

**Calais Roads Advisory Committee  
Recommendations  
for Lightening Ridge Rd.  
February 8, 2015**

**Lightening Ridge Rd/VT14 Intersection (at house # 8 Roberts)**

- Current Conditions
  - The total paved roadway is 24 ft wide.
  - The total marked lanes are 21 ft
  - The drivable verge on the North side is 1 ft
  - The drivable verge on the South side is 4 ft
  - The fore slope on the North side drivable slop down from road
  - The fore slope on the South side steep bank up from road, no room for ditch
- Recommended Changes
  - Roadway Changes
    - Narrow and “T” both school parking lot entrances in order to improve sightlines and reduce speed of vehicles entering and exiting the school.
  - Signage Changes
    - Move West Bound\_School warning sign toward Rt 14 to improve visibility. Place in open away from brush and trees and clearly visible to cars climbing hill from intersection. In front of house #138 (Rachael Bliss)
    - Since school warning sign is already present just west of intersection, do not add a speed limit sign at the intersection of RT 14. The first speed limit sign is 35mph in the area of Frank’s farm.
    - Move East Bound school warning sign eastward so that it is across from Frank’s west driveway.

Notes:

- The current West Bound speed limit is 25 mph to the school.
- The “T” entrance of Lightening Ridge Road should be narrowed at the intersection with Rt 14 should be narrowed to correspond with break in the center line of Rt 14 to keep

traffic entrance perpendicular to Rt 14 for a safer sight distance down into the dip on Rt 14 to the north of the intersection where speeding cars are not visible.

### **At the school**

- Current Conditions
  - The total gravel roadway is 21 ft wide.
  - The packed traveled portion of the roadway is 18 ft
  - The drivable verge on the North side is 1-2 ft
  - The drivable verge on the South side is 3 ft
  - The fore slope on the North side steep drop off
  - The fore slope on the South side steep drop off
- Current Conditions
  - Roadway:
    - Reduce the width of the school parking lot entrances and configure them to “T” using Access Management guidelines. This will improve the safety of vehicles and students by forcing drivers to slow down as they enter and exit the parking lot. The “T: intersection will give drivers equally good visibility east and west along lightening Ridge Rd.
  - Signage: *none*

#### Notes:

- The speed limit is 25 mph at the school. West Bound is currently unmarked, but there is an East Bound 25mph speed limit sign at Chapin Rd

### **at the Gray Rd intersection**

- Current Conditions
  - The total gravel roadway is 21 ft wide.
  - The packed traveled portion of the roadway is 18 ft
  - The drivable verge on the North side is 1-2 ft
  - The drivable verge on the South side is 3 ft
  - The fore slope on the North side steep drop off
  - The fore slope on the South side drivable ditch
- Recommended Changes
  - Roadway Changes

- The Gray Rd entrance should be narrower for a safer entrance into Lightening Ridge Rd.
- Reconfigure Gray Rd intersection so that it is narrowed to the design standards and change alignment as far east as possible to improve sight distance West Bound along Lightening Ridge Rd. Add slight curvature toward the east to Gray road approach to intersection to calm traffic.
- Signage Changes
  - Move The 25 mph speed limit sign should be moved West to a new position opposite Chapin Rd for better East Bound visibility approaching the school zone

### **At the East side of the Chapin Rd intersection**

- Current Conditions
  - The total gravel roadway is 19 ft wide.
  - The packed traveled portion of the roadway is 16 ft
  - The drivable verge on the North side is 3 ft
  - The drivable verge on the South side is 2 ft
  - The fore slope on the North side drivable berm down to pasture
  - The fore slope on the South side sloped steeply up from road, no room for ditch
- Recommended Changes
  - Roadway
    - Consider re-aligning Lightening Ridge Rd between Chapin and Gray Rd, particularly at the brow of the hill, as far north as possible. This would dramatically improve sightlines.
    - Consider scaling the brow of the hill between Chapin Road and Gray road down a few feet to improve sightlines related to the vertical alignment.
  - Signage - *none*

### **at the West side of the Chapin Rd intersection**

- Current Conditions
  - The total gravel roadway is 22 ft wide.

- The packed traveled portion of the roadway is 16 ft
- The drivable verge on the North side is 2 ft
- The drivable verge on the South side is 3 ft
- The fore slope on the North side steep drop off
- The fore slope on the South side drivable ditch
- Recommended Changes
  - Roadway - *none*
  - Signage
    - Place a side road warning sign East Bound just west of the driveway at house #495 (Sylvia Thompson) Lightening Ridge Rd. Place next to underground power box.

