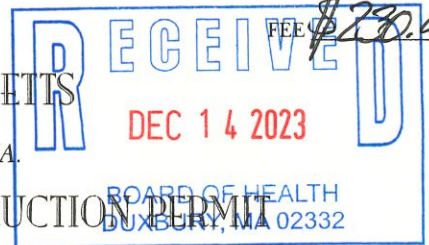


No. 2023-82

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Duxbury, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



Application for a Permit to Construct () Repair Upgrade Abandon () - Complete System Individual Components

Location <u>97 Wellington Lane</u>	Owner's Name <u>David Marsocci</u>
Map/Parcel# <u>911</u>	Address <u>23 Edward Dr Pembroke</u>
Lot# <u>35</u>	Telephone# <u>617-304-2418</u>
Installer's Name	Designer's Name <u>Collins Civil Eng. Group, Inc.</u>
Address	Address <u>225 So. Main St., W. Bridgewater</u>
Telephone#	Telephone# <u>(508) 580-2332</u>

Type of Building Single family dwelling Lot Size 41,300 sq. ft.
 Dwelling - No. of Bedrooms 3 Garbage grinder ()
 Other - Type of Building _____ No. of persons _____ Showers (), Cafeteria ()
 Other Fixtures _____
 Design Flow (min. required) 330 gpd Calculated design flow 330 Design flow provided 414 gpd
 Plan: Date 12/6/2023 Number of sheets 1 Revision Date _____
 Title Plan and details subsurface sewage disposal system upgrade
 Description of Soil(s) 0-6" Fill/A; 6-24" Loamy F Sand; 24-140" M-C Sand
 Soil Evaluator Form No. 11 Name of Soil Evaluator G.R. Collins Date of Evaluation 11/14/2023

DESCRIPTION OF REPAIRS OR ALTERATIONS install new 1500 gallon septic 2 compartment tank, Distribution box and 20.0' X 28.0' pipe and stone leaching field

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed _____ Date _____

Inspections _____

No. 2023-82

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Duxbury, MA.

CERTIFICATE OF COMPLIANCE

Description of Work: Individual Component(s) Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed (), Repaired , Upgraded , Abandoned ()

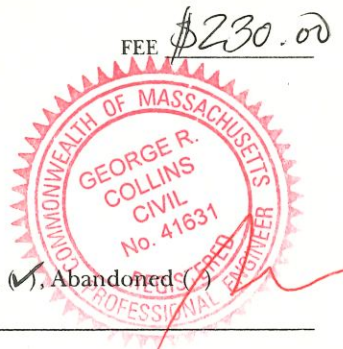
by: _____
at 97 Wellington Lane

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. 2023-82 dated 12/14/2023 Approved Design Flow 330 (gpd)

Installer: _____

Designer: _____ Inspector: _____ Date: _____

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.



No. 2023-82

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Duxbury, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to: Construct () Repair Upgrade Abandon () an individual sewage disposal system at 97 Wellington Lane as described in the application for Disposal System Construction Permit No. 2023-82, dated 12/14/2023

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

COLLINS CIVIL ENGINEERING GROUP, INC.

225 South Main Street
West Bridgewater, MA 02379
Tel: 508-580-2332
GRCPE@AOL.COM



December 6, 2023

Duxbury Board of Health
878 Tremont Street
Duxbury, MA 02332

Reference: Local Upgrade Approval and Local Regulation Variance Request for
Septic System Repair.
97 Wellington Lane, Duxbury, MA


Dear Board Members:

On behalf of David Marsocci (applicant), Collins Civil Engineering Group, Inc. requests the following local upgrade approval pursuant to Massachusetts General Law 310 CMR 15.

1. Local Upgrade Approval from section 310 CMR 15.221 of the State Sanitary Code which requires a maximum 36" of cover over all system components. A local upgrade approval allowing up to 48" of cover over the SAS is requested (Leaching field and H-20 Distribution box only, Vented leaching field provided).

If I may be of any further assistance regarding this matter, please contact me at my office at the number above.

