0	0	No
47	The Park School	School	Low incidence	No	48.1 - 72.0	0	No
48	New Lincoln School	School	Low incidence	No	48.1 - 72.0	0	No
49	Ivy Street School	School	Mod. susceptibility/low incidence	No	48.1 - 72.0	0	No
50	Bay Cove Academy	School	Low incidence	No	36.1 - 48.0	4	No
51	Warren Park Cabin	Recreation	Low incidence	No	36.1 - 48.0	0	No
52	Old Lincoln School	School	Mod. susceptibility/low incidence	No	48.1 - 72.0	0	No
53	Fire Station 1	Fire Station	Mod. susceptibility/low incidence	No	48.1 - 72.0	0	No
54	Beacon High School	School	Mod. susceptibility/low incidence	No	36.1 - 48.0	4	No
55	Gymnasium	School	Mod. susceptibility/low incidence	No	36.1 - 48.0	0	No
56	Pine Manor College Child Study Ctr.	School	Low incidence	No	48.1 - 72.0	0	No
57	High School	School	Low incidence	No	48.1 - 72.0	0	No
58	Lynch Recreation Center	School	Mod. susceptibility/low incidence	A: 1% Annual Chance	48.1 - 72.0	0	No
59	Public Safety Head Quarters	Emergency Operations Center	Mod. susceptibility/low incidence	No	36.1 - 48.0	2	High
60	Town Hall	Municipal Office	Mod. susceptibility/low incidence	No	36.1 - 48.0	0	No
61	Runkle School	School	Low incidence	No	36.1 - 48.0	0	No
				No	48.1 - 72.0	0	No

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**Table 22  
Critical Facilities and Relationship to Hazard Areas**

MAP ID	FACILITY NAME	TYPE	Landslides Susceptibility	FEMA Flood Zone	Average Annual Snow Fall (inches)	Hurricane Surge Areas	Earthquake Liquefaction Risk
62	Public Health Department	Municipal Office	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
63	Pierce Primary School	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
64	Main Library	Municipal Office	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
65	Daycare	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
66	Daycare	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
67	Daycare	Child Care	Low incidence	No	36.1 - 48.0	0	No
68	Brookline Water Department	Municipal Office	Mod. susceptibility/ low incidence	A: 1% Annual Chance	36.1 - 48.0	2	High
69	Fire Station 7	Fire Station	Low incidence	No	36.1 - 48.0	0	No
70	Lawrence School	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
71	Daycare	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
72	Senior Center	Senior Center	Low incidence	No	36.1 - 48.0	0	No
73	Coolidge Corner Library	Municipal Office	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
74	Daycare	Child Care	Low incidence	No	36.1 - 48.0	0	No
75	Devotion School	School	Low incidence	No	48.1 - 72.0	0	No
76	Bournewood Hospital	Hospital	Low incidence	No	48.1 - 72.0	0	No
77	Heath School Daycare	Child Care	Low incidence	No	48.1 - 72.0	0	No
78	Daycare	Child Care	Low incidence	No	48.1 - 72.0	0	No
79	Daycare	Child Care	Low incidence	No	36.1 - 48.0	0	No

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**Table 22  
Critical Facilities and Relationship to Hazard Areas**

MAP ID	FACILITY NAME	TYPE	Landslides Susceptibility	FEMA Flood Zone	Average Annual Snow Fall (inches)	Hurricane Surge Areas	Earthquake Liquefaction Risk
80	Daycare	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	2	No
81	Daycare	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	3	High
82	Daycare	Child Care	Mod. susceptibility/ low incidence	No	36.1 - 48.0	3	No
83	Daycare	Child Care	Low incidence	No	48.1 - 72.0	0	No
84	Maimonides School	School	Low incidence	No	48.1 - 72.0	0	No
85	Maimonides School	School	Low incidence	No	48.1 - 72.0	0	No
86	MWRA Pumping Station	Water Pumping Station	Low incidence	No	48.1 - 72.0	0	No
87	MWRA Pumping Station	Water Pumping Station	Low incidence	No	48.1 - 72.0	0	No
88	Brimmer and May School	School	Low incidence	No	48.1 - 72.0	0	No
89	High Service Water Tank	Water Storage Tank	Low incidence	No	48.1 - 72.0	0	No
90	The New England Institute of Art	College	Mod. susceptibility/ low incidence	No	36.1 - 48.0	3	No
91	NSTAR Station 23(PNU)	Communications	Low incidence	No	48.1 - 72.0	0	No
92	2 Brookline Place Medical Offices	Health & Medical Facilities	Mod. susceptibility/ low incidence	No	36.1 - 48.0	3	No
93	Little Corner Schoolhouse	Child Care	Mod. susceptibility/ low incidence	No	35.1 - 48.0	0	No
94	Women's Health Services	Health & Medical Facilities	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
95	Friends Child Care	Daycare	Low incidence	No	48.1 - 72.0	0	No
96	Chamberlain Nursing Home	Senior Center	Low incidence	No	36.1 - 48.0	0	No
97	NSTAR Station 506	Communication	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No

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Table 22  
Critical Facilities and Relationship to Hazard Areas

MAP ID	FACILITY NAME	TYPE	Landslides Susceptibility	FEMA Flood Zone	Average Annual Snow Fall (inches)	Hurricane Surge Areas	Earthquake Liquefaction Risk
98	Newbury College	College	Low incidence	No	48.1 - 72.0	0	No
99	Brookline Creative Start	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No
100	Clinton Path	Early Childhood Education	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
101	Goddard House	Assisted Living Facility	Mod. susceptibility/ low incidence	No	48.1 - 72.0	0	No
102	Kickham Elderly housing	Senior Center	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
104	Little Children's Schoolhouse	Early Childhood Education	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
105	Lown Cardiovascular Center	Medical	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
106	Brookline Creative Start	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
107	NSTAR Station 30(PNU)	Communication	Low incidence	No	48.1 - 72.0	0	No
108	NSTAR Station 25(PNU)	Communication	Low incidence	No	48.1 - 72.0	0	No
109	Municipal Courthouse	Municipal Building	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
110	Kehillath Israel Nursery School	Early Childhood Education	Low incidence	No	36.1 - 48.0	0	No
111	Verizon	Communication	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No
112	Hellenic College	College	Low incidence	No	48.1 - 72.0	0	No
113	O'shea Elderly Housing	Senior Center	Low incidence	No	36.1 - 48.0	0	No
115	Driscoll School	School	Low incidence	No	36.1 - 48.0	0	No
116	St Mary of the Assumption School	School	Mod. susceptibility/ low incidence	No	36.1 - 48.0	4	No

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**Table 22**

<b>Critical Facilities and Relationship to Hazard Areas</b>									
MAP ID	FACILITY NAME	TYPE	Landslides Susceptibility	FEMA Flood Zone	Average Annual Snow Fall (inches)	Hurricane Surge Areas	Earthquake Liquefaction Risk		
117	JFK Birth Place	Cultural/Historical	Low incidence	No	36.1 - 48.0	0	No		
118	Verizon	Communication	Low incidence	No	48.1 - 72.0	0	No		
119	Morse House Elderly	Senior Center	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No		
120	Brookline Health Center	Medical	Low incidence	No	36.1 - 48.0	0	No		
121	Pedestrian Bridge Boylston Street	Transportation	Low incidence	No	48.1 - 72.0	0	No		
124	Pedestrian Bridge School Street	Transportation	Mod. susceptibility/ low incidence	No	36.1 - 48.0	0	No		
125	MBTA Station - Brookline Village	Transportation	Mod. susceptibility/ low incidence	No	36.1 - 48.0	3	No		
126	MBTA Tunnel	Transportation	Mod. susceptibility/ low incidence	No	36.1 - 48.0	3	No		

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**Vulnerability Assessment**

The purpose of the vulnerability assessment is to estimate the extent of potential damages from natural hazards of varying types and intensities. A vulnerability assessment and estimation of damages was performed for hurricanes, earthquakes, and flooding. The methodology used for hurricanes and earthquakes was the HAZUS-MH software. The methodology for flooding was developed specifically to address the issue in many of the communities where flooding was not solely related to location within a floodplain.

Introduction to HAZUS-MH

HAZUS-MH (multiple-hazards) is a computer program developed by FEMA to estimate losses due to a variety of natural hazards. The following overview of HAZUS-MH is taken from the FEMA website. For more information on the HAZUS-MH software, go to <http://www.fema.gov/plan/prevent/hazus/index.shtm>

“HAZUS-MH is a nationally applicable standardized methodology and software program that contains models for estimating potential losses from earthquakes, floods, and hurricane winds. HAZUS-MH was developed by the Federal Emergency Management Agency (FEMA) under contract with the National Institute of Building Sciences (NIBS). Loss estimates produced by HAZUS-MH are based on current scientific and engineering knowledge of the effects of hurricane winds, floods and earthquakes. Estimating losses is essential to decision-making at all levels of government, providing a basis for developing and evaluating mitigation plans and policies as well as emergency preparedness, response and recovery planning.

HAZUS-MH uses state-of-the-art geographic information system (GIS) software to map and display hazard data and the results of damage and economic loss estimates for buildings and infrastructure. It also allows users to estimate the impacts of hurricane winds, floods and earthquakes on populations.”

There are three modules included with the HAZUS-MH software: hurricane wind, flooding, and earthquakes. There are also three levels at which HAZUS-MH can be run. Level 1 uses national baseline data and is the quickest way to begin the risk assessment process. The analysis that follows was completed using Level 1 data. Level 1 relies upon default data on building types, utilities, transportation, etc. from national databases as well as census data. While the databases include a wealth of information on the Town of Brookline, it does not capture all relevant information. In fact, the HAZUS training manual notes that the default data is “subject to a great deal of uncertainty.”

However, for the purposes of this plan, the analysis is useful. This plan is attempting to generally indicate the possible extent of damages due to certain types of natural disasters and to allow for a comparison between different types of disasters. Therefore, this

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analysis should be considered to be a starting point for understanding potential damages from the hazards.

Estimated Damages from Hurricanes

The HAZUS software was used to model potential damages to the community from a 100 year and 500 year hurricane event; storms that are 1% and .02% likely to happen in a given year, and roughly equivalent to a Category 2 and Category 4 hurricane. The damages caused by these hypothetical storms were modeled as if the storm track passed directly through the Town, bringing the strongest winds and greatest damage potential.

Though there are no recorded instances of a hurricane equivalent to a 500 year storm passing through Massachusetts, this model was included in order to present a reasonable "worst case scenario" that would help planners and emergency personnel evaluate the impacts of storms that might be more likely in the future, as we enter into a period of more intense and frequent storms.

Table 23 - Estimated Damages from Hurricanes

Building Characteristics	100 Year	500 Year
Estimated total number of buildings	10,022	
Estimated total building replacement value (2006 \$)	\$8,326,410,000	
<b>Building Damages</b>		
# of buildings sustaining minor damage	440	1,836
# of buildings sustaining moderate damage	100	634
# of buildings sustaining severe damage	2	25
# of buildings destroyed	0	6
<b>Population Needs</b>		
# of households displaced	74	4393
# of people seeking public shelter	17	110
<b>Debris</b>		
Building debris generated (tons)	7,919	27,044
Tree debris generated (tons)	548	1,443
# of truckloads to clear building debris	239	929
<b>Value of Damages</b>		
Total property damage (buildings and content)	\$ 51,282,680	\$208,974,000
Total losses due to business interruption	\$ 54,962,420	\$ 23,031,790

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Estimated Damages from Earthquakes

The HAZUS earthquake module allows users to define an earthquake magnitude and model the potential damages caused by that earthquake as if its epicenter had been at the geographic center of the study area. For the purposes of this plan, two earthquakes were selected: magnitude 5.0 and a magnitude 7.0. Historically, major earthquakes are rare in New England, though a magnitude 5 event occurred in 1963.

**Table 24  
Estimated Damages from Earthquakes**

	Magnitude 5.0	Magnitude 7.0
<b>Building Characteristics</b>		
Estimated total number of buildings	10,022	
Estimated total building replacement value (2006 \$)	\$8,326,410,000	
<b>Building Damages</b>		
# of buildings sustaining slight damage	2,437	514
# of buildings sustaining moderate damage	1,276	1,551
# of buildings sustaining extensive damage	333	2,312
# of buildings completely damaged	68	5,399
<b>Population Needs</b>		
# of households displaced	1,293	19,463
# of people seeking public shelter	647	9,795
<b>Debris</b>		
Building debris generated (tons)	170,000	1,960,000
# of truckloads to clear debris (@ 25 tons/truck)	6,760	78,360
<b>Value of Damages (Millions of dollars)</b>		
Total property damage	\$ 825,600,000	\$9,109,110,000
Total losses due to business interruption	\$ 136,020,000	\$1,171,170,000

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Estimated Damages from Flooding

Although HAZUS-MH was used to estimate damages from hurricanes and tornadoes, MAPC did not use HAZUS-MH to estimate flood damages in Brookline. The riverine module is not a reliable indicator of flooding in densely developed urban areas such as Brookline, where urban drainage systems contribute to flooding even when structures are not within a mapped flood zone. In lieu of using HAZUS, MAPC developed a methodology to provide an approximation of flood damages in areas of the town where structures have been affected in the past. These areas are Brook Street and along the Saw Mill Brook in addition to the Muddy River corridor.

We estimated the acreage in these three areas as 206 acres. Brookline is 4,366 acres, so the 206 acres of impacted areas comprise 5% of Brookline's land area. The number of structures in each flood area was estimated by assuming that if 5% of the land area is affected by flooding, then 5% of the total buildings are also affected. According to HAZUS there are 10,022 structures in Brookline, which HAZUS estimates have an average replacement value of \$830,813 per structure. Then, as suggested in the FEMA publication, "State and Local Mitigation Planning How-to Guides" (Page 4-13), we calculated a low estimate (assuming 10% of the building is damaged) and a high estimate (assuming up to 50% of the building is damaged). The results, as shown in Table 24, indicate a range of damages from \$41 million to \$208 million due to flooding.

**Table 25 - Estimated Damages from Flooding**

<b>Flood Hazard Area with Known Damages in Past</b>	<b>Muddy River, Brook Street, Saw Mill River</b>
Estimated Area of Hazard Areas	206 acres
Total Brookline Land Area	4,366 acres
Hazard Area as % of Total Land Area	5%
Total Structures in Brookline (HAZUS)	10,022
Estimated # of Structures in Hazard Area (5% of total)	501
Estimated Replacement Value of All Structures (HAZUS)	\$ 8,326,410,000
Replacement Value Per Building	\$830,813
Low Estimate of Potential Damages (10% Damage)	\$41,623,741
High Estimate of Potential Damages (50% Damage)	\$208,118,700

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**V. HAZARD MITIGATION GOALS**

The Brookline Local Hazard Mitigation Planning Team reviewed and discussed the goals from the 2005 Hazard Mitigation Plan for the Town of Brookline. The Muddy River project goals were updated and additional goals for resilience were added, and the remaining goals were found to continue to be reflective of the Town's priorities and concerns relative to natural hazard mitigation. All of the goals are considered critical for the Town and they are not listed in order of importance.

**Goal 1: Complete the Muddy River Restoration Project.**

- Continue to work with the City of Boston, the Commonwealth of Massachusetts, and the Army Corps to secure Federal funding to complete all phases of the Muddy River Flood Damage Reduction and Environmental Restoration Project.

**Goal 2: Ensure that critical infrastructure sites and functions are protected from natural hazards.**

- Ensure that emergency communication facilities are protected from hazards.
- Ensure that flooding in areas near critical infrastructure does not worsen.

**Goal 3: Work with surrounding communities to ensure regional cooperation and to mitigate those hazards that affect multiple communities.**

- Continue to work with the City of Boston and DCR to coordinate implementation of the Muddy River Flood Damage Reduction and Environmental Restoration Project.
- Work with other communities in the region to plan evacuation routes and improve the sharing of information related to transportation systems.
- Seek opportunities to partner with other communities or state and regional entities to mitigate larger and/or regional natural hazards.

**Goal 4: Make efficient use of public funds for hazard mitigation.**

- Prioritize resources to those areas with greatest impacts or potential for greatest impacts.
- Encourage state agencies to allocate resources to areas most affected and most vulnerable to natural hazards.
- Encourage private property-owners to take steps to protect their properties from various natural hazards.

**Goal 5: Ensure that the transportation system can function before, during and after a natural disaster or event.**

- Ensure that major evacuation routes, such as Route 9 and Beacon Street, are protected from natural hazards.
- Work with neighboring communities, DCR, MassDOT, the MBTA, and others to ensure that the transportation system can withstand various natural hazards.

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**Goal 6: Increase community resilience by protecting and enhancing natural resources**

- Make green infrastructure a central part of the Town's development strategy
- Protect natural areas to ensure that they buffer impacts to built areas during a natural disaster.
- Protect and enhance the urban tree canopy
- Manage stormwater with Low Impact Development techniques
- Preserve and restore the functions of natural resource systems such as wetlands.
- Promote green roofs and cool roofs
- Encourage future development in areas that are not prone to natural hazards

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VI. EXISTING MITIGATION MEASURES

The existing protections in the Town of Brookline are a combination of zoning, land use, and environmental regulations, infrastructure maintenance and drainage infrastructure improvement projects. Infrastructure maintenance generally addresses localized drainage clogging problems, while large scale capacity problems may require pipe replacement or invert elevation modifications. These more expensive projects are subject to the capital budget process and lack of funding is one of the biggest obstacles to completion of some of these.

The Town's existing mitigation measures are listed by hazard type here and are summarized in Table 26 below.

Flooding – Existing Town-wide mitigation

Brookline employs a number of practices to help minimize potential flooding and impacts from flooding, and to maintain existing drainage infrastructure. Existing town-wide mitigation measures include the following:

*National Flood Insurance Program (NFIP)* – Brookline participates in the NFIP with 117 policies in force as of the March 31, 2015. FEMA maintains a database on flood insurance policies and claims. This database can be found on the FEMA website at <https://www.fema.gov/policy-claim-statistics-flood-insurance/>

The following information is provided for the Town of Brookline:

Flood insurance policies in force ( as of March 31, 2015)	117
Coverage amount of flood insurance policies	\$31,701,100
Premiums paid	\$70,465
Total losses (all losses submitted regardless of the status)	27
Closed losses (Losses that have been paid)	18
Open losses (Losses that have not been paid in full)	0
CWOP losses ( Losses that have been closed without payment)	9
Total payments (Total amount paid on losses)	\$389,039.34

The Town complies with the NFIP by enforcing floodplain regulations, maintaining up-to-date floodplain maps, and providing information to property owners and builders regarding floodplains and building requirements.

*Massachusetts State Building Code* – The Massachusetts State Building Code contains many detailed regulations regarding wind loads, earthquake resistant design, flood-proofing, and snow loads. The town has adopted the state building code.

*Floodplain Overlay District.* Section 4.10 of the Brookline Zoning By-law includes an overlay district for floodplains. Plans for work within the overlay district are referred to the

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Conservation Commission and the Town Engineer. For subdivisions located in the overlay district, the plans are also referred to the Planning Board.

*Brookline Public Works and State Operations/Maintenance Activities* – The Public Works Department actively maintains the Town’s storm drain system, while MassDOT and DCR maintain roadways under state jurisdiction. The following specific activities serve to maintain and upgrade the capability of the drainage system.

- The Town and the MWRA have been working to separate combined sewers. The MWRA recently completed a major project to separate stormwater from combined sanitary sewers. The work was focused on the drainage area of combined sewers that are tributary to the MWRA Charles River Valley Low Level Sewer.
- The Town sweeps commercial streets nightly and residential streets every 7 to 10 days.
- The town cleans and inspects catch basins on major roadways twice per year and on other streets once per year. During catch basin cleanings, the condition of basins and amount of debris removed are recorded. The town uses a GIS database to track catch basin cleaning. The town cleans and/or inspects the drainage pipes on an as-needed basis.
- MassDOT cleans catch basins on Route 9 once per year.
- MassDOT sweeps state-maintained roads annually in the spring
- DCR aims to clean its catch basins once per year.

*Stormwater Management Bylaw* – Town bylaw 8.26 governs stormwater management for new development and redevelopment projects. Section 8.26.3 of the bylaw includes requirements for Post-Construction Runoff Control. The bylaw applies to any project that involves the alteration of 2500 square feet or 25% of a lot, whichever is smaller. Alteration includes changes in grade, removal of vegetation, or storage of more than 100 cubic yards of fill. A stormwater management plan must be prepared for review and approval by the Engineering Division. Any project greater than one acre is also reviewed by the Brookline Conservation Commission.

The bylaw requires that “all activities, project design, BMP’s, and stormwater management practices should aim to minimize stormwater runoff, maximize infiltration and recharge where appropriate, and minimize pollutants in stormwater runoff.” Developments must ensure that 5.5 inches of rain be retained on the site before discharging to the Town’s stormwater drain system. This combination of green infrastructure and traditional hard solutions provides a two-pronged approach to managing stormwater. This is increasingly important as higher intensity rain events become more frequent and create more severe impacts on the Town.

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*Stormwater Management Plan.* Brookline developed a long term Stormwater Management Plan in 1999 and continues to implement the plan.

*Inflow/Infiltration Removal.* The town generally requires a removal ratio of 4:1 for new development.

*Protection of Wetlands and Wildlife Sanctuaries.* The Conservation Commission reviews projects that must submit a site plan pursuant to the Wetlands Protection Act. Brookline's three wildlife sanctuaries (Halls Pond, D. Blakely Hoar Sanctuary, and Lost Pond Reservation) also serve as flood storage. Protecting these resources helps to preserve flood storage capacity.

*Public Education.* DPW has provides education for property owners on water and wastewater issues.

*Capital Improvement Plan (CIP)* allocates funding over a 6 year period for storm drain and wastewater improvements.

*Preventative measures:* The town takes preventative measures prior to forecasted storms. For example, town employees will check certain critical catch basins, including those along state-owned roadways, when storms are forecasted.

*Wetlands Protection Bylaw* – Section 8.27 of the Town's bylaws is a local Wetlands Protection Bylaw. This affords greater protection to local wetlands, whose benefits include, among others, storage and attenuation of runoff to reduce flood impacts.

*Comprehensive Plan* – The Brookline Comprehensive Plan 2005-2015 addresses all aspects of development in the Town, including several recommendations and policies affecting flooding, including the following:

- Minimize stormwater runoff and maximize infiltration of stormwater to reduce nonpoint source pollution.
- Include considerations of permeability, infiltration of stormwater, and nonpoint source pollution in any revisions of open space requirements and off-street parking requirements in the Zoning By-law.
- Adopt a local wetlands by-law to enhance protection and oversight of remaining wetlands in Town.

*Open Space Plan* – Brookline Open Space 2010 identifies the town's open space areas, as well as properties that could be acquired for open space, which serve a number of different purposes including mitigation of flooding and storm damage.

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*Dams: DCR dam safety regulations* -- In 2002 the Massachusetts legislature enacted revisions of the Dam Safety Statute, MGL Chapter 253 §§ 44-50, which significantly changes the responsibilities of dam owners to register, inspect and maintain dams in good operating condition. Amendments to Dam Safety Regulations 302 CMR 10.00-10.16 became effective November 4, 2005 and are reflective of the statutory changes. MGL Chapter 253 and 302 CMR 10.00 requires Emergency Action Plans be prepared, maintained and updated by dam owners, for High Hazard Potential dams and certain Significant Hazard Potential dams.

*Dams: Emergency Action Plan* -- Since the 2005 plan, an Emergency Action Plan (EAP) was completed for the Brookline Reservoir Dam and adopted as an annex to the CEMP in August 2013.

Flooding – Existing Site Specific Mitigation

*The Muddy River*

The Muddy River Flood Damage Reduction and Environmental Restoration Project was developed through a partnership between the Town of Brookline, the City of Boston, the Commonwealth of Massachusetts, and the US Army Corps of Engineers (ACOE). The project was federally authorized by Congress in the Water Resources Development Act of 2000, following which the US Army Corps of Engineering developed a Decision Document to evaluate alternatives for the project design. That document recommended two major components for the project as defined in the ACOE's regulations:

- *Flood Damage Reduction* -- the capacity of a jurisdictional water body to store and/or convey water
- *Environmental Restoration* -- to improve habitat, plants, and animals which are within a jurisdictional water body

The Assistant Secretary of the Army approved the Flood Damage Reduction component of the project only, and work is well underway on the first of two phases. The Town of Brookline, City of Boston, and Commonwealth of Massachusetts continue to press for implementation of the Environmental Restoration component, as described in the Mitigation Strategy section below.

An extensive public process has guided the design of mitigation for the Muddy River project. The Secretary of Environmental Affairs created a Citizens Advisory Committee (CAC), comprised of 29 members. The CAC has provided extensive comments on the project and seven public meetings were held on the project. In addition, 65 groups and institutions are active supporters of the project, ranging from the Charles River Watershed Association to colleges, universities and religious institutions.

The ACOE flood damage reduction project includes two phases (see Figure 14 below). Construction on Phase 1 began in October 2012 and will be completed in 2016. This phase, which focuses on a strategic area in the Riverway, involves daylighting the constricted watercourse and installing significantly larger culverts under the roadway in order to increase the flood carrying

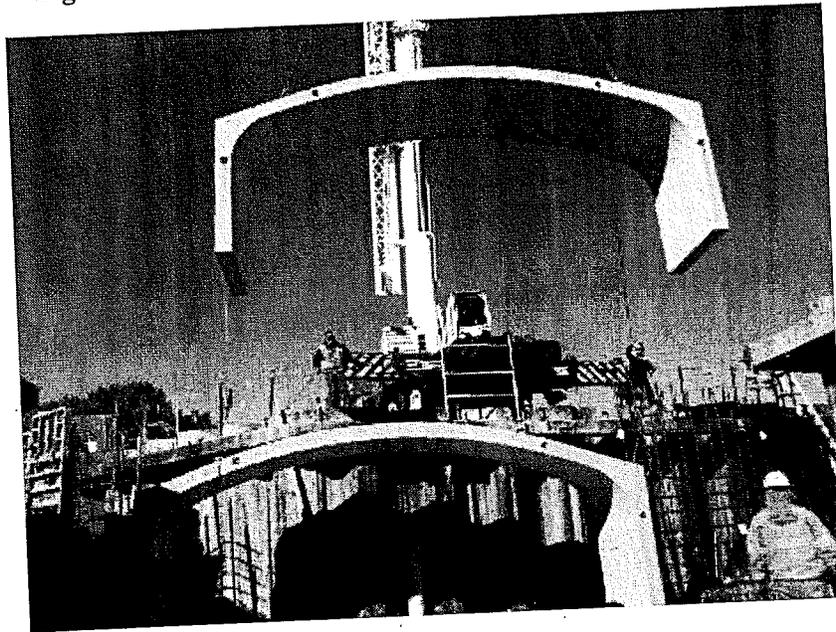
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capacity of the river. A new 10 x 24 foot arched culvert replaces two 72 inch pipes (see Figure 13). The segment of the river that flows in culverts under the former Sears parking lot (across from the Landmark Center, Figure 15), will be daylighted to improve both flow and riparian habitat (see Figure 16).

The project will protect against a recurrence of the 1996 flood (a 20-year event), and will significantly reduce flood stage for all events, including tributaries. The cost of Phase 1 is \$35 million, which is divided between the ACOE (65%) and the state and local partners (35%).

Prior to the ACOE project, an initial part of the mitigation project was completed by the state and local project sponsors –dredging and riparian restoration of the Charlesgate area in Boston. This project entailed the removal of waterway obstructions under Ipswich Street, dredging 4,000 cubic yards of sediment and debris, and landscape rehabilitation. During this process, the Maintenance Management and Oversight Committee (MMOC) was established as an independent oversight committee.

**Figure 13 Muddy River Project – New 10 x 24 Foot Culvert**

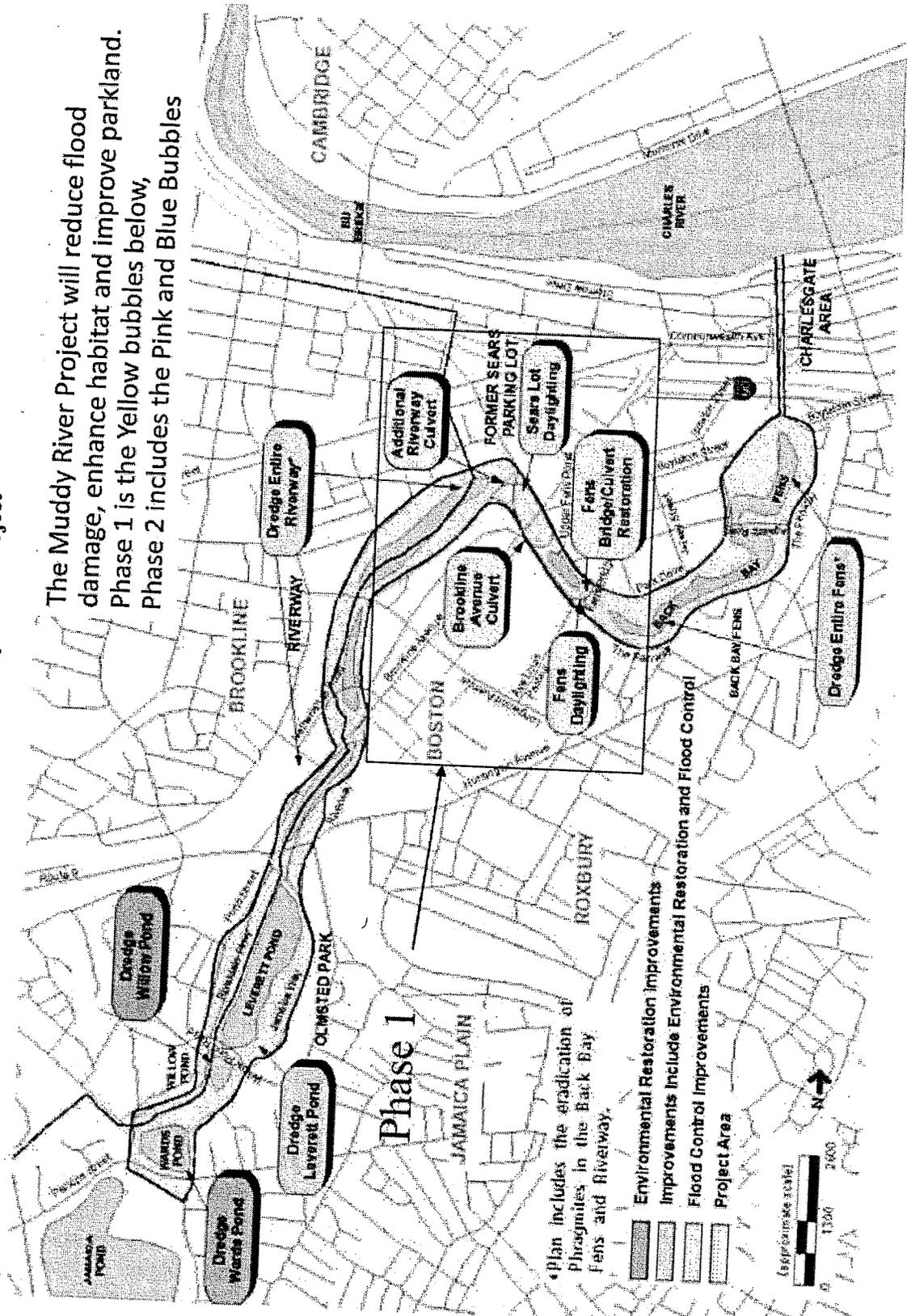


Phase 2 of the flood damage reduction project will include dredging Leverett Pond, the Riverway segment, and the Fens segment of the Muddy River. These elements of the project are considered by the ACOE to include both flood damage reduction and environmental restoration benefits. However, Phase 2 does not include the work that the ACOE considers to be environmental restoration only, which Brookline, Boston, and the state are calling for inclusion in the project. A critical difference is the extent of dredging to be undertaken. As shown in Figure 17, the flood improvement dredging approved by the ACOE is less extensive than the environmental restoration dredging that was in the original ACOE Decision Document but was not approved by the Assistant Secretary of the Army. Environmental restoration would also involve removal of Phragmites which has filled in both banks of the river, constricting flow and impacting habitat.

