

NOTICE OF PUBLIC MEETING SUDBURY CONSERVATION COMMISSION Monday, August 12, 2024 at 7:00 PM Virtual Meeting

The Sudbury Conservation Commission will hold a public meeting to review the Request for Determination of Applicability filing under the Wetlands Protection Act and the Sudbury Wetlands Administration Bylaw to replace patio and walkway, install a french drain, repair a retaining wall, remove trees, and install native plantings within the 100-foot Buffer Zone at 92 Blueberry Hill Lane, in Sudbury, MA. Stephen Ruddy, Applicant. The meeting will be held on Monday, August 12, 2024 at 7:00 pm, via Zoom.

Copies of the application may be reviewed on the Conservation Department web page at:

https://sudbury.ma.us/conservationcommission/meeting/conservation-commission-meetingmonday-August-12-2024/

Please contact the Conservation Office with any questions at 978-440-5470.

SUDBURY CONSERVATION COMMISSION 7/30/2024

# Massachusetts Department of Environmental Protection Bureau of Water Resources - Wetlands

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**General Information** 

Municipality

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

Α.

1. Applicant:			
First Name	Last Name		
Address			
City/Town	State	Zip Code	
Phone Number	Email Address		
2. Property Owner (if different from Applica	nt):		
First Name	Last Name		
Address			
City/Town	State	Zip Code	
Phone Number	Email Address (if k	Email Address (if known)	
. Representative (if any)			
First Name	Last Name		
Company Name			
Address			
City/Town	State	Zip Code	
Phone Number	Email Address (if k	Email Address (if known)	

#### **Project Description** Β.

1. a. Project Location (use maps and plans to identify the location of the area subject to this request):

	Street Address	City/Town		
How to find Latitude and Longitude	Latitude (Decimal Degrees Format with 5 digits after decimal e.g. XX.XXXXX)	Longitude (Decimal Degrees Format with 5 digits after decimal e.gXX.XXXX)		
and how to convert to decimal degrees	Assessors' Map Number Assessors' Lot/Parcel Number   b. Area Description (use additional paper, if necessary):			
	c. Plan and/or Map Reference(s): (use additional paper if necessary)			
	Title	Date		
	Title	Date		



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Municipality

## B. Project Description (cont.)

2. a. Activity/Work Description (use additional paper and/or provide plan(s) of Activity, if necessary):

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

- 3. a. If this application is a Request for Determination of Scope of Alternatives for work in the Riverfront Area, indicate the one classification below that best describes the project.
  - Single family house on a lot recorded on or before 8/1/96
  - Single family house on a lot recorded after 8/1/96
  - Expansion of an existing structure on a lot recorded after 8/1/96
  - Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
  - New agriculture or aquaculture project
  - Public project where funds were appropriated prior to 8/7/96
  - Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
  - Residential subdivision; institutional, industrial, or commercial project
  - Municipal project
  - District, county, state, or federal government project
  - Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.
  - b. Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification above (use additional paper and/or attach appropriate documents, if necessary.)



#### Massachusetts Department of Environmental Protection

Bureau of Water Resources - Wetlands

## WPA Form 1- Request for Determination of Applicability

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Municipality

## C. Determinations

1. I request the

t the \_\_\_\_\_ make the following determination(s). Check any that apply: Conservation Commission

- a. whether the **area** depicted on plan(s) and/or map(s) referenced above is an area subject to jurisdiction of the Wetlands Protection Act.
- b. whether the **boundaries** of resource area(s) depicted on plan(s) and/or map(s) referenced above are accurately delineated.
- c. whether the **Activities** depicted on plan(s) referenced above is subject to the Wetlands Protection Act and its regulations.
- d. whether the area and/or Activities depicted on plan(s) referenced above is subject to the jurisdiction of any **municipal wetlands' ordinance** or **bylaw** of:

Name of Municipality

e. whether the following **scope of alternatives** is adequate for Activities in the Riverfront Area as depicted on referenced plan(s).

### D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

Signatures:

I also understand that notification of this Request will be placed in a local newspaper at my expense in accordance with Section 10.05(3)(b)(1) of the Wetlands Protection Act regulations.

Signature of Applicant

Date

Signature of Representative (if any)

Date

#### **Appendix I (Area Description)**

92 Blueberry Hill Lane is a single family residence that was built in 1963. The two-story house is a raised ranch with a relatively level front yard and upward sloping side and back yards.

