

**Tuesday, February 9, 2021**  
**Medway Planning and Economic Development Board**  
**155 Village Street**  
**Medway, MA 02053**

<b>Members</b>	<b>Andy Rodenhiser</b>	<b>Bob Tucker</b>	<b>Tom Gay</b>	<b>Matt Hayes</b>	<b>Rich Di Iulio</b>	<b>Jessica Chabot</b>
<b>Attendance</b>	<b>X Remote</b>	<b>Absent with Notice</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>

Pursuant to Governor Baker’s Orders imposing strict limitations on the number of people that may gather inside in one place, attendance by members of the public will be limited due to the size of the meeting space. All persons attending this meeting are required to wear a face covering, unless prevented by a medical or disabling condition. Meeting access via ZOOM is also provided and members of the public are encouraged to use ZOOM for the opportunity for public participation; information for participating via ZOOM is included at the end of the Agenda. Members of the public may watch the meeting on Medway Cable Access: channel 11 on Comcast Cable, or channel 35 on Verizon Cable; or on Medway Cable’s Facebook page @medwaycable.

**PRESENT VIA ZOOM MEETING:**

- Susy Affleck-Childs, Planning and Economic Development Coordinator
- Amy Sutherland Recording Secretary
- Steve Bouley, Tetra Tech
- Barbara Saint Andre, Director of Community and Economic Development

**MEDWAY MILL SITE PLAN -PUBLIC HEARING CONTINUATION:**

The Board is in receipt of the following: **(See Attached)**

- 1-13-21 PH continuation notice to the PEDB 2-9-21 meeting as filed with the Town Clerk.
- 2-3-21 email from project engineer Amanda Cavaliere requesting a continuation to the 2-3-21 PEDB meeting.

The Board was informed that the applicant for Medway Mill had attended a Conservation Commission meeting. It was productive. The applicant will be revising the plans based on the feedback from the both the Commission and the PEDB. The applicant has requested a continuation.

**On a motion made by Rich Di Iulio, and seconded by Matt Hayes, the Board voted by Roll Call vote to continue the hearing for Medway Mill Site Plan to February 23, 2021 at 8:00 pm.**

**Roll Call Vote:**

Matthew Hayes	aye
Rich Di Iulio	aye
Andy Rodenhiser	aye
Tom Gay	aye

**Appointment to the Economic Development Committee:**

The Board is in receipt of the following: (See Attached)

- 2-5-21 memo from Susy Affleck-Childs
- Resume of Liam McDermott

The Board was informed that Liam McDermott is interested in being appointed to the Economic Development Committee. Mr. McDermott was present at the meeting and explained that he has attended a few EDC meetings. He would like to assist in helping to keep small businesses in town. The term of office would be effective immediately through June 30, 2022.

**On a motion made by Tom Gay, and seconded by Matt Hayes, the Board voted by Roll Call vote to appoint Liam McDermott to the Economic Development Committee through June 30, 2022.**

**Roll Call Vote:**

Matthew Hayes	aye
Rich Di Iulio	aye
Andy Rodenhiser	aye
Tom Gay	aye

**6 CUTLER MULTI-FAMILY PRE-APPLICATION DISCUSSION:**

The Board is in receipt of the following: (See Attached)

- RFP issued by the Medway Affordable Housing Trust seeking buyers for the 6 Cutler Street property (former American Legion Building)
- Concept Plan and building elevations from Tom McDonough

The Board was informed that Tom McDonough is interested in feedback about a possible small multi-family development (1 triplex and 1 duplex) at this site before he submits a bid to the Trust. He had asked to be on the agenda to discuss his concept with the Board. Mr. McDonough did not show up to discuss this matter.

**Plan Review Price Quote for Eversource Energy Minor Site Plan:**

The Board is in receipt of the following: (See Attached)

- Price quote from Tetra Tech dated 2-1-2021 for \$3,632.00

The Board is in receipt a price quote from Tetra Tech for the Eversource Energy Minor Site Plan Review. A public briefing on this project is scheduled for the February 23, 2021 meeting.

**On a motion made by Matt Hayes, and seconded by Rich Di Iulio, the Board voted by**



**Roll Call vote to approve the Tetra Tech price quote for Eversource Energy Minor Site Plan review in the amount of \$3,632.00**

**Roll Call Vote:**

Matthew Hayes	aye
Rich Di Iulio	aye
Andy Rodenhiser	aye
Tom Gay	aye

**Harmony Village – Authorization for Plan Endorsement:**

The Board is in receipt of the following: **(See Attached)**

- Special Permit/Site Plan Decision dated 1.12.21
- Certificate of No Appeal dated 2.3.21
- Email dated 2.4.21 from Treasurer indicting that taxes are current
- Revised site plan dated 2.2.21
- Construction services invoice dated 1.27.21. This was paid 2.5.21

The Board is in receipt of a request for plan endorsement. The final plan has been submitted and reviewed by Consultant Bouley. There are a number of revisions specified in the decision which have not been completed. Consultant Bouley communicated that he does not recommend the plan be endorsed at this time. A mounding analysis for the basins must be submitted. The Board was also made aware that there were issues with the foundation drains which are discharging to the Town's MS4 system on Main Street. There was a meeting with the DPW Director, Conservation Agent and Planning and Economic Development Coordinator to discuss how to mitigate the drains on site. There was also discussion with Inspector Mee about a plan for having a sump pump to a cistern to mitigate the ground water. The information has been relayed to the applicant Gary Feldman and engineer Drew Garvin who will be working on plan revisions to address the issue.

**CONSTRUCTION INSPECTIONS**

**William Wallace Village:**

Consultant Bouley informed the Board that he has not been out to do an inspection on site due to the snow. He did speak with the Conservation Agent and she has not received any reports. The applicant indicated that those reports will be submitted. The applicant has committed to cleaning and sweeping the road when needed.

**PEDB MEETING MINUTES:**

**January 19, 2021 and January 26, 2021:**

**On a motion made by Rich Di Iulio and seconded by Matt Hayes, the Board voted by Roll Call to approve the PEDB meeting minutes of January 19, 2021 and January 26, 2021.**

**Roll Call Vote:**

Andy Rodenhiser	aye
Matt Hayes	aye

**Rich Di Iulio**            **aye**  
**Tom Gay**                **aye**

**Correspondence: (See Attached)**

- Letter dated 2.2.21 from Fire Chief Lynch regarding 149 A Holliston Street. The Board asked Susy to seek clarification if his comments apply to every driveway in town. The Board needs to have a better understanding of this and would like to have a discussion with the Chief.
- Memo dated 2.2.21 from Andy Rodenhiser to ZBA regarding the Volta Charging digital signage
- Fabulous collection of 5 fact sheets from MASS Audubon on the value of nature with forest, coastal and wetland waterways and grasslands and urban greenspaces. They have been posted to Conservation page and will be put on the PEDB page also.

**WARRANT ARTICLES FOR MAY TOWN MEETING**

The Board discussed the following warrant articles:

**Solar Bylaw:**

The Board was informed at the previous meeting about creating a solar bylaw. Director of and Economic Development discussed this with Town Counsel. It was suggested that a tiered approach be used. A draft dated February 4, 2021 was reviewed. (**See Attached.**) This would allow for roof mounted solar by right. There would also be language about accessory, small-scale, ground mounted solar installations which would need site plan review. If one is looking to have solar parking canopies, this would be as an accessory use and allowed in specific zoning districts. This would be allowed in the industrial zone. The use table will need to be revised. There was a question about the abandonment and the decommissioning and what happens to the landscaping and possible foundations left over. There will be additional language added about this. The Conservation Chairman will be providing a formula for replacement of trees if such are removed for the installation. It was suggested that trees could be added in areas such as Choate Park or Idyll brook.

**Environmental Standards:**

The Board is in receipt of the following: (**See Attached**)

- Email dated February 3, 2021 John Lally
- Draft dated January 21, 2020 with edits and comments dated February 3, 2021

The Board was in receipt of the revised environmental standards. Member Gay has worked with Susy Affleck Childs to incorporate the ideas discussed at previous meetings. Mr. John Lally was present during the Zoom meeting to provide further comments and recommendations. There was recommendation to adjust the levels for tightening the scales for db. and adjusting the threshold to scale to make it appropriate with the remote sensors. Mr. Lally communicated that the level in industrial to industrial at night is 5 times higher than the community level. It is recommended that this be 47 dBA. at night. There was also a proposal to keep industrial to residential at 42 dBA. at night and make it 32 dBA at the residences. Mr. Lally suggested having a separate dBA during the day and night. It was recommended 52 dBA. industrial to industrial in day and 47 dBA. at night. Member Gay will work with Susy to update the language as discussed and this

will be submitted as a place holder as a warrant article.

### **Volta Charging:**

The Board is in receipt of the following: **(See Attached)**

- SAC memorandum dated February 4, 2021.

At the last PEDB meeting, the Board decided to send a letter to the ZBA in opposition to the Volta Charging application for signage variances. NOTE –The ZBA did not approve the petition. However, Chairman Rodenhiser had indicated to the applicant that the Board would look at some zoning language to possibly submit for the May town meeting. Matt Buckley from the Design Review Committee joined the meeting. The Board is in receipt of the sign Section 7.2. Representatives from Volta were present in the meeting to discuss how the town can move forward in addressing these types of charging stations and what may need to be changed within the zoning bylaw to address the concerns. During the discussion, the board was not in agreement that the charging station with digital advertising are in fact signs. The Board did feel that there needs to be standards put in place on where and what types of streets these could be allowed. Chairman Rodenhiser communicated that there is permitting guide which the State of California developed. There was a suggestion to define these type of “signs” as its own category. The Level 1 voltage charger provides a charge of 7 to 10 miles in one hour. The Level 2 chargers installed at Shaw’s provide a charge 15 to 20 miles per hour. A two-hour charge would allow for 40 miles. They run off of 120 voltage power source. A suggestion was made to limit these to the Central Business District. A question was asked if there could be placed into these messages things such as COVID precautions as an example. The applicant responded that this is possible, but the messaging is sponsored by partnerships who paid for this. There was concern if this is in fact a sign. When you go to Cumberland Farms, there is a video you can watch as you pump your gas. This is the same but is charging a car instead of gas fueling. The concern is the size of these. Another question was asked if these could be located to the back of the property. The applicant can control the light projection.

The Chairman of the DRC had the following items which warranted further discussion:

- Can a different message be added or are they synthesized?
- Size of panels
- Brightness
- Hours of operation of the units
- What zoning district will these be allowed
- Could there be a kiosk at a central area?
- Is there a granting of exclusive spots to business who promote or are sponsors?
- How are the spaces assigned?
- Who is responsible for the permit?
- Discuss how this will be managed in the future.

The applicant responded that the EV charging stations are universal to all types of E vehicles. There is the ability to control some of what messaging is running. The intent is to have low impact visual ability to protect the integrity of view in town. There is a partnership with national brands and the property owner. There is a master agreement.

It was suggested that this be discussed with town counsel to make sure there is uniformity within the district. Counsel should also provide input about the limiting of this and what the provisions may be. These are not going away but the town needs to figure out how to manage.

The applicant communicated there are two models of media stations. This is planned very carefully. The media is done externally. There is a router at each station from programs to regulate the content via Wi-Fi. These are wireless.

The Board discussed that they would be open to putting something together for the warrant which would allow by special permit in the central business district. There would also need to be a well written definition.

### **Residential Common Driveways:**

The Board is in receipt of the following: **(See Attached)**

- Residential Common Driveways BJS version 2.9.21

The Board was provided a draft to address residential common driveways. There was a recommendation to allow common driveways. This is a good way to provide a driveway for one- or two-family lots. It is also a recommended approach instead of doing a wetland crossing. There was a sample of common driveway language from the Town of Hopkinton. This would be by Special Permit. There could be language put in about the maximum length. Previous documentation from the Fire Chief indicated a 15 ft. minimum width. There was a suggestion that driveways would be gravel but after further discussion, it was recommended to provide flexibility for to allow impervious surface. There also needs to be language about stormwater. The draft article should be reviewed with the Fire Chief.

### **Central Business District:**

The Board is in receipt of the following: **(See Attached)**

- Email from Ted Brovitz dated January 27, 2021 with revised draft.

The Board was sent the latest revision to the Central Business District prepared by consultant Ted Brovitz. The Board was made aware of a prospective buyer Joseph Eddy had contacted the chairman about the CBD zoning. It was suggested that Mr. Gay speak with Mr. Brovitz about this document. One of the issues discussed at the last meeting was “gas backwards” fuel stations. The Board has no issues with the language as written. The next section discussed was Table 2 on page 10. This was regarding properties with no frontage. The back of the lot could be carved off and this could create a lot with no frontage. The easement would allow one to access. The Board recommends that this move forward as a warrant article.

### **REDGATE SUBDIVISION PERFORMANCE SECURITY DISCUSSION:**

The Board is in receipt of the following: **(See Attached)**

- SAC notes dated 2-8-21
- Excerpts from 11-10 and 11-24-20 PEDB minutes
- Title Report – January 2021
- Definitive Subdivision Plan 1987
- 11-4-20 email note from Michael Bruce
- 8-25-20 email from Dave D’Amico with DPW notes from its July 2020 field inspection

- 2-9-21 email from Dave D’Amico re: 11-4-20 from Michael Bruce.

The Board was made aware that the town has received the title report. It states that the developer owns all the streets and the drainage parcel. This is good news for the conveyance. There was also the identification of the parcels with utility easements. The bond was \$15,000.00 and the town needs to see what can be done if it is in default. The email from Dave D’Amico challenged the developer’s claim that this was signed off on in 1992.

**Master Plan:**

The Board was informed that there were four very strong consultant proposals submitted to prepare an updated Master Plan. There will be interviews for those 4 applicants. There needs to be discussion about who will serve on the Master Plan Committee. The process should take about 18 months.

**FUTURE MEETING:**

- Tuesday, February 23, 2021

**ADJOURN:**

**On a motion made by Rich Di Iulio and seconded by Jessica Chabot, the Board voted by Roll Call vote to adjourn the meeting at 10:00 pm.**

**Roll Call Vote:**

<b>Andy Rodenhiser</b>	<b>aye</b>
<b>Matt Hayes</b>	<b>aye</b>
<b>Rich Di Iulio</b>	<b>aye</b>
<b>Tom Gay</b>	<b>aye</b>

The meeting was adjourned at 10:00 pm.

Prepared by,  
Amy Sutherland  
Recording Secretary

Reviewed and edited by,  
Susan E. Affleck-Childs  
Planning and Economic Development Coordinator



**February 9, 2021**

**Medway Planning & Economic Development Board  
Meeting**

**Medway Mill Site Plan- Public Hearing  
Continuation**

- 1-13-21 PH Continuation Notice to the PEDB 2-9-21 meeting as filed with the Town Clerk
- 2-3-21 email from project engineer Amanda Cavaliere requesting a continuation to the 2-23-21 PEDB meeting

## Board Members

Andy Rodenhiser, Chair  
Robert Tucker, Vice Chair  
Thomas Gay, Clerk  
Matthew Hayes, P.E.,  
Member  
Richard Di Iulio, Member  
Jessica Chabot, Associate  
Member

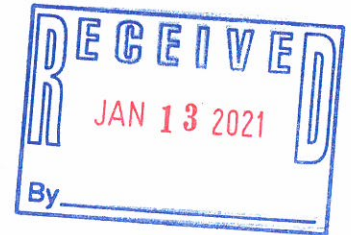


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# TOWN OF MEDWAY

## COMMONWEALTH OF MASSACHUSETTS

### PLANNING AND ECONOMIC DEVELOPMENT BOARD



## MEMORANDUM

January 13, 2021

TO: Maryjane White, Town Clerk  
Town of Medway Departments, Boards and Committees

FROM: Susy Affleck-Childs, Planning and Economic Development Coordinator

RE: **Public Hearing Continuation for Medway Mill Site Plan – 165 Main Street**  
**Continuation Date – Tuesday, February 9, 2021 at 7:00 p.m.**

TOWN CLERK  
MEDWAY, MASS. 02053

At its January 12, 2021 meeting, the Planning and Economic Development Board voted to continue the public hearing on the application of 165 Main Street Realty Trust of Medway, MA for site plan approval for proposed site improvements at Medway Mill at 165 Main Street to the February 9, 2021 at 7:00 p.m.

Proposed are a series of site improvements to the 7.28 acre property located at 165 Main Street in the Agricultural-Residential II zoning district. These include creating a 41-space surface parking area with electrical vehicle charging stations and bike racks; installation of stormwater management facilities for the parking area; landscaping and lighting; and expansion of the bridge across Chicken Brook for approximately 25 linear feet on each side. As the site includes riverfront areas under the jurisdiction of the Conservation Commission, the project is also subject to its review for an Order of Conditions and a Land Disturbance Permit.

The application, site plan, and supporting documentation were filed with the Town on February 18, 2020. **The Site Plan – Medway Mills originally dated February 14, 2020, last revised December 23, 2020**, was prepared by Guerriere and Halnon of Franklin, MA. The documents are on file with the Medway Town Clerk and the Community and Economic Development Department at Medway Town Hall, 155 Village Street, Medway, MA. Project information including the revised site plan has been posted to the Planning and Economic Development Board's page at the Town's web site at: <https://www.townofmedway.org/planning-economic-development-board/pages/medway-mills-major-site-plan-review>.

**Please provide any review comments to me by February 3<sup>rd</sup>.** Please don't hesitate to contact me if you have any questions. Thanks.

## Susan Affleck-Childs

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**From:** Amanda Cavaliere <ACavaliere@gandhengineering.com>  
**Sent:** Tuesday, February 2, 2021 12:37 PM  
**To:** Susan Affleck-Childs  
**Subject:** RE: 2-9-21 PEDB hearing for Medway Mill

Hi Susy

We respectfully request a continuation to next week's Planning Board meeting to the 23<sup>rd</sup> while we work with Conservation Commission on our recent submittal.

Thank you.

*Amanda K. Cavaliere, Office Manager*



55 West Central Street  
Franklin, MA 02038  
Ph. 508.528.3221  
Fx. 508.528.7921  
Email: [acavaliere@gandhengineering.com](mailto:acavaliere@gandhengineering.com)  
Website: [www.gandhengineering.com](http://www.gandhengineering.com)

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**From:** Susan Affleck-Childs <sachilds@townofmedway.org>  
**Sent:** Tuesday, February 2, 2021 11:46 AM  
**To:** Amanda Cavaliere <ACavaliere@gandhengineering.com>  
**Subject:** 2-9-21 PEDB hearing for Medway Mill  
**Importance:** High

Hi Amanda,

I am working on the agenda for next Tuesday's PEDB meeting (2-9-21). I have Medway Mill on the schedule for a hearing at 7 pm.

Do you plan to keep that date? Please advise asap so I can finalize the agenda.

If not, do you want to hold over to February 23<sup>rd</sup>?

Susy

Susan E. Affleck-Childs  
Planning and Economic Development Coordinator  
Town of Medway  
155 Village Street  
Medway, MA 02053



508-533-3291  
[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)



**February 9, 2021**

**Medway Planning & Economic Development Board  
Meeting**

**Appointment to the Economic  
Development Committee**

- 2-5-21 memo from Susy Affleck-Childs
- Resume of Liam McDermott

# WILLIAM (LIAM) MCDERMOTT

39 Populatic Street Medway, MA 02053 · (508) 282-1551 / liam.mcderm@gmail.com

## PROFESSIONAL EXPERIENCE

### **SCHNITZER STEEL - FEBRUARY 2008 – FEBRUARY 2019**

Schnitzer Steel is a global leader in the metals recycling industry. In my 11-year career with Schnitzer I held progressive levels of management experience. Experience included hiring, performance management, union negotiations, budget planning (including CapEx proposals) and operations management.

#### **COMMERCIAL AND OPERATIONS MANAGER (WORCESTER, MA), JULY 2017 – FEBRUARY 2019**

- Responsible for the oversight of all yard operations including pricing, customer engagement, dispatching responsibilities as well as safety training and environmental requirements
- Maintained commercial activity that included the servicing of Industrial and Dealer Yard Accounts.
- Spearheaded the implementation of updated software service systems for improve reliably service our customers
- Led the development of new operations to the facility that included end of life vehicle processing
- Reported into the Regional General Manager

#### **OUTSIDE BUYER, (SOUTHERN NEW ENGLAND) APRIL 2015 – JULY 2017**

- Transition to commercial buying successfully maintaining a healthy Industrial and dealer book of business.
- Leveraged operational knowledge to assist customers with their daily operational challenges Responsible for 3 state territory (Connecticut, Massachusetts and Rhode Island).
- Expanded business by focusing on new business development and improving service reliability
- Continued to maintain customer network beyond role by continuing to develop account stakeholders
- Reported into the Regional Director

#### **GENERAL MANAGER (EVERETT, MA), JUNE 2013 – MARCH 2015**

- Managed a shredder and port facility in Everett, MA.
- Primary areas of focus were continuous improvement in operations and safety
- Increased efficiencies in operations by reducing our TCIR rate from 6.13 in FY12 down to 0.71 in FY 15.
- Improved safety by reducing work related injury from every 30 days to going 360 days without a recordable injury.
- Reported into the Regional Director

#### **FACILITIES AND OPERATIONS MANAGER, (SOUTHERN NEW ENGLAND), MARCH 2012 – JUNE 2013**

- Managed the operations of four facilities in the Southern Massachusetts and Rhode Island area facilities included a shredder facility in Johnston, RI, an export facility in Providence, RI, a feeder facility in Worcester, MA and a Feeder and Non-ferrous sales facility in Attleboro, MA
- Improved and streamlined non-ferrous inventory management and accurate reporting capabilities
- Reported into the General Manager

#### **TERMINAL OPERATIONS MANAGER (EVERETT, MA), MAY 2010 – MARCH 2012**

- Managed a team of grading inspectors, equipment operators and staff that supported processing of raw materials and export terminal operations

- Direct reports were 18FTE's.
- Material flow into the facility was double the flow of Providence
- Reported into the Regional Director.
- Member of management team that included support to many different department heads involved in Shredding Operations, Joint Product Recovery, Equipment Maintenance and Facility Maintenance.

#### **YARD MANAGER (PROVIDENCE, RI), OCTOBER 2008 – MAY 2010**

- Responsible for yard and export logistics for bulk cargoes in Providence, RI.
- Direct Reports included 4 FTE's up to 32 PTE's during loading operations.
- Worked successfully within the requirements of collective bargaining agreements and related requirements.
- Oversaw monthly loading operations for export.
- Activities included the purchase, inspection, processing and loading of bulk materials.
- Reported into the Terminal Operations Manager.
- Promoted to flagship location of Everett, MA after 1 year.

#### **MANAGEMENT TRAINEE, (JOHNSTON, RI) FEBRUARY 2008 – OCTOBER 2008**

- Selected as part of a competitive process to participate in the Management trainee program.
- Program designed to train participants to learn to manage all aspects of industry operations. including sales, logistics, customer care and personnel. Learn to ensure that facilities must operate both safely and environmentally compliant, while effectively and efficiently working within the guidelines of the administrative policies and procedures.
- Reported into the Yard Manager
- Within nine months selected to be the manager of an export facility in Providence, RI.

#### **PREVIOUS WORK EXPERIENCE INCLUDED**

- Sales and Marketing for Sterling Equipment's fleet of barges and tug boat services.
- Dredge and Tug Boat Captain for Jay Cashman Dredging.
- Administrative Assistant for BTM Capital's Vehicle Remarketing Services.
- Crew Member and dispatcher for Boston Line & Service's Spill Response and Ship Services

## **EDUCATION**

**NORTHEAST MARITIME ACADEMY, FAIRHAVEN, MA SEPTEMBER 2005**

**SALVE REGINA UNIVERSITY, NEWPORT, RI 1997 - 1998**

## **VOLUNTEER EXPERIENCE**

- Basketball Coach
- Greater Boston Firefighters Pipes & Drums, drummer



**February 9, 2021**

**Medway Planning & Economic Development Board  
Meeting**

**6 Cutler Street Multi-Family  
Pre-Application Discussion**

- RFP issued by the Medway Affordable Housing Trust seeking buyers for the 6 Cutler Street property (former American Legion building)
- Very preliminary concept plan and building elevations for a 5 unit multi-family development (1 triplex and 1 duplex) from local builder Tom McDonough. He is interested in getting some initial feedback as he considers submitting a proposal to the AHT.



## **MEDWAY AFFORDABLE HOUSING TRUST REQUEST FOR PROPOSALS TO PURCHASE**

**Medway Affordable Housing Trust Owned Property  
6 Cutler Street – Assessor Parcel Id 48-070  
PROPOSAL DEADLINE – 11:00 AM, March 2, 2021**

### Proposer Information

1. The Medway Affordable Housing Trust is seeking to sell its property located at 6 Cutler St. Medway, MA and is soliciting proposals from qualified buyers to purchase the property. The 0.65-acre lot is in a predominantly residential neighborhood surrounded by small single-family homes and bordered by a cemetery. All proposals must be in sealed envelopes, marked “6 Cutler Street Response to RFP” and received by the Town Manager’s office at the Medway Town Hall, 155 Village Street, Medway MA 02053 **on or before 11:00 AM on Tuesday, March 2, 2021.**
2. The parcel includes a two-story, 6,168 square foot Italianate-style former schoolhouse, purportedly the first high school in Medway, built in the late 19th century. It is currently unoccupied. The original two-story structure was supplemented with a 1980’s addition. Most of the site is covered with asphalt that is in poor to fair condition. (Title reference Norfolk County Registry of Deeds Book 32776, Page 333; Town of Medway Assessors Map 48, Lot 070). This parcel is zoned Village Residential (VR) and lies within the Multi-Family Housing Overlay District where a multi-family housing development may be authorized by special permit from the Medway Planning and Economic Development Board. (See Section 5.6.4 Multi-Family Housing of the Medway Zoning Bylaw.) A July 2019, “as is” appraisal valued the property at \$320,000.
3. The property is being sold “as is”, and the Medway Affordable Housing Trust makes no representations or warranties, express or implied, as to the accuracy and/or completeness of the information provided in this Request for Proposals (RFP) or any other representation. This RFP (including all attachments and supplements) is made subject to errors, omissions, withdrawal without prior notice, and to changes to, additional, and different interpretations of laws and regulations. Prospective proposers should undertake their own review and analyses concerning physical conditions, environmental conditions, applicable zoning, required permits and approvals, reuse potentials, and other development, ownership and legal considerations.
4. The sale of the property is subject to the following conditions:
  - Proposal, including price, to remain in effect no less than eight weeks following acceptance by a vote of the Medway Affordable Housing Trust.
  - Successful proposer to pay all costs of completing the conveyance, including any realtor, engineering, legal, title, and recording costs, including such costs incurred by the Trust.

- All respondents are responsible for their own due diligence for all representations made in this RFP.
  - Buyer agrees to place, in a publicly visible location, a permanent, on-site commemorative plaque recognizing the historic nature of the property.
5. A successful bid for the property is expected to be higher than \$285,000.
  6. A tour of the premises may be arranged by contacting the Medway Community Housing Coordinator at dhavens@townofmedway.org.
  7. All proposers must include a certified check payable to the Medway Affordable Housing Trust in the amount of 5% of the proposal amount, to be applied as a deposit for the successful proposer. Checks will be returned to unsuccessful proposers.
  8. The Medway Affordable Housing Trust reserves the right to reject any and all proposals in the best interests of the Trust, and to waive any informalities of a non-substantive nature.
  9. The Trust has determined that this solicitation is subject to the provisions of the Uniform Procurement Act, Massachusetts General Laws, c. 30B, Section 16. Therefore, the provisions of G.L. c. 30B are hereby incorporated by reference in this RFP.
  10. All determinations as to the completeness or compliance of any proposals, or as to the eligibility or qualification of any proposer, will be within the sole discretion of the Medway Affordable Housing Trust.
  11. This RFP, and any agreement resulting therefrom, are subject to all applicable laws, rules and regulations promulgated by any federal, state, regional or municipal authority having jurisdiction over the subject matter thereof, as the same may be amended from time to time.
  12. The successful proposer is required to enter into a purchase and sale agreement, REBA form 21, as modified to comply with this RFP, within 30 days after award.

### **Proposal Instructions**

1. All proposers must complete the attached forms, and submit all forms as part of their proposal. Proposals should be submitted on proposer's letterhead, and must be signed by the proposer.
2. All proposals must be in sealed envelopes, marked "6 Cutler Street Response to RFP" and received by the Town Manager's office at the Medway Town offices, 155 Village Street, Medway MA 02053 **on or before 11:00 AM on Tuesday, March 2, 2021**, at which time and place all proposals timely received will be opened and catalogued for presentation to the Medway Affordable Housing Trust. The proposer's name and address must also appear on the outside of the submission envelope or package. All forms and certifications are due by the deadline date as part of a complete submission package.

3. Any proposal received after the **11:00 AM, Tuesday, March 2, 2021** submission deadline will not be considered. Proposals may be withdrawn prior to the scheduled time for the opening of proposals. Proposals may be amended up until the deadline for submission of the proposals. Amendments must be submitted sealed and in writing, clearly stating the changes to the proposal.
4. The Trust will not accept proposals by fax, email, telephone, or any electronic means. The proposer is solely responsible for ensuring that the proposal is received in a timely manner. The Trust is not responsible for deliveries attempted outside of Town Hall office hours or otherwise not received on time. Any proposals received after the scheduled proposal opening time will be returned to the proposer unopened.
5. If, at the time of the scheduled proposal opening, the Medway Town Hall is closed due to uncontrollable events such as fire, snow, ice, wind, or building evacuation, the proposal opening will be postponed until 11:00 AM on the next operational business day. Proposals will be accepted until that date and time.
6. All questions about the meaning and intent of this RFP must be received in writing by mail, fax (508-321-4988) or email (ta@townofmedway.org) to the Town Manager's office. Questions must be received no later than ten days before the date specified for receipt of proposals. Answers will be in the form of an addendum and will be sent to all known proposers. To best assure receipt of such addendum, interested parties should contact Stefany Ohannesian at (508) 533-4915 or sohannesian@townofmedway.org.

### **Rule of Award**

The proposal will be awarded to the qualified and responsible proposer that meets the requirements of this RFP and offers the highest amount of money for the property. All timely proposals will be reviewed and recorded by the town procurement officer and presented to the Medway Affordable Housing Trust for award at its next regularly scheduled meeting. The Medway Affordable Housing Trust will have sole authority to determine the successful proposal, and reserves the right to reject any and all proposals and to waive any technicalities in the best interests of the Trust. The award shall not be considered final until a written purchase and sale agreement is executed by the parties and MGL chapter 30 B reporting requirements are satisfied.

### **Contract Forms – See Attachments – All must be completed and submitted with proposal**

- Certification of Vote of Organization Authorizing Submittal of Proposal
- Certificate of Non-Collusion
- Disclosure of Beneficial Interest in Real Property Transaction
- Statement of Tax Compliance



**CERTIFICATE OF VOTE  
OF ORGANIZATION  
(if applicable)**

Date: \_\_\_\_\_

I, \_\_\_\_\_, Clerk-Secretary of the corporation named in the foregoing  
(name)  
Proposal, certify that \_\_\_\_\_ who signed the said  
(name)  
Proposal on behalf of said corporation, was then the \_\_\_\_\_ of said  
(title)  
corporation; that I know his/her signature;  
and that his/her signature thereto is genuine and that said Proposal was duly executed on  
\_\_\_\_\_, 2019.

(Clerk-Secretary)

Date of Incorporation: \_\_\_\_\_

(Corporate Seal)

## **CERTIFICATE OF NON-COLLUSION**

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals.

---

Name of Business

---

Signature of Individual Corporate Name

---

Signature of individual submitting bid or proposal

---

Social Security Number or Federal Identification Number

**DISCLOSURE OF BENEFICIAL INTERESTS – PAGE 1**

1. PUBLIC ENTITY INVOLVED IN THIS TRANSACTION:

**Medway Affordable Housing Trust**

2. LEGAL DESCRIPTION OF THE PROPERTY: **6 Cutler, Street Medway MA**

3. TYPE OF TRANSACTION:      **Sale**

4. SELLER: **Medway Affordable Housing Trust**

5. PURCHASER: Name: \_\_\_\_\_

Type of Entity: \_\_\_\_\_

6. Names and addresses of all persons who have or will have a direct or indirect beneficial interest in the real property described above. (Note: if a corporation has, or will have a direct or indirect beneficial interest in the real property, the names of all stockholders must also be listed except that, if the stock of the corporation is listed for sale to the general public, the name of any person holding **less than ten percent** of the outstanding voting shares need **not** be disclosed.)

Name

Address


(None of the persons listed in this section is an official elected to public office in the Commonwealth of Massachusetts except as noted below:)

Name

Title or position


**DISCLOSURE OF BENEFICIAL INTERESTS – PAGE 2**

7. This statement must be signed by the individual(s) or organization(s) entering into this real property transaction with the public agency named in item 1. If this form is signed on behalf of a corporation, it must be signed by a duly authorized officer of that corporation.

The undersigned swears under the pains and penalties of perjury that this form is complete and accurate in all respects.

Authorized Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

(This form contains a disclosure of the names and addresses of all persons with a direct or indirect beneficial interest in the real estate transaction described above. This form must be filed with the Massachusetts Division of Capital Planning and Operations, as required by M.G.L. c. 7, section 40J, prior to the conveyance of or execution of a lease for the real property described above. Attach additional sheets if necessary.)

## STATEMENT OF TAX COMPLIANCE

Pursuant to Massachusetts General Laws, Chapter 62C, Section 49A, I certify  
under the penalties of perjury that \_\_\_\_\_ has fully  
Name of Entity

complied with all laws of the Commonwealth of Massachusetts relating to the payment of taxes.

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title of Signatory: \_\_\_\_\_

Date Signed: \_\_\_\_\_

Federal Tax ID or Social Security Number: \_\_\_\_\_



169'0"

10'0"  
offset

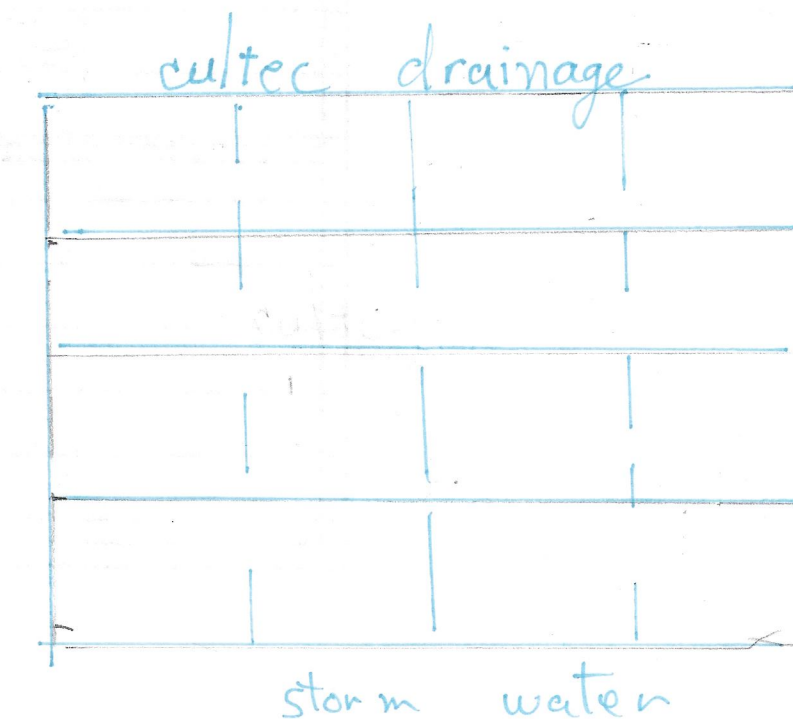
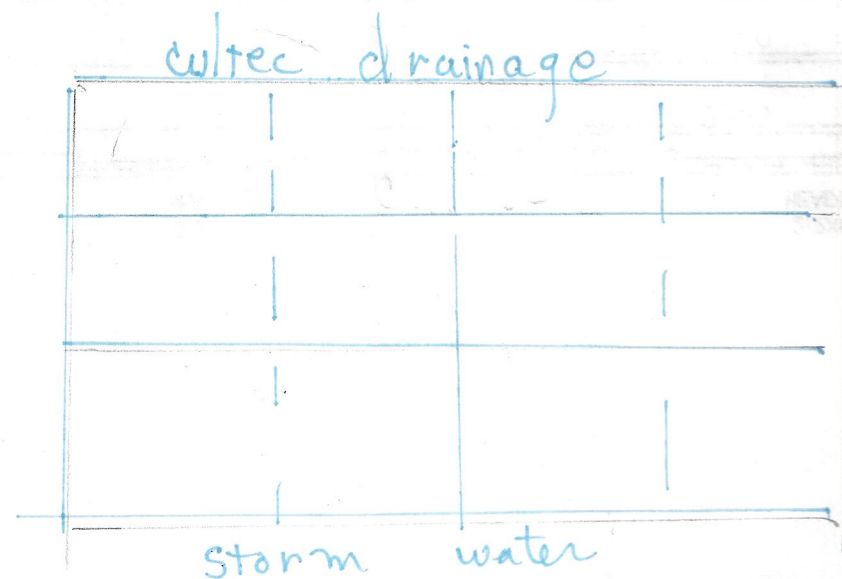
unit 3

unit 4

unit 2

unit 5

unit 1



scale 1"=6'

#6 CUTLER Street

Tom  
McDonough  
118 Norfolk Road  
Millis, MASS

cell: 617-834-3886  
email:  
mcdonoughfff@  
yahoo.com

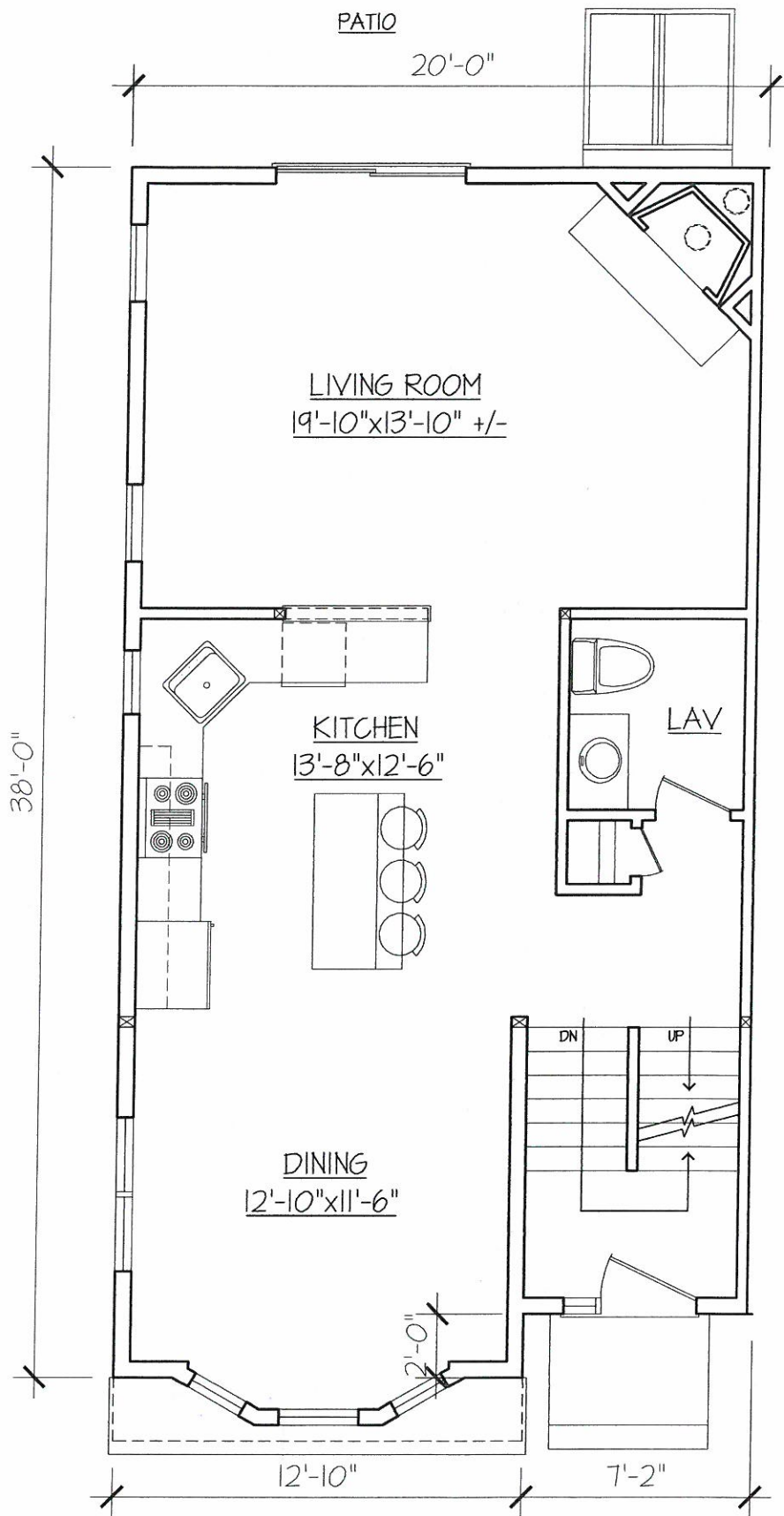


6 Cotler Street



Tom McDonough

#1



PROPOSED FIRST FLOOR PLAN

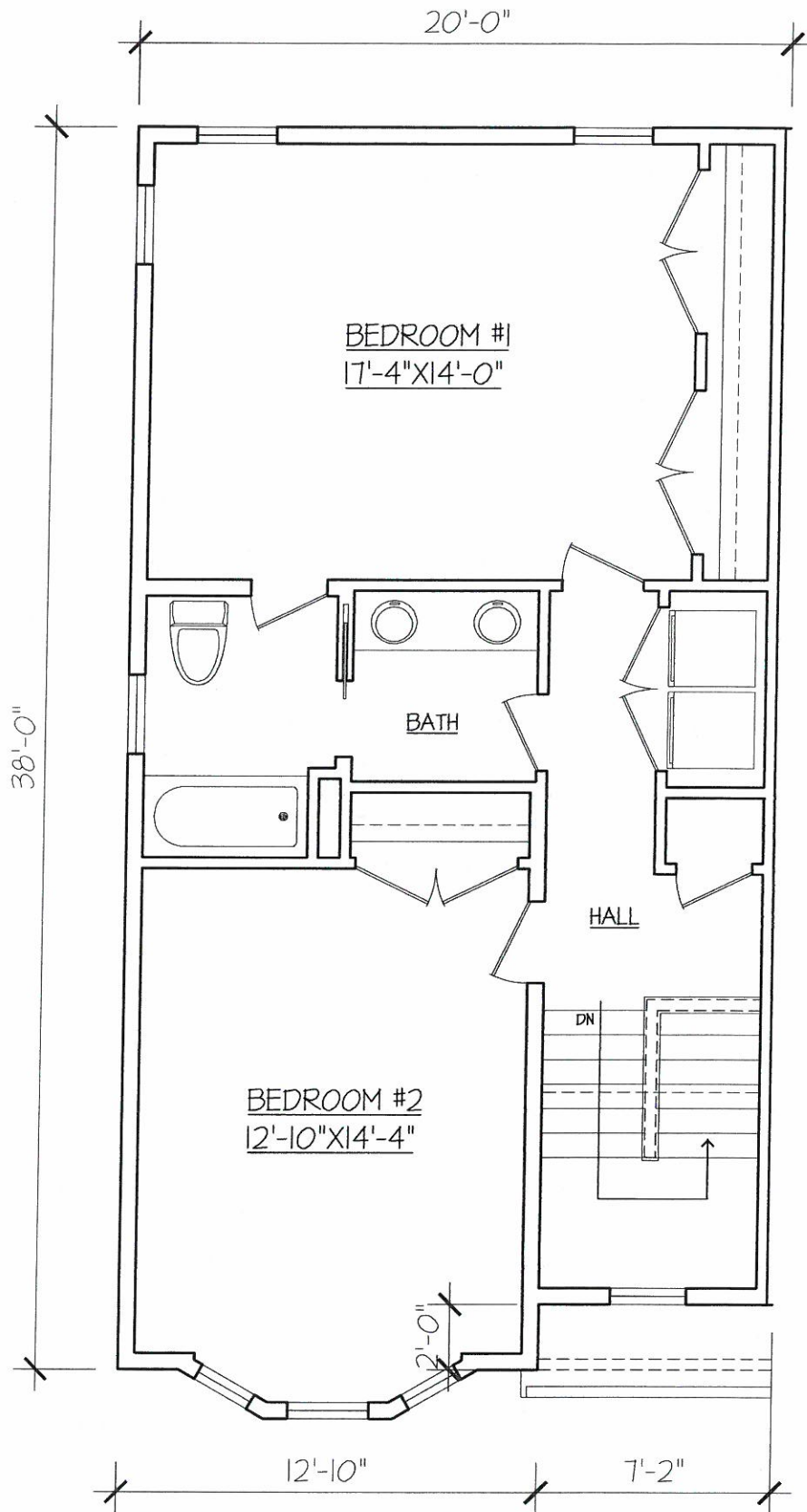
750 +/- SQFT

These plans are schematic and are not to be used for construction. All dimensions and square footages are approximate and subject to change without notice.  
© 2000 HPA Design, INC.

Tom McDonough



6 Cutler St



PROPOSED SECOND FLOOR PLAN

750 +/- SQFT

These plans are schematic and are  
not to be used for construction.  
All dimensions and square footages are  
approximate and subject to change  
without notice.  
© 2000 HPA Design, INC.

Tom Mc Donough



**February 9, 2021**

**Medway Planning & Economic Development Board  
Meeting**

**Plan Review Price Quote for Eversource  
Energy Minor Site Plan**

- Price Quote from Tetra Tech dated 2-1-2021 for \$3,632 to review the minor site plan application from Eversource Energy for work at 12 and 34 West Street at Station #65.

NOTE – The “public briefing” on this project is scheduled for the February 23, 2021 PEDB meeting. Eversource proposes to construct and install an approximately 24’ by 42’ (1,008 sq. ft.), 12’ 6” tall, pre-fabricated switchgear building and associated foundation, excavation, underground conduit and cable trenching; remove an existing brick storage building; and temporarily place an approximately 47’ x 10’ mobile transformer (12’ 10” tall) and connected thereto, an approximately 25’ x 10’ tall mobile switch. The reason for undertaking the above noted improvements is to maintain the overall reliability of electric service in Medway and the surrounding communities. Site plan was prepared by VHB.



January 29, 2021

Ms. Susan E. Affleck-Childs  
Medway Planning and Economic Development Coordinator  
155 Village Street  
Medway, MA 02053

**Re: Eversource Station #65  
Site Plan Review  
12 & 34 West Street  
Medway, Massachusetts**

Dear Ms. Affleck-Childs:

We are pleased to submit this Proposal to the Town of Medway Planning and Economic Development Board (PEDB) (the Client) for professional engineering services associated with the Eversource Station #65 Site Plan Review in Medway, Massachusetts (the Project). The objective of our services is to review the site plan package and provide comments as they relate to latest Town of Medway Rules and Regulations Chapter 200 – Submission and Review of Site Plans (Site Plan Regulations) and sound engineering practice. We have excluded from our scope, the review of the application package as it relates to Stormwater and the Town of Medway Zoning By-Laws which will be conducted by separate board/consultant.

## Scope of Services

The following specifically describes the Scope of Services to be completed:

### Task 1 Site Visit

- A. Perform one (1) site visit to review the site and its surroundings.
- Budget Assumption: 1 Visit  
2 hours @ \$161/hr = \$322  
Total = \$322

### Task 2 Design Review

- A. Review the permit Application, and supporting documentation, and incorporate comments into review letter in Item 2.C below.
- Budget Assumption: 1 hour @ \$161/hr = \$161  
1 hour @ \$116/hr = \$116  
Total = \$277
- B. Review the proposed Plans against the regulations mentioned above and incorporate comments into review letter in Item 2.C below.
- Budget Assumption: 1 hour @ \$161/hr = \$161  
4 hours @ \$116/hr = \$464  
Total = \$625
- C. Prepare a letter summarizing findings for presentation to the Town of Medway PEDB.
- Budget Assumption: 2 hours @ \$161/hr = \$322  
4 hours @ \$116/hr = \$464  
Total = \$786

- D. Coordinate with applicant to address items in initial review letter and issue one (1) revised letter upon receipt of modifications. This task is limited to minor changes in the site plans which directly address comments from our initial review letter. Major changes to the Plans and/or Stormwater Report will require additional funds.
- Budget Assumption:  $3 \text{ hours @ } \$161/\text{hr} = \$483$   
Total = \$483

### Task 3 Meetings

- A. Participate in two (2) hearings/meetings with the Town of Medway PEDB.
- Budget Assumption:  $2 \text{ Meetings @ } 3 \text{ hours per meeting} = 6 \text{ Hours}$   
 $6 \text{ hours @ } \$161/\text{hr} = \$966$   
Total = \$966

## Budget

Our cost for the above Scope of Services will be on a time and expenses basis in accordance with Tetra Tech's and existing Town of Medway contract rates. Direct expenses will be billed at a fixed fee of five (5) percent of labor costs. We suggest that you establish a budget identified below for these services, which will not be exceeded without your approval. Please be advised that this estimate is based on our current understanding of the Project needs and is for budget purposes only. The total cost of our services will depend greatly on the completeness and adequacy of the information provided.

The breakdown of this fee by task is as follows:

Task	Task Description	Budget
Task 1	Site Visit	\$322
Task 2	Design Review	\$2,171
Task 3	Meetings	\$966
<b>Labor Subtotal</b>		<b>\$3,459</b>
Expenses (5%)		\$173
<b>Total</b>		<b>\$3,632</b>

## Schedule and Conditions

We recognize that timely performance of these services is an important element of this proposal and will put forth our best effort, consistent with accepted professional practices to complete the work described within the Client's schedule. We are not responsible for delays in performance caused by circumstances beyond our control or that could not have been anticipated or prevented.

To signify your acceptance of this Agreement, please sign and return one copy and the retainer to us along with the attachments. When signed by representatives of both parties, this Proposal will become an agreement between Tetra Tech, Inc. (ENGINEER) and Town of Medway Planning and Economic Development Board (CLIENT). The Agreement is subject to the attached Engineering, Environmental, and Transportation Statement of Terms and Conditions. The price is valid for 60 days from the date of this letter.

We appreciate the opportunity to provide these services, and we look forward to working with you. Please contact us if you have any questions or require additional information.

Very truly yours,



Steven M. Bouley, P.E.  
Project Manager



Sean P. Reardon, P.E.  
Vice President

Date Approved by Medway PEDB \_\_\_\_\_

Certified by:

Susan E. Affleck-Childs  
Medway PEDB Coordinator

Date \_\_\_\_\_

M:\SITE\BOULEY\MEDWAY\_PEDB\_EVER\SOURCE STA 65\_2021-01-29.DOCX



**February 9, 2021**  
**Medway Planning & Economic Development Board**  
**Meeting**

**Harmony Village – Authorization for**  
**Plan Endorsement**

Harmony Village is preparing for plan endorsement. See attached documents for review.

- Special Permit Decision dated January 12, 2021, filed with the Town Clerk January 19, 2021
- Certificate of No Appeal dated February 3, 2021
- Email dated February 4, 2021 from Treasurer's office confirming that taxes are current on the property.
- Revised site plan by Meridian Associates dated February 2, 2021
- Meridian letter dated February 2, 2021 summarizing stormwater changes.
- Construction services invoice dated January 27, 2021. PAID February 5, 2021.

NOTE – Tetra Tech is reviewing the revised site plan that has been presented for endorsement to determine if all the specified revisions have been made. Steve's review letter is forthcoming which will be provided to Drew Garvin, project engineer. I will forward it to you upon receipt.

## Board Members

Andy Rodenhiser, Chair  
Robert Tucker, Vice Chair  
Thomas Gay, Clerk  
Matthew Hayes, P.E.,  
Member  
Richard Di Iulio, Member  
Jessica Chabot, Associate  
Member



Medway Town Hall  
155 Village Street  
Medway, MA 02053  
Phone (508) 533-3291  
Fax (508) 321-4987  
Email: [planningboard@townofmedway.org](mailto:planningboard@townofmedway.org)  
[www.townofmedway.org](http://www.townofmedway.org)

## TOWN OF MEDWAY COMMONWEALTH OF MASSACHUSETTS

### PLANNING AND ECONOMIC DEVELOPMENT BOARD

#### MULTI-FAMILY HOUSING SPECIAL PERMIT, SITE PLAN, and LAND DISTURBANCE PERMIT DECISION

Harmony Village – 218 & 220 Main Street  
APPROVED with Waivers and Conditions

**Decision Date:** January 12, 2021

**Name of Applicant/Permittee:** Harmony Village LLC

**Address of Applicant:** Harmony Village LLC  
5 Exchange Street, Suite 4  
Milford, MA 01757

**Name/Address of Property Owners:** Harmony Village LLC  
5 Exchange Street, Suite 4  
Milford, MA 01757

**Engineer:** Mark Beaudry, P.E.  
Meridian Associates, Inc.  
69 Milk Street, Suite 208  
Westborough, MA 01581

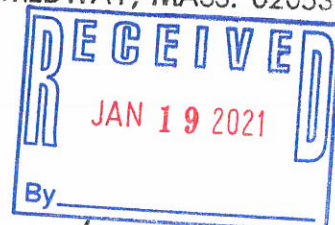
**Site Plan:** *Harmony Village Site Plan Review Submittal – 218-220 Main Street*  
Dated June 9, 2020, last revised November 12, 2020 by Meridian Associates, Inc.

**Location:** 218 & 220 Main Street

**Assessors' Reference:** Map 55, Parcel 44

**Zoning District:** Agricultural Residential II  
Multi-Family Housing Overlay District

TOWN CLERK  
MEDWAY, MASS. 02053



*30 day appeal date  
Feb 01, 2021*

### **Board Members**

Andy Rodenhiser, Chair  
Robert Tucker, Vice Chair  
Thomas Gay, Clerk  
Matthew Hayes, P.E.,  
Member  
Richard Di Iulio, Member  
Jessica Chabot, Associate  
Member



Medway Town Hall  
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[www.townofmedway.org](http://www.townofmedway.org)

## **TOWN OF MEDWAY**

### **COMMONWEALTH OF MASSACHUSETTS**

## **PLANNING AND ECONOMIC DEVELOPMENT BOARD**

### **MULTI-FAMILY HOUSING SPECIAL PERMIT, SITE PLAN, and LAND DISTURBANCE PERMIT DECISION**

### **Harmony Village – 218 & 220 Main Street APPROVED with Waivers and Conditions**

**Decision Date:** January 12, 2021

**Name of Applicant/Permittee:** Harmony Village LLC

**Address of Applicant:** Harmony Village LLC  
5 Exchange Street, Suite 4  
Milford, MA 01757

**Name/Address of Property Owners:** Harmony Village LLC  
5 Exchange Street, Suite 4  
Milford, MA 01757

**Engineer:** Mark Beaudry, P.E.  
Meridian Associates, Inc.  
69 Milk Street, Suite 208  
Westborough, MA 01581

**Site Plan:** *Harmony Village Site Plan Review Submittal – 218-220 Main Street*  
Dated June 9, 2020, last revised November 12, 2020 by Meridian Associates, Inc.

**Location:** 218 & 220 Main Street

**Assessors' Reference:** Map 55, Parcel 44

**Zoning District:** Agricultural Residential II  
Multi-Family Housing Overlay District



**I. PROJECT DESCRIPTION** – The Applicant sought a multi-family special permit to develop a 7-unit residential community at 218 - 220 Main Street. The site is 1.22 acres in size (52,993 sq. ft.). The Applicant intends to develop and sell the units as condominiums. Initially, the proposed project included construction of one 3-unit building, one 2-unit building, and the renovation of two existing single family houses on the premises. Access to the development will be from a single curb cut from Main Street via a permanent, private roadway to be known as Harmony Lane to be owned by the future condominium association. Stormwater management facilities will be constructed to manage stormwater and include a sub-surface infiltration system for roof runoff and a detention basin at the southwest corner of the property. Landscaping, site lighting, buffering, and a common outdoor space are planned. Connections will be made to the existing Town sewer and water services in Main Street.

During the course of review, the plan was downsized to a total of 6 units to include renovation of the two existing single family houses and the construction of one, 4-unit building. A total of 21 off-street parking spaces will be provided.

The proposed use requires a multi-family housing special permit pursuant to Sections 5.6.4 and 3.4 of the Town of Medway *Zoning Bylaw* (the “Bylaw”), and site plan review and approval pursuant to Section 3.5 of the *Bylaw*. The property is also subject to the provisions of Article XXVII of the Medway General Bylaws, Stormwater Management and Land Disturbance for a Land Disturbance Permit

**II. VOTE OF THE BOARD** – After reviewing the application and information gathered during the public hearing and review process, the Medway Planning and Economic Development Board (the “Board”), on January 12, 2021, on a motion made by Robert Tucker and seconded by Richard Di Iulio, *voted to APPROVE with CONDITIONS a Multi-Family Housing Special Permit to Harmony Village, LLC of Milford, MA (hereafter referred to as the Applicant or the Permittee) and to APPROVE a Land Disturbance Permit, and to APPROVE with WAIVERS and CONDITIONS as specified herein, a site plan for the construction of a six unit, condominium development and associated site improvements on the property at 218-220 Main Street as shown on a plan titled Harmony Village Site Development Plans, 218 - 220 Main Street, dated June 9, 2020, last revised November 12, 2020 by Meridian Associates, Inc., to be further revised as specified herein before endorsement and recording.*

The motion was approved by a roll call vote of 5 in favor and none opposed.

<b>Planning &amp; Economic Development Board Member</b>	<b>Vote</b>
Richard Di Iulio	AYE
Matthew Hayes	AYE
Thomas A. Gay	AYE
Andy Rodenhiser	AYE
Robert Tucker	AYE

### **III. PROCEDURAL HISTORY**

- A. June 5, 2020 – Special permit, site plan and land disturbance permit applications and associated materials filed with the Board. Due to the COVID 19 State of Emergency and Governor Baker’s Executive Orders, the Board held off on scheduling a hearing right away.



- B. August 6, 2020 – Special permit, site plan and land disturbance permit applications filed with the Medway Town Clerk
- C. August 6, 2020 – Public hearing notice filed with the Town Clerk and posted at the Town of Medway web site.
- D. August 7, 2020 - Public hearing notice mailed to abutters and parties of interest by certified sent mail.
- E. August 6 and 19, 2020 – Site plan information distributed to Town boards, committees and departments for review and comment.
- F. August 10 and August 18, 2020 - Public hearing notice advertised in *Milford Daily News*.
- G. August 25, 2020 - Public hearing commenced. The public hearing was continued to September 22, October 27, November 24, December 8, 2020 and to January 12, 2021 when the hearing was closed and a decision rendered. Public hearing continuation notices were filed with the Town Clerk and distributed to Town staff, boards and committees to continue to request review comments.

#### **IV. INDEX OF SITE PLAN/SPECIAL PERMIT DOCUMENTS**

- A. The application package for the proposed Harmony Village condominium development included the following documents, plans, studies and information that were provided to the Board.
  - 1. Multifamily Housing Special Permit application dated June 4, 2020
  - 2. Major Site Plan application dated June 4, 2020
  - 3. Land Disturbance Permit application dated June 4, 2020.
  - 4. *Harmony Estates Site Plan Review Submittal – 218-220 Main Street* dated June 9, 2020, prepared by Meridian Associates of Westborough, MA
  - 5. Certified Abutters List from Medway Assessor's office provided April 1, 2020.
  - 6. Building architectural plans including elevations and floor plans for duplex and triplex by Pacific Visions Studio, LLC, dated March 12, 2020
- B. During the course of the Board's review, revised plans and a variety of other materials were submitted to the Board by the Applicant and its representatives:
  - 1. *Project Description* dated June 11, 2020, prepared by Drew Garvin, Meridian Associates
  - 2. *Development Impact Report* dated June 19, 2020 prepared by Drew Garvin, Meridian Associates
  - 3. Deed dated January 26, 2001 conveying 218-220 Main Street from Elliott F. Edwards to Elliott F. Edwards and Linda S. Resner
  - 4. Deed conveying the subject property from Linda S. Resner to Harmony Village LLC dated October 16, 2020.
  - 5. Purchase and Sale Agreement dated July 5, 2019 between Linda S. Resner and Gary Feldman and Marcelo Alves to purchase 218-220 Main Street

6. Letter dated February 4, 2020 from Scott Goddard of Goddard Consulting indicating there are no wetland resources on the subject property.
  7. Proposed sewer flow calculations dated May 12, 2020 prepared by Meridian Associates.
  8. *Project Criteria Summary* narrative dated June 24, 2020 prepared by Meridian Associates
  9. *Request for Waiver from Site Plan Rules and Regulations* (dated June 29, 2020) prepared by Meridian Associates.
  10. *Additional Requests for Waivers from the Site Plan Rules and Regulations* (dated September 8, 2020 and November 10, 2020) prepared by Meridian Associates
  11. *Stormwater Management Report for 218-220 Main Street, Medway, MA* dated June 10, 220 prepared by Meridian Associates
  12. *Stormwater Management Operations and Maintenance Plan* for 218-220 Main Street, dated June 10, 2020, prepared by Meridian Associates
  13. *Stormwater Management Report for 218-220 Main Street, Medway, MA* revised November 12, 2020 prepared by Meridian Associates.
  14. *Stormwater Management Operations and Maintenance Plan for 218-220 Main Street*, revised November 12, 2020, prepared by Meridian Associates
  15. Response letters dated August 25, 2020, September 8, 2020 and November 10, 2020 from Drew Garvin of Meridian Associates to the plan review letters from Tetra Tech and PGC Associates.
  16. Email review memorandum dated September 21, 220 from Fire Chief Jeff Lynch regarding roadway width, fire hydrant accessibility, and turning access for Medway fire apparatus meeting fire code requirements,
  17. *Harmony Village Site Plan Review Submittal – 218-220 Main Street* revised September 8, 2020 prepared by Meridian Associates of Westborough, MA
  18. *Harmony Village Site Plan Review Submittal – 218-220 Main Street* revised October 22, 2020 prepared by Meridian Associates of Westborough, MA
  19. *Harmony Village Site Plan Review Submittal – 218-220 Main Street* revised November 12, 2020, prepared by Meridian Associates of Westborough, MA (includes a revised landscaping plan dated November 9, 2020)
  20. Quadplex building elevation plans for 218-220 Main Street, dated October 19, 2020 and quadplex renderings, dated October 23, 2020 by Pacific Visions Studio, LLC of Bristol, RI.
  21. Residential Renovation Plans for 218 and 220 Main Street, dated September 18, 2020 by Pacific Visions Studio, LLC of Bristol, RI.
- C. Other documentation submitted to the Board during the course of the public hearing:

1. PGC Associates plan review letters dated August 14, 2020, September 17, 2020 and November 19, 2020.
2. Tetra Tech plan review letters dated August 7, 2020, September 18, 2020 and November 18, 2020
3. Memorandum dated August 28, 2020 from the Medway Cultural Council
4. Email dated September 17, 2020 from Barry Smith, Medway DPW Water/Sewer Superintendent re: water service connection
5. Email dated August 24, 2020 from Medway DPW Director David D’Amico regarding trash pick-up
6. Design Review Committee comment memorandum dated August 19, 2020
7. Email dated May 18, 2020 from Conservation Agent Bridget Graziano regarding the absence of wetlands on the subject property
8. Email dated August 7, 2020 from Medway DPW Director David D’Amico regarding sewer connection
9. Memorandum dated January 7, 2021 from the Medway Design Review Committee
10. Email dated January 12, 2021 from Dave D’Amico re: his request for an I & I condition to be included in the decision

**V. TESTIMONY** - In addition to the special permit and site plan review application materials as submitted and provided during the course of its review, the Board heard and received verbal testimony from:

- Steve Bouley, P.E. of Tetra Tech, Inc., the Town’s Consulting Engineer – Commentary provided throughout the public hearing process.
- Gino Carlucci, PGC Associates, the Town’s Consulting Planner – Commentary provided throughout the public hearing process.
- Drew Garvin, Meridian & Associates, engineer for the Applicant – Commentary provided throughout the public hearing process
- Gary Feldman, Applicant
- Abutter Cathy Sutton, 216 Main Street
- Abutters Carmel and Daniel Bergeron, 214 Main Street
- Abutter Denise Hallman, 212 Main Street
- Abutter Krystyna McQueeney, 222 Main Street
- Abutter Terri Tiernan, 210 Main Street
- Abutters Jovante and Myriam Santos, 224 Main Street
- Property Owner Linda Resner, 218 Main Street

Additionally, the following written comments were provided and entered into the record during the public hearing:

- Email dated August 25, 2020 from Krystyna McQueeney, 222 Main Street
- Letter dated August 21, 2020 from Carmel and Daniel Bergeron, 214 Main Street
- Letter dated September 22, 2020 from Linda Resner, 218 Min Street

**VI. FINDINGS** - The Board, at its meeting on January 12, 2021, on a motion made by Robert Tucker and seconded by Richard Di Iulio, voted to approve the following **FINDINGS** regarding the multi-family special permit, site plan, and land disturbance permit applications for

the proposed Harmony Village located at 218 & 220 Main Street. The motion was approved by a roll call vote of 5 in favor and none opposed.

**MULTIFAMILY HOUSING SPECIAL PERMIT** - The Board makes the following findings in relation to this development's compliance with Section 5.6.4 Multifamily Housing of the *Bylaw*.

**Applicability**

- 1) **Location** - *The site is located within the Multifamily Housing Overlay District (Section 5.6.4) and thus is eligible for a multi-family housing special permit.*
- 2) **Traffic capacity** – *Main Street is the town's major artery and has sufficient capacity to handle the traffic from the six residential dwelling units that are proposed. The 6 units do not rise to the level of triggering the requirement for the submittal and review of a traffic study.*
- 3) **Parcel size & frontage** – *The site consists of 1.22 acres which exceeds the minimum area requirement of 22,500 square feet for the AR-II zoning district. The site has 190.08 feet of frontage on Main Street, so it meets the minimum 50-foot frontage requirement of Section 5.6.4.B (1) of the Bylaw.*

**Dimensional Regulations**

- 4) **Minimum Dimensional Requirements** – *The dimensional requirements of the underling AR-II zoning district apply to the project, as set forth in Table 2 of Section 6 of the Bylaw. The new quad building is setback approximately 180 feet from Main Street; the minimum front setback for the AR-II district is 35 feet. The plan shows a side setback of 16.3' for the quad building where the minimum required is 15'. The plan shows a rear setback of 17.8 feet for the quad building where a 15' minimum is required. The plans indicate that the project complies with maximum building coverage requirements (17% provided vs. 30% maximum allowed) and the maximum impervious surface standards (35% provided vs. 40% allowed).*
- 5) **Non-Conforming Buildings** – *The two pre-existing non-conforming houses do not meet the standard front (35') and side (15') setbacks requirements for the AR-II zoning district. However, as they are remaining in their current location with no plans to increase their non-conformity, they are allowed per Section 5.6.4 C. 2.*
- 6) **Building Height** - *As indicated on the site plan, the building height will not exceed 30 feet, less than the maximum 40 feet height allowed.*

**Density**

- 7) **Density** - *The maximum density for multifamily projects is 8 units per whole acre. With 1.22 acres, the maximum possible number of dwelling units is 8. With 6 units, the project is under the allowed maximum.*

**Special Regulations**

- 8) **Affordable Housing** – *With only a proposed net increase of 4 dwelling units, the provisions of Section 8.6 Affordable Housing of the Zoning Bylaw do not apply to the proposed development project.*
- 9) **Open Space** - *A minimum of 15% of the parcel must be open space or yard area. This requirement is met with 47% open space being provided which includes the front yards of*

*the existing houses, the common area, and the back yards (exclusive use areas) for the new units.*

- 10) **Parking spaces** - *Two off-street spaces per unit (12 spaces) are the minimum required per Section 5.6.4 E. 3 of the Bylaw and 21 off-street parking spaces are provided. Each of the 4 new units will have a 2-car garage.*
- 11) **Town water and sewer service** - *The project will be served by Town water and sewer.*
- 12) **Number of units** - *The total number of units proposed (6) is less than the 40 maximum possible number of units allowed under the Bylaw for a multi-family development (without consideration of density limits).*
- 13) **Historic Properties** – *Section 5.6.4 E. 7 requires that historic properties determined to be “historically significant” by the Medway Historical Commission cannot be demolished unless certain criteria are met. The subject property is not located within a historic district. However, the two existing older houses on the site will be renovated as part of this project so this is not an issue.*

#### **Decision Criteria**

- 14) **Meets purposes of Multi-Family Housing section of the Bylaw (Section 5.6.4) and the Site Plan Rules and Regulations** - *The project meets the following purposes of the Multifamily Housing section of the Bylaw: (1) It provides a diversity of housing types in the form of townhouse style units; (2) It encourages the preservation of older properties with the renovation of the two existing older houses on the property.*  
  
*It also meets the purpose of the Site Plan Rules and Regulations which is to provide for a uniform procedural and substantive requirements of Section 3.5 Site Plan Review of the Zoning Bylaw. The plans have been reviewed by Town officials, the Consulting Engineer and Consulting Planner to ensure that the health, safety and welfare of Town residents is protected. Impacts on traffic, parking, drainage, environmental quality, community economics and community character were considered and changes were made during the course of the hearing to improve the project.*
- 15) **Consistent with the Medway Housing Production Plan** - *The development meets the implementation strategies of the Housing Production Plan by providing additional multifamily housing.*
- 16) **Impact on abutting properties and adjacent neighborhoods** - *The impact on abutting properties and adjacent neighborhoods has been addressed through vegetative screening through a comprehensive landscaping plan, a reduction in the number of dwelling units, and the aesthetics of the buildings as reviewed by the Design Review Committee.*
- 17) **Variety of housing stock** - *The development increases the variety of housing stock in the community by providing a quadraplex building.*
- 18) **Designed to be reflective of or compatible with the character of the surrounding neighborhood** - *The project retains and renovates the two existing vintage homes which front on and are highly visible from Main Street. The new construction will be set back approximately 200 feet from Main Street and is well screened from adjacent properties. The architectural design of the new units has been thoroughly reviewed by the Design*

*Review Committee and modified to better blend with the architecture of the existing houses. The size of the new dwelling units, minus the attached garages, is comparable in size to the residences in the adjacent neighborhood. The number of newly constructed dwelling units has been reduced 20% from 5 to 4 units to reduce the overall density of the development. Therefore, the proposed development is compatible with the character of the surrounding neighborhood.*

**SPECIAL PERMIT DECISION CRITERIA** – Unless otherwise specified herein, special permits shall be granted by the special permit granting authority only upon its written determination that the adverse effects of the proposed multifamily housing use will not outweigh its beneficial impacts to the town or the neighborhood, in view of the particular characteristics of the site, and of the proposal in relation to that site. The Board makes the following findings in accordance with Section 3.4 of the *Bylaw*. In making its determination, the special permit granting authority, in addition to any to any specific factors that may be set forth in other sections of the *Bylaw*, shall make findings on all of the applicable criteria specified below:

- 1) **The proposed site is an appropriate location for the proposed use.** *The proposed use is a multi-family development on a property located on Main Street within the Multi-Family Housing Overlay District as approved by Town Meeting. The Main Street property is located .3 miles from the Medway Public Library and .6 miles from Choate Park, home to Choate Pond, Thayer Homestead, a multi-age playground, and the beginning of Medway's trail system. Both the Library and Park are accessible from the subject property via sidewalk.*
- 2) **Adequate and appropriate facilities will be provided for the operation of the proposed use.** *As documented in the plans and associated materials, and conditioned herein, adequate and appropriate facilities will be provided for the operation of the proposed residential use. Town officials, the Town's Consulting Engineer and Consulting Planner have all reviewed the proposed facilities and site improvements. The project will be serviced by Town water and sewer systems. Private electric and gas utilities will be provided. And the stormwater management system has been designed in accordance with the applicable local and State regulations.*
- 3) **The proposed use as developed will not create a hazard to abutters, vehicles, pedestrians or the environment.** *The proposed use adds 4 residential units off a major east-west through street. It is estimated that the development will generate minimal traffic. The entrance to the site has more than 500' of sight distance in both directions and does not create a hazard to abutters, vehicles, or pedestrians. Suitable sidewalk facilities exist on Main Street and provide suitable access to the Medway Library and Choate Park. The proposed stormwater management system has been reviewed by the Town's Consulting Engineer and has been modified during the course of review. There are no wetland resources located on the property.*
- 4) **The proposed use will not cause undue traffic congestion or conflicts in the immediate area.** *The development site is located off of Main Street from which the site will be accessed. Main Street has the capacity to handle the additional traffic to be generated by the 6 residential units. The roadway entrance/exit for Harmony Lane has been designed for maximum sight distance in both directions so the development will not cause undue traffic congestion or conflicts.*

- 5) **The proposed use will not be detrimental to the adjoining properties due to lighting, flooding, odors, dust, noise, vibration, refuse materials or other undesirable visual, site or operational attributes of the proposed use.** *The Applicant has provided documentation reviewed by the Town's Consulting Engineer that its stormwater management plan is adequate to prevent flooding. The development will utilize residential style driveway lanterns instead of traditional parking lot lighting and street lights. The plans also document that there is no light trespass. Household refuse will be disposed of by curb-side pickup at Main Street by the Town's solid waste collection service. A substantial landscaping plan will be implemented to provide considerable screening to adjacent residences. There will be no detrimental impact on abutters due to odors, dust, noise, vibration, refuse materials or other undesirable impacts.*
- 6) **The proposed use as developed will not adversely affect the surrounding neighborhood or significantly alter the character of the zoning district.** *The project retains and renovates the two existing vintage homes which front on and are highly visible from Main Street. The new construction will be set back approximately 200 feet from Main Street and will be well screened from adjacent properties with substantive landscaping. The architectural design of the new dwelling units has been thoroughly reviewed by the Design Review Committee and modified to better blend with the architecture of the existing houses. The size of the new dwelling units, minus the attached garages, is comparable in size to the residences in the adjacent neighborhood.*
- 7) **The proposed use is in harmony with the general purpose and intent of the Zoning Bylaw.** *The Multi-Family Housing Overlay District was established to accommodate this type of use subject to certain conditions to limit adverse impacts. The project includes construction of 4 townhouse style units which will help to diversify Medway's housing supply. Its location serves to promote pedestrian oriented development. And the project scope includes the retention and renovation of two older residential properties which will provide compatibility with the adjacent neighborhood.*
- 8) **The proposed use is consistent with the goals of the Medway Master Plan.** *The proposed multi-family use is consistent with the Master Plan goal of implementing projects to increase housing diversity.*
- 9) **The proposed use will not be detrimental to the public good.** *As documented in the plans and application, and the findings and conditions of this decision, the proposed use is in accordance with the goals of the Master Plan while protecting against potential adverse impacts. The proposed development has reasonable and appropriate density in a suitable location.*

*For all of the above reasons, the Board finds that the beneficial impacts of the proposed Harmony Village outweigh the effects of the proposed use on the Town and neighborhood.*

**SITE PLAN RULES AND REGULATIONS FINDINGS** – The Board shall determine whether the proposed development is in conformance with the standards and criteria set forth in the *Site Plan Rules and Regulations*, unless specifically waived. In making its decision, the Board makes the following findings in accordance with Section 204-8 of the *Site Plan Rules and Regulations*, as amended December 3, 2002, and Section 3.5 of the *Bylaw*:

- 1) Has internal circulation, queuing and egress been designed such that traffic safety is protected, access via minor streets servicing residential areas is minimized, and traffic

backing up into the public way is minimized? *The plan has been thoroughly reviewed by Town officials, the Consulting Engineer and Consulting Planner. No access from minor streets is necessary or available, there is no backing onto a public way, and Main Street is adequate to safely handle the traffic from the 4 new housing units and the 2 existing dwellings.*

- 2) Does the site plan show designs that minimize any departure from the character, materials, and scale of buildings in the vicinity as viewed from public ways and places? *The proposed buildings are residential and their scale and materials are suitable for the site and use. The design has been reviewed by the Design Review Committee and is acceptable for its location. The buildings are located well off Main Street and are mostly not visible from the public way. There are no distinguishing buildings in the vicinity with which the proposed buildings would conflict in terms of character, materials and scale.*
- 3) Is reasonable use made of building location, grading and vegetation to reduce the visible intrusion of structures, parking areas, outside storage or other outdoor service areas (e.g. waste removal) from public views or from (nearby) premises residentially used and zoned. *The buildings are mostly set back off Main Street and are a residential use so there is no outside storage, large intrusive parking lots, or dumpsters. Appropriate vegetation is proposed to screen the development from abutting residences.*
- 4) Is adequate access to each structure for fire and service equipment provided? *The proposed structures are accessible from the driveways and are located relatively close to the street. The Fire Chief has reviewed the plans and not identified any access issues. The quadraplex building will have sprinklers installed.*
- 5) Will the design and construction minimize, to the extent reasonably possible, the following environmental impacts?
  - a) the volume of cut and fill;
  - b) the number of trees to be removed with particular care taken with mature trees and root systems;
  - c) the visual prominence of man-made elements not necessary for safety;
  - d) the removal of existing stone walls;
  - e) the visibility of building sites from existing streets;
  - f) the impacts on waterways and environmental resource areas;
  - g) soil pollution and erosion;
  - h) noise.

