

MINUTES
Calais Roads Advisory Committee Site Visit
to Road New Construction on Worcester Rd & Collar Hill Rd
Minutes
Wednesday, Sept. 24, 2014
(approved Nov 19, 2014)

Committee members present clock wise from the chair: Stephanie Kaplan (Vice Chair), Barbara Weedon, and Peter Harvey (Secretary)

Committee members absent: Doug Lilley, and Gary Schultz,

Others: Toby Talbot, Calais Road Supervisor

This site visit began at 10:00 AM. We meet at the intersection Worcester Rd & Robinson Hill Rd

The purpose of this site visit was to review work done and still in progress by the Calais Road Crew under the supervision of Toby and its compliance with the new Calais Road & Bridge Standards.

Approaching the site Stephanie & Peter (driving in Stephanie's car, met a town dump truck coming east down the hill toward the fishing access that appeared to be traveling very fast, especially for a large truck. We told Toby about this and he said he would talk with the crew. We also told Toby that we have heard other complaints from residents that the Calais Town Trucks are the worst speeding offenders on our roads.

Robinson Hill Rd. intersection

. This road is classified as a Very Low Volume Road (12 ft wide).

- We measured the road and determined that the gravel width and verge/shoulder width comply with the Standards. What has not been done yet is seeding the verge. (When I went back to re-measure Friday 10:20 am, a school bus passed by my parked car at a moderate speed without difficulty.)
 - The total gravel roadway is 23 ft wide.
 - The packed traveled portion of the roadway is 12 ft
 - The verge on the east side is 7 ft
 - The verge on the west side is 4 ft
 - The ditch on the north side is 10 ft wide (excessive)
 - The Fore Slope to the ditch

- We discussed Alfred's objection to seeding the verge because he doesn't want to pull vegetation and previously spread road gravel (not dirt, why is that a problem?) back into the traveled roadway when grading. Further up the hill we measured and noted that the traveled portion of the road is 12 ft wide; leaving 2 ft of unseeded gravel on each side of the road for gravel thrown from the traveled portion to collect and be graded back into the roadway. The seeded verge would not have to be included in grading every time the road is graded, but only when a berm has developed. Part of a berm developing is the loss of gravel in the roadway from erosion. This loss of gravel has to be replaced periodically to retain the required thickness of the gravel top course.
- Toby noted that when he narrows and squares off this and other intersections in town (examples: Rt 14 – Lightening Ridge Rd and Country Rd – Templeton Rd) he would gain several advantages:
 - The snow plows would not have to make multiple back up passes to clear the intersection
 - The ditching would be further from the traveled roadway and verge would widen.
 - And the intersection would become more perpendicular to the main road for better entrance visibility in both directions.

Worcester Road.

This road is classified as a Collector Road (20 ft wide). The Road Crew has recently put in under draining, fabric, and base gravel to correct water drainage problems in this road. We walked up the hill (west) from the Robinson Hill Rd intersection to the two sections just worked on.

- We measured the road in two places and determined that the gravel width (20 ft) and verge/shoulder width comply with the Standards where they can be due to the terrain. What has not been done yet is seeding the verge.
- 40 ft west of the Robinson Hill Rd sign post
 - The total gravel road width is 20 ½ ft
 - The packed traveled portion of the roadway is 16 ft
 - The unpacked gravel on the north side is 2 ½ ft wide
 - The unpacked gravel on the south side is 2 ft wide
 - There is no drivable shoulder/verge on the north side of the road (although a 7 ft plus wide area has been seeded when work was done) because of the immediate drop-off to a small stream. The road could have been moved toward the south to protect the stream when this extensive work presented that opportunity.
 - There is no verge on the south side of the road, although Toby told us the work is not done yet and some verge building will be done into the ditch.
 - The ditch on the south side is 10 ft wide (excessive) and deep (excessive).

- We discussed the ditch on the south side of the road. It is too close to allow for the required verge
- Further up the hill, halfway between the Robinson Hill Rd sign post and the driveway for 703 Worcester Rd
 - The total gravel road width is 19 ½ ft
 - The packed traveled portion of the roadway is 16 ft
 - The unpacked gravel on the north side is 2 ft wide
 - The unpacked gravel on the south side is 1 ½ ft wide
 - There is no drivable shoulder/verge on the north side of the road (although a 12 ft plus wide disturbed strip was seeded when work was done) because of the immediate drop-off to a small stream. The road could have been moved toward the south to protect the stream when this extensive work presented that opportunity.
 - There is no verge on the south side of the road, again Toby told us the work is not done yet and some verge building will be done into the ditch.
 - The ditch on the south side is 9 ft wide (excessive) and deep (excessive). A culvert goes across the road just above this point. The ditch does not have to be the same depth or width as it descends to the next culvert. It should start off gradually and increase in size to the next culvert..
- We discussed the lack of a verge on the north side of the road that falls steeply down to a running stream and how a seeded verge would filter the road runoff as best as can be done under these circumstances.
- Toby told us about two types of French Drains that would make shallower surfaced ditches that can be driven out of:
 - The first being made with large crushed stone at the bottom of the ditch, protected with filter fabric, and topped off with smaller stone.
 - The second being made with a perforated drain pipe at the bottom, otherwise being constructed the same as the first example above.