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Figure 14 - Muddy River Project

The Muddy River Project will reduce flood damage, enhance habitat and improve parkland. Phase 1 is the Yellow bubbles below, Phase 2 includes the Pink and Blue Bubbles



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Figure - 15- Muddy River Project – Former Parking Lot to be Daylighted

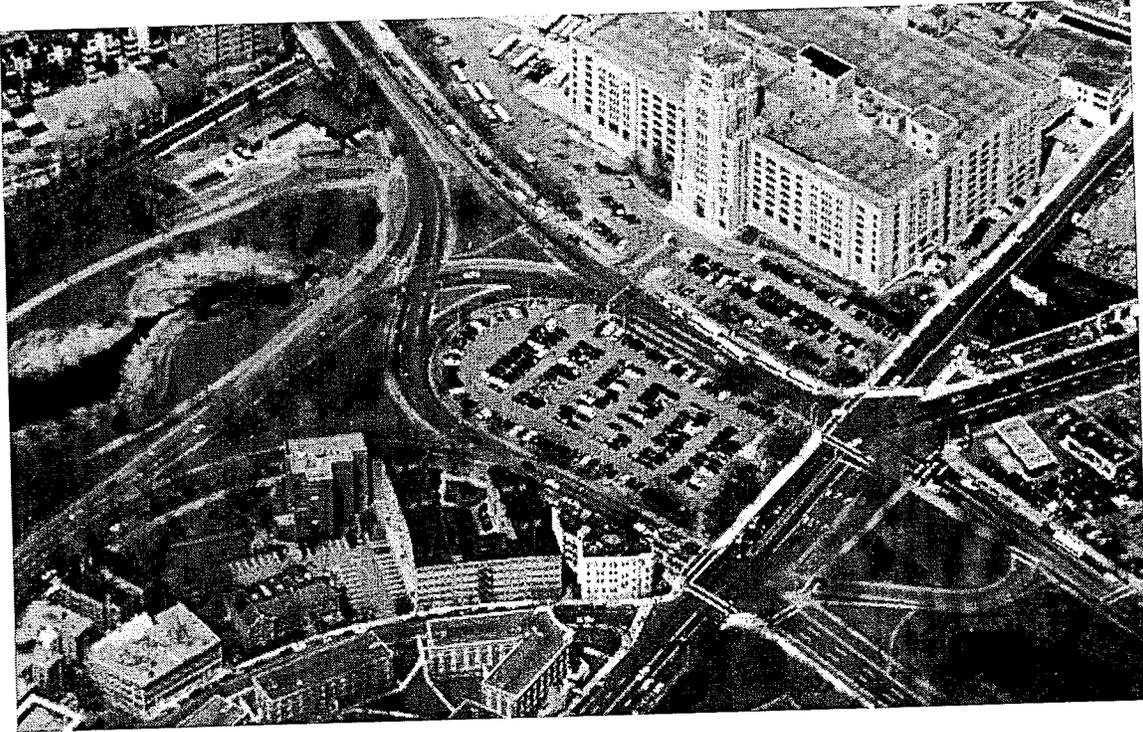
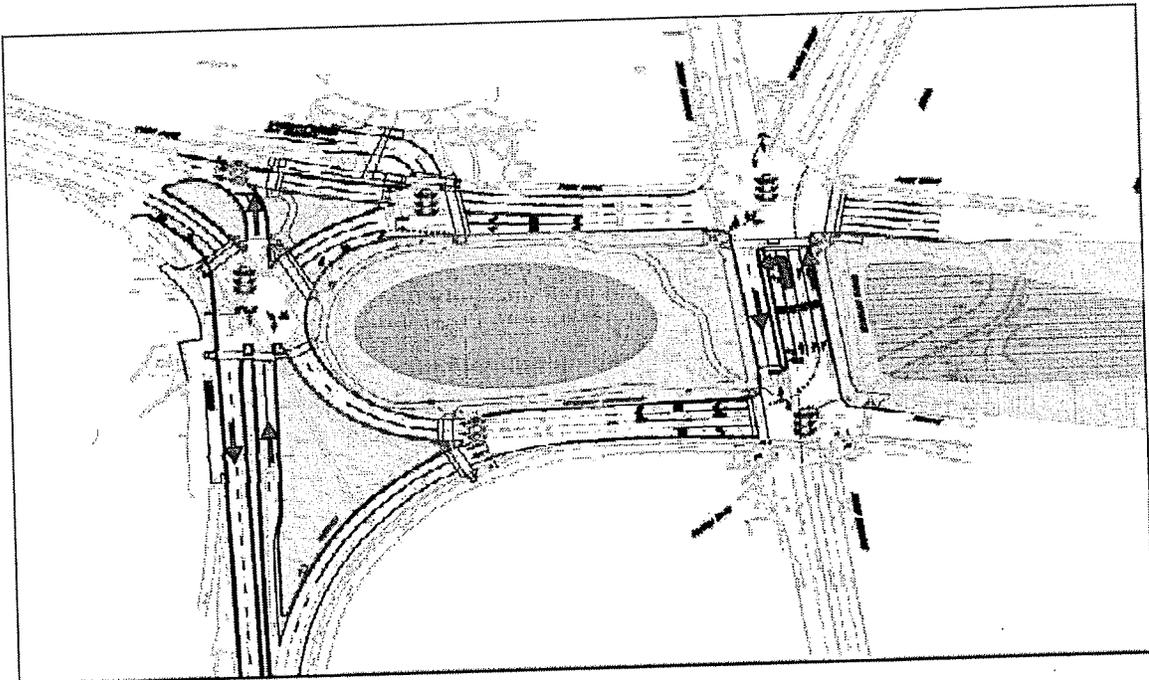
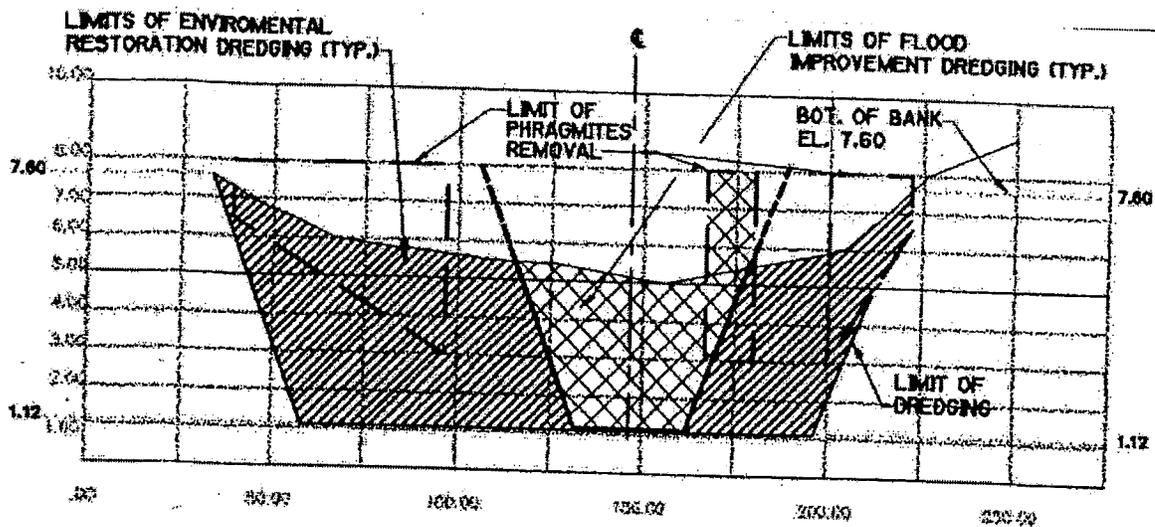


Figure - 16 - Muddy River Project – Design for Daylighting River at Former Parking Lot



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Figure 17- Dredging Profiles for Environmental Restoration vs. Flood Improvement



*Other local flood mitigation*

*Amory Playground and Halls Pond*

Flooding is minimal and restricted to Amory Playground, which was constructed on a wetland over 100 years ago. The town constructed improvements at Halls Pond in 2002.

*Griggs Park*

Flooding is minimal and restricted to Griggs Park. The park is intended to provide flood storage. The town has made drainage improvements in the park.

*Brook Street*

This area used to be an open brook and drains to the Muddy River. The area floods and was affected during the 1996 storm. Impacts include basement flooding. Separation of sewers and storm drains has helped minimize flooding in this area. The park also provides some flood storage capacity.

*Brookline High School*

There is some flooding, though minimal, in this area – Cypress Field and the school floods. While the flooding does not have large impacts, the school does serve as a primary shelter during emergencies. The Town’s requirement of a 4:1 removal of Inflow and Infiltration helps to address problems in this area

*Saw Mill Brook*

Flooding occurs on the west branch of Sawmill Brook due to a surcharged storm drain along the open channel of the brook during larger rain events. Flooding can impact some basements and garages during very heavy rains. The town’s general requirement of a 4:1 I/I removal ratio helps to address problems in this area

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Existing Wind Hazard Mitigation Measures

*Tree pruning:* The town conducts regular tree-pruning and trained crews monitor trees for potential problems. The town is aggressive about identifying “structurally deficient” trees that could cause problems. If a tree has the potential to cause a problem in a public right-of-way but is located on private property, the town will contact the property owner. This system has worked well.

NStar also employs an arborist and has a tree-trimming program. Brookline stays in close contact with NStar.

*Massachusetts State Building Code* – The town enforces the Massachusetts State Building Code whose provisions are generally adequate to protect against most wind damage. The code’s provisions are the most cost-effective mitigation measure against tornados given the extremely low probability of occurrence. If a tornado were to occur, the potential for severe damages would be extremely high.

Existing Winter Hazard Mitigation Measures

*Snow Removal:* The town has developed regular snow removal operations. The town’s “Shovel Our Snow” program helps residents find people to hire to shovel walks and driveways.

The town tested snow melting technology in the past, but found it to be infeasible due to the cost; unreliability of the equipment, and the drainage system could not handle the amount of snow melt.

*Catch basin Cleaning:* The Brookline DPW clears snow from clogged catch basins to prevent flooding

*Massachusetts State Building Code:* The town enforces the Massachusetts State Building Code, which contains regulations regarding snow loads on building roofs. The town has adopted the state building code.

Existing Brush Fire Hazard Mitigation Measures

*Outdoor Burning* – The Town prohibits outdoor burning,

Existing Geologic Hazard Mitigation Measures

*Massachusetts State Building Code* – The State Building Code contains a section on designing for earthquake loads (780 CMR 1612.0). Section 1612.1 states that the purpose of these provisions is “to minimize the hazard to life to occupants of all buildings and non-building structures, to increase the expected performance of higher occupancy structures as compared to ordinary structures, and to improve the capability of essential

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facilities to function during and after an earthquake". This section goes on to state that due to the complexity of seismic design, the criteria presented are the minimum considered to be "prudent and economically justified" for the protection of life safety. The code also states that absolute safety and prevention of damage, even in an earthquake event with a reasonable probability of occurrence, cannot be achieved economically for most buildings.

Section 1612.2.5 sets up seismic hazard exposure groups and assigns all buildings to one of these groups according to Table 1612.2.5. Group II includes buildings which have a substantial public hazard due to occupancy or use and Group III are those buildings having essential facilities which are required for post-earthquake recovery, including fire, rescue and police stations, emergency rooms, power-generating facilities, and communications facilities.

Existing Multihazard Mitigation

*Comprehensive Emergency Management Plan (CEMP)*

Every community in Massachusetts is required to have a Comprehensive Emergency Management Plan. These plans address mitigation, preparedness, response and recovery from a variety of natural and man-made emergencies. These plans contain important information regarding flooding, hurricanes, tornadoes, dam failures, earthquakes, and winter storms. Therefore, the CEMP is a mitigation measure that is relevant to all of the hazards discussed in this plan. The Town of Brookline's current CEMP was updated in 2013.

*Emergency Management Team (EMT)*

The mission of the Brookline Emergency Management Team (EMT) is to coordinate local, state, federal, voluntary, and private resources during emergencies and disasters affecting the Town of Brookline. The Brookline EMT provides leadership to accomplish the following:

- Develop plans for effective response to all hazards, disasters, or threats
- Train emergency personnel to protect the public
- Provide information to the citizenry
- Assist individuals, families, and businesses to mitigate against, prepare for, and respond to and recover from emergencies, both natural and man made

Police Chief Daniel O'Leary is the Chair of the Brookline EMT and also serves as the town's Emergency Management Director. Working with a team approach, the EMT integrates Police, Fire, Emergency Medical Services (EMS), Public Health, Public Works, Buildings, Schools, Recreation and the Human Relations departments into unified command to respond to emergency situations within the town.

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*Brookline Emergency Preparedness Buddies Program*

The Emergency Preparedness Buddies Program was developed to assist Brookline elders with access and functional needs in preparing for and responding to emergency situations, thereby improving preparedness and resilience among these elders.

The program matches trained Brookline Medical Reserve Corps (MRC) and Community Emergency Response Team (CERT) volunteers with Brookline elders to assist in identifying preparedness needs, setting up communication plans, and preparing supplies for potential evacuations or sheltering.

Brookline residents eligible to participate in the program include: elders, and adults with disabilities, who most often live alone and have little or no family support. The program is free.

The major responsibilities of the Emergency Preparedness Buddies are as follows:

- Build a warm and caring relationship with elder buddy.
- Identify and address the elder buddy's preparedness needs.
- Provide some materials and supplies to assist with preparedness efforts.
- Maintain contact and check-in with elder buddy before, during and after emergency situations (e.g. snowstorms and hurricanes).

*Climate Change*

To address climate change at the local level, Brookline is pursuing a number of measures to reduce greenhouse gases. In 2008, as authorized by a vote of Brookline Town Meeting, the Board of Selectmen established the Selectmen's Climate Action Committee. The overall purpose of the committee is to reduce the total emissions of greenhouse gases in Brookline. The responsibilities of the committee include:

- To recommend programs that reduce the net production of greenhouse gases in Brookline, such as energy efficiency measures, green energy sources, and additional greenspace;
- To monitor, measure, and assess efforts of the Town to reduce net greenhouse gas emissions;
- To monitor promising relevant programs in other municipalities;
- To monitor relevant technological developments;
- To serve as liaison between the Town and the public with regard to information and programs related to reducing net production of greenhouse gases;
- To report annually to the Annual Town Meeting and to report from time to time to the Board of Selectmen, the Town Administrator, and the public.

The Selectmen's Climate Action Committee produced the *2012 Climate Action Plan*, which was approved by the Selectmen on December 11, 2012. The plan contains a wide range of recommended actions for reducing greenhouse gas emissions, including measures related to transportation, energy, buildings, waste and other sectors. Several measures also have benefits for climate adaptation, such as permeable pavements, open

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space protection, cool flat roofs, and urban forests. The *2012 Climate Action Plan* is available online at: <http://www.brooklinema.gov/DocumentCenter/View/2402>

In their 2013 report to the Brookline Town Meeting, the committee reported that the most recent greenhouse gas inventory for Brookline indicates that the town's total greenhouse gas emissions in 2008 were about 8 percent below 1995 totals. In comparison, the greenhouse gas emissions for the United States as a whole increased about 10 percent from 1995 through 2007. The committee is building on that early success with a long term goal of a 25% reduction in GHG emissions from 1990 levels by 2020; and an 80% reduction by 2050 (based on Massachusetts Global Warming Solutions Act).

The Brookline 2012 Climate Adaptation Plan is currently being updated and will incorporate climate adaptation measures

In addition to the Selectmen's Climate Action Committee, the non-profit Climate Action Brookline (CAB) is a group of volunteer activists committed to the vision of Brookline evolving from an energy-consuming community to an energy-conserving community. Climate Action Brookline's carbon-reduction initiatives include promoting solar and wind energy, improving home energy efficiency, transportation, food choices, and lifestyle changes. CAB sponsors the annual Brookline Climate Week which includes a series of events on all aspects of climate change. MAPC participated on a panel for Brookline Climate Week in February 5, 2015.

**Mitigation Capabilities and Local Capacity for Improvements**

Under the Massachusetts system of "Home Rule," the Town of Brookline is authorized to adopt and from time to time amend a number of local bylaws and regulations that support the town's capabilities to mitigate natural hazards. These include Zoning Bylaws, Subdivision and Site Plan Review Regulations, Wetlands Bylaws, Health Regulations, Public Works regulations, and local enforcement of the State Building Code. Local Bylaws may be amended each year at the annual Town Meeting to improve the town's capabilities, and changes to most regulations simply require a public hearing and a vote of the authorized board or commission. The Town of Brookline has recognized several existing mitigation measures that require implementation or improvements, and has the capacity based on these Home Rule powers within its local boards and departments to address these. The Brookline Department of Public Works will address the needs for catch basin cleaning, repairs and upgrades to drainage infrastructure and oversight of the Emergency Action Plan for the Brookline Reservoir Dam. The town's Planning Board will address the updates to the Master Plan and implementation of the Zoning Ordinance, Floodplain District, and Subdivision Rules and Regulations. The Conservation Commission will oversee implementation of the Wetlands Bylaw and the Open Space Plan. The Dept of Public Works together with the Planning Board and Conservation Commission will coordinate implementation and enforcement of the Stormwater Bylaw. The Selectmen's Climate Action Committee will continue to update and implement the recommended mitigation measures in the *2012 Climate Action Plan*.

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Table 26 Summary Existing Hazard Mitigation Measures

Hazard	Area	Mitigation Measure	Update/comments
Flooding	Town-wide	Participation in the National Flood Insurance Program (NFIP)	Effective / 117 policies in force
		Massachusetts Building Code	Effective
		Floodplain Overlay District	Updated /Effective
		Sewer separation projects	Effective
		Town cleans & inspects catch basins on major roadways 2/year & on other streets 1/year.	Effective
		Town cleans, inspects drainage pipes as needed	Effective
		MassDOT cleans catch basins on Rte. 9 1/year	Effective
		DCR aims to clean its catch basins 1/year	Effective
		Town sweeps commercial streets nightly & residential streets every 7 to 10 days	Effective
		MassDOT sweeps roads once in the spring	Effective
		Stormwater Bylaw	Updated /Effective
		Storm Water Management Plan	Continue annual implementation
		Inflow/Infiltration removal ratio of 4:1	Effective
		Protection of Wetlands and Wildlife Sanctuaries	Effective
		DPW has educational program for property owners	Effective
		Capital Investment Program (CIP)	Effective
		Prior to forecasted storm, town checks critical catch basins	Effective
		Conservation Commission reviews projects pursuant to the local Wetlands Protection Bylaw	Updated /Effective
		Comprehensive Plan	Add Climate Adaptation to next plan update
		Open Space 2010	Update
	Brookline Reservoir Dam	DCR Dam Safety Regulations Emergency Action Plan for Brookline Reservoir Dam	Effective Implementation of EAB
	Muddy River	Muddy River Flood Damage Reduction Project -Phase 1	Effective / to be completed 2016
		Muddy River Flood Damage Reduction Project -Phase 2	To begin
Muddy River Environmental Restoration Project		Secure federal	

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Table 26 Summary Existing Hazard Mitigation Measures

Hazard	Area	Mitigation Measure	Update/comments
			funds to construct the project
	Amory Park	Town made improvements at Halls Pond in 2002. Park provides some flood storage capacity	Effective
	Griggs Park	Park provides some flood storage capacity	Effective
	Brook Street	Separation of sanitary and storm sewers helps address flooding	Effective, continue enforcement
	High School	I/I requirements help address flooding	Effective, continue enforcement
	Saw Mill Brook	I/I requirements help address flooding	Effective, continue enforcement
Wind	Town-wide	Town tree-pruning and urban forest management	Effective
		NStar has a tree-trimming program and arborist	Effective
		State Building Code addresses wind standards	Effective for new construction / town has many older buildings
Winter-Related	Town-wide	Regular snow removal operations	Effective
		Catch basin cleaning to maintain drainage	Effective
		State Building Code addresses snow load standards	Effective for new construction / town has many older buildings
Fire	Town-wide	Outdoor burning is prohibited	Effective
Earthquake	Town-wide	State Building Code addresses earthquake standards	Effective for new construction / town has many older buildings
Multi-hazard	Town-wide	<i>Comprehensive Emergency Management Plan (CEMP)</i>	Effective
		<i>Emergency Management Team (EMT)</i>	Effective
Climate Change	Town-wide	Selectmen's Climate Action Committee prepared 2012 Climate Action Plan	Effective / Add adaptation to next plan update

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VII. MITIGATION MEASURES FROM THE 2005 PLAN

Review and Update Process

At a meeting of the Brookline Hazard Mitigation Planning Committee, Town staff reviewed the mitigation measures identified in the 2008 Brookline Hazard Mitigation Plan and determined whether each measure had been implemented or deferred. Of those measures that had been deferred, the committee evaluated whether the measure should be deleted or carried forward into this Hazard Mitigation Plan 2016 Update. The decision on whether to delete or retain a particular measure was based on the committee's assessment of the continued relevance or effectiveness of the measure and whether the deferral of action on the measure was due to the inability of the Town to take action on the measure. Table 27 summarizes the status of mitigation measures, and mitigation projects completed are described in more detail below.

Table 27 Mitigation Measures from the 2008 Plan

Mitigation Measure	Priority	Lead Implementation	Current Status	Include in 2016 Plan?
1. <b>Muddy River</b> - Implement corrective actions of Muddy River Flood Control Project (Back Bay Fens, Riverway, Leverett Pond, Willow Pond, Wards Pond)	High	Brookline, Boston, DCR, ACOE	Partially complete, Phase 1 under construction; began in 2012 and will be completed in 2016.	Yes, Phase 1
2. <b>Muddy River</b> - Implement structural source control (preventative) actions of the Muddy River Flood Control Project	High	Brookline, Boston, DCR, ACOE	Part of Phase 2 of the Muddy River Project, not yet begun, scheduled for 2016-19	Yes, Phase 2
3. <b>Muddy River</b> - Implement other types of source control (preventative) actions of the Muddy River Flood Control Project	High	Brookline, Boston, DCR, ACOE	Environmental Restoration phase of the project has not begun; federal cost share not yet available	Yes, Emt. Restoration
4. <b>Muddy River</b> - Flood proof structures affected by Muddy River flooding	High	Brookline, Boston, DCR, ACOE, Private buildings	Completed for Water and Sewer Garage, Lynch Center	No
5. <b>Muddy River</b> - Address sediment deposit at Leverett Pond	High	Public Works	Part of Phase 2, not yet begun	Yes, part of Muddy R. Project

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Mitigation Measure	Priority	Lead Implementation	Current Status	Include in 2016 Plan?
6. Implement 1999 Storm Water Management Plan	High	Public Works	Partially complete, implementation is in progress	Yes
7. Program storm water projects in the Capital Investment Program	High	Public Works	Completed	No
8. Brook Street - Completion of the Muddy River Restoration project will help flooding in this area	High	Brookline, Boston, DCR, ACOE	Part of the Muddy River project; to be combined with Muddy River project in the 2016 plan update	No
9. Brook Street - Complete the separation of combined sewers	High	Public Works, MWRA	Completed	No
10. High School -- Inflow/Infiltration removal	High	Public Works	Partially complete, implementation is in progress	Yes
11. Preventative tree trimming	High	Parks & Open Space	Partially complete, implementation is in progress	Yes
12. Minimize potential damage to trees (and roots) by construction activities by monitoring & compliance	High	Parks & Open Space	Completed	No
13. Outdoor Burning Ban	High	Fire Dept.	Multi-year program; implementation is in progress	Yes
14. Saw Mill Brook- Inflow/Infiltration removal	Medium	Public Works	Partially complete; implementation is in progress	Yes
15. Saw Mill Brook - Dredge open channel	Medium	Public Works	Project discontinued; Inflow/Infiltration remediated the problem	No

Brookline has made considerable progress on implementing mitigation measures identified in the 2008 Hazard Mitigation Plan. The most significant project, the Muddy River Flood Damage Reduction and Environmental Restoration project, began Phase 1 work in 2012 and be completed

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in 2016. Funding for Phase 2 is secured and design work will begin in 2016, with construction to follow from 2017-19. However, the federal share of funding for the Environmental Restoration phase has not yet been provided, while the state and local (Brookline and Boston) share of this phase has been secured. The Town of Brookline, City of Boston, and Commonwealth of Massachusetts are working to secure the federal funding for this project.

Other local projects completed include the separation of combined sewers in the Brook Street area, flood proofing structures near the Muddy River, and the Capital Investment Program. Several projects have begun and are in progress, including Inflow and Infiltration removal near the High School and at Saw Mill Brook.

Overall, nine mitigation measures from the 2008 plan will be continued in the plan update. The projects related to the Muddy River will be reformatted into the current three categories, the Flood Damage Reduction Project, Phases 1 and 2, and the Environmental Restoration Project. Of these, six mitigation measures will retain the same priority in the 2016 plan update, including the three Muddy River project components, the Stormwater Management Plan, preventative tree trimming, and Saw Mill Brook Inflow/ Infiltration removal and implementation of a ban on outdoor burning. One project prioritized as high in the 2008 plan, Inflow/Infiltration work near the High School, will be ranked medium in the 2016 plan update, because it has been partially completed and there is less significant work remaining.

One project, dredging the open channel of Saw Mill Brook, has been discontinued and will not be carried forward into the 2016 plan update. Inflow/Infiltration work remediated the problem in this area.

Moving forward into the next five year plan implementation period there will be many more opportunities to incorporate hazard mitigation into the Town's decision making processes.

The challenges the Town faces in implementing these measures are primarily due to limited funding and available staff time. This plan should help the Town prioritize the best use of its limited resources for enhanced mitigation of natural hazards.

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## VIII. HAZARD MITIGATION STRATEGY

### What is Hazard Mitigation?

Hazard mitigation means to permanently reduce or alleviate the losses of life, injuries and property resulting from natural hazards through long-term strategies. These long-term strategies include planning, policy changes, education programs, infrastructure projects and other activities. FEMA currently has three mitigation grant programs: the Hazards Mitigation Grant Program (HGMP), the Pre-Disaster Mitigation program (PDM), and the Flood Mitigation Assistance (FMA) program. The three links below provide additional information on these programs.

<http://www.fema.gov/government/grant/hmgp/index.shtm>

<http://www.fema.gov/government/grant/pdm/index.shtm>

<http://www.fema.gov/government/grant/fma/index.shtm>

Hazard Mitigation Measures can generally be sorted into the following groups:

- **Prevention:** Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement programs, open space preservation, and stormwater management regulations.
- **Property Protection:** Actions that involve the modification of existing buildings or infrastructure to protect them from a hazard or removal from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, flood proofing, storm shutters, and shatter resistant glass.
- **Public Education & Awareness:** Actions to inform and educate citizens, elected officials, and property owners about the potential risks from hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
- **Natural Resource Protection:** Actions that, in addition to minimizing hazard losses also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- **Structural Projects:** Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include storm water controls (e.g., culverts), floodwalls, seawalls, retaining walls, and safe rooms.
- **Emergency Services Protection:** Actions that will protect emergency services before, during, and immediately after an occurrence. Examples of these actions include protection of warning system capability, protection of critical facilities, and protection of emergency response infrastructure.

(Source: *FEMA Local Multi-Hazard Mitigation Planning Guidance*)

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**Regional and Inter-Community Considerations**

Some hazard mitigation issues are strictly local. The problem originates primarily within the municipality and can be solved at the municipal level. Other issues are inter-community and require cooperation between two or more municipalities. There is a third level of mitigation which is regional and may involve a state, regional or federal agency or three or more municipalities.

**Regional Partners**

In densely developed urban communities such as the metropolitan Boston area, mitigating natural hazards, particularly flooding, is more than a local issue. The drainage systems that serve these communities are complex systems of storm drains, roadway drainage structures, pump stations and other facilities owned and operated by a wide array of agencies including the Town, the Department of Conservation and Recreation (DCR), the Massachusetts Water Resources Authority (MWRA), Massachusetts Department of Transportation (MassDOT) and the Massachusetts Bay Transportation Authority (MBTA). The planning, construction, operation and maintenance of these structures are integral to the flood hazard mitigation efforts of communities. These agencies must be considered the communities' regional partners in hazard mitigation. These agencies also operate under the same constraints as communities do including budgetary and staffing constraints and they must make decisions about numerous competing priorities.

Major facilities owned, operated and maintained by state or regional entities include:

- Route 9 (MassDOT)
- Hammond Pond Parkway and West Roxbury Parkway (DCR)
- Conservation areas such as Lost Pond Reservation and Fisher Hill Reservoir
- C and D branches of the Green Line (MBTA)
- Water and sewer infrastructure (MWRA)

**Inter-Community Considerations**

As discussed earlier, the largest natural hazard issue facing Brookline is the Muddy River restoration. This issue and the mitigation strategies to address it involve the cooperation of Brookline, Boston and the state. These entities have worked together to formulate a mitigation strategy which is currently being implemented by the U.S. ACOE.

The Saw Mill Brook, which experiences some flooding in Brookline, flows into Brookline from Newton. Ensuring that future development does not worsen flooding in Brookline will require cooperation between the two communities.

A final inter-local issue facing Brookline is the designation of evacuation routes by neighboring communities – particularly Boston. Beacon Street and Route 9 are important transportation corridors that carry residents and workers away from Boston. While it is beyond the scope of

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this plan to delve further into evacuation route planning, it is important to note that cooperation among communities, the state, and the MBTA is critical.

**New Development and Infrastructure**

As part of the process of developing recommendations for new mitigation measures for this plan update, the Town considered the issues related to new development, redevelopment, and infrastructure needs in order limit future risks. Taking into consideration the town's amended Floodplain Zoning District enforced for new development by the Board of Appeals, the Stormwater Management bylaw enforced for new development by the Department of Public Works, the Wetlands Bylaw enforced for new development by the Conservation Commission, the Comprehensive Plan, and the Open Space Plan, the town determined that existing regulatory measures are taking full advantage of local Home Rule land use regulatory authority to minimize natural hazard impacts of development. The major priorities that emerged for the town are strategic infrastructure upgrades in the Town's most vulnerable area, the Muddy River. The Muddy River Flood Damage Reduction and Environmental Restoration project will reduce hazard risks for both existing and new development as well as redevelopment in this critical corridor on the border with the City of Boston.

**Prioritizing Potential Mitigation Measures**

Priority setting for mitigation measures considered estimated costs and benefits based on local knowledge of the hazard areas, including impacts of hazard events and the extent of the area impacted. Table 28 below demonstrates the prioritization of the potential mitigation measures identified for the 2016 plan update. For each mitigation measure, the geographic extent or location of the potential benefiting area is identified as is an estimate of the overall benefit and cost of the measures. The benefits, costs, and priority of each mitigation measure were evaluated in terms of the following factors:

**Estimated Benefits**

High	Action will result in a significant reduction of hazard risk to people and/or property from a hazard event
Medium	Action will likely result in a moderate reduction of hazard risk to people and/or property from a hazard event
Low	Action will result in a low reduction of hazard risk to people and/or property from a hazard event

**Estimated Costs**

High	Estimated costs greater than \$100,000
Medium	Estimated costs between \$10,000 to \$100,000
Low	Estimated costs less than \$10,000 and/or staff time

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Priority

High	Action very likely to have political and public support and necessary maintenance can occur following the project, and the costs seem reasonable considering likely benefits from the measure
Medium	Action may have political and public support and necessary maintenance has potential to occur following the project
Low	Not clear if action has political and public support and not certain that necessary maintenance can occur following the project

Table 28- Mitigation Measure Prioritization

Mitigation Action	Geographic Coverage	Estimated Benefit	Estimated Cost	Priority
<b>Flood Hazard Mitigation</b>				
1. <b>Complete the Muddy River Phase 1 Flood Damage Reduction Project:</b> Enlarged culverts at Brookline Ave. and Riverway; Fens culvert restoration; daylight river at Sears parking lot and Fens	Muddy River	High	High	High
2. <b>Complete the Muddy River Phase 2 Flood Damage Reduction Project:</b> Dredging Riverway, Fens and Leverett Pond for flood conveyance	Muddy River	High	High	High
3. <b>Implement the Muddy River Phase 2 Environmental Restoration Project:</b> Full channel dredging, bank restoration Phragmites removal; dredging Wards Pond and Willow Pond.	Muddy River	High	High	High
4. Implement the 1999 Storm Water Management Plan	Town-Wide	High	High	High
5. Implement the Inflow and Infiltration removal project at Brookline High School	High School	Medium	Medium	Medium

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Table 28- Mitigation Measure Prioritization

Mitigation Action	Geographic Coverage	Estimated Benefit	Estimated Cost	Priority
6. Implement the Saw Mill Brook- Inflow and Infiltration removal project	Saw Mill Brook area	Medium	Medium	Medium
<b>Wind Mitigation Measures</b>				
7. Implement Tree Removal and Replacement/Urban Forestry Management	Town-Wide	High	High	High
<b>Brushfire Mitigation</b>				
8. Implement Phragmites removal to reduce risk of wild fire (part of Phase 2 Environmental Restoration project)	Muddy River	Medium	High	High
9. Implement/enforce ban on outdoor burning	Town-Wide	Medium	Low	Medium
<b>Winter Storm Hazard Mitigation</b>				
10. Evaluate public buildings for ability to withstand snow loads; implement retrofits if needed to greatest degree feasible.	Town-Wide	Medium	Low	Low
<b>Earthquake Mitigation</b>				
11. Conduct building evaluation to determine which buildings may be most vulnerable to earthquake damage, and conduct structural assessments if needed to identify retrofits to mitigate earthquake hazards.	Town-Wide	Medium	Low	Low
Conduct an earthquake infrastructure assessment of the vulnerability of roadways and utilities in high liquefaction susceptibility areas, and identify retrofits if needed to mitigate	Localized	Low	Low	Low

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Table 28- Mitigation Measure Prioritization

Mitigation Action	Geographic Coverage	Estimated Benefit	Estimated Cost	Priority
earthquake hazards.				
<b>Dam Mitigation</b>				
12. Implement the recommendations of the Emergency Action Plan for the Brookline Reservoir Dam:	Brookline Reservoir Dam	Medium	Medium	Medium
<b>Extreme Temperature Mitigation</b>				
13. Adopt development Site Design guidelines to increase tree plantings near buildings, increase the percentage of trees used in parking areas, and along public ways to mitigate extreme temperatures	Town-Wide	Medium	Medium	High
14. Adopt development Green Building and Cool Roof designs to mitigate extreme temperatures	Town-Wide	Medium	Low	High
<b>Drought Mitigation</b>				
15. Adopt development guidelines for drought tolerant landscaping and site design measures to mitigate drought hazards.	Town-Wide	Medium	Low	Medium
<b>Climate Resilience/Adaptation</b>				
16. Incorporate climate adaptation measures into the next Brookline Climate Action Plan	Town-Wide	High	Low	High

Potential Mitigation Measures

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The potential mitigation measures are provided in this section and summarized in Table 29.

***Flooding, Drainage Infrastructure, and Dams***

**The Muddy River Project**

By far the highest priority for Brookline is addressing flooding from the Muddy River. This area has seen millions of dollars of damage and disruption to transportation systems. Correcting this area may also help alleviate flooding elsewhere in town, such as Brook Street, and addresses a multi-community hazard that also affects the City of Boston.

As described above, the Muddy River Flood Damage Reduction and Environmental Restoration Project was developed through a partnership between the Town of Brookline, the City of Boston, the Commonwealth of Massachusetts, and the US Army Corps of Engineers (ACOE). The project as originally proposed in the ACOE's Decision Document included two major components, flood damage reduction and environmental restoration.

As the proposal moved up the ACOE chain of command, the North Atlantic Regional office recommended Corps participation in both the flood damage reduction and the environmental restoration elements of the project. However, the final decision of the Assistant Secretary of the Army was for the Corps to participate only in the flood damage reduction component, and not the environmental restoration component because of the high cost.

In an October 2014 memorandum to the Brookline Board of Selectmen, Commissioner of Public Works Andrew Pappastergion clearly explains why the environmental restoration component is critical to the long term success of the project:

“The flood damage reduction elements of the Muddy River project address flood carrying capacity and flood water conveyance. The environmental restoration elements address contaminated sediment removal, invasive vegetation removal and bank stabilization for the purpose of improving the water quality and aquatic habitat within the river basin.

There are portions of the project where both flood damage reduction and environmental restoration elements overlap and construction will achieve both benefits. However there are significant portions of the project that the ACOE defines as only environmental restoration.

If the ACOE only constructs the flood reduction portions of the project Brookline will likely see channel or spot dredging in the Riverway and Leverett Pond to increase the flood conveyance/carrying capacity of the river, but will not see bank-to-bank dredging, stabilization and planting in those areas, nor will the ACOE dredge Willow Pond. Failure to undertake the environmental restoration measures to dredge the river and ponds, remove invasive species, and remove contaminated sediments -will greatly reduce the effectiveness of the project.”

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Figure 18 Muddy River Channel Constrictions by Phragmites



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The Town of Brookline, as well as the City of Boston and the Commonwealth of Massachusetts, regard the Environmental Restoration elements of the project as critical to the long term success of the project. The Environmental Restoration components shown in Figure 14, will ensure the long term functioning of the Flood Damage Reduction components by reducing sedimentation and constrictions to flow caused by invasive vegetation (Phragmites). Figure 18 illustrates the significant degree of channel encroachment by Phragmites growth over the years. Phragmites stands are also a fire hazard, so removing them will also reduce wild fire hazards for Brookline and Boston.

Issues to be addressed by the Environmental Restoration elements of the project include:

- Accumulated sediments impact aquatic and benthic habitats (high SOD, low DO)
- Contaminated sediments pose a risk to aquatic life (metals, PCB's, PAH's)
- Invasive species (Phragmites) impacting biodiversity and encroaching on water
- Aquatic weed (fanwort) infestation in the Fens.

Although the ACOE has only authorized the Flood Damage Reduction project, the Assistant Secretary of the Army has agreed to design and construct both aspects of the project if Congress provides funding. For several years the Massachusetts Congressional delegation added language to annual Federal appropriations bills to allow the use of programmed federal funds for both project components. However, since 2010 Congress has failed to pass a federal budget, operating instead on a series of continuing resolutions. This has eliminated the only legislative mechanism available to authorize the Environmental Restoration component of the project.

In the absence of an Appropriation Bill, the ACOE can only include funding for the Environmental Restoration elements of the project if directed to do so by the Executive Office. In the fall of 2014 letters were sent to the President by the Governor of Massachusetts, the Town of Brookline, and the City of Boston requesting him to direct the ACOE to include the Environmental Restoration components of the project. To date no action has been taken by the President or the ACOE on this request.

Phase 1 of the Flood Damage Reduction project is under construction and will be completed by 2016. Phase 2, with the Flood Damage Reduction components only, has been fully funded and design work will begin in 2016, with construction expected from 2017-2019. The Phase 2 Environmental Restoration components are being held up by the lack of commitment for the federal cost share. The funding for the state and local cost share has been secured by DCR, Brookline, and Boston.

To obtain the full and long term benefits of the Muddy River Project, the remaining Environmental Restoration components should be included in the project and completed by the ACOE. The Town of Brookline, in collaboration with the City of Boston, the Commonwealth of Massachusetts, and other stakeholders, should seek the approval of the federal funding needed for the ACOE to complete the project.