The house sits back from the road. The front of the lot is partially wooded, with a lawn, gardens, and a paver walkway that runs from the driveway to the front of the house. The driveway is located along the west side of the lot and spans a culvert that drains a wetland resource located to the west of the property.

The back of the lot is partially wooded, and supported by a CMU-block retaining wall. A poured-concrete patio and paver walkway are located between the back of the house and the retaining wall.

Septic tanks and pumps are located under the front lawn. The leach field is located at the top of the hill behind the house.

Wetlands resources are located to the west and south of the house.

The property owners hired Robial Water LTD to: (1) conduct an existing-conditions survey of the site, including delineation of wetlands resources and associated buffer zones, and (2) perform an engineering assessment and develop an environmentally acceptable solution for management of surface water along the rear foundation of the house. Relevant details are shown in the accompanying engineering plan, entitled "Site Layout & System Design," dated 11 Apr 2024 (rev 1).

#### Appendix III (Activity/Work Description)

#### Executive Summary: Proposed Activities/Bodies of Work

This application respectfully seeks the Conservation Commission's approval for five proposed activities/bodies of work:

**Activity #1:** Remove damaged poured-concrete patio and paver walkway, and install (replacement) paver patio and paver walkway. Install French drain along back foundation of house to redirect surface water that currently infiltrates foundation.

Activity #2: Repair and perform maintenance on CMU-block retaining wall.

Activity #3: Install safety fencing on each side of driveway culvert.

Activity #4: Remove four trees on hill behind house and one (dead) tree on east side of house.

**Activity #5:** Remove selected shrubs/bushes and replace with native plantings. Install additional native plantings (shrubs/bushes, ground cover, flowers) to attract pollinators and other beneficial wildlife, and mitigate soil erosion.

#### Detailed Description of Proposed Activities/Bodies of Work

**Activity #1:** Remove damaged poured-concrete patio and paver walkway, and install (replacement) paver patio and paver walkway. Install French drain along back foundation of house to redirect surface water that currently infiltrates foundation.

<u>Problem Statement</u>: Owing to settling over many years, the existing poured-concrete patio is damaged. A greater degree of settlement has occurred immediately adjacent to the foundation of the house, resulting in a significantly "tilted" concrete slab that directs water to the foundation during rainfall and snowmelt. Consequently, water infiltrates the foundation and can enter the below-grade living space following periods of significant precipitation, leading to increased risk of mold and mildew formation/ growth.

<u>Proposed Solution</u>: The existing patio and walkway will be removed, and a French drain will be installed along the rear foundation of the house to redirect surface water. A new (replacement) paver patio and paver walkway will be installed, each having water-permeable bases and seams. The French drain will daylight to an appropriately located and sized riprap bed.

To further reduce the potential for soil erosion, a rain garden (ca. 75-100 sq. ft.) comprising native plantings will be established downstream of the riprap bed. The property owners will obtain approval from the Sudbury Conservation Office prior to purchasing and installing such plants.

Details of the design and fabrication of the French drain, including tie-ins for roof gutters, and sediment/erosion controls are shown in the accompanying engineering plan, entitled "Site Layout & System Design," dated 11 Apr 2024 (rev 1). prepared by Robial Water LTD.

Details of the new (replacement) paver patio and paver walkway are shown in Appendix IV (Patio/Walkway with Retaining Wall. Proposed Future State).

Activity #2: Repair and perform maintenance on CMU-block retaining wall.

<u>Problem Statement</u>: The CMU-block retaining wall is in need of some repairs and maintenance.

<u>Proposed Solution</u>: A section of the retaining wall requiring repair will be removed and replaced with new CMU block. Afterward, the entire wall will be re-capped and the face will be covered with a stucco coating.

Note that the sediment/erosion controls described under Activity #1 are also applicable to this body of work.

#### Activity #3: Install safety fencing on each side of driveway culvert.

<u>Problem Statement</u>: The areas to the left and right of the driveway where it spans the culvert are not protected with safety fencing. The left (west) side is currently protected with a post-and-rail fence of approximately 30-foot length. The right (east) side is currently unprotected.