*The proposed stormwater drainage system has been reviewed by the Town's Consulting Engineer and the Conservation Commission. Appropriate soil pollution and erosion controls have been incorporated into the plan. No extraordinary noise will be generated by the residential neighborhood. Visibility is limited from Main Street. No stone walls are being removed. A robust landscaping plan will be implemented to offset the removal of two, significant mature trees. The subject site was previously disturbed so the impact on the environment is minimal.*

- 6) Is pedestrian and vehicular safety both on the site and egressing from it maximized? *The proposed use adds 4 residential units off a major street. The entrance/exit to the site has adequate sight distance and does not create a hazard to abutters, vehicles, or pedestrians. There is sidewalk along the north side of Main Street adjacent to the subject property to provide for secure pedestrian travel from the neighborhood.*



- 7) Does the design and will the construction incorporate, to the maximum extent possible, the visual prominence of natural and historic features of the site? *There are no visually prominent natural or historic features on site.*
- 8) Does the lighting of structures and parking area avoid glare on adjoining properties and minimize light pollution within the town? *The lighting plan was reviewed by the Board's Consulting Planner and Engineer. The planned site lighting is residential in scale and minimizes light pollution. As conditioned herein, there is no light spillage off site.*
- 9) Is the proposed limit of work area reasonable and does it protect sensitive environmental and/or cultural resources? The site plan as designed should not cause substantial or irrevocable damage to the environment, which damage could be avoided or ameliorated through an alternative development plan or mitigation measures. *The limit of work is reasonable. There are no sensitive environmental resources on the subject property.*

### **LAND DISTURBANCE PERMIT FINDINGS**

- 1) The Board finds that the work proposed for construction of a residential roadway with the associated stormwater management system, utilities and landscaping was presented at a public hearing where the Applicant has presented evidence sufficient to demonstrate that the proposed activity meets the provisions under Medway General Bylaw Article XXVI Stormwater Management and Land Disturbance.

**VII. WAIVERS** – At its January 12, 2021 meeting, the Board, on a motion made by Thomas Gay and seconded by Richard Di Iulio, voted to grant waivers from the following provisions of the *Rules and Regulations for the Submission and Approval of Site Plans, as amended October 8, 2019*. The Board's action and reasons for granting each waiver request are listed below. All waivers are subject to the *Special and General Conditions of Approval*, which follow this section. The motion was approved by a roll call vote of 5 in favor and none opposed.

### **SITE PLAN DEVELOPMENT STANDARDS**

- 1) **Section 207-9 B. Sidewalks – Five foot sidewalks shall be provided within parking areas.**

The Applicant has requested a waiver from this requirement and proposes that no sidewalks be required within the development. As the development site is small in terms of both area and number of units, pedestrian circulation can be readily accommodated by the 20' wide roadway. Not constructing sidewalks also reduces the extent of impervious surfaces for which stormwater management would be needed. ***The Board APPROVES this waiver request as being consistent with the purpose and intent of the Site Plan Rules and Regulations which will have no significant detriment to the achievement of any of the purposes of Site Plan Review and Approval.***

- 3) **Section 207-11 B. 2 – Internal Site Circulation and Parking Lot Drive Aisles – The perimeter of drive aisles shall be bounded with vertical granite curb.**

The Applicant has requested a waiver from the use of granite curbing along the drive aisle (Harmony Lane) and to proposes to use Cape Cod berm instead. As this is a residential neighborhood, not a commercial development, the use of Cape Cod berm is

more suitable. ***The Board APPROVES this waiver request as being consistent with the purpose and intent of the Site Plan Rules and Regulations which will have no significant detriment to the achievement of any of the purposes of Site Plan Review and Approval.***

- 4) **Section 207-11 B. 3 – Internal Site Circulation and Parking Lot Drive Aisles – Two-way drive aisles shall be twenty-four feet wide.**

The Applicant has requested a waiver from the required 24-foot roadway width and has proposed a width of 20 feet instead. Fire Chief Jeff Lynch was consulted on this adjustment and he has provided documentation that this reduced width is acceptable. Reduced width also reduces the amount of impervious pavement and the consequent stormwater runoff. A 20' wide roadway is workable for a small residential development and is consistent with small neighborhoods approved under the *Subdivision Rules and Regulations*. ***The Board APPROVES this waiver request as being consistent with the purpose and intent of the Site Plan Rules and Regulations which will have no significant detriment to the achievement of any of the purposes of Site Plan Review and Approval.***

- 5) **Section 207-19. Landscaping – H. Tree Preservation – All hardwood trees twenty-four inches or more in diameter as measured four feet above finish grade that are to be removed from the site shall be replaced with new trees on the site.**

A tree inventory was performed by Meridian Associates, MA and is shown on Sheet C-2 Existing Conditions of the revised Plan dated November 9, 2020. Sheet C-5 Landscape Plan identifies three 30" diameter trees to be removed as part of site preparation, clearance, and construction.

According to the revised landscape plan dated November 9, 2020 (Sheet C-5) prepared by Jacqueline Trainer, RLA of Meridian Associates, 52 hardwood and evergreen trees will be installed as part of the comprehensive landscape plan for the property. NOTE - 52 three-inch caliper trees x 7 sq. inches per tree = 364 sq. inches of tree replacement plantings. In addition, 206 miscellaneous shrubs, 445 perennials and groundcover plants, and 236 ornamental grasses will be planted throughout the site along building foundations, around the perimeter of the open parking area, and along the boundaries of the subject property adjacent to neighboring properties to provide suitable screening and buffering.

At the Board's request, the Design Review Committee reviewed the above noted landscape plan. The DRC has provided a letter dated January 7, 2021 which indicates that the referenced landscape plan aligns with the Medway *Design Review Guidelines* and will provide sufficient and appropriate buffers and screens with the abutting properties.

***The Board APPROVES this waiver request as being consistent with the purpose and intent of the Site Plan Rules and Regulations which will have no significant detriment to the achievement of any of the purposes of Site Plan Review and Approval.***

**VIII. CONDITIONS** - The *Special and General Conditions* included in this Decision shall assure that the Board's approval of this site plan complies with the *Bylaw*, Section 3.4 (Special Permits) and Section 5.6.4 (Multi-Family Housing), is consistent with *Site Plan Rules and Regulations*, that the comments of various Town boards and public officials have been

adequately addressed, and that concerns of abutters and other town residents which were aired during the public hearing process have been carefully considered. The Board's issuance of a special permit and site plan approval is subject to the following conditions:

### **SPECIFIC CONDITIONS OF APPROVAL**

- A. Notwithstanding any future amendment of the *Bylaw*, G.L. c.40A, or any other legislative act:
1. The maximum number of dwelling units to be developed under this special permit shall be six: one unit in each of the existing buildings and four new dwelling units).
  2. The tract(s) of land on which this multi-family development will be located shall not be altered or used except:
    - a) as granted by this special permit;
    - b) substantially as shown on the site plan entitled *Harmony Village Site Plan Review Submittal – 218-220 Main Street*, dated June 9, 2020, last revised November 12, 2020 by Meridian Associates, Inc., to be modified as specified herein;
    - c) in accordance with any subsequently approved modified plans or amendments to this special permit; and
    - d) in accordance with the *Stormwater Management Operations and Maintenance Plan for 218-220 Main Street*, revised November 12, 2020, prepared by Meridian Associates
  3. The tracts of land and buildings comprising Harmony Village shall not be used, sold, transferred or leased except in conformity with this special permit and shall not be further divided.
- B. **Plan Endorsement** - Within sixty days after the Board has filed its *Decision* with the Town Clerk, the site plan set for Harmony Village entitled *Harmony Village Site Plan Review Submittal – 218-220 Main Street*, dated June 9, 2020, last revised November 12, 2020 by Meridian Associates, Inc., including building elevations, floor plans and renderings, shall be further revised to reflect all Conditions and required revisions as specified herein and shall be submitted to the Board to review for compliance with the Board's *Decision*. (*Said plan is hereinafter referred to as the Plan*). Upon approval, the Permittee shall provide the revised Plan in its final form to the Board for its endorsement prior to recording at the Norfolk County Registry of Deeds along with this decision. All Plan sheets shall be bound together in a complete set.
- C. **Cover Sheet Revisions** – Prior to plan endorsement, the cover sheet of the November 12, 2020 Plan shall be revised as follows:
1. Include the list of APPROVED Requests for Waivers
  2. Add references to the architectural elevations, floor plans and renderings, and Stormwater Operations and Maintenance plan to the Drawing Index
  3. Include the original plan date and the revised plan date
- D. **Other Plan Revisions** – Prior to plan endorsement, the following plan revisions shall be made to the November 12, 2020 Plan.
1. Add planned location for irrigation well.

2. A sheet shall be added to the Plan to display the property's *Stormwater Operations and Maintenance Plan*.
  3. An updated photometric plan shall be added to the Plan. The photometric plan shall comply with the Outdoor Lighting provisions of the Zoning Bylaw, Section 7.1.2.
  4. Revisions shall be made to the Plan to locate snow storage areas that do not conflict with the planned landscaping. Resolve conflicting information about snow storage on sheets C-3 and C-5.
  5. Add a detail for a shed structure for the "gang mailbox" and the roadway post light fixtures for review and approval by the Design Review Committee.
  6. Add information on where trash containers will be positioned at the end of Harmony Lane for pick-up by the Town's trash removal service.
  7. Granite curbing at the Harmony Lane roundings with Main Street shall be shown.
  8. A note shall be added to the Plan to indicate that an electric vehicle charging station shall be installed in the garage of each of the four new dwelling units.
  9. Sheets C-9 (Landscape Plan) shall be revised to completely identify all of the existing trees to be retained on the subject property.
  10. *Stormwater Revisions* – The plan and stormwater documents shall be revised and supplemented to address items 9 through 22 as specified in the November 18, 2020 review letter from Steve Bouley, P.E. of Tetra Tech, the Town's Consulting Engineer, attached hereto and made a part hereof. The revised plan shall include the addition of a leaching catch basin at the end of the roadway on the west side with suitable pitching of the roadway to catch stormwater prior to entering Main Street.
  11. Detailed notes on siding and roofing materials and colors, door style, and light fixtures for the new dwelling units shall be added to the plan for review and comments by the Design Review Committee to the Board.
  12. The project name "Harmony Estates" shall be revised to "Harmony Village" throughout the plan set.
- E. ***Other Documentation*** - Prior to plan endorsement, the Permittee shall provide the following additional documentation to the Board:
1. Copy of a sample deed to be used to convey each dwelling unit for review, comment, amendment and approval by Town Counsel. The deed shall reference the recorded Multi-Family Housing Special Permit and Plan. The deed shall clearly state that the Harmony Village condominium association shall own and be responsible for the maintenance and upkeep of development's private roadway (Harmony Lane), the stormwater management system, and all other infrastructure.
- F. ***Recording of Plans and Documents***
1. The Plan of Record associated with this special permit, land disturbance permit, and site plan approval is titled: *Harmony Village Site Plan Review Submittal – 218-220 Main Street*, dated June 9, 2020, last revised November 12, 2020 by Meridian Associates, Inc. with additional sheets for architecture and building improvements, to be further revised as specified herein.
  2. No construction shall begin on the site and no building permit for any of the new units in the quadplex shall be issued before this Multi-Family Housing Special Permit, Site Plan Decision, Land Disturbance Permit, Plan of Record endorsed by the Board, the post-Construction Stormwater Management Plan, and the Long

Term Operation and Maintenance Plan are recorded at the Norfolk County Registry of Deeds and proof of such recording is provided to the Board.

3. The following documents which shall be in compliance with the conditions of this decision shall be recorded at the Norfolk County Registry of Deeds prior to the issuance of the first occupancy permit for the development. The Permittee shall provide proof of recording.
  - a) Harmony Village condominium master deed
  - b) Declaration of Trust of Harmony Village condominium association
4. Within thirty days of recording, the Permittee or its assigns or successors shall provide the Board with a receipt from the Norfolk County Registry of Deeds indicating that the specified documents have been duly recorded, or supply another alternative verification that such recording has occurred.

G. **Tree Preservation** - The landscape inventory as shown on Sheet C-2 Existing Conditions of the Plan identified:

- twenty existing hardwood and evergreen trees with a diameter of 15” or greater at four feet above grade.
  - forty-two existing trees with a diameter of 8” – 14”.
1. Three 30” diameter trees are approved for removal during construction.
  2. Sheet C-9 Landscape Plan is to be revised to clearly designate the fifty-nine existing trees to be retained on the subject property and the three existing trees to be removed during construction, subject to approval by the Board before plan endorsement.
  3. The noted trees shall be clearly identified in the field and verified by the Town’s consulting engineer before site preparation and construction commences.
  4. During site preparation and construction of infrastructure and buildings, the Permittee and its contractors shall not remove any of the noted trees to be retained.
  5. If any of the identified trees for retention are removed or damaged during construction, the Permittee shall be responsible for tree restoration by replacing the removed or damaged trees with nursery grade trees on a one square inch per two square inch replacement basis within one year after the tree removal or damage has occurred. The one square inch per two square inch replacement amount is calculated by squaring 1/2 the established diameter of each tree that is removed or damaged and multiplying that amount by 3.14 to determine its trunk area (tree radius squared x pi rounded to 3.14). The resulting figure is halved, and that square inch total is the amount of required square inches of the replacement tree(s). A 3” caliper tree equals seven sq. inches. The location of the replacement trees shall be recommended by the Permittee and are subject to approval by the Board and Tree Warden as a field change, and may be located off site of the subject premises including on adjacent properties with approval of the property owner. The restoration shall be verified by the Tree Warden as being fully and skillfully performed. The species of replacement tree(s) shall be reviewed and approved by the Tree Warden, or otherwise will be consistent with the species of

the removed tree(s).

6. In lieu of tree planting, for any trees removed or damaged as described in subsection (5) preceding, the Permittee may contribute to the Medway Tree Fund in an amount to be determined by the Board upon consultation with the Medway Tree Warden and based on wholesale pricing for 3-inch caliper trees from a reputable area landscape supplier.
- H. ***Open Space/Yard Area*** - At least 15% of the site shall be retained and function as open space and/or yard area in perpetuity. This is an ongoing obligation of the Harmony Village condominium association. This area shall be unpaved but may be landscaped or left natural, with the balance being trees, shrubs and grass suitable for the site. This area may include a play area or other communal recreational space, subject to plan modification requirements. It does not include the exclusive use areas specifically designated for each individual condominium owner.
- I. ***Ownership/Maintenance of Common Areas***
1. Harmony Lane, the stormwater drainage facilities, and all other infrastructure shall be owned and maintained by the Harmony Village condominium association. It is the intent of the Board that these facilities will not be accepted by the Town of Medway.
  2. The Board requires that the following aspects of the development shall be and shall remain forever private, and that the Town of Medway shall not have, now or ever, any legal responsibility for operation or maintenance of same:
    - a) Harmony Lane and parking areas
    - b) Stormwater management facilities
    - c) Snowplowing and sanding
    - d) Landscaping
    - e) Street lights
    - f) Sewer and water
- J. ***Building Permits***
1. Foundation Permits - A foundation only permit to begin construction of the quadplex building (Units 3 – 6) may be issued prior to installation of the base coat of paving (binder course) on the development's roadway, Harmony Lane.
  2. For the Remaining Work – No building permit may be issued until the following items, at a minimum, are installed in compliance with this Decision, the endorsed Plan, and applicable by-laws and regulations and approved by the Board's consulting engineer.
    - a) Roadway area gravel sub-base (excluding unit driveways)
    - b) Roadway area binder course (excluding unit driveways)
    - c) Drainage system completed to the proposed outfall with frame and grates set to binder grade, as well as stormwater basins, swales, infiltrations systems or any other stormwater management facilities.
    - d) As-built plan of each stormwater basin and forebay and all critical elevations and details of the associated structures, pipes and headwalls.
    - e) Street name signs in a size and form as specified by the Medway Department of Public Works, and all regulatory signs as specified on the approved Plan.

- f) Stop line pavement markings.
  - g) Provisions for fire prevention and protection. Private water main/service to be constructed, installed and functional.
- K. **Patios** – To not increase stormwater runoff, all patios constructed in the development shall be constructed with pervious paving materials. This requirement shall be included in the condominium master deed and individual unit deeds.
- L. **Sewer/Stormwater Inflow and Infiltration (I&I) Survey and Report** – Commencing no more than three years after the issuance of the first occupancy permit, the Harmony Village condominium association shall perform an I&I survey of both the sewer and stormwater infrastructure in accordance with Medway Department of Public Works (DPW) requirements and provide such report to the DPW. Such surveys shall include all sewer and stormwater piping and structures located on the property and along Main Street abutting the property frontage. Following the first survey, subsequent I&I surveys of the sewer and stormwater infrastructure shall be performed every three years by the condominium association and reported to the DPW. The surveys, reporting requirements, and maintenance activities shall be coordinated with the Medway DPW as part of the association's implementation of the *Long Term Stormwater Operations and Maintenance Plan*.
- M. **Sidewalk** – Any damage to the existing sidewalk on the north side of Main Street along the subject site's frontage resulting from site infrastructure and building construction work, shall be repaired or replaced to the satisfaction of the Medway Department of Public Works before the occupancy permit is issued for the 6<sup>th</sup> condominium.
- N. **Stone Walls** – Any repairs to existing stone walls and any newly constructed retaining walls shall be as specified in the Stone Retaining Wall Detail included on Sheet C-8.
- O. The Master Deed for the Harmony Village condominium shall include the following language: *"The construction and operation of the condominium is authorized by a Multi-Family Housing Special Permit, Site Plan Approval, and Land Disturbance Permit granted by the Medway Planning and Economic Development Board on January 12, 2021 which is available for inspection at the Town Clerk's office and which is recorded at the Norfolk County Registry of Deeds."*
- P. **Underground Utilities** - All electric, telephone, cable TV, and other utilities shall be located underground.
- Q. **Water Conservation** – The development will be connected to the Town's public water system, and the Town is subject to its Water Management Act Permit with the Massachusetts Department of Environmental Protection. The Permittee shall incorporate the following water conservation measures for construction of the development:
  - 1. any landscape irrigation may not be connected to municipal water supply, private well water only
  - 2. rain-gauge controlled irrigation systems only
  - 3. low flow household fixtures
  - 4. water efficient appliances (dishwashers, washers, toilets, etc.)
- R. **Addresses** – The addresses for the Harmony Village residences shall be as determined by the Medway Assessor's office upon consultation with the Medway Fire and Police Departments.

- S. ***Development Signage*** – Any future development signage for this project shall comply with the sign regulations of the *Bylaw* and is subject to review by the Design Review Committee.
- T. ***Stormwater Management and Land Disturbance – Pre-Construction***
1. See General Condition H-2 regarding the required Pre-Construction Meeting.
  2. No clearing of vegetation, including tree cutting or disturbance of soil, shall occur prior to the Permittee's Pre-Construction Meeting with Town staff and the Board's consulting engineer.
  3. Prior to the Pre-Construction Meeting and commencement of any work on the site, the erosion control plan included in the endorsed plan set and the limit of work lines shall be staked. The Permittee shall notify the Board's consulting engineer to schedule an inspection to ensure that erosion controls and limits of work have been properly located and installed. The location of erosion controls and limits of work lines shall be adjusted, if necessary, during this inspection. No site work shall be conducted until the Board's consulting engineer has inspected and approved the installation of the erosion controls and limits of works.
  4. Immediately after the Pre-Construction meeting, all erosion controls and limits of work lines shall be installed along the approved and staked lines. Such installation shall occur with the least possible disturbance to vegetation. Erosion controls should be placed around trees, shrubs and other vegetation, on the uphill side. The installed erosion control measures shall be inspected, adjusted if needed, and approved by the Board's consulting engineer to ensure they have been properly installed.
  5. At least 5 business days prior to construction activity, the Permittee shall advise the Board of the name(s) and contact information of the person(s) responsible on site for compliance with this Permit. This person shall serve as Clerk of the Works and shall supervise the contractor and inspect the site regularly. The Permittee shall be responsible for immediately notifying the Board of any change in the identify or contact information for the on-site person responsible for compliance.
  6. Prior to construction the general contractor shall designate a construction staging area within designed location as depicted on the approved site plan. All construction trailers, portable sanitary facilities, material storage and overnight parking of equipment shall be located in the staging area. The perimeter of the staging area shall be protected as necessary with silt fence and the ground surface shall be protected with washed stone or another suitable non-erosive material.
  7. Prior to construction, an area for cleanup and/or maintenance of construction equipment shall be designated. Prior to commencement of work, the Permittee shall designate a location for a concrete washout and other washout areas which shall be surrounded by siltation controls. The locations and form of siltation controls shall be approved by the Board's consulting engineer.
  8. Prior to commencing any work on site, the Permittee shall install a stone



construction entrance (tracking pad) not less than 20' wide and not less than 30' in length of a stone size, on the average of 1" to 4".

**U. *Stormwater Management and Land Disturbance - During Construction***

1. Construction of this project will disturb greater than one-acre and thus is subject to the United States Environmental Protection Agency (US EPA) National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities.
2. Construction is subject to a Stormwater Pollution Prevention Plan (SWPPP) to be prepared by the Permittee for submittal to the US EPA and provided to the Board. The SWPPP shall be included in all construction contracts, subcontracts, and specifications dealing with the planned work. The Permittee shall ensure that all contractors, subcontractors and other personnel performing the authorized work are fully aware of the SWPPP and its operation and maintenance plan.
3. Copies of this Decision, the endorsed site plan, the stormwater report including the long term stormwater operations and maintenance plan, and the SWPPP shall be kept on site at all times while the site is under construction. These documents shall be included in all construction contracts, subcontracts, and specifications dealing with the approved work and shall supersede any conflicting contract requirements. The Permittee shall ensure that all contractors, subcontractors and other personnel performing the permitted work are fully aware of this Permit's terms and conditions. Thereafter, the Permittee, the contractors, and subcontractors will be held jointly liable for any violation of this Permit resulting from failure to comply with its conditions.
4. Erosion Control - It is the Permittee's responsibility to conduct monitoring, maintenance, reporting, and repair of erosion control measures, and to take any additional measures necessary to control erosion from the site in accordance with the SWPPP. The Permittee shall designate an Erosion Control Inspector who shall be responsible for these duties. The erosion control measures specified in the endorsed plan shall be considered to be the minimum standard for compliance.
  - a) Erosion Control Measures shall be placed to ensure that no sedimentation will reach the Town's right-of-way (Main Street) or abutting properties. Choice of suitable silt fence materials shall be in accordance with the approved plan and details.
  - b) Maintenance of Erosion Control Measures - Appropriate erosion control devices shall be in place prior to the beginning of any phases of construction, and shall be maintained during construction. The erosion control specifications provided in the Land Disturbance Application and the erosion control provision in the Permit and approved site plan will be the minimum standards for this project; additional measures may be required by the Board. These will be maintained until the Permittee's Erosion Control Inspector and the Board's consulting engineer agree that they are no longer needed, at which time they will be removed, using removal procedures that the Board's

consulting engineer finds satisfactory. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. During construction, the Permittee or its designee shall inspect the erosion controls on a daily basis and shall remove all sediment when accumulated to a depth of two inches or greater. The Permittee shall immediately control all erosion on the site, and shall immediately notify the Board of any breaches of the erosion control barriers by sediment or silt-laden water.

- c) Any runoff resulting from the washing of trucks or construction equipment shall neither be directed to, nor dumped into, any on-site drainage system. Any such washing shall occur only in the designated washout areas. All construction vehicles exiting the property shall be cleaned of soil prior to traveling on public streets within the Town of Medway.
  - d) All construction equipment shall be inspected regularly and properly maintained and precautions shall be taken to prevent any leakage or spillage of oil, gasoline, hydraulic fluid, and other pollutants. Any leakages shall be repaired immediately. Any such leakage or spillage must be cleaned up immediately and disposed of off-site. The Board's consulting engineer shall be notified immediately in the event of any leakage or spillage.
- 5. Reporting – The Permittee or its agent shall conduct and document inspections of all erosion control measures no less than bi-weekly during construction and following after any storm event resulting in 0.25 inches of precipitation or more within twenty-four hours. The purpose of such inspections will be to determine the overall effectiveness of the erosion control plan and the need for maintenance or additional control measures.
  - 6. Throughout construction and until the development is transferred to the Harmony Village condominium association, the Permittee shall be responsible for keeping the constructed stormwater drainage system in a clean and well-functioning condition, and shall do nothing which would alter the drainage patterns or characteristics as indicated on the Plan approved herein without the express written approval of a field change by the Board.
  - 7. Throughout construction, the Board's consulting engineer shall regularly inspect the site to determine if the site is being maintained pursuant to the SWPPP and shall provide corrective guidance to the Permittee for actions needed to address any stormwater management deficiencies. Failure to adequately maintain the site shall be grounds for the Town to withhold building and/or occupancy permits.
  - 8. All waste products, refuse, debris, grubbed stumps, slash, excavate, construction materials, etc. associated with the planned construction shall be contained and ultimately deposited at an appropriate off-site facility and shall not be incorporated in any manner into the project site.
  - 9. All stockpiles shall be positioned within the limit of work area as depicted on the approved plan or as authorized by the Board's consulting engineer.

10. Fill – Any fill being brought onto the site from any off-property sources shall be free of trash, invasive species, deleterious material, and chemical contaminants in excess of the Massachusetts Contingency Plan (MCP 310 CMR 40.0000) RCS-1 Reportable Concentrations. Prior to delivering fill to the project site, the soil shall be sampled at its source and a certification provided to the Board and. The certification shall include a letter signed by a Licensed Site Professional (LSP) describing the site history of the originating soil location and certifying sampling collection procedures, quality control, results, compliance with RCS-1 Standards, and compliance with the requirements of this condition. Sampling and classification of soils shall also be consistent with MassDEP Policy # COMM-97-001.

Required soil testing is outlined below:

One soil sample shall be collected from material at each originating location or soil type. One soil sample shall be collected for every 500 cubic yards of soil.

- Volatile Organic Compounds (VOCs) by EPA Method 8260
- SemiVolatile Organic Compounds (SVOCs) by EPA 8270
- Polychlorinated Biphenyls (PCBs) by EPA Method 8082
- Total Petroleum Hydrocarbons (TPH) by EPA Method 8015 or 8100M.
- Substitute MassDEP VPH/EPH) for TPH allowed
- pH
- Priority Pollutant 13 Metals (total) Sb, As, BA, Be, Cd, Cr, Pb, Ni, Se, Ag, Ti, V, Zn.
- Any other analyses determined by the Conservation Commission, MassDEP, or the LSP necessary to properly characterize the soil for relocation.

Washed stone materials are exempt from testing.

The Board may consider alternative sampling plans or soil materials at its discretion. Approval of the Board is required for alternative plans. These may include management of soils consistent with MASSDEP WSC#-13-500, Similar Soils Provision Guidance.

11. If unforeseen problems occur during construction which may affect abutting properties, Town roadways and/or the Town's stormwater infrastructure, upon discovery by either the Board, its consulting engineer, or the Permittee, the Board shall be notified immediately, and an immediate meeting shall be held with the Permittee and its agents and the Board's consulting engineer and other concerned parties to determine the corrective measures to be employed. The Permittee shall then act to correct the problems using the corrective measures agreed upon and in accordance with General Condition F. Field Changes, if necessary. Subsequent to resolution, the activity and resulting actions shall be documented in writing.

U. ***Stormwater Management and Land Disturbance – Post Construction***

1. The stormwater drainage system shall be maintained by the Permittee, its successors and assigns, and the Harmony Village condominium association. It is

- the intent of the Board and the Permittee that the stormwater management system shall not be accepted by the Town.
2. The Permittee, its successors and assigns, and the Harmony Village condominium association shall maintain the stormwater management system in accordance with long term *Stormwater Management Operations and Maintenance Plan for 218-220 Main Street*, revised November 12, 2020, prepared by Meridian Associates, as may be further revised prior to plan endorsement and after project completion.
  3. Ongoing enforcement of compliance with the long term *Stormwater Management Operations and Maintenance Plan* is the responsibility of the Medway DPW. The plan may be amended by mutual agreement of the DPW and the Harmony Village condominium association.
  4. In the event a management company is engaged by the condominium association, the above noted long term *Stormwater Management Operations and Maintenance Plan* shall be incorporated by reference in the management contract.
  5. The Permittee and its successors shall submit an annual report of inspections of all stormwater management structures as prescribed in *Stormwater Management Operations and Maintenance Plan* to the Board, Conservation Commission, and the DPW. The annual report shall be submitted no later than December 1<sup>st</sup> of every year. The inspections shall be conducted in accordance with the approved *Stormwater Management Operations and Maintenance Plan*.
  6. In the event that the Permittee, its successors and assigns, its agent, or the Harmony Village condominium association fail to maintain the stormwater management system in accordance with the long term *Stormwater Operations and Maintenance Plan* and take needed corrective measures, the Town may conduct such maintenance or repairs as the Town determines in its sole discretion are reasonably necessary, and the Permittee hereby consents to allow the Town and its agents, employees and contractors entry onto the Property to implement the measures set forth in the referenced Plan. In the event the Town conducts such maintenance or repairs, the Permittee shall promptly reimburse the Town for all reasonable expenses associated therewith; if the Permittee fails to so reimburse the Town, the Town may use any and all available legal remedies to secure such payment including charging a fee for the services through the sewer utility for the property.
  7. See requirements of Special Condition L. *Sewer/Stormwater Inflow and Infiltration (I&I) Survey and Report*

## **GENERAL CONDITIONS OF APPROVAL**

- A. **Applicability** – This permit shall apply to any successor in control or successor in interest of the subject property.
- B. **Fees** - Prior to plan endorsement by the Board, the Permittee shall pay:
  1. the balance of any outstanding plan review fees owed to the Town for review of the site plan by the Town's engineering, planning or other consultants; and

2. any construction inspection fee that may be required by the Board; and
3. any other outstanding expenses or obligations due the Town of Medway pertaining to this property, including real estate and personal property taxes and business licenses.

The Permittee's failure to pay these fees in their entirety shall be reason for the Board to withhold plan endorsement.

- C. ***Other Permits*** – This permit does not relieve the Permittee from its responsibility to obtain, pay and comply with all other required federal, state and Town permits and approvals associated with this project. The contractor for the Permittee or assigns shall obtain, pay and comply with all other required Town permits.
- D. ***Restrictions on Construction Activities*** – During construction, all local, state and federal laws shall be followed regarding noise, vibration, dust and blocking of town roads. The Permittee and its contractors shall at all times use all reasonable means to minimize inconvenience to abutters and residents in the general area. The following specific restrictions on construction activity shall apply.
1. ***Construction Time*** - Construction work at the site and in the building and the operation of construction equipment including truck, vehicular and machine start-up and movement and construction deliveries shall commence no earlier than 7 a.m. and shall cease no later than 6 p.m. Monday through Saturday. No construction shall take place on Sundays, or on federal and/or state legal holidays, without the advance approval of the Building Commissioner. These rules do not apply to interior construction work such as painting, installation of drywall, flooring, etc.
  2. The Permittee shall take all measures necessary to ensure that no excessive dust leaves the premises during construction including use of water spray to wet down dusty surfaces.
  3. There shall be no tracking of construction materials onto any public way. Daily sweeping of roadways adjacent to the site shall be done to ensure that any loose gravel or dirt is removed from the roadways and does not create hazardous or deleterious conditions for vehicles, pedestrians or abutting residents. In the event construction debris is carried onto a public way, the Permittee shall be responsible for all clean-up of the roadway which shall occur as soon as possible and in any event within twelve hours of its occurrence.
  4. The Permittee is responsible for having the contractor clean-up the construction site and the adjacent properties onto which construction debris may fall on a daily basis. All waste products, refuse, debris, and construction materials shall be contained and deposited post construction at an appropriate off-site facility.
  5. ***Construction Traffic/Parking*** – During construction, adequate provisions shall be made on-site for the parking, storing, and stacking of construction materials and vehicles. All parking for construction vehicles and construction related traffic shall be maintained on site. No parking of construction and construction related vehicles shall take place on adjacent public or private ways or interfere with the safe movement of persons and vehicles on adjacent properties or roadways.

E. ***Landscape Maintenance***

1. The site's landscaping shall be maintained in good condition throughout the life of the facility and to the same extent as shown on the endorsed Plan. Any shrubs, trees, bushes or other landscaping features shown on the Plan that die shall be replaced by the following spring.
2. Within 60 days after two years after the last occupancy permit is issued, the Town's consulting engineer or the Building Commissioner may conduct an initial inspection of the landscaping to determine whether and which landscape items need replacement or removal and provide a report to the Board. At any time, subsequent to this initial inspection, the Town's consulting engineer or the Building Commissioner may conduct further inspections of the landscaping to determine whether and which landscaping items need replacement or removal and provide a report to the Board. The Board may seek enforcement remedies with the Building Commissioner to ensure that the comprehensive landscaping plan is maintained.

F. ***Snow Storage and Removal***

1. On-site snow storage shall not encroach upon nor prohibit the use of any parking spaces required by the *Bylaw*.
2. The Permittee and the future condominium association shall inform snow removal operators of the approved locations for on-site snow storage.
3. Accumulated snow which exceeds the capacity of the designated on-site snow storage areas shall be removed from the premises within 24 hours after the storm event has concluded.

- G. ***Right to Enter Property*** – Board members, its staff, consultants or other designated agents of the Town shall have the right to enter upon the common areas of the Harmony Village site at reasonable times during construction to inspect the site to evaluate for compliance with the terms and conditions of this permit and the endorsed site plan and may acquire any information, measurements, photographs, observations and/or materials deemed necessary for that evaluation.

H. ***Construction Oversight***

1. Construction Account
  - a) Inspection of infrastructure and utility construction, installation of site amenities including landscaping, and erosion controls by the Town's consulting engineer and the review of legal documents by Town Counsel is required. Prior to plan endorsement, the Permittee shall establish a construction account with the Board. The funds may be used at the Board's discretion to retain professional outside consultants to perform the items listed above as well as the following other tasks - inspect the site during construction and installation, identify what site plan work remains to be completed, prepare surety estimates, conduct other reasonable inspections until the site work is completed and determined to be satisfactory, review as-built plans, and advise the Board as it prepares to issue a *Certificate of Site Plan Completion*.

- b) Prior to plan endorsement, the Permittee shall pay an advance toward the cost of these services to the Town of Medway. The advance amount shall be determined by the Board based on an estimate provided by the Town's consulting engineer.
  - c) Depending on the scope of professional outside consultant assistance that the Board may need, the Permittee shall provide supplemental payments to the project's construction inspection account, upon invoice from the Board, until the road, stormwater system and other infrastructure are completed and the as-built plan and Certificate of Site Plan Completion has been granted.
  - d) Any funds remaining in the Permittee's construction inspection account after the *Certificate of Site Plan Completion* is issued shall be returned to the Permittee.
2. Pre-Construction Meeting – At least seven days prior to the start of any site preparation or construction, the Permittee shall meet with the Town's consulting engineer, the Planning and Economic Development Coordinator, the Medway Department of Public Works, other Town staff as appropriate, the site contractors, and the Permittee's project engineer for a pre-construction meeting. At or before the pre-construction meeting, the Permittee shall provide the following information:
  - a Construction Management Plan as specified in Section 204-3 H. of the *Site Plan Rules and Regulations*,
  - earth removal calculations
  - earth fill estimates
  - copies of its National Pollutant Discharge Elimination System (NPDES) permit and its Stormwater Pollution Prevention Plan (SWPPP) for this project as filed with the U.S. EPA.
  - list of contacts with contact information for contractors, those responsible for compliance with this permit (Clerk of the Works), on-site management, and erosion control inspector.
3. The Department of Public Works will conduct inspections for any construction work occurring in the Town's right-of way in conjunction with the Town of Medway Street Opening/Roadway Access Permit, the sewer and water connection permits, and any other applicable DPW permits associated with this project.
4. The Permittee shall retain its own professional engineer licensed in the Commonwealth of Massachusetts to conduct progress inspections of the construction of the approved plan and improvements. Inspections shall occur at least on a monthly basis. The Permittee's engineer shall prepare a written report of each inspection, including photographs, and provide a copy to the Board within five days of inspection.

#### H. ***On-Site Field Changes***

1. During construction, the Permittee may be authorized to make limited, minor, on-site field changes to the approved plan based on unforeseen site or job conditions, situations, or emergencies necessitated by field conditions or due to practical considerations. These field changes shall not alter items which may affect the site's compliance with this decision and the *Bylaw* nor conflict with a specific

condition of the decision. Field changes shall not substantially alter the intent, layout or design of the endorsed site plan.

2. Prior to undertaking such field changes, the Permittee and/or contractor shall discuss the possible field changes with the Town's consulting engineer and submit a letter and drawings to the Planning and Economic Development Coordinator and the Building Commissioner describing the proposed changes and what conditions, situations, or emergencies necessitate such changes. In accordance with Section 3.5.2.C of the *Bylaw*, the Building Commissioner may determine that the field change is insubstantial, authorize the change, and so notify the Board. Otherwise, the Board shall review the proposed field change at a public meeting and determine whether the proposed field change is reasonable and acceptable based on the unforeseen conditions, situations, or emergencies and whether other options are feasible or more suitable. The Board will provide a written authorization of field change. Any approved field change shall be reflected in the as-built plan to be provided at project completion.

**I. *Plan Modification***

1. Proposed modifications (not including on-site field changes) to the endorsed plan shall be subject to review by the Board.
2. This Site Plan Approval is subject to all subsequent conditions that may be imposed by other Town departments, boards, agencies or commissions. Any changes to the site plan that may be required by the decisions of other Town boards, agencies or commissions shall be submitted to the Board for review as site plan modifications.
3. Any work that deviates from an approved site plan may be a violation of the *Bylaw*, unless the Permittee requests approval of a plan modification and such approval is provided in writing by the Board.
4. The request for a *Modification* to a previously approved plan shall be subject to the same application and review process, including a public hearing, the payment of plan modification filing fee and plan review fee and all costs associated with another public hearing including legal notice advertising. The Board shall issue its *Modification Decision*, file such with the Town Clerk, and provide copies to the Building Commissioner, other Town officials and the Permittee. Any modifications approved by the Board shall be made a permanent part of the approved site plan project documents and shall be shown on the final as-built plan.

**J. *Plan Compliance***

1. The Permittee shall construct all improvements in compliance with the approved and endorsed plan and any modifications thereto.
2. The Board or its agent(s) shall use all legal options available to it, including referring any violation to the Building Commissioner/Zoning Enforcement Officer for appropriate enforcement action, to ensure compliance with the foregoing Conditions of Approval.



3. The Conditions of Approval are enforceable under Section 3.1. F. of the *Bylaw* (non-criminal disposition) and violations or non-compliance are subject to the appropriate fine.

K. ***Performance Security***

1. If the Permittee seeks an occupancy permit before completion of the approved site improvements, the Permittee may request that the Board accept a deposit of funds or other form of security acceptable to the Board and the Treasurer/Collector sufficient to assure the satisfactory completion of site improvements, landscaping and amenities, and all off-site mitigation measures as shown on the approved plan. Whether to accept such security in lieu of completion of the project shall be determined by the Board in its sole discretion.
2. The Board shall determine a reasonable and sufficient amount to cover the Town's cost to complete the work if the Permittee fails to do so. The Town's consulting engineer shall prepare an estimate of the current cost to complete the work that remains unfinished at the time the occupancy permit is requested. The estimate shall be based on unit prices in the latest Weighted Average Bid Prices by the Massachusetts Department of Transportation. The estimate shall also include the cost to maintain the infrastructure, site improvements and amenities, and off-site mitigation measures in the event the Permittee fails to adequately perform such. The estimate shall reflect the cost for the Town to complete the work as a public works project, which may necessitate additional engineering, inspection, legal and administrative fees, staff time and public bidding procedures. A contingency of up to thirty percent shall be added to the total estimate. The Board shall approve the estimate and notify the Town Treasurer/Collector and the Building Commissioner of the approved amount.
3. The performance security shall be accompanied by a performance security agreement executed by the Permittee, the Board, and the performance guarantee company. It shall include:
  - a) the date by which the Permittee shall complete construction
  - b) a statement that the agreement does not expire until released in full by the Board
  - c) procedures for collection upon default.
4. *Final Release of Performance Security* - Final release of performance security is contingent on project completion.

L. ***Project Completion***

1. Special permit approval shall lapse after two years of the grant thereof if substantial use has not commenced except for good cause. The approved site plan shall be completed by the Permittee or its assignees within three years of the date of plan endorsement. Upon receipt of a written request by the Permittee filed at least thirty days prior to the date of expiration, the Board may grant an extension for good cause. The request shall state the reasons for the extension and also the length of time requested. If no request for extension is filed and approved, the site plan approval shall lapse and may be reestablished only after a new filing, hearing and decision.

2. Prior to issuance of the occupancy permit for the sixth dwelling unit, the Permittee shall request a *Certificate of Site Plan Completion* from the Board. The *Certificate* serves as the Board's confirmation that the completed work conforms to the approved site plan and any conditions and modifications thereto, including the construction of any required on and off-site improvements. The *Certificate* also serves to release any security/performance guarantee that has been provided to the Town of Medway. To secure a *Certificate of Site Plan Completion*, the Permittee shall:
    - a) provide the Board with written certification from a Professional Engineer registered in the Commonwealth of Massachusetts that all building and site work has been completed in substantial compliance with this permit, the approved and endorsed site plan, and any modifications thereto; and
    - b) submit an electronic version of an As-Built Plan, prepared by a registered Professional Land Surveyor or Engineer registered in the Commonwealth of Massachusetts, to the Board for its review and approval. The As-Built Plan shall show actual as-built locations and conditions of all buildings and site work shown on the original site plan and any modifications thereto. The final As-Built Plan shall also be provided to the Town in CAD/GIS file format per MASS GIS specifications.
- M. **Conflicts** – If there is a conflict between the site plan and the Decision's Conditions of Approval, the Decision shall rule. If there is a conflict between this Decision and/or site plan and the Bylaw, the Bylaw shall apply.

## **IX. APPEAL**

The Board and the Applicant have complied with all statutory requirements for the issuance of this Decision on the terms set forth herein. A copy of this Decision will be filed with the Medway Town Clerk and mailed to the Permittee, and notice will be mailed to all parties in interest as provided in G.L. c. 40A §15.

Any person aggrieved by the Special Permit or Site Plan Decision of the Board may appeal to the appropriate court pursuant to Massachusetts General Laws, Chapter 40A, §17, which shall be filed within twenty days after the filing of this decision in the office of the Medway Town Clerk.

In accordance with G.L. c. 40A, §11, no special permit shall take effect until a copy of the Decision is recorded in the Norfolk County Registry of Deeds, and indexed in the grantor index under the name of the owner of record, or is recorded and noted on the owner's certificate of title, bearing the certification of the Town Clerk that twenty days have elapsed after the Decision has been filed in the office of the Town Clerk and no appeal has been filed within said twenty day period, or that an appeal has been filed. The person exercising rights under a duly appealed special permit does so at risk that a court will reverse the permit and that any construction performed under the permit may be ordered undone. The fee for recording or registering shall be paid by the Permittee. A copy of the recorded Decision, and notification by the Permittee of the recording, shall be furnished to the Board.

An appeal may be taken from the Land Disturbance Permit under the Medway General Bylaws in accordance with the provision of Massachusetts General Laws chapter 249 within sixty days of the issuance of this decision.

###

**Medway Planning and Economic Development Board  
SITE PLAN and SPECIAL PERMIT DECISION  
Harmony Village – 218 – 220 Main Street**

Approved by the Medway Planning & Economic Development Board: \_\_\_\_\_

**AYE:**

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\_\_\_\_\_

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**ATTEST:**

\_\_\_\_\_  
Susan E. Affleck-Childs  
Planning & Economic Development Coordinator

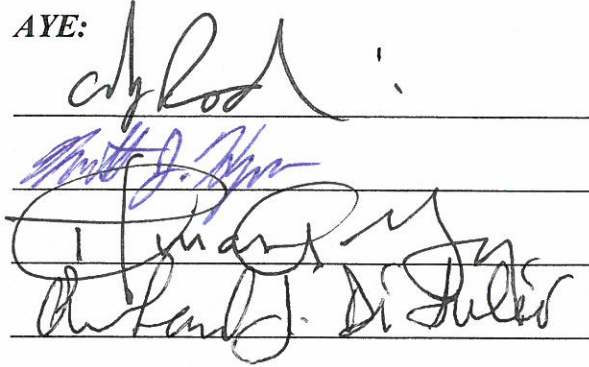
\_\_\_\_\_  
Date

**COPIES TO:** Michael Boynton, Town Administrator  
David D’Amico, Department of Public Works  
Stephanie Carlisle, DPW Compliance Officer  
Michael Fasolino, Deputy Fire Chief  
Bridget Graziano, Conservation Agent  
Donna Greenwood, Assessor  
Beth Hallal, Health Agent  
Jeff Lynch, Fire Chief  
Jack Mee, Building Commissioner and Zoning Enforcement Officer  
Joanne Russo, Treasurer/Collector  
Barbara Saint Andre, Director of Community and Economic Development  
Jeff Watson, Police Department  
Gary Feldman  
Marcelo Alves  
Drew Garvin, Meridian Associates  
Steven Bouley, Tetra Tech  
Gino Carlucci, PGC Associates


**Medway Planning and Economic Development Board  
SITE PLAN and SPECIAL PERMIT DECISION  
Harmony Village – 218 – 220 Main Street**

Approved by the Medway Planning & Economic Development Board: 1-12-2021

AYE:

Four handwritten signatures in black ink, each on a horizontal line. The signatures are cursive and appear to be of the board members.

ATTEST:

  
Susan E. Affleck-Childs  
Planning & Economic Development Coordinator

1-12-2021  
Date

**COPIES TO:** Michael Boynton, Town Administrator  
David D'Amico, Department of Public Works  
Stephanie Carlisle, DPW Compliance Officer  
Michael Fasolino, Deputy Fire Chief  
Bridget Graziano, Conservation Agent  
Donna Greenwood, Assessor  
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Jeff Watson, Police Department  
Gary Feldman  
Marcelo Alves  
Drew Garvin, Meridian Associates  
Steven Bouley, Tetra Tech  
Gino Carlucci, PGC Associates

# MEDWAY TOWN CLERK

155 VILLAGE STREET  
MEDWAY, MASSACHUSETTS 02053  
(508) 533-3204 • FAX: (508) 533-3287  
[mwhite@townofmedway.org](mailto:mwhite@townofmedway.org)

**MARYJANE WHITE, CMMC**

CERTIFIED MASSACHUSETTS MUNICIPAL CLERK

JUSTICE OF THE PEACE

NOTARY PUBLIC

## CERTIFICATE

*I, Maryjane White, Town Clerk of the Town of Medway, hereby certify that the decision of the Medway Planning and Economic Development Board, regarding **Harmony Village – 218 & 220 Main St., Medway MA** has been filed*

*It was received and filed in this office on the following:*

***January 19, 2021***

*And no appeal was received during the next twenty days after such receipt and recording of said decision.*

*Nor was any appeal filed during the appeal period as affected by the Orders of the Supreme Judicial Court tolling all statutes of limitations from March 17, 2020, through June 30, 2020 due to the COVID-19 pandemic.*

*Dated at Medway, MA February 3, 2021*

A true copy

ATTEST.....

*Maryjane White*

***Town Clerk***

## Susan Affleck-Childs

---

**From:** Marie Shutt  
**Sent:** Thursday, February 4, 2021 11:12 AM  
**To:** Susan Affleck-Childs  
**Subject:** RE: Status on taxes for 218-220 Main Street

Hi Susy,

Yes, they are paid.

Thanks,  
Marie

Marie Shutt  
Assistant Treasurer Collector  
Town of Medway  
155 Village Street  
Medway, MA 02053

---

**From:** Susan Affleck-Childs <sachilds@townofmedway.org>  
**Sent:** Thursday, February 4, 2021 10:36 AM  
**To:** Joanne Russo <jrusso@townofmedway.org>  
**Cc:** Marie Shutt <mshutt@townofmedway.org>  
**Subject:** FW: Status on taxes for 218-220 Main Street

Hi,

I understand Gary Feldman has paid the water bill and taxes. Can you confirm?

Susy

---

**From:** Susan Affleck-Childs  
**Sent:** Wednesday, February 3, 2021 10:21 AM  
**To:** Gary Feldman <[superj90@verizon.net](mailto:superj90@verizon.net)>  
**Subject:** FW: Status on taxes for 218-220 Main Street

Hi Gary,

See email note below from the Town Treasurer/Collector regarding funds owed the Town for 218-220 Main Street.

There is still a water bill owed and the third quarter real estate taxes are also due. These have to be paid before the Board endorses the Harmony Village plan next week.

Please take care of these asap. Thanks.

*Susy*

Susan E. Affleck-Childs  
Planning and Economic Development Coordinator  
Town of Medway

155 Village Street  
Medway, MA 02053  
508-533-3291  
[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)

---

**From:** Joanne Russo  
**Sent:** Wednesday, February 3, 2021 10:18 AM  
**To:** Susan Affleck-Childs <[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)>  
**Subject:** RE: Status on taxes for 218-220 Main Street

Good morning,

Just an update.  
Water is still outstanding.  
Also 3<sup>rd</sup> quarter Real Estate taxes that were due on 02/01/2021 were not paid.

Joanne

**Joanne M. Russo, CMMT**  
**Town Treasurer/Collector**  
**Town of Medway**  
**155 Village Street**  
**Medway, MA 02053**  
**1-508-533-3205**

---

**From:** Susan Affleck-Childs  
**Sent:** Wednesday, January 27, 2021 11:44 AM  
**To:** Gary Feldman <[superj90@verizon.net](mailto:superj90@verizon.net)>  
**Cc:** Joanne Russo <[jrusso@townofmedway.org](mailto:jrusso@townofmedway.org)>  
**Subject:** FW: Status on taxes for 218-220 Main Street

Hi Gary,

I checked with the Treasurer/Collector's office. There is a small water bill owed on 218-220 Main Street. Please take care of this at your earliest convenience.

Thanks.

*Susy*

Susan E. Affleck-Childs  
Planning and Economic Development Coordinator  
Town of Medway  
155 Village Street  
Medway, MA 02053  
508-533-3291  
[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)

---

**From:** Joanne Russo  
**Sent:** Wednesday, January 27, 2021 11:36 AM

To: Susan Affleck-Childs <[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)>

Subject: RE: Status on taxes for 218-220 Main Street

Hi,

They just have a small water bill due. ( it was due in Dec)

Can you let them know?

Screenshot of a web application interface for "Bill Inquiry: Single Bill View" in the "Munis II LIVE DATABASE".

**Navigation Bar:** HOME, Accept, Cancel, Search, Browse, Query Builder, Add, Update, Delete, Global+, Duplicate, Print, Text file, PDF, Preview, Excel, Word, Email, Schedule, Attach, Notify, Alerts, Original Bill, Diagnostics, Reprint, Preferences, Menu, Return.

**Bill Information:**

Year	Category	Number
2021	UB-U	172844

**Notes/Alerts:** ACTIVE, Lien? N

**Effective Date:** Due 01/27/2021

**Billed Item Information:**

Field	Value
UB Account-Run-Commit	110875-7-112320
Utility Account	110875
Run	7
Commit	112320

**Customer Information:**

Customer ID: 49591  
HARMONY VILLAGE LLC  
5 EXCHANGE STREET SUITE 4  
MILFORD, MA 01757 USA

**Property Information:**

Field	Value
Parcel ID	57-044-0000
UB Acct #	110875
Prop Loc	220 MAIN
	MEDWAY

**Installments:**

Installment	Due Date	Interest Date	Billed	Abt/Adj	Pmt/Crd	Interest Due	Total Due
1	12/28/2020	12/29/2020	66.97	0.00	0.00	0.77	67.74
Totals:			66.97	0.00	0.00	0.77	67.74

118 of 155

Joanne M. Russo, CMMT  
Town Treasurer/Collector



**Town of Medway**  
**155 Village Street**  
**Medway, MA 02053**  
**1-508-533-3205**

---

**From:** Susan Affleck-Childs  
**Sent:** Wednesday, January 27, 2021 11:21 AM  
**To:** Joanne Russo <[jrusso@townofmedway.org](mailto:jrusso@townofmedway.org)>  
**Subject:** Status on taxes for 218-220 Main Street

Hi,

See attached request for tax status certification for 218-220 Main Street.

Let me know.

Thanks.

*Susy*

Susan E. Affleck-Childs  
Planning and Economic Development Coordinator  
Town of Medway  
155 Village Street  
Medway, MA 02053  
508-533-3291  
[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)



Plotted: 6/10/2020  
JWG Location: G:\-18521 MEDWAY.DWG-18521 SITE.DWG

# SITE DEVELOPMENT PLANS

HARMONY VILLAGE  
MULTYFAMILY HOUSING DEVELOPMENT  
218-220 MAIN STREET  
(MAP 57, PARCEL 44)  
MEDWAY, MASSACHUSETTS 02053

ZONING DISTRICT: AR-II  
MULTIFAMILY HOUSING OVERLAY DISTRICT  
ORIGONAL PLAN DATED JUNE 9, 2020  
LAST REVISED FEBRUARY 2, 2021


OWNER

Linda Resner & Elliot Edwards  
218 Main Street  
Medway, MA 02053

APPLICANT

HARMONY ESTATES, LLC  
5 EXCHANGE STREET  
MILFORD, MASSACHUSETTS 01757

CIVIL ENGINEERING, SURVEYING  
& LANDSCAPE ARCHITECTURE



MERIDIAN  
ASSOCIATES

69 MILK STREET, SUITE 208  
WESTBOROUGH, MASSACHUSETTS 01581  
TELEPHONE: (508) 871-7030

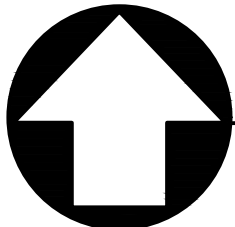
500 CUMMINGS CENTER, SUITE 5950  
BEVERLY, MASSACHUSETTS 01915  
TELEPHONE: (978) 299-0447

ARCHITECTURE

PACIFIC-VISIONS STUDIO LLC  
38 Thompson Ave.  
Bristol, RI  
T - 774.633.1272



NORTH



LOCUS MAP  
SCALE: 1" = 250'

DRAWING INDEX:

- C-1 COVER SHEET/LOCUS MAP
- C-2 EXISTING CONDITIONS PLAN
- C-3 LAYOUT AND MATERIALS PLAN
- C-4 GRADING, DRAINAGE & UTILITIES PLAN
- C-5 LANDSCAPE PLAN
- C-6 EROSION & SEDIMENT CONTROL PLAN
- C-7 SITE DETAILS
- C-8 SITE DETAILS
- C-9 SITE DETAILS
- C-10 SITE DETAILS
- L-1 PHOTOMETRIC PLAN
- A1.1 FIRST FLOOR PLANS
- A4.0 3D ELEVATIONS

ADDITIONAL PLAN REFERENCES:

ARCHITECTURAL PLANS, ELEVATIONS, FLOOR PLANS AND RENDERINGS PROVIDED BY PACIFIC-VISIONS STUDIO LLC.  
  
STORMWATER OPERATIONS & MAINTENANCE PLAN BY MERIDIAN ASSOCIATES, INC. REVISED NOVEMBER 12, 2020.

APPROVED WAIVERS:

SITE PLAN RULES AND REGULATIONS:

- SECTION 207-9 B. SIDEWALKS - FIVE FOOT SIDEWALKS SHALL BE PROVIDED WITHIN PARKING AREAS. NO SIDEWALKS PROPOSED.
- SECTION 207-11 B.2 INTERNAL SITE CIRCULATION - THE PERIMETER OF DRIVE AISLES SHALL BE BOUNDED WITH VERTICAL GRANITE CURB. CAPE CARD BERM PROPOSED.
- SECTION 207-11 B.3 INTERNAL SITE CIRCULATION - TWO-WAY DRIVE AISLES SHALL BE 24 FEET WIDE. 20 FOOT WIDE DRIVE AISLE PROPOSED AND APPROVED BY FIRE DEPARTMENT.
- SECTION 207-19 H. LANDSCAPING - TREE PROTECTION - ALL TREES 24 INCHES OR MORE IN DIAMETER TO BE REMOVED FROM THE SITE SHALL BE REPLACED WITH NEW TREES ON SITE. LANDSCAPE PLAN FOUND TO ALIGN WITH DRC GUIDELINES.

I HEREBY CERTIFY THAT NOTICE OF APPROVAL OF THIS PLAN BY THE MEDWAY PLANNING & ECONOMIC DEVELOPMENT BOARD WAS RECEIVED AND RECORDED AT THIS OFFICE AND THAT NO NOTICE OF APPEAL WAS FILED IN 20 DAYS FOLLOWING SAID RECEIPT AND RECORDING.

TOWN CLERK MEDWAY, MA. DATE

APPROVED BY THE TOWN OF MEDWAY  
PLANNING & ECONOMIC DEVELOPMENT BOARD

_____
_____
_____
_____
_____
_____
_____







BOARD MEMBER DATE









BITUMINOUS CONCRETE CURB	
LIMIT OF WORK	
SETBACK	
MAILBOX	
LIGHT FIXTURE/POST	
SILT FENCE/HAYBALE LINE	

**ZONING TABLE:**

**ZONE: AR-II, MULTIFAMILY HOUSING OVERLAY DISTRICT**

Density and Dimensional Controls	Required	Existing	Proposed
LOT SIZE	30,000 SF	52,993 SF	52,993 SF
FRONTAGE	150'	190.08'	190.08'
FRONT SETBACK	35'	23.6' *	23.6' *
SIDE SETBACK	15'	9.1' *	9.1' *
REAR SETBACK	15'	152'	17.8'
MAX. BUILDING HEIGHT	35'	30'	30'
MAX. LOT COVERAGE	30%	5%	17%
MAX. IMPERVIOUS AREA	40%	15%	35%
MULTIFAMILY UNITS (ALLOWED)	8	2	6 **
MIN. OPEN SPACE/YARD AREA	15%	N/A	47% ***
PARKING SPACES	1.5/UNIT	2/UNIT (4 TOTAL)	3.5/UNIT**** (21 TOTAL)

\* PRE-EXISTING NONCONFORMING SETBACK  
ALL PROPOSED UNITS MEET THE REQUIRED DIMENSIONAL SETBACKS

\*\* TOTAL UNITS CONSISTS OF 4 PROPOSED UNITS AND 2 EXISTING HOUSES TO BE REHABILITATED (6 TOTAL)

\*\*\* PROPOSED OPEN SPACE / YARD AREA INCLUDES COMMON SPACE, FRONT YARD FOR EXISTING HOUSES, AND REAR YARD FOR EACH PROPOSED UNIT

\*\*\*\* ACCOUNTS FOR 4 PARKING SPACES AT EACH NEW UNIT (2 IN DRIVEWAY,  
2 IN GARAGE) FOR 21 PARKING SPACES TOTAL

### LAYOUT AND MATERIALS NOTES:

ALL WORK CONDUCTED WITHIN PUBLIC RIGHT-OF-WAYS SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE TOWN OF MEDWAY DEPARTMENT OF PUBLIC WORKS AND MASS HIGHWAY.

ALL ACCESSIBLE ROUTES, RAMPS AND PARKING SPACES TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT (ADA) ACCESSIBILITY GUIDELINES AND THE MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB).

THE FOLLOWING LAYOUT CRITERIA SHALL CONTROL UNLESS OTHERWISE NOTED ON THE PLAN  
DIMENSIONS FROM BUILDING ARE FROM FACE OF BUILDING.  
DIMENSIONS ARE TO FACE OF CURB AT GUTTER LINE.  
DIMENSIONS ARE TO THE CENTER OF PAVEMENT MARKINGS.  
ALL TIES TO PROPERTY LINES ARE PERPENDICULAR TO THE PROPERTY LINE UNLESS OTHERWISE  
NOTED.

SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND ALL DETAIL  
CONTIGUOUS TO THE BUILDING INCLUDING ENTRANCES, DOORWAY PADS, STAIRS, ETC.

ALIGN WALKWAYS CENTERED ON BUILDING EXIT DOORS UNLESS OTHERWISE NOTED.

ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.

COORDINATE THE LOCATION OF ALL SITE LIGHT STANDARDS WITH IMPROVEMENTS SHOWN ON THESE DRAWINGS.

ALL BITUMINOUS CONCRETE PAVING SHALL COMPLY WITH THE MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS' STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 EDITION AS AMENDED. THE CONTRACTOR SHALL SUBMIT A JOB MIX FORMULA DEMONSTRATING COMPLIANCE WITH THESE SPECIFICATIONS. THE CONTRACTOR SHALL SUPPLY THE ENGINEER WITH A CERTIFICATE OF COMPLIANCE SUPPLIED BY THE PAVING CONTRACTOR.

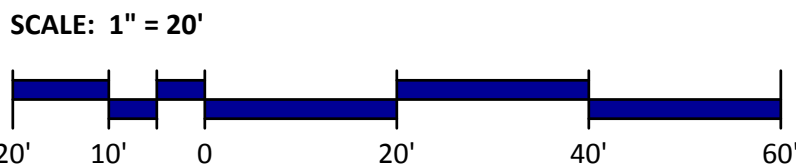
BITUMINOUS CONCRETE PAVEMENT: CLASS I, TYPE I-1 CONFORMING TO THE STANDARD SPECIFICATIONS, SECTIONS 420 AND 460, AND M3.11.03 FOR BINDER COURSE AND TOP COURSE JOB MIX FORMULAS.

NO SNOW IS TO BE PLACED WITHIN OR ON TOP OF DRAINAGE STRUCTURES OR NEW PLANTINGS.

BUILDING MATERIALS FOR THE NEW DWELLING UNITS (DOOR STYLES, SIDING AND ROOFING MATERIALS AND COLORS, ETC.) SHALL BE REVIEWED AND APPROVED BY THE DESIGN REVIEW COMMITTEE PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT.

APPROVED BY THE TOWN OF MEDWAY  
PLANNING & ECONOMIC DEVELOPMENT BOARD

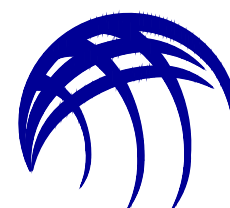
BOARD MEMBER	DATE
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REVISIONS					
NO.	DATE	DESCRIPTION	BY	CHKD.	
1	9/8/20	PEDB REVIEW COMMENTS	DG	MEB	
2	11/10/20	QUADRIPLEX & PEDB REVIEW COMMENTS	DG	MEB	
3	11/12/20	STORMWATER ADJUSTMENT	DG	MEB	
4	2/1/21	DECISION CONDITIONS FOR ENDORSEMENT	DG	MEB	

Layout & Materials Plan  
**Multifamily Development**  
218-220 MAIN STREET  
MEDWAY, MA 02053  
Prepared For:  
Harmony Village LLC

MERIDIAN  
ASSOCIATES



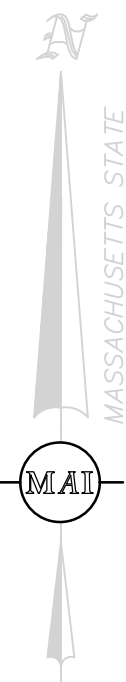
69 MILK STREET, SUITE 208, WESTBOROUGH, MA 01581 | 508.871.7030  
500 CUMMINGS CENTER, SUITE 5950 BEVERLY, MA 01915 | 978.299.0447  
[www.MeridianAssor.com](http://www.MeridianAssor.com)

Date:  
June 9, 2020  
(See Revisions)

**Scale:**  
 $1'' = 20'$

Project No.	8521
Sheet No.	C-3





## FALES STREET

NOW OR FORMERLY  
VICTOR W. JR. & ANN V. TERRANOVA  
DEED BOOK 22299 PAGE 198  
8 FALES STREET

NOW OR FORMERLY  
JOHN WILLIAM PARLEE  
& JAME L. HODGES  
DEED BOOK 32840 PAGE 4  
5 FALES STREET

NOW OR FORMERLY  
CATHY F. SUTTON & WILLIAM A. RITCHIE  
DEED BOOK 8417 PAGE 2  
216 MAIN STREET

NOW OR FORMERLY  
RICHARD E. & HELEN M. FORCE  
DEED BOOK 30979 PAGE 576  
230 MAIN STREET

NOW OR FORMERLY  
JOVONTE ALLEN SANTOS  
& MYRIAM SANTOS  
DEED BOOK 35427 PAGE 407  
224 MAIN STREET

NOW OR FORMERLY  
JENNIFER F. & JASON M. ROMAN  
DEED BOOK 33718 PAGE 185  
228 MAIN STREET

NOW OR FORMERLY  
ROBERT E. & MARIAN L. LEONARD  
DEED BOOK 3554 PAGE 451  
222 MAIN STREET

### GENERAL UTILITY NOTES:

- TESTING OF WATER SYSTEMS, SANITARY SEWERS AND SEWER MANHOLES SHALL BE IN CONFORMANCE WITH ALL TOWN OF MEDWAY DEPARTMENT OF PUBLIC WORKS REQUIREMENTS.
- INSTALLATION AND MATERIALS OF DATA/COMMUNICATION AND ELECTRICAL SUPPLY DUCT BANKS AND MANHOLES SHALL CONFORM TO UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- PROVIDE UNDERGROUND ELECTRIC CONDUIT FOR SITE LIGHTS AS APPROPRIATE.
- ALL ELECTRIC / WATER / GAS / LIGHTING DESIGN AND SIZING TO BE COMPLETED BY OWNER'S MEP CONSULTANT.
- THE CONTRACTOR SHALL COORDINATE ALL WORK ON UTILITY DUCTS WITH THE APPROPRIATE UTILITY COMPANY INCLUDING WORK BY UTILITY COMPANY FORCES, SERVICE CONNECTIONS AND INSPECTIONS.
- ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED. RIM ELEVATIONS OF DRAINAGE STRUCTURES AND MANHOLES ARE APPROXIMATE.
- UNLESS OTHERWISE INDICATED, ABANDONED EXISTING UTILITY LINES SHALL BE CAPPED AND ABANDONED IN PLACE UNLESS THEY CONFLICT WITH PROPOSED IMPROVEMENTS. CAP REMAINING PORTIONS WHERE PARTIALLY REMOVED.
- SANITARY SEWER PIPE SHALL BE SDR 35 PVC.
- FIRE SERVICE WATER PIPE SHALL BE CLASS 52 CEMENT LINED DUCTILE IRON OR AS OTHERWISE REQUIRED BY THE MEDWAY DPW.
- DOMESTIC WATER PIPE SHALL BE TYPE K COPPER TUBING OR AS OTHERWISE REQUIRED BY THE MEDWAY DPW.
- PROPOSED QUADRIPLEX WILL NEED TO HAVE A SPRINKLER SYSTEM INSTALLED TO MEET BUILDING CODE REQUIREMENTS.
- CAP ALL PROPOSED UTILITY STUBS AS APPROPRIATE.
- THE PROPOSED IRRIGATION WELL SHALL MEET ALL BOARD OF HEALTH REQUIREMENTS.
- CONDUITS FOR AN ELECTRIC CHARGING STATION SHALL BE PROVIDED IN EACH QUADRIPLEX GARAGE UNIT.