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Recommendations on the Muddy River Project for this Hazard Mitigation Plan 2016 Update include the following:

***Muddy River Mitigation***

1. **Muddy River Phase 1 Flood Damage Reduction** –Complete the Phase 1 Flood Damage Reduction Project: enlarged culverts at Brookline Ave. and Riverway; Fens bridge/ culvert restoration; daylight river at Sears parking lot and Fens
2. **Muddy River Phase 2 Flood Damage Reduction**– Complete the Design and Construction of the Phase 2 Flood Damage Reduction Project: dredging Riverway, Fens and Leverett Pond for flood conveyance
3. **Muddy River Phase 2 Environmental Restoration**– Seek federal funding to design and construct the Phase 2 Environmental Restoration Project: full channel dredging, bank restoration, Phragmites removal, dredging Wards Pond, and Willow Pond.

***Other Flood Mitigation***

4. **Stormwater Management Plan** – Implement the long term plan for stormwater improvements
5. Implement Inflow and Infiltration removal project at Brookline High School
6. Implement Inflow and Infiltration removal project at Saw Mill Brook

***Wind Hazards***

7. **Implement Tree Removal and Replacement / Urban Forestry Management** – As trees mature or are impacted by storm damage or disease, it is critical to remove them before they become public safety hazards. New tree plantings are also critical, as they improve stormwater and reduce heat in the summer. New trees will be planted in anticipation of the ultimate loss of existing mature trees. Urban forestry management will help with resiliency to disease and pests.

***Fire Hazards***

8. **Implement Phragmites removal** to reduce risk of wild fire in Phragmites stands along the Muddy River (part of the Muddy River Phase 2 Environmental Restoration project)
9. **Implement/enforce** the ban on outdoor burning to reduce the risk of wild fires.

***Winter Hazards***

10. **Conduct a snow load evaluation** of public buildings for ability of roofs to withstand snow loads; and implement retrofits if needed to greatest degree feasible

***Earthquakes***

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11. Conduct an **earthquake building evaluation** to determine which buildings may be most vulnerable to earthquake damage, and conduct structural assessments if needed to identify retrofits to mitigate earthquake risks.
12. Conduct an **earthquake infrastructure assessment** of the vulnerability of roadways and utilities in high liquefaction susceptibility areas, and identify retrofits if needed to mitigate earthquake risks.

**Dams**

13. Implement the recommendations of the **Emergency Action Plan** for the Brookline Reservoir Dam:

**Extreme Temperatures**

14. Adopt development Site Design guidelines to increase tree plantings near buildings, increase the percentage of trees used in parking areas, and along public ways to mitigate extreme temperatures
15. Adopt development guidelines for Green Building and Cool Roof designs to mitigate extreme temperatures.

**Drought**

16. Adopt development guidelines for drought tolerant landscaping and site design measures to mitigate drought hazards.

**Climate Change**

17. Incorporate climate adaptation measures into the next Brookline Climate Action Plan

**Introduction to Potential Mitigation Measures Table (Table 29)**

Description of the Mitigation Measure – The description of each mitigation measure is brief and cost information is given only if cost data were already available from the community. The cost data represent a point in time and would need to be adjusted for inflation and for any changes or refinements in the design of a particular mitigation measure.

Priority – As described above and summarized in Table 28, the designation of high, medium, or low priority was done considering potential benefits and estimated project costs, as well as geographic coverage.

Implementation Responsibility – The designation of implementation responsibility was done based on a general knowledge of what each municipal department is responsible for. It is likely that most mitigation measures will require that several departments work

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together and assigning staff is the sole responsibility of the governing body of each community.

Time Frame – The time frame was based on a combination of the priority for that measure, the complexity of the measure and whether or not the measure is conceptual, in design, or already designed and awaiting funding. Because the time frame for this plan is five years, the timing for all mitigation measures has been kept within this framework. The identification of a likely time frame is not meant to constrain a community from taking advantage of funding opportunities as they arise.

Potential Funding Sources – This column attempts to identify the most likely sources of funding for a specific measure. The information on potential funding sources in this table is preliminary and varies depending on a number of factors. These factors include whether or not a mitigation measure has been studied, evaluated or designed, or if it is still in the conceptual stages. MEMA and DCR assisted MAPC in reviewing the potential eligibility for hazard mitigation funding. Each grant program and agency has specific eligibility requirements that would need to be taken into consideration. In most instances, the measure will require a number of different funding sources. Identification of a potential funding source in this table does not guarantee that a project will be eligible for, or selected for funding. Upon adoption of this plan, the local team responsible for its implementation should begin to explore the funding sources in more detail.

Additional information on funding sources – The best way to determine eligibility for a particular funding source is to review the project with a staff person at the funding agency. The following websites provide an overview of programs and funding sources.

Army Corps of Engineers (ACOE) – The website for the North Atlantic district office is <http://www.nae.usace.army.mil/>. The ACOE provides assistance in a number of types of projects including shoreline/streambank protection, flood damage reduction, flood plain management services and planning services.

Massachusetts Emergency Management Agency (MEMA) – The grants page <http://www.mass.gov/dem/programs/mitigate/grants.htm> has a useful table that compares eligible projects for the Hazard Mitigation Grant Program and the Flood Mitigation Assistance Program.

**Abbreviations Used in Table 29**

FEMA Mitigation Grants includes:

FMA = Flood Mitigation Assistance Program.

HMGP = Hazard Mitigation Grant Program.

PDM = Pre-Disaster Mitigation Program

ACOE = Army Corps of Engineers.

DHS/EOPS = Department of Homeland Security/Emergency Operations

DEP (SRF) = Department of Environmental Protection (State Revolving Fund)

USDA = United States Department of Agriculture

Mass DOT = Massachusetts Department of Transportation

DCR = MA Department of Conservation and Recreation

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<b>Table 29 – Potential Mitigation Measures</b>					
<b>Mitigation Measure</b>	<b>Priority</b>	<b>Lead Implementation</b>	<b>Time Frame</b>	<b>Estimated Cost</b>	<b>Potential Funding Sources</b>
<b>FLOODING</b>					
1. <b>Complete the Muddy River –Phase 1 Flood Damage Reduction Project:</b> Enlarged culverts at Brookline Ave. and Riverway; Fens bridge/ culvert restoration; daylight river at Sears parking lot and Fens	High	Army Corps, DCR, Brookline, Boston,	Short Term 2016	High \$32.3 M	Army Corps, DCR, Brookline, Boston: 65% ACOE 35% State & Local (all funding secured)
2. <b>Complete the Muddy River – Phase 2 Flood Damage Reduction Project:</b> Dredging Riverway, Fens and Leverett Pond for flood conveyance	High	Army Corps, DCR, Brookline, Boston,	Medium Term Design- 2016 Constr. 2017-19	High \$19.2 M	Army Corps, DCR, Brookline, Boston 65% ACOE 35% State & Local (all funding secured)
3. <b>Implement the Muddy River – Phase 2 Environmental Restoration Project:</b> Full channel dredging, bank restoration Phragmites removal; dredging Wards Pond and Willow Pond.	High	Army Corps, DCR, Brookline, Boston,	Long Term TBD	High \$26 M	Army Corps, DCR, Brookline, Boston (State, Town, & City funding secured; Federal funding not yet available)
4. Implement the 1999 Storm Water Management Plan	High	Public Works	Long Term 2016-21	Medium	Town operating budget and Capital Investment Plan
5. Implement Inflow and Infiltration removal project at Brookline High School	Medium	Public Works	Long Term 2016-21	High: Greater than \$500,000	Town operating budget and Developer I/I contributions

TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE

Table 29 – Potential Mitigation Measures					
Mitigation Measure	Priority	Lead Implementation	Time Frame	Estimated Cost	Potential Funding Sources
6. Implement an Inflow and Infiltration removal project at Saw Mill Brook	Medium	Public Works	Long Term 2016-21	High: Greater than \$500,000	Town operating budget and Developer I/I contributions
<b>WIND RELATED HAZARDS</b>					
7. Implement Tree Removal and Replacement/Urban Forestry Management to mitigate wind hazards	High	Parks & Open Space	Long Term 2016-21	High \$1,790,000	Town funding through Capital Improvement Program
<b>BRUSHFIRES</b>					
8. Implement Phragmites Removal: Reduce risk of wild fire (part of I Phase 2 Environmental Restoration project)	High	Army Corps, DCR, Brookline, Boston,	Long Term TBD	High \$26 M (for entire Phase 2 project)	Army Corps, DCR, Brookline, Boston (State, Town, & City funding secured; Federal funding not yet available)
9. Implement/enforce the ban on outdoor burning	High	Fire Dept.	Long Term 2016-21	Low:	Brookline Fire Dept.
<b>WINTER STORMS</b>					
10. Conduct an evaluation of public buildings for ability to withstand snow loads; and implement retrofits if needed to greatest degree feasible.	Low	Building	Long Term 2016-21	Low	Staff time / Town general operating budget
<b>EARTHQUAKES</b>					

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Table 29 – Potential Mitigation Measures					
Mitigation Measure	Priority	Lead Implementation	Time Frame	Estimated Cost	Potential Funding Sources
11. Conduct an earthquake building evaluation to determine which buildings may be most vulnerable to earthquake damage and conduct a structural assessment if needed to identify retrofits to mitigate earthquake risks.	Low	Building	Long Term 2016-21	Low	Staff time / Town general operating budget
12. Conduct an earthquake infrastructure assessment of the vulnerability of roadways and utilities in high liquefaction susceptibility areas, and identify retrofits if needed to mitigate earthquake hazards.	Low	Public Works	Long Term 2016-21	Low	Staff time / Town general operating budget
<b>DAMS</b>					
13. Implement the recommendations of the Emergency Action Plan for the Brookline Reservoir Dam:	Medium	Public Works	Long Term 2016-21	Medium	Town funding through Capital Improvement Program and general operating budget
<b>EXTREME TEMPERATURES</b>					
14. Adopt development Site Design guidelines to increase tree plantings near buildings, increase the percentage of trees used in parking areas, and along public ways.	High	Planning / Conservation	Long Term 2016-21	Low	Staff time / Town general operating budget

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<b>Table 29 – Potential Mitigation Measures</b>					
<b>Mitigation Measure</b>	<b>Priority</b>	<b>Lead Implementation</b>	<b>Time Frame</b>	<b>Estimated Cost</b>	<b>Potential Funding Sources</b>
15. Adopt development guidelines for Green Building and Cool Roof designs	High	Building/Planning	Long Term 2016-21	Low	Staff time / Town general operating budget
<b>DROUGHT</b>					
16. Adopt development guidelines for drought tolerant landscaping and site design measures	Medium	Planning / Conservation	Long Term 2016-21	Low	Staff time / Town general operating budget
<b>CLIMATE RESILIENCE / ADAPTATION</b>					
17. Incorporate climate adaptation measures into the next Brookline Climate Action Plan	High	Selectmen's Climate Action Committee	Short-term 2016-18	Low	Town general operating funds / Staff time

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**IX. PLAN ADOPTION AND MAINTENANCE**

**Plan Adoption**

The Brookline Hazard Mitigation Plan 2016 Update was adopted by the Board of Selectmen on [ADD DATE]. See Appendix D for documentation. The plan was approved by FEMA on [ADD DATE] for a five-year period that will expire on [ADD DATE].

**Plan Maintenance**

Although several of the mitigation measures from the Town's previous Hazard Mitigation Plan have been implemented, since that plan was adopted there has not been an ongoing local process to guide implementation of the plan. Such a process is needed over the next five years for the implementation of this plan update, and will be structured as described below.

MAPC worked with the Brookline Hazard Mitigation Planning Team to prepare this plan. After approval of the plan by FEMA, this group will meet on a regular basis, at least annually, to function as the Hazard Mitigation Implementation Team, with the Commissioner of Public Works designated as the coordinator. Additional members could be added to the local implementation team from businesses, non-profits and institutions. The Town will encourage public participation during the next 5-year planning cycle. As updates and a review of the plan are conducted by the Hazard Mitigation Implementation Team, these will be placed on the Town's web site, and any meetings of the Hazard Mitigation Implementation Team will be publicly noticed in accordance with town and state open meeting laws.

**Implementation and Evaluation Schedule**

Mid-Term Survey on Progress— The coordinator of the Hazard Mitigation Implementation Team will prepare and distribute a survey in year three of the plan. The survey will be distributed to all of the local implementation group members and other interested local stakeholders. The survey will poll the members on any changes or revisions to the plan that may be needed, progress and accomplishments for implementation, and any new hazards or problem areas that have been identified.

This information will be used to prepare a report or addendum to the local hazard mitigation plan in order to evaluate its effectiveness in meeting the plan's goals and identify areas that need to be updated in the next plan. The Hazard Mitigation Implementation Team, coordinated by the Commissioner of Public Works, will have primary responsibility for tracking progress and updating the plan.

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Begin to Prepare for the next Plan Update -- Given the lead time needed to secure funding and conduct the planning process, the Hazard Mitigation Implementation Team will begin to prepare for an update of the plan in year three. The team will use the information from the Mid-Term progress review to identify the needs and priorities for the plan update and seek funding for the plan update process. Potential sources of funding may include FEMA Pre-Disaster Mitigation grants and the Hazard Mitigation Grant Program. Both grant programs can pay for 75% of a planning project, with a 25% local cost share required.

Prepare and Adopt an Updated Local Hazard Mitigation Plan – FEMA’s approval of this plan is valid for five years, by which time an updated plan must be approved by FEMA in order to maintain the town’s approved plan status and its eligibility for FEMA mitigation grants. Once the resources have been secured to update the plan, the Hazard Mitigation Implementation Team may decide to undertake the update themselves, contract with the Metropolitan Area Planning Council to update the plan or to hire another consultant. However the Hazard Mitigation Implementation Team decides to update the plan, the group will need to review the current FEMA hazard mitigation plan guidelines for any changes. The Brookline Hazard Mitigation Plan Update will be forwarded to MEMA and DCR for review and to FEMA for approval.

**Integration of the Plans with Other Planning Initiatives**

Upon approval of the Brookline Hazard Mitigation Plan 2016 Update by FEMA, the Local Hazard Mitigation Team will provide all interested parties and implementing departments with a copy of the plan and will initiate a discussion regarding how the plan can be integrated into that department’s ongoing work. At a minimum, the plan will be reviewed and discussed with the following departments:

- Fire Department
- Emergency Management
- Police Department
- Public Works Department
- Engineering
- Planning and Community Development
- Conservation Commission
- Parks and Recreation
- Public Health
- Building

Other groups that will be coordinated with include large institutions, Chambers of Commerce, land conservation organizations and watershed groups. The plans will also be posted on a community’s website with the caveat that local team coordinator will review the plan for sensitive information that would be inappropriate for public posting. The posting of the plan on a web site will include a mechanism for citizen feedback such as an e-mail address to send comments.

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
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Since the previous Hazard Mitigation Plan was approved, its mitigation strategies have not been integrated into other existing town plans. Such integration is needed, and this Hazard Mitigation Plan will be integrated into other town plans and policies as they are updated and renewed, including the Brookline Comprehensive Plan, Open Space Plan, Comprehensive Emergency Management Plan, and Capital Investment Program.

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2016 UPDATE**

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TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
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X. LIST OF REFERENCES

*Brookline Capital Improvement Program, FY 2016 – 2021*

*Brookline Comprehensive Emergency Management Plan, August 2013*

*Brookline Comprehensive Plan 2005-2015*

*Brookline Open Space 2010, Open Space and Recreation Plan for the Town of Brookline, Brookline Conservation Commission, May 2011*

Brookline By-Laws. [www.townofbrooklinemass.com/Legal/bylaws.html](http://www.townofbrooklinemass.com/Legal/bylaws.html)

Brookline Department of Public Works website. [www.townofbrooklinemass.com/Dpw](http://www.townofbrooklinemass.com/Dpw)

*Brookline 2012 Climate Action Plan, December 2012*

Brookline Zoning By-Law, Floodplain Overlay District

Environment America Research and Policy Center, *When It Rains It Pours – Global Warming and the Increase in Extreme Precipitation*, July 2012

FEMA, Flood Insurance Rate Maps for Norfolk County, MA, 2012

FEMA, Local Mitigation Plan Review Guide; October 1, 2011.

MA Emergency Management Agency, *State Hazard Mitigation Plan*, 2013

MA Geographic Information System, *McConnell Land Use Statistics*, 2005

MA Office of Dam Safety, Inventory of Massachusetts Dams

Metropolitan Area Planning Council, Geographic Information Systems Lab

New England Seismic Network, Weston Observatory, <http://aki.bc.edu/index.htm>

Northeast States Emergency Consortium, website <http://www.nesec.org/>

NOAA, National Climatic Data Center, website

*Supplemental Final Environmental Impact Report*. EOEA #11865, February 2005.

U. S. Census, 2010, and American Community Survey, 2013

USGS, National Water Information Center, website

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2016 UPDATE**

**APPENDIX A**

**HAZARD MITIGATION PLANNING TEAM  
MEETING AGENDAS**

TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE



Don Boyce  
DIRECTOR



Edward M. Lambert Jr.  
COMMISSIONER



Marc D. Draisen  
EXECUTIVE DIRECTOR

THE COMMONWEALTH OF MASSACHUSETTS

Deval Patrick, Governor

MASSACHUSETTS EMERGENCY MANAGEMENT AGENCY  
400 WORCESTER ROAD, FRAMINGHAM, MA 01702-5399 508-820-2000 FAX 508-820-1404

DEPARTMENT OF CONSERVATION AND RECREATION  
251 CAUSEWAY STREET, SUITE 600-900, BOSTON, MA 02114-2104 617-626-1250 FAX 617-626-1351

METROPOLITAN AREA PLANNING COUNCIL  
60 TEMPLE PLACE, 6<sup>TH</sup> FLOOR, BOSTON, MA 02111 617-451-2770 FAX 617-482-7185

Metro Boston Hazard Mitigation Planning Team

First Meeting

Wednesday, April 13, 10:00 AM  
Everett City Hall, Keverian Room (3<sup>rd</sup> floor)  
484 Broadway (Route 99), Everett

AGENDA

METRO BOSTON  
HAZARD MITIGATION  
PLANNING TEAM

Boston  
Brookline  
Cambridge  
Chelsea  
Everett  
Malden  
Medford  
Somerville

10:00 WELCOME & INTRODUCTIONS

10:10 OVERVIEW OF HAZARD MITIGATION PLANNING & GRANTS

- State Hazard Mitigation Plan & FEMA Grants—Sarah White, MEMA
- FEMA Hazard Mitigation Program and Grants – Nan Johnson, FEMA
- Regional & Local Mitigation Plans - Martin Pillsbury, MAPC

10:30 UPDATING THE METRO BOSTON HAZARD MITIGATION PLAN

- FEMA Requirements & Grant Eligibility
- Review of Scope of Work & Schedule –MAPC
- Questions & Discussion – Local issues & Priorities

11:00 GETTING STARTED: MAPPING AND CRITICAL FACILITIES DATABASE FOR THE METRO BOSTON PLAN UPDATE

- Susan Brunton, GIS Analyst, MAPC

11:20 NEXT STEPS

11:30 ADJOURN

If you have any questions please contact Martin Pillsbury at MAPC:  
617-451-2770, ext. 2012 or [mpillsbury@mapc.org](mailto:mpillsbury@mapc.org)

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

**Meeting Agenda  
Brookline Natural Hazard Mitigation Planning Team  
Thursday, October 17, 2013, 9:00 AM  
Brookline Town Hall, 4<sup>th</sup> Floor Conference Room**

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**1) Introduction: Hazard Mitigation**

*Mitigation: Action taken to reduce or eliminate long term risk of hazards*

**2) Overview of Scope for the Plan Update**

- a) Update 2008 plan hazards affecting Brookline
- b) Update map of Critical Facilities
- c) Update map of locally identified hazard areas
- d) Update Existing Mitigation Measures
- e) Review status of Mitigation Measures from the 2008 plan
- f) Develop new Mitigation measures for the plan update

**3) Planning Process**

- a) Local Team Meetings
- b) Two Public Meetings
- c) Public outreach and stakeholder involvement (see over)
- d) Draft plan submitted to MEMA and FEMA for approval
- e) Approved plan adopted by vote of Board of Selectmen.

**4) Getting Started: Data Update (Meeting #1)**

- a) Review and update Mitigation Plan Goals (see over)
- b) Update map and inventory of Critical Facilities (attached)
- c) Update locally identified hazard areas (attached)
- d) Update potential future development areas
- e) Discuss Public Involvement and Outreach

**5) Next Steps (Meeting #2 & 3)**

- a) Review Existing Mitigation Measures
- b) Review Mitigation Measures from the 2005 Plan
- c) Discuss Potential Mitigation Measures
- d) Prioritize Mitigation Measures

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
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**Meeting Agenda  
Brookline Natural Hazard Mitigation Planning Team  
Wednesday, October 22, 2014, 1:30 PM  
Brookline Public Safety Bldg, Community Room**

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**6) REVIEW HAZARD IDENTIFICATION**

- Based on the *Massachusetts State Hazard Mitigation Plan*, as modified for local conditions, all natural hazards potentially affecting the Town of Brookline have been identified and prioritized

**7) REVIEW HAZARD MITIGATION GOALS**

- Review the Goals from the 2008 plan and consider any revisions for the current plan.

**8) CURRENT STATUS OF MITIGATION MEASURES IN THE 2008 PLAN**

- Review the mitigation measures from the 2008 plan and determine their current status.
  - (1) Completed or implemented
  - (2) Partially completed/in progress
  - (3) Not completed or implemented

**4. REVIEW POTENTIAL MITIGATION MEASURES FOR THE 2014 PLAN**

- Review mitigation measures from the 2008 plan and determine if they should be included in the updated 2014 plan
- Determine what other new mitigation measures should be included in the 2014 plan.

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APPENDIX B  
HAZARD MAPPING

The MAPC GIS (Geographic Information Systems) Lab produced a series of maps for each community. Some of the data came from the Northeast States Emergency Consortium (NESEC). More information on NESEC can be found at <http://www.serve.com/NESEC/>. Due to the various sources for the data and varying levels of accuracy, the identification of an area as being in one of the hazard categories must be considered as a general classification that should always be supplemented with more local knowledge.

The map series consists of eight maps as described below. The maps in this appendix are necessarily reduced scale versions for general reference. Full sized higher resolution PDF's of the maps can be downloaded from the MAPC File Transfer Protocol (FTP) website at: [ftp://ftp.mapc.org/Hazard\\_Mitigation\\_Plans/maps/Brookline/](ftp://ftp.mapc.org/Hazard_Mitigation_Plans/maps/Brookline/)

Map 1.	Population Density
Map 2.	Potential Development
Map 3.	Flood Zones
Map 4.	Earthquakes and Landslides
Map 5.	Hurricanes and Tornadoes
Map 6.	Average Snowfall
Map 7.	Composite Natural Hazards
Map 8.	Hazard Areas

**Map 1: Population Density** – This map uses the US Census block data for 2010 and shows population density as the number of people per acre in seven categories with 60 or more people per acre representing the highest density areas.

**Map 2: Development** – This map shows potential future developments, and critical infrastructure sites. MAPC consulted with town staff to determine areas that were likely to be developed or redeveloped in the future. The map also depicts current land use.

**Map 3: Flood Zones** – The map of flood zones used the FEMA NFIP Flood Zones as depicted on the FIRMs (Federal Insurance Rate Maps) for Norfolk County as its source. This map is not intended for use in determining whether or not a specific property is located within a FEMA NFIP flood zone. The currently adopted FIRMs for Brookline are kept by the Town. For more information, refer to the FEMA Map Service Center website <http://www.msc.fema.gov>. The definitions of the flood zones are described in detail on this site as well. The flood zone map for each community also shows critical infrastructure and repetitive loss areas.

TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE

**Map 4: Earthquakes and Landslides** – This information came from NESEC. For most communities, there was no data for earthquakes because only the epicenters of an earthquake are mapped.

The landslide information shows areas with either a low susceptibility or a moderate susceptibility to landslides based on mapping of geological formations. This mapping is highly general in nature. For more information on how landslide susceptibility was mapped, refer to <http://pubs.usgs.gov/pp/p1183/pp1183.html>.

**Map 5: Hurricanes and Tornadoes** – This map shows a number of different items. The map includes the storm tracks for both hurricanes and tropical storms, if any occurred in this community. This information must be viewed in context. A storm track only shows where the eye of the storm passed through. In most cases, the effects of the wind and rain from these storms were felt in other communities even if the track was not within that community. This map also shows the location of tornadoes with a classification as to the level of damages. What appears on the map varies by community since not all communities experience the same wind-related events. These maps also show the 100 year wind speed.

**Map 6: Average Snowfall** - - This map shows the average snowfall. It also shows storm tracks for nor'easters, if any storms tracked through the community.

**Map 7: Composite Natural Hazards** - This map shows four categories of composite natural hazards for areas of existing development. The hazards included in this map are 100 year wind speeds of 110 mph or higher, low and moderate landslide risk, FEMA Q3 flood zones (100 year and 500 year) and hurricane surge inundation areas. Areas with only one hazard were considered to be low hazard areas. Moderate areas have two of the hazards present. High hazard areas have three hazards present and severe hazard areas have four hazards present.

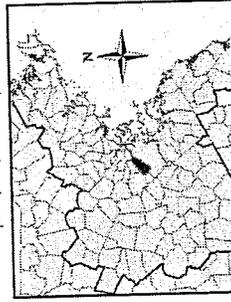
**Map 8: Hazard Areas** – For each community, locally identified hazard areas are overlaid on an aerial photograph. The critical infrastructure sites are also shown. The source of the aerial photograph is Mass GIS.

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

**MAPC**  
**FEMA Hazard  
 Mitigation Planning Grant  
 BROOKLINE, MA**  
 Map 1: Population Density

- Sites**
- Critical Infrastructure Sites\*
  - Repetitive Loss Sites
  - \* See details in Hazardable Waste
- Water Bodies**
- Water Bodies
- Population Density  
 2010 Census Blooms  
 People Per Acre**
- 0.1 - 5.0
  - 5.1 - 15.0
  - 15.1 - 30.0
  - More than 30
- All Roads**
- Interstate
  - U.S. Highway
  - State Route
  - Street
- Train Stations**
- Commuter
  - Rail Lines
  - Trails

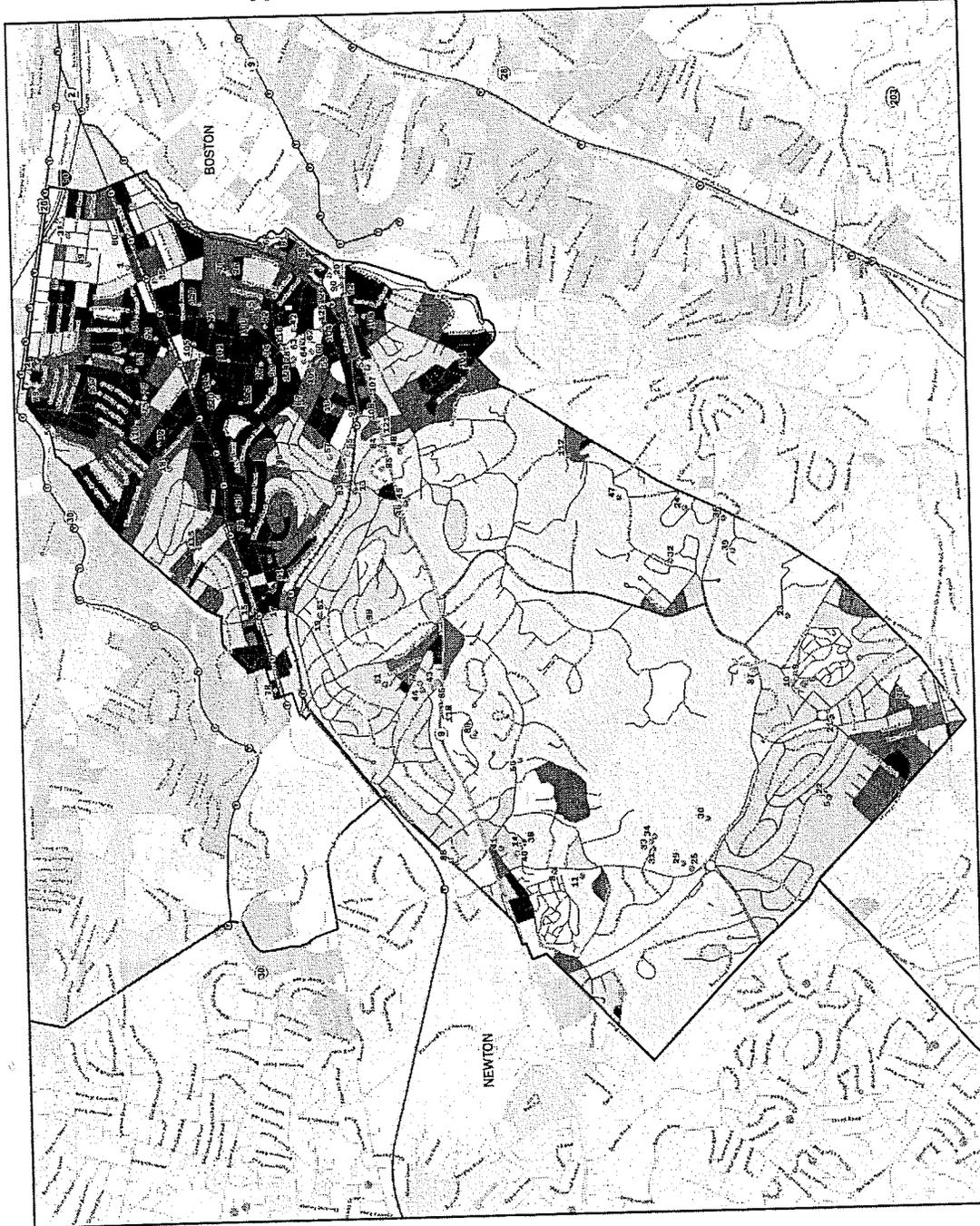
0 0.25 0.5 Miles



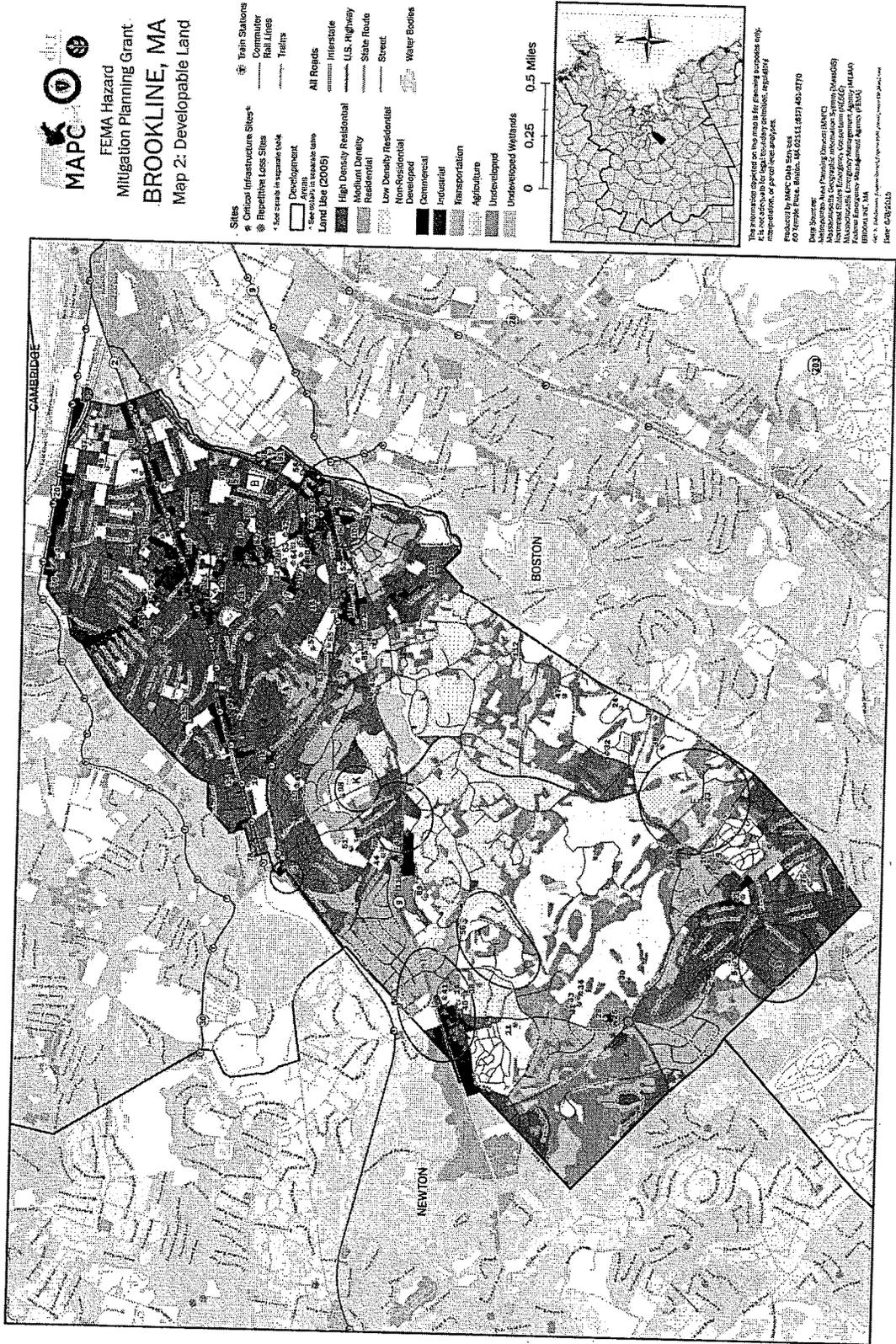
This document is prepared for the use of the planning jurisdiction. It is not intended for use for any other purpose, including, but not limited to, litigation.

Prepared by MAPC Data Services  
 60 Temple Place, Boston, MA 02111 (617) 442-2779

**Data Sources:**  
 Critical Infrastructure Sites (CIS)  
 Massachusetts Emergency Management Agency (MEMA)  
 National Fire Insurance Underwriting Association (NFIA)  
 National Highway Traffic Safety Administration (NHTSA)  
 National Oceanic and Atmospheric Administration (NOAA)  
 United States Census Bureau (USCB)  
 United States Department of Transportation (DOT)  
 United States Geological Survey (USGS)  
 United States Environmental Protection Agency (EPA)  
 Brookline, MA  
 Date: 04/27/2016



**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**









# TOWN OF BROOKLINE HAZARD MITIGATION PLAN 2016 UPDATE



FEMA Hazard  
Mitigation Planning Grant  
**BROOKLINE, MA**  
Map 6: Average Snowfall

- Sites**
- Critical Infrastructure Sites\*
  - Repetitive Loss Sites
  - \* Sites defined in response table
- Average Annual Snowfall**
- 96.1 to 48.0 inches
  - 48.1 to 72.0 inches
- Water Bodies**
- ☉ Train Stations
  - ☉ Commuter Rail Lines
  - ☉ Trains
- All Roads**
- Interstate
  - U.S. Highway
  - State Route
  - Street



The information depicted on this map is for planning purposes only. It is not intended to be used for legal boundary delineation, regulation, or other purposes.

Prepared by: MAPC, 2016, 100 State Street, Boston, MA 02109 (617) 462-2775

Map Source:  
Map prepared by MAPC (Massachusetts Planning Council) using  
Massachusetts Geographic Information System (MAGIS)  
Massachusetts Emergency Management Agency (MEMA)  
Massachusetts Department of Transportation (MassDOT)  
Massachusetts Department of Public Safety (DPS)

Map 6: Average Snowfall





**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

**APPENDIX C  
DOCUMENTATION OF PUBLIC MEETINGS**

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

Amanda Linehan, Communications Manager, Metropolitan Area Planning Council  
617-933-0705, [alinehan@mapc.org](mailto:alinehan@mapc.org)

**CALENDAR LISTING / MEDIA ADVISORY**

**BROOKLINE'S NATURAL HAZARDS PLAN UPDATE  
IS FOCUS OF MARCH 27 PUBLIC MEETING**

*Meeting to present an overview of the update of Brookline's Natural  
Hazards Mitigation Plan and solicit public comments*

**Who:** Brookline residents, business owners, representatives of non-profit organizations and institutions, and others who are interested in preventing and reducing damage from natural hazards.