<u>Proposed Solution</u>: The existing post-and-rail fence on the west side of the driveway will be removed. A safety fence will then be installed on both sides of the driveway where it spans the culvert. The fence will consist of 6" x 6" pressure treated posts (set in concrete) and matching cross rails. The fence will be similar to the fencing that has recently been installed along the Sudbury branch of the Bruce Freeman trail. The location of the safety fencing is indicated by red lines in Appendix V (Location of Proposed Safety Fencing).

Activity #4: Remove four trees on hill behind house and one (dead) tree on east side of house.

<u>Problem Statement</u>: Four trees located on the hill behind the house represent potential hazards to the residence and its occupants. The two largest trees have large networks of limbs and branches that overhang the house and patio area. Since 2020, the roof and chimney have been damaged in separate tree-related events. One of the events resulted in an insurance claim. Note that all four trees are located well away from wetlands resources and close to the 100-ft wetland buffer boundary.

One additional tree located on the east side of the house is dead and presents a potential hazard to the house and utility lines.

<u>Proposed Solution</u>: The four specified trees on the hill behind the house will be removed, leaving stumps intact. Removal of the trees will reduce the future threat of tree-related damage/injury and improve erosion control on the hill by allowing ground plantings to receive more sunlight, water and nutrients.

The dead tree on the east side of the house will be removed, leaving the stump intact.

Appendix VI (Approximate Location of Trees for Proposed Removal) shows the approximate location of the trees to be removed. Green symbols represent the specified trees on the hill behind the house. The tan symbol represents the dead tree on the east side of the house.

Please also note the blue symbol, which represents a tree located beyond the 100-ft wetland buffer boundary. The property owners may also wish to remove this tree and are providing this information to the Conservation Commission for awareness.

**Activity #5:** Remove selected shrubs/bushes and replace with native plantings. Install additional native plantings (shrubs/bushes, ground cover, flowers) to attract pollinators and other beneficial wildlife, and mitigate soil erosion.

<u>Problem Statement</u>: The property owners are seeking to create a natural environment that features native shrubs/bushes, ground cover and flowers in gardens, beds and lawn areas. There is a strong preference for species that attract and support pollinators and beneficial wildlife, while simultaneously improving erosion control in areas with sparse vegetation and sloping ground.

<u>Proposed Solution</u>: As budget and time allows, selected shrubs/bushes will be removed from existing gardens and beds, and replaced with native shrubs/bushes, ground cover and flowers. Appendix VII (Photograph of Existing Front Yard Foundation Plantings) provides a representative example of the size and type of shrubs/bushes to be removed and replaced with native plantings.

As budget and time allows, additional native plantings will be installed in those areas at risk for soil erosion (e.g., sloping ground along the east side of the house and areas behind the house currently characterized by sparse vegetation).

The property owners will obtain approval from the Sudbury Conservation Office prior to purchasing and installing such plants.

To control two invasive species (specifically, forsythia and wisteria) currently located at the edge of lawn areas adjacent to wetland resources, the invasive plants will be cut at the base, ensuring no disturbance of roots. Cuttings will be properly disposed of.

# repaired/refaced CMU block retaining wall flower bed (with native plantings) 17.5' 30.0' new paver patio 14.25' new paver walkway (with porous joints and base) (with porous joints and base) flower bed (with native plantings) 27.0' entry door entry door house foundation French drain with 6" pipe house (main level) to daylight Scale: each block = 1.0 ft. (riprap field)