### DRAINAGE & UTILITIES LEGEND:

PROPERTY LINE	---
DRAIN LINE	---
GAS LINE	---
ELECTRIC LINE	---
WATER LINE	---
SEWER LINE	---
LIMIT OF WORK	---
PROPOSED CONTOUR	---
GABION WALL	---
PROPOSED SPOT ELEVATION	---
CATCHBASIN	---
DRAIN MANHOLE	---
SEWER MANHOLE	---
LIGHT POST	---
INVERT ELEVATION	---
RIM	---
TYPICAL	---
VERIFY IN FIELD	---
EXISTING	---

### GRADING NOTES:

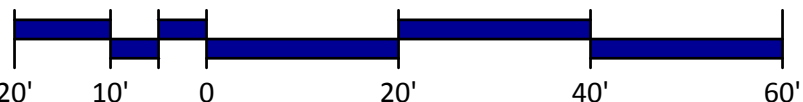
- UNLESS DIRECTED OTHERWISE, ALL EXISTING TURF OR VEGETATED AREAS WITHIN THE PROPOSED LIMITS OF WORK FOR EXCAVATION, GRADING, OR IMPROVEMENT SHALL BE CLEARED AND GRUBBED. WITHIN THE CLEARING AND GRUBBING AREA, REMOVE ALL TREES, SHRUBS AND ROOTS UNLESS DESIGNATED OTHERWISE. CLEARING SHALL INCLUDE THE FELLING, CUTTING AND OFF-SITE DISPOSAL OF ALL TREES, SHRUBS, STUMPS AND VEGETATIVE DEBRIS PRODUCED THROUGH THE CLEARING OPERATIONS.
- STONE USED FOR MACHINE PLACED RIP-RAP SHALL BE REASONABLY WELL GRADED, HARD, DURABLE, ANGULAR IN SHAPE, RESISTANT TO WEATHERING AND FREE FROM ORGANIC MATERIAL. ROUNDED STONES OR BOULDERS ARE NOT ACCEPTABLE. THE MINIMUM WEIGHT OF THE STONE SHALL BE 155 POUNDS PER CUBIC FOOT. STONE SHALL BE PLACED IN CONFORMANCE WITH THE LINES, GRADES AND THICKNESSES SHOWN ON THE DRAWINGS.
- AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS.
- ALL RIP RAP STONE SHALL BE HAND CHINKED AND SHALL CONFORM TO MASSACHUSETTS HIGHWAY DEPARTMENT STANDARDS.
- BLEND NEW EARTHWORK SMOOTHLY INTO EXISTING.

### DRAINAGE NOTES:

- MANHOLES SHALL BE 48-INCH DIAMETER WITH 26" OPENING (UNLESS OTHERWISE SPECIFIED). CAST-IN-PLACE BASES SHALL BE USED WHERE MANHOLES ARE CONSTRUCTED OVER EXISTING PIPES.
- FRAMES AND COVERS FOR DRAINAGE STRUCTURES AND SANITARY SEWER STRUCTURES SHALL PROVIDE A 24-INCH MINIMUM CLEAR OPENING AND SHALL BE LABARON TYPE LK110 OR APPROVED EQUAL.
- DRAINAGE STRUCTURE COVERS SHALL HAVE THE WORD "DRAIN" CENTERED ON THE COVER IN 3-INCH HIGH LETTERS. SANITARY SEWER STRUCTURE COVERS SHALL HAVE THE WORD "SEWER" CENTERED ON THE COVER IN 3-INCH HIGH LETTERS.
- SINGLE CATCH BASIN FRAMES AND GRATES SHALL BE LABARON TYPE LF 248-2 WITH A GRANITE CURB GUTTER MOUTH OR AS REQUIRED BY TOWN OF MEDWAY DPW.
- DOUBLE CATCH BASIN FRAMES SHALL BE LABARON ONE-PIECE LV248-1 FRAMES OR APPROVED EQUAL. FOR DOUBLE CATCH BASIN GRATES, USE TWO LABARON TYPE LF 248-2 WITH A GRANITE CURB GUTTER MOUTH OR APPROVED EQUAL OR AS OTHERWISE REQUIRED BY MEDWAY DPW.
- FRAMES, GRATES AND COVERS SHALL BE SET FIRM AND TRUE TO GRADE, ADJUST FOR GRADE WITH BRICK MASONRY.
- ALL ON-SITE DRAIN LINES SHALL BE SMOOTH INTERIOR WALLED CORRUGATED POLYETHYLENE PIPE UNLESS OTHERWISE NOTED.
- FLARED END SECTIONS SHALL BE PIPE MANUFACTURER STANDARD CONSTRUCTED FROM THE SAME MATERIAL AS THE PIPE.
- ALL DRAIN LINES SHOWN SHALL BE 12" DIAMETER UNLESS OTHERWISE NOTED.
- ROOF DRAIN PIPING CAN BE ADJUSTED / ALTERED FROM LAYOUT SHOWN TO TIE INTO THEIR RESPECTIVE CHAMBER SYSTEMS AS NEEDED. SEE DETAIL SHEET FOR UNIT TO SYSTEM REFERENCE (EXAMPLE: DW-2 IS FOR QUAD R05).

APPROVED BY THE TOWN OF MEDWAY  
PLANNING & ECONOMIC DEVELOPMENT BOARD

SCALE: 1" = 20'



## Grading, Drainage & Utilities Plan

### Multifamily Development

218-220 MAIN STREET  
MEDWAY, MA 02053

Prepared For:

Harmony Village LLC



66 MILK STREET, SUITE 208, WESTBOROUGH, MA 01581 | 978.871.2020  
500 CUMMINGS CENTER, SUITE 550, BEVERLY, MA 01915 | 978.399.0447  
www.MeridianAssoc.com

Date:

June 9, 2020  
(See Revisions)

Scale:

1"=20'

Project No.

8521

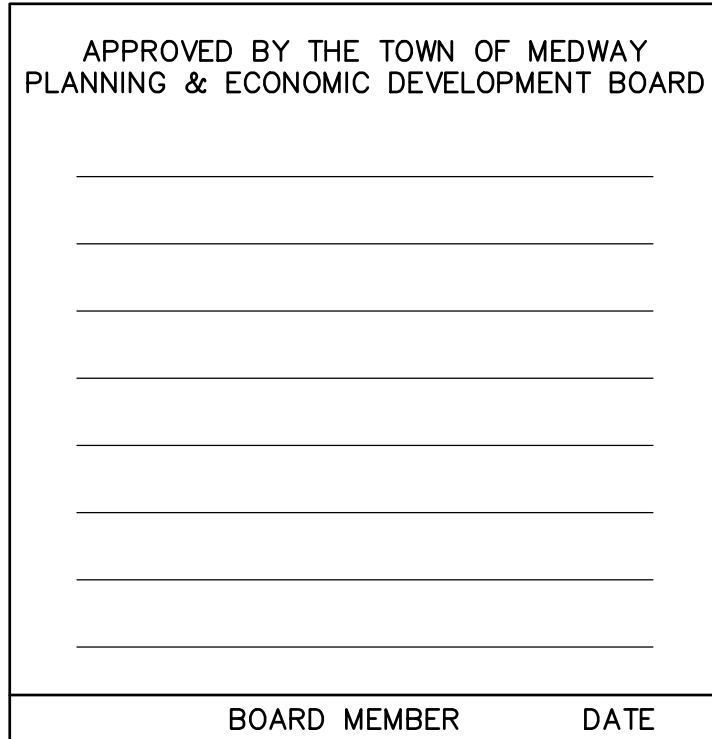
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C-4

### REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.
4	2/1/21	DECISION CONDITIONS FOR ENDORSEMENT	DG	MEB
3	11/12/20	STORMWATER ADJUSTMENT	DG	MEB
2	11/10/20	QUADRIPLEX & PEDS REVIEW COMMENTS	DG	MEB
1	9/8/20	PEDS REVIEW COMMENTS	DG	MEB

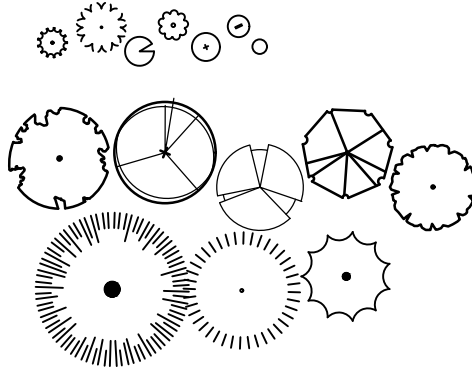




ABBREVIATIONS: B&B: BALL AND BURLAP CAL: CALIPER DR: DEER RESISTANT DT: DROUGHT TOLERANT N: NATIVE OC: ON CENTER ST: SALT TOLERANT

2 OAK TREES GREATER THAN 24" REMOVED FROM SITE TO BE REPLACED WITH 2 RED MAPLE TREES

## EVERGREEN TREES



1. ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE "AMERICAN STANDARD FOR NURSERY STOCK" PUBLISHED BY AmericanHort 2014 AND AS AMENDED.
2. ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.
3. VERIFY LOCATIONS OF ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER OR OWNER'S REPRESENTATIVE.
4. PROVIDE TREES, SHRUBS, AND GROUNDCOVERS AS SHOWN AND SPECIFIED. THE WORK INCLUDES: SOIL PREPARATION, INSTALLATION OF TREES, SHRUBS AND GROUNDCOVERS, PLANTING MIXES, MULCH AND PLANTING ACCESSORIES, WARRANTY, WATERING AND MAINTENANCE DURING CONSTRUCTION AND WARRANTY PERIODS.
5. BALLED AND BURLAPPED PLANTS MAY BE PLANTED IN THE SPRING FROM APRIL 1ST UNTIL JUNE 15TH AND IN THE FALL FROM AUGUST 15TH TO NOVEMBER 1ST.
6. PLANTING PLAN IS DIAGRAMMATIC IN NATURE. FINAL PLACEMENT OF PLANTS TO BE APPROVED BY THE LANDSCAPE ARCHITECT IN THE FIELD.
7. ALL SHADE TREES ALONG SIDEWALKS SHALL HAVE A MINIMUM SIX (6) FOOT BRANCHING HEIGHT.
8. PLANT MATERIALS DEPICTED IN ROWS SHALL CONTAIN MATCHING PLANT SPECIMENS SPACED EQUALLY ALONG INDICATED AREA.
9. ALL PLANT MATERIALS AND LAWN AREAS TO BE MAINTAINED BY LANDSCAPE CONTRACTOR UNTIL FINAL WRITTEN ACCEPTANCE PROVIDED TO CONTRACTOR BY OWNER OR OWNER'S REPRESENTATIVE.
10. ALL PLANT MATERIALS TO REMAIN ALIVE AND BE IN HEALTHY, VIGOROUS CONDITION AND SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL WRITTEN ACCEPTANCE FROM THE OWNER OR OWNER'S REPRESENTATIVE.
11. ALL PLANT MATERIALS ARE INTENDED TO BE DROUGHT TOLERANT ONCE ESTABLISHED. NO IRRIGATION SYSTEM IS PROPOSED.
12. LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE INDICATED ON PLAN. LOAM WITH TOPSOIL SPREAD TO A MINIMUM DEPTH OF (6) SIX INCHES.
13. SEED OR PROVIDE 50% FOR ALL TURFGRASS LAWN AREAS WITH A DROUGHT TOLERANT TURFGRASS SEED MIX (80% TALL FESCUE, 10% PERENNIAL RYEGRASS, 10% KENTUCKY BLUEGRASS).
14. PERENNIALS, BULBS AND ANNUALS ARE TO BE PLANTED IN A WELL PREPARED BED WHICH SHALL INCLUDE PEAT AND SLOW RELEASE FERTILIZER. BEDS SHALL BE SKIMMED WITH ONE AND ONE-HALF (1-1/2) INCH TO TWO (2) INCH MULCH (INCLUDING GROUNDCOVERS).
15. EXISTING TREES WITHIN PROPOSED TREELINE SHALL REMAIN AND BE PROTECTED UNLESS OTHERWISE NOTED.
16. ALSO REFER TO THE LAYOUT & MATERIALS PLAN FOR SPECIFIC/INDIVIDUAL/CLUSTER TREE PROTECTION



## Multifamily Development

218-220 MAIN STREET  
MEDWAY, MA 02053

Prepared For:

Harmony Village LLC



69 MILK STREET, SUITE 208, WESTBOROUGH, MA 01581 | 508.871.7030  
500 CUMMINGS CENTER, SUITE 5950 BEVERLY, MA 01915 | 978.299.0447  
[www.MeridianAssoc.com](http://www.MeridianAssoc.com)

**June 9, 2020**  
**(See Revisions)**

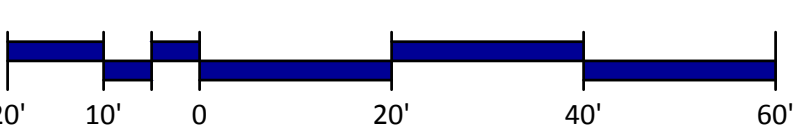
$$1'' = 20$$


Project No

8521

Sheet No.  
C-5

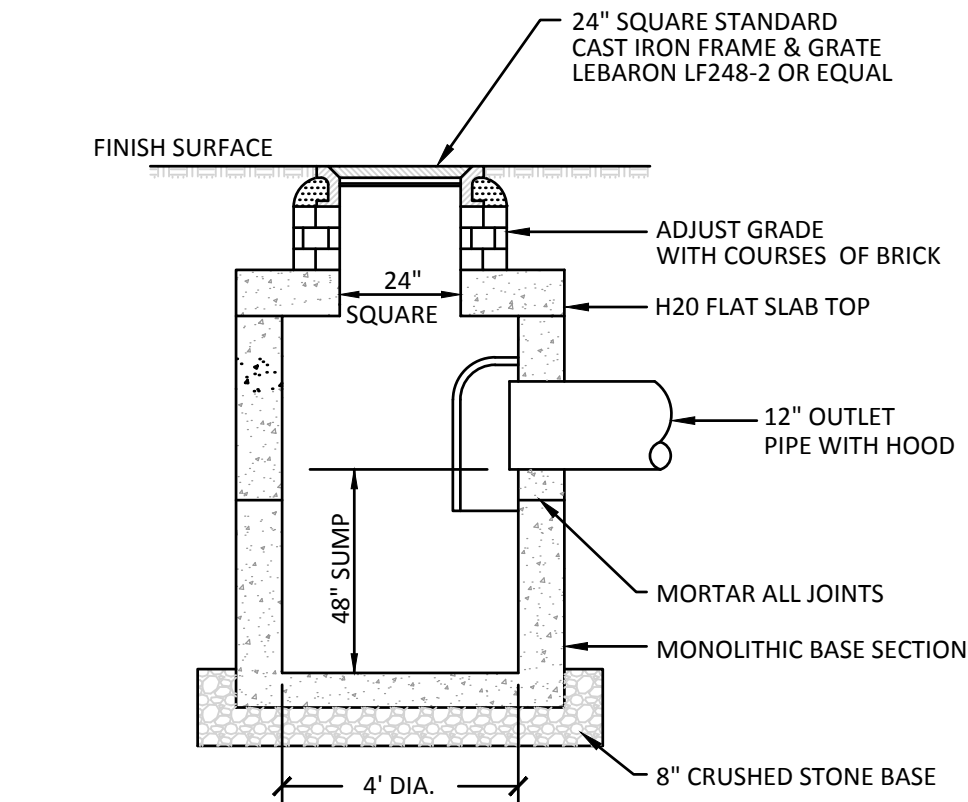




 <p><b>MERIDIAN ASSOCIATES</b></p> <p>69 MILK STREET, SUITE 208, WESTBOROUGH, MA 01581   508.871-7030  500 CUMMINGS CENTER, SUITE 550 BEVERLY, MA 01915   978-399-0447  <a href="http://www.MeridianAssoc.com">www.MeridianAssoc.com</a></p>		<p><b>Erosion &amp; Sediment Control Plan</b></p> <p><b>Multifamily Development</b>  218-220 MAIN STREET  MEDWAY, MA 02053</p> <p>Prepared For:  Harmony Village LLC</p>																																																									
<p><b>Date:</b>  June 9, 2020  (See Revisions)</p>																																																											
<p><b>Scale:</b>  1"=20'</p>																																																											
<p><b>Project No.</b>  8521</p>																																																											
<p><b>Sheet No.</b>  C-6</p>																																																											
		<p><b>REVISIONS</b></p> <table border="1"> <thead> <tr> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td>2/1/21</td> <td>DECISION CONDITIONS FOR ENDORSEMENT</td> <td>DG</td> <td>MEB</td> <td></td> </tr> <tr> <td>3</td> <td>11/12/20</td> <td>STORMWATER ADJUSTMENT</td> <td>DG</td> <td>MEB</td> <td></td> </tr> <tr> <td>2</td> <td>11/10/20</td> <td>QUADRIplex &amp; PEDB REVIEW COMMENTS</td> <td>DG</td> <td>MEB</td> <td></td> </tr> <tr> <td>1</td> <td>9/8/20</td> <td>PEDB REVIEW COMMENTS</td> <td>DG</td> <td>MEB</td> <td></td> </tr> <tr> <td>NO.</td> <td>DATE</td> <td>DESCRIPTION</td> <td>BY</td> <td>CHKD.</td> <td></td> </tr> </tbody> </table>																												4	2/1/21	DECISION CONDITIONS FOR ENDORSEMENT	DG	MEB		3	11/12/20	STORMWATER ADJUSTMENT	DG	MEB		2	11/10/20	QUADRIplex & PEDB REVIEW COMMENTS	DG	MEB		1	9/8/20	PEDB REVIEW COMMENTS	DG	MEB		NO.	DATE	DESCRIPTION	BY	CHKD.	
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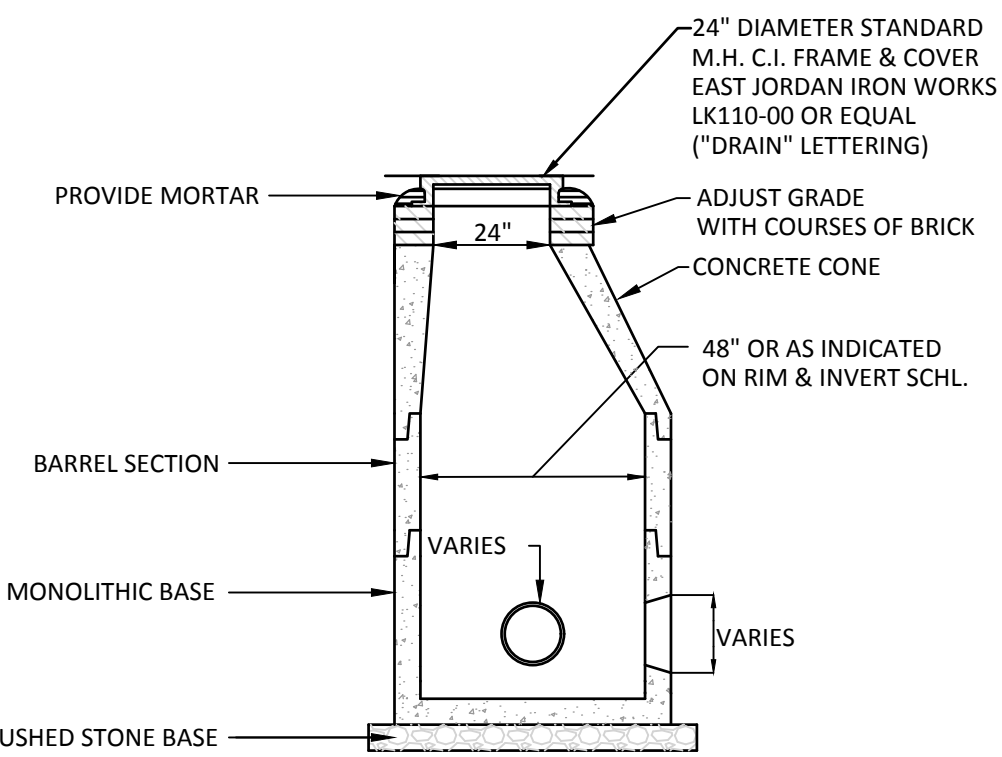


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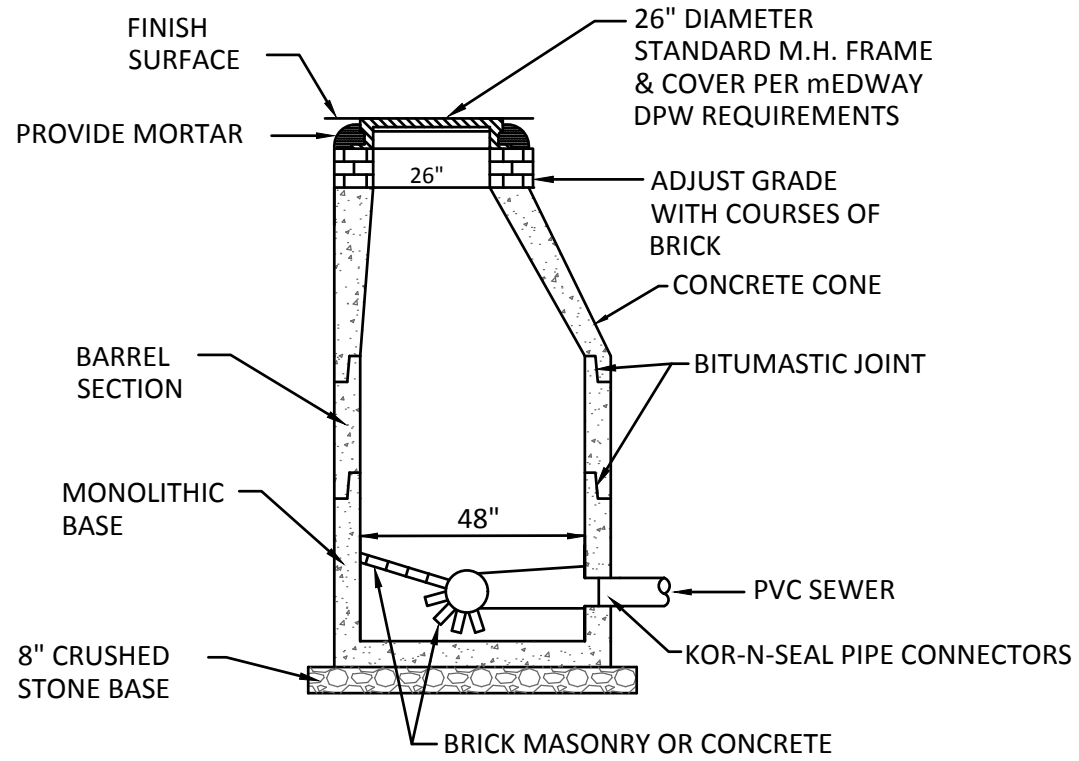
- NOTES:
1. STRUCTURE DESIGN TO LATEST ASTM C478.
  2. REINFORCING STEEL CONFORMS TO LATEST ASTM A 185.
  3. CONCRETE COMPRESSIVE STRENGTH - 4,000 PSI @ 28 DAYS.
  4. FLAT SLAB TOP AASHTO H-20.5. ONE POUR MONOLITHIC BASE.

**PRECAST CONCRETE CATCH BASIN W/ TRAP**  
(NOT TO SCALE)



- NOTES:
1. MANHOLE DESIGN TO LATEST ASTM C478.
  2. REINFORCING STEEL CONFORMS TO LATEST ASTM A 185.
  3. CONCRETE COMPRESSIVE STRENGTH - 4,000 PSI @ 28 DAYS.
  4. ONE POUR MONOLITHIC BASE.
  5. STEPS - STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTICS (PS2-PFSL M.A. INDUSTRIES, INC.) CONFORMS TO LATEST ASTM C478 PARA-12.
  6. BITUMASTIC BUTYL RUBBER FOR JOINTS CONFORM TO LATEST ASTM C443 AND FED SS-S-201A SPEC.

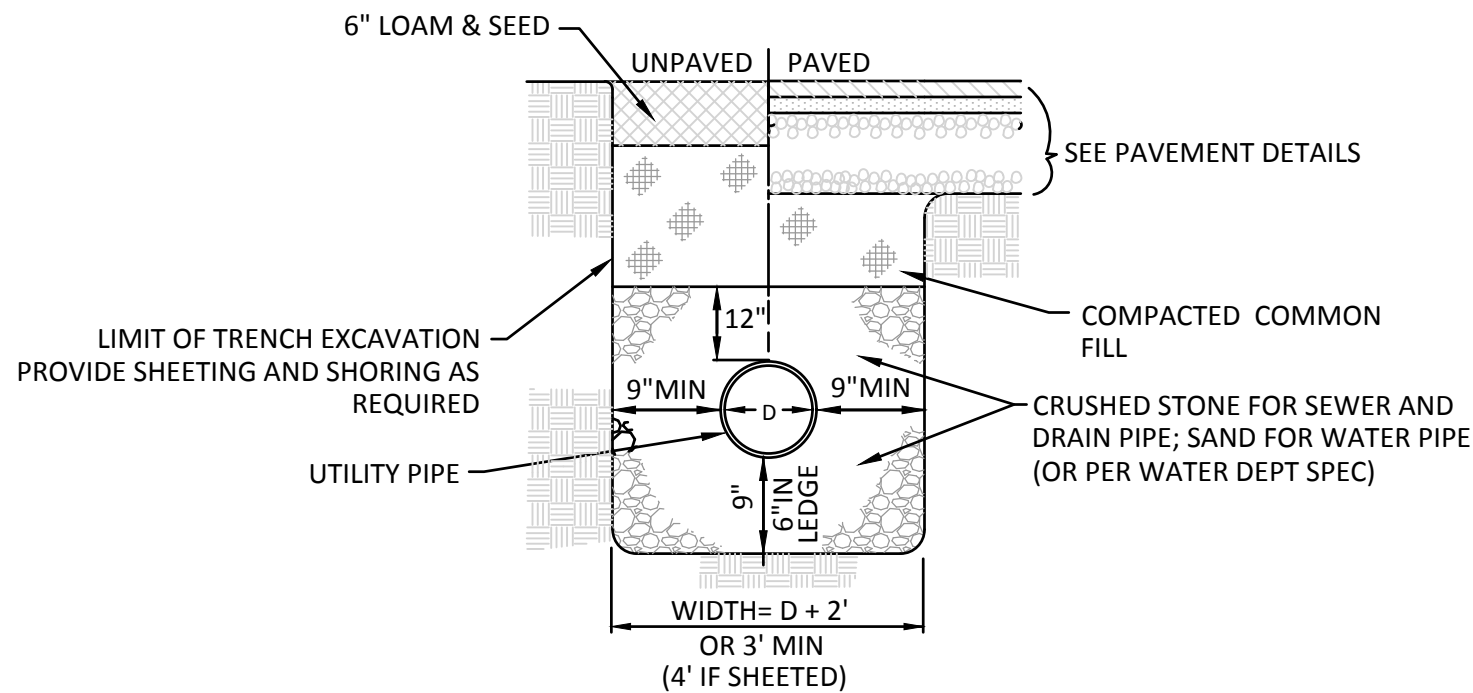
**PRECAST CONCRETE DRAIN MANHOLE**  
(NOT TO SCALE)



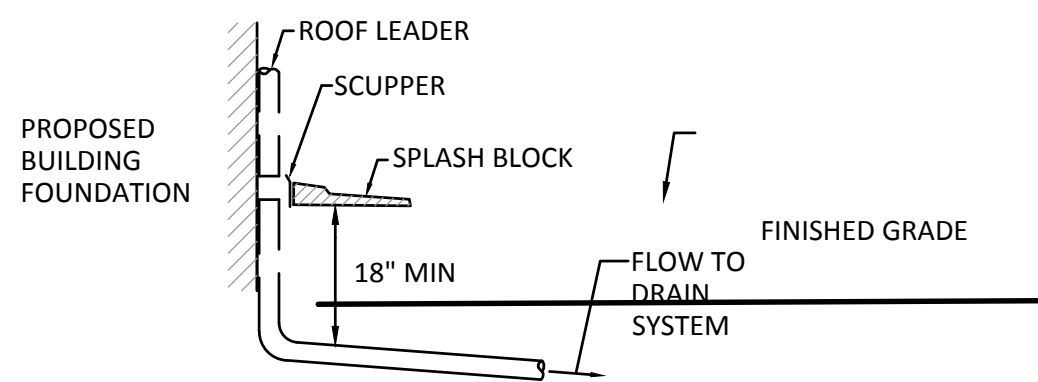
- NOTES:
1. MANHOLE DESIGN SHALL CONFORM TO LATEST ASTM C478.
  2. REINFORCING STEEL SHALL CONFORM TO LATEST ASTM A 185.
  3. CONCRETE COMPRESSIVE STRENGTH-4,000 PSI @ 28 DAYS.
  4. ONE POUR MONOLITHIC BASE.
  5. STEPS-STEEL REINFORCED COPOLYMER POLYPROPYLENE PLASTIC (PS2-PFSL M.A. INDUSTRIES, INC.) CONFORMING TO LATEST ASTM C478 PARA-12.
  6. KOR-N-SEAL FLEXIBLE PIPE CONNECTORS SHALL CONFORM TO LATEST ASTM C923, A167.

**SEWER MANHOLE DETAIL (SMH)**  
(NOT TO SCALE)

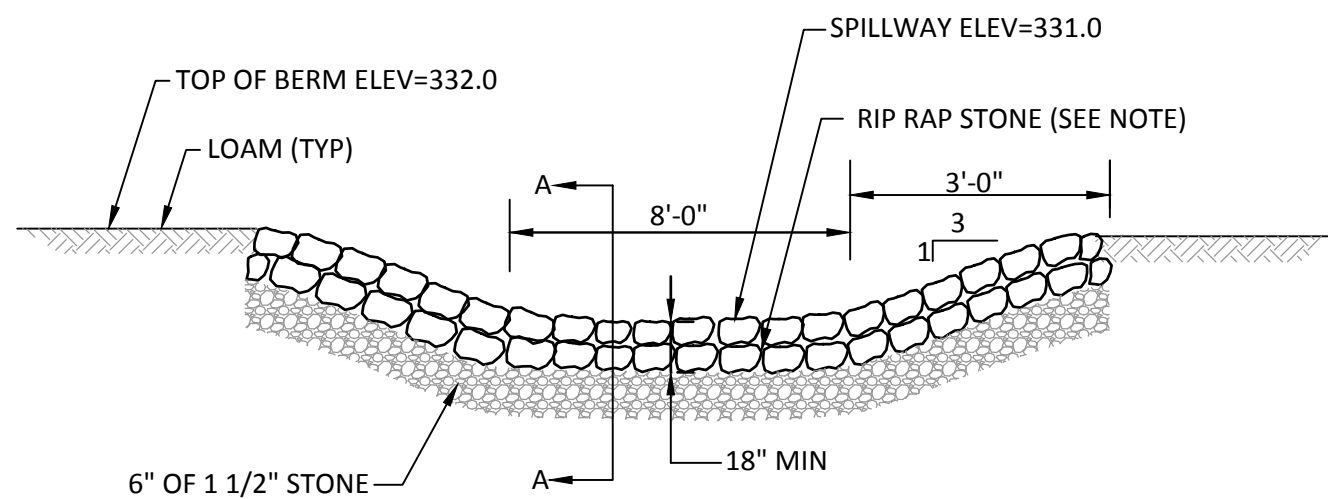
TRENCH WIDTH (W)		
D DIAMETER OF PIPE	W UNSHEETED	W SHEETED
TO 12"	3'	4'
14" TO 24"	4'	5'
30" TO 36"	5'	6'



**TYPICAL TRENCH SECTION**  
(NOT TO SCALE)

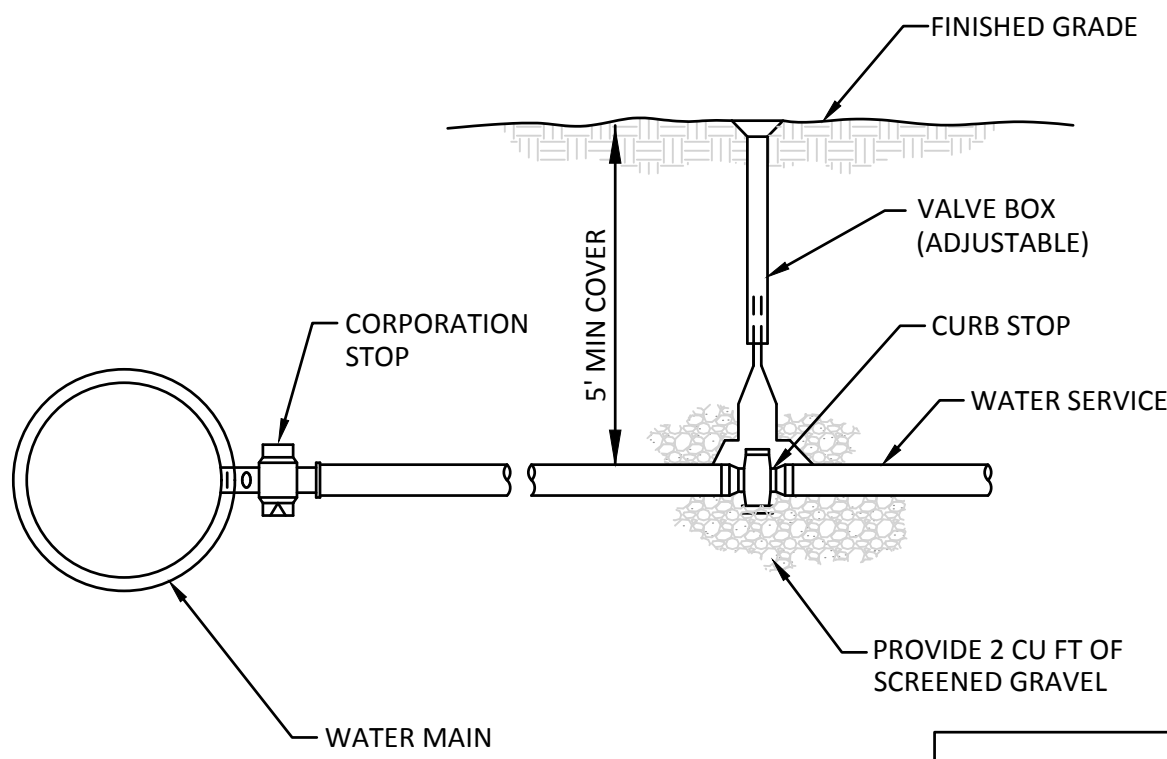


**ROOF DOWNSPOUT CONNECTION**  
(NOT TO SCALE)



NOTE:  
75% OF RIP-RAP STONE SHALL BE 70 TO 100 LBS. AND SHALL BE HAND CHINKED TO LEAVE A SMOOTH SURFACE ALONG THE TOP OF THE DIKE AND A ROUGH SURFACE ALONG DOWNSTREAM SURFACE AND TOE OF THE DIKE.

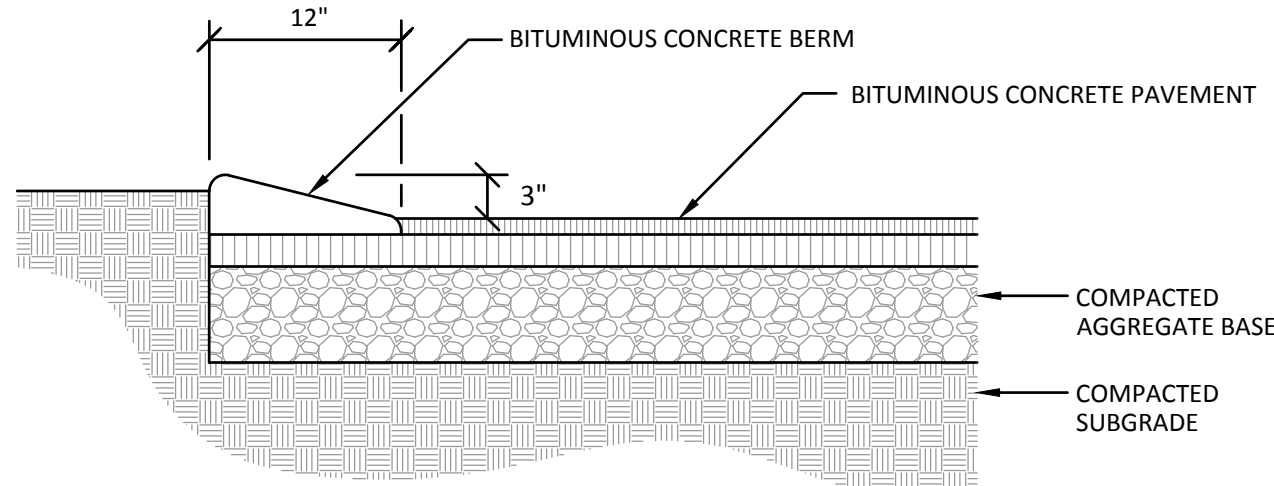
**EMERGENCY SPILLWAY WEIR**  
(NOT TO SCALE)



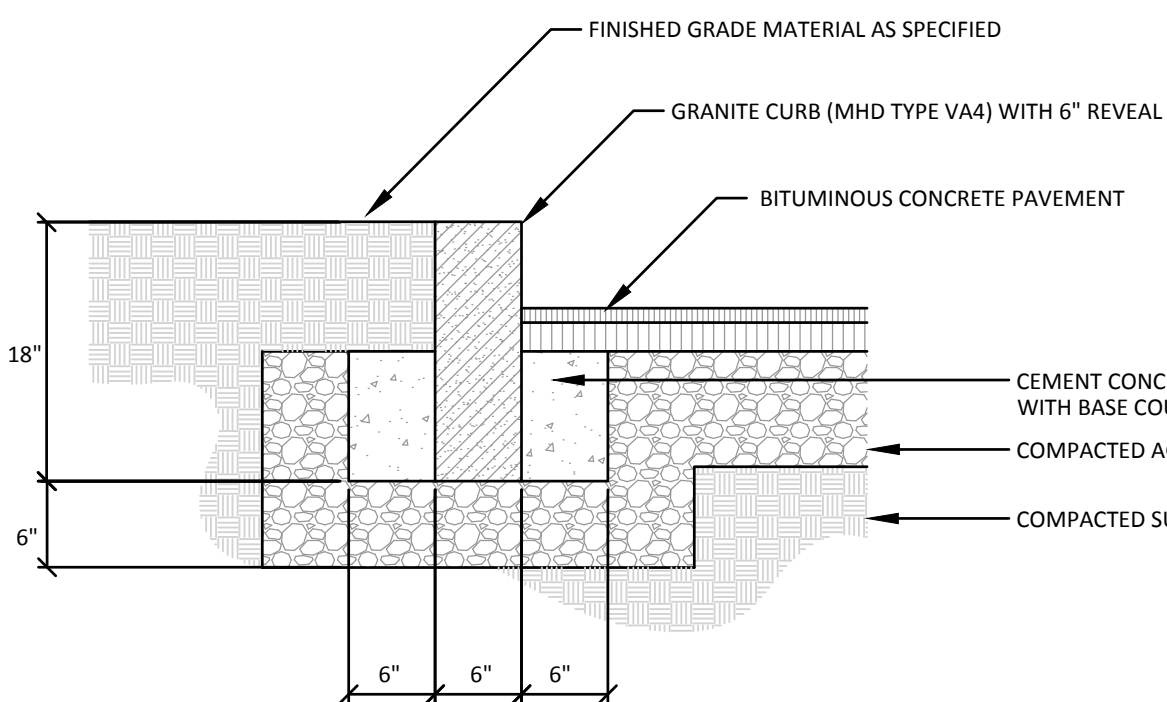
**WATER SERVICE CONNECTION**  
(NOT TO SCALE)

APPROVED BY THE TOWN OF MEDWAY  
PLANNING & ECONOMIC DEVELOPMENT BOARD

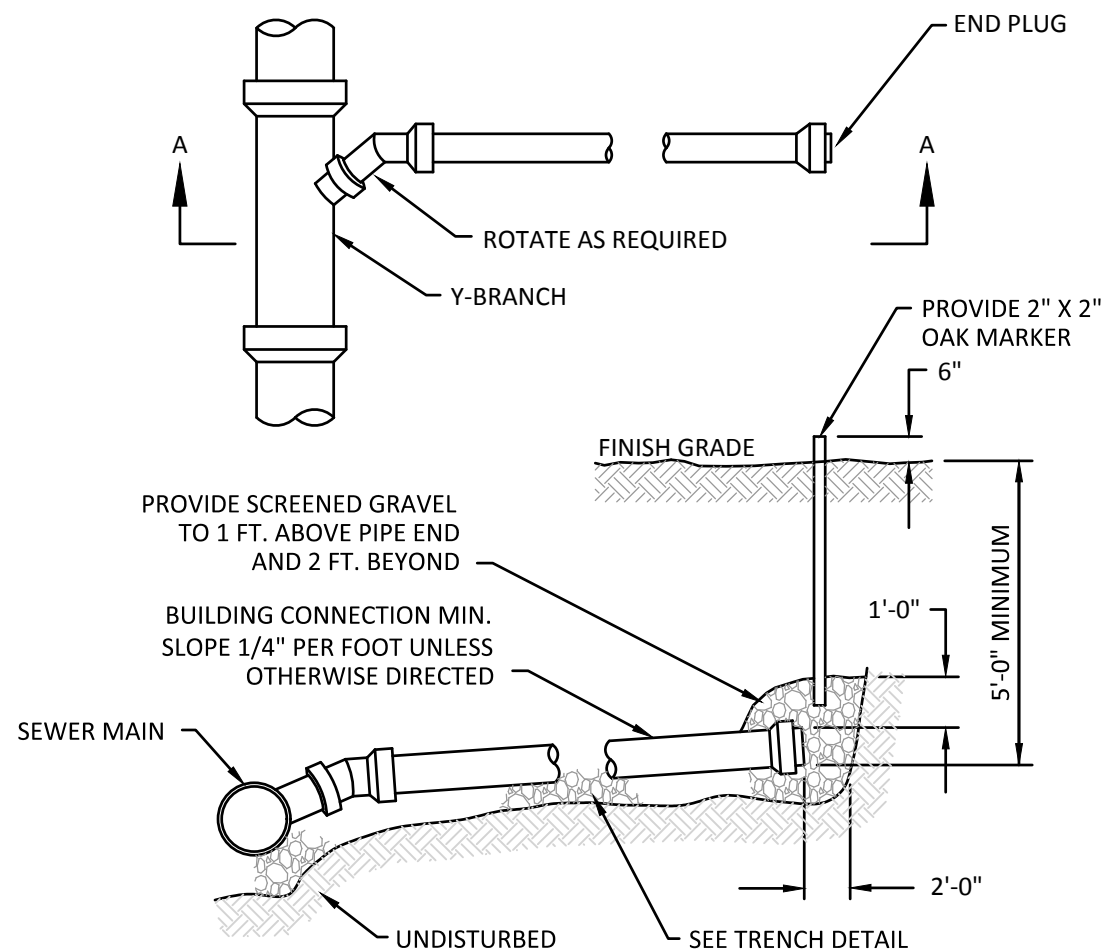
BOARD MEMBER DATE



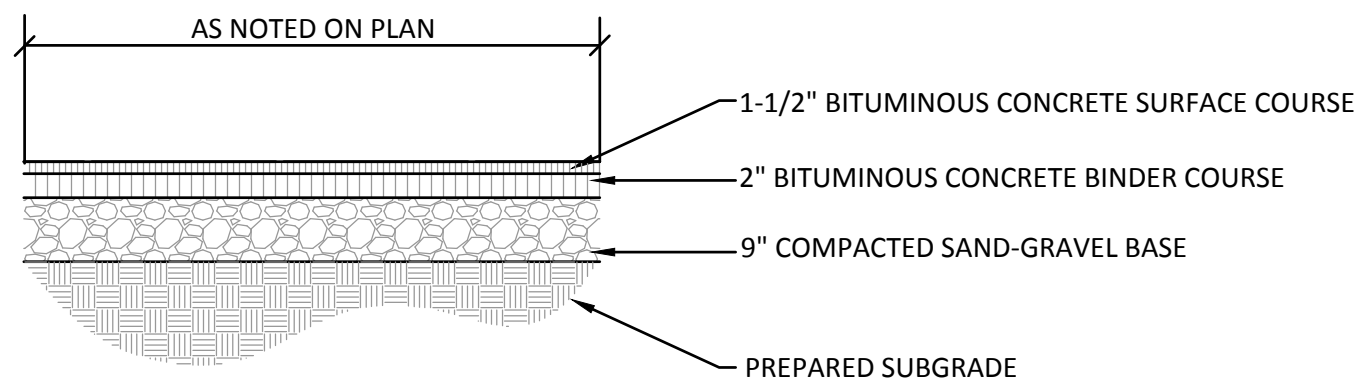
**BITUMINOUS CONCRETE BERM**  
(NOT TO SCALE)



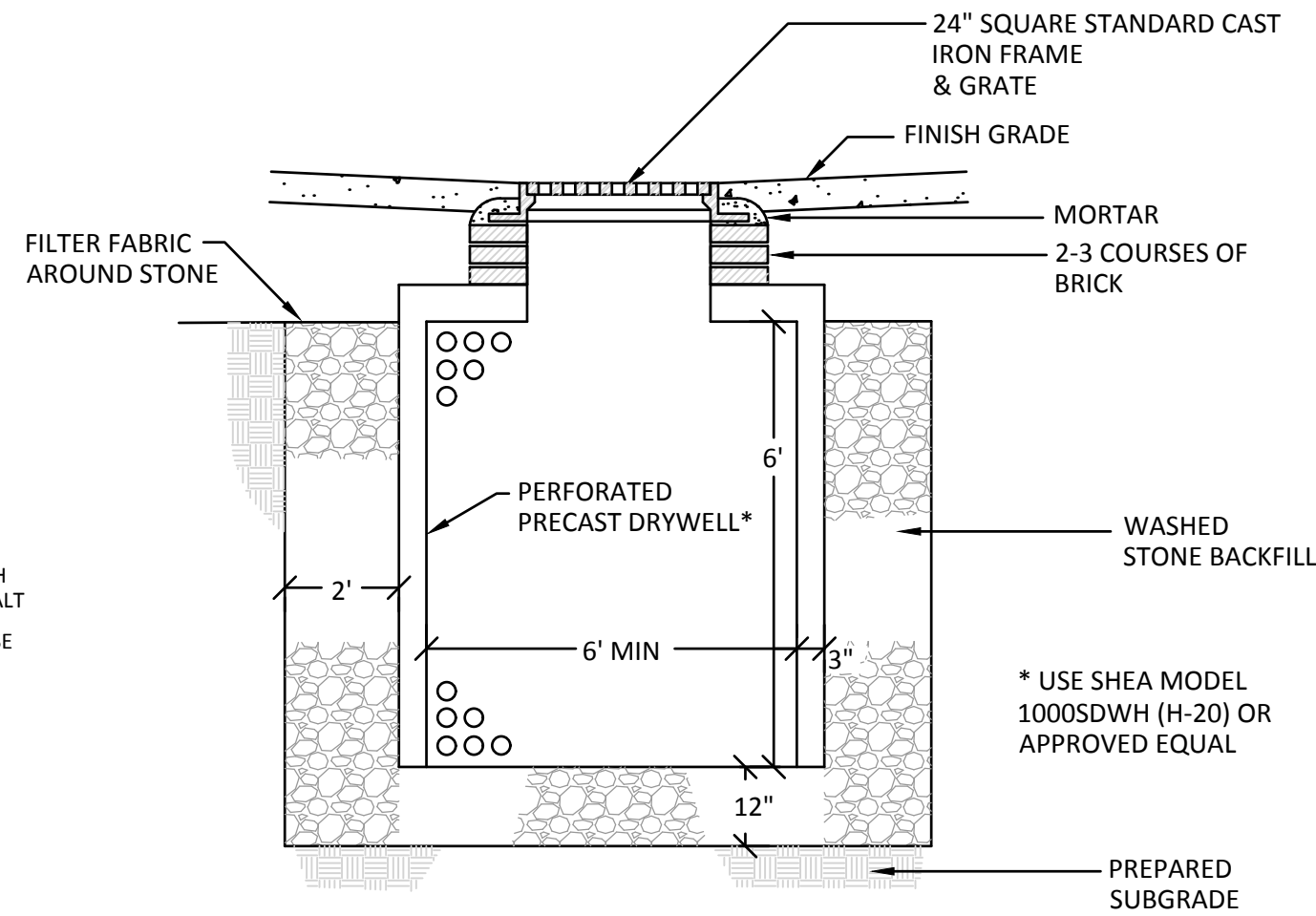
**VERTICAL GRANITE CURB**  
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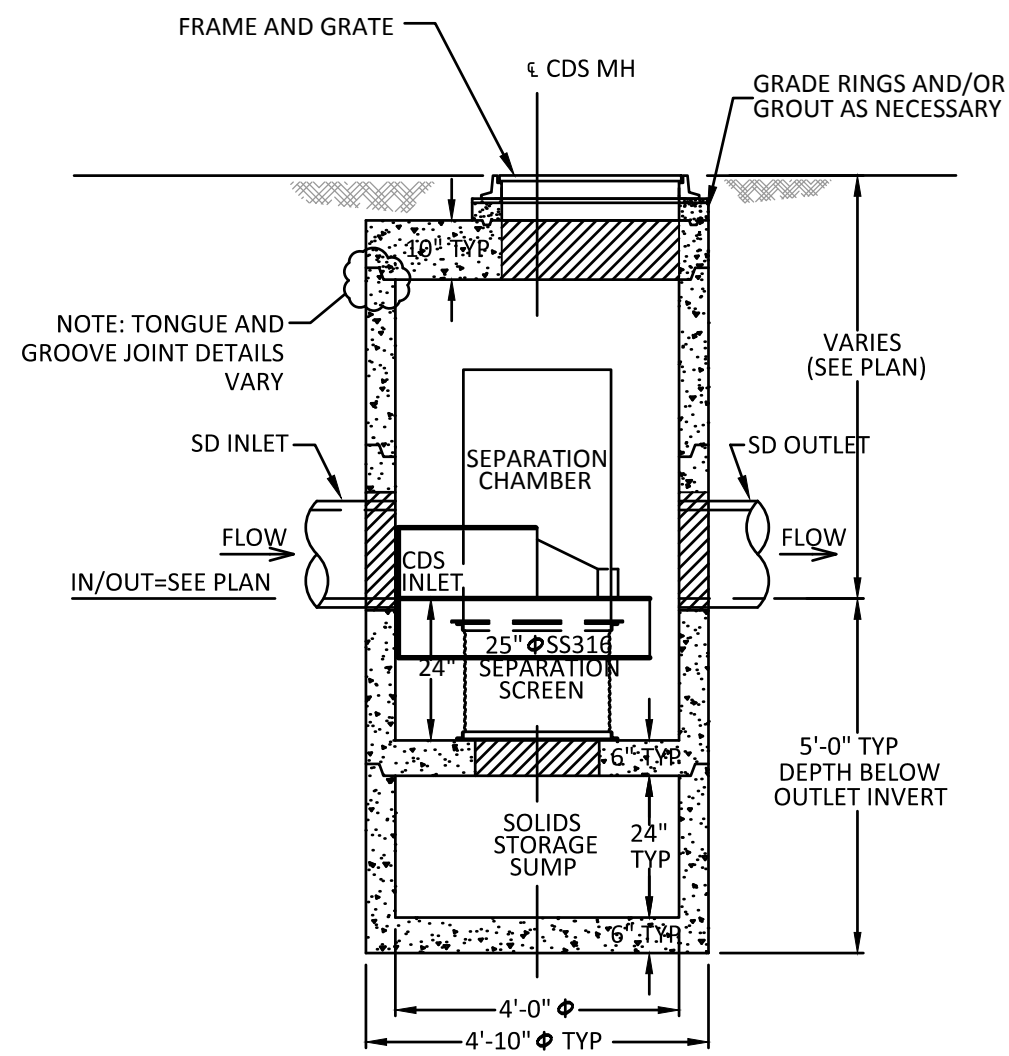
**SEWER SERVICE CONNECTION**  
(NOT TO SCALE)



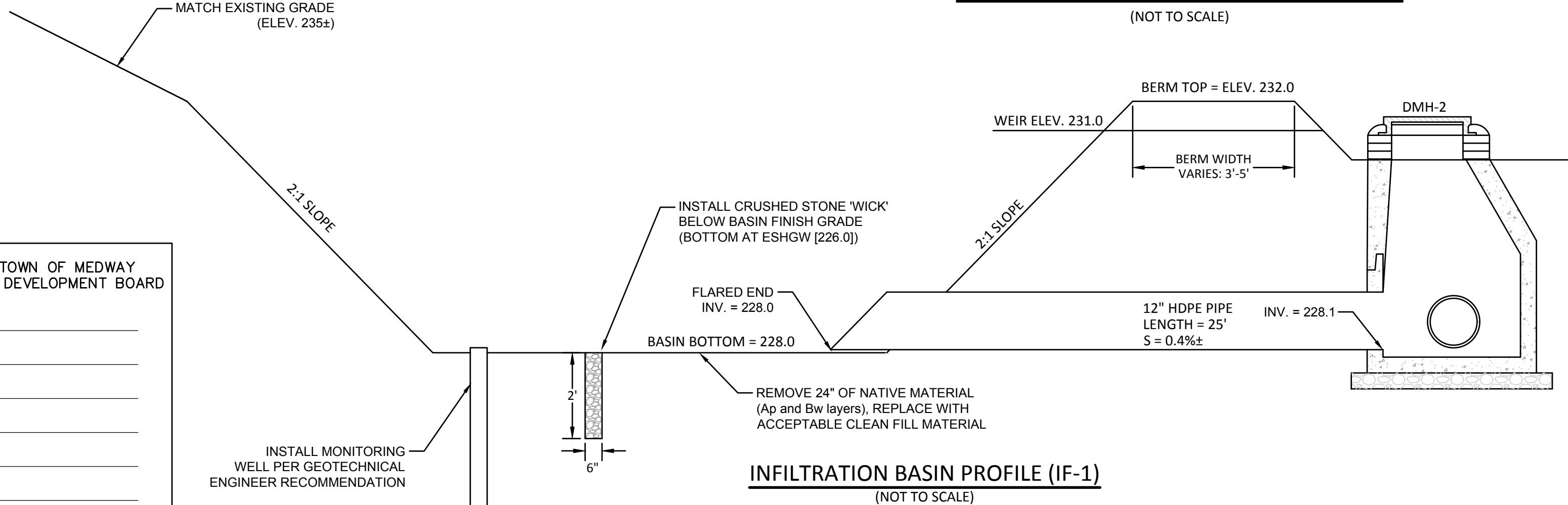
**BITUMINOUS CONCRETE PAVEMENT SECTION**  
(NOT TO SCALE)



**LEACHING CATCH BASIN**  
(NOT TO SCALE)



**CONTINUOUS DEFLECTIVE SEPARATOR (CDS)**  
(NOT TO SCALE)



**INFILTRATION BASIN PROFILE (IF-1)**  
(NOT TO SCALE)

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.
1	9/8/20	PEDB REVIEW COMMENTS	DG	MEB
2	11/10/20	QUADRIplex & PEDB REVIEW COMMENTS	DG	MEB
3	11/12/20	STORMWATER ADJUSTMENT	DG	MEB
4	2/1/21	DECISION CONDITIONS FOR ENDORSEMENT	DG	MEB

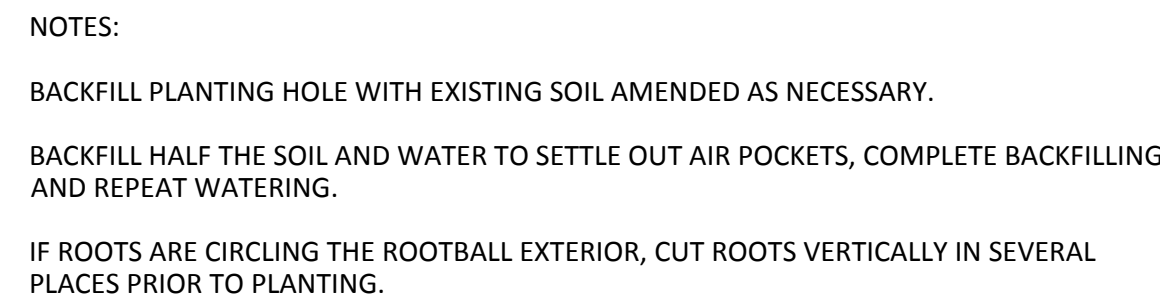
**SITE DETAILS**  
**Multifamily Development**  
**218-220 MAIN STREET**  
**MEDWAY, MA 02053**  
Prepared For:  
**Harmony Village LLC**



69 WILK STREET, SUITE 508, WESTBOROUGH, MA 01581 | 508.871.7030  
500 CUMMINGS CENTER, SUITE 590 BEVERLY, MA 01915 | 978.999.0447  
www.MeridianAssoc.com

Date:  
**June 9, 2020**  
(See Revisions)  
Scale:  
**N.T.S**  
Project No.  
**8521**  
Sheet No.  
**C-7**





**SITE DETAILS**

**Multifamily Development**

**218-220 MAIN STREET**

**MEDWAY, MA 02053**

Prepared For:

**Harmony Village LLC**

Date:	June 9, 2020 (See Revisions)
Scale:	N.T.S
Project No.	8521
Sheet No.	C-8





NOTE:  
DW-2 IS TO CAPTURE ROOF RUNOFF FROM UNIT 5.

**SITE DETAILS**  
**Multifamily Development**  
218-220 MAIN STREET  
MEDWAY, MA 02053  
Prepared For:  
Harmony Village LLC



MERIDIAN  
ASSOCIATES

69 MILK STREET, SUITE 208, WESTBOROUGH, MA 01581 | 508.871.7030  
1500 CUMMINGS CENTER, SUITE 5950 BEVERLY, MA 01915 | 978.299.0447

Date:  
June 9, 2020  
(See Revisions)

Scale: N.T.S

**Project No.**  
**8521**

Sheet No.  
C-9

[illegible]





NOTE:  
FINAL MAILBOX DESIGN TO BE APPROVED BY  
THE MEDWAY POSTAL SERVICE.

**CONCEPTUAL GANG MAILBOX**

NOT TO SCALE

#### DESCRIPTION

The Lexington LED outdoor luminaire displays the old-fashioned charm of traditional lantern-type post top lighting, enhancing any setting with distinctive styling. As a decorative luminaire, the Lexington LED tastefully complements the architectural and environmental design of parks and roadways. It's patented LightBAR™ technology delivers uniform and efficient illumination to pedestrian and roadway applications.

#### SPECIFICATION FEATURES

**Construction**  
TOP: Hinged die-cast aluminum top with cupola cover. **SCREWS:** Captive retaining screw. **HOUSING:** Die-cast aluminum base housing. Standard color is black. Other finish colors available. Consult your Streetworks representative. 1" ANSI wattage/source label.

**Optics**  
Choice of symmetric or asymmetric distributions with refractive lens panels. Clear lens panels also available. 4000K CCT (+/- 275K), minimum 70 CRI.

**Electrical**  
LED drivers are potted and equipped with heat sinks for optimal performance and prolonged life. Standard drivers feature electronic universal voltage (120V-277V/50-60Hz), greater than 0.90 power factor, and operating temperature range from -30°C to +40°C. Includes surge protection for transient line surges up to 10kV. Standard three-position tunneltype terminal block. System is rated for 90% lumen maintenance at 60,000 hours (compliant with IESNA TM-21).

**Mounting**  
Self-aligning pole-top fitter fits 2-3/8" and 2" O.D. tenons. Square headed 1-1/4" polymer coated mounting bolts.

**Finish**  
Cast components finished in a Super durable black TOC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Optional colors include: bronze, grey and white. RAL and custom color matches available.

**Warranty**  
Five-year warranty.



**LXF/LXT  
LEXINGTON LED**

1 LightBAR=26W (Nominal)  
2 LightBARS=52W (Nominal)  
**LED**

**DECORATIVE POST TOP  
LUMINAIRE**

**CERTIFICATION DATA**  
UL Listed  
ISO 9001  
IP68 LightBARS  
LM79 / LM80 Compliant

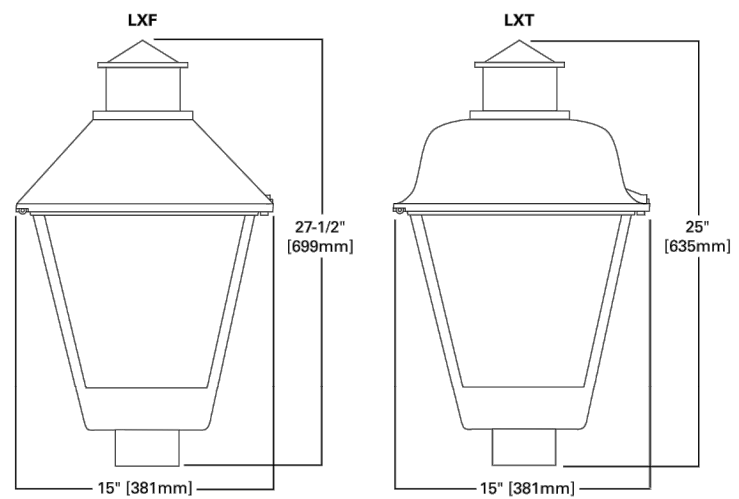
**ENERGY DATA**  
Electronic LED Driver  
>0.9 Power Factor  
<20% Total Harmonic Distortion  
120-277V 50/60Hz  
-30°C Minimum Temperature  
40°C Ambient Temperature Rating

**EPA**  
Effective Projected Area: (Sq. Ft.)  
1.7

**SHIPPING DATA**  
Approximate Net Wt:  
25 lbs. (11 kg.)

**TSO 16007EN**  
July 16, 2018 8:06 AM

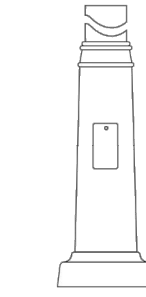
#### DIMENSIONS



## Streetworks

Catalog #	Type
Project	
Comments	Date
Prepared by	

#### DECORATIVE

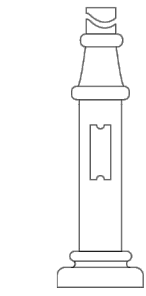


**ASP ASPEN**

ORDERING INFORMATION								
SAMPLE NUMBER: ASP084RPS5BK								
Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)	
ASP-Aspen	08-8' 10-10' 12-12' 14-14' 16-16' 18-18'	5-5"	2-0.188" 3-0.250"	RS-Round Straight SF-Straight Fluted	4-4" O.D. Tenon 5-3" O.D. Tenon	AP-Grey BK-Black BZ-Bronze DP-Dark Platinum GM-Graphite Metallic GN-Hartford Green WH-White	C-Provision for Convenience Outlet E-GFI Convenience Outlet G-Ground Lug	WH-White

NOTES: 1. Provides 4" tenon on 5' shafts or no tenon on 4" shafts allowing slip over of Epic Collection, Slide and Fite arm accessories. See individual product specifications for additional information.

**BASE HEIGHT:** 40"  
**BOLT CIRCLE:** 15"

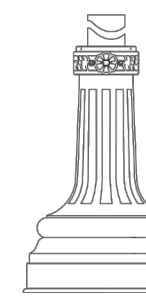


**BWR BROADWAY**

ORDERING INFORMATION								
SAMPLE NUMBER: BWR084RPS5BK								
Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)	
BWR-Broadway	08-8' 10-10' 12-12' 14-14' 16-16'	8-8"	1-0.156" 2-0.188" 3-0.250"	RT-Round Tapered	5-3" O.D. Tenon	AP-Grey BK-Black BZ-Bronze DP-Dark Platinum GM-Graphite Metallic GN-Hartford Green WH-White	C-Provision for Convenience Outlet E-GFI Convenience Outlet G-Ground Lug	WH-White

NOTES: 1. Pole tapers to 4" at pole top.

**BASE HEIGHT:** 42"  
**BOLT CIRCLE:** 12"

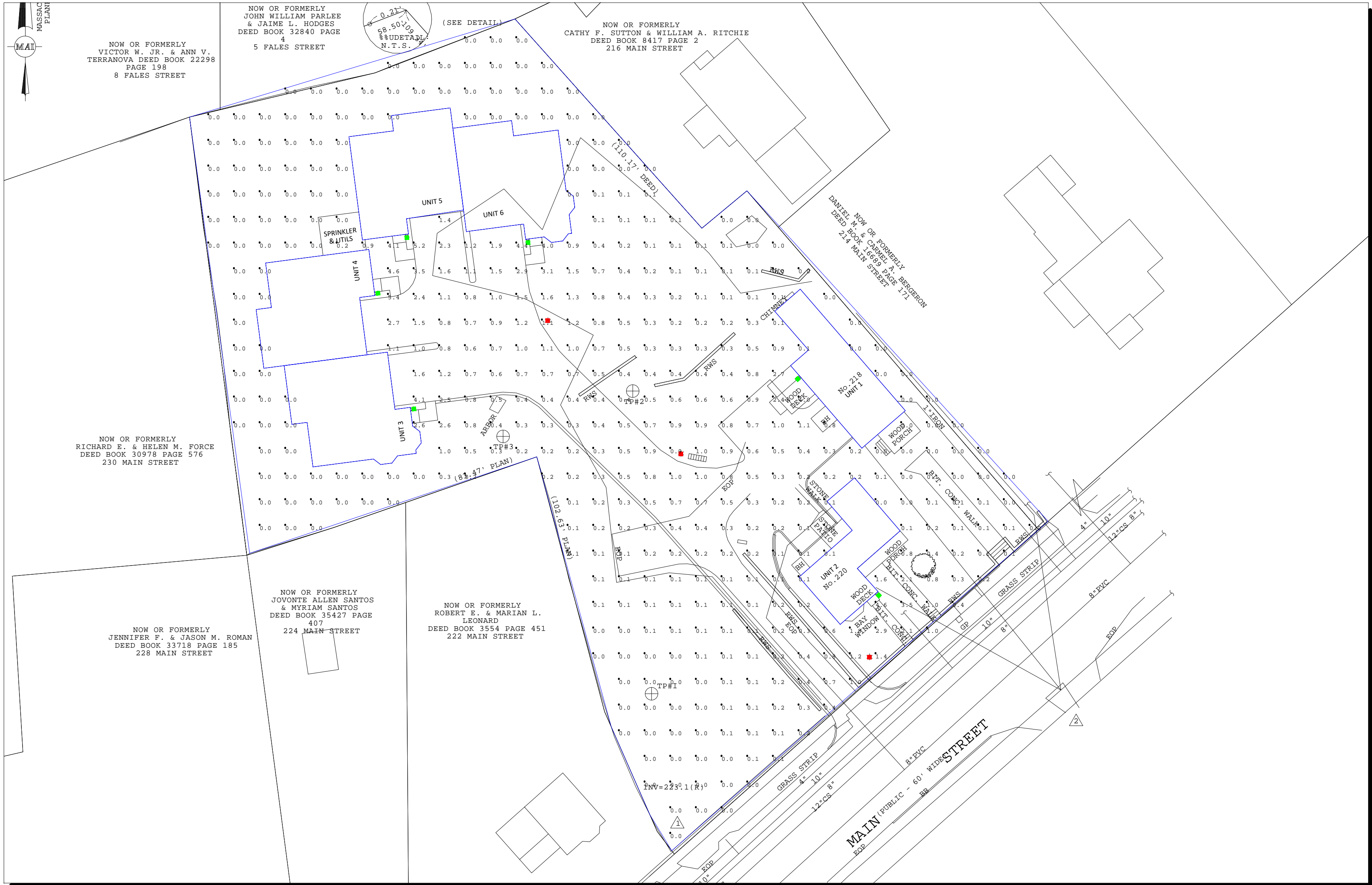


**CHI CHARLESTON**

ORDERING INFORMATION								
SAMPLE NUMBER: CHI084RPS5BK								
Base Type	Mounting Height (Feet)	Shaft Size at Base (Inches)	Wall Thickness (Inches)	Shaft Type	Luminaire	Color	Options (Add as Suffix)	
CHI-Charleston	08-8' 10-10' 12-12' 14-14'	4-4" 5-5" 6-6"	0-0.125" 2-0.188"	RS-Round Straight SF-Straight Fluted	4-4" O.D. Tenon 5-3" O.D. Tenon	AP-Grey BK-Black BZ-Bronze DP-Dark Platinum GM-Graphite Metallic GN-Hartford Green WH-White	C-Provision for Convenience Outlet E-GFI Convenience Outlet G-Ground Lug	WH-White

NOTES: 1. 4" shaft size available in 8', 10' and 12' mounting heights. 5" shaft size available in 8', 10', 12', 14' and 16' mounting heights. 6" shaft size available in 12', 14', 16' and 18' mounting heights. 8" shaft size available in 12', 14', 16' and 18' mounting heights. 10" shaft size available in 12', 14', 16' and 18' mounting heights. 12" shaft size available in 12', 14', 16' and 18' mounting heights. 14" shaft size available in 12', 14', 16' and 18' mounting heights. 16" shaft size available in 12', 14', 16' and 18' mounting heights. 18" shaft size available in 12', 14', 16' and 18' mounting heights. 20" shaft size available in 12', 14', 16' and 18' mounting heights. 22" shaft size available in 12', 14', 16' and 18' mounting heights. 24" shaft size available in 12', 14', 16' and 18' mounting heights. 26" shaft size available in 12', 14', 16' and 18' mounting heights. 28" shaft size available in 12', 14', 16' and 18' mounting heights. 30" shaft size available in 12', 14', 16' and 18' mounting heights. 32" shaft size available in 12', 14', 16' and 18' mounting heights. 34" shaft size available in 12', 14', 16' and 18' mounting heights. 36" shaft size available in 12', 14', 16' and 18' mounting heights. 38" shaft size available in 12', 14', 16' and 18' mounting heights. 40" shaft size available in 12', 14', 16' and 18' mounting heights. 42" shaft size available in 12', 14', 16' and 18' mounting heights. 44" shaft size available in 12', 14', 16' and 18' mounting heights. 46" shaft size available in 12', 14', 16' and 18' mounting heights. 48" shaft size available in 12', 14', 16' and 18' mounting heights. 50" shaft size available in 12', 14', 16' and 18' mounting heights. 52" shaft size available in 12', 14', 16' and 18' mounting heights. 54" shaft size available in 12', 14', 16' and 18' mounting heights. 56" shaft size available in 12', 14', 16' and 18' mounting heights. 58" shaft size available in 12', 14', 16' and 18' mounting heights. 60" shaft size 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in 12', 14', 16' and 18' mounting





Luminaire Schedule

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	3	S1	SINGLE	N.A.	0.900	STREETWORKS LXF-E02-LED-E-U-SYM-BK
	6	WM	SINGLE	N.A.	0.900	STREETWORKS LXF-E02-LED-E-U-SYM-BK w/ CA108506-XX

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LOT_Planar	Illuminance	Fc	0.44	5.4	0.0	N.A.	N.A.