**What:** The Brookline Emergency Management Team (EMT) will hold a public meeting to present an overview of the pending update of the Town of Brookline's Natural Hazards Mitigation Plan. The Metropolitan Area Planning Council (MAPC) is assisting the Town on the plan update, and a representative of MAPC will present an overview of the plan update.

The Town of Brookline adopted its first Hazard Mitigation Plan in 2008, which was approved by the Federal Emergency Management Agency (FEMA). The plan identifies natural hazards affecting Brookline such as floods, hurricanes, winter storms, and earthquakes, as well as actions that the Town can take to reduce the impacts of these hazards. FEMA requires that plans be updated regularly, so MAPC is assisting the Town prepare a 2014 updated plan.

**When:** Thursday, March 27, 2014, 10:00 AM

**Where:** Denny Room, Brookline Public Health Building, 11 Pierce Street, Brookline (next to Town Hall).

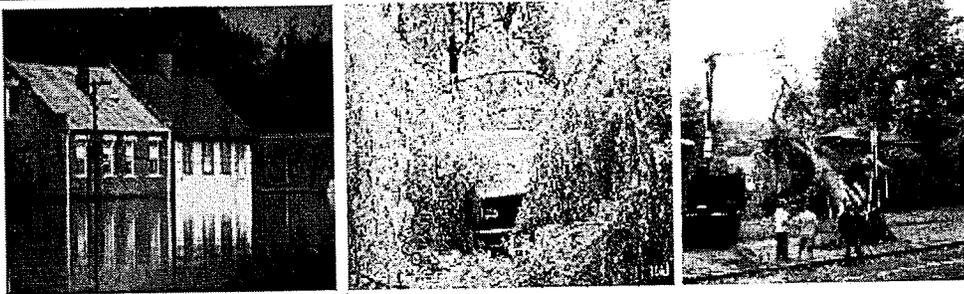
MAPC is the regional planning agency for 101 communities in the metropolitan Boston area, promoting smart growth and regional collaboration. More information about MAPC is available at [www.mapc.org](http://www.mapc.org).

##

TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE

# HAZARD MITIGATION PLAN PUBLIC MEETING

*Natural hazards can have serious impacts on the  
Town of Brookline and its residents*



The Brookline Hazard Mitigation Plan is being updated to help the town reducing its vulnerability to the impacts of natural hazard events such as flooding, hurricanes and winter storms.

*Join the town's Emergency Management Team for a presentation and discussion about the 2014 update to the Brookline Hazard Mitigation Plan at a public meeting:*

**Date: Thursday, March 27, 2014**

**Time: 10:00 AM**

**Location: Public Health Building, Denny Room  
11 Pierce Street (next to Town Hall)**

For more information, please contact  
Martin Pillsbury at (617) 933-0747  
or email [mpillsbury@mapc.org](mailto:mpillsbury@mapc.org)



**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**



**TOWN OF BROOKLINE  
EMERGENCY MANAGEMENT**

**BROOKLINE HAZARD MITIGATION PLAN**

**MEETING AGENDA**

**Thursday, March 27, 2014 – 10:00 A.M.**

**Brookline Public Health, 11 Pierce Street – Denny Room**

1. Call to Order
2. Opening Remarks – Police Chief Daniel O’Leary,  
Emergency Management Director
3. Presentation on Brookline Hazard Mitigation Plan –  
Martin Pillsbury, Environmental Planning Director-  
Metropolitan Area Planning Council (MAPC)
4. Question and Answer Period
5. Closing Remarks

**TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE**

Amanda Linehan, Communications Manager, Metropolitan Area Planning Council  
617-933-0705, [alinehan@mapc.org](mailto:alinehan@mapc.org)

**CALENDAR LISTING / MEDIA ADVISORY**

**BROOKLINE'S DRAFT HAZARD MITIGATION PLAN TO  
BE PRESENTED AT JUNE 9 PUBLIC MEETING**

*Meeting to present the 2015 update of Brookline's Hazard Mitigation Plan  
and solicit public comments*

**Who:** Brookline residents, business owners, representatives of non-profit organizations and institutions, and others who are interested in preventing and reducing damage from natural hazards.

**What:** The Brookline Emergency Management Team (EMT) will hold a public meeting to present an overview of the draft Brookline Hazard Mitigation Plan Update 2015. The Metropolitan Area Planning Council (MAPC) is assisting the Town on the plan update, and a representative of MAPC will present an overview of the plan update.

The Town of Brookline adopted its first Hazard Mitigation Plan in 2008, which was approved by the Federal Emergency Management Agency (FEMA). The plan identifies natural hazards affecting Brookline such as floods, hurricanes, winter storms, and earthquakes, as well as actions that the Town can take to reduce the impacts of these hazards. FEMA requires that plans be updated regularly, so MAPC is assisting the Town prepare a 2015 updated plan.

**When:** Tuesday, June 9, 2015, 10:00 AM

**Where:** Brookline Town Hall, Room 111, 333 Washington Street, Brookline, MA

MAPC is the regional planning agency for 101 communities in the metropolitan Boston area, promoting smart growth and regional collaboration. More information about MAPC is available at [www.mapc.org](http://www.mapc.org).

##

# TOWN OF BROOKLINE HAZARD MITIGATION PLAN 2016 UPDATE

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**Hazard Mitigation Plan Meeting 6/9/2016**  
 The next Emergency Management Team (EMT) meeting will be on Tuesday, June 9th at 10 AM in Room 111 at Town Hall. This is a meeting regarding the Hazard Mitigation Plan. The MAPC will be presenting and interested members of the public are encouraged to attend. Click here for details on the meeting including the EMAT Executive Hazard Mitigation Plan.

**Other News in POMS**  
 20th Annual Public Health Policy Forum  
 Annual Meeting Final Results  
 Town of Brookline Leaf Blower Laws  
 Official Annual Town Election Results  
 Stay Informed During Emergencies

**Boards & Commissions**  
 Assessors Department  
 Board of Selectmen  
 Brookline Library  
 Brookline Parking  
 Brookline Parks  
 Brookline Police  
 Brookline Public Schools  
 Brookline Recreation  
 Overight Council  
 Visitor Information

**Brookline Online**  
 PAY ONLINE  
 REPORT A CONCERN  
 BROOKLINE MAPS  
 OPEN GOVERNMENT  
 VOTE

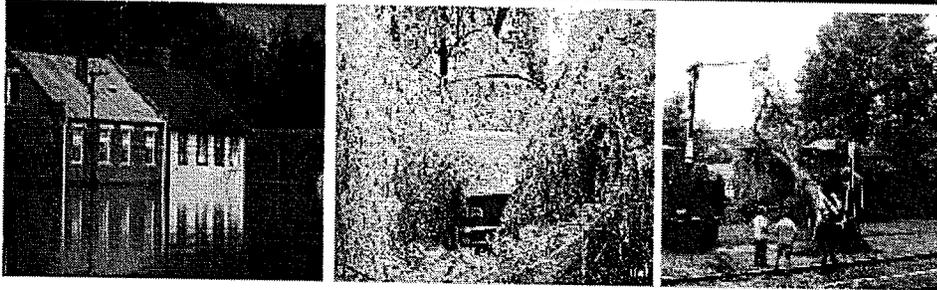
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TOWN OF BROOKLINE HAZARD MITIGATION PLAN  
2016 UPDATE

# HAZARD MITIGATION PLAN PUBLIC MEETING

*Natural hazards can have serious impacts on the  
Town of Brookline and its residents*



The Brookline Hazard Mitigation Plan is being updated to help the town reducing its vulnerability to the impacts of natural hazard events such as flooding, hurricanes and winter storms.

*Join the town's Emergency Management Team for a presentation and discussion about the draft 2015 update to the Brookline Hazard Mitigation Plan at a public meeting.*

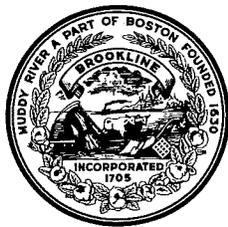
**Date: Tuesday, June 9, 2015**

**Time: 10:00 AM**

**Location: Brookline Town Hall, Room 111  
333 Washington St, Brookline, MA**

For more information, please contact  
Martin Pillsbury at (617) 933-0747  
or email [mpillsbury@mapc.org](mailto:mpillsbury@mapc.org)





**TOWN of BROOKLINE**  
*Massachusetts*

**BUILDING DEPARTMENT**

Daniel Bennett  
Building Commissioner

**TO: Board of Selectmen**

**FROM: Ray Masak, PE Project Manager**

**SUBJECT: Brookline Fire Department Vehicle Repair Facility & Training Facilities**

**DATE: November 15, 2015**

On the Calendar this week, the Building Department has submitted a request for Contract Approval for the preparation of contract documents for the subject project in the amount of \$516,600. A committee of seven was assigned for the selection of a designer and The Galante Architecture Studio, the selected firm was ranked highest out of four firms.

The appropriation for this contract was approved by Town Meeting as part of the overall appropriation totaling \$5,150,000 (FY17). This design work will commence upon contract execution and the construction is expected to be completed next August 2018 or sooner.

The Building Department will be available on Tuesday evening to answer any questions. Thank you for your consideration.

The Galante Architecture Studio

October 27, 2016

Mr. Ray Masak P.E.  
Project Manager  
Town of Brookline  
333 Washington St.  
Brookline, MA 02445

VIA EMAIL: [rmasak@brooklinema.gov](mailto:rmasak@brooklinema.gov)

RE: **Brookline Fire Department Vehicle Repair Facility & Fire Fighter Training Facilities**

Ray,

As update to our meeting of 10.17.16 I am writing to confirm our proposal based on the increased scope of work in the existing building. In addition to the structural upgrades and generator that were part of the original scope, we are now adding Air Conditioning, change in Plymovent System, Condensing Boilers, updates to Lights & Station Alerting Systems. The attached spread sheet is an update from the original proposal, with a section of Existing Building Scope Increase in the center. Basically, the fee amount for this portion is \$40,680.00 for a new total of \$516,600.00, captured at the bottom of the spread sheet.

Also as requested, I am including the phase breakdown below.

Schematic Design	20%
Design Development	20%
Construction Documents	25%
Bidding & Negotiations	5%
<u>Construction Administration</u>	<u>30%</u>
Total	100%

To be clear, we are comfortable working with the Town's Front End, and will include that in the Project Manual.

Please let me know if the above works for you or if you have additional questions or concerns. I look forward to working with you.

With best regards,



Theodore Galante AIA LEED AP

**Brookline Fire Department Vehicle Repair Facility & Fire Fighter Training Facilities**

<b>Basic Services</b>	<b>Original Fee Proposal</b>	<b>Proposed Compensation</b>	<b>Net Savings</b>
Architects / Engineers Basic Services	\$423,171	\$399,240	\$23,931
Includes:			
Structural Engineering			
Mech / Elec / Plumb / FP Engineering			
Cost Estimating			
Code Consultant			
	<b>\$423,171</b>	<b>\$399,240</b>	<b>\$23,931</b>

Existing Building Scope increase			
Change Plymovent System			
AC in building			
Condensing Boiler			
Lights & Station Alerting System			
		<b>\$40,680</b>	

<b>Additional Services</b>			
Includes:			
Civil Engineer	\$42,317	\$45,840	-\$3,523
Geotechnical Engineer	\$42,317	\$11,160	\$31,157
Surveyor	\$42,317	\$7,680	\$34,637
Environmental Consultant	\$42,317	\$12,000	\$30,317
	<b>\$169,268</b>	<b>\$76,680</b>	<b>\$92,588</b>

**Team Compensation Total**

**\$516,600**



AIA Document B141

# Standard Form of Agreement Between Owner and Architect

1987 EDITION

*THIS DOCUMENT HAS IMPORTANT LEGAL CONSEQUENCES; CONSULTATION WITH AN ATTORNEY IS ENCOURAGED WITH RESPECT TO ITS COMPLETION OR MODIFICATION.*

## AGREEMENT

made as of the 22<sup>nd</sup> day of November in the year of 2016

**BETWEEN** the Owner:  
*(Name and address)* Town of Brookline  
Town Hall  
333 Washington Street  
Brookline, MA 02445-6648

and the Architect:  
*(Name and address)* The Galante Architecture Studio, Inc.  
146 Mount Auburn St.  
Cambridge, MA  
02138

For the following Project:  
*(Include detailed description of Project, location, address and scope.)*

Brookline Fire Department Fleet Maintenance and Training Building  
962 Hammond Street, Brookline, MA

The Town of Brookline is seeking Architectural/Engineering Services to prepare plans and specifications for the design of a fleet maintenance and training building at Fire Station #6 including MEP/ structural upgrades. Services required are Schematic Design through Construction Administration

The Owner and Architect agree as set forth below.

Copyright 1917, 1926, 1948, 1951, 1953, 1958, 1961, 1963, 1966, 1967, 1970, 1974, 1977, ©1987 by The American Institute of Architects, 1735 New York Avenue, N.W., Washington, D.C. 20006. Reproduction of the material herein or substantial quotation of its provisions without written permission of the AIA violates the copyright laws of the United States and will be subject to legal prosecution.

TERMS AND CONDITIONS OF AGREEMENT BETWEEN OWNER AND ARCHITECT

**ARTICLE 1**

**ARCHITECT'S RESPONSIBILITIES**

**1.1 ARCHITECT'S SERVICES**

1.1.1 The Architect's services consist of those services performed by the Architect, Architect's employees and Architect's consultants as enumerated in Articles 2 and 3 of this Agreement and any other services included in Article 12.

1.1.2 The Architect's services shall be performed as expeditiously as is consistent with professional skill and care and the orderly progress of the Work. Upon request of the Owner, the Architect shall submit for the Owner's approval a schedule for the performance of the Architect's services which may be adjusted as the Project proceeds, and shall include allowances for periods of time required for the Owner's review and for approval of submissions by authorities having jurisdiction over the Project. Time limits established by this schedule approved by the Owner shall not, except for reasonable cause, be exceeded by the Architect or Owner.

1.1.3 The services covered by this Agreement are subject to the time limitations contained in Subparagraph 11.5.1.

**ARTICLE 2**

**SCOPE OF ARCHITECT'S BASIC SERVICES**

**2.1 DEFINITION**

2.1.1 The Architect's Basic Services consist of those described in Paragraphs 2.2 through 2.6 and any other services identified in Article 12 as part of Basic Services, and include normal structural, mechanical and electrical engineering services.

\*SEE AMENDMENTS

**2.2 SCHEMATIC DESIGN PHASE**

2.2.1 The Architect shall review the program furnished by the Owner to ascertain the requirements of the Project and shall arrive at a mutual understanding of such requirements with the Owner.

2.2.2 The Architect shall provide a preliminary evaluation of the Owner's program, schedule and construction budget requirements, each in terms of the other, subject to the limitations set forth in Subparagraph 5.2.1.

2.2.3 The Architect shall review with the Owner alternative approaches to design and construction of the Project.

2.2.4 Based on the mutually agreed-upon program, schedule and construction budget requirements, the Architect shall prepare, for approval by the Owner, Schematic Design Documents consisting of drawings and other documents illustrating the scale and relationship of Project components.

2.2.5 The Architect shall submit to the Owner a preliminary estimate of Construction Cost based on current area, volume or other unit costs.

**2.3 DESIGN DEVELOPMENT PHASE**

2.3.1 Based on the approved Schematic Design Documents and any adjustments authorized by the Owner in the program,

schedule or construction budget, the Architect shall prepare, for approval by the Owner, Design Development Documents consisting of drawings and other documents to fix and describe the size and character of the Project as to architectural, structural, mechanical and electrical systems, materials and such other elements as may be appropriate.

2.3.2 The Architect shall advise the Owner of any adjustments to the preliminary estimate of Construction Cost.

**2.4 CONSTRUCTION DOCUMENTS PHASE**

2.4.1 Based on the approved Design Development Documents and any further adjustments in the scope or quality of the Project or in the construction budget authorized by the Owner, the Architect shall prepare, for approval by the Owner, Construction Documents consisting of Drawings and Specifications setting forth in detail the requirements for the construction of the Project. \* SEE AMENDMENTS

2.4.2 The Architect shall assist the Owner in the preparation of the necessary bidding information, bidding forms, the Conditions of the Contract, and the form of Agreement between the Owner and Contractor.

2.4.3 The Architect shall advise the Owner of any adjustments to previous preliminary estimates of Construction Cost indicated by changes in requirements or general market conditions.

2.4.4 The Architect shall assist the Owner in connection with the Owner's responsibility for filing documents required for the approval of governmental authorities having jurisdiction over the Project.

**2.5 BIDDING OR NEGOTIATION PHASE**

2.5.1 The Architect, following the Owner's approval of the Construction Documents and of the latest preliminary estimate of Construction Cost, shall assist the Owner in obtaining bids ~~or negotiated proposals~~ and assist in awarding and preparing contracts for construction. \* SEE AMENDMENTS

**2.6 CONSTRUCTION PHASE—ADMINISTRATION OF THE CONSTRUCTION CONTRACT**

2.6.1 The Architect's responsibility to provide Basic Services for the Construction Phase under this Agreement commences with the award of the Contract for Construction and terminates at the earlier of the issuance to the Owner of the final Certificate for Payment or 60 days after the date of Substantial Completion of the Work.

2.6.2 The Architect shall provide administration of the Contract for Construction as set forth below and in the edition of AIA Document A201, General Conditions of the Contract for Construction, current as of the date of this Agreement, unless otherwise provided in this Agreement. \* SEE AMENDMENTS

2.6.3 Duties, responsibilities and limitations of authority of the Architect shall not be restricted, modified or extended without written agreement of the Owner and Architect ~~with consent of the Contractor, which consent shall not be unreasonably withheld.~~ \*SEE AMENDMENTS

2.6.4 The Architect shall be a representative of and shall advise and consult with the Owner (1) during construction until final payment to the Contractor is due, and (2) as an Additional Service at the Owner's direction from time to time during the correction period described in the Contract for Construction. The Architect shall have authority to act on behalf of the Owner only to the extent provided in this Agreement unless otherwise modified by written instrument.

2.6.5 The Architect shall visit the site at intervals appropriate to the stage of construction or as otherwise agreed by the Owner and Architect in writing to become generally familiar with the progress and quality of the Work completed and to determine in general if the Work is being performed in a manner indicating that the Work when completed will be in accordance with the Contract Documents. However, the Architect shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. On the basis of on-site observations as an architect, the Architect shall keep the Owner informed of the progress and quality of the Work, and shall endeavor to guard the Owner against defects and deficiencies in the Work. *(More extensive site representation may be agreed to as an Additional Service, as described in Paragraph 3.2.)* \* SEE AMENDMENTS

2.6.6 The Architect shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the Contractor's responsibility under the Contract for Construction. The Architect shall not be responsible for the Contractor's schedules or failure to carry out the Work in accordance with the Contract Documents. The Architect shall not have control over or charge of acts or omissions of the Contractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.

2.6.7 The Architect shall at all times have access to the Work wherever it is in preparation or progress.

2.6.8 Except as may otherwise be provided in the Contract Documents or when direct communications have been specially authorized, the Owner and Contractor shall communicate through the Architect. Communications by and with the Architect's consultants shall be through the Architect.

2.6.9 Based on the Architect's observations and evaluations of the Contractor's Applications for Payment, the Architect shall review and certify the amounts due the Contractor.

2.6.10 The Architect's certification for payment shall constitute a representation to the Owner, based on the Architect's observations at the site as provided in Subparagraph 2.6.5 and on the data comprising the Contractor's Application for Payment, that, to the best of the Architect's knowledge, information and belief, the Work has progressed to the point indicated and the quality of Work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to minor deviations from the Contract Documents correctable prior to completion and to specific qualifications expressed by the Architect. The issuance of a Certificate for Payment shall further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the issuance of a Certificate for Payment shall not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or

quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment or (4) ascertained how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

2.6.11 The Architect shall have the responsibility and does not conform to the Contract Documents. Whenever the Architect considers it necessary, or advisable for implementation of the intent of the Contract Documents, the Architect will have authority to require additional inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether or not such Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, material and equipment suppliers, their agents or employees or other persons performing portions of the Work.

2.6.12 The Architect shall review and approve or take other appropriate action upon Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action shall be taken with such reasonable promptness as to cause no delay in the Work or in the construction of the Owner or of separate contractors, while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities or equipment or systems designed by the Contractor, all of which remain the responsibility of the Contractor to the extent required by the Contract Documents. The Architect's review shall not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect, of construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component. When professional certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, the Architect shall be entitled to rely upon such certification to establish that the materials, systems or equipment will meet the performance criteria required by the Contract Documents. \* SEE AMENDMENTS

2.6.13 The Architect shall prepare Change Orders and Construction Change Directives, with supporting documentation and data if deemed necessary by the Architect as provided in Subparagraphs 3.1.1 and 3.3.3, for the Owner's approval and execution in accordance with the Contract Documents, and may authorize minor changes in the Work not involving an adjustment in the Contract Sum or an extension of the Contract Time which are not inconsistent with the intent of the Contract Documents.

2.6.14 The Architect shall conduct inspections to determine the date or dates of Substantial Completion and the date of final completion, shall receive and forward to the Owner for the Owner's review and records written warranties and related documents required by the Contract Documents and assembled by the Contractor, and shall issue a final Certificate for Payment upon compliance with the requirements of the Contract Documents. \* SEE AMENDMENTS

2.6.15 The Architect shall interpret and decide matters concerning performance of the Owner and Contractor under the requirements of the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests shall be made with reasonable promptness and within any time limits agreed upon.

2.6.16 Interpretations and decisions of the Architect shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in writing or in the form of drawings. When making such interpretations and initial decisions, the Architect shall endeavor to secure faithful performance by both Owner and Contractor, ~~shall not show partiality to either~~, and shall not be liable for results of interpretations or decisions so rendered in good faith.

2.6.17 The Architect's decisions on matters relating to aesthetic effect shall be final if consistent with the intent expressed in the Contract Documents.

2.6.18 The Architect shall render written decisions within a reasonable time on all claims, disputes or other matters in question between the Owner and Contractor relating to the execution or progress of the Work as provided in the Contract Documents.

2.6.19 ~~The Architect's decisions on claims, disputes or other matters, including those in question between the Owner and Contractor, except for those relating to aesthetic effect as provided in Subparagraph 2.6.17, shall be subject to arbitration as provided in this Agreement and in the Contract Documents.~~

### ARTICLE 3 ADDITIONAL SERVICES

#### 3.1 GENERAL

3.1.1 The services described in this Article 3 are not included in Basic Services unless so identified in Article 12, and they shall be paid for by the Owner as provided in this Agreement, in addition to the compensation for Basic Services. The services described under Paragraphs 3.2 and 3.4 shall only be provided if authorized or confirmed in writing by the Owner. If services described under Contingent Additional Services in Paragraph 3.3 are required due to circumstances beyond the Architect's control, the Architect shall notify the Owner prior to commencing such services. If the Owner deems that such services described under Paragraph 3.3 are not required, the Owner shall give prompt written notice to the Architect. If the Owner indicates in writing that all or part of such Contingent Additional Services are not required, the Architect shall have no obligation to provide those services.

#### 3.2 PROJECT REPRESENTATION BEYOND BASIC SERVICES

3.2.1 If more extensive representation at the site than is described in Subparagraph 2.6.5 is required, the Architect shall provide one or more Project Representatives to assist in carrying out such additional on-site responsibilities.

3.2.2 Project Representatives shall be selected, employed and directed by the Architect, and the Architect shall be compensated therefor as agreed by the Owner and Architect. The duties, responsibilities and limitations of authority of Project Representatives shall be as described in the edition of AIA Document B352 current as of the date of this Agreement, unless otherwise agreed.

~~3.2.3 Through the observations by such Project Representatives, the Architect shall endeavor to provide further protection for the Owner against defects and deficiencies in the Work, but the furnishing of such project representation shall not modify the rights, responsibilities or obligations of the Architect as described elsewhere in this Agreement.~~

#### 3.3 CONTINGENT ADDITIONAL SERVICES

\* SEE AMENDMENTS

3.3.1 Making revisions in Drawings, Specifications or other documents when such revisions are:

- .1 Inconsistent with approvals or instructions previously given by the Owner, including revisions made necessary by adjustments in the Owner's program or Project budget;
- .2 required by the enactment or revision of codes, laws or regulations subsequent to the preparation of such documents; or
- .3 due to changes required as a result of the Owner's failure to render decisions in a timely manner.

3.3.2 Providing services required because of significant changes in the Project including, but not limited to, size, quality, complexity, the Owner's schedule, or the method of bidding or negotiating and contracting for construction, except for services required under Subparagraph 5.2.5.

~~3.3.3 Preparing Drawings, Specifications and other documentation and supporting data, evaluating Contractor's proposals, and providing other services in connection with Change Orders and Construction Change Directives.~~

3.3.4 Providing services in connection with evaluating substitutions proposed by the Contractor and making subsequent revisions to Drawings, Specifications and other documentation resulting therefrom.

3.3.5 Providing consultation concerning replacement of Work damaged by fire or other cause during construction, and furnishing services required in connection with the replacement of such Work.

3.3.6 Providing services made necessary by the <sup>formal</sup> default of the Contractor, by major defects or deficiencies in the Work of the Contractor, ~~or by failure of performance of either the Owner or Contractor under the Contract for Construction.~~

3.3.7 Providing services in evaluating an extensive number of claims submitted by the Contractor or others in connection with the Work. \*SEE AMENDMENTS

3.3.8 Providing services in connection with a public hearing, arbitration proceeding or legal proceeding except where the Architect is party thereto.

3.3.9 Preparing documents for alternate, separate or sequential bids or providing services in connection with bidding, negotiation or construction prior to the completion of the Construction Documents Phase.

#### 3.4 OPTIONAL ADDITIONAL SERVICES

~~3.4.1 Providing analyses of the Owner's needs and programming the requirements of the Project.~~

3.4.2 Providing financial feasibility or other special studies.

3.4.3 Providing planning surveys, site evaluations or comparative studies of prospective sites.

~~3.4.4 Providing special surveys, environmental studies and submissions required for approvals of governmental authorities or others having jurisdiction over the Project.~~

3.4.5 Providing services relative to future facilities, systems and equipment.

~~3.4.6 Providing services to investigate existing conditions or facilities or to make measured drawings thereof.~~

~~3.4.7 Providing services to verify the accuracy of drawings or other information furnished by the Owner.~~

3.4.8 Providing coordination of the construction performed by separate contractors or by the Owner's own forces and coordination of services required in connection with construction performed and equipment supplied by the Owner.

3.4.9 Providing services in connection with the work of a construction manager or separate consultants retained by the Owner.

~~3.4.10 Providing detailed estimates of Construction Cost.~~

3.4.11 Providing detailed quantity surveys or inventories of material, equipment and labor.

~~3.4.12 Providing analyses of owning and operating costs.~~

3.4.13 Providing interior design and other similar services required for or in connection with the selection, procurement or installation of furniture, furnishings and related equipment.

3.4.14 Providing services for planning tenant or rental spaces.

3.4.15 Making investigations, inventories of materials or equipment, or valuations and detailed appraisals of existing facilities.

3.4.16 Preparing a set of reproducible record drawings showing significant changes in the Work made during construction based on marked-up prints, drawings and other data furnished by the Contractor to the Architect.

3.4.17 Providing assistance in the utilization of equipment or systems such as testing, adjusting and balancing, preparation of operation and maintenance manuals, training personnel for operation and maintenance, and consultation during operation.

3.4.18 Providing services after issuance to the Owner of the final Certificate for Payment, or in the absence of a final Certificate for Payment, more than 60 days after the date of Substantial Completion of the Work.

3.4.19 Providing services of consultants for other than architectural, structural, mechanical and electrical engineering portions of the Project provided as a part of Basic Services.

3.4.20 Providing any other services not otherwise included in this Agreement or not customarily furnished in accordance with generally accepted architectural practice.

4.2 The Owner shall establish and update an overall budget for the Project, including the Construction Cost, the Owner's other costs and reasonable contingencies related to all of these costs.

4.3 If requested by the Architect, the Owner shall furnish evidence that financial arrangements have been made to fulfill the Owner's obligations under this Agreement.

4.4 The Owner shall designate a representative authorized to act on the Owner's behalf with respect to the Project. The Owner or such authorized representative shall render decisions in a timely manner pertaining to documents submitted by the Architect in order to avoid unreasonable delay in the orderly and sequential progress of the Architect's services.

~~4.5 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a written legal description of the site. The surveys and legal information shall include, as applicable, grades and lines of streets, alleys, pavements and adjoining property and structures; adjacent drainage; rights-of-way, restrictions, easements, encroachments, zoning, deed restrictions, boundaries and contours of the site; locations, dimensions and necessary data pertaining to existing buildings, other improvements and trees; and information concerning available utility services and lines, both public and private, above and below grade, including inverts and depths. All the information on the survey shall be referenced to a Project benchmark.~~

~~4.6 The Owner shall furnish the services of geotechnical engineers when such services are requested by the Architect. Such services may include but are not limited to test borings, test pits; determinations of soil bearing values, percolation tests, evaluations of hazardous materials, ground corrosion and resistivity tests, including necessary operations for amending subsoil conditions, with reports and appropriate professional recommendations.~~

~~4.6.1 The Owner shall furnish the services of other consultants when such services are reasonably required by the scope of the Project and are requested by the Architect.~~

4.7 The Owner shall furnish structural, mechanical, chemical, air and water pollution tests, tests for hazardous materials, and other laboratory and environmental tests, inspections and reports required by law or the Contract Documents.

4.8 The Owner shall furnish all legal, accounting and insurance counseling services as may be necessary at any time for the Project, including auditing services the Owner may require to verify the Contractor's Applications for Payment or to ascertain how or for what purposes the Contractor has used the money paid by or on behalf of the Owner.

4.9 The services, information, surveys and reports required by Paragraphs 4.5 through 4.8 shall be furnished at the Owner's expense, and the Architect shall be entitled to rely upon the accuracy and completeness thereof.

4.10 Prompt written notice shall be given by the Owner to the Architect if the Owner becomes aware of any fault or defect in the Project or nonconformance with the Contract Documents.

4.11 The proposed language of certificates or certifications requested of the Architect or Architect's consultants shall be submitted to the Architect for review and approval at least 14 days prior to execution. The Owner shall not request certifications that would require knowledge or services beyond the scope of this Agreement.

#### ARTICLE 4

#### OWNER'S RESPONSIBILITIES

~~4.1 The Owner shall provide full information regarding requirements for the Project, including a program which shall set forth the Owner's objectives, schedule, constraints and criteria, including space requirements and relationships, flexibility, expandability, special equipment, systems and site requirements.~~

## ARTICLE 5 CONSTRUCTION COST

### 5.1 DEFINITION

5.1.1 The Construction Cost shall be the total cost or estimated cost to the Owner of all elements of the Project designed or specified by the Architect.

5.1.2 The Construction Cost shall include the cost at current market rates of labor and materials furnished by the Owner and equipment designed, specified, selected or specially provided for by the Architect, plus a reasonable allowance for the Contractor's overhead and profit. In addition, a reasonable allowance for contingencies shall be included for market conditions at the time of bidding and for changes in the Work during construction.

5.1.3 Construction Cost does not include the compensation of the Architect and Architect's consultants, the costs of the land, rights-of-way, financing or other costs which are the responsibility of the Owner as provided in Article 4.

### 5.2 RESPONSIBILITY FOR CONSTRUCTION COST

5.2.1 Evaluations of the Owner's Project budget, preliminary estimates of Construction Cost and detailed estimates of Construction Cost, if any, prepared by the Architect, represent the Architect's best judgment as a design professional familiar with the construction industry. It is recognized, however, that neither the Architect nor the Owner has control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over competitive bidding, market or negotiating conditions. Accordingly, the Architect cannot and does not warrant or represent that bids or negotiated prices will not vary from the Owner's Project budget or from any estimate of Construction Cost or evaluation prepared or agreed to by the Architect.

5.2.2 No fixed limit of Construction Cost shall be established as a condition of this Agreement by the furnishing, proposal or establishment of a Project budget, unless such fixed limit has been agreed upon in writing and signed by the parties hereto. If such a fixed limit has been established, the Architect shall be permitted to include contingencies for design, bidding and price escalation, to determine what materials, equipment, component systems and types of construction are to be included in the Contract Documents, to make reasonable adjustments in the scope of the Project and to include in the Contract Documents alternate bids to adjust the Construction Cost to the fixed limit. Fixed limits, if any, shall be increased in the amount of an increase in the Contract Sum occurring after execution of the Contract for Construction.

5.2.3 If the Bidding or Negotiation Phase has not commenced within 90 days after the Architect submits the Construction Documents to the Owner, any Project budget or fixed limit of Construction Cost shall be adjusted to reflect changes in the general level of prices in the construction industry between the date of submission of the Construction Documents to the Owner and the date on which proposals are sought.

5.2.4 If a fixed limit of Construction Cost (adjusted as provided in Subparagraph 5.2.3) is exceeded by the lowest bona fide bid or negotiating proposal, the Owner shall:

- 1 give written approval of an increase in such fixed limit;
- 2 authorize rebidding or renegotiating of the Project within a reasonable time;

3 if the Project is abandoned; terminate in accordance with Paragraph 8.3; or

4 cooperate in revising the Project scope and quality as required to reduce the Construction Cost.

5.2.5 If the Owner chooses to proceed under Clause 5.2.4.4, the Architect, without additional charge, shall modify the Contract Documents as necessary to comply with the fixed limit, if established as a condition of this Agreement. The modification of Contract Documents shall be the limit of the Architect's responsibility arising out of the establishment of a fixed limit. The Architect shall be entitled to compensation in accordance with this Agreement for all services performed whether or not the Construction Phase is commenced.

## ARTICLE 6

### USE OF ARCHITECT'S DRAWINGS, SPECIFICATIONS AND OTHER DOCUMENTS

6.1 The Drawings, Specifications and other documents prepared by the Architect for this Project are instruments of the Architect's service for use solely with respect to this Project and, unless otherwise provided, the Architect shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including the copyright. The Owner shall be permitted to retain copies, including reproducible copies, of the Architect's Drawings, Specifications and other documents for information and reference in connection with the Owner's use and occupancy of the Project. ~~The Architect's Drawings, Specifications or other documents shall not be used by the Owner or others on other projects, for additions to this Project or for completion of this Project by others, unless the Architect is adjudged to be in default under this Agreement, except by agreement in writing and with appropriate compensation to the Architect.~~

6.2 Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the Architect's reserved rights.

## ARTICLE 7

### ARBITRATION

~~7.1 Claims, disputes or other matters in question between the parties to this Agreement arising out of or relating to this Agreement or breach thereof shall be subject to and decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association currently in effect unless the parties mutually agree otherwise.~~

~~7.2 Demand for arbitration shall be filed in writing with the other party to this Agreement and with the American Arbitration Association. A demand for arbitration shall be made within a reasonable time after the claim, dispute or other matter in question has arisen. In no event shall the demand for arbitration be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statutes of limitations.~~

~~7.3 No arbitration arising out of or relating to this Agreement shall include, by consolidation, joinder or in any other manner, an additional person or entity not a party to this Agreement.~~

~~except by written consent containing a specific reference to this Agreement signed by the Owner, Architect, and any other person or entity sought to be joined. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent or with a person or entity not named or described therein. The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by the parties to this Agreement shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof.~~

7.4 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

**ARTICLE 8**

**TERMINATION, SUSPENSION OR ABANDONMENT**

8.1 This Agreement may be terminated by ~~either party~~ the architect not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.