Sincerely,


George R. Collins, P.E.
Chief Engineer



Commonwealth of Massachusetts

City/Town of Duxbury

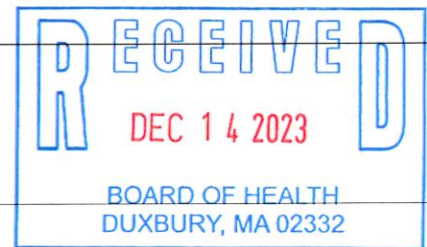
Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

Form 9A is to be submitted to the Local Board of Health for the upgrade of a failed or nonconforming septic system with a design flow of less than 10,000 gpd, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

System upgrades that cannot be performed in accordance with 310 CMR 15.404 and 15.405, or in full compliance with the requirements of 310 CMR 15.000, require a variance pursuant to 310 CMR 15.410 through 15.415.

NOTE: Local upgrade approval shall not be granted for an upgrade proposal that includes the addition of a new design flow to a cesspool or privy, or the addition of a new design flow above the existing approved capacity of an on-site system constructed in accordance with either the 1978 Code or 310 CMR 15.000.



A. Facility Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Facility Name and Address:

Name: 97 Wellington Lane
Street Address: Duxbury MA 02332
City/Town: Duxbury State: MA Zip Code: 02332

2. Owner Name and Address (if different from above):

Name: David Marsocci Street Address: 97 Wellington Lane
City/Town: Duxbury State: MA
Zip Code: 02332 Telephone Number: 617-304-2418

3. Type of Facility (check all that apply):

[X] Residential [] Institutional [] Commercial [] School

4. Describe Facility:

Single family dwelling

5. Type of Existing System:

[] Privy [] Cesspool(s) [X] Conventional [] Other (describe below):

6. Type of soil absorption system (trenches, chambers, leach field, pits, etc):

leaching pit



Commonwealth of Massachusetts

City/Town of Duxbury

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information (continued)

7. Design Flow per 310 CMR 15.203:

Design flow of existing system:	unknown
	gpd
Design flow of proposed upgraded system	414
	gpd
Design flow of facility:	330
	gpd

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):

[X] Voluntary [] Required by order, letter, etc. (attach copy)

[] Required following inspection pursuant to 310 CMR 15.301: _____ date of inspection

2. Describe the proposed upgrade to the system:

Installation of a new 1,500 gallon, 2-compartment septic tank, h-20 distribution box, and a vented 20' x 28' pipe and stone leaching bed and associated piping.

3. Local Upgrade Approval is requested for (check all that apply):

[] Reduction in setback(s) – describe reductions:

[] Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

[] Reduction in separation between the SAS and high groundwater:

Separation reduction _____ ft.

Percolation rate _____ min./inch

Depth to groundwater _____ ft.



Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

B. Proposed Upgrade of System (continued)

Relocation of water supply well (explain):

Reduction of 12-inch separation between inlet and outlet tees and high groundwater

Use of only one deep hole in proposed disposal area

Use of a sieve analysis as a substitute for a perc test

Other requirements of 310 CMR 15.000 that cannot be met – describe and specify sections of the Code:

Local Upgrade Approval from section 310 CMR 15.221 of the State Sanitary Code which requires a maximum 36" of cover over all system components. A local upgrade approval allowing up to 48" of cover over the SAS is requested

(Leaching field and H-20 Distribution box only, Vented leaching field provided).

If the proposed upgrade involves a reduction in the required separation between the bottom of the soil absorption system and the high groundwater elevation, an Approved Soil Evaluator must determine the high groundwater elevation pursuant to 310 CMR 15.405(1)(h)(1). ***The soil evaluator must be a member or agent of the local approving authority.***

High groundwater evaluation determined by:

Evaluator's Name (type or print)

Signature

Date of evaluation

C. Explanation

Explain why full compliance, as defined in 310 CMR 15.404(1), is not feasible. (Each section must be completed)

1. An upgraded system in full compliance with 310 CMR 15.000 is not feasible:

Due to topographic, groundwater, and existing house location.

2. An alternative system approved pursuant to 310 CMR 15.283 to 15.288 is not feasible:

Alternative system would not address existing site restrictions.



Commonwealth of Massachusetts

City/Town of Duxbury

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

C. Explanation (continued)

3. A shared system is not feasible:

Alternative system would not address existing site restrictions.