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#	Date	Comments

Revisions

Drawn By:  
Checked By:  
Date: 11/10/2020  
Scale:

HARMONY VILLAGE



PACIFIC-VISIONS STUDIO LLC  
ARCHITECTURAL DESIGN  
38 Thompson Ave.  
Bristol, RI  
774.633.1272  
Pacific-Visions.com

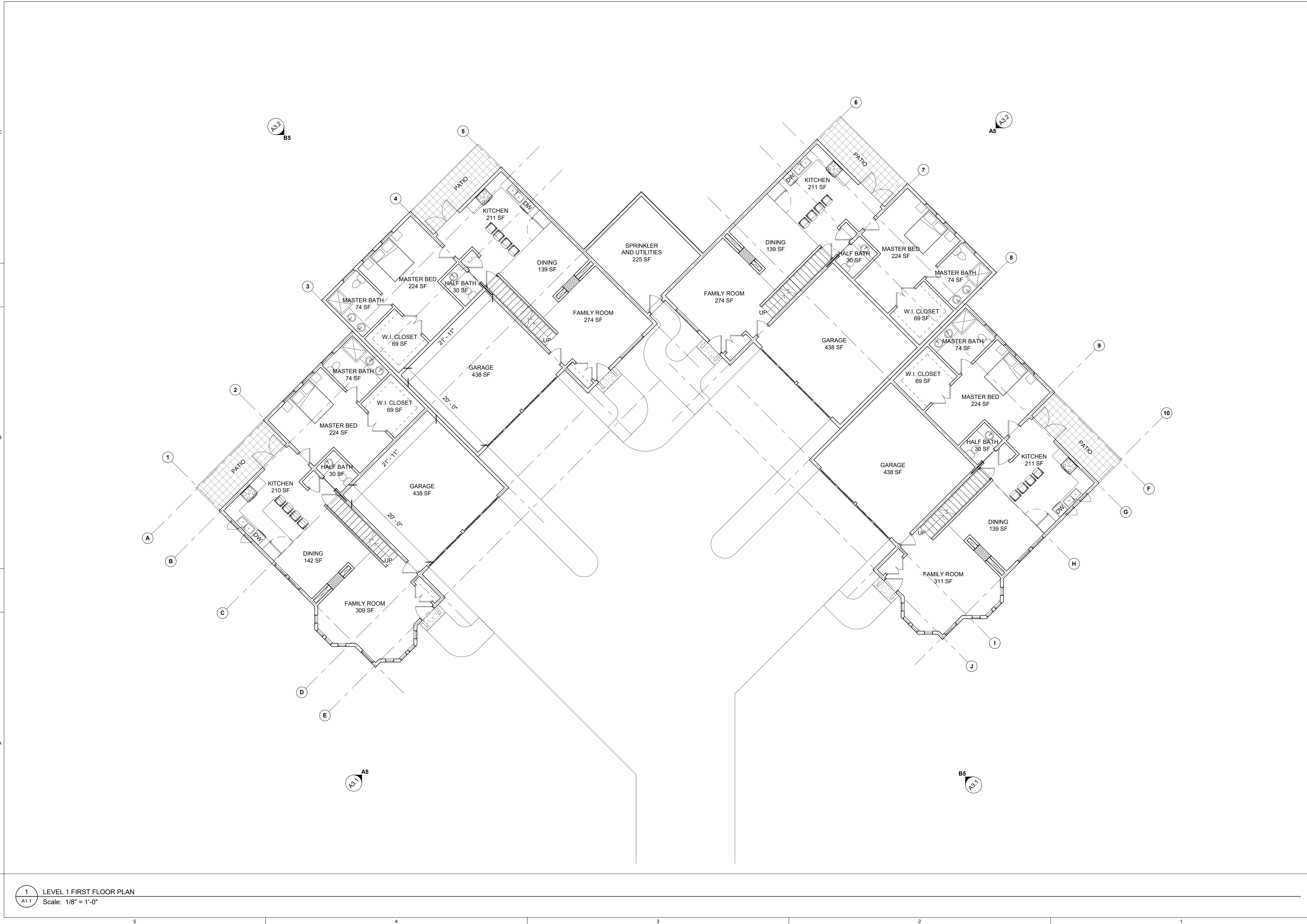
Medway Multifamily Development (Quadplex)  
**218-220 Main Street**

218-220 Main Street  
Medway, MA 02053

DESIGN INTENT  
NOT FOR CONSTRUCTION  
30 OCTOBER 2020

FIRST FLOOR PLAN

A1.1







PACIFIC-VISIONS STUDIO LLC  
ARCHITECTURAL DESIGN  
38 Thompson Ave.  
Bristol, RI  
774.633.1272  
Pacific-Visions.com

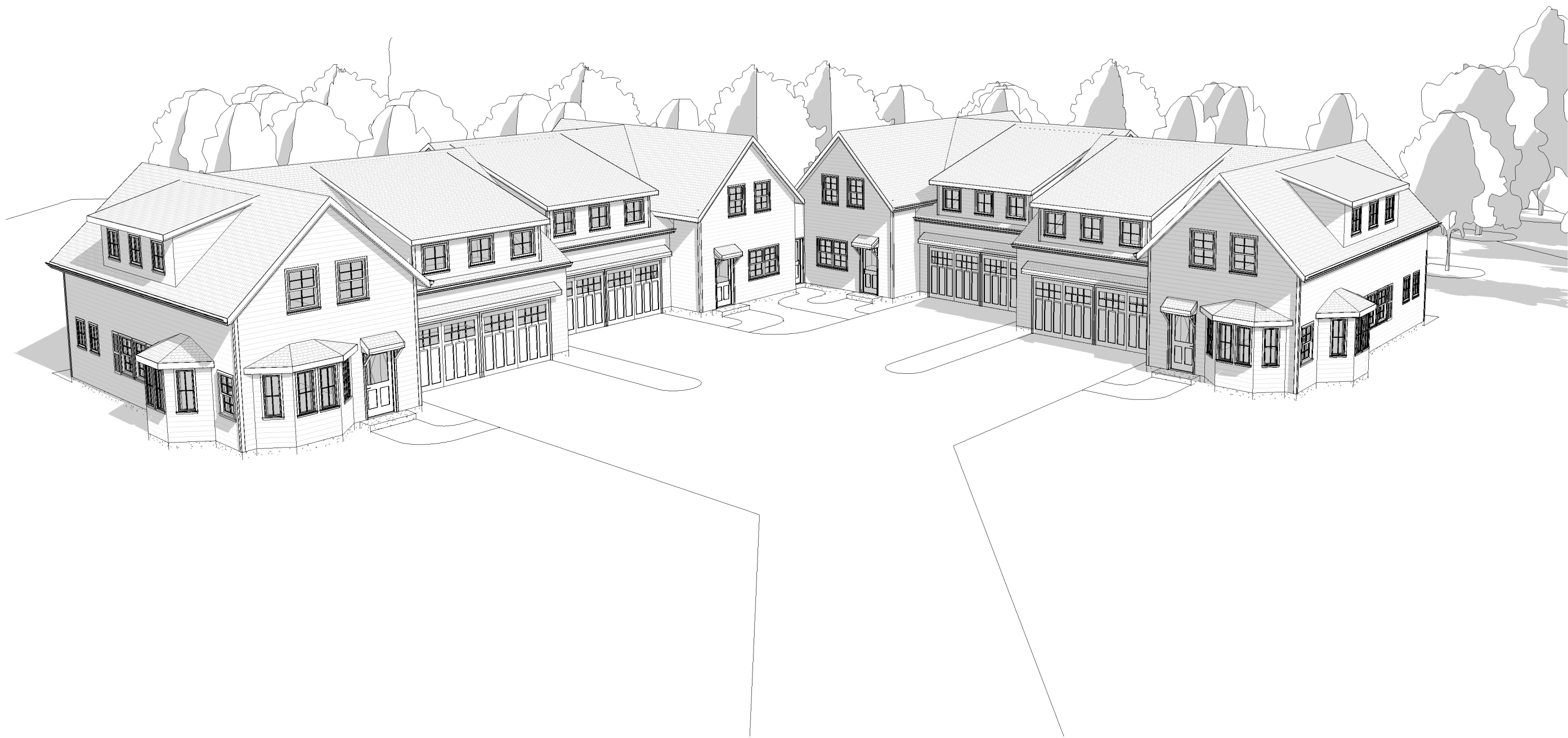
Medway Multifamily Development (Quadplex)  
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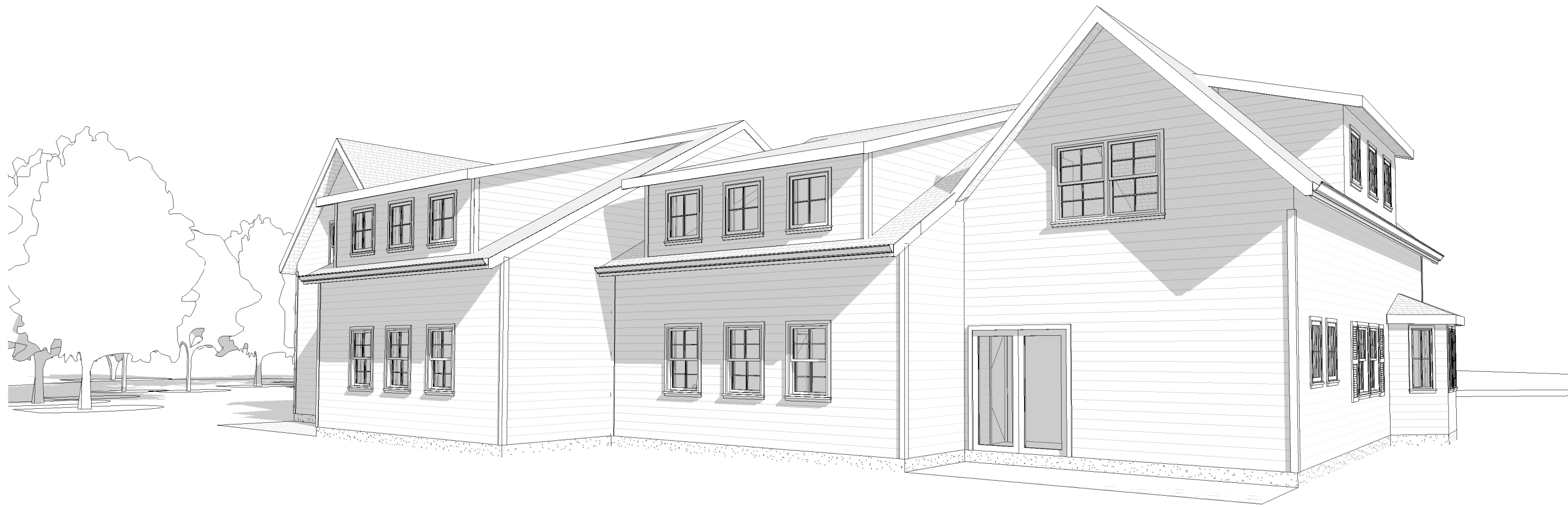
DESIGN INTENT  
NOT FOR CONSTRUCTION  
30 OCTOBER 2020

3D VIEWS

A4.0



B5 Exterior 3D View 1  
A4.0 Scale:



B3 EXTERIOR 3D VIEW 2  
A4.0 Scale:



A5 EXTERIOR 3D VIEW 3  
A4.0 Scale:



A3 EXTERIOR 3D VIEW 4  
A4.0 Scale:



February 2, 2021

Medway Planning & Economic Development Board  
Attn: Susan Affleck-Childs, Coordinator  
155 Village Street  
Medway, Massachusetts 02053

Re: **Harmony Village**  
**218-220 Main Street, Medway, Massachusetts**  
Response to Tetra Tech Stormwater comments 9-22 per Conditions of Approval in Decision  
MAI Project No. 8521

Dear Chairman Rodenhiser and Members of the Board:

On behalf of the Applicant, Harmony Village LLC, Meridian Associates, Inc. (MAI) is pleased to submit this letter to respond to the Tetra Tech Stormwater review comments from their letter dated November 18, 2020 as part of the Special Conditions of Approval item D.10. in the final Decision for this project.

Numbered items correspond to their comment letter and address outstanding items as follows:

**Stormwater Review**

9. A test was performed in the DW-1 infiltration area on Dec. 4, 2020. The test pit information was added to the Soil Testing Summary page located in our revised Stormwater Report. The groundwater was acceptable to install DW-1 per the plans.
10. Additional detail has been added to the Infiltration Basin Profile (IF-1) to address soil layers and fill depths.
11. Sizing sheets and TSS removal for the proposed CDS unit have been provided and are enclosed with this letter.
12. An email from Contech verifying that the CDS unit will not be adversely affected when submerged has been provided and is enclosed with this letter.
13. A NPDES permit (CGP) will be filed for the project as required.
14. An Illicit Discharge Compliance Statement is now provided within the Stormwater Report.
15. A monitoring well and drawdown devise have been provided and shown on the Infiltration Basin Profile (IF-1) detail. The basin has been revised to provide 9" of freeboard. Due to the desire to limit regrading and save as many adjacent trees to the Infiltration basin, one foot of freeboard was not practicable.
16. No response necessary.
17. Additional spot grades and grading was added to the rear of the proposed quad for clarity.
18. It is difficult to provide the extent of flow related to the foundation drains, as groundwater is seasonal. However, the proposed quad basement should be generally above the estimated groundwater elevation for most, if not the entire year. The foundation drains are now proposed to tie directly into the existing drain system in Main Street, so as not to affect the drainage design for the project. This is allowed as per MS4 requirements and a better approach for the site.



19. See comment 18 above.
20. The downspout connection detail has been revised to include an overflow.
21. Roof leader pipe sizing calculations have been included in the revised Stormwater Report.
22. Construction details for the proposed Cultec systems have been added to the detail sheets.

We trust that these comments have been adequately addressed, and look forward to our next meeting on February 9, 2021 to finalize the plans.

Please contact our office if any additional information is required before then.

Sincerely,

**MERIDIAN ASSOCIATES, INC.**

Drew Garvin, EIT  
Senior Project Engineer

Copy: Gary Feldman

8521\_TT Response for Decision\_20210202



## CDS ESTIMATED NET ANNUAL SOLIDS LOAD REDUCTION BASED ON THE RATIONAL RAINFALL METHOD

### HARMONY VILLAGE MEDWAY, MA

Area **0.22 ac**  
Weighted C **0.9**  
 $t_c$  **5 min**  
CDS Model **2015-4**

Unit Site Designation **CDS-1**  
Rainfall Station # **68**

CDS Treatment Capacity **1.4 cfs**

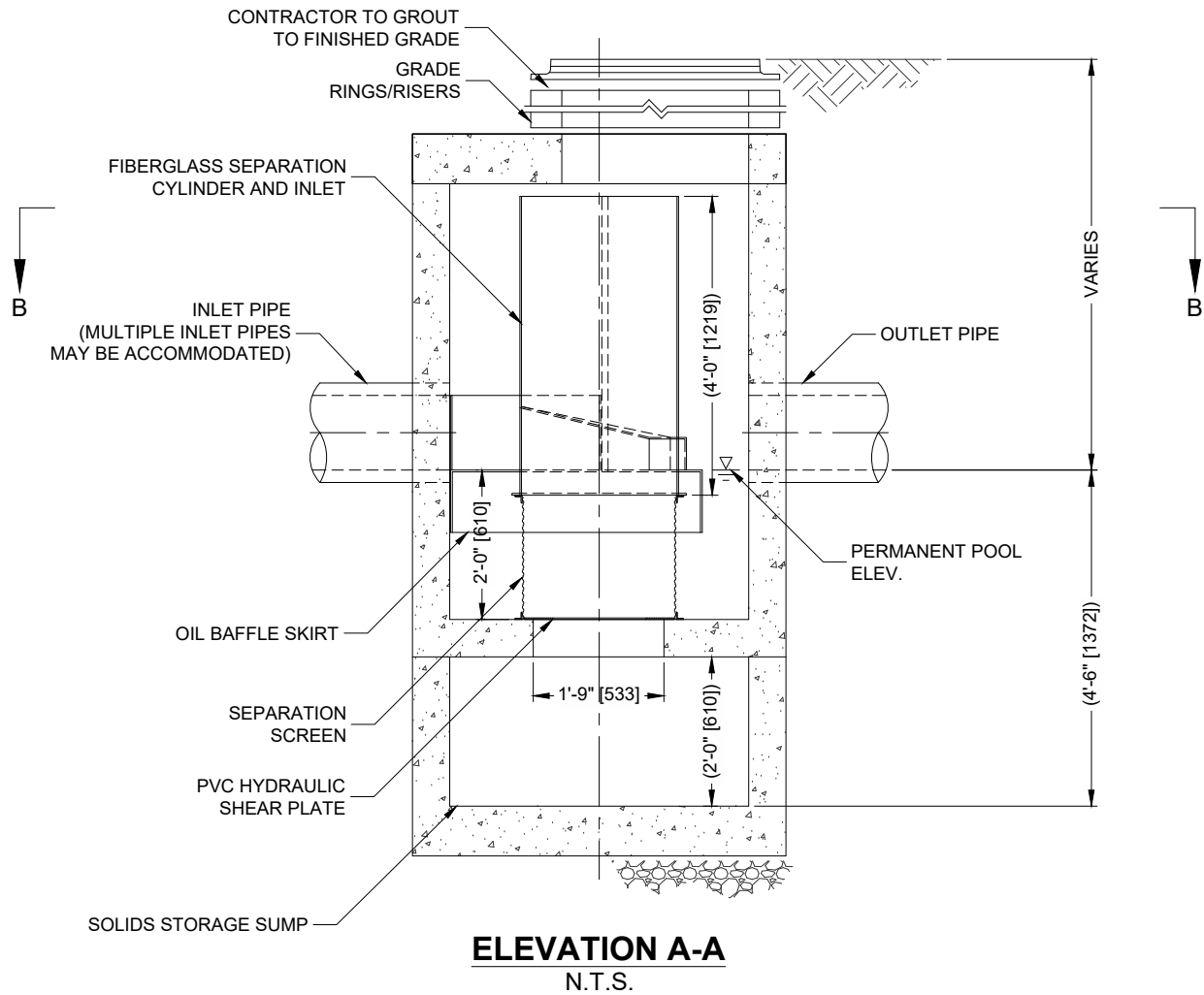
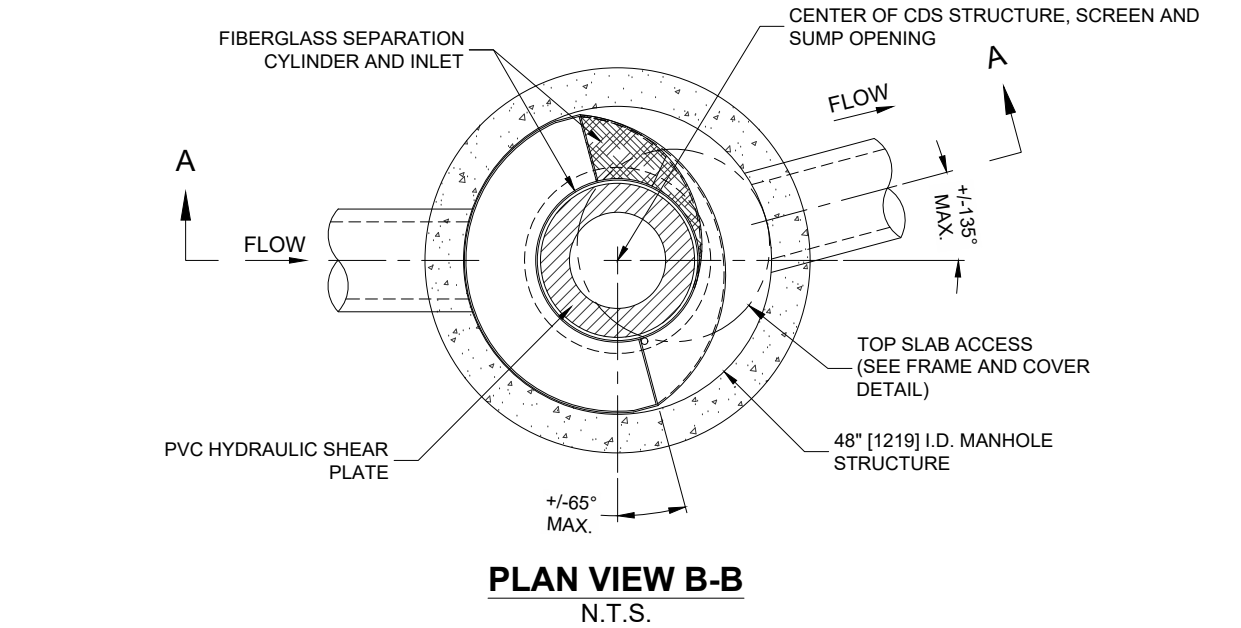
<u>Rainfall Intensity<sup>1</sup></u> (in/hr)	<u>Percent Rainfall Volume<sup>1</sup></u>	<u>Cumulative Rainfall Volume</u>	<u>Total Flowrate (cfs)</u>	<u>Treated Flowrate (cfs)</u>	<u>Incremental Removal (%)</u>
0.02	9.3%	9.3%	0.00	0.00	9.1
0.04	9.5%	18.8%	0.01	0.01	9.2
0.06	8.7%	27.5%	0.01	0.01	8.4
0.08	10.1%	37.6%	0.02	0.02	9.7
0.10	7.2%	44.8%	0.02	0.02	6.9
0.12	6.0%	50.8%	0.02	0.02	5.8
0.14	6.3%	57.1%	0.03	0.03	6.0
0.16	5.6%	62.7%	0.03	0.03	5.4
0.18	4.7%	67.4%	0.04	0.04	4.5
0.20	3.6%	71.0%	0.04	0.04	3.4
0.25	8.2%	79.1%	0.05	0.05	7.7
0.50	14.9%	94.0%	0.10	0.10	13.8
0.75	3.2%	97.3%	0.15	0.15	2.9
1.00	1.2%	98.5%	0.20	0.20	1.1
1.50	0.7%	99.2%	0.30	0.30	0.6
2.00	0.8%	100.0%	0.40	0.40	0.6
0.00	0.0%	100.0%	0.00	0.00	0.0
0.00	0.0%	100.0%	0.00	0.00	0.0
0.00	0.0%	100.0%	0.00	0.00	0.0
0.00	0.0%	100.0%	0.00	0.00	0.0
0.00	0.0%	100.0%	0.00	0.00	0.0
					95.1
Removal Efficiency Adjustment <sup>2</sup> =					6.5%
Predicted % Annual Rainfall Treated =					93.5%
<b>Predicted Net Annual Load Removal Efficiency =</b>					<b>88.6%</b>

1 - Based on 10 years of rainfall data from NCDC station 736, Blue Hill, Norfolk County, MA

2 - Reduction due to use of 60-minute data for a site that has a time of concentration less than 30-minutes.

[illegible]

I:\AD.CONTECH\CPI\COM\ROOT\STORMWATER\URIS\DICTIONS\US\A\MA\SDE DESIGN TOOLS\STANDARD DETAIL\SCDS2015-4-C-DTL.DWG 8/6/2018 4:22 PM



THIS PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,780,848; 6,841,720; 6,911,086; 6,581,789; RELATED FOREIGN PATENTS, OR OTHER PATENTS PENDING.

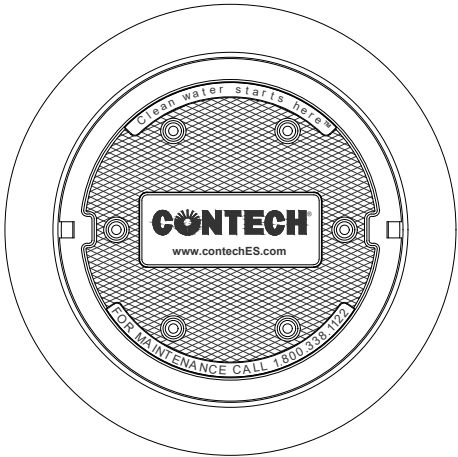
CDS2015-4-C DESIGN NOTES

CDS2015-4-C RATED TREATMENT CAPACITY IS 1.4 CFS, OR PER LOCAL REGULATIONS.

THE STANDARD CDS2015-4-C CONFIGURATION IS SHOWN. ALTERNATE CONFIGURATIONS ARE AVAILABLE AND ARE LISTED BELOW. SOME CONFIGURATIONS MAY BE COMBINED TO SUIT SITE REQUIREMENTS.

CONFIGURATION DESCRIPTION

- GRATED INLET ONLY (NO INLET PIPE)
- GRATED INLET WITH INLET PIPE OR PIPES
- CURB INLET ONLY (NO INLET PIPE)
- CURB INLET WITH INLET PIPE OR PIPES



FRAME AND COVER  
(DIAMETER VARIES)  
N.T.S.

SITE SPECIFIC  
DATA REQUIREMENTS

STRUCTURE ID				
WATER QUALITY FLOW RATE (CFS OR L/s)				*
PEAK FLOW RATE (CFS OR L/s)				*
RETURN PERIOD OF PEAK FLOW (YRS)				*
SCREEN APERTURE (2400 OR 4700)				*
PIPE DATA:		I.E.	MATERIAL	DIAMETER
INLET PIPE 1		*	*	*
INLET PIPE 2		*	*	*
OUTLET PIPE		*	*	*
RIM ELEVATION				*
ANTI-FLOTATION BALLAST		WIDTH	HEIGHT	
		*	*	
NOTES/SPECIAL REQUIREMENTS:				
* PER ENGINEER OF RECORD				

- GENERAL NOTES
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
  - FOR SITE SPECIFIC DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. [www.ContechES.com](http://www.ContechES.com)
  - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
  - STRUCTURE SHALL MEET AASHTO HS20 LOAD RATING, ASSUMING EARTH COVER OF 0' - 2', AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M306 AND BE CAST WITH THE CONTECH LOGO..
  - IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
  - CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.

- INSTALLATION NOTES
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
  - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
  - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
  - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
  - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.



[www.contechES.com](http://www.contechES.com)  
9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069  
800-338-1122 513-645-7000 513-645-7993 FAX

CDS2015-4-C  
ONLINE CDS  
STANDARD DETAIL

## Drew Garvin

---

**From:** Dave Adams <Dave.Adams@ContechLLC.com>  
**Sent:** Tuesday, November 24, 2020 4:03 PM  
**To:** Drew Garvin  
**Cc:** Lyons, James  
**Subject:** RE: Harmony Village - Medway (CES 664339)

Good afternoon Drew,

The CDS unit will not be adversely affected by elevated tailwater elevations in the pond.

From the SW report,  
DB-1 Prop Detention Basin 100 yr storage elevation = 231.11 with peak inflow of 4.37 cfs.

The CDS unit with Rim = 231.50 and invert of 228.20 ft will have the treatment cylinder positioned adjacent to the inside top of slab containing the trapped floatable trash and debris.

WQ Flows into the pond through the CDS unit should not be affected since the downstream pond will not have an elevated tailwater elevation. After the WQ event (typically around a 1.21" rainfall event to produce a 1" runoff), the CDS unit will bypass peak flows over the internal bypass weir.

**David Adams, P.E.\***

Sr. Design Engineer – Rainwater Harvesting & Stormwater Products

**Contech Engineered Solutions LLC**

Office: 207-885-6191 Mobile: 207-894-4374

[dadams@conteches.com](mailto:dadams@conteches.com)

[www.ContechES.com](http://www.ContechES.com)

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Matthew Hayes, P.E.,  
Member  
Richard Di Iulio, Member  
Jessica Chabot, Associate  
Member



Medway Town Hall  
155 Village Street  
Medway, MA 02053  
Phone (508) 533-3291  
Fax (508) 321-4987  
Email: [planningboard@townofmedway.org](mailto:planningboard@townofmedway.org)  
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## **TOWN OF MEDWAY**

### **COMMONWEALTH OF MASSACHUSETTS**

## **PLANNING AND ECONOMIC DEVELOPMENT BOARD**

January 27, 2021

Mr. Gary Feldman  
Harmony Village, LLC  
5 Exchange Street, Suite #4  
Milford, MA 01757

Dear Gary,

As specified in the Harmony Village site plan/special permit decision, one of the requirements that must be completed before the Board will “endorse” the final site plan is for you, as the Permittee, to fund the Construction Account for this project. The Board has determined that the assistance of outside consultants is needed to provide construction observation and inspection services for the infrastructure and site improvement components of Harmony Village. The primary outside consultant will be Tetra Tech, the Town’s Consulting Engineer. The Board may determine that it needs other consultants and will engage them if warranted.

Funds in the Harmony Village construction account will be used to pay for Tetra Tech’s services which will include:

- Pre-construction meetings/consultations
- Site inspections of the installation of infrastructure and site amenities during construction
- On-going inspections of erosion control and the stormwater system throughout construction
- Preparation of inspection reports
- Review of SWPPP reports
- Meetings with you and/or contractors as needed
- Preparation of bond estimates and reductions
- Attendance at Planning & Economic Development Board meetings as needed
- Consultations with residents/neighbors during construction if needed
- Inspections for punch list and project completion
- Review of as-built plans
- Other meetings as appropriate
- Expenses - travel, telephone, copying, blueprints, etc.

Tetra Tech has prepared an estimate for its construction inspection services. Attached is their estimate dated December 22, 2020 for \$19,326. The estimate was approved by the Board at its January 26, 2021 meeting. Attached is an invoice for \$19,326.


Construction Observation Fee Letter and Invoice  
Harmony Village  
January 27, 2021

Please be advised that the Board will also retain the services of Town Counsel KP Law to provide any legal services or advice which may be needed during construction pertaining to performance security and project completion. You are responsible for providing additional Construction Account funds if the Town's cost for outside consultants is greater than the fees you have paid into the account. The Planning and Economic Development office will keep you apprised of the status of the Harmony Village construction account and will invoice you for additional funds when necessary. Any balance remaining at the end of the project will be refunded to you.

Thank you for your attention to this matter. Please contact me if you have any questions regarding this fee or any other issues. ***Please note that we must receive payment of \$19,326 to fund the Harmony Village Construction Account prior to the commencement of any site preparation or construction and before the Board endorses the final Harmony Village site plan.***

Please contact me if you have any questions regarding this fee or any other matters. We look forward to working with you in the weeks and months ahead to bring Harmony Village to fruition.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan E. Affleck-Childs", with a stylized, flowing script.

Susan E. Affleck-Childs  
Planning and Economic Development Coordinator

**Board Members**

Andy Rodenhiser, Chair  
Robert Tucker, Vice Chair  
Thomas Gay, Clerk  
Matthew Hayes, P.E.,  
Member  
Richard Di Iulio, Member  
Jessica Chabot, Associate  
Member



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**TOWN OF MEDWAY**  
**COMMONWEALTH OF MASSACHUSETTS**  
**PLANNING AND ECONOMIC**  
**DEVELOPMENT BOARD**

***INVOICE***

January 27, 2021

Mr. Gary Feldman  
Harmony Village, LLC  
5 Exchange Street, Suite #4  
Milford, MA 01757

RE: Harmony Village Construction Services Fee

For professional services to be provided by Tetra Tech, Inc. for construction inspection of the Harmony Village development at 218-220 Main Street (*Please see attached estimate.*)

**ESTIMATED COST:** \$19,326

**TOTAL NOW DUE AND PAYABLE:** \$ 19,326

Fee approved by the Planning and Economic Development Board – January 26, 2021

Make check payable to: Town of Medway

Mail or drop off to: Medway Planning and Economic Development office  
155 Village Street  
Medway, MA 02053



Harmony Village  
PEDB Construction Administration Budget  
December 22, 2020

Item No. <sup>1</sup>	Inspection	Visits	Hrs/Inspection <sup>2</sup>	Rate	Total
1	Pre-Construction Meeting	1	6	\$139	\$834
2	Erosion Control Inspections	6	3	\$139	\$2,502
3	SWPPP Report Review/Correspondence	30	0.5	\$139	\$2,085
4	Clearing/Grubbing/Tree Protection	1	4	\$116	\$464
5	Subgrade/Staking/Rough Grading	1	4	\$116	\$464
6	Stormwater: Infrastructure	1	4	\$116	\$464
7	Stormwater: Basin (DB-1)	1	4	\$116	\$464
8	Stormwater: Basin (DW-1)	3	4	\$116	\$1,392
9	Stormwater: Basin (DW-2)	3	4	\$116	\$1,392
10	Site Subbase Gravel/Fine Grading	1	4	\$116	\$464
11	Binder Course Paving	1	6	\$116	\$696
12	Curb/Berm	1	4	\$116	\$464
13	Top Course Paving	1	6	\$116	\$696
14	Landscape/Plantings	1	6	\$116	\$696
15	Punch List/Bond Estimate <sup>3</sup>	2	8	\$139	\$2,224
16	As-Built Review <sup>4</sup>	1	4	\$161	\$644
17	Field Changes/Change Orders	1	8	\$161	\$1,288
18	Meetings	6	1	\$161	\$966
19	Admin	1	3	\$69	\$207
	Subtotal				\$18,406
	Expenses			5.0%	\$920
	<b>TOTAL</b>				<b>\$19,326</b>

**Notes:**

<sup>1</sup> Each item includes site visit, inspection and written report and is based on current TT/Medway negotiated rates through June 2021.

<sup>2</sup> If installation schedule is longer than that assumed by engineer for any item above, or if additional inspections are required due to issues with the contract work, additional compensation will be required.

<sup>3</sup> This item includes a substantial completion inspection, punch list memo and bond estimate provided to the town. It also includes one final inspection to verify that comments from the list have been addressed and one revision to the list/estimate if required.

<sup>4</sup> This item includes review of as-built plans and review letter.

**Date Approved by Medway PEDB** \_\_\_\_\_

**Certified by:** \_\_\_\_\_ **Date** \_\_\_\_\_

**Susan E. Affleck-Childs**  
**Medway PEDB Coordinator**





November 18, 2020  
(revised February 5, 2021)

Ms. Susan E. Affleck-Childs  
Medway Planning and Economic Development Coordinator  
Medway Town Hall  
155 Village Street  
Medway, MA 02053

**Re: Harmony Village  
Site Plan and Multifamily Special Permit Review  
218-220 Main Street  
Medway, Massachusetts**

Dear Ms. Affleck-Childs:

Tetra Tech (TT) has performed a review of the proposed Site Plan for the above-mentioned Project at the request of the Town of Medway Planning and Economic Development Board (PEDB). The proposed Project is located at 218-220 Main Street in Medway, MA. The Project includes rehabilitation of two existing dwellings at the site and four additional residential units (quadplex) in the rear of the property along with additional parking, stormwater infrastructure and appurtenant utilities to serve the proposed development.

TT is in receipt of the following materials:

- A plan (Plans) set titled "Site Development Plans, Harmony Village, Multifamily Housing Development", dated November 12, 2020, prepared by Meridian Associates, Inc. (MAI).
- A stormwater report (Report) titled "Stormwater Management Report, Harmony Village 218-220 Main Street, Medway, Massachusetts", dated November 12, 2020, prepared by MAI.

The Plans and accompanying materials were reviewed for conformance with Chapter 200 of the Town of Medway PEDB Rules and Regulations (Regulations) last amended October 8, 2019, Massachusetts Department of Environmental Protection's (MA DEP) Stormwater Standards (Standards) and appurtenant Stormwater Handbook (Handbook) last amended February 2008, Town of Medway Article 26 – Stormwater and Land Disturbance Bylaw (Stormwater Bylaw) and good engineering practice. Review of the project for zoning related matters is being conducted by a separate consultant and is excluded from this review.

#### **TT 2/5/21 Update**

The Applicant has supplied TT with a revised submission addressing comments provided in our previous letter including the following documents:

- A plan (Plans) set titled "Site Development Plans, Harmony Village, Multifamily Housing Development", dated June 9, 2020, revised February 2, 2021, prepared by MAI.
- A Response to Comments letter with supplemental information dated February 2, 2021, prepared by MAI.

The revised Plans and supporting information were reviewed against our previous comment letter (November 18, 2020) and comments have been tracked accordingly. Text shown in gray represents information contained in previous correspondence while new information is shown in black text.

#### **SITE PLAN REVIEW**

1. Elevations, renderings, floor plans for the proposed dwellings have not been provided. The Applicant has requested a waiver from this Regulation. (Ch. 200 §204-5.D.9-11)
  - *MAI 2/2/21 Response: No formal response from Applicant.*

- TT 2/5/21 Update: These items have been included in the revised Plans. In our opinion, this item has been resolved.
2. Sidewalks have not been provided throughout the development. The Applicant has requested a waiver from this Regulation. (Ch. 200 §207-9)
- *MAI 2/2/21 Response: No formal response from Applicant.*
    - TT 2/5/21 Update: The Waiver request from this regulation has been approved by the PEDB. In our opinion, this item has been resolved.
3. The driveway downgradient of DCB-01 will discharge stormwater to Main Street and is prohibited. The Applicant has requested a waiver from this Regulation. (Ch. 200 §207-11.A.15)
- *MAI 2/2/21 Response: No formal response from Applicant.*
    - TT 2/5/21 Update: The Applicant has added a leaching catch basin to the end of the roadway where it meets Main Street. However, the structure is not called out on the plan as a leaching catch basin. This should be modified prior to final Plan endorsement.
4. The Applicant is proposing bituminous berm throughout the development. Vertical granite curb is required by the Regulations. The Applicant has requested a waiver from this Regulation. (Ch. 200 §207-11.B.2)
- *MAI 2/2/21 Response: No formal response from Applicant.*
    - TT 2/5/21 Update: The Waiver request from this regulation has been approved by the PEDB. In our opinion, this item has been resolved.
5. Proposed drive aisles are 22 feet wide which does not meet the minimum 24-foot width required by the Regulations. The Applicant has requested a waiver from this Regulation. (Ch. 200 §207-11.B.3)
- *MAI 2/2/21 Response: No formal response from Applicant.*
    - TT 2/5/21 Update: The Waiver request from this regulation has been approved by the PEDB. In our opinion, this item has been resolved.
6. It does not appear a well has been proposed at the site. It must be noted that the public water supply system shall not be used to irrigate the site. The Proposed Landscape plan states all plant materials shall be drought tolerant and no irrigation system is proposed. (Ch. 200 §207-15.A)
- *MAI 2/2/21 Response: No formal response from Applicant.*
    - TT 2/5/21 Update: Irrigation well is proposed adjacent to Unit 4. In our opinion, this item has been resolved.
7. The Applicant has not supplied an updated photometric plan for the proposed lighting at the site. Additionally, lighting details shall also be provided and shall meet the requirements of Section 7.1.2 of the Medway Zoning Bylaw. (Ch. 200 §207-18.A)
- *MAI 2/2/21 Response: No formal response from Applicant.*
    - TT 2/5/21 Update: An updated photometric plan has been provided. Light trespass is proposed along the Project frontage with Main Street. However, no light trespass occurs along the sides and rear of the property. We defer action on this item to the PEDB.

8. Proposed snow storage areas appear to conflict with proposed planting areas. We recommend the Applicant show snow storage areas on the Landscape plan to ensure plantings will not be damaged during snow events. (Ch. 200 §207-21)
- **MAI 2/2/21 Response:** *No formal response from Applicant.*
    - TT 2/5/21 Update: Snow storage areas are minimal at the site. However, the Applicant has added requirements in the O&M Plan that snow shall be removed from the site once storage areas are depleted. In our opinion, this item has been resolved.

## **STORMWATER REVIEW**

### **MA DEP Stormwater Standards/Handbook**

9. Test pit information has not been provided for DW-1 infiltration area. This information is required to determine soil texture/type and groundwater elevation below the systems. We recommend the test pit(s) be conducted during the review process to ensure feasibility of the proposed design. (Standard 3)
- **MAI 2/2/21 Response:** *A test was performed in the DW-1 infiltration area on Dec. 4, 2020. The test pit information was added to the Soil Testing Summary page located in our revised Stormwater Report. The groundwater was acceptable to install DW-1 per the plans.*
    - TT 2/5/21 Update: Test pit information has been provided at the proposed DW-1 location. The test pit shows an estimated seasonal high groundwater (ESHW) elevation of 226.8 beneath the basin which is within four feet of the basin bottom and requires a mounding analysis. The Applicant has provided a mounding analysis for DW-1 as well as DB-1 which shows that the groundwater mound beneath the systems will extend into the system which will affect basin functionality and draw down. Also, the data provided in the analysis is inconsistent and will need to be revised to reflect expected conditions. We recommend the Applicant revise the mounding analyses to confirm potential impacts from the groundwater mounds beneath the systems.
10. The bottom of the at-grade infiltration basin is located within the Ap soil layer (uppermost soil horizon) as documented in Test Pit #1 log information. We anticipate the Ap horizon layer (Sandy Loam, Hydrologic Soil Group (HSG) B Soil) along with the Bw horizon layer (Sandy Loam, HSG B Soil) will be stripped down to the C horizon layer (Loamy Sand, HSG A Soil) during site preparation. As a result, the basin area will have to be filled to achieve final grades which should be detailed in the Plans. A basin cross-section has been provided but lacks detail for proposed construction such as depths of fill material, loam, etc. which should be provided for clarity during construction. (Standard 3)
- **MAI 2/2/21 Response:** *Additional detail has been added to the Infiltration Basin profile (IF-1) to address soil layers and fill depths.*
    - TT 2/5/21 Update: In our opinion, this item has been resolved.
11. The Applicant is proposing a CDS water quality treatment unit for required pre-treatment of stormwater prior to discharge to an infiltration best management practice (BMP). The Applicant shall provide third party verification of total suspended solids (TSS) removal efficiency for the proposed structure and sizing criteria based on MA DEP "Standard Method to Convert Required Water Quality Volume to a Discharge Rate for Sizing Flow Based Manufactured Proprietary Stormwater Treatment Practices". (Standard 4)
- **MAI 2/2/21 Response:** *Sizing sheets and TSS removal for the proposed CDS unit have been provided and are enclosed with this letter.*
    - TT 2/5/21 Update: In our opinion, this item has been resolved.

12. Proposed inverts for the CDS unit will be submerged in storm events in excess of the 2-year storm which may affect performance of the unit as much of the flow may bypass treatment and directly discharge to DB-1. (Standard 4)
  - *MAI 2/2/21 Response: An email from Contech verifying that the CDS unit will not be adversely affected when submerged has been provided and is enclosed with this letter.*
    - TT 2/5/21 Update: In our opinion, this item has been resolved.
13. The Project will disturb greater than one-acre and will require coverage under the United States Environmental Protection Agency (US EPA) National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges from Construction Activities (CGP). (Standard 8)
  - *MAI 2/2/21 Response: A NPDES permit (CGP) will be filed for the project as required.*
    - TT 2/5/21 Update: We recommend the PEDB require proof of coverage be presented at the pre-construction meeting for the Project. In our opinion, this item has been resolved.
14. The Applicant did not provide an Illicit Discharge Compliance Statement. (Standard 10)
  - *MAI 2/2/21 Response: An Illicit Discharge Compliance Statement is not provided within the Stormwater Report*
    - TT 2/5/21 Update: In our opinion, this item has been resolved.
15. The proposed at-grade infiltration basin has no monitoring well or drawdown device included in the design as required in the Handbook. Additionally, the basin does not contain the recommended one foot of freeboard. (Vol. 2, Ch. 2, Pg. 91)
  - *MAI 2/2/21 Response: A monitoring well and drawdown device have been provided and shown on the Infiltration Basin Profile (IF-1) detail. The basin has been revised to provide 9" of freeboard. Due to the desire to limit regrading and save as many adjacent trees to the infiltration basin, one foot of freeboard was not practicable.*
    - TT 2/5/21 Update: In our opinion, this item has been resolved.

#### **Town Stormwater Management and Land Disturbance Bylaw (Article 26)**

16. Other than the items related to the MA DEP Standards listed above we believe the Project complies with the Bylaw.

#### **GENERAL COMMENTS**

17. Additional spot grades may be required in the northwest portion of the site to ensure off-site flow that is directed to the north side of the units is properly managed away from the units and to the proposed swales.
  - *MAI 2/2/21 Response: Additional spot grades and grading was added to the rear of the proposed quad for clarity.*
    - TT 2/5/21 Update: In our opinion, this item has been resolved.
18. Foundation drains are proposed for each of the dwelling units which discharge to Drywell 2 (DW-2). The Applicant shall provide information related to extent of flow from the foundation drains to DW-2 and that the system can accommodate the required storms as well as flow from the foundation drains. DW-2 has no freeboard to accommodate additional flow based on the HydroCAD analysis for the basin.
  - *MAI 2/2/21 Response: It is difficult to provide the extent of flow related to the foundation drains, as groundwater is seasonal. However, the proposed quad basement should be generally above the*

*estimated groundwater elevation for most, if not the entire year. The foundation drains are now proposed to tie directly into the existing drain system in Main Street, so as not to affect the drainage design for the project. This is allowed as per the MS4 requirements and a better approach for the site.*

- TT 2/5/21 Update: The connection of the foundation drains to the system in Main Street will require an MS4 connection and discharge permit through Medway DPW. We do not oppose the proposed connection to the MS4 as there are virtually no area's on-site to daylight the drains without discharging them to the proposed basins or overland flow to the MS4. Discharge to proposed stormwater BMPs is not recommended to extend the life of those systems. We recommend the Applicant coordinate with DPW regarding the proposed connection prior to construction.

19. Proposed foundation drains do not appear to be located at the footing invert elevation of the dwelling units based on information provided on the Plans. It also appears the drains may be located above the basement floors (if the units contain basements). We recommend the Applicant confirm foundation drain inverts as well as provide additional information in the detail for trench backfill above the stone/drain section.

- **MAI 2/2/21 Response:** *See comment 18 above.*

- TT 2/5/21 Update: See Update at Comment 18 above.

20. We recommend the Applicant provide overflow devices on each downspout to act as emergency overflow in the event the proposed drywells reach capacity. The downspout connection detail is unclear if one is proposed as it does not appear to be shown.

- **MAI 2/2/21 Response:** *The downspout connection detail has been revised to include an overflow.*

- TT 2/5/21 Update: In our opinion, this item has been resolved.

21. We recommend the Applicant provide sizing calculations for the proposed roof leader manifolds to confirm capacity. Pipe capacity calculations are typically conducted for flow from 25-year storm events.

- **MAI 2/2/21 Response:** *Roof leader pipe sizing calculations have been included in the revised Stormwater Report.*

- TT 2/5/21 Update: In our opinion, this item has been resolved.

22. The Applicant has not provided construction details of proposed Cultec Systems on the Plans.

- **MAI 2/2/21 Response:** *Construction details for the proposed Cultec systems have been added to the detail sheets.*

- TT 2/5/21 Update: In our opinion, this item has been resolved.

These comments are offered as guides for use during the Town's review and additional comments may be generated during the course of review. The Applicant shall be advised that any absence of comment shall not relieve them of the responsibility to comply with all applicable local, state and federal regulations for the Project. If you have any questions or comments, please feel free to contact us at (508) 786-2200.

Very truly yours,



Steven M. Bouley, PE  
Senior Project Engineer



Bradley M. Picard, EIT  
Civil Engineer



**February 9, 2021**  
**Medway Planning & Economic Development Board**  
**Meeting**

**PEDB Meeting Minutes**

- Draft minutes of the 1-19-2021 PEDB meeting
- Draft minutes of the 1-26-2021 PEDB meeting

**Tuesday, January 19, 2021**  
**Medway Planning and Economic Development Board**  
**SPECIAL MEETING**  
**155 Village Street**  
**Medway, MA 02053**

<b>Members</b>	<b>Andy Rodenhiser</b>	<b>Bob Tucker</b>	<b>Tom Gay</b>	<b>Matt Hayes</b>	<b>Rich Di Iulio</b>	<b>Jessica Chabot</b>
<b>Attendance</b>	<b>X Remote</b>	<b>Absent with Notice</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>

Pursuant to Governor Baker’s Orders imposing strict limitations on the number of people that may gather inside in one place, attendance by members of the public is not permitted at this meeting. Board members will participate via ZOOM. Meeting access via ZOOM is also provided and members of the public are encouraged to attend via ZOOM; information for participating via ZOOM is included at the end of the Agenda. Members of the public may watch the meeting on Medway Cable Access: channel 11 on Comcast Cable, or channel 35 on Verizon Cable; or on Medway Cable’s Facebook page @medwaycable.

**PRESENT VIA ZOOM MEETING:**

- Susy Affleck-Childs, Planning and Economic Development Coordinator
- Barbara Saint Andre, Director of Planning and Economic Development
- Amy Sutherland Recording Secretary (Zoom Participation)
- Steve Bouley, Tetra Tech (Zoom Participation)
- Jack Mee, Building Inspector
- Ted Brovitz, Consultant

The Chairman opened the meeting at 7:00 pm.

**PUBLIC COMMENTS:**

The Board is in receipt of a letter from Dr. Lisa Goldman, owner of Medway Animal Hospital on West Street. **(See Attached.)** Dr. Goldman and her husband Zoomed in for the meeting. Due to the growth of the practice, they need to upgrade their facility and are exploring options for a new location. One of the sites of interest is property for sale at Milford Street and Trotter Drive in the Oak Grove zoning district in the redevelopment area. However, veterinary hospitals are not allowed in the Oak Grove district. They are asking if the Board would consider sponsoring an amendment to the Zoning Bylaw to allow veterinary hospitals in this area. It was suggested that the Goldmans reach out to the Medway Redevelopment Authority to discuss if this is something they would consider. It was noted that there was also discussion at the last PEDB meeting to add veterinary hospital as an allowed use in the Central Business District as the Board works on its overall rewrite of the CBD zoning regulations for the May Town Meeting.

## **ZONING BYLAW AMENDMENT WORKSHOP**

### **Central Business District**

Consultant Ted Brovitz from Brovitz Community Planning and Design with Dodson & Flinker was hired to rework the Central Business District zoning regulations for consideration at the May 2021 May Town Meeting. A slide show was provided via Share Screen. **(See Attached)** Mr. Brovitz provided an outline of the proposed zoning amendments. This was broken down into Section 2. Definitions; Section 4. Establishment of Districts; Section 5. Use Regulations; Section 6. Dimensional Regulations; and a new Section 10. Central District Business District Development Standards (New Bylaw and integration of the existing Section 5.4.1). The new Section 10 included Purpose, General Site Development Standards, Mixed Use Development Standards, Building Types and Design Standards, and Public Realm Standards.

At the January 12, 2021 PEDB meeting, the Board had discussed changes to allow veterinary hospitals and clubs in the CBD. There was also discussion about revisiting the percentage of residential development to allow. Language will be included to allow for curbside pick-up but not drive thrus. Cooperative workspaces have been added. This will need to be defined. Gas backward facilities may need to be addressed separate from the Table of Use. There was the addition of including row housing to the types of multi-family uses. There was a suggestion to change retail stores larger than 20,00 sq. ft. from SP to PEDB, also shopping center/multi-tenant development from SP to PEDB. It was recommended that motel be changed from SP to PB but require design standards in 9.4. and the same for hotels. Repair shops would be allowed by SP, but no outdoor storage would be allowed in CBD. The adult day care facility is subject to Section 8.5 and this is to be convenient for people working or living in or nearby the CBD. Examples of gas backwards was shown from North Carolina. The pumps are in the back of the site. There was also an example from Northampton shown. Member Gay sent photos for the Board to view. Section 10. Central Business District Development Standards were reviewed. Section 10.2 has general site development standards. This would prioritize pedestrian-oriented and active ground uses. The Board may waive this requirement. There are also design standards for building placement and orientation. The parking requirements will improve walkability, minimizing sidewalk interruptions and conflict points for pedestrians, cyclists, and vehicles. This encourages public transportation, bicycling, and walking as an alternative to driving. There was an example shown from Medway Commons. Table 3 showed the parking requirements. There would need to be a waiver if more parking is needed. There is enormous amount of vacant parking in the central business district. There is an opportunity for shared use parking. This has been factored into the document. This document does not have anything about electric charging stations. Mr. Brovitz will go back to look at this. Barbara Saint Andre noted that this is covered in the general section of the Zoning Bylaw. There is capability to allow for row parking but we want buildings to be placed up close to the right of way. There is currently underutilized parking on the site. There are additional parking areas which have to include plantings. Parking lots with



30 plus spaces must have 1 deciduous tree and 2 shrubs per every 3,000 sq.ft. exclusive of the required perimeter plantings. A parking lot with 75 plus spaces must provide an 8 ft. planting strip and sidewalk separating parking rows. There were examples of this shown. The parking would go to the side or the rear of the building. This allows for parking in front of the building with special allowance. The underutilized parking area could be used for commercial activity such as food trucks or a farmers' market, etc. This is on a temporary basis. There will also be standards for streetscapes. An example from Wellesley was shown. There is a transitional buffer requirement for the area between the CBD and abutting residential property. The outdoor amenity space was reviewed.

The next topic discussed was development standards for mixed-use (residential and business) developments. Multi-family dwelling units may not be located on the ground floor unless they are set behind another building which has business uses on the ground floor and front façade facing the street or access drive or if the residential portion is set behind the business uses within the same building which has front façade that faces a public way or primary access drive. An exclusively multi-family building must be set back 100 ft. from the street ROW. The Special Review Criteria was explained which include the traditional New England look. There was not a lot of change to this. The Town already has great design standards. The basic standards for building with street facing building facades should be horizontal and vertical. The building design standards were covered which were Rowhouse on separate lot, Rowhouse on Common Lot, Multi-Family Building, Mixed Use Building, General Commercial Building, Hotel, Gas Station and Convenience Store, Civic or Community Building. The document also has standards for access street design which has a minimum cross section of 24 ft., 2 travel lanes, and at least 1 sidewalk connecting public sidewalk with front entrance of primary building. There was a concern about the term "access street". This is included in the definitions section. The building frontage zone was next covered. This area should provide a compatible transition and interface between the private realm and the public realm. Outdoor Amenity Spaces are required in the BTZ and building interfaces. This is sidewalk dining, storefront display, awning, balcony etc. At the end of the presentation, Susy Affleck-Childs noted that at the end of last meeting she had suggested some language should be added to differentiate which standards apply to a completely new site vs. a redevelopment site. Mr. Brovitz responded that there probably needs to be some incremental development which could be individual buildings on "pad" sites. The building zone standards would then apply. There would be a need for site plan review for "pad" development. The Board does not want to take away any commercial space. Consultant Brovitz will revise this document and will provide it for review at another meeting.

The Board next discussed the other proposed Zoning Bylaw amendments:

### **8.2. Accessory Family Dwelling:**

The Board next discussed changes to the Accessory Family Dwelling Unit (AFDU) section of the Zoning Bylaw. (**See Attached.**) The Board discussed adding some standards for those

instances when a proposed AFDU is to be located in a new, separate structure on the same premises as a detached single-family dwelling (principal dwelling unit). In addition to the maximum 800 square feet of gross floor area limitation set forth in subsection 8.2.C.4, the gross floor area of the AFDU shall also not exceed 50% of the gross floor area of the principal dwelling unit. The Zoning Board of Appeals will also be discussing this at their meeting tomorrow night.

### **Cottage Cluster Development:**

The Article is to see if the Town will vote to amend the Zoning Bylaw by adding a new Section 8.11 Cottage Cluster Development. (**See Attached.**) Definitions for carriage house, community building, community garden, cottage, cottage cluster development, cottage court, courtyard, exclusive use area and maximum unit size are included many of which are the same as what was included in the Oak Grove district. There was discussion about side setback requirements. These cottages will be spaced at least 12 ft. apart. There was discussion if there needs to be a height requirement for things such as a club house. There was a Screen Share of the images of the cottages. Barbara Saint Andre wants to know what the objection is to have a minimum side setback on each lot. There will be a lot line and each cottage will have 12 ft. between buildings; one unit will be 6 ft. and the other unit will get 6 ft. The language of this will need to be reworked. These developments will need to have a Homeowner's or Condo Association. There should be a minimum lot area. This needs to be included in the document. The proposed standards were reviewed. The frontage of 50 feet is for the whole project, not each individual dwelling unit. The Town of Medfield was referenced about incorporating language about giving the Board flexibility to waive or adjust some standards for compelling reasons. Susy Affleck-Childs asked the Board's opinion on this. Barbara Saint Andre has advised that this language not be included. The language "any of the criteria could be waived" is very broad. Providing flexibility for parking is fine and criteria should not be waived. The Board does not want this language included and direct Susy to remove it. Standards I (4) should specify that buildings are not taller than 28 ft. The 28 ft. should be consistent throughout the document. There was a question about attached garages. This would allow for one car. The specifications of the garage would be 12' x 22' or 24'. This was explained by Building Commissioner Jack Mee. These developments will likely be served by Town sewer and water. This needs to be vetted with Dave Damico. It was suggested to just be silent on this and remove the whole section about utilities. The Board agreed.

### **Site Plan Review:**

**See Attached draft amendments.** The Board discussed that there was a recommendation offered by Barbara Saint Andre to not require site plan review for municipal buildings. Barbara expressed that the Board of Selectmen can fulfill this function by holding the public hearing for Town building projects. The Board has concerns that there should be oversight for these buildings. If private sector applicants are held accountable to the site plan standards, then the Town should also be held accountable. Barbara explained that Town projects need to comply

with the building code and bylaws such as the wetland protection requirements. The Town also has a Building Committee which assists with the development and review of Town projects. There needs to be a compromise to not eliminate it all together. The Board believes that there should be some oversight since the work is being paid for with taxpayer money. The Board agrees that they should not give up on the oversight of municipal buildings.

The Board also discussed administrative site plan review which presently covers small projects less than 1,000 sq. feet of gross floor area. This could be changed to 500 to 999 sq. ft. which would eliminate review of the really small projects. The Building Commissioner could determine if a more involved review needs to happen. There Board feels there needs to be checks and balances.

Regarding the exterior alteration or renovation of existing buildings, Barbara does not think this is necessary and that it does not belong in administrative site plan review when something is a simple change such as shutters or clapboard. The Board would like to keep this as currently written. There are design review guidelines which help provide guidance. The Board discussed another option which would be to take this out of administrative site plan and move it to minor site plan review with the Board instead. Barbara expressed concern that businesses are being held up due to the process. The submittal requirements need to be less vigorous.

Member Chabot suggested that these smaller renovation projects could be eliminated from administrative review and have the DRC review them, similar to how the DRC currently handles sign reviews. The DRC has the expertise to do this. Building Commissioner Jack Mee communicated that these applicants could go to the DRC which would provide a review letter with recommendations. Jack could hold up the building permits until these applicants meet with the DRC. This could alleviate the problem. This section will be revised for review at the next meeting.

The next section discussed was j. which pertains to the outside placement of cargo containers, sheds and/or membrane structures. It was suggested to remove “equipment and materials” from this list of activities which trigger administrative site plan review. A question was asked if someone wants to add an air conditioner, would they need to have site plan review? Based on the current language, the answer is yes. This does not seem necessary. A definition for equipment and materials needs to be added. Barbara communicated that site plan review should be for items that will be installed in a permanent state. An air conditioner should not need administrative site plan review. A generator would also qualify as equipment. There needs to be a definition of materials and equipment.

### **Solar Bylaw:**

The Board is in receipt of a summary for a Land Court case about solar from the Town of Shutesbury. (**See Attached.**) Solar is recognized in Land Court for protections similar to churches, schools, and childcare facilities. The goal would be to allow solar installations but impose reasonable regulations to protect the public welfare. There needs to be standards for solar if allowed in more zoning districts. Currently, solar farms are only allowed by right in the Energy Resource district and nowhere else. There needs to be standards in place if we are going to allow them in other areas of town. It is advised that the Town should allow them in more places in the community. The Board does not want these in the residential districts. All agree that these can be in the industrial area. These could be placed on top of parking areas. The Board still does not think these should be in commercial or residential areas. Barbara will discuss with Town Counsel to see what they would advise and provide a draft for review at the next meeting.

**Adjourn:**

**On a motion made by Rich Di Iulio, seconded by Matt Hayes, the Board voted by Roll Call vote to adjourn the meeting.**

**Roll Call Vote**

Andy Rodenhiser	Aye
Tom Gay	Aye
Rich Di Iulio	Aye
Matt Hayes	Aye

The meeting was adjourned at 10:20 pm

Respectfully Submitted,

Amy Sutherland  
Recording Secretary

Reviewed and edited by,

Susan E. Affleck-Childs  
Planning and Economic Development Coordinator

**Tuesday, January 26, 2021  
Medway Planning and Economic Development Board  
155 Village Street  
Medway, MA 02053**

**REMOTE MEETING VIA ZOOM**

<b>Members</b>	<b>Andy Rodenhiser</b>	<b>Bob Tucker</b>	<b>Tom Gay</b>	<b>Matt Hayes</b>	<b>Rich Di Iulio</b>	<b>Jessica Chabot</b>
<b>Attendance</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>	<b>X Remote</b>

Pursuant to Governor Baker's March 12, 2020 Order Suspending Certain Provisions of the Open Meeting Law, and the Governor's Orders imposing strict limitations on the number of people that may gather inside in one place, no in-person attendance will be permitted at this meeting. Board members will attend the meeting via ZOOM. Meeting access for the public is also provided via ZOOM for the required opportunity for public participation in a public hearing. Information for participating via ZOOM is included at the end of this Agenda. Members of the public may watch the meeting on Medway Cable Access: channel 11 on Comcast Cable, or channel 35 on Verizon Cable; or on Medway Cable's Facebook page @medwaycable.

**PRESENT VIA ZOOM MEETING:**

- Susy Affleck-Childs, Planning and Economic Development Coordinator
- Amy Sutherland Recording Secretary
- Steve Bouley, Tetra Tech
- Barbara Saint Andre

**PUBLIC COMMENTS:**

- There were no public comments

**PUBLIC BRIEFING - 149A Holliston Street Preliminary Subdivision Plan:**

The Board is in receipt of the following: (See Attached)

- Public Briefing Notice
- Preliminary Subdivision Plan Application
- Preliminary Subdivision Plan dated December 14, 2020 by Land Planning, Inc.
- Development Impact Report
- Susy Affleck-Childs plan review comments dated January 21, 2021
- Comment letter dated January 15, 2021 from abutter Michael Brady at 153 Holliston Street

The Board was informed that the preliminary subdivision plan was submitted by property owner/applicant Jainesio Ramos. The applicant's representative, Bill Halsing of Land Planning, used the ZOOM Share Screen feature to describe the project. He showed sheet 2 of the plan. This will be a private way subdivision. The plan shows an approximately 200' extension and realignment of the existing 12' driveway to a total length of 505 feet to be named Favor Road. It

will function as permanent private way with frontage for 3 house lots, including the existing house located on the property, and a drainage parcel. The extension portion of the roadway is proposed for 18' in width. The 12' width of the existing "driveway" would be maintained so as to not impact adjacent wetlands and vernal pool areas. The plan was prepared by Land Planning, Inc. of Bellingham, MA and is dated December 14, 2020. The site is 12.5 acres and includes 11.8 of forested land and 7.3 acres of wetlands. It is located in the AR-1 zoning district. The applicant intends to request two waivers from the *Subdivision Rules and Regulations*. One waiver request will to allow the existing driveway to remain at its current 12' width instead of widening it to the standard 18' width for a permanent private way. The other waiver request will be to not require 470' of the roadway to have Cape Cod berm. It was noted that the Conservation Commission will be handling the review of the proposed stormwater system.

There was discussion that this is an odd-shaped lot. The property is the result of an ANR plan approved in 1975 which created 2 buildable lots with Holliston Street frontage and a large left over parcel with 90' of frontage on Holliston Street. There is research underway to determine if a frontage variance was granted by the ZBA in 1975 to allow construction of the existing house on the property. Consultant Steve Bouley suggested that there be a gravel driveway to eliminate or reduce the amount of impervious surface. There should be swales and country drainage or rain gardens to limit the scale of the drainage parcel at the end of the roadway. There was a comment to move the new houses back to the setback line to limit the disturbance in the yards. There is concern about runoff with the gravel. The profile of the road is generally flat so this should not be a concern.

Mr. Ramos was present and asked if the Board would change its view if there were less homes. He also asked if the Board's opinion would change if the driveway width changed. It was noted that each house lot needs 180 feet of frontage. The Board is uncomfortable with the 12' width of the first portion of the road. Susy Affleck-Childs will go back and check on past practices for private way subdivisions. Andy Rodenhiser reported that he had talked with Fire Chief Jeff Lynch. Chief Lynch will provide comments and apologized for not submitting them for the meeting.

Abutter, Michael Brady was present via ZOOM and asked about the roadway width of 18 ft. He wanted clarification if this is for the whole road. Susy noted that the applicant is asking for a waiver on the width only for that portion presently comprising the 12' driveway.

There were no other comments from public. The applicant thanked the Board for their time.

### **MEDWAY PLACE Site Plan – Public Hearing Continuation:**

The Board is in receipt of the following: (See Attached)

- Public hearing continuation notice dated November 30, 2020 to continue the public hearing to January 26, 2021.
- Email dated January 11, 2021 from Attorney Gareth Orsmond on behalf of the applicant requesting continuation of the public hearing to the February 23, 2021 PEDB meeting.

**On a motion made by Bob Tucker, seconded by Rich Di Iulio, the Board voted by roll call to continue the hearing to February 23, 2021.**

**Roll Call Vote:**

<b>Matthew Hayes</b>	<b>aye</b>
<b>Bob Tucker</b>	<b>aye</b>
<b>Rich Di Iulio</b>	<b>aye</b>
<b>Andy Rodenhiser</b>	<b>aye</b>
<b>Tom Gay</b>	<b>aye</b>

The Board would like the applicant to come in next time if they want to continue the hearing again. The Board discussed that there needs to be consistency with all applicants who are continuing with six months of continuation and three months after that. A policy will be written up and adopted at a future meeting.

**HARMONY VILLAGE - CONSTRUCTION SERVICES ESTIMATE:**

The Board is in receipt of the following: (See Attached)

- Tetra Tech construction services estimate dated 12-22-20 for the Harmony Village multi-family development at 218-220 Main Street.

**On a motion made by Bob Tucker, seconded by Rich Di Iulio, the Board voted by roll call to approve the Tetra Tech construction estimate for Harmony Village for \$19,326.00**

**Roll Call Vote:**

<b>Matthew Hayes</b>	<b>aye</b>
<b>Bob Tucker</b>	<b>aye</b>
<b>Rich Di Iulio</b>	<b>aye</b>
<b>Andy Rodenhiser</b>	<b>aye</b>
<b>Tom Gay</b>	<b>aye</b>

**EVERGREEN VILLAGE FIELD CHANGE:**

The Board is in receipt of the following: (See Attached)

- Memo dated January 21, 2021 from Susy Affleck-Childs describing the field change circumstances and proposed supplemental landscaping.

Developer Maria Varrichione was present via ZOOM for the discussion. As the site prep work was being done, a 32-inch tree had to be removed which had previously been specified for preservation. The root of that tree was going to interfere with stormwater drainage. This was determined by Consultant Bouley and the Conservation Agent. The Evergreen special permit specifies how to handle mitigation for tree removal. The memo from Susy Affleck-Childs includes the details of the tree replacement formula and the resulting requirements. There is a proposal from the Permittee to add 14 trees and 12 shrubs. The landscape architect does not recommend adding anything more to the site. However, the proposal does not fully provide the needed amount to offset removal of the 32" tree. The "balance" will be provided via a contribution to the Town's Tree Fund in lieu of tree planting. The recommendation from the Tree Warden is for \$200 per tree per; this amounts to \$9,000 for this site. Susy Affleck-Childs recommended that the funds should be provided with the sale of the 4<sup>th</sup> house. Ms. Varrichione was agreeable with that.

**On a motion made by Bob Tucker, seconded by Rich Di Iulio, the Board voted by roll call to approve the Evergreen Village field change as presented with the requirement that the funds be paid to the Tree Fund with the conveyance of the 4<sup>th</sup> dwelling unit.**

**Roll Call Vote:**

<b>Matthew Hayes</b>	<b>aye</b>
<b>Bob Tucker</b>	<b>aye</b>
<b>Rich Di Iulio</b>	<b>aye</b>
<b>Andy Rodenhiser</b>	<b>aye</b>
<b>Tom Gay</b>	<b>aye</b>

**CONSTRUCTION REPORT:**

The Board is in receipt of the following from Tetra Tech: **(See Attached)**

- Choate Trail Report #2 dated January 11, 2021.

Consultant Bouley communicated that a site visit was conducted with Medway Conservation Agent and the site contractor. The limits of tree clearing for the project were reviewed. The contractor flagged all trees.

Member Di Iulio communicated that there was a good amount of mud on Village Street in front of William Wallace Village. Consultant Bouley will investigate this.

**ZONING BYLAW ARTICLES:**

The Board is in receipt of the following: **(See Attached)**

- Revised Accessory Family Dwelling Unit
- Revised Site Plan Review, adding in a new section on Façade Improvements
- Flood Plain
- Environmental Standards
- Cottage Cluster Development

**Environmental Standards:**

Dan Merriken and Ellen Rosenfeld were present via ZOOM. Member Gay explained that the Board took into consideration the comments shared during the last discussion (in November) and worked to figure out how to further revise the proposed amendments, specifically regarding the noise standards. It is still being discussed. The noise charts were shown and reviewed. What had been one chart was divided into two. The revisions had been provided to Ellen Rosenfeld and Dan Merrikin. Dan Merrikin appreciated the differentiation of receptors. Tom Gay mentioned that a third table will be added to address business to business.

The Board has a February 11, 2021 date for submittal of articles to the Board of Selectmen for the Spring town meeting. The public hearing would be in March 2021. Ellen Rosenfeld reported her noise consultant is fine with what has been provided. She stated that the Board did a great job on the noise bylaw. It has been well done and she will comply. Susy Affleck-Childs communicated that there have been some complaints about odor emanating from the marijuana cultivation facility at 2 Marc Road. Ellen will check into this.



The environmental standards document will be worked on further with Susy and Tom including business to business.

**Accessory Dwelling Unit:**

Barbara Saint Andre noted that she had reviewed the previous draft with the Zoning Board of Appeals. The only change the ZBA has recommended pertains to the criteria for a separate structure AFDU. The ZBA did not support the criteria regarding the amount of impervious surface, so that has been removed and is not included in the draft before the PEDB. This is what was agreed upon during the last PEDB meeting. Has the living space been defined adequately? It was recommended that “gross floor” exclude the basement for purposes of a detached AFDU. That revision will be made.

**Flood Plain:**

Barbara Saint Andre explained that the issue with this section of the ZBL is the various requirements for the flood plain regulations. The bylaw needs to be updated to address this and the language needs to be updated as required by the State for property owners to be eligible for flood insurance. The State has provided a model bylaw to use. There are flood plan maps provided by FEMA. There was a question about the term “permitted” and other places within the bylaw where it is used in a different context. This needs to be clarified. Does the term mean by right or special permit? Barbara will go to look at the old model to make sure we are consistent.

**Site Plan:**

The Board next reviewed revised site plan review language and changes discussed at the last meeting. There had been discussion about whether the existing language that municipal projects are subject to site plan review should be retained. Some Town staff had requested that municipal projects be exempt. The existing language was retained.

The Board had also discussed simplifying the administrative site plan review requirements and modifying which projects trigger that level of review. This draft shows a new section on Façade Improvement Review to be handled by the Design Review Committee with the same process currently used for sign review. This idea will be discussed at the next DRC meeting. Barbara communicated that we need to be sensitive to small businesses who make improvements to have to go through another layer of review. Barbara communicated that for the large projects the owners and developers anticipate a review process but small businesses making small improvements should not have to go through this full process and it holds people up. The Board needs to be aware of this. The town needs to be protected and the board needs to be reasonable.

**Cottage Cluster:**

The Board next reviewed the Cottage Cluster article. This needs to be further refined. The definition of cottage cluster was updated. The side setback issue will be further worked on. There was language added about the maximum height being 28 ft. The language was changed from “local neighborhood” to “adjacent neighborhood”. There was language added about common driveways, which was moved under cottage cluster standards. There was a question about the parking spaces that it needs to be within 300 ft. The clarification language would be that the parking spaces be “no greater than 300 ft. from an entrance”. The owners are responsible for the various services such as trash and stormwater management. In the multifamily section of the ZBL, where there is a historical home, the applicant needs to go through the procedure for

evaluation of historic merit via the demolition delay bylaw. It was recommended to include that language in these provisions as well.

### **ZBA PETITION: Signage for Electric Vehicle Charging Stations at Medway Commons**

The Board is in receipt of the following: (See Attached)

- Application from Volta Charging for use variance and variances for signage.

It was explained that 2 electrical vehicle charging stations have been installed at Medway Commons, 65 Main Street, in front of Shaw's. The stations include internally illuminated advertising signage, 9 sq. ft. per side. The stations have been stalled. The Town issued enforcement as the signs are not permitted. Volta Charging has submitted an application to the ZBA for a use variance for the vehicle charging stations and variances to allow signage on them. This is before the ZBA on February 3<sup>rd</sup>. The DRC will also review this at its next meeting. Susy Affleck-Childs noted that this form of signage is not authorized in the bylaw. This is essentially a small billboard. The complaint was that they did not go through the sign permit process. There is a concern that these were installed with only an electrical permit. There needs to be some rules about these type of signs in the parking and zoning regulations. The Board discussed the issue. Members are supportive of electric vehicle charging stations but not comfortable with allowing this extent of signage. The Board asked Susy to prepare a letter to the ZBA recommending against the variance requests.

**On a motion made by Rich Di Iulio and seconded by Matt Hayes, the Board voted by Roll Call to have a letter of opposition sent to the Zoning Board of Appeals.**

#### **Roll Call Vote:**

Bob Tucker	aye
Andy Rodenhiser	aye
Matt Hayes	aye
Rich Di Iulio	aye
Tom Gay	aye

### **PEDB MEETING MINUTES:**

**January 12, 2021 PEDB Meeting:** (See Attached)

**On a motion made by Rich Di Iulio and seconded by Matt Hayes, the Board voted by Roll Call to approve the PEDB meeting minutes of January 12, 2021.**

#### **Roll Call Vote:**

Bob Tucker	aye
Andy Rodenhiser	aye
Matt Hayes	aye
Rich Di Iulio	aye
Tom Gay	aye

### **OTHER BUSINESS:**

- The Master Plan proposals are due February 4, 2021.