~~8.2 If the Project is suspended by the Owner for more than 30 consecutive days, the Architect shall be compensated for services performed prior to notice of such suspension. When the Project is resumed, the Architect's compensation shall be equitably adjusted to provide for expenses incurred in the interruption and resumption of the Architect's services.~~

8.3 This Agreement may be terminated by the Owner upon not less than seven days' written notice to the Architect in the event that the Project is permanently abandoned. ~~If the Project is abandoned by the Owner for more than 90 consecutive days, the Architect may terminate this Agreement by giving written notice.~~

8.4 Failure of the Owner to make payments to the Architect in accordance with this Agreement shall be considered substantial nonperformance and cause for termination.

8.5 If the Owner fails to make payment when due the Architect for services and expenses, the Architect may, upon seven days' written notice to the Owner, suspend performance of services under this Agreement. Unless payment in full is received by the Architect within seven days of the date of the notice, the suspension shall take effect without further notice. In the event of a suspension of services, the Architect shall have no liability to the Owner for delay or damage caused the Owner because of such suspension of services.

8.6 In the event of termination not the fault of the Architect, the Architect shall be compensated for services performed prior to termination, together with Reimbursable Expenses then due and all Termination Expenses as defined in Paragraph 8.7.

8.7 Termination Expenses are in addition to compensation for Basic and Additional Services, and include expenses which are directly attributable to termination. Termination Expenses shall be computed as a percentage of the total compensation for Basic Services and Additional Services earned to the time of termination, as follows:

- ~~Twenty percent of the total compensation for Basic and Additional Services earned to date if termination occurs before or during the pre-design, site analysis, or Schematic Design Phases; or~~

- ~~2 Ten percent of the total compensation for Basic and Additional Services earned to date if termination occurs during the Design Development Phase; or~~
- ~~3 Five percent of the total compensation for Basic and Additional Services earned to date if termination occurs during any subsequent phase.~~

**ARTICLE 9**  
**MISCELLANEOUS PROVISIONS**

9.1 Unless otherwise provided, this Agreement shall be governed by the law of the principal place of business of the Architect.

9.2 Terms in this Agreement shall have the same meaning as those in AIA Document A201, General Conditions of the Contract for Construction, current as of the date of this Agreement.  
**\*SEE AMENDMENTS**

~~9.3 Causes of action between the parties to this Agreement pertaining to acts or failures to act shall be deemed to have accrued and the applicable statutes of limitations shall commence to run not later than either the date of Substantial Completion for acts or failures to act occurring prior to Substantial Completion, or the date of issuance of the final Certificate for Payment for acts or failures to act occurring after Substantial Completion.~~

9.4 The Owner and Architect waive all rights against each other and against the contractors, consultants, agents and employees of the other for damages, but only to the extent covered by property insurance during construction, except such rights as they may have to the proceeds of such insurance as set forth in the edition of AIA Document A201, General Conditions of the Contract for Construction, current as of the date of this Agreement. The Owner and Architect each shall require similar waivers from their contractors, consultants and agents.

9.5 The Owner and Architect, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to this Agreement and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. Neither Owner nor Architect shall assign this Agreement without the written consent of the other.

9.6 This Agreement represents the entire and integrated agreement between the Owner and Architect and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Architect.

9.7 Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Owner or Architect.

~~9.8 Unless otherwise provided in this Agreement, the Architect and Architect's consultants shall have no responsibility for the discovery, presence, handling, removal or disposal of or exposure of persons to hazardous materials in any form at the Project site, including but not limited to asbestos, asbestos products, polychlorinated biphenyl (PCB) or other toxic substances.~~

9.9 The Architect shall have the right to include representations of the design of the Project, including photographs of the exterior and interior, among the Architect's promotional and professional materials. The Architect's materials shall not include the Owner's confidential or proprietary information if the Owner has previously advised the Architect in writing of

the specific information considered by the Owner to be confidential or proprietary. The Owner shall provide professional credit for the Architect on the construction sign and in the promotional materials for the Project.

**ARTICLE 10**

**PAYMENTS TO THE ARCHITECT**

**10.1 DIRECT PERSONNEL EXPENSE**

10.1.1 Direct Personnel Expense is defined as the direct salaries of the Architect's personnel engaged on the Project and the portion of the cost of their mandatory and customary contributions and benefits related thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions and similar contributions and benefits.

**10.2 REIMBURSABLE EXPENSES**

10.2.1 Reimbursable Expenses are in addition to compensation for Basic and Additional Services and include expenses incurred by the Architect and Architect's employees and consultants in the interest of the Project, as identified in the following Clauses. SEE ALSO 11.4.1

10.2.1.1 Expense of ~~transportation in connection with the Project; expenses in connection with authorized out-of-town travel; long-distance communications; and fees paid for securing approval of authorities having jurisdiction over the Project.~~

10.2.1.2 Expense of reproductions, postage and handling of Drawings, Specifications and other documents. ~~for bidding only~~

10.2.1.3 ~~If authorized in advance by the Owner, expense of overtime work requiring higher than regular rates.~~

10.2.1.4 Expense of renderings, models and mock-ups requested by the Owner.

10.2.1.5 ~~Expense of additional insurance coverage or limits, including professional liability insurance, requested by the Owner in excess of that normally carried by the Architect and Architect's consultants.~~

10.2.1.6 ~~Expense of computer-aided design and drafting equipment time when used in connection with the Project.~~

**10.3 PAYMENTS ON ACCOUNT OF BASIC SERVICES**

10.3.1 An initial payment as set forth in Paragraph 11.1 is the minimum payment under this Agreement.

10.3.2 Subsequent payments for Basic Services shall be made monthly and, where applicable, shall be in proportion to services performed within each phase of service, on the basis set forth in Subparagraph 11.2.2.

10.3.3 If and to the extent that the time initially established in Subparagraph 11.5.1 of this Agreement is exceeded or extended through no fault of the Architect, compensation for any services rendered during the additional period of time shall be computed in the manner set forth in Subparagraph 11.3.2.

10.3.4 When compensation is based on a percentage of Construction Cost and any portions of the Project are deleted or otherwise not constructed, compensation for those portions of the Project shall be payable to the extent services are performed on those portions, in accordance with the schedule set forth in Subparagraph 11.2.2, based on (1) the lowest bona fide bid or negotiated proposal, or (2) if no such bid or proposal is received, the most recent preliminary estimate of Construction Cost or detailed estimate of Construction Cost for such portions of the Project.

**10.4 PAYMENTS ON ACCOUNT OF ADDITIONAL SERVICES**

10.4.1 Payments on account of the Architect's Additional Services and for Reimbursable Expenses shall be made monthly upon presentation of the Architect's statement of services rendered or expenses incurred.

**10.5 PAYMENTS WITHHELD**

10.5.1 No deductions shall be made from the Architect's compensation on account of penalty, liquidated damages or other sums withheld from payments to contractors, or on account of the cost of changes in the Work other than those for which the Architect has been found to be liable.

**10.6 ARCHITECT'S ACCOUNTING RECORDS**

10.6.1 Records of Reimbursable Expenses and expenses pertaining to Additional Services and services performed on the basis of a multiple of Direct Personnel Expense shall be available to the Owner or the Owner's authorized representative at mutually convenient times.

**ARTICLE 11**

**BASIS OF COMPENSATION**

The Owner shall compensate the Architect as follows:

11.1 AN INITIAL PAYMENT of zero Dollars (\$0.00) shall be made upon execution of this Agreement and credited to the Owner's account at final payment.

**11.2 BASIC COMPENSATION**

11.2.1 FOR BASIC SERVICES, as described in Article 2, and any other services included in Article 12 as part of Basic Services, Basic Compensation shall be computed as follows:

*(Insert basis of compensation, including stipulated sums, multiples or percentages, and identify phases to which particular methods of compensation apply, if necessary.)*

11.2.2 Where compensation is based on a stipulated sum or percentage of Construction Cost, progress payments for Basic Services in each phase shall total the following percentages of the total Basic Compensation payable:  
*(Insert additional phases as appropriate.)*

Schematic Design Phase:	percent ( 20%)
Design Development Phase:	percent ( 20%)
Construction Documents Phase:	percent ( 25%)
Bidding or Negotiation Phase:	percent ( 5%)
Construction Phase:	percent ( 30%)
<hr/>	
Total Basic Compensation:	one hundred percent (100%)

**11.3 COMPENSATION FOR ADDITIONAL SERVICES**

11.3.1 FOR PROJECT REPRESENTATION BEYOND BASIC SERVICES, as described in Paragraph 3.2, compensation shall be computed as follows:

- Principals; Architect and Engineer:
- Projects Architect or Engineer:
- Architect or Engineer:
- Drafter:
- Theodore Galante AIA
- Jamie Emerson RA
- Paolo Carissimi

11.3.2 FOR ADDITIONAL SERVICES OF THE ARCHITECT, as described in Articles 3 and 12, other than (1) Additional Project Representation, as described in Paragraph 3.2, and (2) services included in Article 12 as part of Basic Services, but excluding services of consultants, compensation shall be computed as follows:

*(Insert basis of compensation, including rates and/or multiples of Direct Personnel Expense for Principals and employees, and identify Principals and classify employees, if required. Identify specific services to which particular methods of compensation apply, if necessary.)*

Additional services shall be compensated either on an hourly basis in accordance with the hourly billing noted in 11.3.1 above, or a lump sum basis for designated services as mutually agreed to by the Owner and Architect.

11.3.3 FOR ADDITIONAL SERVICES OF CONSULTANTS, including additional structural, mechanical and electrical engineering services and those provided under Subparagraph 3.4.19 or identified in Article 12 as part of Additional Services, a multiple of \_\_\_\_\_ times the amounts billed to the Architect for such services.

*(Identify specific types of consultants in Article 12, if required.)*

**11.4 REIMBURSABLE EXPENSES**

11.4.1 FOR REIMBURSABLE EXPENSES, as described in Paragraph 10.2, and any other items included in Article 12 as Reimbursable Expenses, a multiple of \_\_\_\_\_ times the expenses incurred by the Architect, the Architect's employees and consultants in the interest of the Project.

**11.5 ADDITIONAL PROVISIONS**

11.5.1 IF THE BASIC SERVICES covered by this Agreement have not been completed within ( \_\_\_\_\_ ) months of the date hereof, through no fault of the Architect, extension of the Architect's services beyond that time shall be compensated as provided in Subparagraphs 10.3.3 and 11.3.2.

11.5.2 Payments are due and payable thirty ( 30 ) days from the date of the Architect's invoice. Amounts unpaid ( \_\_\_\_\_ ) days after the invoice date shall bear interest at the rate entered below, or in the absence thereof at the legal rate prevailing from time to time at the principal place of business of the Architect.

*(Insert rate of interest agreed upon.)*

*(Usury laws and requirements under the Federal Truth in Lending Act, similar state and local consumer credit laws and other regulations at the Owner's and Architect's principal places of business, the location of the Project and elsewhere may affect the validity of this provision. Specific legal advice should be obtained with respect to deletions or modifications, and also regarding requirements such as written disclosures or waivers.)*

ats for Basic Services

11.5.3 The rates and multiples set forth for Additional Services shall be annually adjusted in accordance with normal salary review practices of the Architect.

**ARTICLE 12  
OTHER CONDITIONS OF SERVICES**

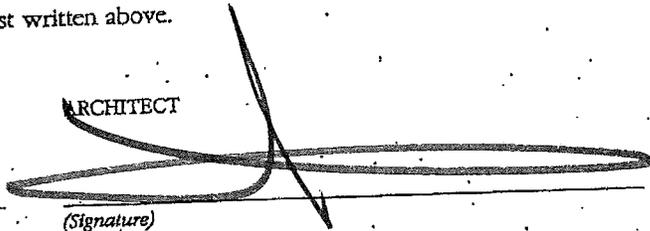
*(Insert descriptions of other services, identify Additional Services included within Basic Compensation and modifications to the payment and compensation terms included in this Agreement.)*

- Article 12
- Amendments to Articles of Contract
- Exhibit "A" to Contract: Scope of Services and Fee Proposal
- Exhibit "B" to Contract: Appended Article 13, Provisions Required by Massachusetts Law
- Exhibit "C" to Contract: Additional Provisions to the Contract
- Exhibit "D" to Contract: Anti-Discrimination Requirements
- Exhibit "F" to Contract: Building Commission Guidelines to Architects

This Agreement entered into as of the day and year first written above.

OWNER

ARCHITECT



(Signature)

(Signature)

THEODORE GALANTE AIA President  
 (Printed name and title)

(Printed name and title)



**CAUTION:** You should sign an original AIA document which has this caution printed in red. An original assures that changes will not be obscured as may occur when documents are reproduced.





**TOWN of BROOKLINE**  
*Massachusetts*

**BUILDING DEPARTMENT**

Daniel Bennett  
Building Commissioner

**TO:** Board of Selectmen  
**FROM:** Ray Masak, PE Project Manager  
**SUBJECT:** Municipal Service Center Renovation  
**DATE:** November 15, 2016

On the Calendar this week, the Building Department has submitted a request for Change Order Approval for the subject project in the amount of \$450.73.

The subject project was awarded to Contractors Network Inc. in the amount of \$2,610,000 The change order consists of 9 items as noted below:

- **PCO #2R1** (Ref: Gas Booster Credit – PR #03) – HKT finds the amount of **\$17,103.00** to be acceptable for this credit.
- **PCO #20R1** (Ref: Tel/Data Connection Relocated to Mezzanine Level – PR #37 + RFI #58 (never issued)) - HKT finds the amount of **\$991.46** to be acceptable for this change.
- **PCO #21R1** (Ref: NEMA Combination Starters – PR #44R1) – HKT finds the amount of **\$8,355.61** to be acceptable for this change.
- **PCO #25** (Ref: Hose Bibb @ Washbay – PR #08) – HKT finds the amount of **\$2,383.00** to be acceptable for this change.
- **PCO #26** (Ref: Floor Drain Revision – PR #09) – HKT finds the amount of **\$0.00** to be acceptable for this change.
- **PCO #27** (Ref: Plumbing Line to New Sinks Tied into Existing Utility Sink – PR #11R2) – HKT finds the amount of **\$0.00** to be acceptable for this change.
- **PCO #28R1** (Ref: Gas Line Revision with New Bollards – PR #12) – HKT finds the amount of **\$2,707.63** to be acceptable for this change.
- **PCO #30** (Ref: Relocate Electrical Feed to MAU-4) – HKT finds the amount of **\$1,033.47** to be acceptable for this change.
- **PCO #31** (Ref: Relocate Gas Line to go Up to Roof – PR #16) – HKT finds the amount of **\$2,082.56** to be acceptable for this change.

The architect, HKT Architects Inc. has reviewed the change order and is recommending approval. Based upon the architect's approval, we are requesting approval of change order number 3 to Contractor Network Inc. in the amount stated above.

The Building Department will be available on Tuesday evening to answer any questions that may arise.

TOWN OF BROOKLINE

333 Washington Street, Brookline, Massachusetts 02146

PURCHASE ORDER INCREASE FORM

DATE: 08-Nov-16

TO: Contractor Network, Inc  
 38 Edmund Street  
 East Providence RI 02914

Purchase Order Number  
 20145629

Vendor Number  
 47662

PAYMENT AMOUNT  
 \$450.73

BUDGET \$273,570.00  
 BALANCE \$18,011.53

FUND	ORGANIZATION	ACTIVITY	OBJECT
	2594C173		6C0002

FOR: Municipal Service Center Renovation

Change Order #	Date	Description
3	11/3/2016	Misc Changes - 9 Items

AMOUNT \$450.73

BUILDING COMMISSION

APPROVAL OF:

*Janet Fierman*  
 Janet Fierman, Chairman

*George Cole*  
 George Cole

*Kenneth Kaplan*  
 Kenneth Kaplan

*Karen Breslawski*  
 Karen Breslawski

*Nathan E. Peck*  
 Nathan E. Peck

BOARD OF SELECTMEN

APPROVAL OF:

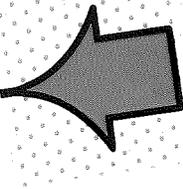
Neil A. Wishinsky, Chairman

Nancy A. Daly

Benjamin J. Franco

Bernard W. Greene

Nancy S. Heller



TOWN OF BROOKLINE

333 Washington Street, Brookline, Massachusetts 02146

PURCHASE ORDER INCREASE FORM

DATE: 08-Nov-16

TO: Contractor Network, Inc  
 38 Edmund Street  
 East Providence RI 02914

Purchase Order Number  
 20145629

Vendor Number  
 47662

PAYMENT AMOUNT  
 \$450.73

BUDGET \$273,570.00  
 BALANCE \$18,011.53

FUND	ORGANIZATION	ACTIVITY	OBJECT
	2594C173		6C0002

FOR: Municipal Service Center Renovation

Change Order #	Date	
3	11/3/2016	Misc Changes - 9 Items

AMOUNT \$450.73

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 Janet Fierman, Chairman

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 Karen Breslawski

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 Nathan E. Peck

BOARD OF SELECTMEN

APPROVAL OF:

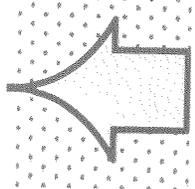
\_\_\_\_\_  
 Neil A. Wishinsky, Chairman

\_\_\_\_\_  
 Nancy A. Daly

\_\_\_\_\_  
 Benjamin J. Franco

\_\_\_\_\_  
 Bernard W. Greene

\_\_\_\_\_  
 Nancy S. Heller



TOWN OF BROOKLINE

333 Washington Street, Brookline, Massachusetts 02146

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Karen Breslawski

Nathan E. Peck

*Saren Brule*  
*Nathan E. Peck*

BOARD OF SELECTMEN

APPROVAL OF:

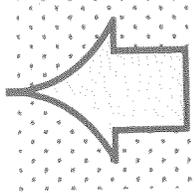
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TOWN OF BROOKLINE

333 Washington Street, Brookline, Massachusetts 02146

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FUND	ORGANIZATION	ACTIVITY	OBJECT
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FOR: Municipal Service Center Renovation

Change Order #	Date	
3	11/3/2016	Misc Changes - 9 Items

AMOUNT \$450.73

BUILDING COMMISSION

APPROVAL OF:

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 Janet Fierman, Chairman

George Cole

Kenneth Kaplan

Karen Breslawski

Nathan E. Peck

BOARD OF SELECTMEN

APPROVAL OF:

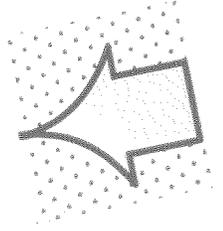
Neil A. Wishinsky, Chairman

Nancy A. Daly

Benjamin J. Franco

Bernard W. Greene

Nancy S. Heller



 **Document G701™ - 2001**

**Change Order**

<b>PROJECT (Name and address):</b> Brookline Municipal Service Center 870 Hammond Street Brookline, Massachusetts 02467	<b>CHANGE ORDER NUMBER:</b> 03 <b>DATE:</b> October 31, 2016	<b>OWNER:</b> <input checked="" type="checkbox"/> <b>ARCHITECT:</b> <input checked="" type="checkbox"/> <b>CONTRACTOR:</b> <input checked="" type="checkbox"/> <b>FIELD:</b> <input type="checkbox"/> <b>OTHER:</b> <input type="checkbox"/>
<b>TO CONTRACTOR (Name and address):</b> Contractors Network, Inc. 38 Edmund Street East Providence, RI 02914	<b>ARCHITECT'S PROJECT NUMBER:</b> 21313 <b>CONTRACT DATE:</b> July 2, 2015 <b>CONTRACT FOR:</b> Municipal Service Center Renovations + New Washbay + Fuel Island Canopy	

**THE CONTRACT IS CHANGED AS FOLLOWS:**

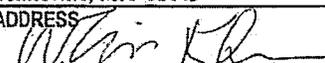
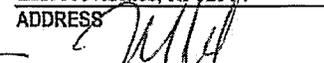
*(Include, where applicable, any undisputed amount attributable to previously executed Construction Change Directives)*

The original Contract Sum was	\$	2,610,000.00	
The net change by previously authorized Change Orders	\$	50,311.71	
The Contract Sum prior to this Change Order was	\$	2,660,311.71	
The Contract Sum will be increased by this Change Order in the amount of	\$	450.73	OK
The new Contract Sum including this Change Order will be	\$	2,660,762.44	MSM

The Contract Time will be increased by Zero (0) Days  
The date of Substantial Completion as of the date of this Change Order therefore is unchanged

**NOTE:** This Change Order does not include changes in the Contract Sum, Contract Time or Guaranteed Maximum Price which have been authorized by Construction Change Directive until the cost and time have been agreed upon by both the Owner and Contractor, in which case a Change Order is executed to supersede the Construction Change Directive.

**NOT VALID UNTIL SIGNED BY THE ARCHITECT, CONTRACTOR AND OWNER.**

<u>HKT Architects Inc.</u> <b>ARCHITECT (Firm name)</b>	<u>Contractors Network, Inc.</u> <b>CONTRACTOR (Firm name)</b>	<u>Town of Brookline</u> <b>OWNER (Firm name)</b>
35 Medford Street, Somerville, MA 02143 <b>ADDRESS</b>	38 Edmund Street East Providence, RI 02914 <b>ADDRESS</b>	333 Washington Street Brookline, MA 02445 <b>ADDRESS</b>
 <b>BY (Signature)</b>	 <b>BY (Signature)</b>	 <b>BY (Signature)</b>
W. Eric Kluz <b>(Typed name)</b>	Michael J. O'Connell <b>(Typed name)</b>	 <b>(Typed name)</b>
October 31, 2016 <b>DATE</b>	11/3/16 <b>DATE</b>	 <b>DATE</b>



William R. Hammer AIA, LEED-AP  
W. Eric Kluz AIA, LEED-AP  
Janet M. Slemenda AIA, LEED-AP

October 31, 2016

Mr. Michael O'Connell  
Contractors Network, Inc.  
38 Edmund Street  
East Providence, RI 02914

RE: **Municipal Service Center Renovations + New Washbay  
Change Order #03**

Dear Mr. O'Connell,

Please find attached AIA Form G701 for Change Order #03 that includes the PCOs listed below:

PCO #2R1 (Ref: Gas Booster)	-\$17,103.00
PCO #20R1 (Ref: Tel/Data Connection Relocated to Mezzanine Level)	\$991.46
PCO #21R1 (Ref: NEMA Combination Starters)	\$8,355.61
PCO #25 (Ref: Add Hose Bibb @ Washbay)	\$2,383.00
PCO #26 (Ref: Floor Drain Revision)	\$0.00
PCO #27 (Ref: Plumbing Line to New Sinks Tied into Existing Utility Sink)	\$0.00
PCO #28R1 (Ref: Gas Line Revision with New Bollards)	\$2,707.63
PCO #30 (Ref: Relocate Electrical Feed to MAU-4)	\$1,033.47
PCO #31 (Ref: Relocate Gas Line to go Up to Roof)	\$2,082.56
<b>TOTAL</b>	<b>\$450.73</b>

Also find attached a memo and supporting documentation regarding the above listed PCOs.

35 Medford Street  
Somerville, MA 02143  
T: 617.776.6545  
F: 617.776.6678  
www.hktarchitects.com

Brookline Municipal Service Center Renovations + Washbay  
Page 2

Very truly yours,  
**HKT Architects, Inc.**

A handwritten signature in black ink, appearing to read "W. Eric Kluz", with a long horizontal flourish extending to the right.

W. Eric Kluz AIA  
Principal



30 Monument Street  
Cambridge, MA 02142  
T: 617 770-6546  
F: 617 770-6179  
www.hktarchitects.com

**MEMORANDUM**

---

**To:** Contractor's Network Inc. **Date:** 31 October 2016

**From:** Staci Villa (HKT Architects) **Project:** Brookline Municipal Service Center

**Job No:** 21313.0

**Subject:** Change Order #3: PCO #s 2R1, 20R1, 21R1, 25, 26, 27, 28R1, 30 & 31

---

Please find comments below regarding above referenced PCOs submitted by CNI.

**PCO #2R1** (Ref: Gas Booster Credit – PR #03) – HKT finds the amount of **\$17,103.00** to be acceptable for this credit.

**PCO #20R1** (Ref: Tel/Data Connection Relocated to Mezzanine Level – PR #37 + RFI #58 (never issued)) – HKT finds the amount of **\$991.46** to be acceptable for this change.

**PCO #21R1** (Ref: NEMA Combination Starters – PR #44R1) – HKT finds the amount of **\$8,355.61** to be acceptable for this change.

**PCO #25** (Ref: Hose Bibb @ Washbay – PR #08) – HKT finds the amount of **\$2,383.00** to be acceptable for this change.

**PCO #26** (Ref: Floor Drain Revision – PR #09) – HKT finds the amount of **\$0.00** to be acceptable for this change.

**PCO #27** (Ref: Plumbing Line to New Sinks Tied into Existing Utility Sink – PR #11R2) – HKT finds the amount of **\$0.00** to be acceptable for this change.

**PCO #28R1** (Ref: Gas Line Revision with New Bollards – PR #12) – HKT finds the amount of **\$2,707.63** to be acceptable for this change.

**PCO #30** (Ref: Relocate Electrical Feed to MAU-4) – HKT finds the amount of **\$1,033.47** to be acceptable for this change.

**PCO #31** (Ref: Relocate Gas Line to go Up to Roof – PR #16) – HKT finds the amount of **\$2,082.56** to be acceptable for this change.

PCO #2R1, 20R1, 21R1, 25, 26, 27, 28R1, 30 & 31 will be consolidated into one change order (Change Order #3).

If any additional information is required please contact our office.



25 Bedford Street  
Cambridge, MA 02142  
T: 617.779.3333  
F: 617.779.0078  
www.hktarchitects.com

Sincerely,  
HKT Architects, Inc.

A handwritten signature in black ink, appearing to read "Staci M. Villa". The signature is written in a cursive, flowing style.

Staci M. Villa

cc: Ray Masak, ToB; Russ Hoogasian, ToB; file

ALTERNATE MANAGER

ALL KINDS OF ALCOHOLIC BEVERAGES  
COMMON VICTUALLER AND ENTERTAINMENT

Taberna de Haro, Inc.  
d/b/a Taberna de Haro  
999 Beacon Street

APPLICATION IS IN ORDER

Application for an Alternate Manager

Sabrina Da Cunha

REPORT (ATTACHED)

The Police Department has approved this application.





06-18-16

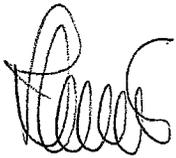
To whom it may concern,

I confirm that I have known Sabine Cunha for 10 years , at all times I have found Sabine Cunha to be dependable, reliable, hard working, conscientious, honest, peacing-loving, courteous, she does great being a mom and with family and friends and etc..

I'm happy to provide futher information if required.

My name is Cintia Teixeira you can reach me at [REDACTED]

Yours faithfully,



REVIVAL CHURCH FOR THE NATIONS  
Webster Street  
Everett, 02149

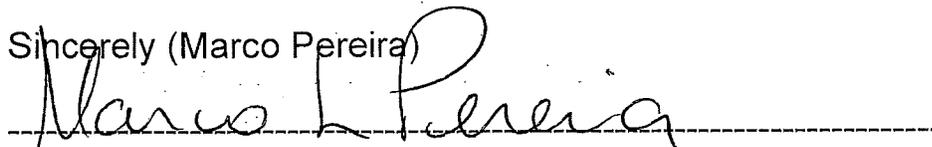
07/06/2016

Sabrina Lopes Cunha  
Church member

The purpose of this letter is to recommend Sabrina Lopes Cunhas.  
Sabrina Lopes Cunha is a excellent church member.

She has been a member of the very exemplary church. Very polite ,  
friendly and know how to respect . We recommend with all possible  
qualities.

Sincerely (Marco Pereira)

A handwritten signature in cursive script that reads "Marco L. Pereira". The signature is written over a horizontal dashed line.

[Marco Pereira]

[Pastor] For more information you can call 7813070276



**BROOKLINE POLICE DEPARTMENT**

*Brookline, Massachusetts*

DANIEL C. O'LEARY  
CHIEF OF POLICE

To: Chief Daniel O'Leary

From: Lieutenant Derek Hayes

Re: Taberna De Haro, Inc., d/b/a Taberna De Haro  
Alternate Manager

Date: November 16, 2016

---

Sir,

On behalf of Taberna De Haro, Inc., d/b/a Taberna De Haro, Owner and Manager of Record, Deborah Hansen, has applied for the approval of a new Alternate Manager, Sabine Da Cunha. Taberna De Haro is located at 999 Beacon St. and currently holds a license to Expose, Keep for Sale and to Sell All Kinds of Alcoholic Beverages as a Seven Day CV.

Alternate Manager Requested:

Sabrine Da Cunha

[REDACTED]

Sabrine Da Cunha has submitted to the Brookline Police Department a full set of fingerprints for the purpose of conducting a criminal back ground check. The results of the fingerprint query have not been returned from the State at this time. If any information is revealed that would disqualify her from being named as an Alternate Manager a supplemental report will be submitted. Queries of other applicable law enforcement databases revealed no information that would disqualify her from being named as an Alternate Manager. Sabine Da Cunha does not have a financial interest in this company.



Sabrina Da Cunha is certified in the safe service of alcohol via an in person course. She did not submit this certification with the original application but has since provided a copy of that certificate.

I find NO reason to deny this application.

Respectfully Submitted,

Lieutenant Derek Hayes





TOWN OF BROOKLINE  
APPLICATION FOR A TEMPORARY ALL KINDS ALCOHOL SALES  
LICENSE

Date: 11/3/16

I hereby make application for a TEMPORARY ALCOHOLIC BEVERAGE LICENSE  
for the purpose of selling and dispensing ALL KINDS alcoholic beverages permitted by  
law at a

Hellenic Association of Boston c/o Annunciation  
(state whether meeting, banquet, concert, picnic, wedding, etc.)  
Greek Orthodox Cathedral of N.E. 162 Goddard Ave Brookline  
MA 02446  
which is to be held by JANET PEQUERO, ALL TIME SVS INC  
(Name of Non-Profit Organization) ALL TIME SVS MGMT

89 Forest Hill St. P.O. Box 1571, JAMAICA PLAIN MA  
(Address of Non-Profit Organization) 02130

a Holiday Party organization, on the 3RD day of DECEMBER  
between the hours of 8pm - 1am at the following described place:  
CATHEDRAL CENTER, 162 GODDARD AVE, BROOKLINE, MA  
02445

[NOTE: Under state law, temporary licensees may not sell alcoholic beverages between  
the hours of 2 a.m. and 8 a.m.]

State law permits issuance of a temporary license to sell alcohol only to the responsible  
manager of an organization.

The above organization represents and warrants that the following individual is the  
organization's responsible manager:

Name: FOTENE ANDREADIS Address: 687 HEATH ST, CHESTNUT HILL MA  
02167  
Title: MANAGER Date of Birth: 10-16-40  
Telephone number(s) (24-hour contact information): 617-686-9866  
Email address(es): foteneandreadis@aol.com

Complete name and address of the officers of the organization applying:

Name: FOTENE ANDREADIS Title: Sec'y Address: 687 HEATH ST, CHESTNUT HILL  
Name: ASEMENA DOGGE Title: V. P. Address: 300 BOSTON ST MA 02116  
Name: \_\_\_\_\_ Title: \_\_\_\_\_ Address: Boston, MA  
02116

1) How many cases or barrels, etc. of alcoholic beverages are to be available for sale?  
Please specify by type of alcohol. 2 CASES BEER; 2 CASES WINES  
ASSORTED ALCOHOL: WHISKY, RUM; VODKA; GIN

2) What is the maximum number of people to attend? 150

3) What is the age group of people to attend? 30 + ABOVE

4) Are you charging an admission fee? NO

5) How will alcoholic beverages be dispensed or served and by whom? Please state the names, addresses and telephone numbers of all person(s) serving alcoholic beverages.  
OSCAR ERAZO; 284 MERIDIAN ST E, BOSTON MA 02128  
FOTENE ANDREADIS 687 HEATH ST, CHESTNUT HILL, MA 02116  
ASCENA DODGE 300 BOWEN ST, BOSTON, MA 02116

6) State whether or not the person(s) dispensing or serving alcohol received TIPS certification or equivalent safe-service-of-alcohol training, and the date(s) of any such certification or training. (PLEASE ATTACH DOCUMENTATION PERTAINING TO SUCH CERTIFICATION OR TRAINING.)

ATTACHED

7) If any attending are under age 21, what method will be used to check I.D. and what procedures will be followed to make certain that those under age 21 are not served and are not allowed to consume alcoholic beverages?

8) Will a police detail or other types of security be provided? CITRIS GODWINE

If "Yes" what type and how many? 1

Note: Police details are arranged for by contacting the Brookline Police Department.

9) If different from the responsible manager identified above, please state the name, address, age, and 24-hour contact information of the official, employee, or representative of the organization who will be physically present at the event and who has been duly authorized by the organization to be responsible for supervising the event to ensure compliance with all applicable federal, state, and local laws, regulations, ordinances and conditions on the license and the maintenance of order and decorum:

(Name) (Address) (Date of Birth)

Telephone number(s) (24-hour contact information):

Email address(es):

10) Does the organization have a pending application for a liquor license as a common victualler, innholder or club? Is the premises for which a temporary license is sought already the subject of a liquor license? Yes  No

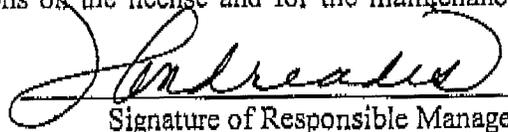
If the answer is yes to either question, please detail: \_\_\_\_\_

11) Please describe the portion(s) of the premises where the sale, storage and/or furnishing of alcohol will take place, including a specification and description of all indoor and outdoor portions of the premises (e.g., in the case of a function, table areas, bars, dance floors, tented area, etc.): ALCOHOL WILL BE KEPT

IN A LOCKED SECURED AREA IN  
THE BUILDING AT THE CATHEDRAL CENTER

**Town Property Use:** In the event that the applicant seeks to use a Town property in connection with the event that is the subject of this application, this application must be accompanied by proof that the applicant has secured, and that there is in effect during the period of time for which the license is sought, a general liability policy naming the Town as an additional insured, or, if the general liability policy exempts alcohol-related incidents or occurrences, a liquor liability policy naming the Town as an additional insured. By signing this application, the organization and its officers, employees, agents and representatives absolve the Town and its officials, officers, employees, agents and representatives from all liability in connection with the applicant's proposed use. By signing this application, the organization agrees to indemnify the Town for any damage to the Town's personal and real property resulting from the use, and agrees to indemnify the Town for any expenses the Town incurs in restoring the property to its condition prior to the use (in excess of any routine cleaning and maintenance service the Town would ordinarily have performed irrespective of the use.

**Certification:** I certify that I, as the responsible manager of the organization, have been duly authorized to apply for this license on behalf of the organization, and that I will be responsible for the organization's compliance with all applicable federal, state, and local laws, regulations, ordinances and conditions on the license and for the maintenance of order and decorum at the event.



Signature of Responsible Manager



**This is your Official TIPS® Certification Card.**  
Carry it with you as evidence of your skills and knowledge in the responsible sale and consumption of alcohol.

**Congratulations!**

By successfully completing the TIPS (Training for Intervention Procedures) program, you have taken your place in the forefront of a nationwide movement to reduce the tragedies resulting from the misuse of alcohol. We value your participation in the TIPS program.

You will help to provide a safer environment for your patrons, peers and/or colleagues by using the techniques you have learned and taking a positive approach towards alcohol use.

If you have any information you think would enhance the TIPS program, or if we can assist you in any way, please contact us at 703-524-1200. Thank you for your dedication to the responsible sale and consumption of alcohol.

Sincerely,

Adam F. Chafetz  
President, HCI

**IMPORTANT:** Keep a copy of this card for your records. Write down your certification number because you will need it when contacting TIPS. For assistance or additional information, contact Health Communications, Inc. by using the information provided on the reverse side of your certification card. There is a minimal charge for a replacement card if your original card becomes lost, damaged or stolen.

