planning2

From: highway

Sent: Thursday, July 29, 2021 11:26 AM

To: planning

Subject: RE: Site walk - 137 Harvard Road

Jessie,

In short, I don't think this should be a highway problem to fix. This is runoff from private property onto town roads.

My Est to deal with all the drainage issues from all properties on the uphill side of Harvard Road from Wedgwood to golf course entrance and comply with MS4 is 1.5m. This is ballpark due to all the ledge in the road. For more accurate estimates I would need 100k to do engineering with borings. Country drainage does not work with MS4 and adds to street washout in heavy rains. This is an area that feed Elisabeth Brook.

Even the fixes Sue talks about. We would need to upgrade the system on the inlet/catch basin side to the west of 157 Harvard Road driveway to add more to the east of driveway. My observation after rains is there is water coming out of the asphalt in driveway at 157 into the street that will be an ice sheet in winter even after we try and fix issues. The issue is out of street layout and in their driveway. They system without upgrades would be overwhelmed and still run down the road from my observations during heavy rains. We don't have records on what type of rain fall it was designed to.

137 east side (gas main area) there should do some sort or retainage swale built into the hill to help slow hold waster back. Is just a strait run with stone and no swale to hold some back in few places.

On another note, do you know if the septic issue and sheen has been passed on to BOA. This is a MS4 question I will have to answer in this year's report if it is septic issue that needs to be fixed.

If you need more let me know.

Steve Nadeau
Superintendent of Streets
Stow Highway Department
88 South Acton Road
Stow, MA 01775
Highway Departments Hours of Operations M-F 6:30AM to 2:30PM
Tel# 978-897-8071
FAX# 978-897-5682

From: planning <planning@stow-ma.gov> Sent: Thursday, July 29, 2021 10:04 AM To: highway <highway@stow-ma.gov> Subject: FW: Site walk - 137 Harvard Road

Steve,

Please see the comments below from Sue Carter regarding 137 Harvard Road. The Planning Board specifically requested that you review the comments (especially the first four bullet points) and provide any feedback you can.

Best,

Jesse Steadman

Town Planner | Town of Stow

Stow Planning Department 380 Great Road Stow, MA 01775

P: 978-897-5098 www.stow-ma.gov

From: Susan Carter < scarter@placesassociates.com>

Sent: Monday, July 26, 2021 1:33 PM

To: planning < planning@stow-ma.gov >
Cc: planning2 < planning2@stow-ma.gov >
Subject: Site walk - 137 Harvard Road

Jesse-

I had a couple of thoughts about the site walk last Tuesday-

- If a swale was put in the shoulder on the northerly side of the road, it would impact the two large street trees by excavating their roots. If they survived, they would be more susceptible to blow downs. It also would be rendered ineffective in the winter with snow banks filling it.
- Adding a catchbasin near 157 Harvard Rd where the overland and groundwater flows reach the road could
 have the same impact on the large tree roots. However, it could be designed just off the edge of the road to
 capture both overland and roadway runoff.
- I believe a slotted trench drain should be provided across the throat of the 157 Harvard Road driveway to minimize the potential for icing. This could be open ended to convey runoff in the shoulder but a swale along the shoulder would be needed to convey it to the next catchbasin unless piped.
- The downstream catchbasin should be examined to see if it has capacity to accept any additional flows.

Easterly side of Existing house at 137:

- At the other culvert inlet, on the easterly end of the existing house lot where work was done for the gas line, it is my recommendation that the current trap rock be reused as a leaching trench which will provide some relief for smaller storm events.
- Where the runoff from the hillside ponds in the backyard of the existing house at 137 Harvard, they may want to consider putting in a yard drain so that the runoff and ponding is controlled.
- Consideration should be given to a stone lined swale so that the runoff/groundwater bleeding out of the hillside can be controlled, recharged and directed to the culvert.
- The septic system should be examined- the pooling water had a sheen and smelled potentially like sewage and appeared to below where groundwater was seeping through the wall. This is a BOH issue. The BOH should have plans or at a minimum, a copy of the latest Title 5 report from when the house was purchased.

These comments are based on my field observations during the site walk. There may be other issues that has been presented to the Board that I am not aware of that could impact the above comments.

Please contact me if you would like to discuss this site.

Thank you, Sue

Susan E. Carter, P.E., LEED AP President, Director of Engineering scarter@placesassociates.com



Planning Landscape Architecture Civil Engineering Surveying

256 Great Road, Suite 4 Littleton, MA 01460 (P): 978.486.0334 (F): 978.486.0447

www.placesassociates.com