- Administrative Site Plan application for a mini modular building at CVS was submitted. This is for COVID testing. This is for a 6-month period.
- Grant Application for the MassTrails grant application is being prepared. It seeks \$96,000 for a loop trail at the Adams Street Conservation Area. This is due at end of week. This will be an ADA compliant trail loop.
- Stefany Ohannessian, Administrative Assistant for the Community and Economic Development Department, will be the new Town Clerk when Mary Jane White retires in March. The job has been posted. There are over 130 applications. Interviews will be next week.
- There was a preconstruction meeting for the 40B apartment development at 39 Main Street.
- Exelon Site Plan Completion will be on the next agenda.
- Chairman Rodenhiser noted that the Town received a letter from the Norfolk Registry of Deeds indicating that real estate transactions in Medway during 2020 generated over \$155,000.00 for CPA. This is the amount which goes to the State and is reallocated out to the communities, like Medway, who are CPA communities.

#### **FUTURE MEETING:**

- Tuesday, February 9, 2020

#### **ADJOURN:**

**On a motion made by Rich Di Iulio and seconded by Matt Hayes, the Board voted by Roll Call to adjourn the meeting.**

#### **Roll Call Vote:**

<b>Andy Rodenhiser</b>	<b>aye</b>
<b>Bob Tucker</b>	<b>aye</b>
<b>Matt Hayes</b>	<b>aye</b>
<b>Rich Di Iulio</b>	<b>aye</b>
<b>Tom Gay</b>	<b>aye</b>

The meeting was adjourned at 10:15 pm.

Prepared by,  
Amy Sutherland  
Recording Secretary

Reviewed and edited by,  
Susan E. Affleck-Childs  
Planning and Economic Development Coordinator



**February 9, 2021**  
**Medway Planning & Economic Development Board**  
**Meeting**

**Correspondence**

- Letter dated February 2, 2021 from Fire Chief Jeff Lynch re: 149A Holliston Street (Favor Road subdivision)
- Andy Rodenhiser memo dated February 2, 2021 to the ZBA with comments regarding the requested variances by Volta Charging for electric vehicle charging unit digital signage at Medway Commons.

**Resource Materials**

- Fabulous collection of 5 fact sheets (The Value of Nature) from Mass Audubon's Shaping Climate Resilient Communities Program.



44 MILFORD STREET  
MEDWAY, MA 02053

# TOWN OF MEDWAY

## FIRE DEPARTMENT

JEFFREY P. LYNCH  
FIRE CHIEF



TEL: (508) 533-3211  
FAX: (508) 533-3254

Mr. Andy Rodenhiser  
Medway Planning and Economic Development Board  
155 Village Street  
Medway, MA 02053

Mr. Rodenhiser,

February 1, 2021

Per your request I am writing regarding the proposed development at 149A Holliston Street. There has been a proposal that the only access to this subdivision will be 12 feet wide for a length of over 300 feet.

Massachusetts Fire Code 527 CMR 1 requires a 20 foot access road.

### *527 CMR 1 18.2.3.1.1*

*Approved fire department access roads shall be provided for every facility, building, or portion of a building hereafter constructed or relocated.*

### *18.2.3.1.2*

*Fire department access roads shall consist of roadways, fire lanes, parking lot lanes, or a combination thereof.*

### *18.2.3.1.3 \**

*The provisions of 18.2.3.1 through 18.2.3.2.2.1 shall be permitted to be modified by the AHJ where any of the following conditions exist:*

*(1)*

*One- and two-family dwellings protected by an approved automatic sprinkler system in accordance with Section 13.1*

*(2)*

*Existing one- and two-family dwellings*

*(3)*

*Private garages having an area not exceeding 400 ft<sup>2</sup>*

*(4)*

*Carports having an area not exceeding 400 ft<sup>2</sup>*

*(5)*

*Agricultural buildings having an area not exceeding 400 ft<sup>2</sup>*

*(6)*

*Sheds and other detached buildings having an area not exceeding 400 ft<sup>2</sup>*

### *18.2.3.1.4*

*When fire department access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the AHJ shall be authorized to require additional fire protection features.*

### *18.2.3.3 Multiple Access Roads.*

*More than one fire department access road shall be provided when it is determined by the AHJ that access by a single road could be impaired by vehicle congestion, condition of terrain, climatic conditions, or other factors that could limit access.*

*18.2.3.4.1.1 Fire department access roads shall have an unobstructed width of not less than 20 feet (6.1 m). Fire department access roads constructed in the boulevard-style shall be allowed where each lane is less than 20 feet but not less than ten feet when they do not provide access to a building or structure.*

*18.2.3.4.1.2*

*Fire department access roads shall have an unobstructed vertical clearance of not less than 13 ft 6 in. (4.1 m). A 15 foot clearance is preferred by the fire department.*

The proposed 12 foot width simply is not enough for our apparatus. Our trucks are nearly 10 feet wide and a foot of clearance on either side would not be sufficient for our apparatus to navigate, especially during snow and ice conditions. Additionally, per the Code, there should be 2 means of access. The department would consider allowing a single 15 foot access road provided there is sufficient room to turn our largest apparatus around at the end of the road and the houses had operating home sprinkler systems installed according to the Fire Code.

If you have any questions, please let me know. Thank you for your consideration in this matter.



Jeffrey P. Lynch  
Chief of Department

### **Board Members**

Andy Rodenhiser, Chair  
Robert Tucker, Vice Chair  
Thomas Gay, Clerk  
Matthew Hayes, P.E., Member  
Richard Di Iulio, Member  
Jessica Chabot, Associate Member



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[www.townofmedway.org](http://www.townofmedway.org)

## **TOWN OF MEDWAY**

### **COMMONWEALTH OF MASSACHUSETTS**

## **PLANNING AND ECONOMIC DEVELOPMENT BOARD**

### **MEMORANDUM**

February 2, 2021

TO: Zoning Board of Appeals  
FROM: Andy Rodenhiser, Chairman  
RE: Zoning Variance Petition for Volta Charging for 65 Main Street

Thank you for the opportunity to comment on the recent petition of Volta Charging, LLC of San Francisco, CA, owner of two electric vehicle charging stations located in front of the Shaw's grocery store at Medway Commons, 65 Main Street. The petitioner requests a use variance to allow installation, operation and maintenance of the EV charging stations. Volta also seeks variances from Section 7, Sign Regulation, to allow signage on the EV charging units that is not expressly permitted by the Zoning Bylaw (ZBL) and signage that is specifically prohibited. The internally illuminated signage area is 48" by 27" on each side of the two EV charging units; this is approximately 9 sq. ft. per side for a total of 18 sq. ft. per EV charging unit. The advertising message changes every 8 seconds and features national advertisers which may constitute off-premises signage. The Volta business model provides free EV charging to EV users by selling advertising space on the EV charging units to brand name advertisers to generate the revenues needed to pay for the electricity.

At its January 26, 2021 meeting, the PEDB reviewed and discussed Volta Charging's application. The Planning and Economic Development Board heartily supports the installation of EV charging stations in Medway. In fact, as proposed by the Board, the ZBL was recently amended to require the installation of EV charging stations in new commercial developments.

However, the Board is strongly opposed to the requested sign variances to allow signage on the EV charging units, particularly for signs which are expressly prohibited in Section 7.2.3. of the ZBL. Of most concern, is the precedent which would be set in town by the ZBA's authorization of the proposed, non-compliant signage for these EV charging units at Shaw's. It is reasonable to expect that additional petitions for similar signage variances would be forthcoming for additional EV charging stations in other large parking areas in the community if the ZBA approved this petition.

The Board recognizes that the signage section of the Zoning Bylaw needs some revisions to address this important and evolving technology. But until that is done after thoughtful research, vetting, and Town Meeting action, the Board would ask the ZBA to not grant the requested variances to Volta Charging.





December 29, 2020

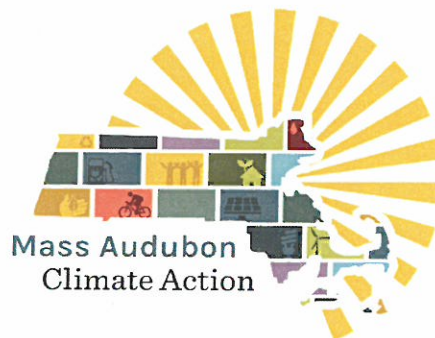
Dear Partner,

We are excited to share with you a new resource that illustrates the value of nature. Beyond its intrinsic value, nature provides many benefits for people—also known as ecosystem services. The health of our ecosystems is inherently tied to our own wellbeing, as the services they provide include air and water filtration, food provisioning, and recreational opportunities. Natural lands also contribute to property values and are critical for mitigating and adapting to climate change—absorbing and storing carbon dioxide that would otherwise contribute to rising temperatures, buffering storm surges and inland flooding, and cooling our urban areas. Access to nature and all its benefits will become increasingly important given the current and future impacts of climate change, especially for marginalized and low-income communities that are often farther away from green space and more negatively impacted by issues like the urban heat island effect and poor air quality.

This set of five fact sheets takes a deeper look at the health and financial benefits of *Forests, Coasts, Wetlands & Waterways, Grasslands & Farmlands, and Urban Green Space*. Pulling from a literature review of over 100 resources on ecosystem services, they provide easy access to facts and figures that demonstrate the importance of protecting our natural spaces, and why nature-based solutions are often the best choice when addressing threats like climate change.

Learn more about the importance of nature at [massaudubon.org/valueofnature](https://massaudubon.org/valueofnature).

Mass Audubon's *Shaping Climate Resilient Communities Program* works with municipal officials and community leaders to provide technical assistance and facilitate community outreach on the roles nature and low impact development play in climate resilience. Learn more about Mass Audubon's work fighting climate change at [massaudubon.org/climate](https://massaudubon.org/climate)



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# THE VALUE of Nature

massaudubon.org/valueofnature

#1 OF 5



## Forests

Forests are the defining feature of New England's landscape. In Massachusetts, upland forest habitat can range from northern hardwoods like beech and maple, to softwoods like spruce or pitch pine.

### CLEAN AIR AND WATER



**FORESTS CLEAN THE AIR.** Forests in New England remove an estimated 760,000 tons of pollutants every year that cause smog and ground-level ozone.<sup>1</sup>



**FORESTS ARE NATURAL WATER FILTRATION SYSTEMS.** Each forested acre that drains into a public water source filters 543,000 gallons of drinking water per year, meeting the needs of 19 people, with an annual value of \$2,500 per acre.<sup>2</sup>

### CARBON CAPTURE & STORAGE



**~7%**  
OF MASSACHUSETTS' ANNUAL CARBON EMISSIONS ARE ABSORBED BY OUR 3M ACRES OF FOREST,<sup>4,5</sup> AND THE AVERAGE ACRE STORES ABOUT 103 TONS OF CARBON.<sup>6</sup>

The healthier a forest is, the better it sequesters carbon,<sup>7</sup> and mature forests are particularly important for carbon storage.<sup>8</sup>

**53,000**  
**AUTOMOBILE TANKS OF GASOLINE** contain the same amount of carbon as a 40-acre forest in New Hampshire stores.<sup>9</sup>

**\$3B**

GROSS OUTPUT  
OF MA FOREST  
PRODUCTS/YR<sup>10</sup>

Responsibly-sourced wood is a climate-friendly alternative to steel and concrete, and sourcing wood products locally reduces transportation emissions and supports local economies.<sup>11</sup>



### CLIMATE RESILIENCE

Massachusetts' forests are already home to

**209**

**SPECIES OF THE GREATEST CONSERVATION NEED, INCLUDING THE WOOD THRUSH.<sup>12</sup>**

Hermit thrush



**20%**

**POTENTIAL DECREASE IN FLOOD HEIGHT IN TOWNS DOWNSTREAM BY STRATEGIC PLANTING OF TREES ON FLOODPLAINS.<sup>13</sup>**

Protecting forested floodplains is critical for controlling erosion and buffering against flooding.<sup>14</sup>



Eastern moose

KEY  
TERMS

**Ecosystem Services:** Nature provides countless benefits to people, along with intrinsic values. These components of nature are enjoyed, consumed, or used by humans to support our wellbeing.

**Climate Resilience:** The ability of a natural or human community to prepare for and respond to the impacts of climate change.



# Forests

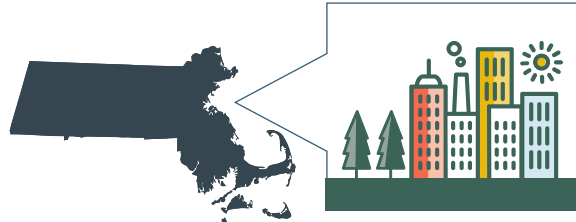
## INDIGENOUS PEOPLES

One of the clearest examples of the cultural value of forests is within indigenous communities. Indigenous peoples have lived among the forests of Massachusetts and New England for thousands of years. They managed the forests for food, medicine, and ceremonial purposes, and some tribes have continued this tradition despite challenges brought on by colonialism and ongoing native land loss.

The indigenous value of forests can be incorporated into decision-making by involving tribal members in projects and plans that impact their traditional landscapes.<sup>15</sup>



## URBAN FORESTS IN FOCUS



### IN THE 15 COMMUNITIES OF METRO BOSTON ALONE, URBAN FORESTS:

- ✓ Remove **1.75 million** pounds of air pollutants annually, worth \$11 million.<sup>17</sup>
- ✓ Store **962,000** tons of carbon, worth \$125 million,<sup>18</sup> and capture an additional 23,000 tons of carbon per year, worth nearly \$3 million.<sup>19</sup>
- ✓ Help those communities **avoid 527 million gallons** of stormwater runoff every year, worth \$4.7 million.<sup>20</sup>

**600K** TONS OF CARBON

sequestered/year by northern New England's urban and community forests, a \$38m value.<sup>21</sup>

## RECREATION & TOURISM

**\$2.2B** PER YEAR generated by Massachusetts' forest-based recreation economy, supporting 9,000 jobs.<sup>16</sup>






### LET'S GET SOLAR OFF THE GROUND

A new form of development — large-scale, ground-mounted solar photovoltaic arrays — is converting thousands of acres of forest and farmland.<sup>22</sup>

## Threats

Climate change and development are two of the biggest threats facing forests.

### CLIMATE CHANGE

-  **2.9°F RISE IN TEMP** since 1895
-  **11" SEA LEVEL RISE** since 1922, as measured in Boston Harbor
-  **55% STRONGER STORMS** since 1958<sup>23, 24</sup>

Rising temperatures, more rainfall and flooding, periods of drought, and pest outbreaks are all expected to stress trees.

### DEVELOPMENT



The smaller fragments that remain after forest development are less viable for ecosystem services,<sup>25</sup> and this decreased connectivity limits species' ability to migrate as their ranges shift from climate change.

**See our *Losing Ground* report and community planning resources for ways to reduce development impacts.**

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# THE VALUE of Nature

massaudubon.org/valueofnature

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## Coastal

Massachusetts has the second-longest coastline in the eastern United States, including extensive beach and dune systems. Coastal habitats like salt marshes and estuaries are among the most productive ecosystems on earth.

### CLIMATE RESILIENCE

New England's coastal ecosystems provide a buffer against the ocean, reducing wave height and impact.<sup>1</sup> Opting for nature-based solutions when planning for climate change, like protecting and restoring coastal habitats, often saves money long-term.

# 16%

**REDUCTION IN ANNUAL FLOOD LOSSES** in the northeast due to salt marshes. The greater the extent of a wetland, the more protection it provides.<sup>2</sup>



# 89K

  
HOMES

in Massachusetts - totaling \$63 billion in value - are threatened by high tide flooding primarily driven by climate change.<sup>4</sup>

### ECONOMIC

**COASTAL AREAS ARE AMONG THE MOST ECONOMICALLY VALUABLE AND ECOLOGICALLY PRODUCTIVE IN THE U.S.<sup>8</sup>**



# 87K jobs

in the seafood industry in Massachusetts in 2016, the second highest in the U.S., contributing \$7.7 billion in sales, the third highest in the U.S.<sup>9</sup>

### CLEAN WATER

Coastal wetlands like sea-grass beds act as filters, removing nutrients from sediment and the water column.<sup>6</sup>



# \$18M

Potential increase in home values in coastal communities along the Narragansett Bay thanks to reductions in nutrient loads and improved water quality.<sup>7</sup>



*Piping plover, left  
Snowy egret, right*

# \$403.1M

**DECREASE IN HOME VALUES** due to tidal flooding from sea level rise in 2005-2017 in MA, ME, NH, and RI, with Massachusetts coastal homes hit hardest.<sup>10</sup>

**KEY TERMS** | **Ecosystem Services:** Nature provides countless benefits to people, along with intrinsic values. These components of nature are enjoyed, consumed, or used by humans to support our wellbeing. | **Climate Resilience:** The ability of a natural or human community to prepare for and respond to the impacts of climate change.





# Coastal

## CARBON CAPTURE & STORAGE



Although the global area of vegetated coastal habitats is one to two orders of magnitude smaller than that of terrestrial forests, their contribution to long-term carbon sequestration is similar.<sup>11</sup>

# 10x greater

ANNUAL CARBON SEQUESTRATION RATE BY VEGETATED COASTAL ECOSYSTEMS IN THE WORLD (SALT MARSHES, MANGROVES, AND SEAGRASSES) THAN TERRESTRIAL FOREST SYSTEMS.<sup>12</sup>

Salt marshes are one of the most productive ecosystems in the world, sequestering millions of tons of carbon annually.<sup>13</sup> Rapid loss of blue carbon sinks like salt marshes could release large amounts of stored carbon into the atmosphere, further accelerating climate change.<sup>14</sup> Protecting coastal ecosystems helps prevent this by leaving room for salt marsh migration.

## RECREATION & TOURISM

# \$48/day

BEACH DAY

Estimated value (town fee revenue and consumer Willingness to Pay) for a New England beach without closure history from poor water quality - \$22/day for a beach with closure history.<sup>15</sup>

# 81%

OF NEW ENGLAND RESIDENTS PARTICIPATE IN SOME FORM OF OCEAN RECREATION.<sup>16</sup>



# \$488M +

Annual value of direct spending on marine recreational boating in Massachusetts in 2012 - the second highest in the U.S. behind NY.<sup>17</sup>



## COMMUNITY SPOTLIGHT

Through 2050, the Damde Meadows and Broad Meadows salt marsh restoration projects in Hingham and Quincy are projected to result in increased carbon burial equivalent to avoiding the combustion of over 800,000 gallons of gasoline.<sup>18</sup>

## Threats

Climate change and development are two of the biggest threats facing coastal areas.

### CLIMATE CHANGE



**2.9°F RISE IN TEMP** since 1895



**11" SEA LEVEL RISE** since 1922, as measured in Boston Harbor



**55% STRONGER STORMS** since 1958<sup>19, 20</sup>

Sea level rise and stronger storms are flooding and eroding coastal and salt marsh habitat, and warmer water temperatures are disrupting food webs and the integrity of coastal ecosystems.

### DEVELOPMENT



In the northeastern US, coastal areas are among the most at-risk communities as they face serious pressures from continuing development.

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## THE VALUE of Nature

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# Wetlands & Waterways

Wetlands are among the most productive ecosystems in the world, and they often feed into local streams and rivers, playing important roles in water quality, surface and groundwater supplies, and prevention of flooding. These ecosystems range from vernal pools to large rivers.

### COMMUNITY SPOTLIGHT

Wetlands can be so effective at filtering water that they are engineered by humans to treat stormwater and protect water quality. The City of Cambridge created the Alewife Stormwater Wetland to relieve community flooding problems and enhance local water quality. This project was part of a \$117 million investment in ongoing construction that will reduce annual sewer overflows by 43.6 million gallons.<sup>1</sup>

### CARBON CAPTURE & STORAGE

**20-30%**

of global soil carbon is held by wetlands,<sup>4</sup> despite their occupying only 5-8% of global land surface.<sup>5</sup> Wetlands in the conterminous U.S. store the equivalent of four years of annual carbon emissions by the nation.<sup>6</sup>



Wetlands of the Eastern Mountains and Upper Midwest (includes Massachusetts/New England) store the most carbon, accounting for nearly half of the carbon stored in wetlands in the U.S.<sup>7</sup>

### CLEAN WATER



**\$157 million**

Annual filtration cost savings to New England communities provided by wetlands and forests combined<sup>2</sup> – see our Forests fact sheet for more on their benefits.

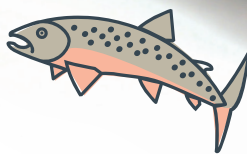
FOR EVERY \$1  
SPENT ON SOURCE  
WATER PROTECTION

**\$27**

SAVED IN WATER  
TREATMENT COSTS.<sup>3</sup>

### RECREATION AND TOURISM

Wetlands and waterways support diverse food chains, which are important for commercial and recreational fishing.



**33%**

**INCREASE IN MONTHLY  
BROOK TROUT MORTALITY**

in New England if stream flows continue to decrease at current rates.<sup>8</sup>



*Painted turtle*

**\$100M**

Wages, salaries, business earnings, and tax revenues brought in by Massachusetts freshwater fisheries, thanks to an enormous quantity and variety of fishing opportunities.<sup>9</sup>

### KEY TERMS

**Ecosystem Services:** Nature provides countless benefits to people, along with intrinsic values. These components of nature are enjoyed, consumed, or used by humans to support our wellbeing.

**Climate Resilience:** The ability of a natural or human community to prepare for and respond to the impacts of climate change.



# Wetlands & Waterways

## CLIMATE RESILIENCE



Wetlands function like sponges, storing water and slowly releasing it. This reduces flood heights and allows for groundwater recharge, which is important for resilience during periods of drought that have become more frequent amidst climate change.<sup>10</sup>

**Over 1M**

**GALLONS OF WATER CAN BE STORED IN ONE ACRE OF WETLAND.<sup>11</sup>**



**\$450K**

The highest estimated annual value of flood mitigation services provided by Otter Creek wetlands and floodplains to Middlebury, VT. The wetlands and floodplains have reduced damage in this community by 54-78% across 10 past flooding events.<sup>13</sup>

## COMMUNITY SPOTLIGHT

In 2006, the Charles River Natural Valley Storage area significantly reduced flooding to a 2-year flood event while nearby rivers were suffering 40 and 100-year flood events. The storage area cost \$90 million less than alternative built infrastructure projects and has provided additional recreational opportunities. Mass Audubon's Broadmoor Wildlife Sanctuary is part of this natural open space network.<sup>14</sup>

**265** SPECIES OF THE GREATEST CONSERVATION NEED,

including the wood turtle and blue-spotted salamander, make their homes in Massachusetts' freshwater wetland and waterway habitats.<sup>12</sup>



*Blue-spotted salamander*

## ECONOMIC AND HEALTH

**75%**

return on investment, for every \$1 million spent, generated by the average Massachusetts Division of Ecological Restoration project to restore wetlands and waterways.<sup>15</sup>

**38%**

The cost savings to restore three culverts so stream flow could occur naturally, rather than replacing the culverts with identical structures and maintaining them over 30 years, according to one study of water quality improvement methods.<sup>16</sup>

## Threats

Climate change and development are two of the biggest threats facing wetlands and waterways.

### CLIMATE CHANGE



**2.9°F RISE IN TEMP** since 1895



**11" SEA LEVEL RISE** since 1922, as measured in Boston Harbor



**55% STRONGER STORMS** since 1958<sup>17, 18</sup>

Coldwater fish species are at risk from increased water temperatures and droughts drying out streams, and lakes may become stagnant and develop algal blooms more frequently.

### DEVELOPMENT



The development of upland areas, and the new stream crossings to access them, are fragmenting and degrading wetlands, and can add to excessive water withdrawals and existing water pollution.

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## THE VALUE of Nature

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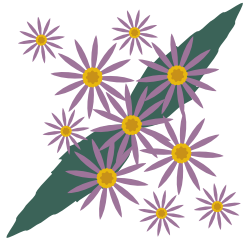
# Grasslands & Farmlands

In Massachusetts, grasslands are created and maintained by natural or human-caused disturbances. Grasslands provide crucial habitat for wildlife, including pollinators like bees, butterflies and birds. Farms and gardens support local food production.

### ECONOMIC & HEALTH

#### Community Gardens

help increase community cohesion, connecting people with nature and accessible, healthy food.<sup>1</sup> Additional benefits include their important role in stormwater management.<sup>2</sup>



POLLINATORS  
CONTRIBUTE  
**\$24B**  
TO THE U.S.  
ECONOMY<sup>3</sup>

**22-35%**

Profit increase from practicing organic farming instead of conventional, based on 40 years of studies covering 55 crops on five continents.<sup>4</sup>



**\$475K**

Total market value for agriculture in Massachusetts in 2017.<sup>5</sup>



**45%**

OF OUR  
AGRICULTURAL  
COMMODITIES IN  
MASSACHUSETTS  
RELY ON THE  
RICH DIVERSITY  
OF POLLINATORS  
FOR CROP  
POLLINATION.<sup>6</sup>



*Eastern  
Meadowlark*

### FARMING FOR THE FUTURE



Regenerative agriculture is a crucial piece of the sustainability puzzle. While conventional farming employs large

amounts of pesticides, fertilizers, energy, and water, regenerative agriculture centers on soil health and productivity, minimizing environmental impact.<sup>7</sup> This practice often goes hand in hand with "carbon farming" to improve conversion of atmospheric CO<sub>2</sub> to plant material and soil organic matter.<sup>8</sup>

Visit our website to read about how Mass Audubon's Drumlin Farm is employing regenerative methods.

### CLEAN WATER



**12M GALLONS** Estimated amount of stormwater retained annually by raised beds alone in New York City's community gardens.<sup>9</sup>

### CARBON CAPTURE & STORAGE

**0.95  
TONS**

Reduction in equivalent CO<sub>2</sub> released into the atmosphere by composting and

using one ton of farm food scraps and yard waste vs. landfilling the same amount.<sup>10</sup>

**KEY TERMS**

**Ecosystem Services:** Nature provides countless benefits to people, along with intrinsic values. These components of nature are enjoyed, consumed, or used by humans to support our wellbeing.

**Climate Resilience:** The ability of a natural or human community to prepare for and respond to the impacts of climate change.



# Grasslands & Farmlands

## CLIMATE RESILIENCE

Climate change threatens our ability to produce food, and food insecurity is already present in Massachusetts.<sup>11</sup>

**\$2.4B** POTENTIAL SAVINGS/YEAR

in medical treatment costs by addressing food insecurity in Massachusetts.<sup>12</sup>

**Over \$2M**

Benefit to participants in Massachusetts' Healthy Incentives Program (HIP) in the program's first seven months, demonstrating demand for healthy, local food. HIP makes buying fruits and vegetables from farmers markets and other qualified local vendors more cost-effective for eligible low-income residents.<sup>13</sup>



**53 species** OF THE GREATEST CONSERVATION NEED

make their home in Massachusetts' grassland habitats, including the eastern meadowlark and bobolinks.<sup>14</sup> Maintaining agricultural lands benefits several species that have declined significantly in New England over the past 50 years.<sup>15</sup>

## GREEN CITY GROWERS

Green City Growers, an organization that converts unused spaces into urban farms, has grown more than **175,000 pounds of organic produce** over less than 2 acres. Based on these production levels, it is estimated that just **1.6% of Boston's 57,363 acres of land would be needed to meet the needs of at-risk Bostonians.**<sup>17</sup>



## A NEW ENGLAND FOOD VISION, FOR 50 BY '60

Experts from universities around New England have created a plan to grow 50% of our food locally by 2060. The 2 million acres of farmland in New England provide only 12% of our food, while 10 to 15% of households report food insecurity. New England has the capacity to responsibly expand its farmland to 6 million acres while reducing our farm footprint and leaving 70% of the region forested.<sup>16</sup>

## RECREATION & TOURISM

Participants in agri-tourism (a growing trend) and wildlife observers interested in grassland species spend money on classes and programs in local communities.




**\$259K** Amount spent annually by visitors to 611 acres of grasslands managed by Mass Audubon.<sup>18</sup>

**125K** people visit and participate in educational programs annually at Mass Audubon's Drumlin Farm.<sup>19</sup>

## Threats

Climate change and development are two of the biggest threats facing grasslands and farmland.

### CLIMATE CHANGE

-  **2.9°F RISE IN TEMP** since 1895
-  **11" SEA LEVEL RISE** since 1922, as measured in Boston Harbor
-  **55% STRONGER STORMS** since 1958<sup>20, 21</sup>

Grasslands and agricultural fields are experiencing climate change impacts like summer drought, freeze damage to early buds, and faster spread of invasive species.

### DEVELOPMENT



Grasslands and farmlands are often prime targets for development, since the land is open, relatively flat, and has soils that are easily manipulated.

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## THE VALUE of Nature

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# Urban Green Space

The value of green space and trees in cities should not be overlooked. Urban green space provides many ecosystem services, including improved health, and it is important to ensure that our most vulnerable communities have fair access to these benefits.

### ECONOMIC & HEALTH

Marginalized and low-income urban communities are often farther away from green space and more negatively impacted by the urban heat island effect and air pollution.<sup>1</sup>

## 50%

REDUCTION IN INDOOR COURSE PARTICULATE MATTER concentrations observed in one study of roadside street trees' impacts on neighboring houses.<sup>2</sup> Another study found that a single tree lowered concentrations behind it by 15%.<sup>3</sup>

## 670k

INSTANCES OF ACUTE RESPIRATORY SYMPTOMS, AND 850 HUMAN DEATHS, PREVENTED EACH YEAR NATIONWIDE BY TREES' AND FORESTS' ABILITY TO ABSORB AIR POLLUTION, FOR AN ANNUAL VALUE OF \$7 BILLION.<sup>5</sup>

See our Forests fact sheet for more on their benefits.

## 85%

OR 10.5 MILLION GALLONS reduction in surface runoff entering Mashapaug Pond after three years thanks to Providence, RI's use of low impact development (see below for more on LID). The practice also reduced phosphorus pollution, which contributes to algal blooms, by 95%.<sup>4</sup>



Studies show a correlation between the proximity of communities to green space and lower levels of mental illness,<sup>6</sup> in addition

to improved social cohesion.<sup>7</sup> Contact with nature helps children with attention-deficit disorder better manage their symptoms.<sup>8</sup>



## 37%

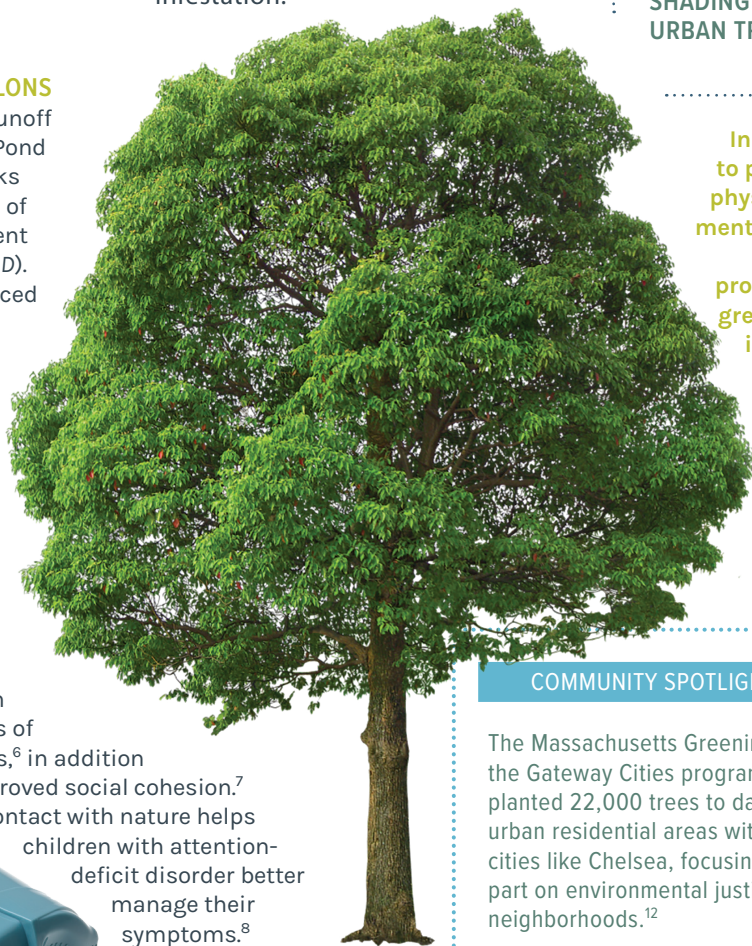
Increase in electricity use for cooling

following reduction in tree canopy cover by 30% in Worcester's Greendale neighborhood, prompted by an Asian longhorned beetle infestation.<sup>9</sup>

## 3.06 °C

AVERAGE MODELED DECREASE IN NEAR-SURFACE AIR TEMPERATURE OVER THE ENTIRE CONTIGUOUS US, THANKS TO THE SHADING EFFECT OF URBAN TREES.<sup>10</sup>

In addition to providing physical and mental health benefits, proximity to green space increases property value.<sup>11</sup>



### COMMUNITY SPOTLIGHT

The Massachusetts Greening the Gateway Cities program has planted 22,000 trees to date in urban residential areas within cities like Chelsea, focusing in part on environmental justice neighborhoods.<sup>12</sup>

**KEY TERMS** **Ecosystem Services:** Nature provides countless benefits to people, along with intrinsic values. These components of nature are enjoyed, consumed, or used by humans to support our wellbeing. **Climate Resilience:** The ability of a natural or human community to prepare for and respond to the impacts of climate change.



# Urban Green Space

## CLIMATE RESILIENCE

Taking action in cities is recognized as essential for global climate change resilience,<sup>13</sup> and urban green space can play a key role.

### LOW IMPACT DEVELOPMENT

(LID) works to reduce impervious surfaces through techniques like good site selection and bio-infiltration, mitigating flooding, protecting water quality and helping maintain a sustainable water supply. LID is increasingly important given the impacts of climate change:

For example, rain gardens allow for increased groundwater recharge and can help reduce vector-borne illnesses, since they avoid standing water that provides ideal conditions for mosquito breeding.<sup>14</sup>

For more see:  
[massaudubon.org/LIDfactsheets](http://massaudubon.org/LIDfactsheets)



**4x** potential savings increase from avoided extreme weather damage thanks to upfront investments in resilience.<sup>15</sup>

## CARBON CAPTURE & STORAGE



# \$166

### ANNUAL VALUE PER ACRE OF FULLY VEGETATED GREEN INFRASTRUCTURE

expected benefit in reduced CO<sub>2</sub> emissions thanks to NYC's green infrastructure plan to improve local water quality.<sup>16</sup>

## RECREATION AND TOURISM



# 1 in 3



Americans in the 100 largest cities live more than a 10-minute walk from a park.<sup>17</sup>

**BOSTON** became the second major city in the U.S. to ensure that all residents have a park within a 10-minute walk from home.<sup>18</sup>

Red fox



## I-TREE

The USDA Forest Service's free i-Tree toolkit allows you to explore the benefits of urban trees on scales including cities and neighborhoods. The "MyTree" tool even helps you analyze a single tree, providing the value in dollars for carbon dioxide sequestered, avoided stormwater runoff, and air pollution removed.<sup>19</sup>

[itreetools.org](http://itreetools.org)

**URBAN GREEN SPACES CAN SERVE AS "STEPPING STONES" THAT INCREASE CONNECTIVITY BETWEEN NATURAL AREAS.**

This is especially important given climate change and resulting shifts in distribution of many plant and animal species.

## Threats

Climate change threatens the health of urban communities, where development is high.



**2.9°F RISE IN TEMP** since 1895



**11" SEA LEVEL RISE** since 1922, as measured in Boston Harbor



**55% STRONGER STORMS** since 1958<sup>21, 22</sup>

While their impacts are often linked, climate change and development in urban areas are particularly intertwined. Climate change will exacerbate health impacts on urban populations, and urban areas with extensive impervious surface and compacted soils will be especially vulnerable to future flooding.<sup>23</sup> In the meantime, development is guaranteed to continue, and remaining urban green spaces and the services they provide are at risk.



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These fact sheets were produced as part of the Integrating Ecosystem Services Functions and Values into Land-Use Decision Making in the Narragansett Bay Watershed project.

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University of Rhode Island under the leadership of Dr. Emi Uchida. Additional project partners include the URI Graduate School of Oceanography, the URI Coastal Resources Center, the Natural Capital Project at Stanford University, and the George Perkins Marsh Institute at Clark University. The views expressed in this project are solely those of the authors. It has not been formally reviewed by EPA. Additional information is available at [www.nbweconomy.org](http://www.nbweconomy.org).

## 2021 ATM Proposed solar by-law BJS draft 2.4.21

### PROPOSED SOLAR BY-LAW

#### SECTION 8.11 SOLAR ELECTRIC INSTALLATIONS

##### 8.11-1 Purpose

The purpose of this bylaw is to facilitate and appropriately regulate the creation of Ground-Mounted Solar Electric Installations: (a) by providing standards for the approval, placement, design, construction, operation, monitoring, modification and removal of such installations to protect the public health, safety and welfare, including protection and preservation of Town infrastructure (including roads); providing for public safety; and mitigating any impacts upon environmental, scenic, and historic resources; (b) by providing adequate financial assurance for the eventual decommissioning of such installations; and (c) by protecting large, contiguous blocks of forest land, based on the understanding that large, contiguous tracts provide many ecological benefits, including improved water and air quality, sequestration of carbon, reduced movement of invasive species, provision of wildlife habitat and the support for greater biodiversity; and providing many recreational opportunities for town residents.

**Commented [BSA1]:** Note: numbering will need to be changed for consistency with zoning by-law.

##### 8.11-2 Applicability

A. Roof-mounted Solar Energy Facilities. Solar energy panels mounted on the roof of a building as an accessory structure, and necessary incidental equipment for those solar energy panels, are allowed by right in all zoning districts.

B. Small-Scale Ground-Mounted Solar Electric Installations which are accessory to an existing residential or non-residential use which generate electricity principally used by such residential or non-residential use may be allowed by special permit, do not need to comply with this Section 8.11, but require Site Plan Review from the Planning and Economic Development Board, as well as a building permit, and must comply with all other applicable provisions of this Zoning Bylaw.

C. Solar Parking Canopies which are accessory to an existing residential or non-residential use may be allowed by special permit in all zones except AR-1, AR-11, and VR, and are subject to the requirements of this Section 8.11.

D. All other Small-Scale and Large-Scale Ground-Mounted Solar Electric Installations are subject to the requirements of this Section 8.11, and are allowed in those zoning districts specified in Table 1: Schedule of Uses.

##### 8.11-3 General Requirements

A. Compliance with Laws, Bylaws, and Regulations

The construction and operation of all Ground-Mounted Solar Electric Installations

shall be consistent with all applicable local, state and federal requirements, including but not limited to all applicable safety, construction, electrical, and communications requirements.

B. Mitigation for Loss of Carbon Sequestration and Forest Habitat

If land that is Forestland or has been Forestland within the past year is proposed to be converted to a Ground-Mounted Solar Electric Installation, the plans shall designate thereon an area of unprotected (meaning, not subject to G.L. c. 184, sections 31-33 at time of application) land on the same lot and of a size equal to four times the total area of such installation. Such designated land shall remain in substantially its natural condition without alteration, including prohibition of commercial forestry or tree cutting not related to the maintenance of the installation, until such time as the installation is decommissioned; except in response to a natural occurrence, invasive species or disease that impacts the trees and requires cutting to preserve the health of the forest.

C. Mitigation for Loss of Forest Habitat within the Installation

If Forestland is proposed to be converted to a Ground-Mounted Solar Electric Installation, the plans shall show mitigation measures that create a wildflower meadow habitat within and immediately around the Solar Electric System, and a successional forest habitat in the surrounding areas managed to prevent shading until such time as the installation is decommissioned. The wildflower meadow shall contain a wide variety of plants that bloom from early spring into late fall, that are planted in clumps rather than single plants to help pollinators find them, and that are native plants adapted to local climate, soil and native pollinators. At least 50% of the array footprint and perimeter shall be planned to have these flowering plants. Mowing shall be limited to no more than once annually. Plans for pollinator-friendly vegetation establishment and maintenance shall be compiled and written by a professional biologist or ecologist with relevant experience and expertise in pollinator habitat creation, grassland habitat restoration, and/or knowledge of native New England plant communities.

E. Mitigation for Disruption of Trail Networks

If existing trail networks, old Town roads, or woods or cart roads are disrupted by the location of the Ground-Mounted Solar Electric Installation, the plans shall show alternative trail alignments to be constructed by the applicant, although no rights of public access may be established hereunder.

F. Mitigation for Disruption of Historic Resources and Properties

Historic resources and properties, such as cellar holes, farmsteads, stone corrals, marked graves, water wells, or pre-Columbian features, including those listed on the Massachusetts Register of Historic Places or as defined by the National Historic Preservation Act, shall be excluded from the areas proposed to be developed, including clearing for shade management. A written assessment of the project's effects on each identified historic resource or property and ways to avoid, minimize or mitigate any adverse effects shall be submitted as part of the application. A

suitable buffer area shall be established on all sides of each historic resource.

- G. All plans and maps shall be prepared, stamped and signed by a Professional Civil Engineer licensed to practice in the Commonwealth of Massachusetts.
- H. Vehicular access for the purpose of construction shall be from paved streets.
- I. Lots for Ground-Mounted Solar Electric Installations shall have the required frontage on a street.
- J. In order to preserve the ecological integrity of the Town's large blocks of undeveloped Forestland, no more than one Large Ground-Mounted Solar Electric Installation shall be permitted within the bounds of any set of public ways and/or Town borders as depicted on the map entitled Large Ground Mounted Solar Electric Installation Districts, and incorporated into this zoning bylaw.
- K. The special permit may be conditioned to effectuate and make enforceable these requirements.

**Commented [BA2]:** This is something we would need to establish.

#### **8.11-4 Required Documents**

The project applicant shall provide the following documents.

- A. Site Plan. A Site Plan additionally showing:
  - 1. Locations of wetlands and Priority Habitat Areas as defined by the Natural Heritage & Endangered Species Program (NHESP).
  - 2. Locations of local or National Historic Districts.
  - 3. Locations of all known, mapped or suspected Native American archaeological sites or sites of Native American ceremonial activity. Identification of such sites shall be based on responses, if any, to written inquiries with a requirement to respond within 35 days, to the following parties: all federally or state recognized Tribal Historic Preservation Officers with any cultural or land affiliation to the Medway area; the Massachusetts State Historical Preservation Officer; tribes or associations of tribes not recognized by the federal or state government with any cultural or land affiliation to the Medway area; and the Medway Historical Commission. Such inquiries shall serve as a notice to the aforesaid parties and shall contain a plan of the project, specific identification of the location of the project, and a statement that permitting for the project is forthcoming. Accompanying the site plan shall be a report documenting such inquiries, the responses from the parties, a description of the location and characteristics, including photographs, of any Native American sites and the outcomes of any additional inquiries made based on information obtained from or recommendations made by the aforesaid parties. A failure of parties to respond within 35 days shall allow the applicant to submit the site plans.
  - 4. The project proponent must submit a full report of all materials to be used, including but not limited to the use of cleaning products, paints or coatings, hydro-seeding, fertilizers, and soil additives. When available, Material Safety Data Sheets will be provided.
- B. Blueprints. Blueprints or drawings of the installation signed by a Professional



Engineer licensed to practice in the Commonwealth of Massachusetts, showing:

1. The proposed layout of the system and any potential shading from nearby structures.
2. One- or three-line electrical diagram detailing the Ground-Mounted Solar Electric Installation, associated components, and electrical interconnection methods, with all Massachusetts and National Electrical Code compliant disconnects and overcurrent devices.

C. General Documentation. The following information shall also be provided:

1. A list of any listed hazardous or known carcinogenic materials proposed to be located on the site in excess of household quantities and a plan to prevent their release to the environment as appropriate.
2. Name, address, and contact information for proposed system installer.
3. The name, contact information and signature of any agents representing the project applicant.

D. Site Control

The project applicant shall submit documentation of actual or prospective access and control of the project site sufficient to allow for construction and operation of the proposed Ground-Mounted Solar Electric Installation.

E. Operation and Maintenance Plan

The project applicant shall submit a plan for the operation and maintenance of the Ground-Mounted Solar Electric Installation, which shall include measures for maintaining safe access to the installation, stormwater management (consistent with DEP's and, where appropriate, Medway's stormwater regulations), as well as general procedures for operational maintenance of the installation.

F. Financial Surety

Applicants for Ground-Mounted Solar Electric Installations shall provide a form of surety, either through a deposit of money, bond, triparty agreement, or other means acceptable to the Board, to cover the cost of removal in the event the Town must remove the installation and remediate the site to its natural preexisting condition, in an amount and form determined to be reasonable by the Board, but in no event to exceed more than 125% of the cost of removal and compliance with the additional requirements set forth herein. The project applicant shall submit a fully inclusive estimate of the costs associated with removal, prepared by a qualified engineer. The amount shall include a mechanism for calculating increased removal costs due to inflation.

G. Utility Notification

No Ground-Mounted Solar Electric Installation shall be constructed, nor building permit issued until evidence has been provided to the Building Commissioner that the utility company that operates the electrical grid where the installation is to be located has approved the solar electric installation owner or operator's intent to install an interconnected customer-owned generator and that the utility has approved connection of the proposed generator into their power grid. Off-grid systems shall be exempt from this requirement.

## H. Proof of Liability Insurance

### 8.10-5 Dimensional Requirements

- A. Minimum setbacks for all Large-Scale Ground-Mounted Solar Electric Installations shall be:
- Front setback: 500 feet
  - Side and rear setback: 100 feet
- B. Minimum setbacks for all Small-Scale Ground-Mounted Solar Electric Installations shall be:
- Front setback: 100 feet
  - Side and rear setback: 50 feet
- C. Minimum setbacks for all Ground-Mounted Solar Electric Installations that are installed on or above existing paved parking areas (Solar Parking Canopies):
- Front setback: 50 feet
  - Side and rear setback: 50 feet
- D. Required setback areas shall not be counted toward a facility's total acreage.

**Commented [BSA3]:** Do we want smaller setbacks for installations over parking areas?

### 8.11-6 Design and Performance Standards

- A. Lighting  
Large- and Small-Scale Solar Electric Installations shall have no permanently-affixed exterior lighting.
- B. Signage
1. Sufficient signage shall be provided to identify the owner of the facility and provide a 24-hour emergency contact phone number.
  2. Signage at the perimeter warning pedestrians is allowable.
  3. Ground-Mounted Solar Electric Installations shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of such installation.
- C. Control of Vegetation  
Herbicides or pesticides may not be used to control vegetation or animals at a Ground-Mounted Solar Electric Installation.
- D. Visual Impacts
1. Ground-Mounted Solar Electric Installation shall be designed to minimize visual impacts including preserving natural vegetation to the maximum extent possible, blending in equipment with the surroundings, and adding vegetative buffers to provide an effective visual barrier from adjacent roads and driveways, and to screen abutting residential dwellings.
  2. When possible, a diversity of plant species shall be used, with a preference for species native to New England.
  3. Use of invasive or exotic plants, as identified by the most recent copy of the "Massachusetts Prohibited Plant List" maintained by the Massachusetts Department of Agricultural Resources, is prohibited.
  4. If deemed necessary by the Board, the depth of the vegetative screen shall be 30

feet and will be composed of native trees and shrubs staggered for height and density that shall be properly maintained.

5. The owner and operator shall not remove any naturally occurring vegetation such as trees and shrubs unless it adversely affects the performance and operation of the solar installation.
6. Landscaping shall be maintained and replaced as necessary by the owner and operator of the Ground-Mounted Solar Electric Installation.

E. Utility Connections.

Electrical transformers, wires, or other utility interconnections shall be constructed as required by the utility provider and may be above ground if necessary; provided, however, that every reasonable effort shall be made to place all utility connections underground, depending on appropriate soil conditions and topography of the site and any requirements of the utility provider.

- F. All electric power generated at a Ground-Mounted Solar Electric Installation shall be from Solar Energy.
- G. Access Driveways shall be constructed to minimize finished width, grading, removal of stone walls or roadside trees, incompatible appearance from the roadway, and impacts to environmental or historic resources.

#### **8.11-7 Safety and Environmental Standards**

A. Emergency Services

1. Ground-Mounted Solar Electric Installations owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Fire Chief.
2. The owner or operator shall cooperate with local emergency services to develop a written emergency response plan that is provided to police and fire departments
3. All means of shutting down the solar electric installation shall be clearly marked.
4. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation. Contact information shall be provided annually to the Town Manager including name, email and telephone number for the designated person and a back-up person.

B. Land Clearing, Soil Erosion and Land Impacts

1. The facility shall be designed to minimize impacts to open agricultural land and fields, even if not in production. Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of the Ground-Mounted Solar Electric Installation. Grading that substantially disturbs the existing soil profile and structure is prohibited; sites shall be selected where construction may be accomplished without such earth work.
2. Prior to any site disturbance and construction, the limits of the work shown on the approved site plan shall be surveyed and clearly marked by a Professional Land Surveyor. Upon completion of the survey, the Professional Land Surveyor shall verify to the Building Commissioner, in writing, that the limit of work, as shown on the approved site plans, has been established on site.



3. The design shall minimize the use of concrete and other impervious materials to the maximum extent possible. Ground-Mounted Solar Electric Installation shall be installed on water permeable surfaces.
4. Locating Ground-Mounted Solar Electric Installations, including access driveways and any associated drainage infrastructure on original, pre development grades in excess of 15% is prohibited.

C. Habitat Impacts

Large-Scale Ground-Mounted Solar Electric Installations shall not be located on permanently protected land subject to G.L. c. 184, sections 31-33, Priority Habitat and Bio Map 2 Critical Natural Landscape Core Habitat mapped by the Natural Heritage and Endangered Species Program (NHESP) and "Important Wildlife Habitat" mapped by the DEP.

D. Wetlands

1. In order to provide an adequate intervening land area for the infiltration of stormwater runoff from a Solar Electric Installation, ground alterations, such as stump removal, excavation, filling, and grading, or the installation of drainage facilities or solar panels, are prohibited within 100 feet of any wetlands or hydrologic features subject to the jurisdiction of the Conservation Commission.
2. The Planning and Economic Development Board may impose conditions to contain and control stormwater runoff that might negatively impact identified wetlands or other hydrologic features even if the proposed work area is outside the jurisdiction of the Conservation Commission.

**8.11-8 Monitoring, Maintenance and Reporting**

A. Solar Electric Installation Conditions

1. The Ground-Mounted Solar Electric Installation owner or operator shall maintain the facility in good condition.
2. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security measures.
3. Site access shall be maintained to a level acceptable to the Fire Chief.
4. The owner or operator shall be responsible for the cost of maintaining the Solar Electric Installation and any access driveways.

B. Annual Reporting

1. The owner or operator of a Ground-Mounted Solar Electric Installation shall submit an annual report demonstrating and certifying compliance with the Operation and Maintenance Plan, the requirements of this Section 8.11 and the approved special permit, including but not limited to continued management and maintenance of vegetation, compliance with the approved plans and any special permit conditions, continuation of liability insurance, and adequacy of road access.
2. The annual report shall also provide information on the maintenance completed during the course of the year and the amount of electricity generated by the facility.

3. The report shall be submitted to the Town Manager and Building Commissioner, no later than 45 days after the end of the calendar year.

#### **Abandonment or Decommissioning**

##### **A. Removal Requirements**

1. Any Ground-Mounted Solar Electric Installation which has reached the end of its useful life, has been abandoned, or taken off line shall be removed.
2. The owner or operator shall physically remove the installation no later than 150 days after the date of discontinued operations.
3. The owner or operator shall notify the Building Commissioner in writing of the proposed date of discontinued operations and plans for removal.

##### **B. Decommissioning shall consist of:**

1. Physical removal of all components of the Ground-Mounted Solar Electric Installation, including but not limited to structures, foundations, equipment, security barriers, and on-site above-ground transmission lines. Associated off-site utility interconnections shall also be removed if no longer needed.
2. Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.
3. Restoration of the site to its natural preexisting condition, including stabilization or re-vegetation of the site as necessary to minimize erosion. The Board may allow the owner or operator to leave landscaping or designated below-grade foundations and electric lines in order to minimize erosion and disruption to vegetation.

##### **C. Decommissioning by the Town**

If the owner or operator of a Ground-Mounted Solar Electric Installation fails to remove such installation in accordance with the requirements of this Section 8.11 within 150 days of discontinued operations or abandonment, the Town may enter the property and physically remove the installation at the owner's expense, drawing upon the financial surety provided by the applicant.

Add the following to Section 2, Definitions:

Forestland: a dense growth of trees and shrubs covering an area of one acre or more.

Ground-Mounted Solar Electric Installation: a Solar Electric System that is affixed to the ground (not roof-mounted) and all appurtenant fencing, access driveways, drainage infrastructure, electronics, and any surrounding shade management areas.

Large-Scale Ground-Mounted Solar Electric Installation: a Ground-Mounted Solar Electric Installation which occupies more than one acre of land and no greater than fifteen acres of land.

Small-Scale Ground-Mounted Solar Electric Installation: a Ground-Mounted Solar

Electric Installation which occupies one acre or less of land.

Solar Electric System: a group of Solar Photovoltaic Arrays for the generation of electricity.

Solar Energy: radiant energy received from the sun that can be collected in the form of heat or light by a solar collector.

Solar Parking Canopy: An elevated structure that hosts solar panels installed over parking lots or other hardscape areas.

Solar Photovoltaic Array: an active Solar Energy collection device that converts solar energy directly into electricity whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means.

## Susan Affleck-Childs

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**From:** Lally, John - 0666 - MITLL <jlally@ll.mit.edu>  
**Sent:** Wednesday, February 3, 2021 9:36 AM  
**To:** Susan Affleck-Childs  
**Subject:** RE: Env Standard Updates  
**Attachments:** Environmental\_Standards\_(1-20-21 edits sac-tg)\_JLAnnos\_03Feb21.docx; commcann\_meeting\_handouts\_11-14-2018\_-\_accentech.pdf; p632403\_-\_neo\_organics\_medway\_facility\_-\_acentech\_letter\_9-25-19.pdf; 630410\_-\_commcan\_-\_acentech\_modeling\_results\_-\_r1\_6-26-19 (1)\_WithOdBA.pdf

Good morning Susy,

Below and attached are my responses to the latest Noise Section of the Environmental Updates, I respectfully request that you please distribute this email and attachments to PEDB members for their consideration, and anyone else as you see fit.

### **Executive Summary:**

- 1.) I could support and vote for (although reluctantly) separate nighttime continuous noise levels of Ind/Res=42dBA, Ind/Ind=47dBA, with an additional Sensitive Receptor nighttime overall noise limit of 32dBA.
- 2.) I could not vote for, and would oppose separate nighttime continuous noise levels with Ind/Ind=52dBA. (i.e. > 47dBA), as well as 42dBA at Sensitive Receptors.
- 3.) I respectfully request the proposed Ind/Ind nighttime continuous noise performance standard be changed to 47dBA with octave band limits changed accordingly, and a separate Sensitive Receptor nighttime continuous noise limit of 32dBA added.
  - a. The reason for these requests are detailed below and summarized in the comments of the attached proposed Environmental Updates.
  - b. Annotations also have questions, Re: Concept of "exposure".

**Background, Questions, Analysis, Conclusions & Compromise noise levels:** (I recognize this is a rather long-winded email but the stakes are sufficiently high for Medway residents that a thorough response is warranted.)

In theory separate Ind/Ind and Ind/Res noise performance standards make sense, however experience has proven that in practice this approach can be problematic and pose a serious threat to the quality of life of Medway Residents. Note: So as to avoid speculation and the use of hypothetical situations the below relies on our experiences with the 2 Marc Rd situation.

### **First a couple of facts:**

- 1.) The late night community sound levels around the East Industrial Park has been characterized between 27dBA and 29dBA.
  - a. This was presented to the PEDB at their 13Nov2018 meeting, the handouts from that meeting are attached.
- 2.) A noise source emitting 52dBA is approximately **5X** as loud as the late night community sound levels in perceived loudness around the East Industrial Park.

### **Observations, Questions and Analysis:**

- 1.) If facilities are allowed to emit 52dBA at night then residents can no longer rely on noise source property line limits to protect them, and must instead rely on the Remote Sensitive receptor noise limit for protection.

That spawns a fundamental question that must be answered: Would noise levels measured remote from noise source(s) be reliable in protecting residents from those noise source(s) emitting noise at their Ind/Ind locations 5X the existing late night community noise levels (in perceived loudness)? To answer this we recall our experiences from the 2 Marc Rd situation to assess the reliability and effectiveness of remote measurements in determining compliance.

That experience demonstrated that compliance and enforcement is most effective when compliance locations are specifically and unambiguously defined, as is generally the case at noise source property lines and much less effective as compliance locations move away from the noise source property lines. Please recall the confusing and protracted 2 Marc Rd noise discussions that were taking place when compliance was being evaluated at locations remote from the noise source per DEP compliance and the clarity that emerged once compliance moved to the noise source property lines per the Medway ZBL. This was an essential factor in getting the 2 Marc Rd situation resolved, as long as compliance locations remained remote there was serious doubts about the 2 Marc Rd outcome.

Compliance and enforcement effectiveness is directly related to the size of the area and variability of the noise over which compliance is being determined:

- The smaller the area and less variable the noise, the more reliable and effective is compliance determination and enforcement.
- The larger the area and more variable the noise, the less reliable and effective is compliance determination and enforcement.

At this point I think it'll be helpful to remind folks just how dramatic the 2 Marc Rd noise varied across remote locations and in some cases even between adjacent houses, so here goes:

- a. The 2 Marc Rd situation clearly demonstrated how sound propagation and therefore the noise level measured and perceived at remote receptors is impacted by the presence of:
  - i. Topography changes between noise source(s) and remote receptor(s).
  - ii. Manmade and natural barriers between noise source(s) and remote receptor(s)
  - iii. Echo surfaces between and around noise source(s) and remote receptor(s).
  - iv. Relative positions of noise source(s) and remote receptor(s).
  - v. The background noise level at the remote receptor(s).
  - vi. And all of the above are subject to change as development evolves over time: Barriers & Echo surfaces changing e.g. Buildings erected/razed, 2<sup>nd</sup> stories added..., Noise sources added/changed, Noise sources moved from/to roofs/ground level, earthen mounds created/removed (eg the state of the contractors yard across from 2 Marc Rd), background noise levels etc...
- b. The consequence of the above was that some locations very close to each other had very different noise impacts, and there were some locations where one might have thought would be much less impacted than others but were actually impacted more. Some actual examples of these are as follows:
  - i. 44 & 46 Coffee Street:
    1. These houses are next-door-neighbors, the noise at 44 Coffee Street was very detrimental especially at the 2<sup>nd</sup> floor, while the noise at 46 Coffee Street didn't seem to be that bad.
  - ii. 35 Coffee Street (My house):
    1. The noise on my front porch was much louder than on the street in front of my house.
      - a. I estimate the elevation change between my house and the street is around 10 feet.
  - iii. Along the County/Private Way that forms the West/East Residential/Industrial boundary between the AR1 & EI zones.

1. To characterize the noise from 2 Marc Rd there were days when I made it a point to walk along this way each morning and night.
  - a. It was remarkable how the noise levels would fluctuate along this way and be very different by only moving a few feet in either direction.
  - b. This is a very troublesome observation with respect to separate Ind/Res and Ind/Ind noise performance standards because it might be the boundary where the West-Res/East-Ind compliance measurements would be made.
    - i. As bad as 2 Marc Rd was there were obvious locations along this way where compliance to a 42dBA Res/Ind level likely could have been demonstrated. If this were the case and 2 Marc Rd gone unmitigated that would have been a dreadful outcome for residents.
  - c. In addition to the noise levels changing across locations it also changed considerably with time, on some days during a walk the noise levels would be dreadful and later/earlier that same day not so bad.
- iv. Comparison of impacts to residences on Green Valley Rd versus 18 Main Street. (Note: distances estimated using Google maps.)
  1. 18 Main Street is about 1000ft from where the 2 Marc Rd Roof Top Chiller was located.
  2. 24 Green Valley Rd is over 2000ft away from 2 Marc Rd and through dense woods.
  3. 14 Green valley Rd is about 1600ft from 2 Marc Rd also through dense woods.
  4. Even though the Green Valley Rd residences are between ~2X and ~1.5X the distance and through dense woods than 18 Main Street is from 2 Marc Rd, 18 Main Street didn't seem that impacted by the noise from 2 Marc Rd while the Green Valley Rd residences were.
  5. When I talked with Heidi Sia (resident at 18 Main Street), you would have thought we were talking about 2 completely different facilities, it was remarkable.
    - a. I asked Heidi if she was impacted by the noise from 2 Marc Rd and she said there was noise but she was much more impacted by the odor.
    - b. While at my house it was the exact opposite, I was dreadfully impacted by the noise, and less so by the odor.
    - c. It was clear these differences were not due to differences in our sensitivities, as I clearly observed more odor and less noise at 18 Main Street than at my house.
- c. Conclusion: As described above compliance methods become less and less effective as the area over which compliance is being determined increases and as the variability of the noise level within that area increases, especially when there is considerable noise level variations at locations within close proximity to each other. Allowing Industrial facilities to emit noise at 5X the community sound levels in perceived loudness at their Ind/Ind locations and allowing that noise to propagate out into residential areas is a perfect storm for creating unreliable and ineffective compliance and enforcement situations. This is especially so because we already know that a noise source emitting from the East Industrial park can result in highly variable noise levels at locations in close proximity to each other. Worse yet, imagine over time multiple noise sources coming online each emitting 52dBA of noise and buildings being erected and razed and how that would change the noise out into the residential areas surrounding the industrial park. It is highly likely that allowing 52dBA at Ind/Ind locations will result in serious quality of life impacts to Medway Residents. And with multiple noise sources emitting at 52dBA there are serious doubts if/when the situation would ever get resolved. Recall that it took almost 2 years to resolve the 2 Marc Rd noise issue, and this was a situation with no other obvious offending noise source and when the facility operator was compelled to fix the situation to get a special permit.

Therefore conclude that Medway Residents will not be adequately protected if 52dBA noise is allowed to be emitted with reliance on remote compliance locations for protection, and instead

establish a more appropriate Ind/Ind noise level which diminishes the reliance on remote compliance locations.

- 2.) Now the question becomes: Is there a reasonable Ind/Ind noise level that would balance facility operator concerns with resident protections?
- a. What is a reasonable noise level at residences?
    - i. Acentech, the 2 Marc Rd, & 4 Marc Rd noise consultant has recommended that **noise levels at residences not exceed ~30dBA during nighttime hours.** (See Pg 1 of Letter from Acentech to Neo Organics 25Sep2019 attached)
      1. The reason for this recommendation is that late night community noise levels around the East Industrial park are between 27dBA and 29dBA and when residents are impacted at all hours of the night by noise, especially continuous industrial noise appreciably above these levels it makes for dreadful living conditions and folks start complaining to the Town.
      2. This is why I refer to Medway's nighttime noise levels as suburban bordering on Rural.
    - ii. The generally accepted maximum suburban nighttime noise limit is 40dBA, the PEDB has been provided with a number of references documenting this.
  - b. What is a reasonable nighttime Ind/Ind noise level performance standard?
    - i. To answer this we look to what noise levels have been achieved by an intense noise generator in Medway using appropriate mitigation, e.g. 2 Marc Rd. The rationale here is: If the Ind/Ind nighttime noise performance standard is set above what an intense noise generator like 2 Marc Rd was able to achieve then most if not all facilities would be able to comply.
      1. 2 Marc Rd Noise Source characteristics: (See Attached Pg 1 of Acentech Memo to Commcan dated 26Jun2019)
        - a. Qty=2 Rotary Chillers located side by side in an enclosure at ground level ~30ft from the property line.
        - b. Each chiller spec'd at ~100dBA sound power (not pressure) level.
      2. 2 Marc Rd mitigated noise level predictions: (See Attached Pg 16 of Acentech Memo to Commcan dated 26Jun2019)
        - a. All predicted overall noise levels < 40dBA.
        - b. 21 out of 23 predicted locations < 30dBA.
        - c. Maximum location at property lines ~39dBA
        - d. 182 out of 184 octave band predictions less than the 42dBA octave band limits in originally proposed noise updates.
    - ii. You may recall the above was used in the reasonableness test that was performed on the originally proposed 42dBA nighttime noise limit, this was to assess if 42dBA would be overly burdensome on industrial facilities.  
The conclusion of that reasonableness test was:
      1. If a facility with: Quantity=2 chillers, each having sound power specifications of ~100dBA, located side by side in an enclosure ~30 feet from the property line can comply with the proposed nighttime limit of 42dBA, then the vast majority of facilities will likely be able to comply as well. Therefore, the proposed nighttime limit of 42dBA was determined to be reasonable.
  - c. Summary and conclusions:
    - i. Summary:
      1. Industrial Facilities noise consultant recommends nighttime noise at residences < ~30dBA, this is consistent with community late night noise levels.
      2. Generally recognized Maximum suburban nighttime noise limit ~40dBA.
      3. Intense noise generator able to achieve ~39dBA at noise source property lines.
    - ii. Conclusions:
      1. Based on the foregoing I can see no rationale that justifies allowing Ind/Ind nighttime noise level of 52dBA.
      2. 42dBA overall noise level is achievable at noise source property lines even by intense industrial noise generators.

## Compromise Ind/Res, Ind/Ind & Sensitive Receptor Noise Levels:

- 1.) **For Ind/Res:** Because it's highly likely that even the most intense industrial noise generators will be able to achieve 42dBA at their property lines set the Res/Ind nighttime continuous noise limit at 42dBA. This was the noise level arrived at for the original proposed updates, and remains present for Ind/Res in the draft Susy sent me.
- 2.) **For Ind/Ind:** Set the nighttime noise level at 47dBA, this is the nighttime noise level in the existing Medway ZBL.
  - a. I offer this for consideration very reluctantly as it's 3X the late night community noise levels in perceived loudness and it suffers from similar remote compliance issues as the 52dBA, but to a lesser extent because the noise emitted is ~40% less than 52dBA emissions in perceived loudness.
    - i. Nevertheless, in the spirit of don't let "perfect" be the enemy of "good-enough" and in the mutual interest of all stake-holders, the existing Medway ZBL nighttime limit of 47dBA at Ind/Ind locations is a reasonable compromise.
  - b. Furthermore, facilities in Medway have had to comply with this noise level for decades so there should be no concern from facility operators regarding being put into an "ex-post-facto" non-compliant situation nor that 47dBA is overly burdensome.
- 3.) **For Sensitive Receptors:**
  - a. In the originally proposed updates the 42dBA at Sensitive Receptors was a compromise to come up with a "one-size-fits-all" noise level that would not overly burden industrial facilities when measured at their property lines, and avoid the complexity of specifying differing noise levels for differing locations.
  - b. Now that facilities are being relieved of the 42dBA burden at Ind/Ind locations and might be allowed to emit 47dBA (& heaven forbid 52dBA) during the night, and further recalling:
    - i. Acentech has recommended nighttime noise at residences not exceed ~30dBA
    - ii. Community late night noise levels are between 27dBA and 29dBA.
  - c. It is extremely important that a more adequate Sensitive Receptor Noise Level be established. If not, Medway Residents will not be adequately protected.
    - i. As described above resident's quality of life is severely impacted when noise, especially continuous industrial noise happens at all hours of the night at their homes appreciably above community noise levels.
    - ii. The threshold for appreciable differences in noise levels is 3dB, this is likely why Acentech recommended noise at residences not exceed 30dBA. That is 3dBA above the minimum community sound level of 27dBA.
      1. When industrial noise at a residence is 3dB above the community sound level the industrial noise dominates the experience for the folks who live there.
        - a. In speaking with folks who live around the East Industrial park they understand that when you live near an industrial park one should expect to be impacted by industrial noise.
        - b. However, those expectations are for industrial noise that occurs during normal business/Daytime hours, not at all hours of the night and certainly not continuously throughout the night at levels appreciably above community sound levels.
        - c. This is why it's so important to establish a more appropriate nighttime continuous noise level at Sensitive Receptors.
      2. A strong argument can be made for making the performance standard for continuous nighttime noise at Sensitive Receptors < ~30dBA as Acentech has recommended, however 32dBA would be a reasonable compromise. This uses 3dBA above the maximum late night community sound levels which has been characterized as 29dBA.
        - a. Please observe on Pg 4 of the handouts from the 13Nov2018 PEDB meeting (attached) that prior to effective mitigation of 2 Marc Rd (i.e.



while complaints were still occurring) late night noise levels at houses on Coffee Street were measured as 36dBA & 30dBA, and for the Green Valley Neighborhood (Bridle Path Way was used) measured at 34dBA.

- i. This is compelling evidence that a 42dBA nighttime continuous noise limit at Sensitive Receptors will be inadequate to protect residents, as night time noise levels were measured well below 42dBA contemporaneous with resident's noise complaints.
- b. Tonal noise issues will likely get caught by noise source property line compliance and so it's probably ok to specify the noise level at Sensitive Receptors as a single overall noise level i.e. < 32dBA during nighttime hours. i.e. not worth the complication of adding an entirely new octave band table for Sensitive Receptors. Although I certainly would support that.
- d. The obvious question one might ask is: If 42dBA during the night at Sensitive Receptors was adequate in the originally proposed updates why is it not adequate now?
  - i. The answer is: By itself, the 42dBA at Sensitive Receptors really wasn't adequate. In the originally proposed updates the nighttime 42dBA at Sensitive Receptors was carried forward from the noise source property line limits in an effort to use a "one-size-fits-all" approach, and avoid the complexity of having to specify differing noise levels for differing locations. As a compromise, it attempted to balance the burden on industrial facilities with protections for residents. This approach was based on all property lines of the noise source limited to < 42dBA of noise.
    1. Now that residents can no longer rely on all property lines of noise sources < 42dBA, the Sensitive Receptor level specified using that approach is no longer valid.
    2. Independently, the 42dBA nighttime noise limit at Sensitive Receptors was inadequate to protect residents, this was a serious deficiency in the originally proposed updates. There should have been a separate noise level for Sensitive Receptors much lower than 42dBA, more consistent with community nighttime sound levels.
      - a. Unintendedly, the 42dBA nighttime noise limit at Sensitive Receptors may have encouraged the very situation it was trying to prevent.
      - b. **With the same noise performance standard at remote Sensitive Receptors as the noise source property lines, a facility operator might be encouraged to move a loud noise source from ground level to the roof.** Thereby, reducing the noise level at ground level of the facilities property lines (where compliance measurements would likely be done) and drastically increasing the noise level out at remote Sensitive Receptors.
        - i. i.e. Creating a situation similar to 2 Marc Rd, the very situations intended to be prevented.
      - c. This deficiency would have been compounded by the unreliability of remote compliance locations as described above.

Respectfully Submitted,  
John Lally, Resident  
35 Coffee Street  
Medway, MA 02053

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**From:** Susan Affleck-Childs <sachilds@townofmedway.org>  
**Sent:** Wednesday, January 27, 2021 1:12 PM

**To:** Lally, John - 0666 - MITLL <jlally@ll.mit.edu>

**Subject:** RE: Env Standard Updates

Hi John,

Sorry I didn't send them to you!

Here you go.

Susy

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**From:** Lally, John - 0666 - MITLL [<mailto:jlally@ll.mit.edu>]

**Sent:** Wednesday, January 27, 2021 12:35 PM

**To:** Susan Affleck-Childs <[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)>

**Subject:** Env Standard Updates

Hi Susy,

I just watched the recording of last night's PEDB meeting, can you please email me the latest updates to the proposed Environmental standards.

I'd like to have an opportunity to review them and provide feedback as warranted.