Barbara noted that a busy road like the Worcester Rd would be a better place to spend the extra money for an occasional French drain than a less traveled road.

Collar Hill Rd.

This road is classified as a Very Low Volume Road (12 ft wide). We parked in the Wheelock driveway and walked down past Naylor's driveway. The Road Crew has recently put in under draining, fabric, and base gravel to correct water drainage problems in this road and was bringing in truckloads of gravel as we view reviewed the site.

- The Committee is concerned about retaining the current character of the road, including the rolling and curving feel of the road and the minimal, shallow ditching, while agreeing that water run off needs to be abated within these concerns. There is concern that the Road Crew's large equipment (grader and large snow plow trucks) is changing the character of this and other roads in Calais, creating a tailing wagging the dog challenge to the Calais Road and Bridges Standards. Toby assured us that the new road work will not change the character of this road.
 - The total gravel road width is 13 ½ ft
 - The packed traveled portion of the roadway is 11 ft
 - The unpacked gravel on the north side is ½ ft wide
 - The unpacked gravel on the south side is 2 ft wide
 - There is a drivable 4 ft shoulder/verge on the north side of the road. The road could have been moved toward the south to protect the stream when this extensive work done at this time presented that opportunity.
 - There is no verge on the south side of the road, again Toby told us the work is not done yet and some verge building will be done into the ditch.
 - The ditch on the south side is 9 ft wide (excessive) and deep (excessive). A culvert goes across the road just above this point. The ditch does not have to be the same depth or width as it descends to the next culvert. It should start off gradually and increase in size to the next culvert.
- In compliance with the Calais Road Standards there are no ditches up where the road slop is gentle enough for water to laterally sheet off into the verge and woods
- There are water turn outs from the road edge as the pitch increases, but they are oversized gashes dug with the road grader front blade rather than pulled with the road grader front blade as prescribed in the Calais Road Standards.
- Further down, as the pitch and volume increase ditching begins and depth increases sufficient to drain the road.
- Toby said he is generally trying to move the ditches further from the road to increase the verges.
- We discussed several examples of water run-off turnouts
- Toby showed us how they are putting a gentle swale at the foot of the Naylor's driveway to keep that run off from eroding the roadway.
- There was one place above the work being done where the road had been gradually graded deeper than the surrounding land over the years making a trough of the roadway that water could only run down and further erode the road way. Two large maple trees on the north side of the road had died. If the road had been left at its original adjacent surface height allowing for lateral sheet run off this section of road

would have had fewer erosion problems caused by lowering the road below the adjacent contours and the trees may still have been alive.

- Toby told us that an entrenched section of Jack Hill Rd is a good example where the road will be “raised by adding material” to the roadway to bring it up to the height of the surrounding topography (as addressed in the Calais Road and Bridge Standards page 5, bullet 5).
- We suggested that the roadway can be moved away from the stream on the north side of the road below Naylor’s driveway, toward the south because there is room on the south side of the road and that this is a good time to do it as the Road Crew works on the road and is trucking in gravel while we were there.

Toby told us that Dave Antone is no longer with Vermont Local Roads and is now consulting.

After parting from Toby, we drove down Kent Hill to look at the recent re-construction there.

Our thoughts:

- Put French drains in on the north side of the road where ditches are very deep and no verge exists because of the immediate steep banks.
- Make the roadway more curvy to take advantage of the topography so that the road is not right up against the steep banks on the north side or as close to the steep drop-offs on the south side where there is room and it doesn’t need to be.
- Trees can be cut when necessary, following the procedures in the Calais Roads and Bridges Standards (
- Seed the verges
- Adjourned
 - At 1:00
- Next regular meeting: Tuesday, Oct 7, 2015, 10 am at the Calais Town Hall..

Submitted by Peter Harvey, Secretary

Road Survey Template

- The total gravel roadway is ___ ft wide (20,14,12 ft)
- The packed traveled portion of the roadway is ___ ft wide
- The unpacked gravel on the north/east side is ___ ft wide
- The unpacked gravel on the south/west side is ___ ft wide
- The drivable verge (vegetated shoulder) on the north/east side is ___ ft wide
- The drivable verge (vegetated shoulder) on the south/west side is ___ ft wide
- The ditch or runoff sheeting slope on the north/east side is ___ ft wide
- The ditch or runoff sheeting slope on the north/east side is ___ ft wide