*Office Copy*

<b>TIPS</b>	eTIPS Concessions	SSN:	XXX-XX-XXXX
Issued:	9/25/2015	Expires:	9/25/2018
ID#:	4090755	D.O.B.:	XX/XX/XXXX
Oscar R. Erazo 284 Mesidian St East Boston, MA 02128-1654			
For service visit us online at <a href="http://www.gettips.com">www.gettips.com</a>			

**THIS IS YOUR OFFICIAL TIPS CERTIFICATION CARD.**  
Carry it with you as evidence of your skills and knowledge in the responsible sale and consumption of alcohol.

**Congratulations!**

By successfully completing the TIPS (Training for Intervention Procedures) program, you have taken your place in the forefront of a nationwide movement to reduce the tragedies resulting from the misuse of alcohol. We value your participation in the TIPS program.

You will help to provide a safer environment for your patrons, peers and/or colleagues by using the techniques you have learned and taking a positive approach towards alcohol use.

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Sincerely,



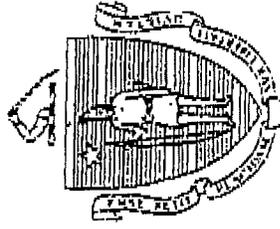
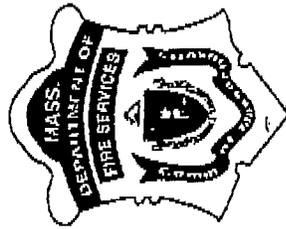
Adam F. Charitz  
President, HCI

PLEASE PRINT. Keep a copy of this card for your records. Write down your certification number because you will need it when contacting TIPS, Inc. by using the information provided on the reverse side of your certification card. There is a minimal charge for a replacement card if your original card becomes lost, damaged or stolen.

*Handwritten initials*

<b>TIPS</b> eTIPS On Premise 2.0 SSN: XXX-XX-XXXX	
Issued: 7/12/2015	Expires: 7/12/2018
ID#: 4033054	D.O.B.: XXXXXXXXXX
Fotene Andreadis 687 Heath St Chestnut Hill, MA 02467-2143	
For service visit us online at <a href="http://www.gettips.com">www.gettips.com</a>	

*Commonwealth of Massachusetts*  
*Executive Office of Public Safety and Security*  
*Department of Fire Services*  
*Office of the State Fire Marshal*



**Certificate of Completion**

*This certifies that*

asemena dodge

*Successfully completed the Crowd Manager Training Program*  
*In accordance with 527 CMR sec. 10.13(d) – Designation of a Crowd Manager*

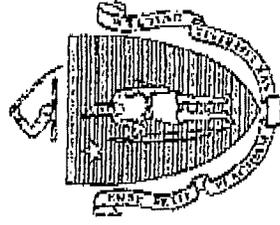
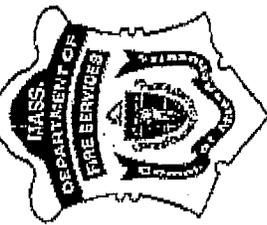
Date issued: July 22, 2015

Expires: July 22, 2018

Certificate #: FPPPEFYD104GqIQ

Stephen D. Coan  
 State Fire Marshal

*Commonwealth of Massachusetts*  
*Executive Office of Public Safety and Security*  
*Department of Fire Services*  
*Office of the State Fire Marshal*



## Certificate of Completion

*This certifies that*

Fotene Andreadis

*Successfully completed the Crowd Manager Training Program*  
*In accordance with 527 CMR sec. 10.13(d) – Designation of a Crowd Manager*

Date issued: June 24, 2015

Expires: June 24, 2018

Certificate #: hNBuYfoeVUIbHF2

Stephen D. Coan  
 State Fire Marshal

### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
11/10/2016

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed, if SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Don Bunker Insurance Agency 51 Mill Street, Building F  Hanover, MA 02339		<b>CONTACT NAME:</b> Lauren Bunker <b>PHONE (A/C, No, Ext):</b> (781) 312 - 7206 <b>FAX (A/C, No):</b> (781) 312 - 7208 <b>E-MAIL ADDRESS:</b>	
<b>INSURED</b> All Time Service Inc and All Time Service Management LLC 89 Forest Hill Street PO Box 1571 Jamaica Plain, MA 02130		<b>INSURER(S) AFFORDING COVERAGE</b> INSURER A: Republic Franklin Insurance INSURER B: Nautilus Insurance Company INSURER C: Graphic Arts Mutual Insurance INSURER D: Safety Insurance INSURER E: INSURER F:	

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	APPL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Form GC00010413  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC			4236709	10/01/2016	10/01/2017	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (EA OCCURRENCE) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
D	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS			6219429	08/15/2016	08/15/2017	COMBINED SINGLE LIMIT (EA accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
B	UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$10,000			AN022190	10/01/2016	10/01/2017	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	4687606	10/01/2016	10/01/2017	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Commercial Cleaning and painting Contractor  
 Event will take place on Dec 03, 2016

NOV 14 PM 3 00

<b>CERTIFICATE HOLDER</b> Hellenic Association of Boston 162 Goddard Avenue Brookline, MA 02445	<b>CANCELLATION</b> SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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**BROOKLINE POLICE DEPARTMENT**  
*Brookline, Massachusetts*

DANIEL C. O'LEARY  
CHIEF OF POLICE

To: Chief Daniel O'Leary

From: Lieutenant Derek Hayes

Re: Annunciation Greek Orthodox Cathedral – One day license for 12-03-16

Date: November 3<sup>rd</sup>, 2016

---

Sir,

Annunciation Greek Orthodox Cathedral (162 Goddard Ave), through their Secretary, Fotene Andreadis, has applied for a Section 14 One Day License to Sell All Kinds of Alcoholic Beverages for a Holiday Party scheduled for Saturday December 3<sup>rd</sup>, 2016 between 8pm-1am.

Fotene Andreadis will be the responsible manager on site for this event and will ensure compliance with all applicable Federal, State and local laws, regulations, ordinances, and any conditions on the permit.

Organizers are expecting no more than one hundred fifty (150) guests to attend this event. All alcoholic beverages at this event will be served by certified bartenders. Copies of their certifications in the safe service of alcohol were submitted. All kinds of alcoholic beverages will be served at this event. A Crowd Manager Certification was submitted.

There is sufficient parking available for this event.

I find no reason to deny this license.

Respectfully submitted,

Lieutenant Derek Hayes



## **Building Committee for Brookline High School Expansion Project**

- There shall be established a Building Committee for the Brookline High School expansion project. In keeping with recent practice on the Devotion School project, this committee shall be modeled using the MSBA Building Committee guidelines as a starting point. The Committee shall consist of a member of the Building Commission, Board of Selectmen and School Committee, each selected by their designated boards, who together shall serve as co-chairs of the Committee. The other members of the Committee shall be as listed below. The Board of Selectmen, working with the Town Administrator and staff, shall provide candidates to fill the Park and Recreation Commission representative and the two greater BHS community positions. The School Committee, working with the Superintendent and staff, shall provide candidates to fill the two school parent community positions. The slate of members shall be ratified by the Board of Selectmen and the School Committee.
  - 1 member of the Park and Recreation Commission
  - 2 persons representing the school parent community (School Council or PTO)
  - 2 persons representing the interests of the greater BHS community.
  - The Town Administrator or designee
  - The Building Commissioner or designee
  - The Superintendent of Schools
  - The Deputy Superintendent of Schools for Administration and Finance
  - The Deputy Superintendent of Schools for Teaching and Learning
  - The BHS Headmaster
  - 1 BHS Dean
  - 1 student representative
- The Building Committee shall advise and support the Building Commission, Board of Selectmen and School Committee in connection with their authority and responsibilities for the construction and alteration of town buildings and structures under Article 3.7 of the General By-Laws of the Town of Brookline. The Building Committee shall also be the main body responsible for engaging and informing the public on the project.
- The Building Committee shall work with the Project Manager and consultants in support of the project. The Project Manager shall attend all the meetings of the Building Committee and serve as the Committee's staff person.
- The Building Committee shall be concerned with all aspects of the project including budget, schedule, safety, public relations, coordination of town agencies, logistics, and contract compliance.

**Building Committee for Brookline High School Expansion Project**

*Slate of Membership as of November 22, 2016*

1. Co-Chairs (3): Nancy Heller, Board of Selectmen  
Susan Wolf-Ditkoff, School Committee  
George Cole, Building Committee
2. Member of Park and Recreation Commission: Nancy O'Connor
3. Representatives of school parent community (2): Ian Roffman  
Jordan Meranus
4. Representatives of greater BHS community(2): Matthew Oudens, Planning Board  
Bobbie Knable, Advisory Committee
5. The Town Administrator or designee: Melvin Kleckner
6. The Building Commissioner or designee: Daniel Bennett
7. The Superintendent of Schools: Andrew Bott
8. The Deputy Superintendent of Schools for Administration and Finance: Mary Ellen Dunn
9. The Deputy Superintendent of Schools for Teaching and Learning: Nicole Gittens
10. The BHS Headmaster: Anthony Meyer
11. A BHS Dean (1): Jenee Ramos, Dean of Faculty
12. A Student Representative: TBD

## 7. - 3

BHS Expansion Building Committee Charge and Structure Voted by the  
School Committee on November 10, 2016

### **Building Committee for Brookline High School Expansion Project**

There shall be established a Building Committee for the Brookline High School expansion project. In keeping with recent practice on the Devotion School project, this committee shall be modeled using the MSBA Building Committee guidelines as a starting point. The Committee shall consist of a member of the Building Commission, Board of Selectmen and School Committee, each selected by their designated boards, who together shall serve as co-chairs of the Committee. The other members of the Committee shall be as listed below. The Board of Selectmen, working with the Town Administrator and staff, shall provide candidates to fill the Park and Recreation Commission representative and the two greater BHS community positions. The Superintendent, working with the Headmaster, shall provide candidates to fill the two parent community representatives, the dean representative and the student representative positions. The slate of members shall be ratified by the Board of Selectmen and the School Committee.

- 1 member of the Park and Recreation Commission
  - 2 persons representing the school parent community (School Council or PTO)
  - 2 persons representing the interests of the greater BHS community
  - The Town Administrator or designee
  - The Building Commissioner or designee
  - The Superintendent of Schools
  - The Deputy Superintendent of Schools for Administration and Finance
  - The Deputy Superintendent of Schools for Teaching and Learning
  - The BHS Headmaster
  - 1 BHS Dean
  - 1 student representative
- The Building Committee shall advise and support the Building Commission, Board of Selectmen and School Committee in connection with their authority and responsibilities for the construction and alteration of town buildings and structures under Article 3.7 of the General By-Laws of the Town of Brookline. The Building Committee shall also be the main body responsible for engaging and informing the public on the project.
  - The Building Committee shall work with the Project Manager and consultants in support of the project. The Project Manager shall attend all the meetings of the Building Committee and serve as the Committee's staff person.
  - The Building Committee shall be concerned with all aspects of the project including budget, schedule, safety, public relations, coordination of town agencies, logistics, and contract compliance.

**Stephanie Orsini**

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**From:** Robin Coyne <[robin\\_coyne@psbma.org](mailto:robin_coyne@psbma.org)>  
**Sent:** Tuesday, November 22, 2016 9:53 AM  
**To:** Melissa Goff; Kate MacGillivray; Stephanie Orsini; Andrew Bott; Mary Ellen Dunn; Ben Lummis; Ray Masak  
**Subject:** BHS Expansion Building Committee Charge Voted by SC on 11/10  
**Attachments:** BHS Expansion Building Com. Charge Voted by SC 11.10.16.docx

Hi,  
I have attached the BHS Expansion Building Committee Charge voted by the School Committee on 11/10. The attached Charge reflects the change to the second to last line of the first paragraph discussed and voted at the School Committee meeting.

Robin

--  
Robin Coyne, Executive Assistant  
Brookline School Committee  
333 Washington Street  
Brookline, MA 02445  
617-730-2430  
[robin\\_coyne@psbma.org](mailto:robin_coyne@psbma.org)

**Stephanie Orsini**

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**From:** Betsy Fitzpatrick <betsy\_fitzpatrick@psbma.org>  
**Sent:** Monday, November 21, 2016 1:44 PM  
**To:** Stephanie Orsini  
**Cc:** Ben Lummis; Mary Ellen Dunn; Andrew Bott  
**Subject:** BHS Expansion Project - representatives

Hi Stephanie,

I'm writing to confirm the names of those will be serving on the Building Committee for the BHS Expansion Project:

*Representing the school parent community:*

Ian Roffman

[iroffman@nutter.com](mailto:iroffman@nutter.com)

617-680-9881

Jordan Meranus

[jordanmeranus@gmail.com](mailto:jordanmeranus@gmail.com)

617-970-3495

*BHS Headmaster:*

Anthony Meyer

[anthony\\_meyer@psbma.org](mailto:anthony_meyer@psbma.org)

*BHS Dean:*

Jenee Ramos

Dean of Faculty

[jenee\\_ramos@psbma.org](mailto:jenee_ramos@psbma.org)

The student representative is still to be determined.

Please let me know if you have any questions.





# Town of Brookline Massachusetts

## Authorization To Hire Request Form

1. Position TITLE: Bus Driver Grade: GN-3

2. Department: Council on Aging Division: \_\_\_\_\_

3. Position Control #: 540000010 Prior Incumbent: James Tong

a. Reason for Leaving: Promotion to building custodian

4. Budgetary Information:

Department Code: 5410 Budget Code: 54105410-510101 % 100

Grant Funded-Name of Grant: \_\_\_\_\_  Revolving Fund  Enterprise Fund

6. Employment Type:

Full-Time: # of hours/week: 37.5  Part-Time: # of hours/week: \_\_\_\_\_

Permanent  Temporary: expected end date (required) \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

7. Method of Fill:

Promotion -- To be Posted Internally from: \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_ to \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

New Hire  Transfer -- Please explain: \_\_\_\_\_

8. List the top three essential functions of this position:

1. Drives the elder bus daily

2. Assists patrons on and off bus

3. Ensures bus is in good operating condition

9. I have considered the following alternatives to filling this position:

\_\_\_\_\_  
\_\_\_\_\_

10. The alternatives are less desirable than new hire action for the following reasons:-continued on reverse side-

Bus is considered an essential Council on Aging Service  
\_\_\_\_\_

Authorization To Hire Request Form

11. Suggested sources for specialized recruitment advertising: (other than local papers)

Human Resources will work closely with the department to post the position widely with the ProDiversity Network,

ZipRecruiter, Indeed, which all have multiple targeted affinity group job boards, as well as related professional groups.

12. Please attach the current position description.

13. Signatures:

Department Head Signature: 	Date: <u>10.15.2016</u>
<i>Asst.</i> Human Resources Director: 	Date: <u>11/20/16</u>
Town Administrator: _____	Date: _____

14. Approvals:

Date on BOS Agenda: _____	Date Approved: _____
---------------------------	----------------------

15. Notes:

**BUS DRIVER**

**PRIMARY PURPOSE**

Bus driving work; other related work, as required.

**ESSENTIAL DUTIES AND RESPONSIBILITIES**

*The essential functions or duties listed below are illustrations of the various types of work performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.*

Drive the daily elder bus route; assist patrons getting on and off the bus; ensure that the bus is in good operating condition.

Clean and fuel the bus; collect the daily fees paid by patrons and turn over monies.

Perform similar or related work as required, or as situation dictates.

**SUPERVISION**

Works under the direct supervision of the Council on Aging Director, following department rules and regulations; the employee follows an established schedule.

**WORK ENVIRONMENT**

Work is performed in a bus, which the employee drives. The bus may be driven in winter conditions with snow and ice on the road or during heavy rain. The employee is in constant contact with the office.

The employee operates a bus.

The employee has contact with patrons, the general public incidental to essential functions, and other town departments.

Errors could result in monetary loss, personal injury or injury to others, or delay or loss of service.

**RECOMMENDED MINIMUM QUALIFICATIONS**

**EDUCATION AND EXPERIENCE**

High school diploma, or equivalent; two to three years of commercial bus driving experience; or an equivalent combination of education and experience.

**ADDITIONAL REQUIREMENT**

Valid Massachusetts Commercial Driver's License, Class B (P designation)

**KNOWLEDGE, ABILITY AND SKILL**

Knowledge of bus maintenance and handling characteristics.

Ability to assist elderly patrons, drive a vehicle in adverse weather conditions, such as under snow or ice conditions or rain, follow a schedule of activities, and recognize the need for maintenance or repair of the vehicle.

Must have a good driving record and skill in driving a bus in all types of weather conditions.

**PHYSICAL REQUIREMENTS**

Moderate physical effort is required when driving for long periods of time. The employee is regularly required to use hands to operate equipment, reach with hands and arms and operate, steer, and maneuver a commercial vehicle under various weather conditions. The employee is also required to aid passengers getting on and off the bus. Vision requirements include the ability to read documents and operate a motor vehicle.

*This job description does not constitute an employment agreement between the employer and employee, and is subject to change by the employer, as the needs of the employer and requirements of the job change.*



**OFFICE OF THE TOWN ADMINISTRATOR  
MEMORANDUM**

**TO:** Board of Selectmen

**FROM:** Melvin A. Kleckner, Town Administrator *M.A.K.*

**RE:** 9<sup>th</sup> Elementary School at Baldwin Project Oversight Committee

**DATE:** November 9, 2016

With the 9<sup>th</sup> Elementary School project at Baldwin moving forward, it is important at this time to establish a "building committee" to facilitate its further study and design and to interface with the public and key stakeholders. Since this project will not be participating in the Massachusetts School Building Authority (MSBA) program, it is not necessary to follow the prescriptive composition or charge for building committees required by this agency. Rather, it is suggested that the Town follow a local process creating a Project Oversight Committee (POC) that has been used in the past. To date, the Building Commission, Board of Selectmen and the School Committee have formally endorsed this concept and appointed a member to serve as the co-chair of the POC.

Please find attached the proposed composition and Charge for a POC for the 9<sup>th</sup> Elementary School at Baldwin using the format and language from prior Town project oversight committees. Superintendent Andrew Bott and I have worked together and canvassed our respective boards to recommend the following slate of candidates for this committee pursuant to the Charge.

- 1 member of the School Committee
  - David Pollak (approved by the School Committee)
- 1 member of the Board of Selectmen
  - Nancy Daly (approved by the Board of Selectmen)
- 1 member of the Building Commission
  - Janet Fierman (approved by the Building Commission)

Other members of the committee are as follows:

- 1 member of the Park and Recreation Commission
  - Clara Batchelor
- 2 persons representing the school parent community (School Council or PTO)
  - TBD
  - TBD
- 2 persons representing the interests of the greater Baldwin neighborhood
  - Steve Brooks
  - Blair Hines
- The Town Administrator or designee
- The Building Commissioner or designee
- The Superintendent of Schools
- The Deputy Superintendent of Schools for Administration and Finance
- The Deputy Superintendent of Schools for Teaching and Learning
- A School Principal Representative

Your cooperation in approving this Charge and appointing the recommended slate at your earliest convenience would be most appreciated.

cc: Mary Ellen Dunn, Deputy Superintendent for Administration and Finance

Ray Masak, Project Manager, Building Department

Melissa Goff, Deputy Town Administrator

### **Building Committee for the 9<sup>th</sup> Elementary School at Baldwin**

- There shall be established a Building Committee for the 9<sup>th</sup> Elementary School at Baldwin. In keeping with recent practice on the Devotion School project, this committee shall be modeled using the MSBA Building Committee guidelines as a starting point. The Committee shall consist of a member of the Building Commission, Board of Selectmen and School Committee, each selected by their designated boards, who together shall serve as co-chairs of the Committee. The other members of the Committee shall be as listed below. The Board of Selectmen, working with the Town Administrator and staff, shall provide candidates to fill the Park and Recreation Commission representative and the two greater Baldwin neighborhood positions. The School Committee, working with the Superintendent and staff, shall provide candidates to fill the two school parent community positions. The Superintendent shall designate the school principal representative. The slate of members shall be ratified by the Board of Selectmen and the School Committee.
  - 1 member of the Park and Recreation Commission
  - 2 persons representing the school parent community (School Council or PTO)
  - 2 persons representing the interests of the greater Baldwin neighborhood.
  - The Town Administrator or designee
  - The Building Commissioner or designee
  - The Superintendent of Schools
  - The Deputy Superintendent of Schools for Administration and Finance
  - The Deputy Superintendent of Schools for Teaching and Learning
  - A School Principal Representative
- The Building Committee shall advise and support the Building Commission, Board of Selectmen and School Committee in connection with their authority and responsibilities for the construction and alteration of town buildings and structures under Article 3.7 of the General By-Laws of the Town of Brookline. The Building Committee shall also be the main body responsible for engaging and informing the public on the project.
- The Building Committee shall work with the Project Manager and consultants in support of the project. The Project Manager shall attend all the meetings of the Building Committee and serve as the Committee's staff person.
- The Building Committee shall be concerned with all aspects of the project including budget, schedule, safety, public relations, coordination of town agencies, logistics, and contract compliance.

9<sup>th</sup> Elementary School at Baldwin Project Oversight Committee

*Slate of Membership as of November 22, 2016*

- |   |  |
|---|--|
| 1. Co-Chairs (3):   | Nancy Daly, Board of Selectmen<br>David Pollak, School Committee<br>Janet Fierman, Building Commission |
| 2. Park and Rec Commission Member:                                      | Clara Batchelor  |
| 3. School Parent Community Representatives                              | John Co (to be approved 11/22/16)<br>David Gacioch (to be approved 11/22/16)                           |
| 4. Greater Baldwin Neighborhood Representatives:                        | Steve Brooks<br>Blair Hines  |
| 5. The Town Administrator or designee:                                  | Melvin Kleckner  |
| 6. The Building Commissioner or designee :                              | Daniel Bennett   |
| 7. The Superintendent of Schools:                                       | Andrew Bott  |
| 8. The Deputy Superintendent of Schools for Administration and Finance: | Mary Ellen Dunn  |
| 9. The Deputy Superintendent of Schools for Teaching and Learning:      | Nicole Gittens   |
| 10. A School Principal Representative:                                  | Annie Sevelius   |

**Building Committee for the 9<sup>th</sup> Elementary School at Baldwin**

- There shall be established a Building Committee for the 9<sup>th</sup> Elementary School at Baldwin. In keeping with recent practice on the Devotion School project, this committee shall be modeled using the MSBA Building Committee guidelines as a starting point. The Committee shall consist of a member of the Building Commission, Board of Selectmen and School Committee, each selected by their designated boards, who together shall serve as co-chairs of the Committee. The other members of the Committee shall be as listed below. The Board of Selectmen, working with the Town Administrator and staff, shall provide candidates to fill the Park and Recreation Commission representative and the two greater Baldwin neighborhood positions. The School Committee, working with the Superintendent and staff, shall provide candidates to fill the two school parent community positions. The Superintendent shall designate the school principal representative. The slate of members shall be ratified by the Board of Selectmen and the School Committee.
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  - 2 persons representing the interests of the greater Baldwin neighborhood.
  - The Town Administrator or designee
  - The Building Commissioner or designee
  - The Superintendent of Schools
  - The Deputy Superintendent of Schools for Administration and Finance
  - The Deputy Superintendent of Schools for Teaching and Learning
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- The Building Committee shall advise and support the Building Commission, Board of Selectmen and School Committee in connection with their authority and responsibilities for the construction and alteration of town buildings and structures under Article 3.7 of the General By-Laws of the Town of Brookline. The Building Committee shall also be the main body responsible for engaging and informing the public on the project.
- The Building Committee shall work with the Project Manager and consultants in support of the project. The Project Manager shall attend all the meetings of the Building Committee and serve as the Committee's staff person.
- The Building Committee shall be concerned with all aspects of the project including budget, schedule, safety, public relations, coordination of town agencies, logistics, and contract compliance.

**Melvin Kleckner**

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**From:** Melissa Goff  
**Sent:** Friday, November 18, 2016 10:02 AM  
**To:** Melvin Kleckner; Stephanie Orsini  
**Cc:** Nancy Daly; Neil Wishinsky  
**Subject:** FW: two parent representatives

FYI-- ready for appointment.

---

**From:** Ben Lummis [[mailto:ben\\_lummis@psbma.org](mailto:ben_lummis@psbma.org)]  
**Sent:** Friday, November 18, 2016 10:00 AM  
**To:** Melissa Goff  
**Subject:** Fwd: two parent representatives

FYI - parent reps are set now. See below.

Begin forwarded message:

**From:** Betsy Fitzpatrick <[betsy\\_fitzpatrick@psbma.org](mailto:betsy_fitzpatrick@psbma.org)>  
**Subject:** two parent representatives  
**Date:** November 18, 2016 at 8:43:30 AM EST  
**To:** Ray Masak <[rmasak@brooklinema.gov](mailto:rmasak@brooklinema.gov)>  
**Cc:** Andrew Bott <[andrew\\_bott@psbma.org](mailto:andrew_bott@psbma.org)>, Ben Lummis <[ben\\_lummis@psbma.org](mailto:ben_lummis@psbma.org)>

Hi Ray,

Both of our parent representatives to the 9th School Building Committee have confirmed. I am going to write to them to share the details of the first meeting.

For your records, here are their contact details:

**Dave Gacioch**  
[gacioch@gmail.com](mailto:gacioch@gmail.com)  
607-222-3061

**John Co**  
617-413-3277  
[jptc@hotmail.com](mailto:jptc@hotmail.com)

CHANGE OF MANAGER  
TRANSFER OF STOCK/NEW OFFICER

ALL KINDS OF ALCOHOLIC BEVERAGES  
COMMON VICTUALLER AND ENTERTAINMENT

The Brothers Restaurant Corp.  
d/b/a The Brother Restaurant

404 Harvard Street

Application is in Order:

The Brothers Restaurant Corp., d/b/a The Brothers Restaurant, Concepcion Perez, Owner, holder of a license to Expose, Keep for Sale and to Sell All Kinds of Alcoholic Beverages to Be Drunk on the Premises as a Seven Day Common Victualler License at 404 Harvard Street for a change of Manager, Transfer of Stock and New Officer as follows.

From: Manager:	Concepcion Perez	To: Albeiro Lopera
Transfer of Stock	Concepcion Perez	Albeiro Lopera
New Officer	Concepcion Perez	Albeiro Lopera

Police Department has approved

ALL REQUIRED DOCUMENTS HAVE BEEN SUBMITTED AND ARE ON FILE.

DOCUMENTS SUMITTED BUT NOT ON FILE IN THIS PACKET:  
CORI REQUEST FORM  
STOCK PURCHASE AGREEMENT  
PURCHASE AND SALE OF SHARES OF ALL ARTICLES

404 HARVARD STREET  
LEGAL NOTICE  
TOWN OF BROOKLINE  
CHANGE OF MANAGER/TRANSFER  
OF STOCK/NEW OFFICER

Notice is hereby given under chapter 138 of the General laws that The Brothers Restaurant Corp. d/b/a The Brothers Restaurant has applied for a Change of Manager, from Concepcion Perez to Albeiro Lopera, Transfer of Stock, and New Officer for the M.G.L.c. 138 Sec. 12 All Alcoholic Beverages License exercised at 404 Harvard Street, Brookline, Massachusetts.

Hearing to be held in the Selectmen's Hearing Room, Sixth Floor, Town Hall, 333 Washington Street, Brookline, Massachusetts on Tuesday, November 22, 2016 at approximately 8:00 P.M.

By Order of the Board of Selectmen.

Melvin A. Kleckner

Town Administrator

AD#13501783  
Brookline Tab 11/10, 11/17/16

---



The Commonwealth of Massachusetts
Alcoholic Beverages Control Commission
239 Causeway Street
Boston, MA 02114
www.mass.gov/abcc

RETAIL ALCOHOLIC BEVERAGES LICENSE APPLICATION
MONETARY TRANSMITTAL FORM

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

ECRT CODE: RETA

CHECK PAYABLE TO ABCC OR COMMONWEALTH OF MA: \$200.00

(CHECK MUST DENOTE THE NAME OF THE LICENSEE CORPORATION, LLC, PARTNERSHIP, OR INDIVIDUAL)

CHECK NUMBER 12271

IF USED EPAY, CONFIRMATION NUMBER n/a

A.B.C.C. LICENSE NUMBER (IF AN EXISTING LICENSEE, CAN BE OBTAINED FROM THE CITY) 1177-RS-01480-

LICENSEE NAME The Brothers Restaurant Corp. d/b/a The Brothers Restaurant

ADDRESS 404 Harvard Street

CITY/TOWN Brookline STATE MA ZIP CODE 02446

TRANSACTION TYPE (Please check all relevant transactions):

- Alteration of Licensed Premises
Change Corporate Name
Change of License Type
Change of Location
Change of Manager
Cordials/Liqueurs Permit
Issuance of Stock
Management/Operating Agreement
More than (3) \$15
New License
New Officer/Director
New Stockholder
Pledge of Stock
Pledge of License
Seasonal to Annual
Transfer of License
Transfer of Stock
Wine & Malt to All Alcohol
6-Day to 7-Day License

Other [dropdown menu]

THE LOCAL LICENSING AUTHORITY MUST MAIL THIS TRANSMITTAL FORM ALONG WITH THE CHECK, COMPLETED APPLICATION, AND SUPPORTING DOCUMENTS TO:

ALCOHOLIC BEVERAGES CONTROL COMMISSION
P. O. BOX 3396
BOSTON, MA 02241-3396



The Commonwealth of Massachusetts  
 Alcoholic Beverages Control Commission  
 239 Causeway Street  
 Boston, MA 02114  
 www.mass.gov/abcc

**APPLICATION FOR MULTIPLE AMENDMENTS**

Please complete Name of Licensee and Application Contact sections completely, leaving no fields blank.

<b>NAME OF LICENSEE</b> (Business Contact)	The Brothers Restaurant Corp.		
<b>ABCC License Number</b>	1177-RS-01480	<b>City/Town of Licensee</b>	Brookline

**APPLICATION CONTACT**

The application contact is required and is the person who will be contacted with any questions regarding this application.

First Name: Adam Middle: R. Last Name: Barnosky

Title: Attorney Primary Phone: (617) 570-3519

Email: arb@riw.com

**AMENDMENT OPTIONS**

Please check off all of the amendments for which you are applying below. You will only be required to complete the sections of this amendment application that correspond to the amendments you check. Next to each amendment is the page that you will find the necessary application questions to complete. Please see the instructions page for additional required documents based on transaction.

If there are ANY financial considerations for the transactions for which you are applying, you must complete the financial section on page 2 of this application.

- Change in Business Contact Information - Page 2  
This is only to change a mailing or business address (corporate headquarters, NOT premises address), phone number or email.
- Change of Manager - Page 3
- Alteration of Premises / Change of Location - Page 4
- Change of Beneficial Interest / Transfer or Issuance of Stock - Page 5
- Pledge of Collateral (License, Inventory, Beneficial Interest) - Page 6
- Change of Corporate Name - Page 6
- Change of DBA - Page 6
- Change of Corporate Structure (i.e. Corporation to LLC, Sole Proprietor to LLC) - Page 6
- Change of Category (i.e. Wine and Malts to All Alcohol) - Page 6
- Change of Class (i.e. Seasonal to Annual) - Page 6
- Change of Type (i.e. Restaurant to General on Premises) - Page 6



APPLICATION FOR MULTIPLE AMENDMENTS

**MANAGER CONTACT**

Complete this section if you are requesting a change of manager.  
 The Manager Contact is the individual who will have day-to-day, operational control over the liquor license.

Salutation  First Name  Middle Name  Last Name  Suffix

Social Security Number  Date of Birth

Primary Phone:  Email:

Mobile Phone:  Place of Employment

Alternative Phone:  Fax Number

**Citizenship / Residency / Background Information of Proposed Manager**

Are you a U.S. Citizen?  Yes  No

Do you have direct, indirect, or financial interest in this license?  Yes  No

Have you ever been convicted of a state, federal, or military crime?  Yes  No  
 If yes, attach an affidavit that lists your convictions with an explanation for each

If yes, percentage of interest

Have you ever been Manager of Record of a license to sell alcoholic beverages?  Yes  No

If yes, please indicate type of Interest (check all that apply):

If yes, please list the licenses for which you are the current or proposed manager:

Officer  Sole Proprietor  
 Stockholder  LLC Manager  
 LLC Member  Director  
 Partner  Landlord  
 Contractual  Revenue Sharing  
 Management Agreement  Other

Please indicate how many hours per week you intend to be on the licensed premises

**Employment Information of Proposed Manager**

Please provide your employment history for the *past 10 years*

Date(s)	Position	Employer	Address	Phone
2011-Present	Broker	United Brokers Real Estate	1275 Revere Beach Pkwy, Everett, MA	REDACTED
2003-2008	Chef	Mariott Hotel Long Wharf	296 State Street, Boston, MA 02109	REDACTED

**Prior Disciplinary Action of Proposed Manager**

Have you ever been involved directly or indirectly in an alcoholic beverages license that was subject to disciplinary action? If yes, please complete the following:

Date of Action	Name of License	State	City	Reason for suspension, revocation or cancellation
n/a				

# 10. - 7

## APPLICATION FOR MULTIPLE AMENDMENTS

### CHANGE IN BENEFICIAL INTEREST / TRANSFER or ISSUANCE OF STOCK

#### **CURRENT OWNERSHIP (Before Change in Beneficial Interest)**

Please list all individuals or entities with a direct or indirect, beneficial or financial interest in this license. This pertains to the current licensee (before change in beneficial interest occurs).

Name	Title / Position		% Owned	Other Beneficial Interest
Concepcion Perez	Officer	▼	100%	
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		

#### **PROPOSED OWNERSHIP (After Change in Beneficial Interest)**

Please list all individuals or entities with a direct or indirect, beneficial or financial interest in this license.

An individual or entity has a direct beneficial interest in a license when the individual or entity owns or controls any part of the license. For example, if John Smith owns Smith LLC, a licensee, John Smith has a direct beneficial interest in the license.

An individual or entity has an indirect beneficial interest if the individual or entity has 1) any ownership interest in the license through an intermediary, no matter how removed from direct ownership, 2) any form of control over part of a license no matter how attenuated, or 3) otherwise benefits in any way from the license's operation. For Example, Jane Doe owns Doe Holding Company Inc., which is a shareholder of Doe LLC, the license holder. Jane Doe has an indirect interest in the license.

- A. All individuals listed below are required to complete a Beneficial Interest Contact - Individual form.
- B. All entities listed below are required to complete a Beneficial Interest Contact - Organization form.
- C. Any individual with any ownership in this license and/or the proposed manager of record must complete a CORI Release Form.

Name	Title / Position		% Owned	Other Beneficial Interest
Albeiro Lopera	Officer	▼	100%	
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		
		▼		

**BENEFICIAL INTEREST CONTACT - Individual** (Formerly known as a Personal Information Form)

Please complete a Beneficial Interest - Individual sheet for all individual(s) who have a direct or indirect beneficial interest, with or without ownership, in this license. This includes people with a financial interest and people without financial interest (i.e. board of directors for not-for-profit clubs). All individuals with direct or indirect financial interest must also submit a CORI Authorization Form.

An individual with direct beneficial interest is defined as someone who has interest directly in the proposed licensee. For example, if ABC Inc is the proposed licensee, all individuals with interest in ABC Inc are considered to have direct beneficial interest in ABC Inc (the proposed licensee).

An individual with indirect beneficial interest is defined as someone who has ownership in a parent level company of the proposed licensee. For example, if ABC Inc is the proposed licensee and is 100% owned by XYZ Inc, all individuals with interest in XYZ Inc are considered to have an indirect beneficial interest in ABC Inc (the proposed licensee).