Thank you Susy,

-John

## ENVIRONMENTAL STANDARDS

Revised 1-21-20

With John Lally edits 2-3-2021

ARTICLE : To see if the Town will vote to amend the Zoning Bylaw, Section 7.3 Environmental Standards, by deleting it in its entirety and replacing it as follows:

### 7.3. ENVIRONMENTAL STANDARDS

- A. **Purpose.** The intent of this section is to provide standards for uses which, by their operation, may generate impacts that are potentially hazardous, harmful to the environment, disturbing, offensive or objectionable.
- B. **Enforcement:** The Zoning Bylaw, § 3.1, Enforcement, Violations, and Penalties authorizes the Building Commissioner, or designee, to interpret and enforce the Bylaw. At the discretion of the Building Commissioner, a technical consultant may be engaged by the Town of Medway to investigate and document violations pursuant to this section.
- C. **Definitions:** For purposes of this section of the Bylaw, the following terms shall be defined as follows:

**Ambient Noise:** The sound pressure level at a given location produced by everything else excluding the source of sound being monitored, analyzed, or evaluated. Also referred to as background noise. Ambient noise includes environmental noises from sources such as traffic, aircraft, waves, alarms, animals or noise from existing mechanical devices such as air conditioning, power supplies, or motors that are present prior to introduction of a new intrusive sound source that is being evaluated.

**(Hz)Hertz:** A unit of frequency of change in the cycle of a sound wave

**(dB)Decibel:** A unit of measurement of the intensity of sound

**(dBA)A weighted decibel:** An expression of the relative loudness of sound in the air as perceived by the human ear.

**Detection Threshold –** The lowest concentration or intensity of noise, odor, vibration, or other environmental hazard regulated by this bylaw that is noticeable to a reasonable person with normal sensory sensitivities.

**Disturbing, offensive or objectionable odors:** Those which are at or above the detection threshold of a person with normal olfactory sensitivity.

**Octave Band:** A frequency band where the highest frequency is twice the lowest frequency.

Odor Plume: The cloud of odor created when odor molecules are released from their source and are expanded through air movement.

Sensitive Receptor: An occupied residence or facility whose occupants are more susceptible to the adverse effects of noise and odor including but not limited to hospitals, schools, daycare facilities, elderly housing, and convalescent facilities.

**D. Standards.** The following standards shall apply to all zoning districts.

1. **Smoke, Fly Ash, Dust, Fumes, Vapors, Gases, Other Forms of Air Pollution:** All activities involving smoke, fly ash, dust, fumes, vapors, gases, other forms of air pollution, as defined in [CMR 310, § 7](#), Air Pollution Control Regulations, as amended, which can cause damage to human health, to animals or vegetation, or other forms of property, or which cause any excessive soiling at any point are prohibited.
2. **Noise Disturbance:** The Building Commissioner may determine that a noise source is subject to investigation, and if it is determined to be in violation of this bylaw, may take appropriate enforcement action, including the issuance of orders requiring the development and implementation of corrective measures, and/or imposition of fines or non-criminal penalties.
  - a. **Standards.** No person or persons owning, leasing, or controlling the operation of any source or sources of noise shall **cause or** permit the establishment of a condition of noise pollution. Disturbing, offensive or objectionable noises shall not be produced in any zoning district or impact any space where people live, work or assemble in a way that unreasonably interferes with the comfortable enjoyment of life or the use of property.
    - 1) **Continuous Noise.** For the purposes of this bylaw, continuous noise restrictions apply to permanent non-residential uses and home-based businesses where noise is a by-product of business operations (such as from exhaust equipment). Maximum permissible sound pressure levels measured at the property line of the noise source shall not exceed the values specified in the tables below. In addition, maximum permissible sound levels measured at sensitive receptors located within one-thousand feet of the property line of the noise source for noise radiated continuously from the noise source shall not exceed an **overall level of 32dBA during Nighttime hours and during Daytime hours shall not exceed the daytime values in the Industrial to Residential Properties Table below.** ~~the values in the table below.~~ Daytime is defined as between the hours of 7:00 a.m. and 9:00 p.m. and Nighttime is defined as between the hours of 9:00 p.m. and 7:00 a.m.

The charts below apply to both property lines ~~and remote Sensitive Receptors.~~

**Commented [LJ-0-M1]:** This was in the prior updates, is there a reason why it's not in this revision?

**Commented [LJ-0-M2]:** Specifying the same noise level at facility property lines as at remote Sensitive Receptors is likely to encourage the very thing it's trying to prevent. E.g. a facility moving a loud noise source to it's roof to reduce the noise level at it's ground level property lines, and thereby drastically increasing the noise level at Sensitive Receptors.

In addition The 42dBA at Sensitive Receptors during the night is inadequate to protect residents, especially now that not all noise source property lines will be limited to <42dBA.

These were serious deficiencies in the original proposed updates. Please see accompanying email of 03Feb2021 for further details.



### Industrial to Industrial Properties (?Property Lines?).

Octave Band Center Frequency (Hz)	Daytime (dB) 7:00 a.m. – 9:00 p.m.	Nighttime (dB) 9:00 p.m. – 7:00 a.m.
63	72	<del>72</del> 67
125	60	<del>60</del> 55
250	53	<del>53</del> 48
500	47	<del>47</del> 42
1000	43	<del>43</del> 38
2000	40	<del>40</del> 35
4000	37	<del>37</del> 32
8000	33	<del>33</del> 28
Overall Level (dBA)	52	<del>52</del> 47

NOTE - Properties with industrial to industrial exposure at property lines may also **shall** be subject to industrial to residential exposures at remote Sensitive Receptors.

### Industrial to Residential Properties (?Property Lines?).

Octave Band Center Frequency (Hz)	Daytime (dB) 7:00 a.m. – 9:00 p.m.	Nighttime (dB) 9:00 p.m. – 7:00 a.m.
63	72	55
125	60	48
250	53	42
500	47	39
1000	43	36
2000	40	33
4000	37	30
8000	33	27
Overall Level (dBA)	52	42

NOTE - Properties with industrial to residential exposure at property lines may also be subject to industrial to industrial exposures at both property lines and remote Sensitive Receptors.

Compliance with all octave band limits is required. If the Building Commissioner determines that the noise source contributes significantly to ambient noise levels at any distance from the property, sound levels may be measured in those locations beyond the source property line. **Compliance is required at all property lines of the noise source and at sensitive receptors located within one-thousand feet of a property line of the noise source. Noncompliance at any property line of the noise source or at any sensitive receptor located within one-thousand feet of a property**

**Commented [SA3]:** Tom and I discussed this section and came up with this approach to have two charts to address the previously raised concerns.

**Commented [LJ-0-M4]:** Not sure I'm following the new approach, there seems to be the concept of Ind/Ind "exposure" versus Ind/Res "exposure" governing which table applies and that might not be the same as defined by Ind/Ind versus Ind/Res Property lines? For example there could be an Ind/Ind property line but the adjacent structure is a residence in which case the Ind/Res table would apply even though the property line is Ind/Ind ? Is that what's intended with this new approach? If so, think it'd be helpful to add definitions for Ind/Ind and Ind/Res exposure and when each applies.

**Commented [LJ-0-M5]:** Allowing 52dBA at night in Medway is a serious threat to Medway residents quality of life, it's ~5X late night community sound levels in perceived loudness. I respectfully request that this be changed to a nighttime noise level of 47dBA, which is consistent with the level in the existing Medway ZBL.

**Commented [LJ-0-M6]:** Sensitive Receptors should always be protected by appropriate Sensitive Receptor noise limits, correct? Also, see above for proposed updates and comments Re: Sensitive Receptor noise limits.

**Commented [LJ-0-M7]:** I found this note confusing. Think I need to get clarity on the notion of "exposure" and it's ramifications. In any event, I would expect Sensitive Receptors and Ind/Res Property Lines/Line segments to always be protected by the Sensitive Receptor and Ind/Res noise limits respectively, correct?

**Commented [LJ-0-M8]:** This language was present in the prior proposed updates, is it missing accidentally or was it removed intentionally? If intentional what's the reason for removing it?

It is very important that facilities are required to comply at the noise source property lines, when compliance locations move away from the noise source property lines compliance verification becomes very problematic and unreliable.

See accompanying email of 03Feb2021 for further details.

line of the noise source is a violation.

- 2) **Temporary Noise.** For the purposes of this bylaw, non-continuous noise restrictions apply to permanent non-residential installations and home-based businesses where noise is periodically produced. No person shall use or cause the use of any noise-producing equipment or tool (such as for construction, repair, or demolition operations) between the hours of 9:00 p.m. and 7:00 a.m.
- 3) **Construction Noise.** Work at construction sites and in the operation of construction equipment including start-up and movement of trucks, vehicles, and machines shall commence no earlier than 7:00 a.m. and shall cease no later than 6:00 p.m., Monday through Saturday. No construction shall take place on Sundays, federal holidays or state legal holidays without the advance written approval of the Building Commissioner.

*Advisory Note* – State regulations authorize municipal police departments, fire departments, and board of health officials to enforce noise standards that are based on certain sections of [310 Code of Massachusetts Regulations \(CMR\), § 7](#), Air Pollution Control Regulations. Such regulations are distinct and separate from the Town's zoning regulations for noise.

b. **Investigation.** The Building Commissioner may determine that a noise source is subject to investigation, and, if it is determined to be in violation of this bylaw, may take appropriate enforcement action, including the issuance of orders requiring the development and implementation of corrective measures, and/or imposition of fines or non-criminal penalties. If the Building Commissioner determines that an investigation is warranted, he or she or a designee, may undertake a noise study to determine if a non-compliant noise condition exists. The Building Commissioner may enlist the assistance of other Town personnel for the investigation. At the discretion of the Building Commissioner, a qualified acoustical consultant whose qualifications include Institute of Noise Control Engineering (INCE) board certification or equivalent experience may be engaged by the Town to assist in the investigation including measurements and documentation of violations. Depending on the particular site and its noise generators, the noise study shall include, at a minimum, measurements of:

- Ambient noise (Daytime and Nighttime) and
- Operational noise levels (Daytime and Nighttime) at the facility property line and at Sensitive Receptors located within one thousand feet of the facility property line.

- c. **Noise Control Plan.** If the Building Commissioner determines that there is a violation, he or she shall order the owner or operator to come into compliance. The owner and/or operator of the noise producing use shall provide a noise control, abatement and

mitigation plan to the Building Commissioner for review and approval, or otherwise bring the property into compliance with this bylaw and the order of the Building Commissioner. The plan shall address how the site will become compliant. Compliance shall be achieved through industry best practices and suitable mitigation measures. The plan shall be prepared by a qualified acoustical consultant whose qualifications include Institute of Noise Control Engineering (INCE) board certification or equivalent experience.

- d. **Corrective Measures** - Non-residential uses that produce non-compliant noise must install and maintain noise reducing equipment in accordance with the approved noise control plan to meet the requirements of this section. The Building Commissioner may require the provision of reports to document ongoing noise compliance.

- 3. **Vibration:** No vibration which is discernible to the human sense of feeling for three minutes or more in any hour between 7:00 a.m. and 9:00 p.m. or for thirty seconds or more in any one hour from 9:00 p.m. to 7:00 a.m. shall be permitted. No vibration at any time shall produce an acceleration of more than 0.1g or shall result in any combination of amplitude and frequencies beyond the "safe" range on the most recent edition of Table 7, U.S. Bureau of Mines Bulletin NO. 442 (U.S. Department of the Interior).

- 4. **Odors:** The Building Commissioner may determine that an odor is disturbing, offensive or objectionable and is subject to investigation, and, if it is determined to be in violation of this bylaw, may take appropriate enforcement action, including the issuance of orders requiring the development and implementation of corrective measures, and/or the imposition of fines and non-criminal penalties.

- a. **Standards** – Disturbing, offensive or objectionable odors as defined in Paragraph C. shall not be produced in any zoning district or impact any space where people live, work or assemble in a way that unreasonably interferes with the comfortable enjoyment of life or the use of property. Failure to meet either the Reasonableness Standard or the Measurement Standard listed below shall constitute a violation of this section.

- 1) **Sensorial Reasonableness Standard** –The Building Commissioner, or designee, may determine, using only her or his sense of smell, that an odor is one which is disturbing, offensive or objectionable to a reasonable person with normal olfactory sensitivity.

- 2) **Measurement Standards** – No disturbing, offensive or objectionable odor greater than that caused by the lowest odor detection thresholds as listed in the most recent edition of the [American Industrial Hygiene Association \(AIHA\) Odor Thresholds for Chemicals with Established Occupational Health Standards, Reported Odor Thresholds \(EG Table 6.3 in 2<sup>nd</sup> Edition\)](#) shall be permitted. Due to the potential of odorant mixtures causing more intense odors than individual odorant compounds in

isolation, nothing in this Bylaw shall be interpreted as allowing for any disturbing, offensive or objectionable odors at or above the cited detection thresholds.

b. **Investigation.** The Building Commissioner or designee shall investigate odor complaints until determined to be without merit or resolved to the satisfaction of the Building Commissioner.

1) **Assessment Area** – The Building Commissioner or designee shall investigate odor complaints for odors emanating from:

a) **Immediate Impact Zone** - Any resident, occupant, or owner of property located within 1,000 feet of the property line of the property with a source generating and emitting the disturbing, objectionable or offensive odor, as measured from property line to property line.

b) **Secondary Impact Zone** - A collection of complaints from five or more residents, occupants, or owners of property located within 2,500 feet of the property line of the property with a source generating and emitting the disturbing, objectionable or offensive odor as measured from property line to property line.

2) The Building Commissioner or designee may investigate possible odor violations upon their own initiative or at the request of Town officials or staff and shall investigate public complaints about an odor of a suspicious or dangerous nature.

3) If the Building Commissioner determines that an investigation is warranted, he or she or a designee, may undertake an odor observation to determine if a disturbing, objectionable or offensive odor exists. At the discretion of the Building Commissioner, a technical odor consultant may be engaged by the Town to assist in the investigation including odor observation and documentation of violations. The odor consultant shall be trained in the practices of ASTM (American Society for Testing Materials) - E679 and meet the selection criteria of EN13725 (international olfactometry standard). As a component of such investigation, measurements may be done in the field by using:

a) Undiluted odor field observations (i.e. sniffing) or odor sampling to be performed at a frequency, duration, and locations appropriate for the odor source under investigation and the locations of odor complaints that have been received by the Town including those beyond the source property lines. The purpose is to detect and assess the presence of recognizable odors linkable to a specific source in ambient air. This may be accomplished by:

i. **Grid method of analysis** - Odor hours for a geographic area of evaluation to establish an odor hour frequency measurement.



- ii. Plume method of analysis – Measurement of extent of the area where an odor plume originating from a specific odor source can be perceived and recognized under specific meteorological and operating conditions.

The following other forms of measurement may be used only as supplemental methods to evaluate persistent problems or higher intensity odors as a way to determine the severity of the situation.

- b) Field Olfactometry - A method to quantify odors in ambient air by means of a portable odor detecting and measuring device known as a field olfactometer. A field olfactometer measures odor strength and persistence using a Dilution-to-Threshold (D/T) ratio. The Dilution-to-Threshold ratio is a measure of odor concentration by determining the number of carbon filtered air dilutions needed to make the odorous ambient air non-detectable. The formula for calculating D/T with a field olfactometer is:

$$D/T = \frac{\text{Volume of Carbon Filtered Air}}{\text{Volume of Odorous Air}}$$

- c) Chemical Analysis – Instrumental methods of characterizing odor involving the identification and quantification of chemical compounds in an odor sample by means of gas chromatography coupled with mass spectrometry, analysis of hydrocarbon molecules, and analysis of single gases such as ammonia and hydrogen sulfide.
  - d) Instrumental Odor Monitoring – Instruments designed to mimic human olfaction in the detection and characterization of simple or complex odors. Also referred to as electronic (E) - noses.
  - e) Any other method or best practice determined to be appropriate by the Building Commissioner.
- c. **Odor Control Plan** – If, based on the investigation, the Building Commissioner determines that there is a violation, the owner and/or operator of the odor-producing use shall be required to provide an odor control, abatement and mitigation plan to the Building Commissioner for review and approval, or otherwise bring the property into compliance with this bylaw and the order of the Building Commissioner. The plan shall address how the site will become compliant and specify suitable corrective measures. Compliance shall be achieved through industry best practices and suitable mitigation measures. The plan shall be prepared by a certified environmental engineer, certified environmental professional, or certified industrial hygienist with experience in odor management, abatement and mitigation technologies. The Building Commissioner may also require the plan to include the provision of reports of ongoing odor monitoring and compliance.

- d. **Corrective Measures** - Non-residential uses that produce non-compliant odors shall be required to install and maintain odor-eliminating equipment in accordance with the approved odor control plan to meet the requirements of this section.

#### **E. Exemptions**

- 1) **Farming.** Impacts resulting from agricultural, farm-related, or forestry-related activities as defined by [G.L., c 128, Agriculture, § 1A](#), as amended, and Medway General Bylaws, ARTICLE XXXI, §2 Right to Farm, are exempt from these restrictions when such activities follow generally accepted practices ([G.L., c 111, §125A](#)).
- 2) **Residential Uses.** Impacts resulting from residential activities such as but not limited to barbecues, wood stove exhaust, driveway paving, gardening, and house painting are exempt from these restrictions.
- 3) **Repair and infrequent maintenance activities.** Repair and infrequent maintenance activities such as but not limited to those for septic and sewer systems are exempt from these restrictions.
- 4) **Construction.** Impacts resulting from construction, demolition, or repair work that occurs between 7:00 a.m. and 6:00 p.m. on public improvements authorized by a governmental body or agency, utility work and repairs, and other similar work on private property pursuant to an order by a governmental body or agency for safety purposes are exempt from these restrictions.

Or to act in any manner relating thereto.

PLANNING AND ECONOMIC DEVELOPMENT BOARD



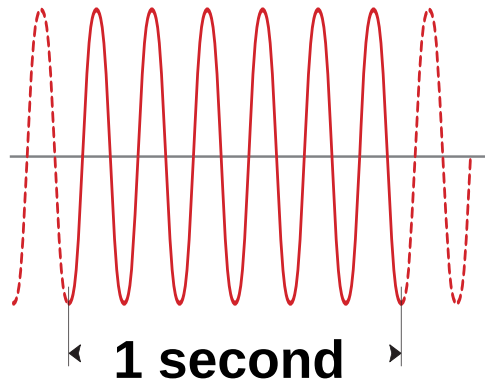
## Amplitude

- Sound pressure [ Pa] -> sound pressure level [dB]
- Humans can hear ~ 13 orders of magnitude
- Decibel (dB) is a ***log ratio***
  - Unitless
  - Manageable scale (roughly 0 to 130 dB)
  - Better matches perception (loudness)
  - “pressure level” and “power level”

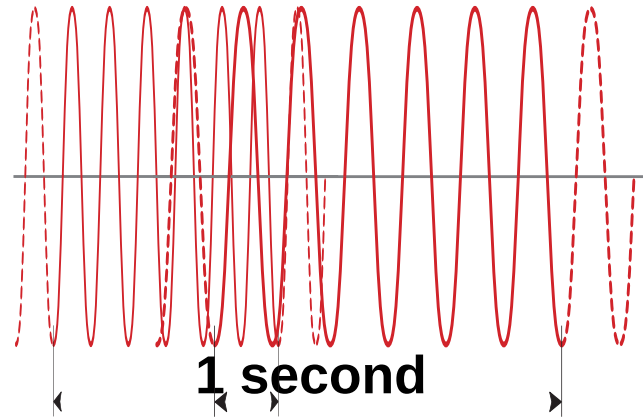


## Frequency

High Frequency  
("Hissy")

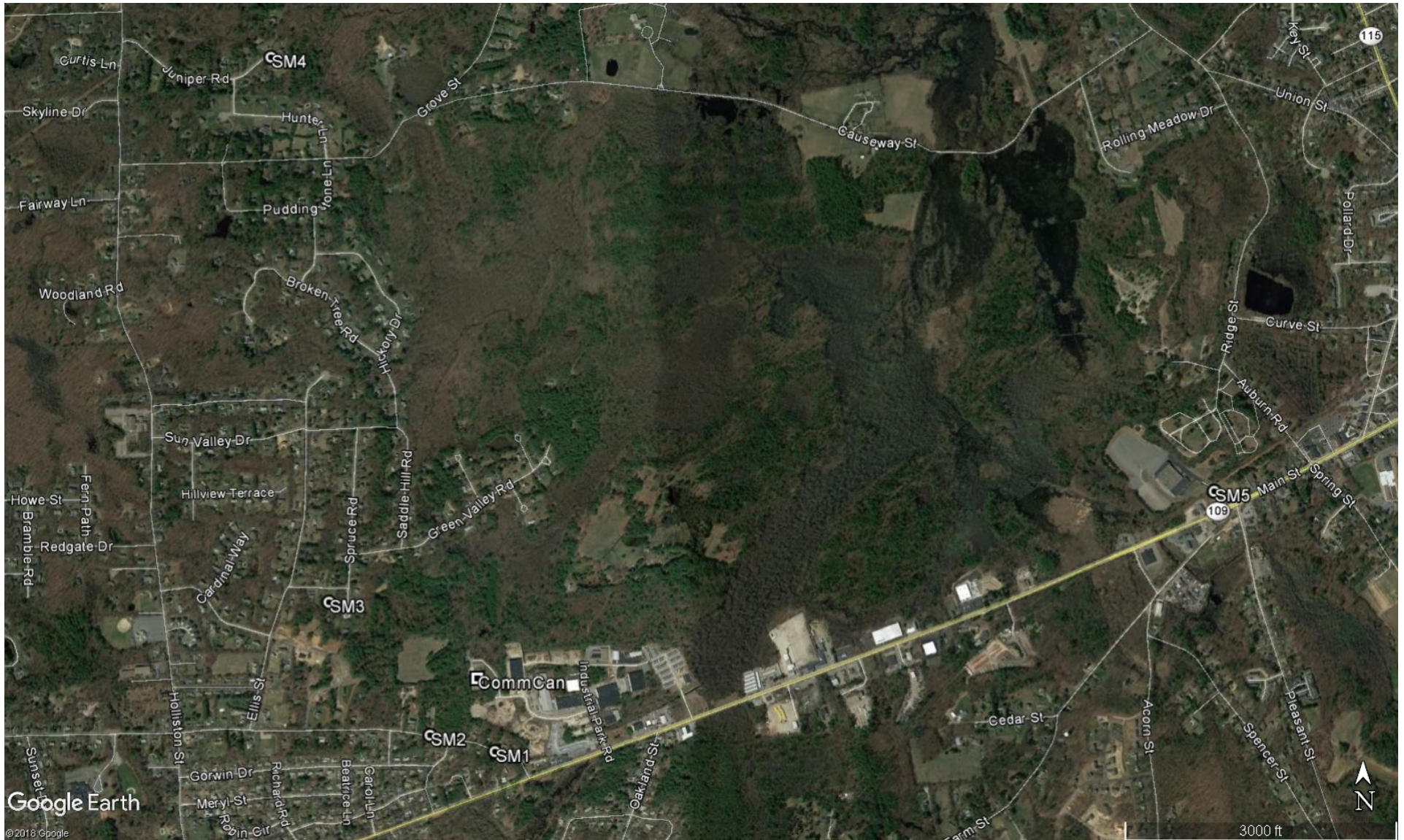


Low Frequency  
("Boomy")

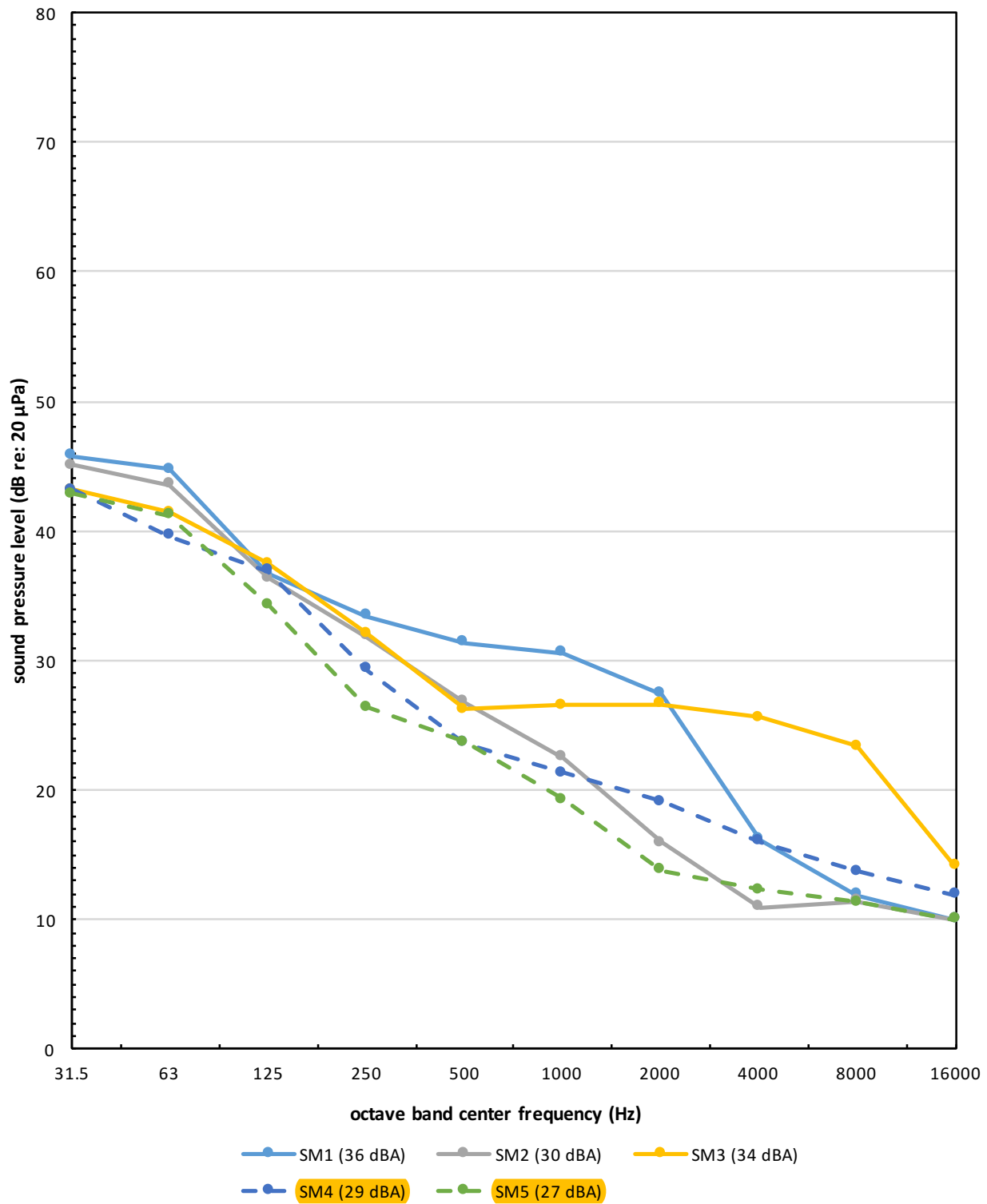


$$\text{Frequency (Hz)} = \frac{\text{cycles}}{\text{second}}$$



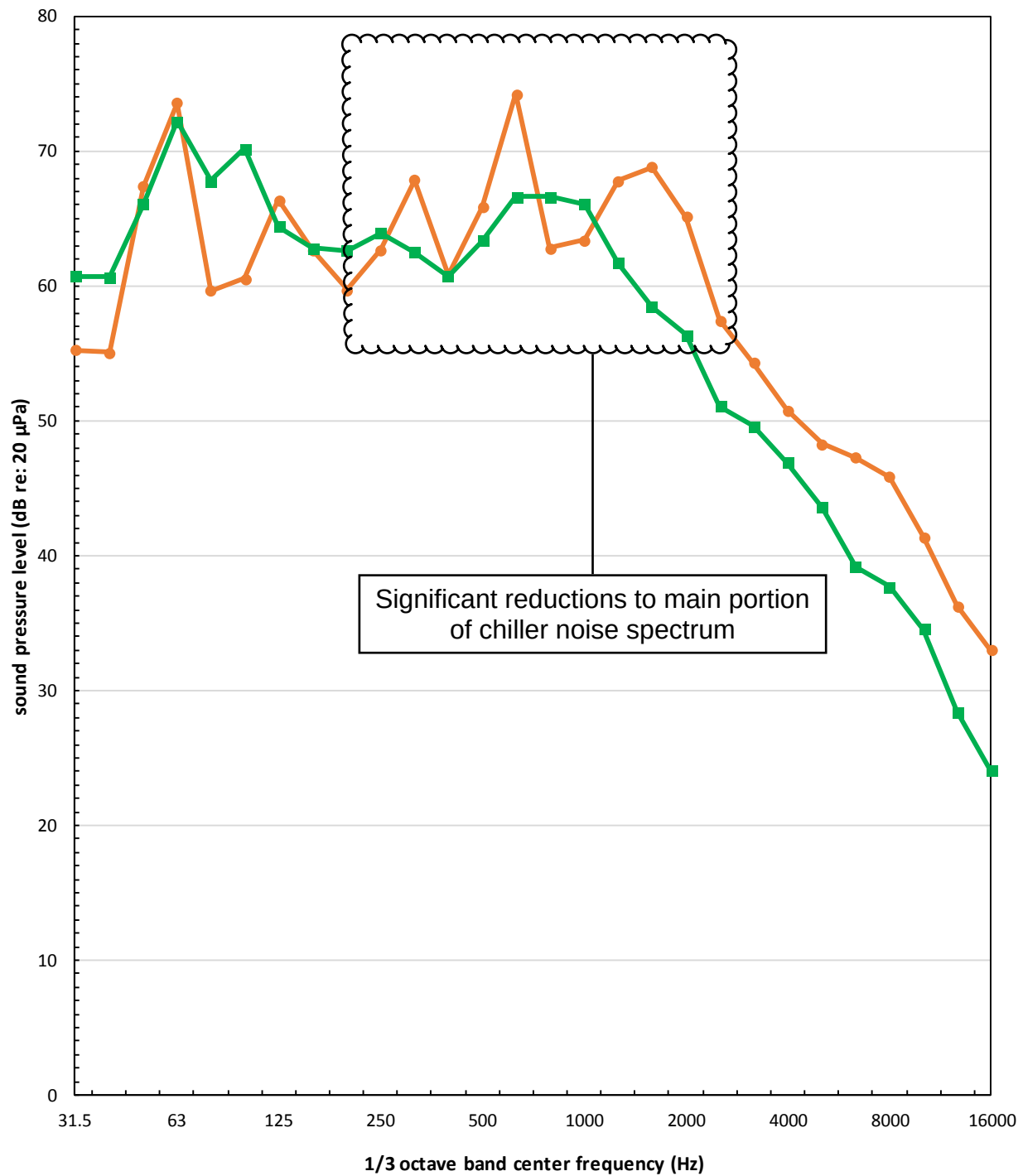


Sound measurement locations (SM1- SM5)

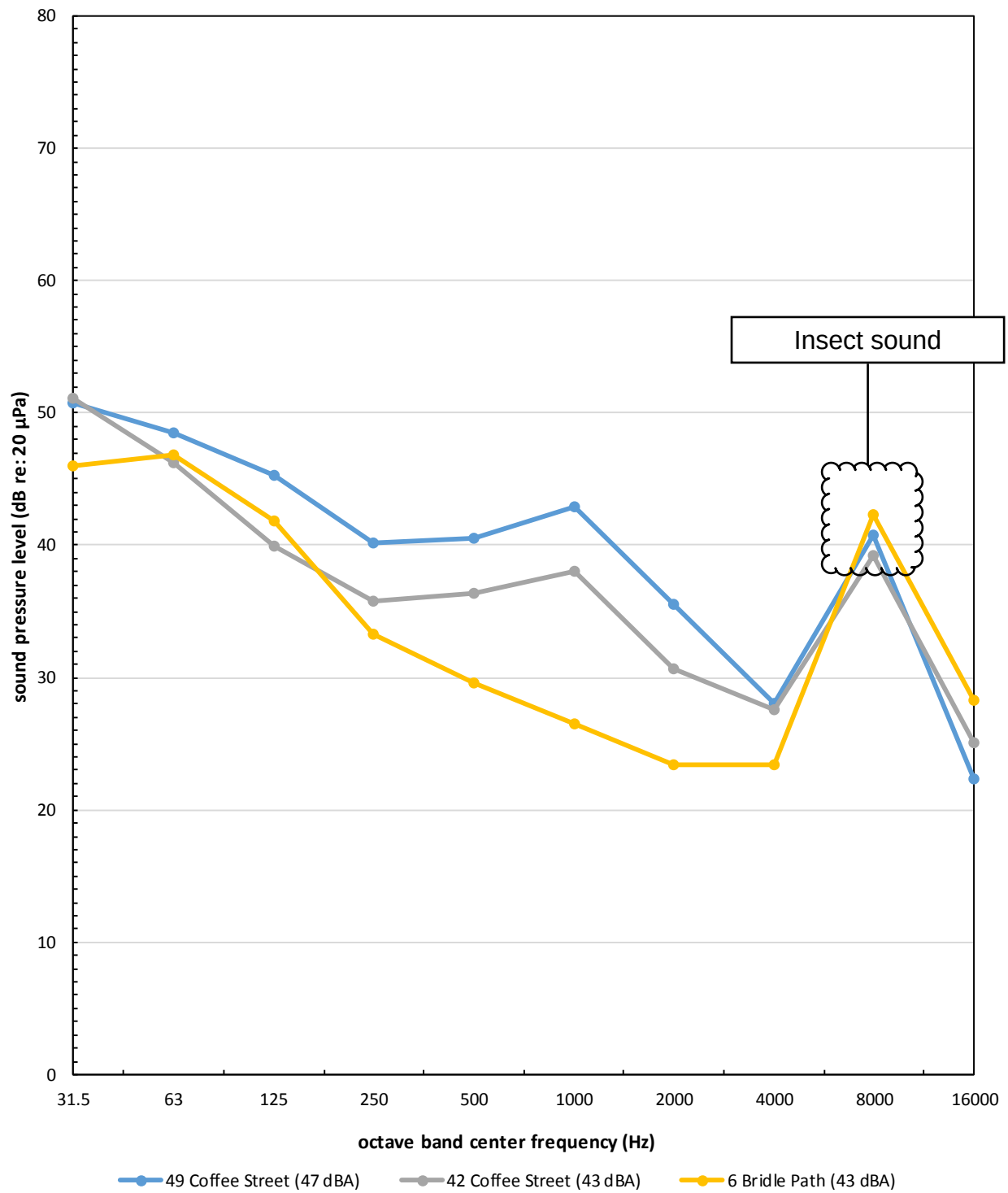


Late-night sound levels measured in community surrounding CommCan

from May 15, 2018 report



Measured sound levels at 30 ft from chiller, on rooftop along long side,  
before and after noise controls



Daytime sound levels measured in community surrounding CommCan

from September 10, 2018 report





September 25, 2019

Jaime Lewis  
Neo Organics  
635 Boston Post Road #184  
Sudbury, MA 01776

Phone 415-519-1063

**Subject** Noise Mitigation Plan  
Neo-Organics Cannabis Cultivation Facility – Medway, MA  
Acentech Project No. 632403

Dear Jaime,

Neo-Organics has retained Acentech to conduct a study of community noise produced by mechanical equipment serving proposed cannabis cultivation and processing facility located at 4 Marc Road in Medway, Massachusetts (the facility). Acentech has worked with Neo-Organics to develop this Noise Mitigation Plan, which is required as part of the Town of Medway's Special Permit Process. This Noise Mitigation Plan has been reviewed by an acoustical consultant whose qualifications include Institute of Noise Control Engineering (INCE) board certification.

We have reviewed project drawings and sound data for submitted noise-producing equipment to develop a community noise model. From the results of this modeling, we have developed concept noise-control recommendations.

## PROJECT NOISE REQUIREMENTS OF THE TOWN OF MEDWAY

The Medway noise ordinance as currently written has outdated octave-band limits. The Town of Medway and their noise peer review consultant (NCE, Billerica, MA) have estimated corresponding limits in the current octave-bands in connection with another nearby facility, and we have referred to these estimates to facilitate our work. The daytime and nighttime noise limits from the ordinance in modern octave bands are shown below in TABLE 1. The daytime noise limits are 5 dB greater than the nighttime limits. We understand the noise ordinance to be applicable at the source property lines.

TABLE I. Medway Noise Ordinance

Octave-band center frequency (Hz)	63	125	250	500	1000	2000	4000	8000
Nighttime	67	55	48	42	38	35	32	28
Daytime	72	60	53	47	43	40	37	33

Our current engagement does not include review of facility sound in connection with the noise policies of the MassDEP, but based on our experience, **we recommend that noise levels at the nearest residences should not exceed ~30 dBA during nighttime hours.** Further, MassDEP has a noise policy preventing tonal noise. Determining compliance with the tonal requirements was not within the scope of our study.



## COMMUNITY NOISE MODELING

### Model Description

We have developed a computer model of facility sound using CadnaA, an acoustic modeling software that considers 3-dimensional propagation of sound. This model implements the methods and equations of ISO 9613-2 "Attenuation of sound during propagation outdoors -- Part 2: General method of calculation". FIGURE 2 presents the receptor locations used in computer modeling.

The facility has noise-producing equipment located on grade that includes a 300 kw generator, a transformer, air handling units, and condensing units. In addition, there are two rooftop exhaust fans. The mechanical equipment is identified in FIGURE I. The sound power levels of the equipment are given in TABLE II below. APPENDIX A includes the sound data sheets from the manufacturers. Currently, we have assumed that all equipment, except the generator, will run at all hours at maximum capacity.

TABLE II. Equipment sound power levels used in computer modeling

Description	Sound power level (dB re: 1pW)								
Octave-band center frequency (Hz)	63	125	250	500	1000	2000	4000	8000	dBA
300 kw Generator*	83	89	91	96	96	91	86	81	99
Exhaust Fan (EF-X)	80	77	76	68	64	63	59	53	72
Air Handling Unit (AHU-1)	89	97	94	92	89	83	79	75	94
Ground mounted unit (GRTU-1)	89	85	87	81	79	78	73	62	85
GPod Condenser Small (GPCU-1)	73	74	69	68	66	62	56	52	71
GPod Condenser Large (GPCU-2)	38	55	56	60	62	61	52	49	66
Trane Condenser (CU-1)**	65	62	59	56	53	50	47	44	59
Trane Condenser (DCU)**	56	53	50	47	44	41	38	35	50
Mitsubishi Condenser (CU-2)**	65	62	59	56	53	50	47	44	59
2000 kVA Transformer***	80	82	77	77	71	66	61	54	77

\* We have assumed daytime maintenance testing only.

\*\*Octave band data unavailable, assumed spectrum.

\*\*\* Sound data estimated based on NEMA rating.

### Model Results, No Noise Controls

Based on our baseline computer model (as designed, no noise mitigation), we expect that the proposed equipment will *not* comply with the Medway noise ordinance at all facility property lines (see APPENDIX B, Table IV).

### Noise Control Recommendations

A partial contribution analysis of the noise-producing equipment revealed that the most significant noise sources are the GRTUs and AHUs. To mitigate the noise from these sources, we recommend placing barriers, identified in FIGURE 3, around the sources (3 m tall barriers for GRTUs, 4.5 m tall barriers for AHUs). We also recommend that you select a generator and enclosure that meets the criteria 64 dBA at a distance of 7 m.

### Model Results, Noise Controls

TABLE III summarizes the calculated noise levels at the property lines with noise control applied. The estimated sound levels created by MEP equipment are all below the octave-band provisions of the Medway noise regulation.

However, our model predicts that the transformer will exceed the criteria by 1 dB in the 500 Hz octave band at one property line receptor. We have used generic estimates of transformer sound power levels based on the estimated NEMA rating and surface area. The 1 dB exceedance is within the uncertainty of our model, which we can refine upon receipt of more representative sound data.

It is possible that some equipment will have reduced fan speeds during nighttime operation, leading to reduced sound levels. Currently, we have assumed that all equipment, except the generator, will run at all hours at maximum capacity. Nighttime sound data for major equipment could influence the following noise control recommendations.

TABLE III. Estimated nighttime octave-band sound levels at facility property lines (dB re: 20  $\mu$ Pa)

Receptor	63	125	250	500	1000	2000	4000	8000
PL01	45	51	45	42	37	29	23	<20
PL02	45	46	41	39	35	29	23	<20
PL03	42	39	39	35	32	29	21	<20
PL04	47	44	45	39	37	35	28	<20
PL05	49	45	47	40	37	35	29	<20
PL06	42	38	39	35	32	29	20	<20
PL07	37	32	32	29	26	22	<20	<20
PL08	34	34	29	25	24	<20	<20	<20
PL09	36	40	36	31	26	20	<20	<20
PL10	37	40	37	32	27	21	<20	<20
PL11	40	45	40	36	31	24	<20	<20
PL12	42	47	42	38	32	25	<20	<20
PL13	41	46	41	37	31	24	<20	<20
PL14	48	52	47	43	38	31	26	<20
Medway Noise Ordinance	67	55	48	42	38	35	32	28

Full modeling results with and without mitigation are shown in APPENDIX B.

\* \* \* \* \*

I trust this memo provides the information you need at this time. Please contact us if you have any questions or comments.

Sincerely,



Andy Carballeira, INCE Bd Cert  
Senior Consultant  
617-499-8025



Alex Odom  
Consultant  
617-499-8027

CC: Alex Odom (Acentech)  
Encl: FIGURES  
APPENDIX A: Manufacturer Noise Data  
APPENDIX B: Modeling Results

# FIGURES





FIGURE 2. Computer model receptor points on source property line and beyond





FIGURE 3. Recommended Noise Control Solutions, Barriers shown in Orange around GRTUs and AHUs

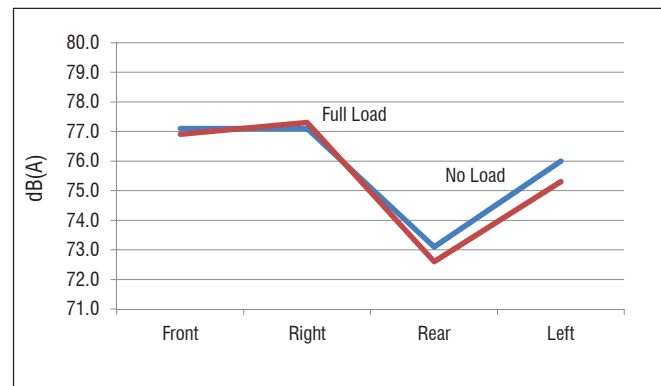
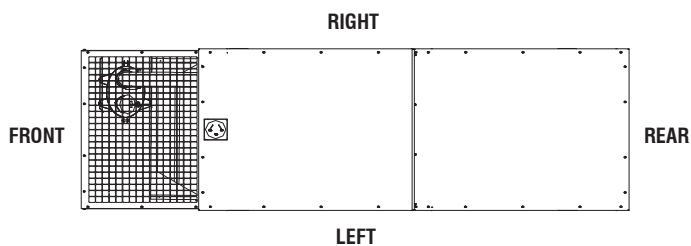
# **APPENDIX A**

## **MANUFACTURER NOISE DATA**

## LEVEL 2 ACOUSTIC ENCLOSURE SD300 10.3L FPT

60Hz NO-LOAD DATA, dB(A)										DISTANCE: 7 METERS
MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY (Hz)									
	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)
FRONT	45.9	57.9	62.8	67.0	73.2	71.6	65.6	64.9	60.7	77.1
RIGHT	43.9	61.4	64.9	67.3	70.7	73.0	68.8	62.7	58.1	77.1
REAR	40.1	55.9	62.1	65.2	68.1	68.2	61.7	54.9	49.2	73.1
LEFT	41.5	58.9	65.7	64.9	71.4	70.8	66.9	60.1	56.2	76.0
AVERAGE	42.9	58.5	63.9	66.1	70.9	70.9	65.7	60.6	56.0	75.8

60Hz FULL-LOAD DATA, dB(A)										DISTANCE: 7 METERS
MICROPHONE LOCATION	OCTAVE BAND CENTER FREQUENCY (Hz)									
	31.5	63	125	250	500	1000	2000	4000	8000	dB(A)
FRONT	46.9	58.3	64.5	68.6	73.1	69.1	67.5	65.2	61.3	76.9
RIGHT	44.0	60.6	66.4	67.8	72.4	70.8	69.2	64.9	61.6	77.3
REAR	41.9	57.4	62.7	65.0	68.6	65.5	60.7	56.2	53.9	72.6
LEFT	43.4	60.6	66.6	65.4	71.5	67.6	64.7	61.2	60.4	75.3
AVERAGE	44.0	59.2	65.1	66.7	71.4	68.2	65.5	61.9	59.3	75.6



1. All positions at 23 feet (7 meters) from side faces of generator set.
2. Test conducted on a 100 foot diameter asphalt surface.
3. Sound pressure levels are subject to instrumentation, installation and testing conditions.

**TRANE®**

Job Name: Clover  
 Prepared By: Impact Engineering  
 Unit Tag: 15 Ton  
 Quantity: 1

# Trane Voyager Gas/Electric Packaged Rooftop

## Unit Overview - YHD180G4RHB\*\*00B1A10000000000000000000000

Application	Unit Size	Supply Fan		External Dimensions (in.)			Weight		EER	IEER/SEER
Gas/Electric	15 Ton	Airflow	External Static Pressure	Height	Width	Length	Minimum	Maximum	12.1 EER	14.00
		6000 cfm	1.000 in H2O	66.250 in	84.188 in	121.688 in	2241.0 lb	2663.0 lb		

## Unit Features

**Panels/Filters** Std panels/2" pltd filters MERV 8

## Unit Electrical

**Voltage/phase/hertz** 460/60/3  
**MCA** 33.00 A  
**MOP** 45.00 A



## Controls

**Unit Controls** Reliatel

## Cooling Section

<b>Entering Dry Bulb</b>	80.00 F	<b>Capacity</b>	
<b>Entering Wet Bulb</b>	67.00 F	<b>Gross Total</b>	180.52 MBh
<b>Ambient Temp</b>	95.00 F	<b>Gross Sensible</b>	142.17 MBh
<b>Leaving Coil Dry Bulb</b>	58.06 F	<b>Net Total</b>	171.67 MBh
<b>Leaving Coil Wet Bulb</b>	57.30 F	<b>Net Sensible</b>	133.32 MBh
<b>Leaving Unit Dry Bulb</b>	59.77 F	<b>Fan Motor Heat</b>	8.85 MBh
<b>Leaving Unit Wet Bulb</b>	57.96 F	<b>Refrig Charge-circuit 1</b>	13.0 lb
<b>Refrigeration System Options</b>		<b>Refrig Charge-circuit 2</b>	8.5 lb
<b>Leaving Dew Point</b>	56.82 F		

## Heating Section

<b>Heat Type</b>	Gas
<b>Heating Stages</b>	2
<b>Output Heating Capacity</b>	280.00 MBh
<b>Heating EAT</b>	55.00 F
<b>Heating LAT</b>	98.01 F
<b>Heating Temp Rise</b>	43.01 F

## Fan Section

<b>Indoor Fan Data</b>		<b>Outdoor Fan Data</b>	
<b>Type</b>	FC Centrifugal	<b>Type</b>	Propeller
<b>Drive Type</b>	Belt	<b>Fan Quantity</b>	2
<b>Indoor Fan Performance</b>		<b>Drive Type</b>	Direct
<b>Airflow</b>	6000 cfm	<b>Outdoor Fan Performance</b>	
<b>Design ESP</b>	1.000 in H2O	<b>Outdoor Motor Power</b>	0.89 kW
<b>Component SP</b>	0.040 in H2O	<b>Condenser Fan FLA</b>	1.35 A
<b>Total SP</b>	1.058 in H2O	<b>Exhaust Fan Performance</b>	
<b>Indoor Motor Operating Power</b>	2.81 bhp	<b>Exhaust Fan FLA</b>	4.80 A
<b>Indoor Motor Power</b>	2.09 kW		
<b>Indoor RPM</b>	709 rpm		

## Compressor Section

<b>Power</b>	12.28 kW
<b>Circuit 1 RLA</b>	14.70 A
<b>Circuit 2 RLA</b>	7.00 A

## Accessories

**Roof curb** yes

## Acoustics

Sound Path	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Ducted Discharge	87 dB	82 dB	76 dB	79 dB	72 dB	70 dB	69 dB	63 dB
Ducted Inlet	91 dB	82 dB	74 dB	70 dB	65 dB	60 dB	60 dB	53 dB
Outdoor Noise	89 dB	97 dB	94 dB	92 dB	89 dB	83 dB	79 dB	75 dB

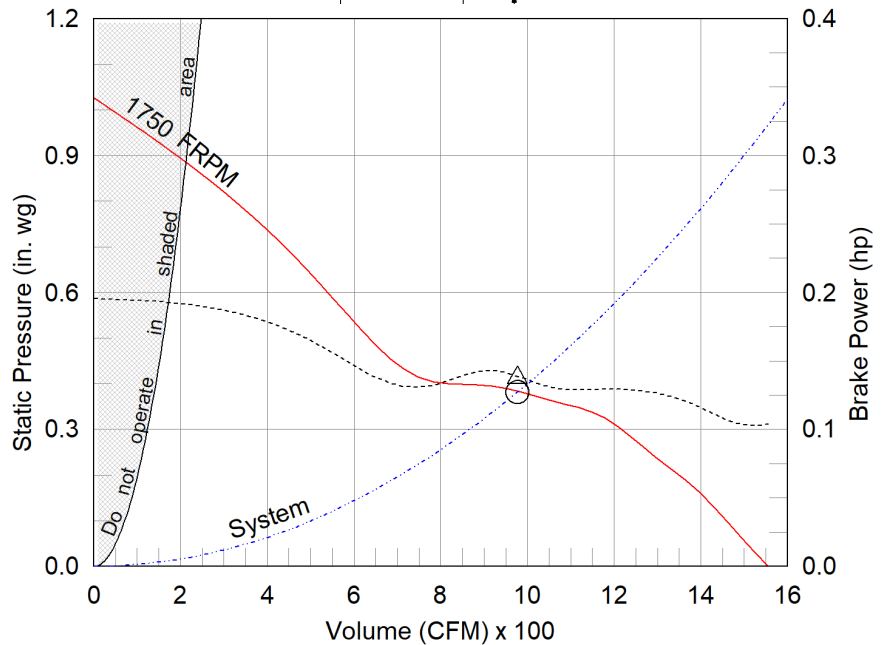
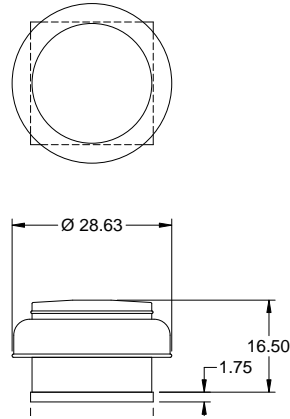
## Model: AE-12-433-A4

Propeller Hooded Roof Direct Drive Exhaust Fan

Dimensional	
Quantity	1
Weight w/o Acc's (lb)	41
Weight w/ Acc's (lb)	43
Max T Motor Frame Size	0
Roof Opening (in.)	14.5 x 14.5

Performance	
Requested Volume (CFM)	1,000
Actual Volume (CFM)	976
Total External SP (in. wg)	0.381
Fan RPM	1750
Operating Power (hp)	0.14
Elevation (ft)	663
Airstream Temp.(F)	75
Air Density (lb/ft3)	0.073
Tip Speed (ft/min)	5,498
Static Eff. (%)	43

Motor	
Motor Mounted	Yes
Size (hp)	1/4
Voltage/Cycle/Phase	115/60/1
Enclosure	ODP
Motor RPM	1750
Windings	1



- △ Operating Bhp point
- Operating point at Total External SP
- Fan curve
- System curve
- Brake horsepower curve

### Static Pressure Calculations

External SP	0.4 in. wg
Direct Drive RPM Adjustment	-0.019 in. wg
Total External SP	0.381 in. wg

### Sound Power by Octave Band

Sound Data	62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
Inlet	80	77	76	68	64	63	59	53	72	61	11.1

### Notes:

All dimensions shown are in units of in.  
\*Please consult factory for actual motor amp draw  
LwA - A weighted sound power level, based on ANSI S1.4  
dBA - A weighted sound pressure level, based on 11.5 dB  
attenuation per Octave band at 5 ft - dBA levels are not  
licensed by AMCA International  
Sones - calculated using AMCA 301 at 5 ft





# Acoustic Analysis Report

---

Project	GRW
Date	September 13, 2019

---

PROJECT: GRW  
LOCATION:  
DATE: SEPTEMBER 13, 2019  
REVISION:

REP NAME:  
REP OFFICE:  
ENGINEER:  
CONTRACTOR:



## General Unit Information:

Model: GRW

Tag: Unit 1

Casing: 0.08 Aluminum

Insulation Type: 3.5" Fiberglass

Liner: 0.08 Aluminum

Latent Fans: APM Size 27 Dual

Airflow: 22,000 CFM

TSP: 4.11 in.w.g.

Fan Speed: 1456 RPM

Sensible Fans: APD Size 355 Dual

Airflow: 4,070 CFM

TSP: 3.23 in.w.g.

Fan Speed: 2365 RPM

Compressors:

Qty 3 ZPDT31 Digital Tandem

Qty 3 ZPDT36 Digital Tandem

Cond Fans

Qty 6 33" fans, ~860 RPM, 10 degrees

Sound Analysis Definitions:

Sum = Logarithmic addition of sound sources less attenuation of components and adjustment for receiver distance.

Target = target sound pressure level at a specified distance

Current = A-weighted sound pressure (dBA) or sound power (LwA) level of the sum values

PROJECT: GRW  
 LOCATION:  
 DATE: SEPTEMBER 13, 2019  
 REVISION:

REP NAME:  
 REP OFFICE:  
 ENGINEER:  
 CONTRACTOR:



## CONDENSER FANS

Element	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	Comments
Condenser Fan 1	78	74	74	72	71	70	65	53	
Condenser Fan 2	78	74	74	72	71	70	65	53	
Condenser Fan 3	78	74	74	72	71	70	65	53	
Condenser Fan 4	78	74	74	72	71	70	65	53	
Condenser Fan 5	78	74	74	72	71	70	65	53	
Condenser Fan 6	78	74	74	72	71	70	65	53	
Receiver	-24	-24	-24	-24	-24	-24	-24	-24	
<b>Sum</b>	<b>62</b>	<b>58</b>	<b>58</b>	<b>56</b>	<b>55</b>	<b>54</b>	<b>49</b>	<b>37</b>	

**Target:**

**Current:** 60 dBA

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.

## LATENT FANS RADIATED

Element	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	Comments
Supply Fan - Dual	89	92	98	93	90	85	80	77	
Breakout - <i>Cabinet Attenuation</i>	-11	-15	-20	-31	-38	-40	-40	-40	Thermoshield Cabinet
Receiver	-24	-24	-24	-24	-24	-24	-24	-24	
<b>Sum</b>	<b>54</b>	<b>53</b>	<b>54</b>	<b>38</b>	<b>28</b>	<b>21</b>	<b>16</b>	<b>13</b>	

**Target:**

**Current:** 46 dBA

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.

PROJECT: GRW  
 LOCATION:  
 DATE: SEPTEMBER 13, 2019  
 REVISION:

REP NAME:  
 REP OFFICE:  
 ENGINEER:  
 CONTRACTOR:



## LATENT FANS AT FA INLET

Element	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	Comments
Supply Fan - Dual	83	88	96	87	81	79	75	72	Inlet
4 Row Coil	0	-3	-3	-5	-6	-6	-8	-8	
6 Row Coil	0	-3	-5	-5	-7	-7	-9	-8	
6 Row Coil	0	-3	-5	-5	-7	-7	-9	-8	
4" Panel Filter	0	-1	-1	-2	-1	-3	-4	-4	
Receiver	-24	-24	-24	-24	-24	-24	-24	-24	
<b>Sum</b>	<b>59</b>	<b>54</b>	<b>58</b>	<b>46</b>	<b>36</b>	<b>32</b>	<b>21</b>	<b>20</b>	

**Target:**

**Current:** 51 dBA

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.

## SENSIBLE FANS RADIATED

Element	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	Comments
Sensible Fan - Dual	84	83	85	82	82	78	75	70	
Breakout - <i>Cabinet Attenuation</i>	-11	-15	-20	-31	-38	-40	-40	-40	Thermoshield Cabinet
Receiver	-24	-24	-24	-24	-24	-24	-24	-24	
<b>Sum</b>	<b>49</b>	<b>44</b>	<b>41</b>	<b>27</b>	<b>20</b>	<b>14</b>	<b>11</b>	<b>6</b>	

**Target:**

**Current:** 35 dBA

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.

PROJECT: GRW  
 LOCATION:  
 DATE: SEPTEMBER 13, 2019  
 REVISION:

REP NAME:  
 REP OFFICE:  
 ENGINEER:  
 CONTRACTOR:



## SENSIBLE FAN AT FA INLET

Element	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	Comments
Sensible Fan - Dual	84	83	85	78	73	73	70	66	Inlet
4 Row Coil	0	-3	-3	-5	-6	-6	-8	-8	
4" Panel Filter	0	-1	-1	-2	-1	-3	-4	-4	
Receiver	-24	-24	-24	-24	-24	-24	-24	-24	
<b>Sum</b>	<b>60</b>	<b>55</b>	<b>57</b>	<b>47</b>	<b>42</b>	<b>40</b>	<b>34</b>	<b>30</b>	

**Target:**

**Current:** 51 dBA (NC 49 / RC 43)

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.

## COMPRESSORS RADIATED

Element	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	Comments
ZPDT36 Compressor 1	73	63	71	78	79	80	76	71	
ZPDT36 Compressor 2	73	63	71	78	79	80	76	71	
ZPDT36 Compressor 3	73	63	71	78	79	80	76	71	
ZPDT31 Compressor 1	68	57	62	76	76	79	73	69	
ZPDT31 Compressor 2	68	57	62	76	76	79	73	69	
ZPDT31 Compressor 3	68	57	62	76	76	79	73	69	
Breakout - <i>Cabinet Attenuation</i>	-11	-15	-20	-31	-38	-40	-40	-40	Thermoshield Cabinet
Receiver	-24	-24	-24	-24	-24	-24	-24	-24	
<b>Sum</b>	<b>43</b>	<b>29</b>	<b>32</b>	<b>31</b>	<b>24</b>	<b>24</b>	<b>19</b>	<b>15</b>	

**Target:**

**Current:** 32 dBA

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.



PROJECT: GRW  
 LOCATION:  
 DATE: SEPTEMBER 13, 2019  
 REVISION:

REP NAME:  
 REP OFFICE:  
 ENGINEER:  
 CONTRACTOR:



## COMPRESSORS AT FA INLET

Element	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz	Comments
ZPDT36 Compressor 1	73	63	71	78	79	80	76	71	
ZPDT36 Compressor 2	73	63	71	78	79	80	76	71	
ZPDT36 Compressor 3	73	63	71	78	79	80	76	71	
ZPDT31 Compressor 1	68	57	62	76	76	79	73	69	
ZPDT31 Compressor 2	68	57	62	76	76	79	73	69	
ZPDT31 Compressor 3	68	57	62	76	76	79	73	69	
Breakout - <i>Cabinet Attenuation</i>	-11	-14	-17	-23	-29	-35	-35	-35	Internal Walls
Receiver	-24	-24	-24	-24	-24	-24	-24	-24	
<b>Sum</b>	<b>43</b>	<b>30</b>	<b>35</b>	<b>39</b>	<b>33</b>	<b>29</b>	<b>24</b>	<b>20</b>	
<b>Target:</b>									
<b>Current:</b> 39 dBA									

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.

## SINGLE UNIT SUMMATION

Path	63Hz	125Hz	250Hz	500Hz	1KHz	2KHz	4KHz	8KHz
Condenser Fans	62	58	58	56	55	54	49	37
Latent Fans Radiated	54	53	54	38	28	21	16	13
Latent Fans at FA inlet	59	54	58	46	36	32	21	20
Sensible Fans Radiated	49	44	41	27	20	14	11	6
Sensible Fan at FA inlet	60	55	57	47	42	40	34	30
Compressors Radiated	43	29	32	31	24	24	19	15
Compressors at FA Inlet	43	30	35	39	33	29	24	20
Sum	65	61	63	57	55	54	49	38
Current:	61 dBA							

Notes:

Sound data created by theoretical methods

Sound pressure calculated at a distance of 20 feet using a directivity factor (Q) of 2 assuming one reflective surface. The environment influences sound pressure, therefore dBA levels cannot be guaranteed.

## AIR FLOW DATA

SYSTEM SIZE	36K	48K	58K
Outdoor (CFM)	2,130	4,500	4,415

## SOUND PRESSURE

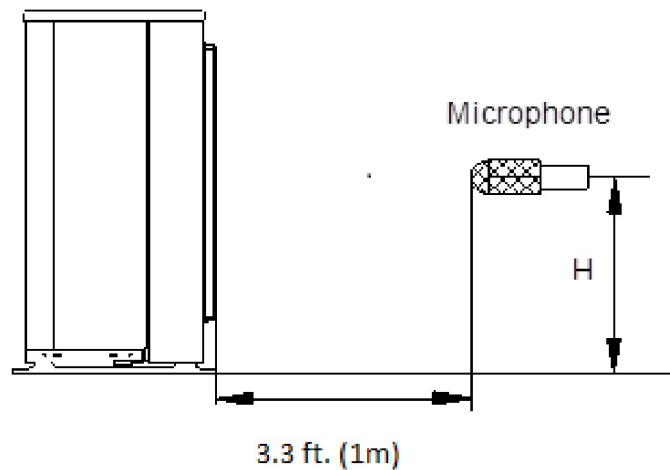
SYSTEM SIZE		36K	48K	58K
Outdoor sound pressure level	dBa	63	62.5	64

## SOUND PRESSURE IN OCTAVE BANDS

SIZE	Frequency (Hz)	63	125	250	500	1000	2000	4000	8000
36K	Cooling dB(A)	51.3	59.2	56.3	51.3	49.4	46.8	42.6	35.7
	Heating dB(A)	53.8	62.3	60.8	53.7	52.0	48.4	45.8	37.8
48K	Cooling dB(A)	59.2	61.6	55.9	58.1	59.6	51.9	47.8	43.8
	Heating dB(A)	65.1	66.1	61.3	59.7	58.2	54.1	47.5	43.6
58K	Cooling dB(A)	22.9	41.3	46.6	50.1	50.8	52.6	46.0	40.4
	Heating dB(A)	30.0	46.8	48.4	52.0	54.3	52.8	43.7	41.3

## OUTDOOR UNIT SOUND PRESSURE TEST CONDITIONS

Outdoor Unit



NOTE:  $H = 0.5 \times \text{Height of outdoor unit}$

	INDOOR CONDITION		OUTDOOR CONDITION	
	DB	WB	DB	WB
Cooling	80.6F (27C)	66.2F (19C)	95F (35C)	75.2F (24C)
Heating	68F (20C)	59F (15C)	44.6F (7C)	42.8F (6C)

# **APPENDIX B**

## **MODELING RESULTS**

TABLE IV. Estimated nighttime octave-band sound levels without mitigation (dB re: 20  $\mu$ Pa)

Receptor	63	125	250	500	1000	2000	4000	8000	dBA
R01	26	24	25	<20	20	<20	<20	<20	23
R02	32	31	32	25	23	<20	<20	<20	28
R03	34	34	33	28	25	22	<20	<20	31
R04	36	39	36	33	29	24	<20	<20	34
R05	36	41	38	35	32	27	20	<20	37
R06	39	44	41	40	37	30	21	<20	41
R07	40	44	41	39	37	30	20	<20	41
PL01	51	58	53	51	49	43	38	30	54
PL02	51	55	50	49	46	41	35	27	51
PL03	42	42	41	36	34	34	28	<20	40
PL04	47	46	48	45	43	42	36	22	48
PL05	49	48	52	46	44	43	37	24	50
PL06	42	39	43	39	37	36	29	<20	43
PL07	36	35	35	30	35	30	22	<20	38
PL08	40	43	38	36	38	31	22	<20	41
PL09	44	50	44	43	42	35	27	<20	46
PL10	45	51	46	45	43	37	30	<20	47
PL11	48	55	51	49	48	42	36	24	52
PL12	49	56	52	51	49	43	37	27	53
PL13	49	55	50	49	47	41	35	25	51
PL14	55	62	57	56	54	48	43	36	58
Medway Noise Ordinance	67	55	48	42	38	35	32	28	-

TABLE V. Estimated nighttime octave-band sound levels with mitigation (dB re: 20  $\mu$ Pa)

Receptor	63	125	250	500	1000	2000	4000	8000	dBA
R01	26	22	23	18	15	10	-6	-54	20
R02	32	30	30	23	20	15	4	-25	26
R03	34	32	33	27	24	21	11	-16	30
R04	36	33	31	27	26	22	12	-12	31
R05	34	37	33	29	25	20	10	-12	31
R06	35	39	34	32	27	19	8	-16	33
R07	34	39	34	32	26	18	7	-19	32
PL01	45	51	45	42	37	29	23	13	43
PL02	45	46	41	39	35	29	23	13	40
PL03	42	39	39	35	32	29	21	3	38
PL04	47	44	45	39	37	35	28	13	43
PL05	49	45	47	40	37	35	29	15	44
PL06	42	38	39	35	32	29	20	7	38
PL07	37	32	32	29	26	22	13	-5	31
PL08	34	34	29	25	24	19	10	-2	28
PL09	36	40	36	31	26	20	11	-5	33
PL10	37	40	37	32	27	21	12	-2	34
PL11	40	45	40	36	31	24	17	5	38
PL12	42	47	42	38	32	25	18	7	39
PL13	41	46	41	37	31	24	18	6	38
PL14	48	52	47	43	38	31	26	17	45
Medway Noise Ordinance	67	55	48	42	38	35	32	28	-





## Memorandum

**TO** Ellen Rosenfeld (CommCan)  
**FROM** Andrew Carballeira  
**DATE** June 26, 2019  
**PROJECT** CommCan Medway Chiller Noise  
**SUBJECT** Modeling Results  
**PROJECT NO** 630410  
**CC** Alex Odom (Acentech)

Dear Ellen,

This memo presents the results of our computer modeling of the chiller upgrades to the CommCan Medway facility.

### Model Description

We have developed a computer model of facility sound using CadnaA, an acoustic modeling software which considers 3-dimensional propagation of sound. This model implements the methods and equations of ISO 9613-2 "Attenuation of sound during propagation outdoors -- Part 2: General method of calculation".

The facility has an existing chiller (Trane RTAC 225) on the southeast corner of the roof. In connection with the recent permit decision, the existing chiller will be relocated and a second chiller (Trane RTAF 310) will be added. Both chillers will be installed within a custom noise enclosure at ground level near the southwest corner of the facility. The chiller sound power levels as provided by Trane are given in TABLE I below.

TABLE I. Chiller sound power levels used in computer modeling

Description	Sound power level (dB re: 1pW)							
Octave-band center frequency (Hz)	63	125	250	500	1000	2000	4000	8000
RTAC 310 (new)	93	95	95	99	101	96	88	81
RTAC225 (existing)	103	104	100	101	98	93	88	85

APPENDIX A includes sound attenuation data from the enclosure vendor used in our computer model. The enclosure design as modeled includes 7-ft long attenuators on the air intakes (west face and roof of enclosure), and 4-ft long attenuators on the discharge (roof of enclosure). We have also considered sound transmission through the panels from which the north and south walls of the enclosure will be constructed. A 3D rendering of the modeled enclosure is shown in FIGURE 1 in APPENDIX B.

In addition to the enclosure, the chillers will be outfitted with source noise control treatments<sup>1</sup>. These additional measures will be beneficial, but we have not included them in the model in order to make conservative predictions.

<sup>1</sup> BRD compressor and oil separator lagging wraps, as described in APPENDIX A

### Model Results

We have reviewed the permit decision, which outlines the Medway noise ordinance in modern octave bands. We understand the noise ordinance to be applicable at the source property lines, the nearest of which is about 30 ft from the intake of the chiller enclosure.

Based on our computer model, we expect that the proposed equipment housed in the custom noise enclosure will comply with the Medway noise ordinance at all facility property lines. Further, the equipment will also comply with the ordinance at all nearby residential property lines. FIGURE 2 in APPENDIX B presents the receptor locations used in computer modeling, and TABLE II summarizes the calculated noise levels at the property lines. As shown in TABLE II, all estimated sound levels are below the octave-band provisions of the Medway noise regulation.

\* \* \* \* \*

I trust this memo provides the information you need at this time. Please contact me with questions at 617-499-8025 or [acarballeira@acentech.com](mailto:acarballeira@acentech.com).

Sincerely,



Andy Carballeira, INCE Bd Cert  
Senior Consultant

# **APPENDIX A**

## **NOISE ENCLOSURE SPECIFICATIONS**

# HUSH DUCT Submittal

Email: dan.burley@brd-nonoise.com  
Web: www.Hushcore.net

**HD-48/H**  
High Pressure Silencer  
**Tag: Exhaust**

## Dimensions

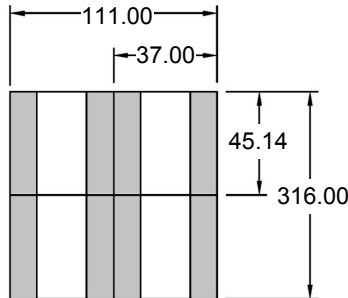
Quantity: 1  
Weight (lb): 5106

### Bank

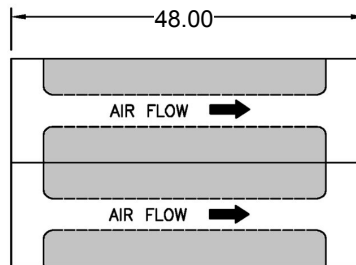
Width (in.): 111.00  
Height (in.): 316.00  
Length (in.): 48.00

### Components

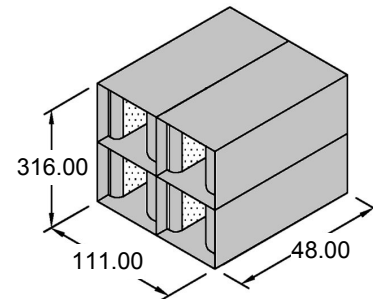
Quantity: 21  
Width (in.): 37.00  
Height (in.): 45.14



END VIEW



TOP VIEW



ISO VIEW

Images are generic representations of and not to scale. The actual configuration may not be shown.

## Performance

Air Volume (cfm): 119725  
Air Velocity (fpm): 492  
Air Direction: Forward  
Pressure Drop (in.w.g.): 0.09  
Installed PD (in.w.g.): 0.12

### Dynamic Insertion Loss (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
9	15	25	39	47	44	33	23

### Generated Noise (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
56	33	40	49	48	44	34	27

## Construction

Casing: 22 GA Galvanized  
Perforated Liner: 22 GA Galvanized

Acoustic Media: Glass Fiber

Inlet Connection: 2" Slip  
Outlet Connection: 2" Slip

## Notes

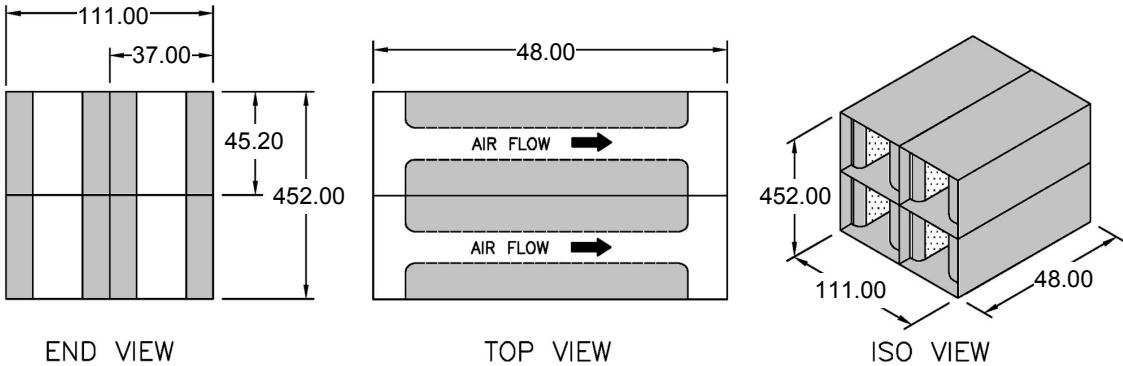
- HUSH DUCT silencer material has flame spread classification < 25 and smoke development rating < 50 when tested in accordance with ASTM E84, UL723 and NFPA255.
  - System effects assume fan at the silencer inlet and ideal at the silencer outlet.
  - HUSH DUCT silencers consist of ASTM A653(M) steel casings and liners.
  - HUSH DUCT silencers are tested in our NVLAP-Accredited sound lab.
  - Performance data is derived from ASTM E477-13.
  - Silencer bank shall be structurally supported by Others.
  - Silencer shipped in multiple components for assembly by Others. Customer to confirm all dimensions.
- Performance data is obtained in a similar fashion as other silencer manufacturers using 24" x 24" cross section area test units.

