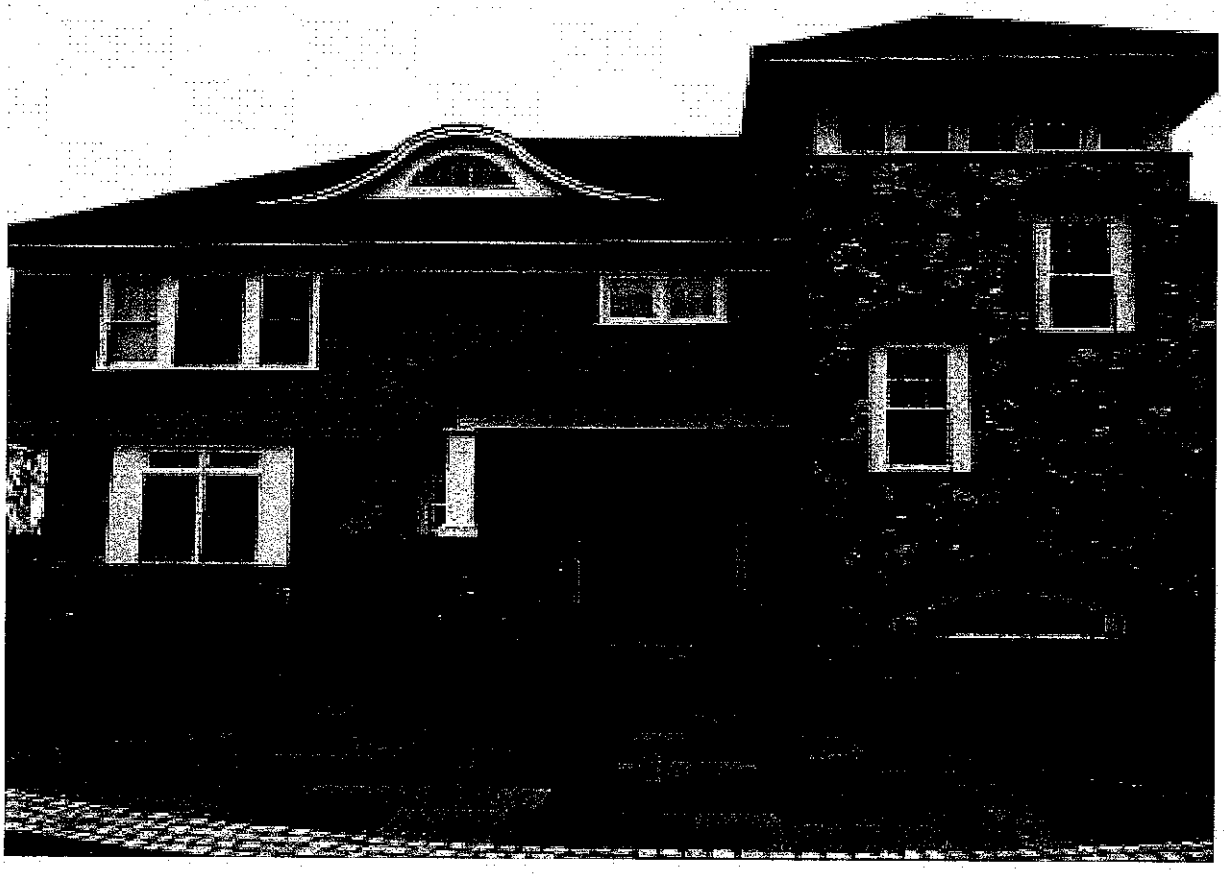


Tim Arpin

TJA Masonry

Date: 06/17/2025

TJA Masonry
16 Oak Road
East Haddam, CT. 06423
PH: 860-326-8295
E mail: masonichammer@yahoo.com

Attention: Chris Casey
Project Address: 42 Shore Road, East Haddam, CT
PH: 860-6902837
Project Details: Lake wall replacement
E-Mail: cpcasey505@gmail.com

The following details the proposed lake wall replacement at the Casey Residence in East Haddam, CT.

The existing lake wall has fallen away/settled causing the stone lake wall to sink andfall towards the Upper Moodus Resevoir.

According to the Building Department, the Resevoir should be slated to be drained this year allowing homeowners and contractors to repair/rebuild walls and/or docks as needed. If the Resevoir does get drained, a Coffer Dam will not be needed to perform the wall replacement as stated. By August 2025, the East Haddam Building Official feels a response from DEEP should be approved. If a Coffer Dam is required due to the Resevoir not being drained, then TJA Masonry will contact Chris Casey and we can discuss Coffer Dam options.