Salutation  First Name  Middle Name  Last Name  Suffix

Title:  Social Security Number  Date of Birth

Primary Phone:  Email:

Mobile Phone:  Fax Number

Alternative Phone:

**Business Address**

Street Number:  Street Name:

City/Town:  State:

Zip Code:  Country:

**Mailing Address**

Check here if your Mailing Address is the same as your Business Address

Street Number:  Street Name:

City/Town:  State:

Zip Code:  Country:

**Types of Interest (select all that apply)**

- Contractual       Director       Landlord       LLC Manager
- LLC Member       Management Agreement       Officer
- Partner       Revenue Sharing       Sole Proprietor       Stockholder       Other

**Citizenship / Residency Information**

Are you a U.S. Citizen?     Yes     No      Are you a Massachusetts Resident?     Yes     No

**Criminal History**

Have you ever been convicted of a state, federal, or military crime?     Yes     No      If yes, please provide an affidavit explaining the charges.

**BENEFICIAL INTEREST CONTACT - Individual** (continued)

**Ownership / Interest**

Using the definition above, do you hold a direct  Direct  Indirect or indirect interest in the proposed licensee?

If you hold a direct beneficial interest in the proposed licensee, please list the % of interest you hold.

100%

If you hold an indirect beneficial interest in this license, please complete the Ownership / Interest Table below.

**Ownership / Interest**

If you hold an indirect interest in the proposed licensee, please list the organization(s) you hold a direct interest in which, in turn, hold a direct or indirect interest in the proposed licensee. These generally include parent companies, holding companies, trusts, etc. A Beneficial Interest - Organization Form will need to be completed for each entity listed below.

Name of Beneficial Interest - Organization	FEIN
n/a	

**Other Beneficial Interest**

List any indirect or indirect beneficial or financial interest you have in any other Massachusetts Alcoholic Beverages License(s).

Name of License	Type of License	License Number	Premises Address
n/a	<input type="checkbox"/>		
	<input type="checkbox"/>		

**Familial Beneficial Interest**

Does any member of your immediate family have ownership interest in any other Massachusetts Alcoholic Beverages Licenses? Immediate family includes parents, siblings, spouse and spouse's parents. Please list below.

Relationship to You	ABCC License Number	Type of Interest (choose primary function)	Percentage of Interest
n/a			

**Prior Disciplinary Action**

Have you ever been involved directly or indirectly in an alcoholic beverages license that was subject to disciplinary action? If yes, please complete the following:

Date of Action	Name of License	State	City	Reason for suspension, revocation or cancellation

**APPLICANT'S STATEMENT**

I, Albeiro Lopera the:  sole proprietor;  partner;  corporate principal;  LLC/LLP member  
Authorized Signatory

of The Brothers Restaurant Corp, hereby submit this application for Change of Manager  
Name of the Entity/Corporation Transaction(s) you are applying for

(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 statement 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 does not violate any requirement of the ABCC or other state law or local ordinances;
- (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 Application information 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.

Signature: [Handwritten Signature]

Date: 10/24/16

Title: President

**APPLICANT'S STATEMENT**

I, Albeiro Lopera the:  sole proprietor;  partner;  corporate principal;  LLC/LLP member  
Authorized Signatory

of The Brothers Restaurant Corp, hereby submit this application for Change in Officer, Transfer of Stock  
Name of the Entity/Corporation Transaction(s) you are applying for

(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 statement 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 does not violate any requirement of the ABCC or other state law or local ordinances;
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- (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.

Signature: [Handwritten Signature]

Date: 10/24/16

Title: President



**LICENSE INTERVIEW FORM**

Transfer of stock, change of officer and

**TYPE OF LICENSE APPLYING FOR:** change of manager

**NAME:** Albeiro Lopera

**ADDRESS:** [REDACTED]

**EMAIL ADDRESS:** [REDACTED]

**PHONE #:** [REDACTED]

**PLACE OF BIRTH:** [REDACTED] - Date of Birth: [REDACTED]

**FATHER'S NAME:** [REDACTED] **MOTHER'S MAIDEN NAME:** [REDACTED]

**ARE YOU A CITIZEN?** YES  NO  **ALIEN CARD #** \_\_\_\_\_

**ARE YOU A VETERAN:** YES  NO

**RESIDENCES FOR LAST FIVE YEARS**

**DATE:** 12 years **LOCATION:** [REDACTED]

**DATE:** current **LOCATION:** [REDACTED]

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_

**EDUCATION**

**DATE:** 1979-1990 **LOCATION:** High School in ~~Columbia~~ *Colombia*

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_

**EMPLOYMENT HISTORY**

**DATE:** *1998-2003* **LOCATION:** Rossetti's Cafe  
Winthrop, MA 02152 **POSITION:** Chef

**DATE:** *2011 present* **LOCATION:** United Brokers (real estate)  
Everett, MA 02149 **POSITION:** Agent

**DATE:** *2003 to 2008* **LOCATION:** Marriott Hotel  
Longwharf, Boston **POSITION:** Chef

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_ **POSITION:** \_\_\_\_\_

**DATE:** \_\_\_\_\_ **LOCATION:** \_\_\_\_\_ **POSITION:** \_\_\_\_\_

**SIGNATURE:** *C -* **DATE:** *10/24/16*

**(PLEASE SUBMIT THREE CHARACTER REFERENCES WITH APPLICATION)**

**VOTE OF THE CORPORATION**  
**THE BROTHERS RESTAURANT CORP.**

At a meeting of the directors of The Brothers Restaurant Corp. held at 404 Harvard Street, Brookline, Massachusetts 02446 on October 21, 2016 it was duly voted that the Corporation apply to the Town of Brookline and Massachusetts Alcoholic Beverages Control Commission for a Transfer of Stock, Change of Officer, and Change of Manager for the license to be exercised on the premises at 404 Harvard Street, Brookline, Massachusetts.

The Corporation hereby made affirmative votes on the following matters:

“VOTED: To authorize The Brothers Restaurant Corp. to apply for a Transfer of Stock, Change of Officer, and Change of Manager from the Town of Brookline and Massachusetts Alcoholic Beverages Control Commission for the license currently exercised on the premises at 404 Harvard Street, Brookline, Massachusetts 02446.”

“VOTED: To appoint ALBEIRO LOPERA of The Brothers Restaurant Corp as its license manager or principal representative, with as full authority and control of the premises described in the license of the corporation and of the conduct of all business therein relative to alcoholic beverages as the licensee itself could in any way have and exercise if it were a natural person resident in the Commonwealth of Massachusetts and that a copy of this vote duly certified by the manager of the corporation and delivered to said manager shall constitute written authority required by Sec. 26, Chapter 138, G.L.”

“VOTED: To authorize ALBEIRO LOPERA to sign the application for the license in the name of The Brothers Restaurant Corp and to execute in its behalf any necessary papers, and to do all things required relative to the granting of the license.”

This is to certify that Brothers Restaurant Corp is a corporation duly organized under the laws of the Commonwealth of Massachusetts.

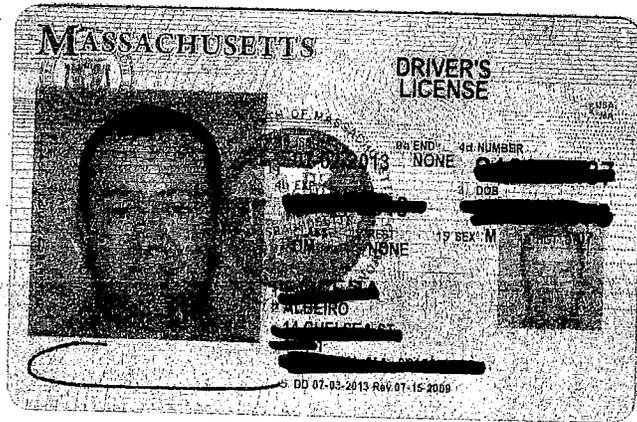
This Corporation has NOT been dissolved.

A TRUE COPY ATTEST

  
\_\_\_\_\_  
ALBEIRO LOPERA

Date: October 21, 2016







On Premise

XXX-XX-XXXX

Issued:

9/30/2016

Expires: 9/20/2019

ID#:

4365804

XXXXXXXXXX

SSN:

Expires:

D.O.B.:

ALBEIRO LOPERA  
158 Bremem St 3  
East Boston, MA 02128

For service visit us online at [www.gettips.com](http://www.gettips.com)  
Victoria Hart, 53861



HEALTH COMMUNICATIONS INC.

1501 Wilson Blvd., Suite 500

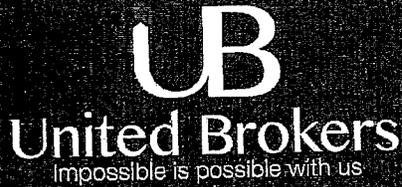
Arlington, VA 22209

~~XXXXXXXXXX~~  
www.gettips.com

*This card was issued for successful completion of the TIPS program.*

Signature: \_\_\_\_\_

A handwritten signature in black ink, appearing to be a stylized 'C' or similar character, written over a horizontal line.



tel: 617-389-2700

fax: 617-389-5656

1725 Revere Beach Parkway  
Everett, MA 02149

[unitedbrokersworld.com](http://unitedbrokersworld.com)

10/04/2016

To Whom it May Concern:

Alberio Lopera is currently working as a Real Estate Sales Associate at our office since 2008 to present. During his time at United Brokers, Alberio has been selling, renting, leasing real estate to his clients including, scheduling appointments, creating brochures, holding open houses, and other office activities.

Alberio fulfilled his responsibilities with little supervision. The position he held in our company required interaction with the public, as well as the ability to communicate and exceed expectations of each and every client. Success was dependant on strong communication and interpersonal skills.

I am happy to act as a reference for Alberio and can speak good about his customer/client service skills, work ethic, and professionalism. Please feel free to contact me should you require further information.

Sincerely,

A handwritten signature in black ink, appearing to read 'Baris Berk', written over a light blue horizontal line.

Baris Berk

Director

October 3<sup>rd</sup> 2016

To whom it may concern

*My name is Diana Sepulveda and I have known Albeiro Lopera for over 15 years. Albeiro is married to a close friend of my family and Alberio also assisted my husband and I in the purchase of our home in 2013. He is professional, responsible and knowledgeable at what he does. Alberio is a very hard working man and great friend.*

*If you have any further questions don't hesitate to call me at (617) 849-1076.*

*Best Regards,*

*Diana Sepulveda*

October 1<sup>st</sup> 2016

To whom it may concern:

I am writing this letter to you as a personal reference letter for Albeiro Lopera . I have known Albeiro for over 7years as I have been his supervisor at Caffè Rosettis and close friend with him and his family. Albeiro has the kind of personality that draws people towards him and he has never been one to take advantage of anyone's trust.

Alberio, puts in long hours when he has to. He helps me in both of my cafe's when I need him.

Albeiro is a fine professional along with one of the most honest and upstanding people I know. If you require more information, please feel free to call me at [REDACTED] 14.

Sincerely,



Bob Rosettis



# TOWN of BROOKLINE

## Massachusetts

**BOARD OF SELECTMEN**

NEIL A. WISHINSKY, Chairman  
NANCY A. DALY  
BENJAMIN J. FRANCO  
NANCY S. HELLER  
BERNARD W. GREENE

333 WASHINGTON STREET  
BROOKLINE, MASSACHUSETTS 02445

(617) 730-2200  
FAX: (617) 730-2054  
[www.BrooklineMA.gov](http://www.BrooklineMA.gov)

MELVIN A. KLECKNER  
Town Administrator

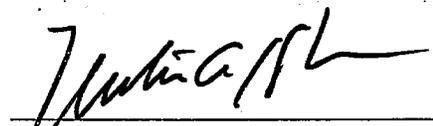
November 10, 2016

TO TOWN MEETING MEMBERS IN  
PRECINCTS 8 & 9 AND ABUTTERS

This is to advise you that a Public Hearing will be held on the application of The Brothers Restaurant Corp., d/b/a The Brothers Restaurant, Concepcion Perez, Owner, holder of a license To Expose, Keep For Sale and To Sell All Kinds of Alcoholic Beverages to Be Drunk on the Premises as a Seven Day Common Victualler License at 404 Harvard Street, for a Change of Manager, Transfer of Stock and New Officer as follows:

From: Manager:	Concepcion Perez	To: Albeiro Lopera
Transfer of Stock	Concepcion Perez	Albeiro Lopera
New Officer	Concepcion Perez	Albeiro Lopera

For your information, the Board of Selectmen will consider this and other licensing matters commencing at approximately 8:00 P.M. on Tuesday, November 22, 2016 in the Selectmen's Hearing Room, 6<sup>th</sup> Floor, Town Hall, 333 Washington Street.

  
\_\_\_\_\_  
Melvin A. Kleckner  
Town Administrator

cc: Albeiro Lopera  
Adam Barnosky, Esq.



**BROOKLINE POLICE DEPARTMENT**  
*Brookline, Massachusetts*

DANIEL C. O'LEARY  
CHIEF OF POLICE

To: Chief Daniel O'Leary

From: Lieutenant Derek Hayes

Re: The Brothers Restaurant Corp, d/b/a The Brothers Restaurant  
Application for a Transfer of Stock, New Officer and Change of Manager of Record.

Date: November 16, 2016

---

Sir,

On behalf The Brothers Restaurant Corp, d/b/a The Brothers Restaurant, President, Concepcion Perez has applied for a transfer of stock, change in corporate officer, and a change in the Manager of Record. The Brothers Restaurant holds a license to Expose, Keep for Sale and to Sell All Kinds of Alcoholic Beverages as a Seven Day CV and Entertainment License at 404 Harvard St.

According to the application, Concepcion Perez is 100% owner and will be selling all of his stock in this business to Alberio Lopera [REDACTED]

1. Alberio Lopera – 100% owner, Pres., Sec., Tres., Dir., & Manager of Record

[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]  
[REDACTED]

The Brothers Restaurant Corp is requesting that the Board approve Alberio Lopera as the Manger of Record for The Brothers Restaurant. Alberio Lopera has worked as a Chef from 2003-2008 and as a Broker from 2011 to Present. He has successfully completed his in-



person course in the safe service of alcohol. His certification has been submitted. He is a US citizen over the age of 21 years. A copy of his US passport was submitted. Albeiro Lopera has a 100% ownership in the business. According to the application, he has never been a manager of record that of a license to sell alcoholic beverages that has been suspended, revoked or cancelled. Mr. Lopera does not currently have a financial interest in any other liquor license. A copy of his Crowd Manager Certificate was submitted.

A meeting was held on Wednesday, November 16<sup>th</sup>, 2016 at the Brookline Police Station. During this meeting I discussed the liquor regulations and went over what was expected during an administrative inspection. I gave him a written document outlining the requirements that we discussed. He was also be given a copy of the Town of Brookline's Sale of Alcoholic Beverages Regulations.

Mr. Lopera submitted a full set of finger prints taken by the Brookline Police Department for the purpose of conducting a State and National criminal record background check. The results of those queries have not come back from the State at this time. If information is received that would disqualify him, a supplemental report will be submitted. Queries were conducted of other law enforcement databases and they revealed no disqualifying information.

I find no reason to deny this application.

Respectfully Submitted,

Lieutenant Derek Hayes



NEW  
COMMON VICTAULLER LICENSE

Caffe Nero Americas, Inc.  
d/b/a Caffe Nero

Michael Ford-Deegan, Owner

1 Harvard Street

APPLICATION IS IN ORDER

Inside Seating Capacity 20.

Hours of operation are: Sunday-Saturday 5:30am-10pm

REPORTS (ATTACHED)

The Building and Police Departments have approved this application.  
The Health Department has approved subject to standard conditions

Store front picture enclosed.

Caffe Nero

1 Harvard Street, Brookline, MA 02445

Caffe Nero is a family owned and operated business which began about 20 years ago in London. We began as a place that served very high quality coffee and acted as a meeting place for the neighborhood. This is the very mission that Caffe Nero strives to maintain in all our locations today.

We are focused on providing unique, award winning coffee and food. We regularly work on developing new and interesting blends. Our operating hours in Brookline Village will be Monday through Sunday from 5:30 AM to 10:00 PM. The Caffe will receive daily deliveries to ensure quality and freshness of products.



OFFICE OF SELECTMEN  
333 WASHINGTON STREET  
BROOKLINE, MA 02445  
(617) 730-2200

**APPLICATION FOR  
COMMON VICTUALLER LICENSE**

DATE: 10/12/2016

LOCATION: 1 Harvard Street, Brookline, MA 02445

APPLICANT: Caffe Nero Americas, Inc.

**INDIVIDUAL/PARTNERSHIP/CORPORATION**

D/B/A: Caffe Nero

**BUSINESS OWNERSHIP- INDIVIDUAL/PARTNERS/CORPORATE OFFICERS:**

Michael Ford-Deegan                      President                      [REDACTED]

NAME	TITLE	EMAIL ADDRESS
<u>[REDACTED]</u>	<u>[REDACTED]</u>	<u>[REDACTED]</u>

TELEPHONE #	ADDRESS
Michael Ford-Deegan	Vice-President <u>[REDACTED]</u>

NAME	TITLE	EMAIL ADDRESS
Michael Ford-Deegan	Secretary	<u>[REDACTED]</u>

TELEPHONE #

ADDRESS

[REDACTED]

NAME

TITLE

EMAIL ADDRESS

TELEPHONE #

ADDRESS

HAVE YOU PREVIOUSLY HELD A COMMON VICTUALLER LICENSE IN BROOKLINE/ELSEWHERE? Yes  
IF YES, LOCATION: AND DATES: Current: Boston, Andover Wellesley, Jamaica Plain

IF NOT, DO YOU HAVE PRIOR EXPERIENCE IN THE FOOD SERVICE BUSINESS: \_\_\_\_\_  
IF YES, LOCATION: AND DATES \_\_\_\_\_

HOURS OF OPERATION FOR FOOD SERVICE:

DAYS: Monday-Sunday HOURS: 5:30AM-10:00PM

DAYS: \_\_\_\_\_ HOURS: \_\_\_\_\_

DAYS: \_\_\_\_\_ HOURS: \_\_\_\_\_

HOURS OF OPERATION FOR ALCOHOLIC BEVERAGES SERVICE: (If applicable)

DAYS: \_\_\_\_\_ HOURS: \_\_\_\_\_

DAYS: \_\_\_\_\_ HOURS: \_\_\_\_\_

DAYS: \_\_\_\_\_ HOURS: \_\_\_\_\_

PLEASE NOTE:

THE TOWN'S PREPARED FOOD SALES REGULATIONS SET THE PERMISSIBLE HOURS OF FOOD SALES.

MENU: (GENERAL TYPE OF FOOD SERVED)

Superior Quality Premium Cafe serving Coffee, including Espressos and Food including Soups, Salads, Pastries, and Breakfast Items.  
FLOOR SPACE SQ. FT. 1,339 SQ.FT.

BYOB: Will you permit patrons to bring their own alcoholic beverages onto the premises? NO.

(If yes, please be aware of applicable Town regulations governing BYOB.)

SEATING CAPACITY: INSIDE: 31 20 OUTSIDE: 0

Outside seating only applicable for 6 months from April 1<sup>st</sup> – September 30<sup>th</sup>.

(Please attach plan showing location and layout of outdoor seating.)

If outdoor seating is proposed to be located on any portion of the public sidewalk that is Town property, this application must be accompanied by proof that the applicant has secured, and that there is in effect during the period of time for which there will be outdoor seating, a general liability policy naming the Town as an additional insured in a minimum amount of \$250,000.00/\$500,000.00.

By signing this application, the applicant absolves the Town and its officials, officers, employees, agents and representatives from all liability in connection with use by the applicant of the Town's portion of a public sidewalk. By signing this application, the applicant agrees to indemnify the Town for any damage to the Town's sidewalk resulting from the applicant's use of it, and agrees to indemnify the Town for any expenses the Town incurs in restoring the Town's sidewalk to its condition prior to use (in excess of any routine cleaning and maintenance service the Town would ordinarily have performed irrespective of the use).

Applicant agrees to outside seating terms and conditions: N/A

NUMBER OF BATHROOMS : EMPLOYEE: PUBLIC: 2

NUMBER OF PARKING SPACES (IF ANY):

NUMBER OF EMPLOYEES: 3/PER SHIFT; 9 EMPLOYEES TOTAL

All Common Victualler Licenses are issued subject to and conditioned on the licensee's compliance with Massachusetts General Laws Chapter 140, Section 2 et seq., Article 8.10 of the TownBy-Laws, and the Town's Prepared Food Sales Regulations.

Application Agrees to terms and conditions

APPLICANT SIGNATURE Michael J. Morgan TITLE: PRES PHONE#

EMAIL ADDRESS MICHAELD@COFFEENERD.COM



**RENOVATION FORM**

IF RENOVATIONS ARE BEING MADE TO LOCATION: PLEASE DESCRIBE IN DETAIL WHAT RENOVATIONS WILL BE MADE, DATE AND SIGN BELOW.

(1) NEW KITCHEN

---

---

---

(2) NEW SERVICE AREA

---

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---

(3) NEW DINING AREA

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(4)

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---

---

(5)

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---

---

(6)

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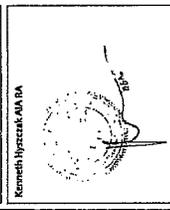
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DATE: 9-15-16 SIGNATURE OF APPLICANT: Michael J. Krizan

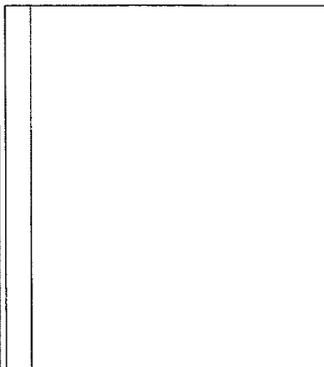
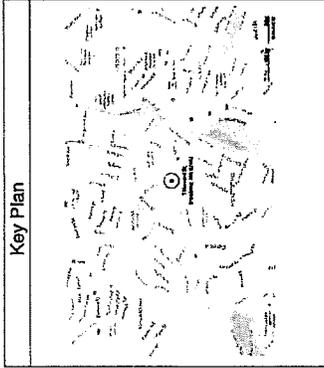
**(PLEASE SUBMIT THREE SETS OF PLANS)**

**KHA**  
**KHArchitecture**  
 250 Summer Street and floor  
 Cambridge, MA 02142  
 617.452.1000 | Ken@kha.design  
 www.kha.design



**CAFFÈ NERO**

1 Harvard Street Brookline, MA



**CAFFÈ NERO**

1 Harvard Street Brookline, MA

**Project Responsibilities**

Project	Client	Architect	Engineer	Contractor	Subcontractor
1. General Construction	KHA	KHA	KHA	KHA	KHA
2. Foundation	KHA	KHA	KHA	KHA	KHA
3. Structural Steel	KHA	KHA	KHA	KHA	KHA
4. Mechanical	KHA	KHA	KHA	KHA	KHA
5. Electrical	KHA	KHA	KHA	KHA	KHA
6. Plumbing	KHA	KHA	KHA	KHA	KHA
7. Fire Protection	KHA	KHA	KHA	KHA	KHA
8. Energy	KHA	KHA	KHA	KHA	KHA
9. Interior	KHA	KHA	KHA	KHA	KHA
10. Exterior	KHA	KHA	KHA	KHA	KHA
11. Landscaping	KHA	KHA	KHA	KHA	KHA
12. Signage	KHA	KHA	KHA	KHA	KHA
13. Furniture	KHA	KHA	KHA	KHA	KHA
14. Lighting	KHA	KHA	KHA	KHA	KHA
15. Acoustics	KHA	KHA	KHA	KHA	KHA
16. Security	KHA	KHA	KHA	KHA	KHA
17. Accessibility	KHA	KHA	KHA	KHA	KHA
18. Sustainability	KHA	KHA	KHA	KHA	KHA
19. Commissioning	KHA	KHA	KHA	KHA	KHA
20. Closeout	KHA	KHA	KHA	KHA	KHA

**Project Directory**

**Client (Owner):**  
 Caffè Nero  
 1 Harvard Street  
 Brookline, MA 02142

**Architect:**  
 KHA  
 250 Summer Street  
 Cambridge, MA 02142

**MEP Engineer:**  
 KHA  
 250 Summer Street  
 Cambridge, MA 02142

**Structural Engineer:**  
 KHA  
 250 Summer Street  
 Cambridge, MA 02142

**Contractor:**  
 KHA  
 250 Summer Street  
 Cambridge, MA 02142

**Code Summary**

**GENERAL**  
 Building Code: International Building Code (IBC) 2015  
 Fire Code: International Fire Code (IFC) 2015  
 Mechanical Code: International Mechanical Code (IMC) 2015  
 Electrical Code: National Electrical Code (NEC) 2014  
 Plumbing Code: International Plumbing Code (IPC) 2015  
 Fire Protection Code: International Fire Protection Code (IFPC) 2015  
 Energy Code: International Energy Conservation Code (IECC) 2015  
 Accessibility Code: Americans with Disabilities Act (ADA) 2010

**List of Drawings**

Sheet Number	Sheet Name	Current Revision	Current Revision Date
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A006	Roof Drainage	A	8-5-16
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A008	Roof Elevation	A	8-5-16
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A012	Roof Section	A	8-5-16
A013	Roof Detail	A	8-5-16
A014	Roof Section	A	8-5-16
A015	Roof Detail	A	8-5-16
A016	Roof Section	A	8-5-16
A017	Roof Detail	A	8-5-16
A018	Roof Section	A	8-5-16
A019	Roof Detail	A	8-5-16
A020	Roof Section	A	8-5-16
A021	Roof Detail	A	8-5-16
A022	Roof Section	A	8-5-16
A023	Roof Detail	A	8-5-16
A024	Roof Section	A	8-5-16
A025	Roof Detail	A	8-5-16
A026	Roof Section	A	8-5-16
A027	Roof Detail	A	8-5-16
A028	Roof Section	A	8-5-16
A029	Roof Detail	A	8-5-16
A030	Roof Section	A	8-5-16
A031	Roof Detail	A	8-5-16
A032	Roof Section	A	8-5-16
A033	Roof Detail	A	8-5-16
A034	Roof Section	A	8-5-16
A035	Roof Detail	A	8-5-16
A036	Roof Section	A	8-5-16
A037	Roof Detail	A	8-5-16
A038	Roof Section	A	8-5-16
A039	Roof Detail	A	8-5-16
A040	Roof Section	A	8-5-16
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A042	Roof Section	A	8-5-16
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A057	Roof Detail	A	8-5-16
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A061	Roof Detail	A	8-5-16
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A068	Roof Section	A	8-5-16
A069	Roof Detail	A	8-5-16
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A071	Roof Detail	A	8-5-16
A072	Roof Section	A	8-5-16
A073	Roof Detail	A	8-5-16
A074	Roof Section	A	8-5-16
A075	Roof Detail	A	8-5-16
A076	Roof Section	A	8-5-16
A077	Roof Detail	A	8-5-16
A078	Roof Section	A	8-5-16
A079	Roof Detail	A	8-5-16
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A082	Roof Section	A	8-5-16
A083	Roof Detail	A	8-5-16
A084	Roof Section	A	8-5-16
A085	Roof Detail	A	8-5-16
A086	Roof Section	A	8-5-16
A087	Roof Detail	A	8-5-16
A088	Roof Section	A	8-5-16
A089	Roof Detail	A	8-5-16
A090	Roof Section	A	8-5-16
A091	Roof Detail	A	8-5-16
A092	Roof Section	A	8-5-16
A093	Roof Detail	A	8-5-16
A094	Roof Section	A	8-5-16
A095	Roof Detail	A	8-5-16
A096	Roof Section	A	8-5-16
A097	Roof Detail	A	8-5-16
A098	Roof Section	A	8-5-16
A099	Roof Detail	A	8-5-16
A100	Roof Section	A	8-5-16
A101	Roof Detail	A	8-5-16
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A103	Roof Detail	A	8-5-16
A104	Roof Section	A	8-5-16
A105	Roof Detail	A	8-5-16
A106	Roof Section	A	8-5-16
A107	Roof Detail	A	8-5-16
A108	Roof Section	A	8-5-16
A109	Roof Detail	A	8-5-16
A110	Roof Section	A	8-5-16
A111	Roof Detail	A	8-5-16
A112	Roof Section	A	8-5-16
A113	Roof Detail	A	8-5-16

**Title Sheet**

1 Harvard Street Brookline, MA

Project number: KHA16010  
 Date: 8-1-16  
 Drawn by: KHA  
 Checked by: KHA  
**A000a**

**Project Responsibilities**

Client: KHA  
 Architect: KHA  
 Engineer: KHA  
 Contractor: KHA  
 Subcontractor: KHA

**Code Summary**

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A031	Roof Detail	A	8-5-16
A032	Roof Section		





**CAFFE NERO AMERICAS, INC.**

1 Harvard Street  
Brookline, MA 02445

October 11, 2016

Board of Selectman  
Town of Brookline  
333 Washington Street, 6th Floor  
Brookline, MA 02445

**RE: Litter Letter**  
***Caffe Nero Americas, Inc.***  
***1 Harvard Street, Brookline, Massachusetts 02446***

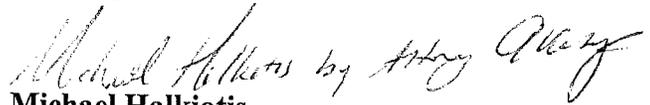
Dear Members of the Board of Selectmen:

In accordance with the Town of Brookline Bylaws, Article XXXV, Sec. 7, the following is the litter plan and procedure for the above captioned entity.

- (1) The store will have trash barrels located inside the store so that litter may be deposited therein.
- (2) The store manager will be instructed and required to inspect the trash containers at least twice a day and more often if conditions warrant and to empty said containers as required.
- (3) The store manager will be instructed and required to inspect and sweep the outside area of each store. This will include the sidewalk and gutters and to sweep and pick up any and all trash and litter as conditions require.
- (4) All litter, from whatever source collected, will be bagged and placed into the trash that is normally associated with the store's regular business activities and removed on a regular basis by a commercial trash collector.
- (5) All dumpsters/receptacles shall be kept closed and secured to insure that they shall remain closed when not in use.

If any other information is required, please be in touch.

Sincerely,

  
**Michael Halkiotis**

*Manager*

Caffe Nero Americas, Inc.



LICENSE INTERVIEW FORM

TYPE OF LICENSE APPLYING FOR: COMMON VICTUALLER

NAME: MICHAEL FORD-DEEGAN

ADDRESS: [REDACTED]

EMAIL ADDRESS: [REDACTED]

PHONE #: [REDACTED]

PLACE OF BIRTH: [REDACTED]

FATHER'S NAME: [REDACTED] MOTHER'S MAIDEN NAME: [REDACTED]

ARE YOU A CITIZEN? YES YES NO ALIEN CARD #

ARE YOU A VETERAN: YES NO NO

RESIDENCES FOR LAST FIVE YEARS

DATE: [REDACTED] LOCATION: [REDACTED]

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

**EDUCATION**

**DATE:** 1985-1987      **LOCATION:** GEORGETOWN UNIVERSITY

---

**DATE:** 1972-1976      **LOCATION:** UNIVERSITY OF CALIFORNIA

---

**DATE:** \_\_\_\_\_      **LOCATION:** \_\_\_\_\_

---

**DATE:** \_\_\_\_\_      **LOCATION:** \_\_\_\_\_

---

**EMPLOYMENT HISTORY**

**DATE:** 2011-PRESENT      **LOCATION:** CAFFE NERO BOSTON      **POSITION** DIRECTOR

---

**DATE:** 1997-2010      **LOCATION:** CAFFE NERO LONDON      **POSITION** DIRECTOR

---

**DATE:** \_\_\_\_\_      **LOCATION:** \_\_\_\_\_      **POSITION** \_\_\_\_\_

---

**DATE:** \_\_\_\_\_      **LOCATION:** \_\_\_\_\_      **POSITION** \_\_\_\_\_

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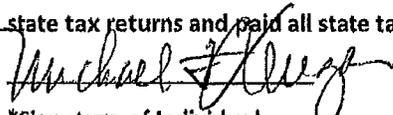
**DATE:** \_\_\_\_\_      **LOCATION:** \_\_\_\_\_      **POSITION** \_\_\_\_\_

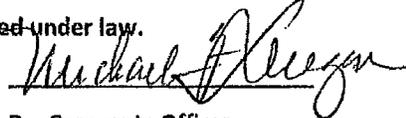
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**SIGNATURE:** *Michael Ford Ruggie*      **DATE:** *OCT. 11, 2016*

**(PLEASE SUBMIT THREE CHARACTER REFERENCES WITH APPLICATION)**

I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all state taxes as required under law.

  
\*Signature of Individual

  
By: Corporate Officer





\*\* Social Security #

Voluntary or Federal ID #

\*This license will not be issued unless this certification clause is signed by the applicant.

\*\*Your social security number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Licensees who fail to correct their non-filing or delinquency will be subject to license suspension or revocation. This request is made under the authority of Massachusetts General Law Chapter 62C, Section 49A.



VOTE OF CORPORATION

DATE: 09/09/2016

AT A MEETING OF THE BOARD OF DIRECTORS OF CAFFE NERO AMERICAS, INC.

HELD AT: 320 CONGRESS STREET, 4TH FL. ON: SEPTEMBER 9, 2016

BOSTON, MA 02210

IT WAS DULY VOTED THAT THE CORPORATION APPLY TO THE LICENSING BOARD FOR THE TOWN OF BROOKLINE FOR A

COMMON VICTUALLER LICENSE

(TYPE OF LICENSE)

FOR THE YEAR 2016 TO BE EXERCISED ON THE PREMISES LOCATED AT

1 HARVARD STREET, BROOKLINE, MA 02445

VOTED: TO AUTHORIZE MICHAEL FORD-DEEGAN TO SIGN

THE APPLICATION FOR THE LICENSES IN THE NAME OF CAFFE NERO

AND TO EXECUTE ON ITS BEHALF ANY NECESSARY PAPERS, AND TO DO ALL THINGS REQUIRED RELATIVE TO THE GRANTING OF THE LICENSE.

THIS CORPORATION HAS NOT BEEN RESOLVED.

A TRUE COPY

ATTEST: \_\_\_\_\_

CLERK



DIXCART

17<sup>th</sup> October 2016

To whom it may concern

Re: MICHAEL FORD – DEEGAN

I have known Michael Deegan as a friend and business partner for 10 years. I have found him to be an honest and trustworthy person in both capacities. I therefore recommend approval of his request for a Common Victualler license in your town.

In my experience, Michael is both a responsible person and business owner that will work with and for the community in which his business is located and aims to provide a quality service. He consistently displays respectful leadership and careful attention to detail. I wish Michael the best in his new venture.

Yours faithfully,

S. Kelly  
Director

69 Athol Street  
Douglas  
Isle of Man  
IM1 1JE

Fax: [REDACTED]

Licensed by the Isle of Man  
Financial Services Authority

Registered in the Isle of Man with  
Company Number: 45258

VAT Registration Number:  
GB 000 8920 15

Directors:  
S. Kelly FCCA  
P.A. Matthews BSc (Hons) FCCA  
R. Woolford FCA TEP

DIXCART MANAGEMENT (IOM) LIMITED

fieldfisher

Angela Vastey  
Law Office of Robert L. Allen, Jr. LLP  
300 Washington Street  
Brookline, MA 02445  
United States of America

Riverbank House  
2 Swan Lane  
London EC4R 3TT

[Redacted]  
[Redacted]  
[Redacted]  
[Redacted]

By Email (avastey@bballenlaw.com)  
By Post

Leighton Cassidy  
Partner  
[Redacted]  
+44 (0)2047 884 479 (Mobile)  
leighton.cassidy@fieldfisher.com

Our Ref: [Redacted]

17 October 2016

Dear Angela

I have acted as the UK solicitor for Michael Deegan's company Caffè Nero Group Limited since 2010.

I am very familiar with Michael's professional approach and have always found him to be a responsible person, as well as an honest and trustworthy business owner. As a result of my experiences I would recommend the approval of his request for a Common Victualler license in your town. I wish him all the best with his new endeavour.

Please do not hesitate to get in touch if you need anything further.

