

August 2, 2018

Mr. Peter Delaney, Chair
Conservation Commission
Town of Boxford
7A Spofford Rd.
Boxford, MA 01921

RE: NOI 114-1260 - VALLEY ROAD CULVERT REPLACEMENT NEAR 67 VALLEY ROAD

Mr. Delaney:

In response to questions raised during the site visit, Bayside Engineering offers the following:

1) With the new culvert there will be no detention of water on the upstream side of the road. Will this result in flooding downstream in larger storms?

The stream and downstream culvert was inspected for adequacy. Based on the river model, we do not expect an increase in flooding downstream as a result of this project.

2) There is no obvious place to stage construction, stockpile areas, etc. How will this be done?

The full road closure will allow the contractor to use the paved area on either side of the culvert for excavation and installation of the culvert. The pavement to the northeast is 200 feet to the nearest driveway. The pavement to the southwest is limited by the close proximity of the driveway to 67 Valley Road. Excess excavated soil will need to be hauled offsite and disposed, or stockpiled for reuse. This is the method used on the Main Street at Glendale Road culvert replacement project. There is sufficient room for small amounts of soil, crushed stone and other materials to be stored on the pavement. Precast culvert pieces can be delivered to the DPW yard the week before the project commences to ensure all pieces are readily available to minimize road closure delays.

3) The road pavement is 18' wide. Is there any provision for eventual widening of the road?

The completed roadway over the culvert will be 19.3' curb-to-curb. This width is consistent with the roadway approaches on with side of the culvert. The land served by Valley Road is nearly 100% developed, with a few exceptions. The roadway geometry currently prohibits traveling any faster than the posted speed limit of 25 mph. One of the design principals of the stream crossing standards is to provide a culvert that maximizes "open-ness". To achieve this, in part, we strive to make culverts as short as possible. Because of these factors, we chose to maintain the

roadway width over the stream crossing.

4) Is the road in the center of the right-of-way?

The roadway pavement centerline is approximately 2.5' – 4' closer to the northwest right-of-way line. The right-of-way lines have been added to the plan.