Wetland permit application has been sent to Chris Casey. Permit application and permit fees are the responsibility of Chris Casey. TJA Masonry business information can be provided upon request.

Existing lake wall demolition

TJA Masonry will start this proposed project by first dismantling 2 sections of stockade fencing by Shore Road. These 2 sections will be removed and stored for re-use. The fencing is being removed to allow access to the back yard

and lake wall. Once the fencing is stored, TJA Masonry will bring in a Mini-Excavator. Silt fencing will be installed 4 feet away from existing wall in the lake bed to prevent debris from entering any further into lake area. This is done per Wetlands' regulations. After the silt fencing is secure, TJA Masonry will remove the existing stone lake wall with the excavator and hand tools as needed. The existing metal dock can be removed and stored on-site by TJA Masonry or another entity. This is up to Chris Casey.

All wall debris will be loaded onto trailer and removed from the site. All soils in back of the wall will be stored on-site for re-use later as backfill as needed.

TJA Masonry will excavate the existing footprint/ length of wall and steps to a minimum depth of 16 inches below existing lake bed. The base materials removed will be loaded onto a trailer and removed from site as well.

Once the base trench has been dug, TJA Masonry will haul in new base gravel. This base gravel will be 1 1/2 inch "rip-rap" crushed stone. This " rip-rap" will be set in the excavated trench to a depth of 8 inches deep. This "rip-rap" will be fully compacted using a Vibratory Plate compactor.

This new "rip-rap" crushed stone base is what the new dry-stack stone wall and stone steps will be built upon.

All excavation will be done to allow for a new lake wall and steps to be built following the same footprint as the failed wall.

Construction of new lake wall

Once the base has been built as stated above, construction of the new dry-stacked lake wall and steps can be constructed.

As seen in the Connecticut Wetlands handout TJA Masonry sent to you, you will notice that new construction lake walls will be built of stone, dry-stacked(meaning no cement or concrete can be present in between each rock and cement or concrete cannot be present behind the wall. The new wall can only be built of dry-stack stone and backfilled with crushed stone.

The new dry-stacked stone wall will be built using New England Full Bed Fieldstone. This Fieldstone comes in pieces ranging from 6 to 12 inches big. The base will start with as large of stones as available. The base stones will be set roughly 6 to 8 inches below grade to resist hydro static

force. The wall will be built "leaning" back towards the bank, also called a "batter" as pictured in the handout. This " batter" is built to prevent waves and ice from pushing the wall backwards. As the "dry-stack" stones are built to approximate 2 foot height of grade above waterline, each larger stone will be "shimmed" from moving using smaller stones as again, no cement can be used during construction.

The wall itself will be built back to its' original length and height. The top of the wall, the "caps", will be level left to right and will be cemented into place to secure them as allowed by the Wetlands Commitee.

Approximately 16 feet to the left of the metal dock, steps will lead into the water. Two "wing-walls" will be built approximately 3 to 4 feet back into bank so soil cannot enter the steps. This is mimicing the existing steps and wing walls.

The 4 new steps will be solid 1 piece Stone Slab steps. So each of the 4 steps will measure 7 inches tall by 16 inches deep. Each step will be stacked upon one another from lake bed to grade at the lawn.Each slab step weighs approximately 1 ton each so movement is not possible. The

new wing walls on each side of the steps will constructed in identical fashion to the lake walls.

As detailed in the Wetlands handout, filter fabric and 3/4 inch Crushed Stone will backfill the wall.. The last 6 to 8 inches of wall height will be soil to allow for vegatation to grow again.

In closing

Once all construction has been completed, TJA Masonry can re-install the dock if desired. Anchoring the dock to wall can be discussed in further detail with Chris Casey at that time.

All excess soils, gravel and stone will be removed from site as needed.

Silt fencing will be removed and lake bed where wall base is will be backfilled with saved lake soils/gravels as needed.

TJA Masonry will backfill/fix the lawn using new topsoil as needed. Due to the wether being colder at this time, grass seeding can be done by TJA Masonry at Spring time.

Costs

Total cost listed includes all labors and materials to perform this project in its' entirity. As stated above, permit fees are not included here. If a Coffer Dam is required that will be addressed at that time.

Total lake wall replacement $ 33,322.00

Payment Schedule

The payment schedule will be broken down as follows

1st payment- prior to project start $[redacted]

2nd payment - after existing wall demolition $[redacted]

3rd payment- after new wall construction $ [redacted]

4th/last payment- within 2 weeks of completion $[redacted]