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730 Main Street

Suite 2C

Millis, MA 02054

June 17, 2019

Zoning Board of Appeals  
Town Hall  
155 Village Street  
Medway, MA 02053

Ref: 39 Main Street  
Comprehensive Permit  
DPS Comments

Dear Members of the Board:

We are in receipt of comments from the Department of Public Services (DPS) dated April 23, 2019 and offer the following responses for the Board's consideration.

*1. Comment: Behind house #'s 41-49 there appears that there will be an area that will flood along the property lines with the retaining wall. Does there need to be added drainage behind the retaining wall?*

**Response:** We reviewed the area in question and we believe DPS is satisfied with the grading as proposed.

*2. Comment: The stormdrain system in general needs to be checked for adequacy. It could potentially be undersized.*

**Response:** The stormdrain system has been reviewed by the Town's consultant, Tetra Tech.

*3. Comment: The stormwater drainage design must support the ability to inspect and clean all major components. Some of the structures appear to have limited access.*

**Response:** The underground infiltration fields have manholes located at each inlet and outlet for ease of access. Additionally, the fields have inspection ports per the manufacturer's specifications.



4. *Comment: No Fire Hydrants? At least one for flushing is recommended.*

**Response:** Fire hydrants have been added to the site per discussions with the Medway Fire Department.

5. *Comment: A separate fire service line from Main Street should be provided.*

**Response:** A separate fire service line has been added to the site plan per discussions with the Medway Fire Department.

6. *Comment: The water lines go into each end of the buildings. The layout of the water system within the building must show some detail. Fire service must be isolated from potable water supply.*

**Response:** The revised plans now show separate domestic and fire services, which will enter the building at the mechanical room.

7. *Comment: The valve before the Tee that feeds the building isn't in a good location as it completely shuts down water service to the building. A valve on each side shutting down one side or the other may be better depending on the internal configuration. See next comment.*

**Response:** The water services have been reconfigured, including additional gate valves.

8. *Comment: Metering the building; we would require a master meter. Due to the amount of units it would be best to either sub-meter or at least have shutoffs for each unit or in blocks of units to check for leaks and to isolate parts of the building in Emergency situations.*

**Response:** The metering system for the building has not yet been determined. This will be addressed at the time of building permit issuance.

9. *Comment: The gas service and water line cannot be in the same trench.*

**Response:** These two services have been separated on the revised plan.

10. *Comment: There should be some modeling done to see how the town's water distribution system will be affected by adding an 8" water main off the current water main which is also an 8" line.*

**Response:** A fire flow test has been conducted (attached) indicating adequate pressure and flows to the site. The Town has a consultant who has already modelled the Town's water system. If the town has a concern about capacity in the area, DPS indicated that this consultant can add the proposed use into the model to assess impacts.



11. *Comment: What are the water and sewer demands?*

**Response:** The development consists of 190 units with a total of 323 bedrooms. Title V peak design rates are 110 gpd for each bedroom, or half that for average flow, resulting in a total average daily flow of 17,765 gpd. Water demand is typically 5% higher than sewer discharges, resulting in an expected average daily flow of approximately 18,500 gpd.

12. *Comment: Reminder that there is no irrigation off the town's water supply. A well will need to be installed if there is going to be an irrigation system. Also, if there is a well, no part of it can be stored inside the footprint of the building. It must be totally physically isolated from the Town's system.*

**Response:** Potential well locations have been added to sheet C-8 of the plan set and a utility note added to specify that municipal water cannot be used for irrigation.

13. *Comment: Is there any curbing being installed along Main street on the south side of the road? If so, drainage may have to be installed depending on the road slopes at the location.*

**Response:** Curbing will not be added to Main Street per discussions with DPS.

14. *Comment: Permits required: Street, Water/Sewer & Trench*

**Response:** This is understood by the Applicant.

15. *Comment: All work in the public way must be permitted by the Medway Department of Public Services. The Town generally follows MassDOT and MUTCD design standards. 26" covers on all manholes.*

**Response:** This is understood by the Applicant.

16. *Comment: A crosswalk is proposed from new sidewalk east of the development across the street to existing sidewalk west of Lee Lane. This sidewalk from Lee Lane to Richardson Street is in poor condition and will need improvements to install a crosswalk landing area at the very least.*

**Response:** The applicant is providing funds for sidewalk improvements at the crosswalk and surrounding areas.

17. *Comment: On the drawings please follow the Town of Medway's water/Sewer rules and regulations. Details should reference the specific detail within the regulations or note that they deviate from the regulations. Any deviations should be requested in writing for approval. Informal discussions in advance with the Water & Sewer Superintendent are encouraged.*



**Response:** A few of the details were changed accordingly and notes added to reference the Town's specifications.

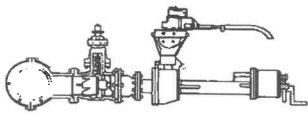
Do not hesitate to contact me if you have any questions or comments.

Sincerely,

LEGACY ENGINEERING LLC

Daniel J. Merrikin P.E.  
President

cc: File



# John Hoadley and Sons, Inc.

- Water Works Specialist -

672 Union Street  
Rockland, MA. 02370  
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## FLOW TEST REPORT

Town of: Medway, MA

Name of Applicant:	<u>Merrikin Engineering</u>	Phone Number:	<u>508-376-8883</u>
Address:	<u>730 Main Street Suite 2C</u>	City:	<u>Millis</u> State: <u>MA</u>
Date:	<u>10/30/2018</u>	Time of Test:	<u>10:00AM</u>
Location of Test:	<u>39 Main Street , Medway, MA</u>		

Distance between Hydrant #	<u>1</u>	and Hydrant #	<u>2</u>	is	<u>430</u>	feet.
Elevation of Hydrant # 1			Elevation of Hydrant # 2			
Coefficient:			Size of Main :	<u>8" Flow 6" Static</u>		

Hydrant #	<u>1</u>	Static:	<u>78</u> PSI	Residual:	<u>74</u> PSI
Location:	<u>2 Lee Ln</u>				
Manufacture/ Type of Hydrant :	<u>Mueller</u>	Size:	<u>4 1/4 "</u>	Year:	<u>1959</u>
Flow Hydrant #	<u>2</u>	Static:	<u>78</u> PSI	Residual:	<u>70</u> PSI
Location:	<u>Across street from Thunder Hill Rd</u>				
Manufacture/ Type of Hydrant :	<u>Mueller</u>	Size:	<u>4 1/4"</u>	Year:	<u>1964</u>
Pitot Tube	<u>1410</u>	GPM	Time Flow: <u>1 Minute</u>		
Flow					

Test Conducted by: Bob Coyle & Jim Malone

Inspector or Witness of Flow Test : Paul (Signature on file)