PROJECT: CommCann  
ENGINEER:  
DESCRIPTION: High Pressure Silencer

CUSTOMER:  
UNIT OF MEASURE: Imperial

SUBMITTAL DATE: 6/11/2019  
QUOTE NO: DRAWING  
REVISION:

Dimensions		Bank		Components	
Quantity:	1	Width (in.):	111.00	Quantity:	30
Weight (lb):	7302	Height (in.):	452.00	Width (in.):	37.00
		Length (in.):	48.00	Height (in.):	45.20



Images are generic representations of and not to scale. The actual configuration may not be shown.

Performance

Air Volume (cfm):	154000
Air Velocity (fpm):	442
Air Direction:	Forward
Pressure Drop (in.w.g.):	0.08
Installed PD (in.w.g.):	0.10

Dynamic Insertion Loss (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
9	15	25	39	47	44	33	23

Generated Noise (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
55	31	39	48	48	42	32	25

Construction

Casing:	22 GA Galvanized	Acoustic Media:	Glass Fiber	Inlet Connection:	2" Slip
Perforated Liner:	22 GA Galvanized			Outlet Connection:	2" Slip

Notes

- HUSH DUCT silencer material has flame spread classification < 25 and smoke development rating < 50 when tested in accordance with ASTM E84, UL723 and NFPA255.
  - System effects assume fan at the silencer inlet and ideal at the silencer outlet.
- HUSH DUCT silencers consist of ASTM A653(M) steel casings and liners.
  - HUSH DUCT silencers are tested in our NVLAP-Accredited sound lab. Performance data is derived from ASTM E477-13.
  - Silencer bank shall be structurally supported by Others.
  - Silencer shipped in multiple components for assembly by Others.
  - Customer to confirm all dimensions.

Performance data is obtained in a similar fashion as other silencer manufacturers using 24" x 24" cross section area test units.



# HUSH DUCT Submittal

Email: dan.burley@brd-nonoise.com  
Web: www.Hushcore.net

**HD-84/M**  
Medium Pressure Silencer  
**Tag: Intake**

## Dimensions

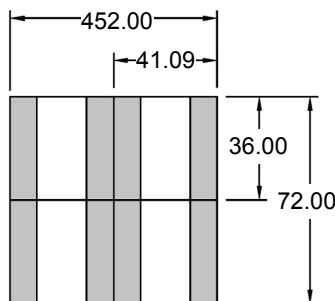
Quantity: 1  
Weight (lb): 8209

### Bank

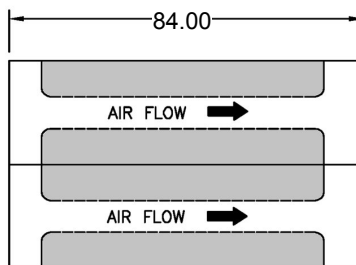
Width (in.): 452.00  
Height (in.): 72.00  
Length (in.): 84.00

### Components

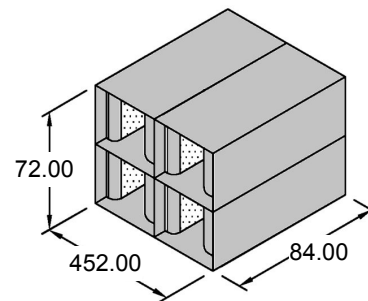
Quantity: 22  
Width (in.): 41.09  
Height (in.): 36.00



END VIEW



TOP VIEW



ISO VIEW

Images are generic representations of and not to scale. The actual configuration may not be shown.

## Performance

Air Volume (cfm): 77000  
Air Velocity (fpm): 341  
Air Direction: Reverse  
Pressure Drop (in.w.g.): 0.03  
Installed PD (in.w.g.): 0.07

### Dynamic Insertion Loss (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
11	21	36	50	55	53	46	29

### Generated Noise (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
41	34	40	47	43	38	22	16

## Construction

Casing: 22 GA Galvanized  
Perforated Liner: 22 GA Galvanized

Acoustic Media: Glass Fiber

Inlet Connection: 2" Slip  
Outlet Connection: 2" Slip

## Notes

- HUSH DUCT silencer material has flame spread classification < 25 and smoke development rating < 50 when tested in accordance with ASTM E84, UL723 and NFPA255.
  - System effects assume ideal at the silencer inlet and abrupt plenum at the silencer outlet.
  - HUSH DUCT silencers consist of ASTM A653(M) steel casings and liners.
  - HUSH DUCT silencers are tested in our NVLAP-Accredited sound lab.
  - Performance data is derived from ASTM E477-13.
  - Silencer bank shall be structurally supported by Others.
  - Silencer shipped in multiple components for assembly by Others. Customer to confirm all dimensions.
- Performance data is obtained in a similar fashion as other silencer manufacturers using 24" x 24" cross section area test units.

PROJECT: CommCan  
ENGINEER:  
DESCRIPTION: Medium Pressure Silencer

CUSTOMER:  
UNIT OF MEASURE: Imperial

SUBMITTAL DATE: 6/11/2019  
QUOTE NO: RAWING  
REVISION:

# HUSH DUCT Submittal

Email: dan.burley@brd-nonoise.com  
Web: www.Hushcore.net

**HD-84/M**  
Medium Pressure Silencer

**Tag: Intake**

## Dimensions

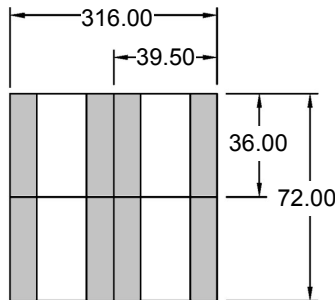
Quantity: 1  
Weight (lb): 5866

### Bank

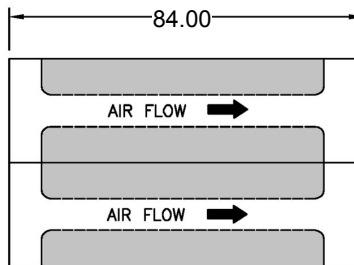
Width (in.): 316.00  
Height (in.): 72.00  
Length (in.): 84.00

### Components

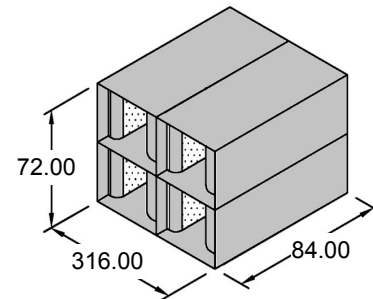
Quantity: 16  
Width (in.): 39.50  
Height (in.): 36.00



END VIEW



TOP VIEW



ISO VIEW

Images are generic representations of and not to scale. The actual configuration may not be shown.

## Performance

Air Volume (cfm): 59862  
Air Velocity (fpm): 379  
Air Direction: Reverse  
Pressure Drop (in.w.g.): 0.04  
Installed PD (in.w.g.): 0.08

### Dynamic Insertion Loss (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
11	21	36	50	55	53	46	29

### Generated Noise (dB)

63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
41	34	40	47	43	39	24	18

## Construction

Casing: 22 GA Galvanized  
Perforated Liner: 22 GA Galvanized

Acoustic Media: Glass Fiber

Inlet Connection: 2" Slip  
Outlet Connection: 2" Slip

## Notes

- HUSH DUCT silencer material has flame spread classification < 25 and smoke development rating < 50 when tested in accordance with ASTM E84, UL723 and NFPA255.
  - System effects assume ideal at the silencer inlet and abrupt plenum at the silencer outlet.
  - HUSH DUCT silencers consist of ASTM A653(M) steel casings and liners.
  - HUSH DUCT silencers are tested in our NVLAP-Accredited sound lab.
  - Performance data is derived from ASTM E477-13.
  - Silencer bank shall be structurally supported by Others.
  - Silencer shipped in multiple components for assembly by Others. Customer to confirm all dimensions.
- Performance data is obtained in a similar fashion as other silencer manufacturers using 24" x 24" cross section area test units.

PROJECT:  
ENGINEER:  
DESCRIPTION: Medium Pressure Silencer

CUSTOMER:  
UNIT OF MEASURE: Imperial

SUBMITTAL DATE: 6/11/2019  
QUOTE NO:  
DRAWING REVISION:

## Product Data Section

# Removable/Reusable Blanket Insulation For Sound Attenuation At The Source



Ball Mill Wrap with exposed liner bolts at a cement plant.



HUSH COVER™ Model HC-500S-1" blankets for air cooled screw chiller compressors.

## Advantages:

- Completely removable and reusable
- Easy to install
- Can be reused after maintenance
- Custom-fit to existing conditions
- Guaranteed fit
- Predictable performance based on laboratory tests
- Suitable for harsh environments where solvents, acids, oils, and other contaminants are present
- Outdoor weather-resistant construction
- High temperature capability
- Self-contained insulation system
- Asbestos free
- Good combination of acoustic and thermal performance

## Applications:

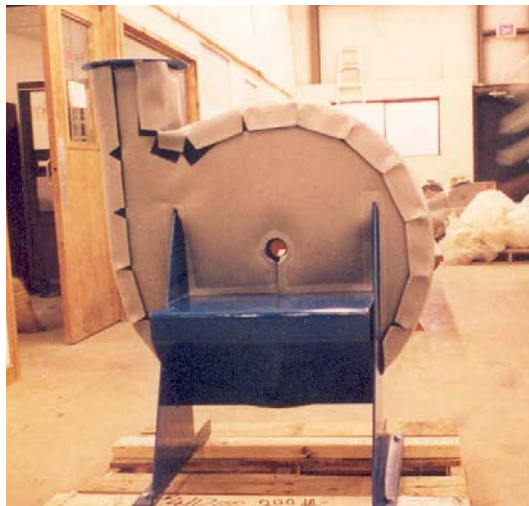
- Fans and blowers
- Compressor housings
- Gear boxes
- Valves
- Ejectors
- Steam and gas turbine casings
- Pumps
- Pipes and ducts
- Expansion joints
- Any hard to treat, irregular surface where removability is important
- Chillers and refrigeration equipment
- Engine exhaust systems
- Personnel protection (high temperature) for surfaces above 140°F
- Ball mills

**GUARANTEED FIT ON ALL APPLICATIONS!**

## Product Data Section

### About BRD HUSH COVER™ Acoustic Insulation:

BRD HUSH COVER™ acoustic blanket insulation is an extremely versatile and efficient solution to common industrial noise problems. It combines high density fiberglass mat with a mass-loaded vinyl sandwiched inside a weatherproof jacketing. The purpose of the fiberglass is to reduce reflected noise and to absorb noise energy, while the mass-loaded vinyl blocks transmitted noise. The fiberglass also has excellent thermal insulation qualities. Combining both an absorber material and a barrier material that are well matched yields a highly efficient and cost-effective means for solving industrial noise control problems.



Pressure blower housing treated with two-piece Velcro system.

#### Service:

The standard design (HC-450) can be used on equipment not exceeding 450°F (232°C). Other designs are available for equipment with temperatures exceeding 450°F.

### Design Components For HC-500S

**OUTER JACKET:** 16 oz./yd.<sup>2</sup> PTFE  
silicone impregnated  
fiberglass cloth

**ACOUSTIC BARRIER:** Barium sulfate  
loaded vinyl (1 lb. to 2 lb. density)

**INSULATION:** Fiberglass needle mat (11  
lbs./ft.<sup>3</sup> density)

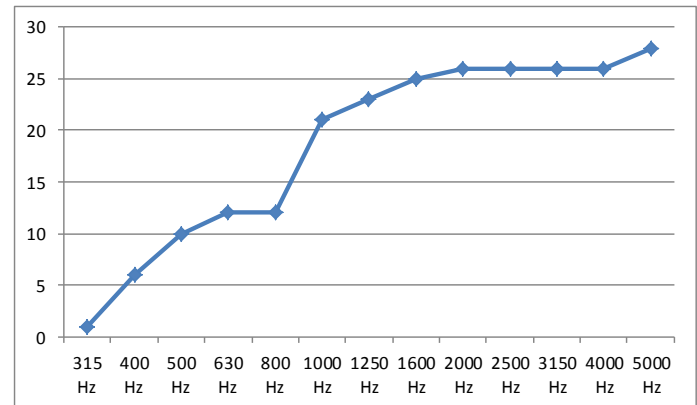
**INNER JACKET:** 16 oz./yd.<sup>2</sup> PTFE  
silicone impregnated  
fiberglass cloth



HC-800 is suitable for up to 800° F. HC-1200 is suitable for up to 1200° F. Design components for these and other custom HUSH COVERS™ are available upon request.

## Product Data Section

Test Frequency (in Hz)	Noise Reduction (in dB)
315	1
400	6
500	10
630	12
800	12
1000	21
1250	23
1600	25
200	26
2500	26
3150	26
4000	26
5000	28



The above data is representative of ASTM test procedure E-1222-87 for the laboratory measurement of the insertion loss of pipe lagging systems. BRD will not be warranted for performance results of HUSH COVER™ blanket insulation expressed or implied. Additional test data is available for a variety of blanket constructions.



Liquid cooled screw chiller noise is tamed using HUSH COVER™ model HC-500S-1"

### Acoustic Field Test Results

Based on previously tested installations, actual dBA reductions range between 3 – 5 dBA for HC-500S-1" and 4 – 6 dBA for HC-500S-2".



Ball mill HUSH COVER™ using HC-500S-1" with banding attachment.

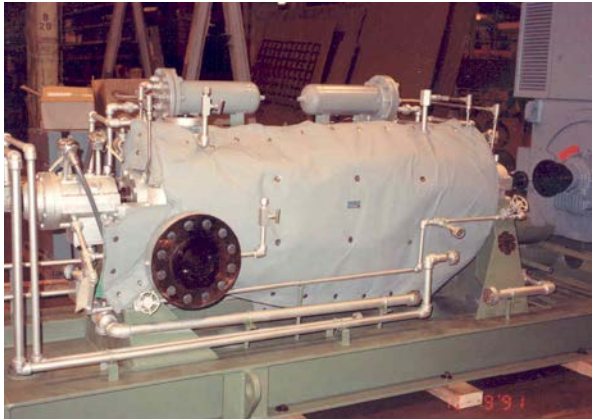
True performance estimates must include field verification of dBA levels and frequency concentrations on an application basis.



## Product Data Section

### General Installation Instructions

1. Many of the blankets will have 2" flaps on the edges. These flaps are to be installed so that the flap on the upper blanket will cover over the edge of the lower blanket, creating a shingle effect.



Boiler feedwater pump at fit-up prior to lacing.

2. Blanket installation should follow the recommended order of installation provided on the assembly drawings. Most blankets will either seam at the horizontal or vertical centerlines. All panels are tagged for easy identification.

3. "D" Ring assemblies have been provided to ease installation. To use, simply lace the strap through the adjoining blankets "D" Ring assembly and secure. Velcro Flaps are provided to permanently secure closing seams and to lock material in place.

4. Occasionally, certain blankets may be difficult to install due to space limitations or obstructions. If this occurs, it may be necessary to modify the blanket's shape or size. Stainless steel staples are the recommended closure method for any modifications.

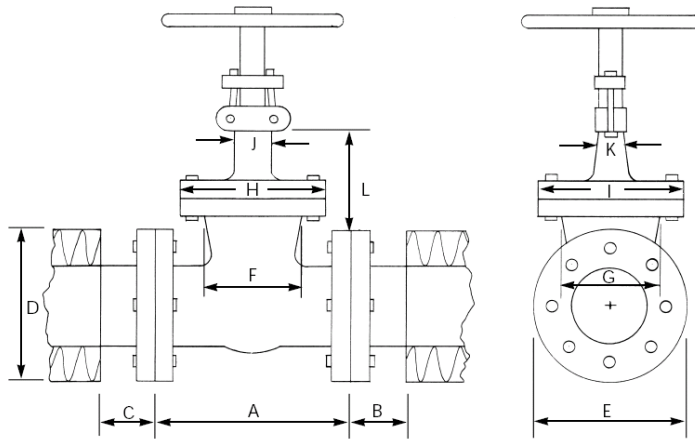
5. Generally, all tags should read from left to right and will be oriented horizontally. This will show the correct orientation of the acoustic blanket.

### BRD Installation Services Available



Before and after views showing Velcro installation of HUSH COVER™ multi-piece design for a steam ejector.

## Product Data Section



### Valve Cover Take-Off Sheet

A	B	C	D
E	F	G	H
I	J	K	L

- HUSH COVER™ blankets can be quoted based on field sketches, equipment cut sheets or templates created in the field.
- Standard items such as valves, elbows, fittings, pumps, etc. can be quoted based on standardized take-off sheets such as the one shown above.
- Field measurements by a qualified BRD Representative may be required prior to fabrication.
- Fabrication techniques include computer aided design (CAD) capabilities to assure proper fit (see below).
- HUSH COVER™ designs are complete and require no additional tools or materials.
- When requesting a quotation, please supply the make and model of the equipment if known.
- For OEM applications, private labeling can be provided to meet customer specifications.



HUSH COVER™ on air cooled screw chiller suction lines, compressor, discharge line and oil separator.



Typical "D" ring and strap attachment feature

## Product Data Section

### Acoustic Performance Data:

Product	Sound Transmission Loss (dB) Frequency (Hz)						STC
	125	250	500	1000	2000	4000	
HG-200	17	23	34	47	55	57	37
HG-210	24	25	33	43	50	55	38
HG-400	21	28	39	48	56	58	40
HG-410	23	31	40	49	56	62	42
HG-420	27	34	41	46	53	59	44
HG-500	18	26	35	45	49	52	37

Product	Sound Absorption Coefficients Per Frequency (Hz)						NRC
	125	250	500	1000	2000	4000	
HG-200	0.15	0.66	1.07	1.06	0.97	0.86	0.95
HG-210	0.26	0.53	1.00	1.03	0.97	1.02	0.90
HG-400	0.60	1.13	1.12	1.09	1.03	0.91	1.00
HG-410	0.68	1.06	1.12	1.08	1.03	0.98	1.05
HG-420	0.45	0.96	1.15	1.10	1.05	0.97	1.05
HG-500	0.92	1.15	1.22	1.13	1.08	1.04	1.15

### Panel Constructions:

	Thick- ness	Solid <sup>1</sup> Skin	Perf. <sup>1</sup> Skin <sup>2</sup>	Weight per sq. ft.
HG-200	2"	18 ga.	22 ga.	4.0 lbs.
HG-210	2"	16 ga.	22 ga.	4.7 lbs.
HG-400	4"	18 ga.	22 ga.	5.0 lbs.
HG-410	4"	16 ga.	22 ga.	5.7 lbs.
HG-420	4"	16 ga.	22 ga.	9.6 lbs.
HG-500	5"	16 ga.	22 ga.	6.0 lbs.

1. Panel skins are all galvanized cold rolled steel.
2. Perf. skins have 3/32" holes on 3/16" staggered centers
3. Optional aluminum and high density polyethylene constructions.
4. All stiffeners and panel channel framing is minimum 18 ga. steel with face sheets spot welded in place.
5. Panels are designed to withstand wind loads of 25 lbs/sq. ft., both negative and positive.
6. Panel fill is non-combustible high density semi-rigid non-hygroscopic HUSH BATT™ packed under 5% compression.

### Panel Finishes:

1. Galvanized steel (std.)
2. Galvanneal "Paint Ready" steel
3. Air dried shop applied
4. Thermosetting TGIC Polyester Powder Coating in color selected by Architect
5. Custom as specified

### Steel Finishes:

1. Prime Painted (standard)
2. Primer with air dried shop applied finish paint
3. Hot dip galvanized (availability dependent on final steel member sizing)
4. Colors available to match panels
5. Sand blasting prep only as specified by contractor
6. Custom as specified

# **APPENDIX B**

## **MODELING RESULTS**



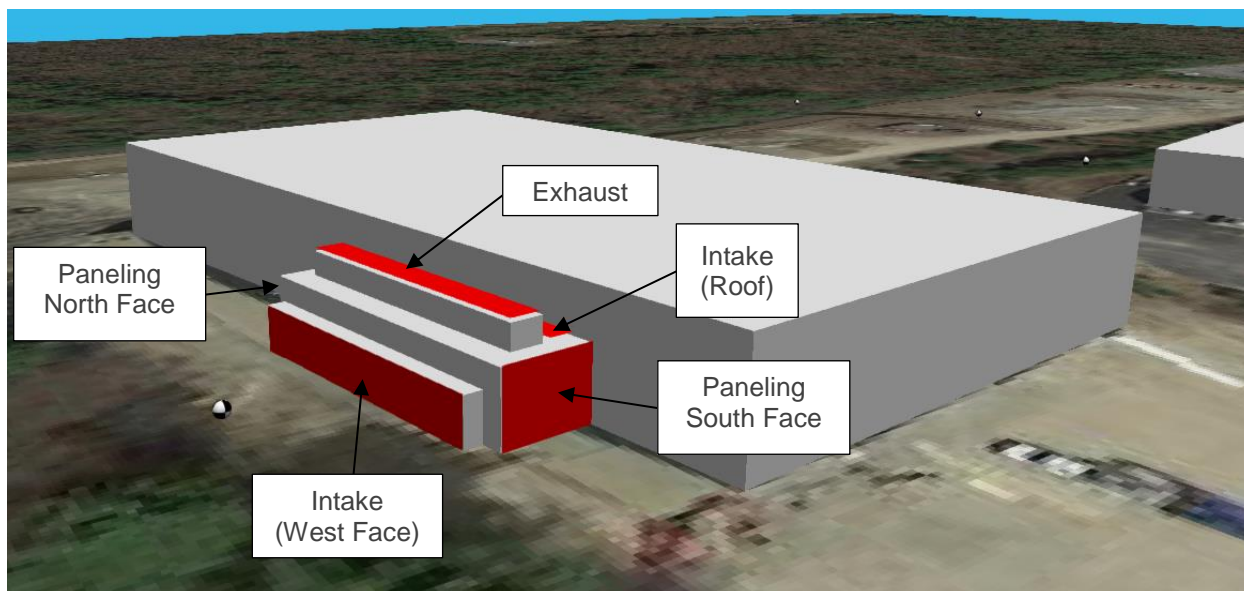


FIGURE 1. 3D Rendering of Modeled Enclosure, View from SW of Facility



FIGURE 2. Receptor points on source property line (see TABLE II)



**NOTE: Rightmost Column Overall Noise In dB(A) added by resident J. Lally**

TABLE II. Estimated octave-band sound levels at facility property lines (dB re: 20 µPa)

Property line location	63	125	250	500	1000	2000	4000	8000	Overall dB(A)
PL01	46	40	26	<20	<20	<20	<20	<20	<=29.4
PL02	54	47	35	26	<20	<20	<20	<20	<=34.6
PL03	61	52	35	22	<20	<20	<20	24	<=39.0
PL04	42	36	24	<20	<20	<20	<20	<20	<=28.1
PL05	28	<20	<20	<20	<20	<20	<20	<20	<=26.9
PL06	25	<20	<20	<20	<20	<20	<20	<20	<=26.9
PL07	26	<20	<20	<20	<20	<20	<20	<20	<=26.9
PL08	26	<20	<20	<20	<20	<20	<20	<20	<=26.9
PL09	29	20	<20	<20	<20	<20	<20	<20	<=26.9
PL10	32	22	<20	<20	<20	<20	<20	<20	<=26.9
PL11	34	24	<20	<20	<20	<20	<20	<20	<=27.0
PL12	35	25	<20	<20	<20	<20	<20	<20	<=27.0
PL13	40	32	<20	<20	<20	<20	<20	<20	<=27.4
PL14	41	34	21	<20	<20	<20	<20	<20	<=27.6
PL15	33	26	<20	<20	<20	<20	<20	<20	<=27.0
PL16	31	25	<20	<20	<20	<20	<20	<20	<=27.0
PL17	36	28	<20	<20	<20	<20	<20	<20	<=27.1
PL18	38	30	<20	<20	<20	<20	<20	<20	<=27.2
PL19	38	30	<20	<20	<20	<20	<20	<20	<=27.2
PL20	37	28	<20	<20	<20	<20	<20	<20	<=27.1
PL21	33	25	<20	<20	<20	<20	<20	<20	<=27.0
PL22	33	25	<20	<20	<20	<20	<20	<20	<=27.0
PL23	32	23	<20	<20	<20	<20	<20	<20	<=26.9
Medway Noise Ordinance	67	55	48	42	38	35	32	28	Max OdB(A)=39.0

Susan E. Affleck-Childs

Planning and Economic  
Development Coordinator



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**TOWN OF MEDWAY**  
**COMMONWEALTH OF MASSACHUSETTS**  
**PLANNING AND ECONOMIC**  
**DEVELOPMENT OFFICE**

**MEMORANDUM**

February 4, 2021

TO: PEDB Members  
FROM: Susy Affleck-Childs  
RE: Next steps on signage for electric vehicle charging stations

After what I understand was a hearty discussion, the ZBA's vote on February 3<sup>rd</sup> to approve the signage variances for VOLTA Charging at Medway Commons did not pass. The vote was 3 in favor and 2 against. Although a majority vote was achieved, a variance needs a 4-person affirmative vote. Thus, the requested variances were not approved.

However, there is interest in modifying the Town's signage regulations to allow some form of digital signage on EV charging stations. You need to decide if you want to prepare something to be considered at the May Town Meeting. If so, we need to submit a decent draft of "something" by Friday, February 12<sup>th</sup>. Certainly, with this time frame, we cannot take a comprehensive approach to research, drafting and vetting. But I believe we can come up with something.

If you would like to proceed in that direction, I believe there are 2 sections of the ZBL that could be amended. I have also compiled some resource information about digital advertising on EV charging units for your review. See attached.

**Signage – Section 7.2**

**Section 7.2.2 Exempt Signs** – The simplest way to address this would be to exempt internally illuminated digital advertising signage on electrical vehicle charging stations not exceeding [redacted] sq. ft. in sign surface area from having to secure a sign permit. (NOTE –The Volta charging units you reviewed had 18 sq. ft. of signage.) All faces of an electrical vehicle charging station which include signage should be counted to determine the amount of sign surface area. NOTE – With this approach, any signage area larger than the specified amount is not allowed. Of course, the EV unit would still need an electrical permit. The key question is what size of digital advertising display area will be workable for the manufacturers and vendors without being "too much" from the visual clutter perspective.

**Section 7.2.1.C Definitions** – It may be useful to add a definition for EV charging station signage to the definitions portion of Section 7.2.

## Parking – Section 7.1.1 Off-Street Parking and Loading

### E. General Parking Requirements

#### 4. Electric Vehicle Parking

##### Current Language

4. **Electric Vehicle Parking** – Industrial, commercial, and multi-family housing developments with fifteen or more parking spaces shall include parking spaces with electric vehicle charging stations for employee, customer and resident use. The quantity of such parking spaces shall be as follows:

Total # of Parking Spaces	# of Electric Vehicle Parking Spaces
15-25	1
26-50	2
51-75	3
76-100	4
101-150	5
151-200	6
201-300	7
301-400	8
401-500	9
Over 500	2% of total

The required number of electric vehicle parking spaces is to be included within the total number of required parking spaces computed pursuant to section 7.1.1.E.1.

*(Added 11-18-19)*

\*\*\*\*\*

This section could be expanded upon to include some additional requirements.

- Orientation of the units away from being viewed from the street
- Safety concerns
- Hours of operation
- Other locational requirements
- Any limitations on where EV charging stations should be allowed in Medway?
- Be clear that EV charging stations are an accessory use

**Another Thought** - Might you want to add EV charging units to some level of site plan review?

### Resource Materials for Review

1. Collection of photos of various types of EV charging stations with digital advertising
2. *Electric Vehicle Charging Stations & Digital Signage*, article by Todd Mares of Peerless AV, the company which makes the units included in the VOLTA proposal
3. *Electric Vehicle Advertising*, presentation by Todd Ritter of EVStructure, another company coordinates advertising for EV charging units.



# Electric Vehicle Charging Stations & Digital Signage

## Charging More than Just Vehicles

By: Todd Mares

Electric vehicles (EVs) have been around for more than 100 years, with the first “small-scale electric cars” invented in 1828. It wasn’t until the 1890s that the first successful EV was created, which sparked an interest in both consumers and automakers.<sup>1</sup>

Historically, EVs were not widely adopted by consumers due to their short driving time and long charging sessions compared to conventional gasoline or diesel cars. However, today that is no longer the case with battery charging time being of little concern for a plug-in electric vehicle (PEV) owner.

With the rise in pollution, gas prices, conventional car list prices, and the overall slump in the economy, the demand for PEVs is growing rapidly and with that demand also comes the need for charging stations.

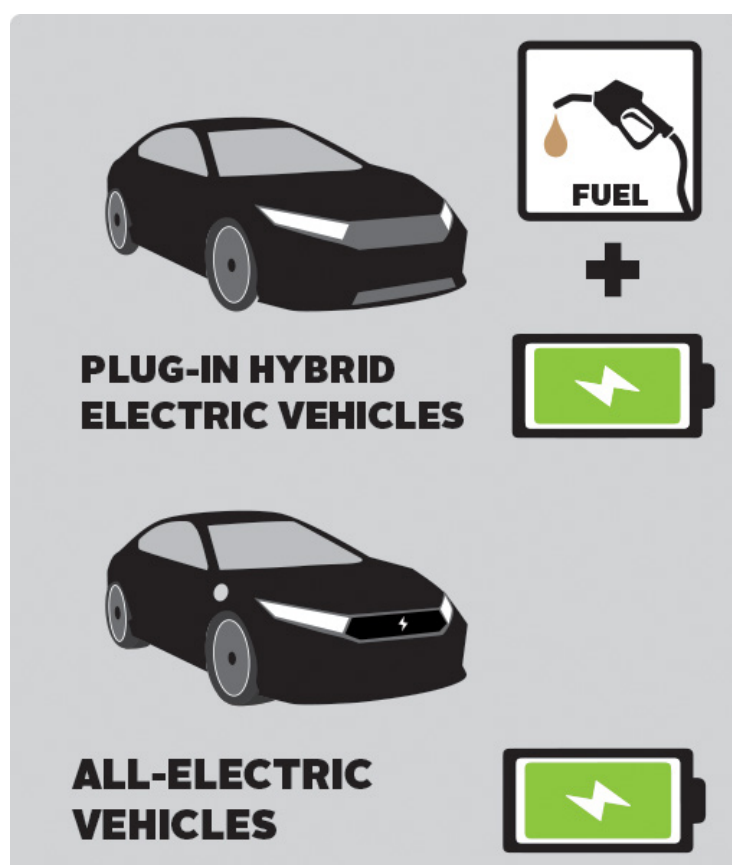
### Key Words

- ✓ EVs (all-electric vehicles)
- ✓ PEVs (plug-in electric vehicles)
- ✓ PHEVs (plug-in hybrid electric vehicles)

### PEV Fundamentals

Before learning about charging stations, it is valuable to understand what makes a PEV a PEV – its ability to charge from an electric power source by being plugged in. The two types of PEVs are EVs and plug-in hybrid electric vehicles (PHEVs).

All EVs, also referred to as battery-electric vehicles, run solely on batteries, which store electrical energy that powers the motor and produces no tailpipe emissions. Charging of the batteries occurs by plugging the vehicle into an electric power source.



<sup>1</sup>Matulka, Rebecca. “The History of the Electric Car.” Energy.gov. U.S Department of Energy, 14 Sept. 2014. Web. 15 Sept. 2015. <<http://energy.gov/articles/history-electric-car>>.

Also, EVs have the ability to charge by regenerative braking, which means the electric drive motors are used as generators and return the kinetic energy normally lost when braking to electricity for the electric supply system to run off of.<sup>2</sup>

Plug-in hybrid electric vehicles (PHEVs), also referred to as extended range electric vehicles, differ from EVs as they use both batteries and fuel. The batteries power the electric motor and the fuel powers the internal combustion engine. These types of vehicles are similar to EVs because they too can be plugged into an electrical source to charge. However, the battery life for PHEVs is normally shorter.

Drivers choose PEVs over PHEVs for many different reasons, including:

### **Lower carbon footprint:**

Drivers want to minimize their carbon footprint as much as possible. PEVs are a stronger benefit to the environment compared with PHEVs because PEVs don't use any fuel at all, thus lessening pollutants that can harm the earth.



### **Lower operating cost:**

The cost per mile to fuel a PEV is approximately one-third to one quarter the cost of gasoline (on a cost per mile basis).<sup>3</sup> Lower cost of maintenance and repair bills, aside from the occasional tire rotation.



### **Higher performance:**

PEVs are smoother to drive. By removing the internal combustion engine driveline, it creates a high performance car with low center of gravity and provides maximum acceleration and handling.



### **Compatible with most charging stations:**

All major vehicle and charging system manufacturers of PEVs have a standard connector and receptacle that can be used on any Level 1 or Level 2 charging station.



<sup>2</sup> Wikipedia contributors. "Regenerative brake." Wikipedia, The Free Encyclopedia. Wikipedia, The Free Encyclopedia, 14 Aug. 2015. Web. 15 Sep. 2015. <[https://en.wikipedia.org/wiki/Regenerative\\_brake](https://en.wikipedia.org/wiki/Regenerative_brake).>

<sup>3</sup> Berman, Brad. "Electric Cars Pros and Cons." PluginCars.com. PluginCars.com, 4 Oct. 2014. Web. 15 Sept. 2015. <<http://www.pluginCars.com/electric-cars-pros-and-cons-128637.html>.>



## Charging Fundamentals

EV charging stations can be installed just about anywhere electricity can be run – homes, apartment complexes, corporate campuses, college campuses, shopping centers, parking garages, etc. But before installing and using a charging station, it's important to understand the basics of the equipment.

There are different types of electric vehicle supply equipment based on communication capabilities and the time it takes to actually charge the vehicle itself. This equipment takes electrical energy from the electricity source it is plugged into, such as the electrical outlets at a shopping center parking garage. In order to guarantee that a safe flow of electricity is continually supplied to the various brands of PEVs charging, the supply equipment has to be able to communicate effectively with the PEV.

This equipment is classified into different categories by the degree at which the batteries are charged, with Level 1 and Level 2 being the most common types. Charging times differ as they are based on a variety of factors, including the battery type, how depleted it is, how much energy it can hold, and the type of equipment used by the charging station itself.

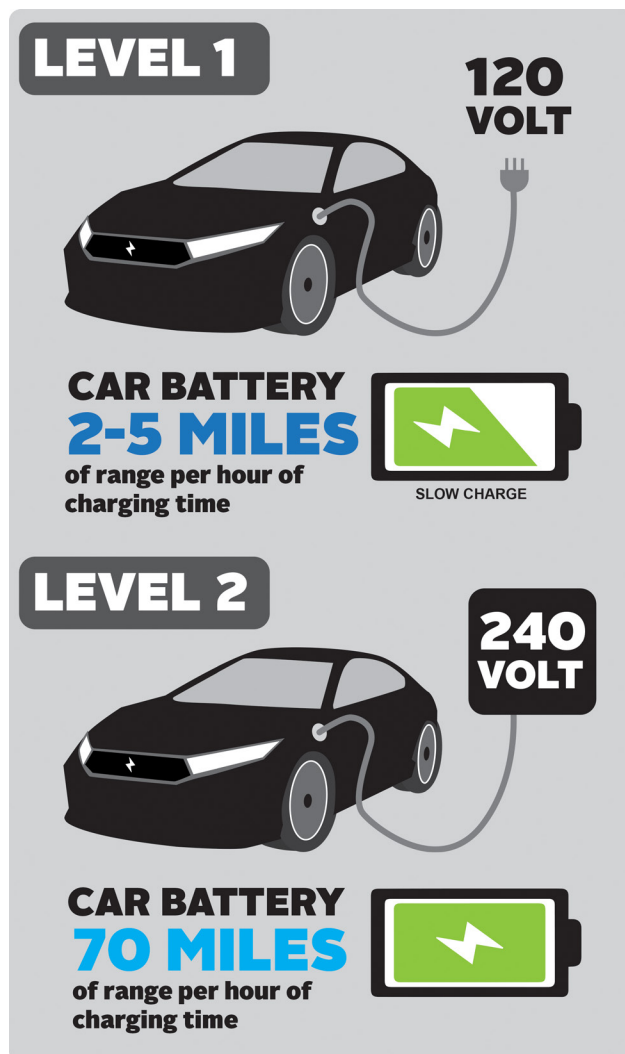
### Level 1:

- ✓ Typically installed in residential areas due to the lower amount of electricity allotted, meaning longer charging time required.
- ✓ Allows for a slow charging speed ranging from 2 to 5 miles of range per hour of charging time.
- ✓ Supplies 120-volt.

### Level 2:

- ✓ Supplies 240-volt, comparable to energy used by an electric dryer.
- ✓ Allows for a wide range of charging speeds, all the way up to 70 miles of range per hour of charging time.
- ✓ Charging is done through a box and a cord that waits to send power to the plug until it's plugged into an EV, improving safety.

Both Level 1 and Level 2 charging stations deliver standard household electricity to the car and electronics on board the car transform the wall power into the proper form to charge the battery.<sup>4</sup>



<sup>4</sup> Saxton, Tom. "Understanding Electric Vehicle Charging." Plug In America. Plug In America, 31 Jan. 2011. Web. 15 Sept. 2015. <<http://www.pluginaustralia.org/drivers-seat/understanding-electric-vehicle-charging>>.

## Charging Station Benefits

There are many benefits that come along with the application of charging stations, whether at a premium retail center, grocery store, parking garage, entertainment venue, or airport.

### ✓ **Boost branding, customer attraction & retention:**

Offering charging stations are a great way to attract and keep customers who drive PEVs because locating a charging station is not always the easiest task. EV charging stations also give businesses a unique way to differentiate from competitors, and enhance and promote a positive, environmentally friendly brand image.

### ✓ **Digital or static advertising opportunities:**

Content options are nearly endless and all depend on the location of the charging station. Each time an EV owner charges their car, it becomes a perfect opportunity to advertise to that driver. For example, if a charging station is in front of a premium retail center, it is the perfect time to reach a highly valued demographic with paid advertising from store locations inside the retail center.

### ✓ **Reduce environmental footprint and save energy:**

According to Portland General Electric (PGE)<sup>5</sup>, about one-third of the country's greenhouse gas emissions come from transportation, and 60 percent of that is from vehicle use. Charging stations significantly aid in reducing carbon emissions and the more public stations installed, the more interested non-EV drivers will be to join the movement.



<sup>5</sup> "Electric Cars & Trucks: Driving Green | PGE." Portland General Electric. Portland General Electric, n.d. Web. 15 Sept. 2015. <[https://www.portlandgeneral.com/community\\_environment/initiatives/electric\\_vehicles/driving\\_green.aspx](https://www.portlandgeneral.com/community_environment/initiatives/electric_vehicles/driving_green.aspx)>

## Taking Charging Stations to a New Level

Digital displays enclosed within an outdoor charging station kiosk offer many benefits to the charging station manufacturer, signage manufacturer, advertisers, and end-users as compared to traditional charging stations with only a backlight and static signage.

A main benefit is that the opportunities for digital signage functionality are limitless. When enclosed in a charging station kiosk, the medium can be used to generate revenue through advertising, provide wayfinding and personalized guest service, provide corporate information for employees and more. A constant stream of fresh content can achieve high-quality communications to the specific target audience.

Other benefits include ease of use and reduced costs. Everything displayed is remotely controlled by a computer, reducing the overall costs of shipping, printing, processing and labor to change the messages on the screen. In a few clicks of a mouse, the content on the digital screen can keep up with the constantly changing promotions.

In this day and age, people want to see messages conveyed in a medium they know and expect, and that expectation is for fresh, updated, vibrant information. What better way to convey those messages than with digital displays enclosed within charging stations that are placed outside the front of shopping centers or grocery stores, for example.

Charging stations are the perfect place to advertise to each driver who pulls up to charge. A recent study found that sixty-three percent of adults report that digital signage advertising catches their attention more than any other method of advertising, and forty-four percent said they paid more attention to digital signage advertising more than any other method of advertising.<sup>6</sup> Whether the advertisement is for a partner EV company, stores inside the premium retail center, or for the charging station company itself, digital signage offers more advertisement space and potential for increased revenue.

The true takeaway is that the opportunities for functions and benefits for all parties involved are truly limitless. Digital signage can certainly be used to generate revenue through advertising, but moreover what retailers can and should offer shoppers is the experience of personalized guest service from the moment they step out of their car. From customized wayfinding, to exclusive promo codes, with digital signage enclosed inside charging stations, companies can create a 360-degree brand experience, allowing customers to interact with brands anywhere, at any time of day. A constant stream of fresh content on-demand is the expectation of customers and it is through outdoor signage that retailers can truly accomplish this.



<sup>6</sup> "Digital Out-of-Home Media Awareness & Attitude Study." Rich Media Technologies. SeeSaw Networks, Inc., 2007. Web. 15 Sept. 2015. <<http://www.richmediatechnologies.com/uploads/articles/pdf/Outdoor%20Effectiveness.pdf>>



## Kiosk and Display Considerations

There are many benefits that come along with the application of charging stations, whether at a premium retail center, grocery store, parking garage, entertainment venue, or airport.

Before investing in an outdoor kiosk and display for a charging station, there are a number of considerations that need to be made including:



### Kiosk considerations:

- Weather ratings are one of the most important considerations when choosing a kiosk. The best way to determine a kiosk's ability to withstand weather conditions is by referring to the Ingress Protection (IP) rating. The IP code classifies and rates the degree of protection provided against the ingress of dust and water. An IP68 rating is standardly recommended for this type of application.
- Ability to update content and monitor the status of the kiosk remotely via Wi-Fi or landlines.
- Configurable email alarms notifying the charging station company of any issues with the kiosk, i.e. power is down, an internal component has failed, a door is open, a concerning enclosure temperature, etc.
- Circulation fans to ensure proper operating temperature for the internal electronics.
- Lockable doors for security and kill switches outside the enclosure to shut off power during an emergency.
- Ability to integrate a display, media players, speakers, and more to provide a complete self-service experience for the consumers charging their PEVs
- Pre-assembled design to simplify on-the-job installation, eliminating the need for on-site engineers for assembly and reducing installation costs.

## Outdoor display considerations:

- Ability to withstand harsh outdoor elements, season changes, and large drops and rises in temperature (see previous explanation of IP ratings).
- Daylight readable full HD 1080p resolution for bright, crisp picture when installed in outdoor environments.
- An LED back light system, which ensures better uniformity of illumination and creates less heat.
- Designed for direct solar loads and temperatures ranging from -40°F to 140°F.
- Fully sealed design to prevent condensation from forming inside the display glass.
- Cooling, as air conditioners will need upkeep, require maintenance and consume significant power.
- Ambient light sensors to automatically and gradually adjust a screen's brightness at different times, based on surrounding conditions.
- Breakage-resistant safety glass to contend with vandalism.



## The Solution

To meet this need, Peerless-AV® has teamed with Volta Industries, Inc. to create custom Volta charging stations. The station design includes Peerless-AV's 47" Xtreme™ outdoor daylight readable display, a 6' tall backlit poster box, a Chromebox media player actively cooled inside the Peerless-AV Xtreme™ Outdoor Totem Kiosk, an EKM power meter, and a cellular modem. The cellular modem allows for real time content updates and power consumption records. The kiosk is all stainless steel and aluminum construction for corrosion resistance.





## About Peerless-AV

Peerless-AV, a Peerless Industries, Inc. company, is a leading designer, manufacturer and distributor of audiovisual solutions. From its award-winning mounts and wireless audio systems to indoor/outdoor kiosks and the industry's first fully sealed outdoor displays, Peerless-AV aims to Get it Right by fulfilling both integrators' needs for ease of installation and service, and end-users' dreams in residential and commercial applications.

Based in Aurora, IL, Peerless-AV manufactures over 3,600 products that serve original equipment manufacturers, commercial integrators and consumer retailers in 22 vertical markets through direct sales representatives and authorized distribution.

For more information, visit [www.peerless-av.com](http://www.peerless-av.com).

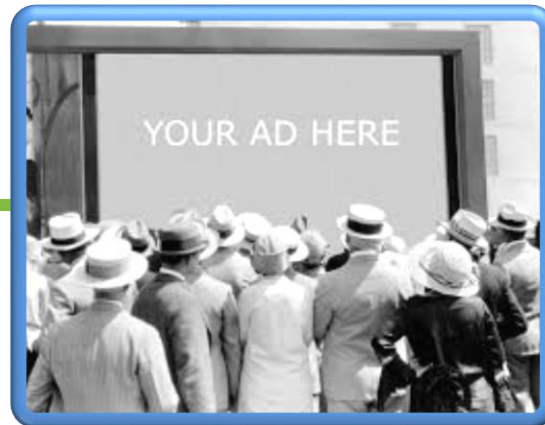


### ***The Get It Right Guy***

Todd Mares is the Director of Emerging Technologies Division of Peerless-AV, a provider of Professional Audio and Video Mounting Solutions, High Definition Wireless Delivery Solutions, and Professional Outdoor Display Solutions for Residential and Commercial Applications.



## *The First EV Charging Station with Digital Advertising*





# Electric Vehicle Charging

- EvStructure t operates a network of electric vehicle charging stations in seven states, including California and Hawaii
- Electric vehicles (EVs) get about 80 miles per battery charge
- Driver plugs in and then interacts with EvStructure t touchscreen (up to five minutes) to initiate an electric charge of their vehicle's battery
- EvStructure t runs advertising and sponsorships on the network's 8", 15" and 32" screens
- The wireless network can deliver static images, animation, and video



# Electric Vehicle Driver Demographics

- \$110k+ income (twice U.S. avg)
- 80% own a smartphone
- 77% have a 4-year degree or higher
- Early Adopters
- Tech Friendly
- Spend 30-50 minutes longer at a business while charging
- 43% of EV drivers are likely to return weekly to a retail location with an EV charger
- 79% of consumers seek out green amenities while shopping



# Messaging with a Green Mission

Advertising on OpConnect's interactive screens is a unique opportunity for companies to communicate their messaging while making a positive environmental impact in their communities

Through June, OpConnect EV Charging Stations have...



Provided enough electricity to drive an EV more than **280,000** miles

Which has avoided more than **101** metric tons of greenhouse gases



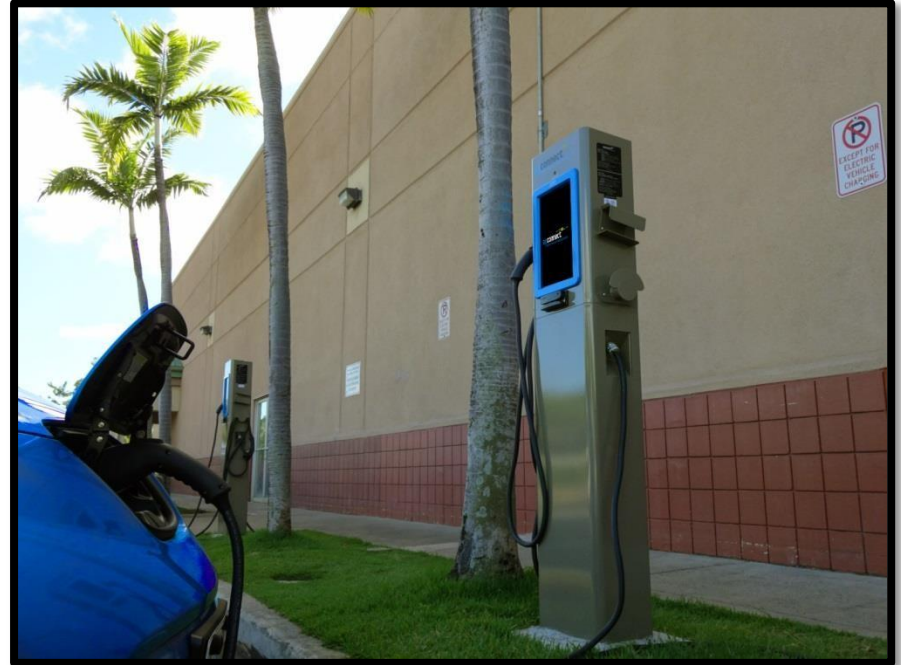
And saved more than **12,000** gallons of gasoline





# One-of-a-Kind User Interface

- OpConnect was the first in the industry to introduce HD display technology to the EV charging experience
- The 15" displays has interactive touchscreen
- The screens deliver clear, vibrant images with an ultra-wide 170-degree viewing angle
- EvStructure offers additional product opportunities, including wraps, playcards, mobile, email and SMS



# Our Screen Offerings



8" Touchscreen



32" "Topper"



15" Touchscreen

# Screen Locations

- EvStructure screens are located in high-traffic areas such as malls, shopping centers, large retailers, office buildings, and university campuses
- EvStructure screens are positioned so they can be seen by viewers walking or driving



# Location Highlight: Ala Moana Center

- Ranks among the top 10 malls by revenue in America
- Receives 42 million shopping visitations each year
- First mall in the U.S. to reach \$1B in annual sales. Only three other malls in the country have reached this milestone
- Charging station located near primary foot & vehicle traffic thoroughfare
- Retail businesses include: Neiman Marcus, Nordstrom, Louis Vuitton, Harry Winston, Dior, Gucci, Chanel, Prada, Hermes, Tiffany & Co., and Bvlgari





# Location Highlight: Bridgeport Village

- High-end shopping center located south of Portland, OR
- Average Household Income within a five-miles radius is \$98,208 and within a 10-mile radius is \$83,385
- Charging station located on primary foot traffic exit path and primary vehicle travel path in parking structure
- Retail businesses include: Saks Fifth Avenue, Crate & Barrel, Tommy Bahama, Ann Taylor, Eileen Fisher and the largest Regal Cinema in the state
- Also located nearby are a REI, Starbucks, 24HR Fitness, and Whole Foods Market





# Rates & Offerings

See Attachment Rate Cross EV Charging 032414 attachment

- EvStructure also offers unique “Run of the Network” options for its advertisers who want to have their ads playing on all OpConnect screens, either regionally or nationally.
- Advertisers can also purchase to “own the station” and book all advertising slots; or for those that want to run 15-, 30-, or 60-second video ads
- EvStructures creative and technical teams will work with you or your agency to develop unique campaigns utilizing its integrated camera and wireless networking such as Augmented Reality, Geofencing, Social Gaming, Social Integration or Facial Recognition.

# Ad Specs



	Payment Transition Screen	8" Screen	15" Screen	32" Screen
<b>Dimensions (w x h) in pixels</b>	768x680	800x475	768x1155	768x1366
<b>Static File Format</b>	.png, .jpeg file format			
<b>Video File Format</b>	MP4 file format (h.264)			
<b>Duration</b>	8 seconds (standard) 15 seconds (premium)			
<b>Frames Per Second</b>	25 or 30 fps			
<b>Video Data rate</b>	≤4 Mbps			
<b>Delivery Deadline</b>	OpConnect requires all standard creative be submitted three (3) business days prior to launch date to allow testing and approval			

# Charge Up Your Business

## Mobile Messaging Through Electric Vehicle Charging Stations

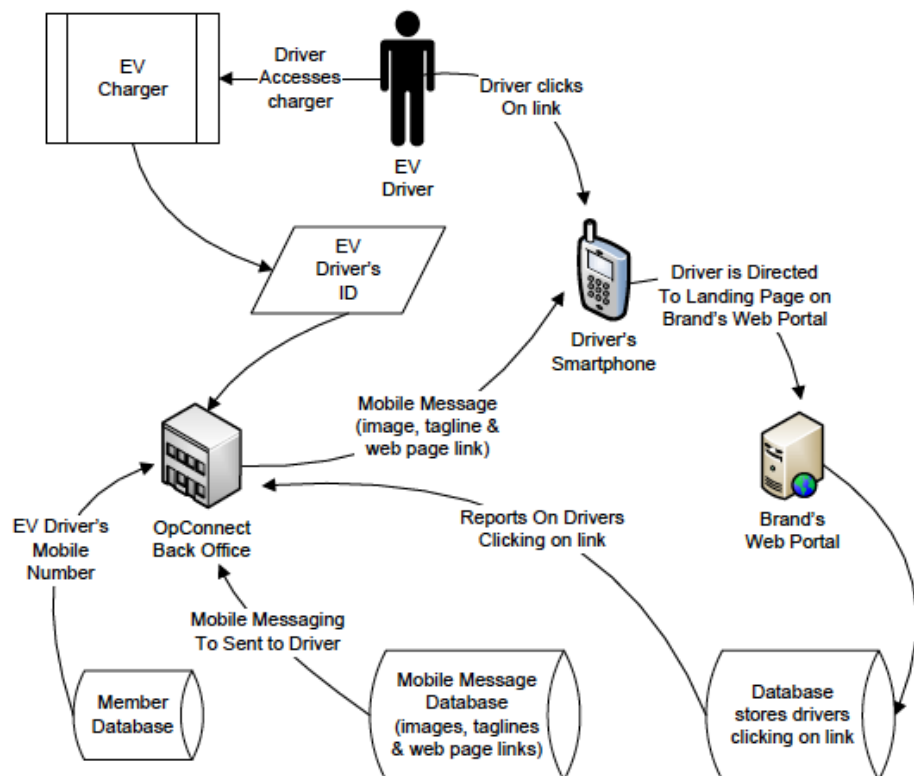
Delivering mobile phone messaging through the network is a unique opportunity for your business to communicate your messaging and capture potential customers while making a positive environmental impact in Hawaii. OpConnect's electric vehicle charging stations have prevented more than 81 metric tons of greenhouse gases.

OpConnect's digital messaging network lets you reach electric car driver's mobile devices as they plug in to charge their vehicles. Once the driver plugs in their car and identifies themselves to pay for charging, your mobile message (that can include images, taglines and web page links) can be delivered to their device.

- **Reach over 1400 Hawaii EV drivers**
- **Track the members that respond to your messaging by using call-to-action and web links embedded in your message**



- **Target customers with soft branding messaging, or use web links embedded in your digital messaging to direct them to a custom landing page**
- **Electric vehicle drivers**
  - › Earn \$110k+ income (twice U.S. avg.)
  - › Are early adopters & welcome new products and technologies





## Electric Vehicle Advertising

# Thank You

For further information on how EvStructure can make a positive impact on your advertising, contact:

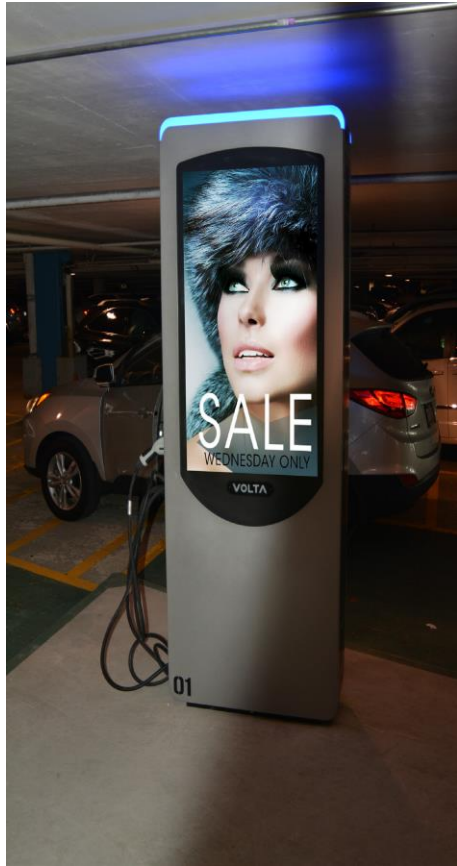
**Todd Ritter**

President

[www.evstructure.com](http://www.evstructure.com)

(808) 352-3044



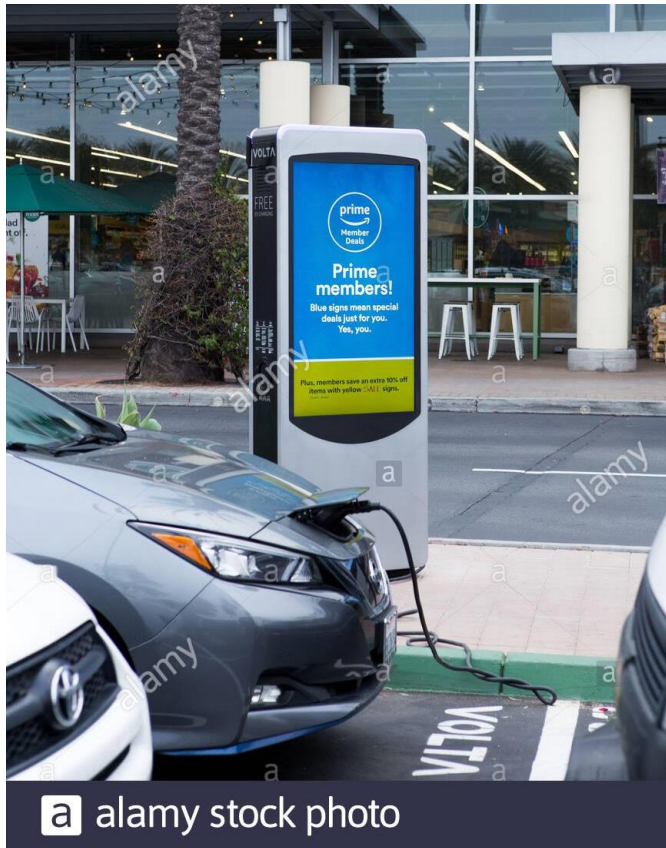


**Photos of various types of EV Charging Stations with digital advertising displays.**









 alamy stock photo







# **Residential Common Driveways BJS version 2.9.21**

## **A. Purpose**

The purpose of this Section is to promote public safety, provide for adequate sight distance, avoid site disturbance, minimize the alteration of topographical characteristics and natural resource areas, which include wetlands and historic resources, minimize stormwater runoff and retain a rural residential character. It is not the intent to make undevelopable land developable.

## **B. Applicability**

This Section applies only to residential common driveways, which are limited to single driveways providing vehicular access to two lots for single or two-family dwellings (the “benefitted parcels”). Residential common driveways shall require a special permit from the Planning and Economic Development Board.

Residential common driveways must be privately owned and maintained, shall not be considered streets or public ways, and shall not constitute a part of the designated or legal frontage for any lot.

## **C. Design Requirements**

All residential common driveways must comply with the following design requirements:

- (1) The common driveway must extend from the benefitted parcels to a public street right of way. A common driveway, as well as the individual driveways beyond the common portion of the driveway, must be located entirely within the benefitted parcels. A common driveway must intersect the street right of way within the legal frontage of one of the benefitted parcels.
- (2) The benefitted parcels must have permanent access to the common driveway by easements recorded in the Norfolk County Registry of Deeds.
- (3) The deeds to the benefitted parcels shall require that the owners thereof must establish a maintenance association, the purpose of which is to provide for the maintenance and repair of the common driveway, or otherwise adequately provide for the maintenance and repair of the common driveway. The term “maintenance” shall include, but not be limited to, snow plowing, maintaining design specifications, and repair and maintenance of surfaces and stormwater management facilities. All property contiguous to the common driveway must be a part of the benefitted parcels which must be included within the maintenance association. The easement containing the common driveway shall be a minimum of 20 feet in width.
- (4) Minimum Construction Standards.
  - (a) The radius of the common driveway intersection with the street right of way must be sufficient to enable emergency vehicles to exit and enter the common driveway without leaving the surface of the common driveway. Common driveways shall accommodate the Single-Unit Truck (SU-30) vehicle turning radius at all curve radii, in accordance with the January, 2006 MassHighway Project Development and Design Guide.



- (b) A minimum depth of 8 inches of gravel must be installed the full width of the entire common driveway traveled way.
- (c) The maximum grade of the common driveway shall be no greater than 5% within 40 feet of the street right of way. The maximum grade of a common driveway for its full length beyond the initial 40 feet shall be no greater than 15%.
- (5) House numbers of sufficient visibility shall be provided at the entry point onto the street right of way and at each individual driveway along the common driveway, so that emergency vehicles can locate each dwelling.
- (6) Adequate sight line distance must be provided for vehicles exiting the common driveway.
- (7) The minimum width of the traveled way of a common driveway must be no less than 12 feet.
- (8) Passing turnouts shall be provided which provide a total width of at least 18 feet for a distance of 25 feet, where needed for safe sight lines of passage.
- (9) Provisions to permit the turn around of a SU-30 vehicle shall be provided at the terminus of all common driveways longer than 500 feet.

#### D. Administration

- (1) A special permit is required from the Planning and Economic Development Board (the Board) to construct a common driveway. A record owner desiring to construct a common driveway shall file with the Board an application, together with such plans, drawings, specifications, fees and additional information as required by the Board.
- (2) An Applicant must provide documentation and plans which are sufficient, in the opinion of the Board, for it to determine that the requirements, provisions and Approval Criteria of this Section are met. Such documentation shall include, but shall not be limited to, information on impacts to the environment, public safety, scenic roads and scenic views, and lot development.
- (3) Approval Criteria. Before the Board may issue the special permit, it shall determine each of the following:
  - (a) The common driveway will provide safe and reasonable access for fire, police and emergency vehicles.
  - (b) The common driveway meets the purpose and requirements of this Section.
  - (c) The common driveway will minimize the environmental impacts.
  - (d) The common driveway will not serve more than two lots for single or two-family dwellings.

The Board may approve the special permit with conditions, which may include, but shall not be limited to: a) a performance bond, deposit of money or tri-party agreement, is posted with the Town to guarantee proper construction; and b) construction standards for the common driveway.

## Susan Affleck-Childs

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**From:** Ted Brovitz <ted.brovitz@gmail.com>  
**Sent:** Wednesday, January 27, 2021 5:12 PM  
**To:** Barbara Saint Andre  
**Cc:** Susan Affleck-Childs; Jack Mee; Andy Rodenhiser  
**Subject:** Re: Medway CBD  
**Attachments:** CBD AMENDMENTS Draft 2.0 BCPD BJS edits 01.26.21.docx; CBD AMENDMENTS Draft 2.0 BCPD BJS edits 01.26.21.pdf; CBD Drive Through Design Standards BCPD Draft 1.0 01.27.21.docx

Hi Everyone,

I've attached draft 2 of the Central Business District bylaw. There are a few issues that need further vetting with the board such as gas backwards on existing gas stations in the district and the ratio of commercial to residential space in a mixed use development. Also, there are a few changes to the table of use including allowing drive - thrus with special permit from the PEDB. Because these facilities could negatively impact walkability and pedestrian orientation, I've added some design standards for your consideration. Please let me know if you have any initial questions or comments.

Thanks,

Ted

On Sat, Jan 23, 2021 at 1:50 PM Ted Brovitz <[ted.brovitz@gmail.com](mailto:ted.brovitz@gmail.com)> wrote:

Hi Everyone. I've put together some development case studies for the board. It includes mixed use, residential, civic, and gas backwards examples of infill development in commercial districts. Please let me know if you have any questions or comments. Ted

On Fri, Jan 22, 2021 at 9:48 AM Ted Brovitz <[ted.brovitz@gmail.com](mailto:ted.brovitz@gmail.com)> wrote:

Thanks Barbara. I'll incorporate your edits and suggestions into version 2 of the draft amendment. One issue I'm still a little unclear on is the adjustments the Board wants to make on the ratio of commercial to residential development in Section 10.3.d.4.b of draft 1 below:

a. The amount of gross floor area of the building comprised of only multi-family dwelling units and common areas and support facilities associated with those multi-family dwelling units which would otherwise be required by Section D.2 above to include business uses shall be added to the required business uses gross floor area of the other building(s) of the mixed-use development as additional business use space, so that the total amount of gross floor area for business uses in the mixed-use development will equal or exceed the total gross floor area for business uses which would result if no building were devoted solely to multi-family dwelling units.

Tom had suggested an alternative but I need clarification before I add it to version 2.0.

In the meantime, I've attached the slides from the PEDB meeting earlier this week. Since we only had 30 minutes, I didn't go over all the slides during the meeting but the full Powerpoint version is included here.

Ted

On Thu, Jan 21, 2021 at 3:39 PM Barbara Saint Andre <[bsaintandre@townofmedway.org](mailto:bsaintandre@townofmedway.org)> wrote:

Ted, attached is the first draft of the CBD with my red-lined comments and proposed edits.

With respect to the Table of Uses, I have the following comments:

Home Based Business: Should be Y, not PB. Not a special permit use in any other district where it is allowed, and not appropriate for special permit in my view.

Repair Shop: Similarly, should be Y, not PB. One of the comments I have heard is that the town needs to allow more business uses by right, in my view this should not require a special permit.

Veterinary hospital and furniture repair should both be Y, or at least PB. We need to maximize business and commercial uses in this district, in my view, and these are appropriate.

Vehicle fuel station: Need to vet this.

Drive through facility: Should be either Y or PB.

Thanks

**Barbara J. Saint Andre**

**Director, Community and Economic Development**

**Town of Medway**

**155 Village Street**

**Medway, MA 02053**

**(508) 321-4918**

**From:** Ted Brovitz [mailto:[ted.brovitz@gmail.com](mailto:ted.brovitz@gmail.com)]

**Sent:** Thursday, January 7, 2021 9:02 AM

**To:** Susan Affleck-Childs <[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)>

**Cc:** Barbara Saint Andre <[bsaintandre@townofmedway.org](mailto:bsaintandre@townofmedway.org)>

**Subject:** Re: Medway CBD

Hi Susy and Barbara,

I've attached the first draft of the CBD zoning amendments. In doing so, I've created a new Section10 which integrates the SP mixed use provisions of section 5.4.1. This new section also invokes some of the tools we used for Oak Grove Park including building placement, design and open space standards to create a more walkable mixed use CBD. There is also a lot of emphasis on the "Building Frontage Zone" (the space between Main Street ROW and the building facade). The goal here is to complement and expand the streetscape improvements completed within the Main Street ROW through landscaping, streetscaping, outdoor amenity space, and facade treatments on individual sites. Other proposed amendments include some minor adjustments to parking, landscaping, and the use and dimensional tables specific to the CBD.

Please take a look and let me know if you have initiative questions, comments, or suggestions. Also, I can put together some slides for next Tuesday's PEDB meeting.

Thanks,

Ted

# PROPOSED AMENDMENTS TO THE CENTRAL BUSINESS DISTRICT ZONING REGULATIONS - DRAFT 2.0

## SECTION 2. DEFINITIONS

### Add Definition:

**Mixed Use Building:** A building that typically accommodates a variety of ground floor commercial uses and upper floor residential and/or office uses at a scale that is compatible and complimentary to its given district.

