

To: Town of East Montpelier, Zoning Administer

From: Laura Stone, PE

Date: May 11th, 2016

Subject: 174 Coburn Road - Change of Use



I have concerns with the proposed traffic increases that would result from the change of use to a commercial daycare of the subject property. The following is a list of the applicable design criteria for Town Highway 30 (Coburn Road):

- Roadway Classification: Rural Local Road
- Roadway Owned and Maintained by: Town of East Montpelier
- Design Speed Limit: 35 mph (posted)
- Current Typical Section: 0-9-9-0 (18.0')
- The current AADT (Average Annual Daily Traffic): 81 vehicles/day (count taken in 2015, 200' from the intersection of VT Route 14 and Coburn Road on Coburn Road)
- The proposed AADT, assuming 18 children (4 vehicle trips per day) and 4 teachers (2 vehicle trips per day) would include an additional 80 vehicles per day: 161 vehicles per day

Section 6.5 of the Vermont State Standards for roadway design, pertains to the minimum lane and shoulder widths required on Rural Local Roads in Vermont. The following minimum standard widths can be found in Table 6.3 of the Vermont State Standards and are "considered necessary for adequate safety and service for this class of highway".

Table 6.3 Minimum Width of Lanes and Shoulders for Rural Local Roads							
Design Traffic Volume	ADT(a) 0-25	ADT 25-50	ADT 50-100 (Existing: 81)	ADT 100-400 (Proposed: 160)	ADT 400-1500	ADT 1500-2000	ADT Over 2000
Design Speed (mph)	Width of Lane/Shoulder (ft)						
25	7/0	8/0	9/0	9/2	9/2	10/3	11/3
30	7/0	8/0	9/0	9/2	9/2	10/3	11/3
35	7/0	8/0	9/0	9/2	9/2	10/3	11/3
40	7/0	8/0	9/2	9/2	9/2	10/3	11/3
45	---	---	9/2	9/2	9/2	10/3	11/3
50	---	---	9/2	9/2	10/2	10/3	11/3

(a) Minimum width of 8/0 whenever there is guard rail



Current Condition: Meets the minimum standard for width

Proposed Condition: Does not meet the minimum standard for width

The roadway currently meets the minimum width requirements as set forth in the Vermont State Standards, however, by allowing the commercial use of 174 Coburn road, the traffic volume past our property at 74 Coburn Road will be doubled, and the required minimum typical section of Coburn Road would not be met under these new traffic conditions.

The substandard width coupled with the substandard vertical crest curve (located approximately 500 feet from the intersection with VT Route 14) would create a safety hazard for the traveling public, especially pedestrians. The East Montpelier Public School system bus route includes a bus stop at the intersection of Coburn road and VT Route 14, which services several children that live on Coburn Road, that walk down the section of Coburn road where these traffic increases are being proposed. These children are walking home at a time of day that parents would potentially be picking their children up at the proposed daycare facility at 174 Coburn road. With vehicles going both to and from 174 Coburn Road, it is likely that a pedestrian could be present at the same time as two-way traffic. Attached I have provided a typical section of what this scenario would look like with a 9/0 typical section compared to the standard 9/2 typical section.

