

Pike Brook Road
Bridge
Rec FROM Chief Lyon
9/11/15



Town of New London
Office of the Fire Chief

03257

P.O. Box 375
237 Main Street
New London, NH

September 2, 2015

David Frissora
Kenneth Vona Construction, Inc.
(781) 890-5599

Dear Mr. Frissora,

This letter is to follow up on the meeting that we had on August 26, 2015 at 80 & 96 Pike Brook Road, with regards to fire safety at the job site and overall fire protection of the property. One of the main concerns was the access to homes past the Pike Brook because of the recent evaluation of the bridge.

In 1987, former Fire Chief Peter Stanley, drafted a letter to Mr. Bruce Putnam with his concerns about the bridge, and how previously a piece of fire apparatus had broken through the bridge when responding to a fire. IN 1992, the town of New London was preparing to replace their ladder with a Quint (Ladder/pumper truck) that would weight 48 thousand pounds. Although Chief Stanley wanted the bridge to be reconstructed using steel and/or concrete, and not timber, an agreement was reached in 1989 with Kimball Chase Company, Inc., to utilize laminated timber deck as long as that decking would hold 20 to 25 tons and have a width of no narrower than 12 feet.

After the recent re-evaluation by Bruce Knox, I have significant concerns about responding over the bridge with two out of our three main pieces of apparatus in the event of an emergency. If any vehicle over 2,400 lbs. passes directly over the steel girders, there is the potential for the bridge to fail. This is a significant concern for life safety, never mind the environmental concerns with this brook flowing into Lake Sunapee. The town of New London replaced that ladder truck in 2012 with one that now weighs 54,000 lbs., which is first due to any fire alarm, smoke in the building or reported fire. Our rescue-engine weights 36,000 lbs. This bridge will now be red flagged and the engine and the ladder will no longer be able to respond over the Pike Brook Bridge.

I hope this letter helps assist with the decision to replace this vital structure, not only for the safety of passenger vehicles, delivery trucks, but in the event of an emergency.

Respectfully,

Jason B. Lyon, Fire Chief

Pike Brook Rd
Bridge
Received From
Chief Lyon 9/11/15

December 1, 2014

Greg Grigsby, ASLA, PLA
Senior Landscape Architect / Project Manager
Pellettieri Associates, Inc.
199 Old Pumpkin Hill Road
Warner, NH 03278

RE: Pine Brook Road Bridge Analysis
• **New London, NH**

Greg,

The general intent herein has been to evaluate the existing condition of the referenced Bridge Structure under a "prima facie" situ. Based upon a field inspection and the associated physical evidence available at the time of this review, and given the conclusions drawn from calculations prepared therefor, it's my professional opinion that the existing Bridge can adequately support legal vehicular loads as described below.

- Given two (2) of the four (4) S12x50 steel girders transversely coincide with typical wheel load positions (reference page 5 of the attached), any vehicle that deviates (becomes errant) beyond said position, will cause the existing Timber Deck to fail when the wheel load exceeds 2,400 lbs. However, if wheel loads can remain directly over the existing girders, then the critical element of the bridge becomes the structural steel, in which case the existing bridge can support a 16.6 kip (8.3 ton) axle load.
- There is evidence of scouring beneath the right corner of the abutment "A" footing. The present loss of material beneath this footing area has been considered in the aforementioned calculations. However, given the detection of approximately ½" of vertical displacement and or settlement in this vicinity, it is important to; 1) remedy the existing scour area as soon as possible, and 2) install scour countermeasures immediately thereafter, and 3) continue to monitor this area for any further settlement.

I'll remain hopeful the aforementioned proves informative during your endeavors.

Regards,

Bruce R. Knox, PE

BRK

S\Pellettieri\Calculations\Bridge Analysis_letter report_141201

Attachments: Calculations (Stamped), Technical Data, and Photos (15)

Invoice # 114202, with W-9 (2)

Cc: Project File