Yours sincerely



Leighton Cassidy  
Partner

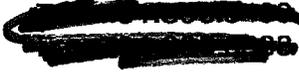
Brussels / Dusseldorf / Hamburg / London / Manchester / Milan / Munich / Paris / Rome / Shanghai / Silicon Valley

Fieldfisher is the trading name of Fieldfisher LLP, a limited liability partnership registered in England and Wales (registered number OC318472) and is authorised and regulated by the Solicitors Regulation Authority. A list of its members and their professional qualifications is available at its registered office, Riverbank House, 2 Swan Lane, London EC4R 3TT. We use the term partner to refer to a member of the Fieldfisher LLP, or an employee or consultant with equivalent standing and qualifications.





92 High Street, Suite One  
Medford, Massachusetts 02155



October 17, 2016

To Whom It May Concern,

Michael and I met over 3 years ago as Caffe Nero was expanding their concept into the U.S. market. My company, Corporate Realty Advisors, has worked exclusively with Michael in selecting locations for Caffe Nero. To date, we have opened 7 locations, a number of which are with the largest and most highly respected retail landlords in Boston. We also have a number of other locations under construction or in negotiations.

Michael has proven to be an intelligent, dedicated, professional businessman who has a keen sense of real estate and business acumen. He pays attention to detail and is committed to the quality of his product. I have been in the real estate business for over 35 years and I can say, without hesitation, that Michael is an outstanding person with a strong work ethic and sound business sense.

Thank you,

*John Dennis*

John Dennis

State of Delaware  
Secretary of State  
Division of Corporations  
Delivered 08:04 PM 09/13/2013  
FILED 07:57 PM 09/13/2013  
SRV 131089598 - 5370754 FILE

CERTIFICATE OF INCORPORATION  
OF  
Caffè Nero Americas, Inc.  
a Delaware corporation

1. The name of this corporation is Caffè Nero Americas, Inc.
2. The address of this corporation's registered office in the state of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.
3. The purpose of this corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of Delaware.
4. Capital Stock.  
The total number of shares of stock which this corporation shall have authority to issue is three thousand (3,000) shares of common stock, and the par value of each share is \$0.0001 per share.
5. The name and mailing address of the incorporator is:  

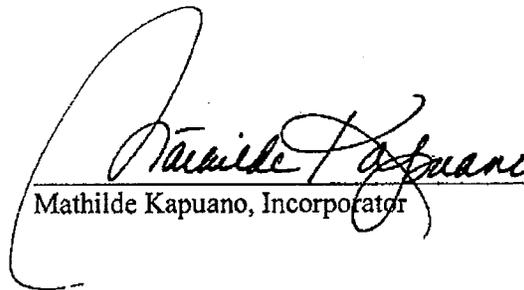
Mathilde Kapuano  
Sheppard, Mullin, Richter & Hampton LLP  
333 S. Hope Street, 43rd floor  
Los Angeles, California 90071
6. In furtherance and not in limitation of the powers conferred by statute, the board of directors of this corporation is expressly authorized to make, alter or repeal the bylaws of this corporation.
7. Elections of directors need not be by written ballot except and to the extent provided in the bylaws of this corporation.

8. No director of this corporation shall be liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation and its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the General Corporation Law of Delaware or (iv) for any transaction from which the director derived any improper personal benefit.

9. Neither the amendment nor repeal of Article 8, nor the adoption of any provision of this Certificate of Incorporation inconsistent with Article 8, shall eliminate or reduce the effect of Article 8 in respect of any matter occurring, or any cause of action, suit or claim that, but for Article 8, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

The undersigned incorporator hereby acknowledges that the foregoing Certificate of Incorporation is her act and deed and that the facts stated therein are true.

Dated: September 13, 2013  
State of California  
County of Los Angeles

  
Mathilde Kapuano, Incorporator

**F  
FPC**

**The Commonwealth of Massachusetts**

William Francis Galvin  
Secretary of the Commonwealth  
One Ashburton Place, Boston, Massachusetts 02108-1512

FORM MUST BE TYPED

**Foreign Corporation  
Certificate of Registration**  
(General Laws, Chapter 156D, Section 15.03; 950 CMR 113.48)

FD-302 (REV. 11-17-83)

(1) Exact name of the corporation, including any words or abbreviations indicating incorporation:

CAFFE NERO AMERICAS, INC.

(2) Name under which the corporation will transact business in the commonwealth that satisfies the requirements of G.L. Chapter 156D, Section 15.06:

*If applicable, please attach:*

- an agreement to refrain from use of the unavailable name in the commonwealth; and
- a copy of the doing business certificate filed in the city or town where it maintains its registered office; and
- a copy of the resolution of the corporation's board of directors, certified by its secretary, the name under which the corporation will transact business in the commonwealth pursuant to 950 CMR 113.50(4).

(3) Jurisdiction of incorporation: DELAWARE

Date of incorporation: 09-13-2013

*(month, day, year)*

Duration if not perpetual: \_\_\_\_\_

(4) Street address of principal office: 560 WASHINGTON STREET, BOSTON, MA 02111

*(number, street, city or town, state, zip code)*

(5) Street address of registered office in the commonwealth: 155 Federal Street, Suite 700, Boston, Massachusetts 02110

*(number, street, city or town, state, zip code)*

Name of registered agent in the commonwealth at the above address: CT Corporation System

I, CT Corporation System By: Neste Chairman

registered agent of the above corporation consent to my appointment as registered agent pursuant to G. L. Chapter 156D, Section 5.02.\*

\* Or attach registered agent's consent hereto.

(6) Fiscal year end: MAY 31  
(month, day)

(7) Brief description of the corporation's activities to be conducted in the commonwealth:

RETAIL CAFE

(8) Names and business addresses of its current officers and directors:

	NAME	BUSINESS ADDRESS
President:	GERALD FORD	560 Washington Street, Boston, Ma. 02111
Vice-president:	MICHAEL FORD-DEEGAN	560 Washington Street, Boston, Ma. 02111
Treasurer:	BENEDICT PRICE	560 Washington Street, Boston, Ma. 02111
Secretary:	MICHAEL FORD-DEEGAN	560 Washington Street, Boston, Ma. 02111
Assistant secretary:		
Director(s):	GERALD FORD	560 Washington Street, Boston, Ma. 02111
	MICHAEL FORD-DEEGAN	560 Washington Street, Boston, Ma. 02111

Attach certificate of legal existence or a certificate of good standing issued by an officer or agency properly authorized in the jurisdiction of organization. If the certificate is in a foreign language, a translation thereof under oath of the translator shall be attached.

This certificate is effective at the time and on the date approved by the Division, unless a later effective date not more than 90 days from the date of filing is specified: \_\_\_\_\_

Signed by: Michael Ford-Deegan  
(Signature of authorized individual) Michael Ford-Deegan

- Chairman of the board of directors.
- President.
- Other officer.
- Court-appointed fiduciary.

on this 26 day of September, 2013

# Delaware

PAGE 1

*The First State*

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "CAFFE NERO AMERICAS, INC." IS DULY INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL CORPORATE EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE TWENTY-SEVENTH DAY OF SEPTEMBER, A.D. 2013.

AND I DO HEREBY FURTHER CERTIFY THAT THE FRANCHISE TAXES HAVE NOT BEEN ASSESSED TO DATE.

5370754 8300

131136990

You may verify this certificate online  
at [corp.delaware.gov/authver.shtml](http://corp.delaware.gov/authver.shtml)



  
Jeffrey W. Bullock, Secretary of State  
AUTHENTICATION: 0772068

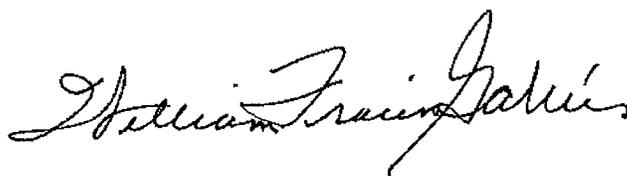
DATE: 09-27-13

THE COMMONWEALTH OF MASSACHUSETTS

I hereby certify that, upon examination of this document, duly submitted to me, it appears that the provisions of the General Laws relative to corporations have been complied with, and I hereby approve said articles; and the filing fee having been paid, said articles are

deemed to have been filed with me on:

September 27, 2013 01:55 PM

A handwritten signature in cursive script that reads "William Francis Galvin". The signature is written in black ink and is centered on the page.

WILLIAM FRANCIS GALVIN

*Secretary of the Commonwealth*

TOWN of BROOKLINE  
Massachusetts



BUILDING DEPARTMENT

Daniel F. Bennett  
Building Commissioner

INTEROFFICE MEMORANDUM

---

Date: November 15, 2015

To: Melvin Kleckner  
Town Administrator

From: Daniel Bennett  
Building Commissioner

Re: 1 Harvard Street - Application from Café Nero Americas, Inc., d/b/a Café Nero, Michael Ford-Deegan, President, for a Common Victualler License, with seating capacity of 31 and hours of operation Monday-Sunday 5:30am-10pm (your memo dated October 18, 2016).

The subject premises is located in a G-2.0 (General) Business District. The use as a store of less than 5,000 square feet as a restaurant is permitted per Section 4.07, Use #30 of the Town of Brookline Zoning By-Law.

The establishment meets the requirements of the Zoning By-Law and Building Code for a **maximum of 20 seats** and NOT the 31 seats requested in the application. The applicant is reminded that all signs and advertising devices require permits prior to installation and must be approved pursuant to the Zoning By-Law. It should also be noted that all building, plumbing, gas fitting, wiring and mechanical work requires permits from the Building Department.

If an odor problem occurs as a result of this use an odor control system designed and stamped by a registered professional engineer must be installed with a maintenance and cleaning schedule approved by the Building Department.

The Building Department has no objection with the Application from Café Nero Americas, Inc., d/b/a Café Nero, Michael Ford-Deegan, President, for a Common Victualler License, with seating capacity of 20 allowed as of right per zoning and not the 31 requested in the application.



11. - 26

## Brookline Police Department

Robert J. Disario  
350 Washington St  
Brookline, MA 02445  
(617) 730-2654  
rdisario@brooklinema.gov

October 21, 2016

Chief Daniel O'Leary  
Re: Common Victualler License: 1 Harvard St.

Sir,

I received a memorandum from Town Hall regarding a request from 1 Harvard St. Caffe Nero Americas, Inc., dba Caffe Nero; Michael Ford-Deegan, (President) for a Common Victualler License. The application is to establish a new business (restaurant).

I conducted a background check on Michael Ford-Deegan as well as a recent history search of the location. I subsequently conducted a site visit of the location, however the space is being renovated at this time. Upon inspection there appears to be ample space for a seating capacity of 31.

Michael Ford-Deegan is of good moral character with no criminal or Brookline Police history. Upon investigation I found all submitted application and pertinent paperwork is in order and there is no public safety reason to deny this request.

Respectfully,

Sergeant Robert J. Disario  
Brookline Police Department  
Patrol Division

BROOKLINE HEALTH DEPARTMENT

M E M O R A N D U M

To: Melvin Kleckner,  
Town Administrator  
Board of Selectmen

From: Alan Balsam, <sup>AB</sup>  
Director of Public Health and Human Services

Date: 11/17/2016

Re: Caffe Nero  
1 Harvard St.  
Michael Ford-Deegan, President/Operator

---

Please be advised that this Department has reviewed the application and plans for the above noted application. Based on our review The Health Department has no objection to the issuance of a Common Victuallers License.

This recommendation is under the following conditions:

- The establishment is renovated to comply with Health Code requirements
- The operator obtains Food Safety Certification
- An odor control system be installed and maintained to prevent cooking odors should nuisance complaints occur.
- The establishment receives a pre-operational inspection before the license is released
- All required applications and fees are submitted to Department as required.
- The establishment must comply with the Town By-Laws on the use of artificial Trans-Fats, Polystyrene and Offering Public Water.

11. - 28

**TOWN of BROOKLINE**  
*Massachusetts*



**BOARD OF SELECTMEN**

NEIL A. WISHINSKY, Chairman  
NANCY A. DALY  
BENJAMIN J. FRANCO  
NANCY S. HELLER  
BERNARD W. GREENE

333 WASHINGTON STREET  
BROOKLINE, MASSACHUSETTS 02445

(617) 730-2200  
FAX: (617) 730-2054  
[www.BrooklineMA.gov](http://www.BrooklineMA.gov)

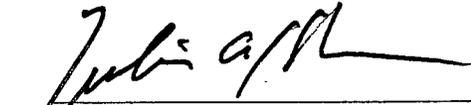
MELVIN A. KLECKNER  
Town Administrator

November 10, 2016

TO TOWN MEETING MEMBERS IN  
PRECINCT 4 and ABUTTERS

This is to advise you that an application has been received from Caffe Nero Americas, Inc., d/b/a Caffe Nero, Michael Ford-Deegan, President, for a Common Victualler License at 1 Harvard Street, seating capacity of 31 seats and hours of operation Monday-Sunday 5:30am-10pm.

For your information, the Board of Selectmen will consider this and other licensing matters commencing at approximately 8:00 P.M. on Tuesday, November 22, 2016 in the Selectmen's Hearing Room, 6th Floor, Town Hall, 333 Washington Street.

  
\_\_\_\_\_  
Melvin A. Kleckner  
Town Administrator

cc: Michael Ford-Deegan  
Angelá Vastey, Esq.

# FOOD MENU

## FRESH JUICES

Orange, Grapefruit, Naked Juices

## SMOOTHIES

**Mango Fruit**  
A fruity frozen blend of mangos and oranges.

**Strawberry Banana**  
A delightful blend of strawberries and bananas.

**Strawberry**  
Strawberry Fraise blended with ice.

## BOTTLED DRINKS

San Pellegrino Water, Coke, Diet Coke, Cedrata, Honest Teas, Chocolate Milk, Apple Juice.

## ICED DRINKS

**Iced Coffee**  
Cold brewed overnight to give a richer, fuller iced coffee.

**Iced Latte**  
Espresso, milk and a hint of sweetness over ice. Can also be made with soy milk.

## BLENDED COFFEE

**Classic Frappé Latte**  
Our best-selling coffee milkshake, made with our espresso, milk, ice and our special frappe blend that is also low in fat.

**Mocha Frappé Latte**  
Our best-selling coffee milkshake made with our espresso, chocolate powder, milk and ice blended together.

## FRAPPÉ CRÈME

**Coffee & Caramel**  
Our Classic Frappé Latte with a base of caramel sauce, topped with fresh whipped cream and a caramel swirl.

**Strawberry & Vanilla**  
Sweet strawberries and velvety vanilla blended and poured onto a layer of strawberry puree, topped with lashings of cream and strawberry swirl.

**Banana & Caramel**  
A blend of sweet banana and vanilla on a layer of golden caramel, topped with freshly whipped cream and a flourish of caramel sauce.

We bake pastries, cookies and make fresh salads and sandwiches every morning in our kitchen. We also bring in quality baked goods from Leo's Bakery in South Boston, and fresh bread from Nashoba Brook Bakery every day.

## BREAKFAST

Oatmeal, Granola and Milk, Bacon and Cheese Croissant, Ham and Cheese Croissant, Breakfast Sandwich, Hard Boiled Eggs, Yogurt Parfait, Greek Yogurt, Fresh Fruit Pots, Fresh Fruit Pieces.

### Pastries

Butter Croissant, Pain Au Chocolat, Pain Au Raisin, Almond Croissant.

**Roast Beef with Caramelized Onions & Grainy Mustard**

Tender roast beef with sharp cheddar cheese topped with sweet caramelized onions and a Dijon horseradish served on a baguette.

**Roasted Vegetable Focaccia**

Focaccia pressed with roasted peppers, eggplant, squash and zucchini and an olive tapenade spread drizzled with pesto aioli.

**Tuna Salad Sandwich on Ciabatta** **11. - 29**  
All white tuna tossed with celery and mayonnaise served with baby field green on a ciabatta.

### BLT

Bacon, lettuce and tomato with pesto aioli served on a ciabatta.

**Artisan Italian on Focaccia**

Rosemary ham, salami and mortadella topped with provolone and olive salad.

## SALADS

**Insalata Caprese with Fresh Bread**  
Sliced fresh mozzarella, local vine ripened tomatoes, basil and extra virgin olive oil.

**Antipasto with Fresh Bread**

Cured Italian meats and cheese, marinated vegetables and roasted tomatoes with a white bean salad and olives.

**Mediterranean with Pitta Bread**

Tabbouleh served with hummus and grape leaves and a cucumber salad.

## SANDWICHES

**Caffè Nero Breakfast Sandwich**  
Baked frittata made with fresh eggs, roasted tomatoes, bacon with emmental cheese and arugula served on a toasted ciabatta.

**Caprese on Baguette**

Fresh mozzarella, garden fresh tomatoes, basil leaf and extra virgin olive oil.

**Prosciutto de Parma with**

**Mascarpone**

The crown jewel of hams with a touch of mascarpone pressed on a baguette.

**Roast Turkey and Brie with**

**Cranberry Chutney**

A pressed roast turkey with cranberry chutney, brie & caramelized onions.

**Ham & Cheese Baguette**

Rosemary ham with emmental cheese with butter on a baguette.

## SWEET TREATS

### Muffins & Scones

Muffins - Belgian Chocolate, Blueberry, Lemon Poppy Seed.  
Scones - Orange Cranberry, Raisin, Chocolate.

### Loafs & Bars

Banana Bread, Carrot Loaf Cake, Zucchini Bread, Granola Bar, Caramel Shortbread, Belgian Chocolate Brownie, Gluten Free Brownies, Apple Coffee Cake.

### Cookies

Chocolate Chip Cookies, Oatmeal Raisin Cookies, Ginger Molasses Cookies, Seasonal Cookies, Gluten Free Cookies.

### Cakes

Limuncello Mascarpone Cake, Five Layered Chocolate Cake, Cappuccino Cake, Toasted Almond Cake, Cheese Cake.

### Treats & Chocolate

Almond Biscotti, Cannoli, Tortina, Baci Chocolate, Chocolate Coffee Beans, Italian Mints, Italian Chocolate Bar, Individual Italian Chocolate, Loacker Cookies.

## CAFFÈ NERO MENU

We are obsessive in the creation of excellent espresso. We roast all our coffee in our European Roastery where our Master Roasters personally taste every batch we produce.

## COFFEE

Award-winning Classico or smooth Milano

### Espresso

The heart of all our drinks.

### Espresso Ristretto

A shorter extraction of espresso made with less water for a stronger flavor.

### Americano

Two shots of our espresso, diluted with steaming hot water. A milder coffee.

### Brewed Coffee

Created and roasted in the Italian tradition to deliver a full bodied, sophisticated, rich and vivid coffee flavor.

### Cappuccino

Our espresso combined with steamed velvety milk and sealed with a thick layer of micro foam. Add a light dusting of chocolate powder to your taste.

### Caffè Latte

Our signature espresso, blended with plenty of silky smooth milk and finished with a light layer of foam.

### Espresso Macchiato

A single shot of our espresso, a touch of milk and finished with a dollop of foam.

### Espresso con Panna

Two shots of our signature espresso, topped off with a swirl of whipped cream.

## HOT SPECIALTY

### Caffè Mocha

Espresso, chocolate and steamed milk, topped with cream, dusted with chocolate.

### White Chocolate Mocha

Espresso, white chocolate, steamed milk, topped with cream and dusted with chocolate.

### Caramelatte

Two shots of our rich espresso, with steamed milk, a shot of caramel syrup, a layer of whipped cream and topped with caramel sauce.

### Hot Chocolate

A sweet and milky chocolate drink topped with milk foam or fresh whipped cream, and Belgian chocolate shavings.

### Hot Apple Cider

Old fashioned Apple Cider, sourced from local orchards and steamed to heighten the natural sweetness.

### Chai Latte

A balanced blend of cinnamon, spices, black tea and sugar infused with silky smooth steamed milk, 99% caffeine free.

### Tea

Sencha Green, Earl Grey, English Breakfast, Peppermint, Chamomile, Rooibos Vanilla.

enquiries.us@caffenero.com

CAFFÈ  
**NERO**

www.caffenero.com

Our milk is locally sourced from High Lawn Farm



**NEW  
FOOD VENDOR LICENSE**

**Green Line Growers, LLC  
d/b/a Brookline Grown**

**Robert Zuker, Principal, Member**

**Emily Schwartz, Manager**

**14 Pleasant Street**

**APPLICATION IS IN ORDER**

There is no seating.

Hours of operation are: Monday-Friday 10am-8pm

Saturday-Sunday 11am-6pm

**REPORTS (ATTACHED)**

The Health Department has approved subject to standard conditions

The Building Department has approved this application.

Store front picture enclosed.

OFFICE OF SELECTMEN  
333 WASHINGTON STREET  
BROOKLINE, MA 02445  
(617) 730-2200

APPLICATION FOR NEW LICENSE  
FOOD VENDOR  
(NO INDOOR SEATING)

DATE: August 7, 2016

LOCATION: 14 Pleasant St., Brookline, MA, 02446

APPLICANT: Green Line Growers, LLC  
INDIVIDUAL/PARTNERSHIP/CORPORATION

D/B/A: Brookline Grown

BUSINESS OWNERSHIP- INDIVIDUAL/PARTNERS/CORPORATE OFFICERS:

NAME	TITLE	ADDRESS	PHONE#	EMAIL ADDRESS
Robert Zuker	principal	[REDACTED]	[REDACTED]	[REDACTED]

NAME	TITLE	ADDRESS	PHONE #	EMAIL ADDRESS
Christopher Mutty	member	[REDACTED]	[REDACTED]	[REDACTED]

NAME	TITLE	ADDRESS	PHONE #	EMAIL ADDRESS

HOURS OF OPERATION FOR FOOD SERVICE:

DAYS: Monday - Friday HOURS: 10 - 8

DAYS: Saturday - Sunday HOURS: 11 - 6

DAYS: \_\_\_\_\_ HOURS: \_\_\_\_\_

HAVE YOU PREVIOUSLY HELD A FOOD VENDOR OR COMMON VICTUALLER LICENSE IN  
BROOKLINE/ELSEWHERE? no

IF YES, LOCATION: AND DATES: \_\_\_\_\_

IF NOT, DO YOU HAVE PRIOR EXPERIENCE IN THE FOOD SERVICE BUSINESS: yes

IF YES, LOCATION: AND DATES 1369 coffeehouse, 756 Mass Ave, Cambridge, MA  
Pantry, 1622 Beacon St., Brookline, MA 02446 May 2015 - May 2016

Aug 2014 - April 2016

MENU: (GENERAL TYPE OF FOOD SERVED)

prepared foods - packaged salads, pesto, yogurt, pickles

prepared beverages - hot coffee, cold brewed coffee

FLOOR SPACE SQ. FT. 700

NUMBER OF PARKING SPACES (IF ANY): N/A

NUMBER OF EMPLOYEES: 3-5

APPLICANT SIGNATURE Emily Adwary TITLE: store manager PHONE# [REDACTED]

EMAIL ADDRESS [REDACTED]

ALL FOOD VENDOR LICENSES ARE SUBJECT TO APPLICABLE FEDERAL, STATE, AND TOWN LAWS, REGULATIONS AND CODES, INCLUDING MASSACHUSETTS GENERAL LAWS CHAPTER 140, TOWN BYLAWS SECTION 8.10, AND THE TOWN'S PREPARED FOOD SALES REGULATIONS.



VOTE OF CORPORATION

DATE: \_\_\_\_\_

AT A MEETING OF THE BOARD OF DIRECTORS OF \_\_\_\_\_

HELD AT: \_\_\_\_\_ ON: \_\_\_\_\_

IT WAS DULY VOTED THAT THE CORPORATION APPLY TO THE LICENSING BOARD FOR THE TOWN OF BROOKLINE FOR A

Food Vendor License

(TYPE OF LICENSE)

FOR THE YEAR \_\_\_\_\_ TO BE EXERCISED ON THE PREMISES LOCATED AT

14 Pleasant St.

VOTED: TO AUTHORIZE \_\_\_\_\_ TO SIGN

THE APPLICATION FOR THE LICENSES IN THE NAME OF \_\_\_\_\_

\_\_\_\_\_ AND TO EXECUTE ON ITS BEHALF ANY NECESSARY PAPERS, AND TO DO ALL THINGS REQUIRED RELATIVE TO THE GRANTING OF THE LICENSE.

THIS CORPORATION HAS \_\_\_\_\_ BEEN RESOLVED.

A TRUE COPY

ATTEST: \_\_\_\_\_

CLERK



RENOVATION FORM

IF RENOVATIONS ARE BEING MADE TO LOCATION: PLEASE DESCRIBE IN DETAIL WHAT RENOVATIONS WILL BE MADE, DATE AND SIGN BELOW.

- (1) N/A
- (2)
- (3)
- (4)
- (5)
- (6)

DATE: \_\_\_\_\_ SIGNATURE OF APPLICANT: \_\_\_\_\_

(PLEASE SUBMIT THREE SETS OF PLANS )





LICENSE INTERVIEW FORM

TYPE OF LICENSE APPLYING FOR: Food Vendor License

NAME: Robert Zucker

ADDRESS: [REDACTED] Brookline MA 02446

EMAIL ADDRESS: [REDACTED]

PHONE #: [REDACTED]

PLACE OF BIRTH: [REDACTED] MA

FATHER'S NAME: [REDACTED] MOTHER'S MAIDEN NAME: [REDACTED]

ARE YOU A CITIZEN?  YES  NO ALIEN-CARD # \_\_\_\_\_

ARE YOU A VETERAN: YES   NO

RESIDENCES FOR LAST FIVE YEARS

DATE: 3/13 - Present LOCATION: [REDACTED]

DATE: 2001 - 2013 LOCATION: [REDACTED] Brookline

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

EDUCATION

DATE: '97 BBA LOCATION: Emory University, Atlanta GA

DATE: LOCATION:

DATE: LOCATION:

DATE: LOCATION:

EMPLOYMENT HISTORY

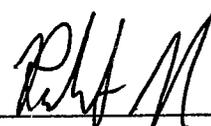
DATE: 1997-2015 LOCATION: Chestnut Hill Realty POSITION: C.O.O.

DATE: LOCATION: POSITION

DATE: LOCATION: POSITION

DATE: LOCATION: POSITION

DATE: LOCATION: POSITION

SIGNATURE:  DATE: 11/16/16

(PLEASE SUBMIT THREE CHARACTER REFERENCES WITH APPLICATION)



LICENSE INTERVIEW FORM

TYPE OF LICENSE APPLYING FOR: food vendor

NAME: Emily Schwartz

ADDRESS: [REDACTED]

EMAIL ADDRESS: [REDACTED]

PHONE #: [REDACTED]

PLACE OF BIRTH: [REDACTED]

FATHER'S NAME: [REDACTED] MOTHER'S MAIDEN NAME: [REDACTED]

ARE YOU A CITIZEN?  YES  NO ALIEN CARD # \_\_\_\_\_

ARE YOU A VETERAN:  YES  NO

RESIDENCES FOR LAST FIVE YEARS  
DATE: [REDACTED]

DATE: Sep 1<sup>st</sup> 2013 - Aug 2014 LOCATION: 89 Hillsdale Rd, Medford, MA, 02155

DATE: 312 Hodgdon Hall  
Tufts University  
Medford, MA 02155 ← LOCATION: Sep. 2012 - May 2013

DATE: May 2011 - Sep. 2012 LOCATION: 1 Timber Lane, West Hartford, CT, 06117

DATE: Sep. 2010 - May 2011 LOCATION: 204 214 Tilton Hall, Tufts University, Medford, MA 02155

EDUCATION

DATE: Fall 2009 - Spring 2014 LOCATION: Tufts University, Medford, MA 02155

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_

EMPLOYMENT HISTORY

DATE: May 2015 - May 2016 LOCATION: <sup>Pantry</sup> Brookline, MA POSITION: graphic designer

DATE: June 2014 - April 2016 LOCATION: 1369 Coffee house  
Cambridge, MA POSITION: kitchen manager

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_ POSITION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_ POSITION: \_\_\_\_\_

DATE: \_\_\_\_\_ LOCATION: \_\_\_\_\_ POSITION: \_\_\_\_\_

SIGNATURE: Emily Alvardy DATE: 8/7/2016

(PLEASE SUBMIT THREE CHARACTER REFERENCES WITH APPLICATION)

I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all state taxes as required under law.

*Evile Schwartz*  
\*Signature of Individual

\_\_\_\_\_  
By: Corporate Officer

\_\_\_\_\_  
[Redacted]

\*\* Social Security #  
Voluntary or Federal ID #

\*This license will not be issued unless this certification clause is signed by the applicant.

\*\*Your social security number will be furnished to the Massachusetts Department of Revenue to determine whether you have met tax filing or tax payment obligations. Licensees who fail to correct their non-filing or delinquency will be subject to license suspension or revocation. This request is made under the authority of Massachusetts General Law Chapter 62C, Section 49A.

**Brookline Grown**  
**FOOD AND BEVERAGE MENU**

**\*Note:** Some menu items will contain nuts and/or dairy. Therefore, we intend to label all prepared foods properly with ingredients and an allergen statement.

**Beverages**

Hot coffee

Hot tea

Cold brew coffee

**Fresh Foods**

Homemade pesto sauce

Prepared salads

Prepared sandwiches

Mason jar yogurt parfaits

Mason jar overnight oats

10/14/2016

To Whom It May Concern,

I am writing to attest to the good character of Emily Schwartz. I have known Emily for 2 years now. We met as coworkers at 1369 Coffeehouse in Cambridge, MA, where Emily was my kitchen manager. She consistently upheld food and safety standards both through example and leadership. She handles herself professionally, and is a good, trustworthy person. I highly recommend her character and would be happy to speak more about it over the phone at the number listed below.

Sincerely,

Katie Campisi



10/12/16

RE: Recommendation Letter for Emily Shawrtz

To Whom It May Concern,

My name is Kelsey Munger and I have worked with Emily Shawrtz in various settings and can attest to her character. Emily is a reliable employee and a successful store manager. She is responsible, accountable, and trustworthy and I would highly recommend her for a food vendor license. Please feel free to contact me with any further questions.

Sincerely,

Kelsey Munger  


Sarah Schwartz  
4 Fuller Street, Apt. 6  
Brookline, MA 02446  
860-462-0422

October 12, 2016

Re: Character Reference for Emily Schwartz

To whom it may concern:

I am writing to attest to the character and trustworthiness of Emily Schwartz. As both my sister and my roommate, I have witnessed Emily's reliability in character in several regards. She consistently pays her rent on time and is financially responsible, she is an outstanding employee and excels in her work, and is also a person of character in her personal relationships. I can attest to these traits without hesitation, and would be happy to answer any further questions on the matter at the phone number listed above.

Signed,

Sarah Schwartz

A blacked-out redaction mark covering the signature area.

BROOKLINE HEALTH DEPARTMENT

M E M O R A N D U M

To: Melvin Kleckner,  
Town Administrator  
Board of Selectmen

From: Alan Balsam, <sup>AB</sup>  
Director of Public Health and Human Services

Date: November 17, 2016

Re: Brookline Grown  
14 Pleasant Street.  
Robert Zuker, Principal/Operator

---

Please be advised that this Department has reviewed the application and plans for the above noted application. Based on our review The Health Department has no objection to the issuance of a Food Vendors License.

This recommendation is under the following conditions:

- The establishment is renovated to comply with Health Code requirements
- The operator obtains Food Safety Certification
- The establishment receives a pre-operational inspection before the license is released
- All required applications and fees are submitted to the Department as required.
- The establishment must comply with the Town By-Laws on the use of artificial Trans-Fats, (where applicable) Polystyrene packaging, plastic bags and offer tap water to customers upon request.

12. - 17

**TOWN of BROOKLINE**  
*Massachusetts*



**BUILDING DEPARTMENT**

**Daniel F. Bennett**  
Building Commissioner

**INTEROFFICE MEMORANDUM**

---

**Date:** November 15, 2016

**To:** Melvin Kleckner  
Town Administrator

**From:** Daniel Bennett  
Building Commissioner

**Re:** 14 Pleasant Street - Application from Green Line Growers LLC, d/b/a Brookline Grown, Robert Zucker, Principal, Member, for a Food Vendor License with hours of operation, Monday-Friday 10am-8pm, Saturday - Sunday 11am-6pm (your memo dated October 24, 2016).

The subject premises is located in a G-1.75 (CC) Coolidge Corner (General Business) Business District. The use as a retail store of less than 5,000 square feet is permitted as of right per Section 4.07, Use #29 of the Town of Brookline Zoning By-Law.

The applicant is reminded that all signs and advertising devices require permits prior to installation and must be approved pursuant to the Zoning By-Law. It should also be noted that all building, plumbing, gasfitting, wiring and mechanical work requires permits from the Building Department. Once a permit application is received the Building Department will perform a plan review to ensure compliance with all applicable zoning and building regulations.

The Building Department has no objection with the application from Green Line Growers LLC, d/b/a Brookline Grown, Robert Zucker, Principal, Member, for a Food Vendor License with hours of operation, Monday-Friday 10am-8pm, Saturday - Sunday 11am-6pm.

12. - 18

**TOWN of BROOKLINE**  
*Massachusetts*



**BOARD OF SELECTMEN**

NEIL A. WISHINSKY, Chairman  
NANCY A. DALY  
BENJAMIN J. FRANCO  
NANCY S. HELLER  
BERNARD W. GREENE

333 WASHINGTON STREET  
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[www.BrooklineMA.gov](http://www.BrooklineMA.gov)

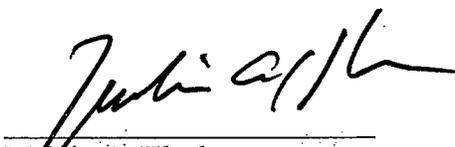
MELVIN A. KLECKNER  
Town Administrator

November 10, 2016

TO TOWN MEETING MEMBERS IN  
PRECINCT 8 AND ABUTTERS

This is to advise you that an application has been received from Green Line Growers, LLC, d/b/a Brookline Grown, Robert Zuker, Principal, Member, for a Food Vendor License at 14 Pleasant Street, hours of operation Monday-Friday 10am-8pm and Saturday- Sunday 11am-6pm.

For your information, the Board of Selectmen will consider this and other licensing matters commencing at approximately 8:00 P.M. on Tuesday, November 22, 2016 in the Selectmen's Hearing Room, 6<sup>th</sup> Floor, Town Hall, 333 Washington Street.

  
\_\_\_\_\_  
Melvin A. Kleckner  
Town Administrator

cc: Robert Zuker



LAW OFFICE OF ROBERT L. ALLEN JR., LLP

2016 NOV 16 PM 5 41

300 WASHINGTON ST.  
SECOND FLOOR  
BROOKLINE, MA 02445

P. (617) 383-6000  
F. (617) 383-6001

From the Desk of:  
Robert L. Allen, Jr.

November 16, 2016

**VIA HAND DELIVERY**

**Attn: Brenda Costello**

Board of Selectman  
Town of Brookline  
333 Washington Street, 6th Floor  
Brookline, MA 02445

**RE: 34 White Place, Noise By-Law Waiver**

Dear Ms. Costello:

As we discussed, this office represents KCEKOB LLC, as owner of 34 White Place Brookline, MA (the "Property").

Please consider this a request to waive the Town's Noise By-Law for the purposes of removing a large and unsafe tree located in the rear of the Property directly against the MBTA tracks. In order to safely remove this tree, Park Landscape Company will need to access the MBTA track. As you know this requires the MBTA to shut off power to the tracks which can only be done between the hours of 1:00 a.m. and 5 a.m. We have been in touch with the appropriate people at the MBTA and they have agreed to access on Tuesday morning November 29<sup>th</sup> at 1:30 a.m. and, only if necessary, which we hope not, the following night for the same time period. I understand that at least one neighbor has called expressing concern about the tree falling on to her property. Thus, we would like to act quickly and ask that this request be approved.

Please be in contact at my above telephone number if any further information is required. Thank you again for your assistance

Yours Truly,

Robert L. Allen, Jr.