#### Appendix IV (Patio/Walkway with Retaining Wall. Proposed Future State)



#### Appendix V (Location of Proposed Safety Fencing)

#### Appendix VI (Approximate Location of Trees for Proposed Removal)



## Appendix VII (Photograph of Existing Front Yard Foundation Plantings)







LEGEND

GENERAL NOTES

- 1. THIS PLAN IS INTENDED FOR THE CONSTRUCTION OF A GROUNDWATER MITIGATION SYSTEM AND SEDIMENT AND EROSION CONTROLS ONLY AND IS NOT TO BE USED TO ESTABLISH NEW OR EXISTING PROPERTY LINES.
- 2. UTILITIES AND SEPTIC SHOWN ON THIS PLAN ARE APPROXIMATE AND ARE TO THE EXTERIOR OF THE BUILDING FOUNDATION ONLY.
- 3. INSTALLATION OF THE PROPOSED GROUNDWATER MITIGATION SYSTEM SHALL BE IN ACCORDANCE WITH THE COMMONWEALTH OF MASSACHUSETTS AND THE TOWN OF SUDBURY STORMWATER BYLAWS.
- 4. THE CONTRACTOR MUST HOLD A VALID INSTALLER LICENSE IN THE TOWN OF SUDBURY. 5. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIGSAFE AT 1-888-344-7233 PRIOR TO
- CONSTRUCTION. 6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND THE TOWN STORMWATER DIVISION OF
- ANY CHANGES TO THESE PLANS. 7. EXISTING FINISHED GRADE ELEVATIONS SHALL BE CONFIRMED PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES +/- 6 INCHES.
- 8. THE RESPONSIBILITY, OWNERSHIP AND MAINTENANCE OF THE PROPOSED MITIGATION SYSTEM ON PRIVATE PROPERTY SHALL REMAIN THAT OF THE PROPERTY OWNER.
- 9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP ACCURATE AS-BUILT MEASUREMENTS / RECORDS OF ALL UNDERGROUND CONCEALED WORK.

# APPROXIMATE

LOCATION OF EXISTING LEACHFIELD

N/F CRAIG THOMPSON & YOOJEONG KIM

#### TRENCH DRAIN: GRAVEL TRENCH WITH 6" PERFORATED PVC

COLLECTION PIPE. SEE DETAIL.

# CONVERT TO SOLID 6" SDR 35 PVC

CONVEYANCE PIPE.

#### OUTLET TO 6" ADS FLARED END OUTLET TO MEDIUM RIP-RAP BED (4' WIDE X 5' LENGTH). INV. = 157.0

EROSION CONTROL BARRIER: FILTER SOCK

## WITH SILT FENCE



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# **COLLECTION PIPE CLEANOUT DETAIL**

4" SDR 35 PVC WYE. CLEANOUT CAPPED WITH 4" ATRIUM GRATE (TYP.)  $\langle X X X X X X X \rangle$ 6" MIN. -FINISHED GRADE ΔĠ 4" SDR 35 PVC 8" MIN.  $\triangleleft$ Δ FOUNDATION 6" SDR 35 PVC -⊲. ROOF DRAIN  $\bigtriangleup$ CONVEYANCE PIPE TO INFILTRATION SYSTEM . 1 DOWNSPOUT TO ROOF DRAIN DETAIL



# NOT TO SCALE

NOT TO SCALE

LOCUS 92 Blueberry Hill Lane VICINITY MAP NOT TO SCALE



- 1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION. 2. THE CONTRACTOR SHALL CONTACT THE TOWN STORMWATER AGENT PRIOR TO CONSTRUCTION TO
- INSPECT THE SEDIMENT AND EROSION CONTROLS. 3. SEDIMENT AND EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL ALL SOILS ARE STABILIZED
- AND THE STORMWATER AGENT HAS APPROVED ITS REMOVAL. 4. THE EROSION CONTROL BARRIER SHALL BE A 12 INCH FILTER SOCK W/ SILT FENCE OR APPROVED SEDIMENT CONTROL EQUIVALENT TO BE PLACED ON THE DOWN-SLOPE SIDE OF THE PROPOSED AREA OF
- WORK (SEE EROSION CONTROL BARRIER DETAIL). 5. THE CONTRACTOR SHALL INSPECT SEDIMENTATION AND EROSION CONTROLS ON A DAILY BASIS AND IMMEDIATELY AFTER EACH RAINFALL; REPAIRS SHALL BE MADE BY THE END OF THE WORKING DAY, ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR WHEN THE VOLUME REACHES ONE HALF OF THE HEIGHT OF THE STRAW WATTLE OR AS DIRECTED BY THE LOCAL AUTHORITY.
- 6. SOIL STOCKPILES SHALL BE STABILIZED TO PREVENT EROSION, AND A PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED. 7. DISTURBED AREAS SHALL BE STABILIZED BY LOAMING AND SEEDING OR BY ANOTHER APPROVED
- METHOD, AS SOON AS POSSIBLE AFTER THE FINISHED GRADE HAS BEEN MET.
- 8. ALL VEHICLES SHALL ENTER AND EXIT THE SITE VIA THE EXISTING PAVED DRIVEWAY. 9. ALL SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY.



STRAW WATTLE DETAIL

NOT TO SCALE



**TRENCH DRAIN DETAIL** 





92 Blueberry Hill Lane Sudbury, MA 01776