4. Connection to a public sewer is not feasible:

No public sewer is available.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):

[X] Application for Disposal System Construction Permit

[X] Complete plans and specifications

[X] Site evaluation forms

[] A list of abutters affected by reduced setbacks to private water supply wells or property lines. Provide proof that affected abutters have been notified pursuant to 310 CMR 15.405(2).

[X] Other (List):

Soil Logs

D. Certification

"I, the facility owner, certify under penalty of law that this document and all attachments, to the best of my knowledge and belief, are true, accurate, and complete. I am aware that there may be significant consequences for submitting false information, including, but not limited to, penalties or fine and/or imprisonment for deliberate violations."

David Marrocci

Facility Owner's Signature

12/12/23

Date

Print Name

George R. Collins, PE

Name of Preparer

225 South Main Street

Preparer's address

MA 02379

State/ZIP Code

12/12/23

Date

West Bridgewater

City/Town

508-580-2332

Telephone



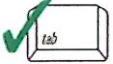
Commonwealth of Massachusetts
 City/Town of Duxbury
Local Upgrade Approval
Form 9B

DEP has provided this form for use by local Boards of Health if they choose to do so.

The Local Upgrade Approval is to be completed by the local Board of Health and a signed copy provided to the system owner.

A. Facility Information

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Facility Name and Address

Name
 97 Wellington Lane
 Street Address
 Duxbury MA 02332
 City/Town State Zip Code

2. Owner Name and Address (if different from above):

David Marsocci 97 Wellington Lane
 Name Street Address
 Duxbury MA
 City/Town State
 02332 617-304-2418
 Zip Code Telephone Number

3. Type of Facility (check all that apply):

Residential Institutional Commercial School

4. Design flow per 310 CMR 15.203: 330
 gpd

5. System Designer: George R. Collins, P.E. PE RS
 Name
 225 South Main Street West Bridgewater MA 02379
 Address City/Town State, ZIP

B. Approval

1. Local Upgrade Approval is granted for:

Reduction in setback(s) – specify:

Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction



Commonwealth of Massachusetts
 City/Town of Duxbury
Local Upgrade Approval
 Form 9B

B. Approval (continued)

- Reduction in separation between the SAS and high groundwater:

Separation reduction _____ ft.

Percolation rate _____ min./inch

Depth to groundwater _____ ft.

- Relocation of water supply well (explain):

- Reduction of 12-inch separation between inlet and outlet tees and high groundwater
- Use of only one deep hole in proposed disposal area
- Use of a sieve analysis as a substitute for a perc test

List local variances granted not requiring DEP approval per 310 CMR 15.412(4):

Local Upgrade Approval from section 310 CMR 15.221 of the State Sanitary Code which requires a maximum 36" of cover over all system components. A local upgrade approval allowing up to 48" of cover over the SAS is requested
 (Leaching field and H-20 Distribution box only, Vented leaching field provided)

List variances granted requiring DEP approval:

 Approving Authority

 Print or Type Name and Title

 Signature

 Date

Date of Evaluation: November 14, 2023

Commonwealth of Massachusetts
Duxbury, Massachusetts

Soil Suitability for On-site Sewage Disposal

Performed By: George R. Collins, P.E., Collins Civil Engineering Group, Inc.

Witnessed By: Tracy Mayo, Duxbury Board of Health

Location Address or Lot #	97 Wellington Lane Duxbury, MA	Owner's Name Address, and Telephone #	David Marsocci 97 Wellington Lane Duxbury, MA 02332 617-304-2418
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New Construction _____

Repair X

Office Review

Published Soil Survey Available: No _____ Yes X

Year Published 1969

Publication Scale 1:20,000

Soil Map Unit Hinckley gravelly loamy sand (HaC) 8-15% slopes

Drainage Class Excessively drained

Soil Limitations None

Surficial Geologic Report Available: No X Yes

Year Published NA

Geologic Material

Landform

Flood Insurance Rate Map:

Above 500 year flood boundary No _____ Yes X

Within 500 year flood boundary No X Yes

Within 100 year flood boundary No X Yes

Wetland Area:

National Wetland Inventory Map (map unit)

Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS):

Month November 2023

Range: Above Normal _____ Normal X Below Normal _____

Other References Reviewed: None

Determination of Seasonal high Water Table

Method Used:

X Depth observed standing in observation hole _____ inches
 Depth weeping from side of observation hole _____ inches
 Depth to soil mottles >120" Inches
 Groundwater adjustment _____ Feet

Index Well Number _____ Reading Date _____ Index Well Level _____

Adjustment factor _____ Adjusted groundwater level _____

Depth of Naturally Occurring Pervious Material

Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? Yes

If not, what is the depth of naturally occurring pervious material? NA

Certification

I certify that in May 1999 I have passed the examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature _____ Date _____


George R. Collins

Title 5 On-site Report

97 Wellington Lane Duxbury

Deep Hole Number TP-1 Date: 11-14-23 Time: 9:00 AM Weather clear
 Location (Identify on site plan) _____
 Land Use residential Slope (%) 0-10 Surface Stones _____
 Vegetation lawn
 Landform _____
 Position on Landscape (sketch on the back): _____
 Distance from:
 Open Water Body n/a feet Drainage way n/a feet
 Possible Wet Area n/a feet Property Line see plan feet
 Drinking Water Well n/a feet Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structures, Stones, Boulders Consistency, % Gravel)
0-6"		Fill/A			
6-24"	Bw	Loamy F. Sand	10YR 5/6	none	
24-140"	C	M-C Sand	2.5Y 6/3	at 120"	

Parent Material (geologic) _____ Depth to Bedrock: >140"
 Depth to Groundwater: Standing water in the Hole: none Weeping from Pit Face: none
 Estimated Seasonal High Ground Water: 120"

DETERMINATION OF SEASONAL HIGH WATER TABLE

Method Used:
 _____ Depth observed standing water in obs. Hole: _____ in. Depth to soil mottles: 120" in.
 _____ Depth to weeping from side of obs. hole: _____ in. _____ Groundwater adjustment: _____ in.
 Index Well # _____ Reading Date _____ Index well level _____ Adj. Factor _____ Adj. Groundwater level _____

PERCOLATION TESTS

Observation Hole# TP-1
 Depth of Perc 24-42"
 Start Presoak/Time @ 9:20
 End Presoak 9:35
 Time at 9" 9:36
 Time at 6" 9:38
 Time (9"-6") 2 minutes
 Rate (min/inch) <2

Performed By: George R. Collins, P.E., Collins Civil Engineering Group, Inc.

Witnessed By: Tracy Mayo, Duxbury BOH

Title 5 On-site Report

97 Wellington Lane Duxbury

Deep Hole Number TP-2 Date: 11-14-23 Time: 9:00 AM Weather clear

Location (Identify on site plan) _____ Slope (%) 0-10 Surface Stones _____

Land Use residential _____

Vegetation lawn _____

Landform _____

Position on Landscape (sketch on the back): _____

Distance from: _____

Open Water Body	<u>n/a</u>	feet	Drainage way	<u>n/a</u>	feet
Possible Wet Area	<u>n/a</u>	feet	Property Line	<u>see plan</u>	feet
Drinking Water Well	<u>n/a</u>	feet	Other	_____	

DEEP OBSERVATION HOLE LOG					
Depth from Surface (inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structures, Stones, Boulders Consistency, % Gravel)
0-8"		Fill/A			
8-40"	Bw	Loamy F. Sand	10YR 5/6	none	
40-140"	C	M-C Sand	2.5Y 6/3	at 124"	

Parent Material (geologic) _____ Depth to Bedrock: >140"

Depth to Groundwater: Standing water in the Hole: none Weeping from Pit Face: none

Estimated Seasonal High Ground Water: 124"

DETERMINATION OF SEASONAL HIGH WATER TABLE

Method Used:

_____ Depth observed standing water in obs. Hole: _____ in. Depth to soil mottles: 124" in.

_____ Depth to weeping from side of obs. hole: _____ in. _____ Groundwater adjustment: _____ in.

Index Well # _____ Reading Date _____ Index well level _____ Adj. Factor _____ Adj. Groundwater level _____

PERCOLATION TESTS

Observation Hole# see TP-1

Depth of Perc _____

Start Presoak/Time @ _____

End Presoak _____

Time at 9" _____

Time at 6" _____

Time (9"-6") _____

Rate (min/inch) _____

Performed By: George R. Collins, P.E., Collins Civil Engineering Group, Inc.

Witnessed By: Tracy Mayo, Duxbury BOH