*Commentary: This is the definition for “Mixed Use Building” in Section 9 – Oak Grove Park.*

## SECTION 5. USE REGULATIONS

### 5.4 Schedule of Uses & Table 1

*Commentary: See Attachment/Proposed Amendment to Table 1 – Schedule of Uses*

#### 5.4.1 Special Permits in the Central Business District

*Commentary: The amended Section 5.4.1 CBD SP for Mixed Use Development adopted at FTM 11.16.20 has been relocation and integrated into the proposed new Section 10 – Central Business District Development Standards.*

## SECTION 6. DIMENSIONAL REGULATIONS

### 6.1 Schedule of Dimensional and Density Regulations & Table 2

*Commentary: See attachment/proposed amendment to Table 2 – Dimensional and Density Regulations.*



TABLE 1: SCHEDULE OF USES														
	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
A. Agriculture, Conservation, Recreation Uses														
Agriculture, excluding piggeries and fur farms on less than 5 acres of land, and excluding livestock on less than 44,000 sq. ft. of land	Y	Y	N	N	N	N	N	N	N	N	N	N	Y	
Poultry on less than 1 acre. Minimum lot size for poultry is 5,000 sq. ft. subject to Board of Health regulations.	Y	Y	Y	N	N	N	N	N	N	N	N	N	Y	
Commercial Greenhouse	SP	SP	N	N	N	Y	Y	N	N	N	N	PB	N	
Nursery	SP	SP	N	N	N	Y	Y	N	N	N	N	N	N	
Recreational facility	SP	SP	N	N	N	N	Y	Y	N	N	Y	Y	PB	
Ski Area	SP	SP	N	N	N	N	N	N	N	N	N	N	N	
Golf course	SP	SP	N	N	N	N	N	N	N	N	N	N	N	
Livery riding stable	Y	Y	N	N	N	N	N	N	N	N	N	PB	PB	
B. PUBLIC SERVICE														
Municipal use	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Public utility	SP	SP	SP	SP	Y	Y	Y	Y	Y	Y	N	N	N	
C.RESIDENTIAL USES														
Detached single-family house (Amended 5-7-17)	Y	Y	Y	N	Y	N	N	N	N	N	N	N	Y <sup>1</sup>	
Two-family house/duplex, provided that the exterior of the dwelling has the appearance of a single-family dwelling (Amended 5-7-17)	N	SP	SP	N	N	N	N	N	N	N	N	N	N	
Infill dwelling unit, subject to Section 8.1.	N	PB	PB	N	N	N	N	N	N	N	N	N	N	
Open space residential development, subject to Section 8.4	PB	PB	N	N	N	N	N	N	N	N	N	N	N	
Assisted living residence facility	PB	PB	N	N	N	N	N	N	N	N	PB	N	N	
Adult retirement community planned unit development, subject to Section 8.5	PB	PB	N	N	N	N	N	N	N	N	N	N	N	
Multi-Family Building, Apartment Building, Rowhouse, and Multi-Family Developments <sup>3</sup> (Amended 11-18-19)	N	N	N	PB	N	N	N	N	N	N	Y <sup>2</sup>	N	Y	Add Rowhouse to the types of multi-family that are allowed
Multi-Family Building, Apartment Building, and Multi-Family Developments <sup>3</sup> (Amended 11-18-19)	Allowed by special permit from the Planning and Economic Development Board in the Multi-Family Overlay District (See Section 5.6.4) and the Medway Mill Conversion Subdistrict (See Section 5.6.2 E).										Y <sup>2</sup>	N	Y	
TABLE 1: SCHEDULE OF USES														
	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
Mixed-Use Development and Mixed Use Building subject to Section 10.0 5.4.1	N	N	N	PB	N	N	N	N	N	N	Y	Y	N	Add Mixed Use Building allowed within the CBD
Long-term care facility	SP	SP	N	N	N	N	N	N	N	N	PB	N	PB	

	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
<b>Accessory Uses</b>														
Accessory family dwelling unit, subject to Section 8.2	SP	SP	SP	N	SP	N	N	N	N	N	N	N	N	
<b>Home-based business, subject to Section 8.3</b>	Y	Y	Y	<del>N</del> Y	Y	N	N	N	N	N	Y	N	Y	As residential units are allowed in the CBD home based business should be as well
Boathouse	Y	Y	N	N	N	N	N	N	N	N	N	N	N	
Greenhouse	Y	Y	Y	N	N	N	N	N	N	N	Y	N	Y	
<b>D. BUSINESS USES</b>														
<b>Retail Trade</b>														
Retail bakery <i>(Added 11-16-15)</i>	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
Retail sales	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
<b>Retail store larger than 20,000 sq. ft.</b>	N	N	N	SP PB	N	N	SP	N	N	N	PB	PB	N	Change SPGA to PEDB as this is more of a site plan review issue
Retail sales, outdoors	N	N	N	N	N	N	Y	N	N	N	N	PB	N	
<b>Shopping center/multi-tenant development</b>	N	N	N	SP PB	N	SP	SP	N	N	N	PB	PB	N	Change SPGA to PEDB as this is more of a site plan review issue
Auto parts	N	N	N	N	N	N	Y	N	N	N	N	N	N	
Florist	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
Indoor sales of motor vehicles, trailers, boats, farm equipment, with accessory repair services and storage, but excluding auto body, welding, or soldering shop <i>(Amended 11-16-20)</i>	N	N	N	N	N	N	N	N	N	N	N	PB	N	
<b>Hospitality and Food Services</b>														
Restaurant providing food within a building, which may include outdoor seating on an adjoining patio	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
Restaurant providing live entertainment within a building, subject to license from the Board of Selectmen	N	N	N	Y	SP	SP	N	N	N	N	Y	Y	N	
Brew pub	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
<b>TABLE 1: SCHEDULE OF USES</b>														
	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
<b>Motel</b> <i>(Amended 11-16-20)</i>	N	N	N	SP PB	N	N	N	N	N	Y	PB	PB	N	Change SPGA to PEDB and require motel design stds in 9.4
<b>Hotel</b> <i>(Amended 11-16-20)</i>	N	N	N	SP PB	N	N	N	N	N	Y	Y	Y	N	Change SPGA to PEDB and require hotel design stds in 9.4
Bed and breakfast	SP	N	N	N	N	N	N	N	N	N	Y	N	PB	
Inn	SP	SP	SP	SP	SP	N	N	N	N	N	Y	N	N	

	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
<b>Cultural and Entertainment Uses</b>														
Studio	N	N	SP	Y	Y	Y	N	N	N	N	Y	Y	N	
Museum	N	N	N	Y	SP	SP	N	N	N	N	Y	PB	N	
Movie theatre/cinema	N	N	N	SP	N	N	N	N	N	N	Y	PB	N	
Gallery	N	N	N	Y	Y	Y	N	N	N	N	Y	PB	N	
Commercial indoor amusement	N	N	N	SP	N	N	Y	Y	Y	Y	Y	Y	N	
<b>Professional Uses and Financial Services</b>														
Financial institution	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
Professional or business office	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	
<b>Services</b>														
Personal care service establishments	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
Service establishment <i>(Amended 11-13-17)</i>	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
Doggie day care	N	N	N	N	N	N	SP	N	N	N	N	Y	N	
Repair shop	N	N	N	⚡ Y	Y	Y	Y	SP	N	N	Y	Y	N	No outdoor storage would be allowed in CBD
Furniture Repair	N	N	N	⚡ Y	Y	Y	Y	SP	N	N	N	Y	N	No outdoor storage would be allowed in CBD
Educational/instructional facility, commercial	N	N	N	Y	Y	Y	Y	Y	N	N	Y	PB	N	
Funeral home	SP	SP	N	SP	Y	Y	Y	N	N	N	N	N	N	
Veterinary hospital	SP	SP	N	⚡ PB	N	Y	Y	N	N	N	N	PB	N	Appropriate in CBD with control on outdoor kennals
Kennel	SP	SP	SP	N	SP	N	SP	SP	N	N	N	PB	N	
Medical office or clinic	N	N	N	Y	Y	Y	Y	N	N	N	Y	Y	N	
Adult day care facility, subject to Section 8.5	PB	PB	N	⚡ SP	N	N	N	N	N	N	N	N	N	Would be convenient for people working or living in or nearby the CBD
<b>Automotive Uses</b>														
Vehicle fuel station with repair services	N	N	N	N	N	N	PB	N	N	N	N	N	N	
TABLE 1: SCHEDULE OF USES														
	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
Vehicle fuel station with car wash	N	N	N	N	N	N	PB	N	N	N	N	N	N	
Car wash	N	N	N	N	N	N	PB	N	N	N	N	PB	N	
Vehicle fuel station with convenience store <sup>4</sup>	N	N	N	⚡ PB	N	N	PB	N	N	N	PB	N	N	Only for <u>existing</u> fuel station/repair/ conv. stores in CBD under Gas Backwards design stds; Maybe under pre-existing non-conforming performance standards (NEEDS FURTHER VETTING)

	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
Vehicle repair	N	N	N	N	PB	N	PB	Y	N	N	N	Y	N	
Auto body shop	N	N	N	N	N	N	PB	Y	N	N	N	Y	N	
Parking Lot <i>(Added 11-16-20)</i>	N	N	N	N	N	N	N	N	N	N	N	N	N	
<b>Other Business Uses: Unclassified</b>														
Adult uses	N	N	N	N	N	N	N	Y	N	N	N	N	N	
<b>Mixed-Use Development subject to Section 10.0 5.4.1</b> <i>(Added 11-16-20)</i>	N	N	N	PB	N	N	N	N	N	N	Y	Y	N	Reference new section
<b>Accessory Uses</b>														
<b>Drive-through facility</b> <i>(Amended 11-16-20)</i>	N	N	N	↔ PB	N	PB	PB	N	N	N	PB	PB	N	Should include design standards in the CBD
Outdoor display	N	N	N	SP	SP	SP	SP	N	N	N	Y	Y	N	
Outdoor storage of materials and parking of vehicles and equipment associated with a business operated in a building on the premises, subject to Section 7.1.3 of the Zoning Bylaw. <i>(Amended 11-16-20)</i>	N	N	N	N	N	N	Y	Y	N	Y	N	PB	N	
<b>E. INDUSTRIAL AND RELATED USES</b>														
Warehouse/distribution facility	N	N	N	N	N	Y	N	Y	Y	Y	N	PB	N	
Wholesale bakery <i>(Added 11-16-15)</i>	N	N	N	N	N	N	N	Y	Y	Y	N	Y	N	
Wholesale showroom or office, including warehouse	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	N	
Manufacturing <i>(Amended 5-8-17)</i>	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	N	
Light Manufacturing <i>(Added 5-8-17)</i>	N	N	N	N	N	Y	Y	Y	Y	Y	N	Y	N	
Contractor's yard	N	N	N	N	N	N	Y	Y	N	N	N	PB	N	
Research and development	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	N	
Brewery	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	N	
<b>TABLE 1: SCHEDULE OF USES</b>														
	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
Research and development and/or manufacturing of renewable energy products <i>(Amended 11-16-20)</i>	N	N	N	N	N	N	Y	Y	Y	Y	N	Y	N	
Bulk Storage <i>(Added 11-18-19)</i>	N	N	N	N	N	N	N	N	N	N	N	N	N	
Electric power generation which includes large- scale ground-mounted solar photovoltaic installations with a rated name plate capacity of 250 kW (DC) or more and other Renewable Energy sources. <i>(Amended 11-16-20)</i>	N	N	N	N	N	N	N	N	Y	N	N	N	N	
Gravel/loam/sand or stone removal, commercial	N	N	N	N	N	N	N	N	N	N	N	N	N	
<b>Accessory Uses</b>														

	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Form-Based Districts			Commentary
											OGVC	OGBP	OGN	
Outdoor storage of materials and parking of vehicles and equipment associated with a business operated in a building on the premises, subject to Section 7.1.3 of the Zoning Bylaw <i>(Amended 11-18-19)</i>	N	N	N	N	N	N	Y	Y	Y	Y	N	PB	N	
<b>F. INSTITUTIONAL USES</b>														
Community center	SP	SP	SP	SP	SP	SP	SP	N	N	N	Y	PB	PB	
<b>Lodge or club</b>	SP	SP	SP	<del>N</del> SP	N	N	N	N	N	N	Y	Y	N	<b>This use is appropriate in the CBD</b>
<b>G. MARIJUANA RELATED USES</b>														
Recreational Marijuana Establishment <i>(Added 3-19-18 and amended 5-21-18)</i>	N	N	N	N	N	N	N	PB	N	PB	N	N	N	
Recreational Marijuana Retailer <i>(Added 3-19-18 and amended 5-21-19)</i>	N	N	N	N	N	N	N	N	N	N	N	N	N	
Recreational Marijuana Social Consumption Establishment <i>(Added 5-21-18)</i>	N	N	N	N	N	N	N	N	N	N	N	N	N	
Registered Medical Marijuana Facility (Retail) <i>(Added 5-21-18)</i>	N	N	N	N	N	N	PB	N	N	N	N	N	N	
Registered Medical Marijuana Facility (Non-retail) <i>(Added 5-21-18)</i>	N	N	N	N	N	N	N	PB	N	PB	N	N	N	

Footnotes:

1. In the OGN District, detached single family homes are permitted if they meet the designs standards for cottages under Section 9.4

2. In the OGVC District **and CB District**, multi-family dwellings and developments include rowhouses (attached single family units) which are subject to the design standards under Section 9.4

3. Allowed by special permit from the Planning and Economic Development Board in the Multi-Family Overlay District (See Section 5.6.4) and the Medway Mill Conversion Subdistrict (See Section 5.6.2 E).

4. Vehicle fuel station with convenience store in the Central Business District (CB) is only allowed on the site of existing site of an vehicle fuel station with convenience store. Any substantial improvement to the existing building(s) or fueling station(s) shall require the site to comply with the design standards of Gas Station and Convenience Store in Section 9, Table 9.4.C.1.B **[NEEDS FURTHER VETTING]**

NOTE –Table 1 was substantially amended at the 11-14-16 Town Meeting. The Oak Grove uses were added at the 11-18-19 Town Meeting.



**TABLE 2. DIMENSIONAL AND DENSITY REGULATIONS**

Requirement	AR-I	AR-II	VR	CB	VC	NC	BI	EI	ER	WI	Commentary
Minimum Lot Area (Sq. Ft.)	44,000	22,500 30,000 <sup>a</sup> <sub>b</sub>	22,500 30,000 <sup>a</sup> <sub>b</sub>	10,000	10,000	20,000	20,000	20,000	20,000	40,000	
Minimum Lot Frontage (Ft.)	180'	150'	150'	50' NA <sup>f</sup>	50'	50'	75'	100'	150'	100'	Frontage req. may deter Res./MU development targeted to the rear which could be on separate lots with an access street
Minimum Setbacks (Ft) <sup>c</sup>											
Front	35'	35'	20' <sup>d</sup>	10'	20' <sup>d</sup>	35'	25'	30'	30'	30'	
Side	15'	15'	10' <sup>d</sup>	10' 25' <sup>e</sup>	10' <sup>d</sup>	15'	15'	20'	20'	20'	
Rear	15'	15'	10' <sup>d</sup>	25'	10' <sup>d</sup>	15'	15'	30'	30'	30'	
Maximum Building Height (Ft.)	35'	35'	35'	40'	40'	40'	40'	60'	40'	60'	
Maximum Lot Coverage (Pct. of lot) (Primary and accessory buildings and structures) – Amended 5-8-17	25%	30%	30%	80%	80%	40%	40%	NA	NA	NA	
Maximum Impervious Coverage (Pct. of lot)	35%	40%	40%	NA	NA	80%	80%	80%	80%	80%	
Minimum Open Space (Pct. of lot)	NA	NA	NA	15%	NA	20%	20%	20%	20%	20%	

**Notes to Table 2**

NA means not applicable

For a two family house. No parking shall be permitted within 10 feet of an adjoining lot line

For a newly constructed two-family house or when a single family detached house is enlarged for 2 family house.

When a nonresidential use abuts a residential use, the first 10 feet within the required side or rear setback of the nonresidential use along the lot line shall be used as a buffer

Or the average setback of the existing primary buildings within 300' of the lot on the same side of the street and within the same zoning district, whichever is less.

When abutting a residential district.

Properties in the Central Business District that do not have frontage on a public street shall be required to have an easement of a least 30 feet in width providing access to a public street.

## SECTION 10. CENTRAL BUSINESS DISTRICT DEVELOPMENT STANDARDS

### [PROPOSED NEW SECTION]

#### 10.1. PURPOSES

- A. To further the goals of the Medway Master Plan.
- B. To encourage mixed-use development in the Central Business District with a balanced and vibrant mix of compatible business uses and multi-family residential development.
- C. To encourage revitalization and economic investment in the Central Business District in a manner which represents the qualities of a traditional New England town center.
- D. To encourage greater variety of housing to meet the needs of a diverse population with respect to income, ability, household types, and stage of life.
- E. To improve walkability within the district and provide better access between housing, shops, services, and employment.

#### 10.2. GENERAL SITE DEVELOPMENT STANDARDS

##### A. Performance Standards.

- 1. Performance Standards: Uses which are allowed in the Central Business District by right or by special permit shall be required to meet the following performance standards:

- a. Vehicle fuel station with convenience store: Only existing fuel stations with repair service or convenience stores in the Central Business District as of (adoption date) may submit a site plan for substantial redevelopment or renovation as a Gas Station and Convenience Store under the development standards on Table 9.4.C.1.B. A special permit is required from the Planning and Economic Development Board.

*Commentary: This proposal to only allow existing as station in the CBD make significant changes needs further analysis. Changes and extensions of nonconformities are governed by c. 40A, §6 and Section 5.5 of ZBL.*

##### B. Main Street Pedestrian Frontage Zone.

- 1. The Main Street Pedestrian Frontage Zone includes all properties with frontage on Route 109/Main Street from the intersection of Pond Street/Elm Street to the west to the driveway of Medfield Commons/Walgreens to the east. These frontages are

prioritized for pedestrian-oriented and active ground floor uses. Buildings fronting on the designated Pedestrian Frontage Zone shall be subject to the following requirements:

- a. Ground floor uses shall be reserved for retail, restaurant, and uses open to the public on an appointment or walk-in basis, including but not limited to personal service, office, repair, and municipal uses (“Publicly Oriented Uses”).
- b. Residential uses and non-residential uses which are not Publicly Oriented Uses shall be allowed to have access from the building frontage zone by an entrance that leads to the upper floors of the building, or by an entrance to the rear of the building.
- c. Residential uses and non-residential uses which are not Publicly Oriented Uses shall be allowed on ground floors where:
  - 1) The use is within a building with frontage on the street and the use is set back a minimum of sixty feet from the street right-of-way line; or
  - 2) The PEDB may waive this requirement if it determines that street-front residential and/or other non-Publicly Oriented Uses will not have an adverse impact on the continuity and vitality of the Publicly Oriented Uses.

### **C. Building Placement and Orientation.**

1. Building Lot and Type: The minimum lot size in the Central Business District is identified on Table 2 - Dimensional and Density Regulations in Section 6.1 of the Zoning Bylaws. For specific building types, there are alternative dimensional standards for building lot and for building design that apply under Section 10.4 below.
2. Number of Buildings: There is no limit on the number of principal buildings allowed on a building lot except as limited by dimensional requirements and other site development standards in this section.
3. Building Stepback and Street Enclosure: Buildings in the Central Business District shall be set back or stepped back from the street right-of-way line in accordance with Table 9.3.B.6 for the Village Center Street Type. Therefore, a building may have to be setback or stepped back further from the street right-of-way line in order to achieve the maximum height allowed. The purpose of this requirement is to enhance the pedestrian environment and prevent excessive enclosure and shadowing on Main Street. The space created by building setbacks is referred to as the Building Frontage Zone and streetscape treatments and outdoor amenities space is highly encouraged. See Section 10.5.B below).

4. Facade Orientation: Buildings located within sixty feet of a street right-of-way line must be built parallel to the street and the front façade and entrance of the building oriented to the public sidewalk. If there is lot area provided between the front building façade and the street right-of-way line (Building Frontage Zone), it must be used for streetscape improvements and/or outdoor amenity space.

#### **D. Parking Requirements.**

1. Purpose and Intent. The purpose and intent in applying parking standards in the Central Business District are as follows:
  - a. To improve walkability by minimizing sidewalk interruptions and conflict points between pedestrians, cyclist, and vehicles on Main Street and on site.
  - b. To ensure adequate parking for existing and new development while minimizing excessive and inefficient off-street parking lots that result in lost opportunities to develop new buildings that expand business and the tax base.
  - c. To encourage the use of public transportation, bicycling, and walking as an alternative to motor vehicle use when a choice of travel mode exists.
2. Applicability. The parking requirements in Section 7.1.1 shall apply to the Central Business District with the following adjustments:
  - a. Off-Street Parking Requirements. In the Central Business District (CB) the minimum number of off-street parking spaces required by use on Table 3 in Section 7.1.1.D. shall be interpreted to be both a minimum and the maximum amount of parking spaces required. A reduction of parking may be allowed by special permit under Section 7.1.1.J. Additional off-street parking spaces shall require a waiver from the Planning and Economic Development Board and the applicant shall demonstrate sufficiently that additional parking is necessary.
  - b. Parking Area Design. In addition to the standards provided in Section 7.1.1.F., the following standards shall be required in the Center Business District:
    - 1) Parking Area Plantings. In parking lots containing 30 or more spaces, a minimum of one deciduous tree and two shrubs exclusive of any required perimeter plantings must be planted for every 3,000 square feet of parking lot. When planted, deciduous trees must be a minimum height of ten feet and/or two and one half (2.5) inches in caliper. Planting areas must each contain not less than 50 square feet of unpaved soil area. Trees and soil plots shall be so located as to provide visual relief and wind interruption within the parking area, and to assure safe patterns of internal circulation.
    - 2) Internal Pedestrian Access. In parking lots with more than 75 spaces, the expanse of pavement shall be interrupted by separating rows of parking

spaces from each other by installing a combined planting strip and sidewalk at least 8 feet in width. Design of these planting strips/sidewalks shall take into account the need to store snow, locate light poles, install deciduous trees, and allow safe pedestrian movement. In addition, if an existing parking lot is expanded to over 75 spaces, planting strips and sidewalks shall be required for the entire lot. All proposals to construct or modify such parking lots shall be reviewed by the Planning and Economic Development Board.

- c. Parking Placement. As an exception to Section 7.1.1.G., All off-street parking shall be located behind or beside buildings located in the Pedestrian Frontage Zone and within 60 feet of the Main Street right-of-way line. Vehicular parking between the front building line and the street right-of-way line is permitted only if the Planning and Economic Development Board grants a special permit and the applicant can demonstrate that no other reasonable alternative exists.
- d. Temporary Use of Off-Street Parking. In addition to provisions for reduced parking in Section 7.1.1.J., excess parking may be reprogrammed and utilized for temporary commercial uses such as for seasonal retail sales, food trucks, farmers' markets, craft shows, live entertainment, auxiliary space for one or more restaurants, and similar commercial uses. A special permit is required by the Planning and Economic Development Board and the applicant shall demonstrate that the excess parking spaces are not necessary to support existing businesses on site, and that the temporary commercial use provides a sufficient level of safety for users.

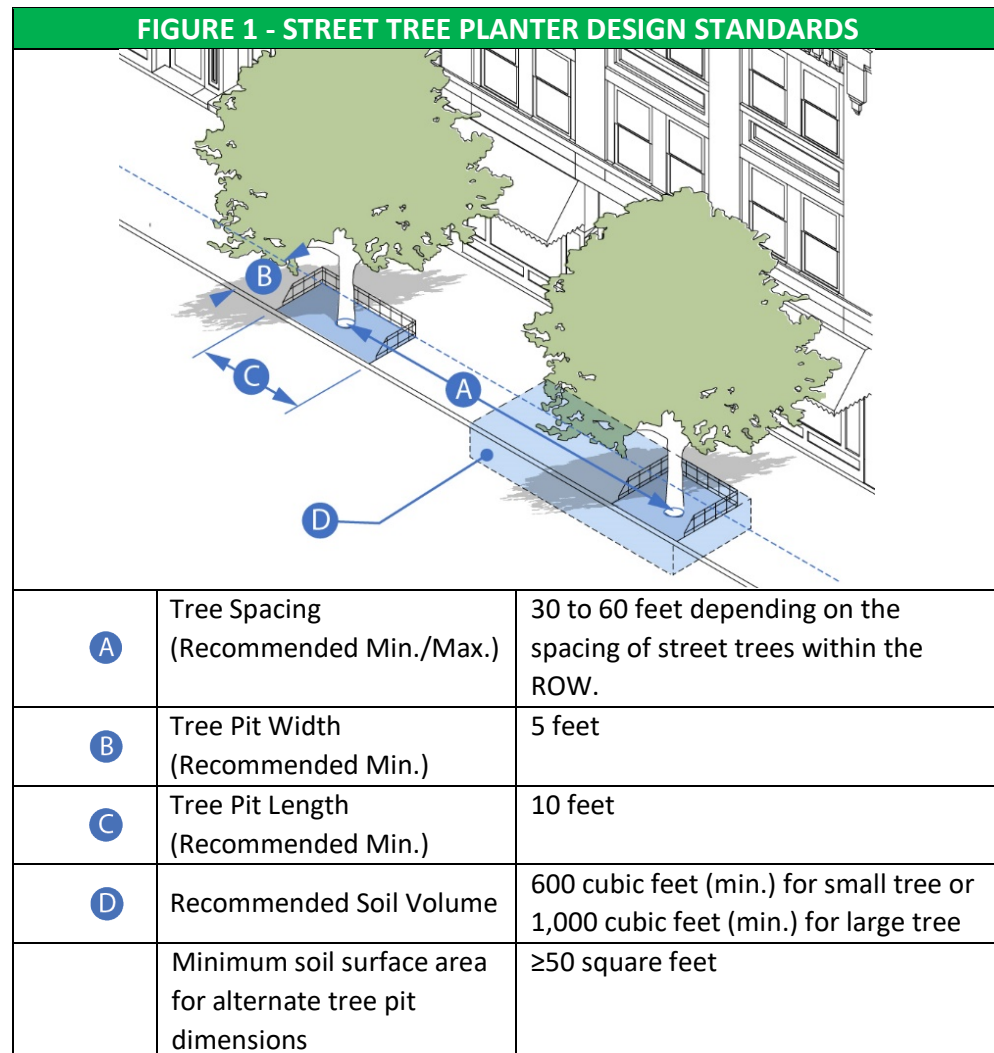
#### **E. Streetscaping, Landscaping and Screening.**

- 1. General Standards. Landscaping shall comply with the Planning and Economic Development Board Rules and Regulations, Chapter 200 - Site Plans – Rules & Regulations for Submission and Review of Site Plans, Section 205-9. In the event of any conflict between the provisions of this bylaw and the provisions of said Regulations, the provisions of this bylaw shall apply.
- 2. Streetscape Treatments. In the Building Frontage Zone between the Main Street right-of-way line and the front facade of the building, streetscape treatments should be coordinated and complimentary to the public sidewalk and streetscape treatments within right-of way.
  - a. Sidewalk Expansion. A concrete walkway or terrace may be installed adjacent to the public sidewalk within the Building Frontage Zone where no landscaping has been installed on the outer edge of the right-of-way, in effect, expanding the public sidewalk. This expansion is required along the entire length of the frontage and connecting to existing or future sidewalk extensions on adjacent



lots.

- b. **Street Trees**. Deciduous street trees may be installed in the Building Frontage Zone that compliment street trees within the street right-of-way. Trees shall be a minimum of 3 1/2" caliper at least 4 feet above grade and of native species common to the area. All trees should be drought and salt tolerant. They should be regularly trimmed to provide clear visibility into the site from the street and provide shade over the walkway.



- c. **Ground Cover**. Low lying and low maintenance grasses, shrubs, bushes, flowers, and similar vegetative materials may be planted evenly adjacent to the street right-of-way line. All ground cover must be maintained at no more than 30 inches to avoid blocking visibility for drivers entering or exiting the site.
- d. **Other Enhancements in the Building Frontage Zone**. Additional treatments and design standards are identified in Section 10.5.B.

3. **Transitional Buffer Requirements**. Transitional buffers are required between

properties in the Central Business District and abutting residential districts to create a compatible transition with the surrounding neighborhoods. Where transitional areas occur, buffers may include a combination of natural or landscaped screening and fencing that provides an opaque visual barrier to a minimum height of eight feet above the ground. All buildings, accessory structures, and loading areas shall be setback a minimum of 75 feet, and parking shall be setback a minimum of 50 feet from the property line along all transitional buffer boundaries.

4. Public Utilities. All new public utilities (except structures and other facilities that require above-grade access) shall be installed underground.
5. Trash and Service Areas.
  - a. All service, loading, trash, and recycling storage areas viewable from a public right of way or from an adjacent residential district shall be screened by one or a combination of masonry, a wood screen, or evergreen plantings to reduce their visual impact.
  - b. Loading and service areas shall not face a residential district unless no other location is feasible.
  - c. Garage doors and loading spaces are prohibited on the street facing façade of any commercial, mixed use, or multi-family building unless no other location is feasible.
6. Sustainable Site Design Standards. Sustainable Design and Low Impact Development (LID) techniques shall be used in the Central Business District to reduce stormwater runoff, improve water quality, maintain canopy tree cover, protect natural landscapes, install appropriate planting materials, and encourage the production of local food. In achieving the requirements of this section, applicants shall comply with sustainable and low impact development techniques provided in the Planning & Economic Development Board Rules and Regulations, Chapter 200 - Site Plans – Rules & Regulations for Submission and Review of Site Plans, Section 205-4; Massachusetts Stormwater Management Standards; and Town of Medway General Bylaws Article XXVI, Stormwater Management and Land Disturbance.

#### **F. Outdoor Amenity Space**

Commentary: Open Space in 5.4.1 has been integrated into this section.

1. General Standard. The amount of outdoor amenity space provided within a site development shall be equal to the minimum amount of open space required in Section 6, Table 2 - Dimensional and Density Regulations of the Zoning Bylaws. Outdoor amenity space shall not include transitional buffer areas, landscaping within

parking areas, or general landscaping along side yard setbacks.

2. Permitted Outdoor Amenity Spaces. The outdoor amenity spaces and associated design standards identified in Table 9.6.B.1. and permitted in the Central Business District are listed below. The total amount of required outdoor amenity space may be any combination of those permitted in the Central Business District.
  - a. Dooryard (Residential Buildings Only)
  - b. Forecourt
  - c. Community Garden (Residential Building Only)
  - d. Courtyard
  - e. Plaza or Square
  - f. Pocket Park or Playground (Residential Building Only)
  - g. Outdoor Dining Terrace
  - h. Rooftop Terrace
3. Building Outdoor Amenity Spaces. Outdoor amenity spaces for individual buildings include rooftop gardens and terraces, decks, porches, stoops, balconies, pedestrian passages, and similar accessory spaces where outdoor seating can be provided.
4. Other OAS Types. Permitted by special permit by the Planning and Economic Development Board.

#### **G. Signs.**

The sign regulations in Section 7.2 shall apply to the Central Business District except for the variations under Public Realm Interface in Section 10.5.B below

### **10.3. MIXED USE DEVELOPMENT STANDARDS**

*Commentary: Section 5.4.1 – Special Permits in the Central Business District has been relocated and integrated into Section 10. Most of the amendments approved at the FTM on 11/16/20 remain in place except for proposed revisions highlighted in yellow below.*

#### **A. Applicability**

1. A Mixed-Use Development may be allowed in the Central Business District by special permit from the Planning and Economic Development Board to include a combination of uses allowed by right and uses allowed by special permit as specified in Table 1 – Schedule of Uses.

2. The provisions of this Section are available by special permit from the Planning and Economic Development Board for uses permitted by right in order to achieve a flexible site design.

**B. Definitions:** See definitions of Mixed-Use Development, Mixed-Use Building, and Multi-Family Building in SECTION 2 DEFINITIONS.

**C. Dimensional Requirements.**

*Commentary: As some mixed use buildings and all residential buildings are likely to be relocated further off Main Street, they may not be located on separate lots. Therefore, it's not be necessary to have dimensional or frontage requirement beyond the basic standard in Table 2 – Dimensional and Density Standards. Also, this draft amendment proposes using the building design standards for rowhouses, multi-family buildings, and mixed use buildings in Section 9.4.C. (See Section 10.4 below) which have their own dimensional standards.*

- a. Mixed Use and Residential Development. The dimensional requirements for the Central Business District are provide in Section 6.1. Schedule of Dimensional and Density Regulations. For residential and mixed use development, the following standards apply.
  - a. Front-yard Setback Encroachments. Principal buildings shall be set back a minimum of 10 feet from the front lot line. Architectural features such as bay windows, porches, balconies, porticos, canopies, etc. shall not be subject to the 10-foot minimum setback.
  - b. Side-Yard and Rear-Yard Setbacks. For lot lines abutting a residential zoning district, 25 feet of which the first 10 feet nearest each lot line shall not be used for the parking or storage of vehicles and shall be suitably landscaped. There is no side-yard or rear-yard setback for properties abutting other properties within the Central Business district.
  - c. Maximum Building Height: Residential and mixed use buildings shall not exceed 60 feet and are subject to the building height stepback requirements in Section 10.2.C.3.

**D. Residential Uses in a Mixed Use Development.**

1. Combination of Uses in a Mixed Use Building. A mixed-use building shall include multi-family residential units and retail, municipal, service, office, commercial or other business uses allowed in the zoning district (hereinafter referred to as “business uses”) in at least the minimum percentage as set forth in Subsection D.2 below.

2. Percentage and Location of Uses in a Mixed Use Building. Except as provided in Section D.4 below, in a two-story building at least 50% of the gross floor area shall be comprised of business uses, and no more than 50% of the gross floor area shall comprise multi-family dwelling units and common areas and support facilities associated with those multi-family dwelling units. In a three-story building, at least 33% of the gross floor area shall be comprised of business uses, and no more than 67% of the gross floor area shall be comprised of multi-family dwelling units and common areas and support facilities associated with those multi-family units. In a building of four stories or more, at least 25% of the gross floor area shall be comprised of business uses, and no more than 75% of the gross floor area shall be comprised of multi-family dwelling units and common areas and support facilities associated with those multi-family units. The gross floor area comprised of business uses may include hallways, lobbies, maintenance areas, security areas, closets, and other areas which serve exclusively the business uses in that building.
3. Residential Use On Ground Floor Exception. Multi-family dwelling units may not be located on the ground floor of a mixed-use building or development unless:
  - i. The building with the multi-family dwelling units is set behind another building which has business uses on the ground floor and a front façade that faces a public way or primary access drive; or
  - ii. The residential portion of the ground floor is set behind the business uses within the same building which has a front façade that faces a public way or primary access drive.
4. Residential Buildings in Mixed Use Development. A mixed-use development may include a building comprised of only multi-family dwelling units and common areas and support facilities associated with those multi-family dwelling units under the following conditions:
  - a. Residential Building Setback. A building comprised of only multi-family dwelling units and common areas and support facilities associated with those multi-family dwelling units shall be set back at least ~~two-one~~ hundred feet from the Main Street right-of way line on the north side and one hundred feet from the Main Street right-of-way line on the south side; and

*Commentary: It's critical to preserve the frontage portion of lot for commercial and mixed uses (with office and residential on the upper floors). The lots on the north side of Main Street are significantly larger and deeper than the south side allowing for larger scale developments. Therefore, a deeper setback for residential buildings on the north side preserves valuable commercial space on front end of the lot whereas the south side lot depth is much less so the 100*



*feet setback for residential buildings is appropriate.*

- b. **Ratio of Residential to Commercial GFA in a Mixed Use Development.** The amount of gross floor area of the building comprised of only multi-family dwelling units and common areas and support facilities associated with those multi-family dwelling units which would otherwise be required by Section D.2 above to include business uses shall be added to the required business uses gross floor area of the other building(s) of the mixed-use development as additional business use space, so that the total amount of gross floor area for business uses in the mixed-use development will equal or exceed the total gross floor area for business uses which would result if no building were devoted solely to multi-family dwelling units.

*Commentary: This requirement will be a deterrent to new development. The proposed alternative standard below ensures that the total GFA footprint of residential buildings is less than 50% of all development on site. Together with the deeper setback of residential buildings in 4.a. above, this ratio requirement ensures that the majority of space on a mixed use development site is preserved for commercial and mixed use. It also encourages residential development to locate in the back third of the lot and be more vertical than horizontal in design, taking advantage of the additional height opportunity.*

- b. **ALTERNATIVE Ratio of Residential to Commercial GFA in a Mixed Use Development.** The cumulative amount of gross floor area of the footprint of residential buildings shall be less than the cumulative amount the footprint of a commercial and mixed use buildings in a mixed use development.

5. **Limit on Number of Bedrooms.** No more than 10 percent of the total number of a mixed-use development's residential dwelling units shall have more than two bedrooms.
6. **Affordability Requirements.** The provisions of Section 8.6. Affordable Housing shall apply to Mixed-Use Developments.

**E. Special Permit Review Criteria:**

1. Special permits granted under this Section 10.3 are not subject to the special permit criteria under Section 3.4.
2. Before granting a special permit for a mixed-use development or flexible site design of a permitted use in the Central Business district, the Planning and Economic Development Board shall find that all of the following criteria are met:
  - a. The proposed uses and site design represent the qualities of a traditional New England town center;

- b. The proposed site design is environmentally sound and is readily accessible to and useable by pedestrians;
- c. The proposed site design reflects and advances the goals and objectives of the Medway Master Plan as updated;
- d. Adequate pedestrian and (where applicable) vehicular linkages within the site and connecting to abutting properties are provided;
- e. Streets, driveways, sidewalks, landscaped areas and public services are laid out in a safe manner;
- f. Any detrimental impacts of the use on abutting properties and/or residential neighborhoods have been adequately mitigated; and
- g. The site design incorporates the site's existing topography and protects natural features to the maximum extent possible.

~~**F. Design Requirements.** The Planning and Economic Development Board shall adopt Central Business District Special Permit rules and regulations to administer this Section 10.3, including submission requirements and procedures and Central Business District design guidelines. Such guidelines may include any or all of the following:~~

- ~~1. Façade design for buildings visible from public ways;~~
- ~~2. Vehicular or pedestrian connections to abutting commercial or residential areas;~~
- ~~3. Provision of pedestrian amenities; and~~
- ~~4. Sustainability, i.e., efficient resource use throughout a building's life cycle from siting to design, construction, operation, maintenance, renovation and deconstruction.~~

*Commentary: This subsection may not be necessary with the proposed Section 10.4 below.*

## **10.4. BUILDING TYPES AND DESIGN STANDARDS**

### **A. Building Façade Composition and Architectural Features.**

- 1. Building Transparency: Street facing façades shall have windows and doors with highly transparent, low reflectivity glass measured on the ground floor between two feet and twelve feet. Upper floor transparency may vary with use.
- 2. Building Articulation and Modulation: Street-facing building façades should be vertically articulated with architectural bays to create an equal, central, or end articulated façade composition. Street-facing building façades should be horizontally articulated with a clearly defined base, middle, and top. See Diagram 9.3.C.2.

3. Surface Relief with Architectural Features: Street-facing building façades should provide surface relief through the use of bay windows, cladding, columns, corner boards, cornices, door surrounds, moldings, piers, pilasters, sills, sign bands, windows, and other architectural features that either recess or project from the average plane of the façade by at least four inches. See Diagram 9.3.C.3.

**B. Exterior Treatments.**

Unless otherwise required by the State Building Code, Fire Code, or other regulation, traditional construction materials such as brick, stone, clapboard, and shingle are suggested construction materials. Other contemporary construction materials such as glass, metal, block, and other siding materials may be appropriate in certain instances when compatible with more traditional materials. The main elements of the architectural treatment of the building's street-facing façade, including the materials used, should be continued around all sides of the building that are visible from existing streets or Outdoor Amenity Spaces.

**C. Commercial, Residential and Mixed Use Building Types.**

1. Building Design Standards: The building types and associated design standards permitted in the Central Business District are identified below:
  - a. Rowhouse (RH) on Separate Lot (See TABLES 9.4.C.1.A).
  - b. Rowhouse (RH) on Common Lot (See TABLES 9.4.C.1.A).
  - c. Multi-Family Building (See TABLES 9.4.C.1.A).
  - d. Mixed Use Building (See TABLES 9.4.C.1.B).
  - e. General Commercial Building (See TABLES 9.4.C.1.B).
  - f. Hotel (See TABLES 9.4.C.1.B).
  - g. Gas Station and Convenience Store (See TABLES 9.4.C.1.B).
  - h. Civic or Community Building (See TABLES 9.4.C.1.C).
2. Alternative Building Types: If a new building is proposed that cannot be classified as one of the allowed building types of this section by the Building Commissioner, the building type is subject to special permit review by the Planning and Economic Development Board.

**10.5. PUBLIC REALM STANDARDS**

**A. Access Street Design Standards.**

Access streets provide internal site access from existing public streets in the Central

Business District. Access streets shall be engineered and constructed in accordance with the design standards in Section 7 of the Medway PEDB Land Subdivision Rules and Regulations. In the event of any conflict between the provisions of this bylaw and the provisions of said Regulations, the provisions of this bylaw shall apply. Access streets must have a minimum cross section of twenty-four feet with two travel lanes and at least one sidewalk connecting the public sidewalk with the front entrance of a primary building on site. Access streets may also include sidewalks on both sides, on-street parking, street trees, curb extensions, and crosswalks under the design standards in Section 9.7.B and as illustrated in DIAGRAM 9.7.B.5.

## **B. Public Realm Interface**

1. Building Frontage Zones. A Building Frontage Zone is the setback space between the street facing façades of the building and the street right-of-way line (See DIAGRAM 9.7.C.1.). Utilization of the Building Frontage Zone should provide a compatible transition and interface between the private realm (on site buildings and uses) and the public realm (sidewalks, streets, and civic spaces). Outdoor Amenity Spaces are required in the Building Frontage Zone, and building interfaces are also encouraged within the Central Business District.
2. Building Interface with Main Street ROW Line. Selected building interfaces and related interactive components on TABLE 9.7.C.2. may be permitted with a special permit from the Planning and Economic Development Board in the Building Frontage Zone (BFZ) when they contribute to vibrant spaces for the enjoyment of the public and do not interfere with the public sidewalk. Standards for permissible building interfaces are set forth in TABLE 9.7.C.2. and allowed in the Central Business District as follows:
  - a. Sidewalk Dining (Building Frontage Zone only)
  - b. Storefront Display (Building Frontage Zone only)
  - c. Sidewalk Sign (Building Frontage Zone only)
  - d. Projecting Sign (Building Frontage Zone and over the public sidewalk)
  - e. Awning (Building Frontage Zone only)
  - f. Balcony (Building Frontage Zone only)
  - g. Bay Window (Building Frontage Zone only)
  - h. Gallery (Building Frontage Zone only)

## **DRIVE-THROUGH FACILITIES AND SERVICES – DRAFT BYLAW**

All buildings and uses that provide drive-through service shall require a Special Permit and comply with the provisions of this section.

### **1. Locational Standards**

- a) To preserve the pedestrian orientation and streetscape character of certain zoning districts and street corridors, drive-through facilities are required to obtain a special permit in the following zoning districts:
  - 1) Central Business District (CB).
- b) All facilities related to drive-through service, including transaction windows, menu boards, and speakers, shall be located a minimum of one hundred fifty (150) feet from any residential zoning district or existing dwelling unit. All drive-through lanes and escape lanes shall be located a minimum of seventy-five (75) feet from any residential zoning district or existing dwelling unit.
- c) Expansion or modification of pre-existing, legally established drive-through uses within the aforementioned residential buffers is allowed provided that modifications or expansion of such facilities does not further encroach on the neighboring residences.
- d) Business uses authorized by special permit to include drive-through service shall be limited to one drive-up window or device, one drive-up lane not exceeding ten (10) feet in width, and one bypass lane not exceeding ten (10) feet in width.
- e) The maximum width of the paved area at the drive-up window or device shall be twenty-four (24) feet, including the bypass lane.
- f) The drive-up window or device shall be located to the rear or side of the building. No drive-up window or device shall be located in front of the primary building(s).

### **2. Design Standards**

- a) Drive-through lanes, bypass lanes, and stacking lanes are prohibited between the primary building(s) and the street right-of-way line. This provision shall not apply to drive-thrus serving interior buildings of a multi-building site.
- b) Pedestrian access shall be maintained and prioritized across any intersecting drive through lane through provision of a concrete walkway or other similar treatment that emphasizes the pedestrian routes between parking areas and buildings in order to provide a safe and comfortable pedestrian crossing.



- c) All driveway entrances, including stacking lane entrances, must be at least 50 feet from an intersection. The distance is measured along the property street right-of-way line from the junction of the two street lot lines to the nearest edge of the entrance.
- d) Entrances to drive-through, stacking and escape lanes should be located a minimum of forty (40) feet from any driveway that provides access to the lot.
- e) Drive-through and escape lanes shall comply with the following minimum length requirements:
  - 1) Fast Food Restaurant and Coffee Shop - 180 feet
  - 2) Financial Institution, Pharmacy, Convenience Store - 80 feet
  - 3) Dry Cleaner and Laundry Service - 60 feet

**3. Special Permit Review Criteria:** The Planning and Economic Development Board shall be the Special Permit Granting Authority (SPGA) for drive-through services and facilities. In addition to the special permit criteria described in Section 3.4, the following criteria shall be considered:

- a) Proximity to residential uses and potential impacts to residents resulting from proposed drive-through design and operating characteristics.
- b) Whether the proposed site layout will have a detrimental effect on the street facade, require excessive driveway curb cuts, or adversely impact the pedestrian environment.
- c) Screening of the drive-through service and lanes from the fronting street.
- d) Lighting and noise levels resulting from drive-through service.



**February 9, 2021**  
**Medway Planning & Economic Development Board**  
**Meeting**

**Redgate Subdivision Performance**  
**Security Discussion - UPDATED**

- SAC notes dated 2-8-21
- Excerpts from 11-10 and 11-24-20 PEDB meeting minutes
- Title Report – January 2021
- Definitive Subdivision Plan 1987
- 11-4-20 CONFIDENTIAL email from Barbara Saint Andre
- 11-4-20 email note from Michael Bruce
- 8-25-20 email from Dave D'Amico with DPW notes from its July 2020 field inspection
- **2-9-21 email from Dave D'Amico re: 11-4-20 email from Michael Bruce**

It's time to revisit the Redgate subdivision issue. You last discussed this at the 11-24-20 PEDB meeting at which time you decided to go ahead and order title work. The title report has been received and is provided for your review.

You need to decide whether you are inclined to find the subdivision in default. If so, then I will need to prepare a detailed motion for your consideration at the next PEDB meeting on 2-23-21. If not, you may vote Tuesday night to refund the performance security.

## **Red Gate Performance Security**

SAC notes (2-8-21)

Determination of Default?? PEDB needs to decide. See minutes of November 10 and November 24<sup>th</sup> PEDB meetings.

If no, then decide to refund Performance Security. (Balance is \$13,055.23 as of 12-31-20 at Rockland Trust)

Taxes owed the Town on 2 Redgate Drive - \$9,367.44 (as of 10-14-20)

## **Street Acceptance**

Title Report

- Red Gate Realty Trust owns the streets and 2 Redgate Drive (drainage parcel). They have agreed to provide deeds to the Town.
- We need to obtain drainage and utility easements on Lots 11, 14 and 15 from the home owners as part of the street acceptance process.
- Title report cost \$2,350. We have funds available in the street acceptance account to cover this.

Street Acceptance Plan

- There is no street acceptance plan. Red Gate developer states this was provided to the Town a long time ago. Cannot be located. The engineering company who did the original plan no longer exists. We are waiting to hear from Lee Smith at KP Law whether the recorded definitive subdivision plan from 1987 will suffice for street acceptance purposes.

# Memo

**to:** Lee S. Smith, Esq.  
**from:** Michael H. Marsh, Esq.  
**date:** January 20, 2021  
**subject:** Red Gate Estates, Medway, Subdivision Plan 613 of 1987 at Plan Book 354 (hereinafter referred to as the "Subdivision Plan") (a copy of which is attached as Exhibit A to this Memo)  
**tasks:** 1. Determination of fee interest in the following subdivision streets:  
a. Hay Field Road aka Field Road  
b. Briar Lane  
c. Bramble Patch Way aka Bramble Road  
d. Red Gate Drive aka Redgate Drive  
e. Fern Path  
2. Provide title examination of Subdivision Lots 1, 14 and 15 with respect to anticipated easement agreements with the Town

**MMOG File No. 56266**

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Please be advised of the following:

## **Fee Ownership in Subdivision Streets**

1. We confirmed that record ownership of the fee interests in the above-referenced streets is vested in Jonathan M. Bruce and Robert P. Grant, Trustees of the Red Gate Estates Realty Trust udt dated November 3, 1987 and recorded at Book 7790, Page 652, by virtue of deed dated November 3, 1987 and recorded at Book 7790, Page 658 (hereinafter referred to as the "Subdivision Developer").
2. Said Subdivision Developer reserved the fee interest in the deeds of the subdivision lots. Reference is made to the following deeds:

	<u>Lot No.</u>	<u>Plan Reference</u>	<u>Source of Title</u>
a.	2	Plan No. 613 of 1987	Book 9313 Page 232
b.	3	Plan No. 613 of 1987	Book 9274 Page 375

c.	4	Plan No. 613 of 1987	Book 8657 Page 443
d.	5	Plan No. 613 of 1987	Book 9377 Page 591
e.	6	Plan No. 613 of 1987	Book 8220 Page 171
f.	7	Plan No. 613 of 1987	Book 8081 Page 150
g.	8	Plan No. 613 of 1987	Book 8140 Page 509
h.	9A	Plan No. 1193 of 1988	Book 8176 Page 709
i.	10A	Plan No. 1193 of 1988	Book 8191 Page 632
j.	11	Plan No. 613 of 1987	Book 9378 Page 13
k.	12	Plan No. 613 of 1987	Book 9378 Page 13
l.	13	Plan No. 613 of 1987	Book 9362 Page 685
m.	14	Plan No. 613 of 1987	Book 8604 Page 701
n.	15	Plan No. 613 of 1987	Book 8289 Page 557
o.	16	Plan No. 613 of 1987	Book 8454 Page 571
p.	17	Plan No. 613 of 1987	Book 8298 Page 233
q.	18	Plan No. 613 of 1987	Book 8595 Page 489
r.	19	Plan No. 613 of 1987	Book 9228 Page 470
s.	20A	Plan No. 304 of 1992	Book 9378 Page 13
t.	21A	Plan No. 304 of 1992	Book 9378 Page 13
u.	22	Plan No. 613 of 1987	Book 9378 Page 13
v.	23	Plan No. 613 of 1987	Book 8112 Page 377
w.	25	Plan No. 613 of 1987	Book 8107 Page 304
x.	26	Plan No. 613 of 1987	Book 8069 Page 207
y.	27	Plan No. 613 of 1987	Book 9320 Page 343
z.	28	Plan No. 613 of 1987	Book 9330 Page 201

You will note that certain of the lots were further subdivided as evidenced by the plan references above.

3. Said Subdivision Developer remains the record owner of Lot 1 on Plan 613 of 1987.
4. With respect to the fee interest in Red Gate Drive, please note Plan 613 of 1987 does not show Red Gate Drive as being contiguous and extending to Holliston Street. You will note that the easterly boundary of Red Gate Drive ends at the easterly boundary of Lot 1 and Lot 28. The review of said plan shows a separate strip of land that extends easterly from the terminus of Red Gate Drive as shown on Plan 613 of 1987 approximately 207 feet to Holliston Street. You will note that there are lots on either side of this strip of land, which lots are identified on Plan 613 of 1987 as n/f Columbo and n/f Ranahan. Said Columbo and Ranahan lots are not part of the Red Gate Subdivision.

This strip of land is also shown as Lot A on Plan 668 of 1986 at Book 7049, Page 535. This strip of land was conveyed by Columbo to Paul E. Wilson and Lenore R. Wilson by deed dated April 24, 1986 and recorded at Book 7049, Page 535. Note that the Wilsons were the predecessors in title to the Subdivision Developer



and, subsequently, the Wilsons in their deed at Book 7790, Page 658 conveyed the fee interest in the streets which included the fee interest in this strip of land.

**Lot 1 on Plan 613 of 1987, “The Drainage Parcel”**

5. We confirmed that the record ownership of Lot 1 is vested in Jonathan M. Bruce and Robert P. Grant, Trustees of the Red Gate Estates Realty Trust udt dated November 3, 1987 and recorded at Book 7790, Page 652, by virtue of deed dated November 3, 1997 and recorded at Book 7790, Page 658 (the “Subdivision Developer”).
6. Said Lot 1 is encumbered by the following record encumbrance:
  - a. Drainage easement area shown on the Subdivision Plan

**Lot 14 on Plan 613 of 1987 (16 Field Road)**

7. We confirmed that record ownership of Lot 14 is vested in Paul R. Knueven and Karen M. Knueven, husband and wife, tenants by the entirety, by virtue of deed dated July 6, 1995 and recorded at Book 10953, Page 402.
8. Said Lot 14 is encumbered the following record encumbrances:
  - a. Mortgage to Middlesex Savings Bank dated February 16, 2019 and recorded at Book 36659, Page 394.
  - b. 25-foot wide utility easement shown on the Subdivision Plan.
  - c. Declaration of Homestead by Paul R. Knueven dated March 6, 2003 and recorded at Book 18374, Page 303.

**Lot 15 on Plan 613 of 1987 (18 Field Road)**

9. We confirmed that the record ownership of Lot 15 is vested in Mark H. Murphy and Amanda L. Redash, husband and wife, tenants by the entirety, by virtue of deed dated April 22, 2020 and recorded at Book 37799, Page 346.
10. Said Lot 15 is encumbered the following encumbrances:
  - a. Mortgage to Digital Federal Credit Union dated April 23, 2020 and recorded at Book 37799, Page 348.
  - b. 25-foot wide utility easement shown on the Subdivision Plan.
  - c. Declaration of Homestead by Mark H. Murphy and Amanda L. Redash dated April 23, 2020 and recorded at Book 37799, Page 364.

### **Miscellaneous Notes**

11. All of the subdivision lots are subject to the following:
  - a. Easement granted to New England Telephone & Telegraph Company et al dated April 13, 1988 and recorded at Book 7976, Page 165.
  - b. Easement to use the subdivision ways and including utility easements granted to Narducci Corp. dated June 2, 1987 and recorded at Book 7599, Page 88.
  - c. Order of Conditions issued by the Medway Conservation Commission dated August 7, 1987 and recorded at Book 7692, Page 43 encumbers the Subdivision, as affected by Certificate of Compliance recorded at Book 8101, Page 731.
  - d. Planning Board Covenant dated January 13, 1987 and recorded at Book 7599, Page 84, as affected by the following documents:
    - i. Release of Covenant and Conditions dated July 26, 1988 and recorded at Book 8061, Page 602;
    - ii. Revocation of Release of Covenant dated October 23, 1990 and recorded at Book 8776, Page 311;
    - iii. Release of Covenant and Conditions dated January 22, 1991 and recorded at Book 8844, Page 483;
    - iv. Release of Covenant and Conditions dated February 12, 1991 and recorded at Book 8863, Page 729; and
    - v. Agreement Between Medway Planning Board and Red Gate Estates Realty Trust dated October 8, 1991 and recorded at Book 9069, Page 382.
12. All of the Subdivision Lots have the benefit of the following:
  - a. The benefit of the 25-foot wide easement running easterly from Lovering Street and extending across lots 14 and 15 on the subdivision plan.
  - b. The benefit of easements for the construction of a way situated at the terminus of Howe Street granted by Narducci Corp. to Paul R. Wilson, predecessor in title to the Subdivision Developer, dated June 2, 1987 and recorded at Book 7599, Page 87.
  - c. Together with the benefit of rights and easements to use all the subdivision ways and streets as set forth in the deeds of the Subdivision Lots.

13. In the deed from the Subdivision Developer to Precision Development, Inc. dated June 10, 1992 and recorded at Book 9378, Page 13, the Subdivision Developer reserved certain temporary easements 20 feet wide along the abutting streets. This deed conveyed the following properties:
  - a. 11 Field Road (Lot 11 on Plan 613 of 1987)
  - b. 12 Field Road (Lot 12 on Plan 613 of 1987)
  - c. 1 Briar Lane (Lot 20A on Plan 304 of 1992)
  - d. 18 Bramble Road (Lot 21A on Plan 304 of 1992)
  - e. 19 Bramble Road (Lot 22 on Plan 613 of 1987)
14. With respect to the street names, reference is made to the following:
  - a. The Subdivision Plan and the Subdivision deeds reflect inconsistencies with respect to the names of the Subdivision streets.
  - b. The Subdivision Plan shows Hay Field Road but the deeds refer to said street as Field Road.
  - c. The Subdivision Plan shows Red Gate Drive but the deeds refer to Redgate Drive.
  - d. The Subdivision Plan shows Bramble Path but said deeds refer to Bramble Road.
15. The deed out of the Subdivision Developer of the following lots reserved temporary construction easements:
  - a. Deed of Lot 3 (Book 9362, Page 685);
  - b. Deed of Lot 5 (Book 9377, Page 591);
  - c. Deed of Lot 28 (Book 9330, Page 201);
  - d. Deed of Lot 27 (Book 9320, Page 343);
  - e. Deed of Lot 2 (Book 9313, Page 232);
  - f. Deed of Lot 3 (Book 9274, Page 375);
  - g. Deed of Lot 15 (Book 8289, Page 557); and
  - h. Deed of Lot 17 (Book 8298, Page 233).

NOTE: OUR FINDINGS ARE THROUGH JANUARY 11, 2021

(Reflecting our title research dating back to the 1987 deed into the Subdivision Developer recorded at Book 7790, Page 658)

Copies of the above-referenced deeds and plans are enclosed.



- Draft Lot Release for the Board's approval and signature

The Board was made aware that the office had been contacted by the attorney involved with the sale of 8 Partridge Street. The closing attorney cannot find any record of a lot release at the Registry of Deeds and has requested this from the Board. A lot release document was provided.

**On a motion made by Rich Di Iulio, seconded by Tom Gay, the Board voted by roll call to approve the lot release for 8 Partridge Street. The motion passed unanimously.**

**Roll Call Vote:**

<b>Matthew Hayes</b>	<b>aye</b>
<b>Rich Di Iulio</b>	<b>aye</b>
<b>Andy Rodenhiser</b>	<b>aye</b>
<b>Tom Gay</b>	<b>aye</b>

Board members who are able are asked to come to the PEDB office to sign the lot release document.

**RED GATE SUBDIVISION – PERFORMANCE SECURITY AND STREET ACCEPTANCE:**

The Board is in receipt of the following: (See Attached)

- Letter dated 11-2-20 to Michael Bruce
- PEDB response letter Michael Bruce dated 11-4-20
- DPW site inspection report dated 7-14-20.

The Board is in receipt of a letter from Michael Bruce requesting that the performance security be released for the Red Gate Subdivision. Michael Bruce was present via ZOOM. The DPW has provided an inspection report. The subdivision covenant from January 1984 was also provided in which the developer agreed to abide by the requirements of the Subdivision Rules and Regulations. This includes the provision of an as-built plan. The Board currently does not have the as-built or street acceptance plan. The developer has communicated that this was previously provided to the Town. Mr. Bruce has indicated that the developer will provide deeds to convey 2 Redgate Drive (drainage parcel) and the various streets to the town. The Board would like to get the deeds and check the language regarding the road before the performance security is released. There was discussion if the applicant provided the deed then they would not be responsible to make the repairs noted in the DPW report. There has been no documentation to confirm that Red Gate Realty owns the fee in the road. Barbara Saint Andre was present via ZOOM. She will check the deed. The Board would like to continue this until the November 24, 2020 meeting. There was no action taken.

**PEDB MEETING MINUTES:**

**October 27, 2020:**

**On a motion made by Rich Di Iulio and seconded by Matt Hayes, the Board voted by Roll Call to approve the PEDB meeting minutes of October 27, 2020. The motion passed unanimously.**



## **RED GATE SUBDIVISION PERFORMANCE SECURITY – CONTINUED**

### **DISCUSSION:**

The Board is in receipt of the following document: (**See Attached**)

- Email dated 11-19-20 from Attorney Lee Smith of KP Law.

Michael Bruce, representing developer Redgate Realty Trust, was present via ZOOM. The Board was informed that Town Counsel has advised that title searches should be conducted on the Red Gate subdivision parcels to determine if the developer retained the fee in the streets and various easements and drainage parcel. The cost to do this is between \$1,000.00 - \$4,500.00. The drainage easement also needs to be reviewed. Susy Affleck-Childs noted that the Board could consider using some of the performance security proceeds to cover the cost of the title searches.

Mr. Bruce noted that the developer had retained the fee in the streets and was prepared to convey to the Town.

**On a motion made by Bob Tucker, seconded by Rich Di Iulio, the Board voted by Roll Call to have title work done on the Redgate Subdivision.**

### **Roll Call Vote:**

Matthew Hayes	aye
Bob Tucker	aye
Rich Di Iulio	aye
Andy Rodenhiser	aye

## **PEDB MEETING MINUTES:**

The Board is in receipt of the following document: (**See Attached**)

- Draft minutes of the 11-10-20 PEDB meeting

### **November 10, 2020:**

**On a motion made by Rich Di Iulio and seconded by Matt Hayes, the Board voted by Roll Call to approve the PEDB meeting minutes of November 10, 2020 as presented.**

### **Roll Call Vote:**

Bob Tucker	aye
Andy Rodenhiser	aye
Matt Hayes	aye
Rich Di Iulio	aye

## **CONSTRUCTION REPORTS:**

The Board is in receipt of the following Tetra Tech documents: (**See Attached**)

- 21 Trotter Drive – Report #3 11-04-20
- 21 Trotter Drive – Report #4 11-10-20
- Millstone Village – Report #84 10-27-20
- Millstone Village – Report #85 10-28-20

**Teng Solutions, LLC  
1006 Winding River Lane  
Phoenixville, PA 19460**

November 4, 2020

SENT VIA EMAIL TO SACHILDS@TOWNOFMEDWAY.ORG AND VIA USPS FIRST CLASS MAIL

Town of Medway Planning & Economic Development Board  
Attention: Susan E. Affleck-Childs, Planning & Economic Development Coordinator  
155 Village Street  
Medway, MA 02053

Dear Ms. Affleck-Childs:

I am writing on behalf of Red Gate Estates Realty Trust, the developer of the Red Gate Estates subdivision located between Holliston Street and Lovering Street. I have received Mr. Rodenhiser's letter of November 2, 2020 and offer the following responses to the portions that are italicized below:

*Aside from the expected wear and tear and the absence of any ongoing maintenance in 30+ years, the DPW identified that the stormwater drain line installation in the roadway at 19 Bramble was set too high.*

**Response: Regardless of DPW's estimation in 2020, all work was inspected and approved at the appropriate time, during construction, by the Town's consulting Professional Engineer. Please refer to the attached "Inspector's Record of Work Progress" of July 23, 1992. This report clearly indicates that the "drain pipes, manhole & catch basins" were duly inspected, found to be properly installed, and were "OK to backfill," per the Town's consulting Professional Engineer. As you know, the Town would not permit backfilling and paving had infrastructure been installed improperly.**

**It is significant that no complaint with respect to this structure was lodged by the Town until July of 2016. It is preposterous to think that the structure was installed improperly, higher than the surrounding asphalt, yet the defect went unnoticed for nearly a quarter of a century.**

*We also note that Red Gate Estates Realty Trust owns 2 Redgate Drive, shown as Lot-1 on the Red Gate Estates Subdivision Plan; the parcel is approximately 62,944 square feet in area and contains a stormwater basin. The Medway Treasurer/Collector has notified the Board that real estate taxes are owed on that parcel; the outstanding amount is \$9,367.44...*

**Despite the opinion of the Town Treasurer / Collector, according to the developer's counsel, the Town has no authority to withhold the release of the performance bond due to purported back taxes.**

**Lot-1 is entirely encumbered by wetlands replication and a stormwater management detention pond and appurtenances. It has always been expected that this land would be conveyed to the Town as part of the road acceptance. The developer is prepared to do so, and pursuant to M.G.L. Chapter 60, Section 77C, the Town has the ability to accept a deed in lieu of foreclosure.**

Overall, it is important to remember that acceptance of Red Gate Estates is still a Board topic in 2020 because a disgruntled abutter filed a frivolous lawsuit decades ago. According to the Town's verbal and written guidance since then, that litigation was the only obstacle in the way of road acceptance. As the lawsuit was dismissed over a year ago, I again renew the developer's request for the Town to fulfill its obligation to the developer by releasing the bond and to the residents of Red Gate Estates by finally accepting the subdivision.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael Bruce', with a long, sweeping horizontal line extending to the right.

Michael Bruce, PE  
Manager

cc via USPS: Red Gate Estates Realty Trust

**TOWN OF MEDWAY, MA  
PLANNING BOARD**

**P. M. P. ASSOCIATES**  
**CIVIL ENVIRONMENTAL ENGINEER**  
76 ASHLEY DR., E. BRIDGEWATER, MA 02333  
TELEPHONE 508 - 378 - 4519

**INSPECTOR'S RECORD OF  
WORK PROGRESS**

DATE: 7-23-92

M T W (TH) F SA

PROJECT NAME: Redgate Estates  
CONTRACTOR: \_\_\_\_\_

**SUMMARY OF**

**CONSTRUCTION:** Drain pipes, Manhole & catch  
basins installed on stub road. Trench  
left open for today's review. Ok to  
backfill.

Reviewed sidewalk grades w/ J. Bruce. Sidewalks  
are to pitch toward gutterline. Side slopes beyond  
sidewalk will have to be adjusted.

Bit. Conc. Binder to be cut back at radius and  
gravel placed where roadway base not  
constructed.

Slope granite curbing expected next week

**DIAGRAMS:**

PLANNING BOARD AGENT: Michael Perreault PAGE 1 OF 1

CC: PLANNING BOARD  
J. Bruce

DEPT. OF PUBLIC SERVICES

## Susan Affleck-Childs

---

**From:** Susy Affleck-Childs <susyac@comcast.net>  
**Sent:** Saturday, August 29, 2020 12:15 PM  
**To:** Susan Affleck-Childs  
**Subject:** FW: Redgate subdivision  
**Attachments:** Redgate Subdivision.docx

---

**From:** David Damico [mailto:ddamico@townofmedway.org]  
**Sent:** Tuesday, August 25, 2020 5:36 PM  
**To:** Susy Affleck-Childs  
**Cc:** Peter Pelletier; Jack Tucker  
**Subject:** FW: Redgate subdivision

Susy,

Not really sure where to go here, but I'll give you some ideas.

- The drain at 19 Bramble is the only "defect" we found. The problem is that the drain line installation is set too high. It isn't possible to adjust the catchbasin any lower to accept stormwater and function properly. The only real fix is to remove the existing drain and reinstall it at a lower depth. That's a \$100,000 project. An alternative possibility, if soils allow, is to install a cultek chamber at the end of the road and use it to infiltrate water in this area. That's about \$30,000 if conditions allow.
- Everything else is just old age. Sidewalks are about a \$80 per foot to remove and replace. All are in fair condition, so I wouldn't be too concerned here at this point.
- Redgate, Briar, and the original Field Road are in need of reclamation and paving. I'm seeing about 2,400 ft. I'd guess about \$250,000 for these roads. Of course doing them without touching the rest of the development will cause a revolt by the residents. Adding the rest (accept for Howe and Fern Path) with maybe a mill and overlay will get you to \$500K. Doing everything with sidewalks is a \$1 million effort easy.

These are back of the envelope numbers. If you need a more detailed estimate it will have to wait until I return.

Thanks,

Dave  
Medway DPW Director  
Town of Medway  
45B Holliston Street  
Medway, MA 02053  
508-533-3275  
Check us out on-line at [www.townofmedway.org](http://www.townofmedway.org)

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**From:** David Damico  
**Sent:** Monday, July 27, 2020 5:56 PM



**To:** Susan Affleck-Childs <sachilds@townofmedway.org>

**Cc:** Peter Pelletier <ppetier@townofmedway.org>

**Subject:** FW: Redgate subdivision

Susy,

This is from Jack Tucker. Looks like we have one area that does need to be fixed. Want me to get some numbers on that?

Thanks,

Dave

Medway DPW Director

508-533-3275

Check us out on-line at [www.townofmedway.org](http://www.townofmedway.org)

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---

**From:** Jack Tucker <[jtucker@townofmedway.org](mailto:jtucker@townofmedway.org)>

**Sent:** Tuesday, July 14, 2020 10:59 AM

**To:** David Damico <[ddamico@townofmedway.org](mailto:ddamico@townofmedway.org)>; Peter Pelletier <[ppetier@townofmedway.org](mailto:ppetier@townofmedway.org)>

**Subject:** Re: Redgate subdivision

Dave,

Here is what we found in The Redgate subdivision.

---

**From:** David Damico <[ddamico@townofmedway.org](mailto:ddamico@townofmedway.org)>

**Sent:** Thursday, July 9, 2020 11:43 AM

**To:** Jack Tucker <[jtucker@townofmedway.org](mailto:jtucker@townofmedway.org)>

**Cc:** Peter Pelletier <[ppetier@townofmedway.org](mailto:ppetier@townofmedway.org)>

**Subject:** FW: Redgate subdivision

Jack,

Another old sub-division they are trying to accept. The attached plan shows the roads for this one. As usual, make a complete list of what you see. Since the developer is looking to get money returned, It's important to note anything we feel was installed sub-par to begin with. 30 years of age will take a normal toll, but if there are deficiencies with the road surface, curbing, sidewalk, drainage, etc. likely caused by the initial installation, that's a bigger issue.

Planning has no money for TetraTech on this, but if you feel you need some help, let me know and we can work something out with him.

Thanks,

Dave

Medway DPW Director

508-533-3275

Check us out on-line at [www.townofmedway.org](http://www.townofmedway.org)

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**From:** Susan Affleck-Childs <[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)>  
**Sent:** Wednesday, June 24, 2020 12:43 PM  
**To:** David Damico <[ddamico@townofmedway.org](mailto:ddamico@townofmedway.org)>  
**Cc:** Barbara Saint Andre <[bsaintandre@townofmedway.org](mailto:bsaintandre@townofmedway.org)>; Andy Rodenhiser <[andy@rodenhiser.com](mailto:andy@rodenhiser.com)>  
**Subject:** Redgate subdivision

Hi Dave,

We have been contacted by the developer of the Redgate subdivision. This is a longstanding subdivision dating back to 1987; the streets have never been accepted (Redgate and Briar in full and portions of Field Road, Fern Path and Bramble). See attached subdivision map with the streets highlighted.

The original developer was Jonathan Bruce, now being represented by his son Michael Bruce. The subdivision had been the subject of a lawsuit brought many years ago against the Town and the developer by an abutter (George Carem). This past fall, the court finally dismissed the lawsuit for inaction.

Michael Bruce has requested return of the bond funds (\$13,000 +/-) and street acceptance by the Town.

Of course there are no funds left in the construction account for the subdivision for us to retain Tetra Tech to do an inspection.

Could you arrange for somebody from DPW to inspect the subdivision and prepare a report/punch list of conditions of the roads, sidewalks, curbs, etc. What kind of shape are these streets in? How do the stormwater facilities look?

Thanks.

*Susy*

**Susan E. Affleck-Childs**  
**Planning and Economic Development Coordinator**  
**Town of Medway**  
**155 Village Street**  
**Medway, MA 02053**  
**508-533-3291**

## Redgate Subdivision

### **Redgate Dr**

The road asphalt is in very poor condition, which is not unusual for a road that is over 30 year old.

Sidewalks in fair condition. Drainage looks like it was installed correctly.

### **Briar Ln**

The road asphalt is in very poor condition. Sidewalks in fair condition, Drainage installed correctly.

### **Field Rd.**

The section road from Briar Ln around the circle is in good condition. The section from Briar Ln to Howe St is in poor condition. Sidewalks in fair condition.

Drainage looks like it was installed correctly.

### **Fern Rd.**

The road and sidewalks are in fair condition, showing its age. Drainage looks like it was installed correctly.

### **Bramble Rd.**

The road and sidewalks are in fair condition, showing its age.

The drainage at the end of Bramble appear to have been installed too high. The catch basins in front of number 19 are above the asphalt. They have a 4" frame and grate set on the top of the structure. The outlet pipe are about 12" below the top of the frame. With all the water not entering the catch basin we have had flooding problems.

The subdivision is 30+ years old and is showing its age. Other than the drainage on Bramble Rd. the normal wear and tears, everything else seems to be fine.

Thank You,

Jack Tucker

Medway DPW

Highway Superintendent

## Susan Affleck-Childs

---

**From:** David Damico  
**Sent:** Tuesday, February 9, 2021 1:56 PM  
**To:** Barbara Saint Andre  
**Cc:** Peter Pelletier; Susan Affleck-Childs; Michael Boynton  
**Subject:** RE: Red Gate Subdivision - Response from developer

I see a few problems with this response.

Response: Regardless of DPW's estimation in 2020, all work was inspected and approved at the appropriate time, during construction, by the Town's consulting Professional Engineer. Please refer to the attached "Inspector's Record of Work Progress" of July 23, 1992. This report clearly indicates that the "drain pipes, manhole & catch basins" were duly inspected, found to be properly installed, and were "OK to backfill," per the Town's consulting Professional Engineer. As you know, the Town would not permit backfilling and paving had infrastructure been installed improperly.

The actual comment from the inspector is this

<b>SUMMARY OF CONSTRUCTION:</b> <i>Drain pipes, Manhole &amp; catch basins installed on stub road. Trench left open for today's review. OK to backfill.</i>
---

The author puts a lot of words into the inspectors mouth. All he said was that drain pipes, manhole & catch basins are installed, reviewed, and ok. The inspector does not give details of his inspection so we do not know to what degree that was. Field inspections at this time would generally be for quality of construction, proper materials used, and general pitch of the structures to function per design. It does not and cannot speak to the final installed height of the basin at this time. The DPW notes that

“The drainage at the end of Bramble appear to have been installed to high. The catch basins in front of number 19 are above the asphalt. They have a 4” frame and grate set on the top of the structure. The outlet pipe are about 12” below the top of the frame. With all the water not entering the catch basin we have had flooding problems.”

The installation as described would meet minimum standards and pass an inspection, however it does lead to a potential problem that would not be visible at this stage of construction and not be evident with a cursory inspection. A complete and proper installation would have one or two layers of bricks set between the frame and grate and the structure. This allows for 2” of adjustment down if needed to insure the set height is accurate. Final set height cannot be determined until backfill is completed and final grading is performed. This then allows for top of asphalt to be determined and final adjustment of frame and grates to ensure proper function. The Town would not perform an additional inspection until binder course of asphalt is down. At that time, the contractor would know to lower the frame and grate (not possible in this case) or adjust the final paving course thickness to allow the drain to function.

The Town would review the installation again at time of bond release request to insure proper function. Ultimately, proper function is the responsibility of the developer and the Town would not release a bond nor accept a road where the install was incorrect. The developer would be given this as a punch list item to correct prior to release. That repair is up to the developer to perform with a final inspection by the Town when completed.

The author also states:

It is significant that no complaint with respect to this structure was lodged by the Town until July of 2016. It is preposterous to think that the structure was installed improperly, higher than the surrounding asphalt, yet the defect went unnoticed for nearly a quarter of a century.

Referring to my comments above on the installation process, it is not "that the structure was installed improperly, higher than the surrounding asphalt," but rather that the surrounding asphalt was installed lower than the structure. The DPW notes that there have been flooding problems. The Town installed a work order management system in 2012. There were no formal mechanisms to record complaints prior to this time. I suspect that after a few years of living with the situation, residents understood that the Town did not own the property and would not be correcting installation errors. There is no point in complaining continuously for 20 years to the wrong party. The Town no doubt instructed them to contact the developer who, as the author points out, ignored the defect for a quarter of a century.

In summary, the referenced inspection report is too early in the process to make any claim that the final installation was satisfactory. It is in fact, installed improperly.

Thanks,

Dave  
Medway DPW Director  
Town of Medway  
45B Holliston Street  
Medway, MA 02053  
508-533-3275  
Check us out on-line at [www.townofmedway.org](http://www.townofmedway.org)

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**From:** Barbara Saint Andre <bsaintandre@townofmedway.org>  
**Sent:** Tuesday, February 9, 2021 12:41 PM  
**To:** David Damico <ddamico@townofmedway.org>  
**Cc:** Peter Pelletier <ppelletier@townofmedway.org>; Susan Affleck-Childs <sachilds@townofmedway.org>; Michael Boynton <mboynton@townofmedway.org>  
**Subject:** FW: Red Gate Subdivision - Response from developer

Dave, the Planning and Economic Development Board has Red Gate's request for release of its subdivision surety on its agenda for tonight. Selectman Crowley has seen your comments regarding the state of the roadways, and wanted to know if you have seen the response from Red Gate, attached, stating that the catch basin in question was inspected and approved back in 1992, and whether you believe the PEDB has any grounds for denying the request, or any other comments.

Thanks!

**Barbara J. Saint Andre**  
**Director, Community and Economic Development**  
**Town of Medway**  
**155 Village Street**  
**Medway, MA 02053**  
**(508) 321-4918**



**From:** Michael Bruce [<mailto:m@tenld.com>]  
**Sent:** Wednesday, November 4, 2020 8:04 AM  
**To:** Susan Affleck-Childs <[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)>  
**Cc:** J. M. Bruce <[jbruce@armidainc.com](mailto:jbruce@armidainc.com)>  
**Subject:** Re: Red Gate Subdivision

Good morning Susan,

I've attached my response letter. Please note my updated mailing address.

Due to the late notice, I have another commitment that evening, but I'll do my best to participate.

Sincerely,

Michael Bruce

On Mon, Nov 2, 2020 at 9:20 AM Susan Affleck-Childs <[sachilds@townofmedway.org](mailto:sachilds@townofmedway.org)> wrote:

Good morning, Michael.

Please see attached letter which is also being sent to you via certified mail.

Please let me know if you have any questions.

Best regards,

*Susy Affleck-Childs*

Susan E. Affleck-Childs

Planning and Economic Development Coordinator

Town of Medway

155 Village Street

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