### **Above house # 756 (Tassey) Lightening Ridge Rd. driveway**

- Current Conditions:
  - The total gravel roadway is 20 ft wide.
  - The packed traveled portion of the roadway is 16 ft
  - The drivable verge on the North side is 3 ft
  - The drivable verge on the South side is 4 ft
  - The fore slope on the North side drivable slope down to lawn
  - The fore slope on the South side is a drivable ditch
- Recommended Changes
  - Roadway
    - Drainage ditch beside East Bound lane and just opposite Dave Roger's House is showing signs of erosion as it drops to the stream. This needs to have geotextile lining cloth added and type 1 stone on top of this...and possibly one or a few check dams.
  - Signage - *none*

### **at house # 1018, Doug Lilley's hedge**

- Current Conditions
  - The total gravel roadway is 17 ft wide.
  - The packed traveled portion of the roadway is 15 ft
  - The drivable verge on the North side is 6 ft
  - The drivable verge on the South side is 7 ft
  - The fore slope on the North side drivable slope down to lawn & hedge
  - The fore slope on the South side level to lawn & trees

- Recommended Changes
  - Roadway - *none*
  - Signage - *none*

### **At the East side of the Tucker Rd intersection**

- Current Conditions
  - The total gravel roadway is 19 ft wide.
  - The packed traveled portion of the roadway is 15 ft
  - The drivable verge on the North side is 2.5 ft
  - The drivable verge on the South side is 3.5 ft
  - The fore slope on the North side old large berm
  - The fore slope on the South side old large berm
- Recommended Changes
  - Roadway
    - “T” up intersection while simultaneously moving it as far east as possible in order to improve sightlines in both directions. Narrow up intersection to current design standards and use 30’ corner radii for truck turning movements.

### **at the West side of the Tucker Rd intersection**

- Current Conditions
  - The total gravel roadway is 23 ft wide.
  - The packed traveled portion of the roadway is 19 ft
  - The drivable verge on the North side is 1.5 ft
  - The drivable verge on the South side is 2 ft
  - The fore slope on the North side drivable slope down
  - The fore slope on the South side steep slope up
- Recommended Changes
  - Roadway
    - *none*
  - Signage
    - Under current conditions, a side road intersection warning sign should be placed west of the intersection for East Bound traffic. Once re-aligned, this may not be necessary.

### **At the West side of the George Rd intersection**

- Current conditions
  - The total gravel roadway is 21 ft wide.
  - The packed traveled portion of the roadway is 16 ft
  - The drivable verge on the North side is 2 ft
  - The drivable verge on the South side is 1 ft
  - The fore slope on the North side steep bank down
  - The fore slope on the South side steep bank down
- Recommended Changes
  - Roadway
    - The best solution to this intersection problem is to re-align the road over to large dead maple west (approximately 40' west of existing road intersection) of the existing intersection in order improve vertical alignment. This is an expensive fix. Another possibility is to build up a one car level apron at the intersection and taper this down the hill. A driveway would also have to be built up to match grade of this option is pursued.
    - Remove old dead maple west of intersection to improve sight distance
    - Remove roadside brush from north side of Lightening Ridge Rd. east of George Rd intersection to improve sight lines viewing George Rd..
  - Signage
    - Install a road intersection warning sign both West Bound on Lightening Ridge Rd

Notes:

- Short line of sight in both directions from George Rd
- The entrance is too steep for cars to stop in slippery conditions and gain traction to get up the hill
- There is a large very dead maple tree northwest of this intersection that should be cut down for better sight distance.
- The owners of #1487 (the school house) should remove the roadside flowers east of their house for a better sight distance for their driveway

**Between house # 1936 (Larry Smith) and house # 2220 (John Winston)**

- Current Conditions

- The total gravel roadway is 23 ft wide.
- The packed traveled portion of the roadway is 19 ft
- The drivable verge on the North side is 1 ft
- The drivable verge on the South side is 1.5 ft
- The fore slope on the North side steep bank down
- The fore slope on the South steep slope down
- Recommended Changes
  - Roadway
    - Reduce road width to match new design standards
  - Signage - *none*

Notes:

- This road section wider than the rest encourages speeding in this section. It is the new section built when the road was moved when the school was built.

**At house # 2364 (Mike Garand)**

- Current Conditions
  - The total gravel roadway is 21 ft wide.
  - The packed traveled portion of the roadway is 17 ft
  - The drivable verge on the North side is 4 ft
  - The drivable verge on the South side is 4 ft
  - The fore slope on the North side drivable slope down to lawn
  - The fore slope on the South side drivable berm
- Recommended Changes
  - Roadway – *none*
  - Signage - *none*

**At the Adamant Rd intersection**

- Current Conditions
  - The total gravel roadway is 22 ft wide.
  - The packed traveled portion of the roadway is 18 ft
  - The drivable verge on the North side is 3 ft
  - The drivable verge on the South side is 0 ft
  - The fore slope on the North side steep slope down
  - The fore slope on the South side is raised ledge

- Recommended Changes
  - Roadway
    - Narrow and “T” up intersection, re-aligning it as far north as possible to be perpendicular to Adamant Rd to improve sight distance toward the south. Use 30 foot corner radii for vehicle turning movements.
    - Build horizontal curvature into the level section of lightening Ridge Road between the intersection and the brow of the hill to the east. This will have the net effect of further calming vehicle speed.
  - Signage - *none*

Notes: this intersection should be a priority fix because the suggested improvements should significantly reduce speed of vehicles East Bound before they begin the long descent along Lightening ridge Rd.

Consolidated from 3 documents and site visits by Committee members Rick Kehne & Peter Harvey:

- Oct. 14, 2014 MINUTES Calais Roads Advisory Committee Site Visit to assess why people speed on Lightening Ridge Rd and visit Lower Martin Rd culvert under construction near the intersection with Haggett Rd.
- 2014-11-7 Lightening Ridge Rd survey Rick Kehne & Peter
- 2014-11-14 Lightening Ridge Rd survey signage Dave Crosley (VTrans) Rick Kehne & Peter