

## Nafziger Road Bridge Load Testing



Nafziger Road Bridge is a 3 span reinforced concrete bridge. There is no load limit posting on the bridge but two previous structural evaluations for the bridge indicated that the center span was deficient with respect to the Highway Bridge Code. There are no drawings for the bridge and therefore the reinforcing details are unknown and the Engineer is forced to make assumptions on the bridge construction when structural evaluations are made.

Due to the previous engineering studies and lack of information on the bridge, Struct-Sure Limited

completed a load test to determine how the structure behaves under load and to determine if the structure is safe.

Fiber Optic strands were installed on the T beams of the center span and the bridge was load tested.

The load testing showed that the center span of the bridge performed significantly better than theoretical calculations would suggest for the bridge. The load test also showed that the load distribution to the beams was different than what the Bridge Code specifies for the designer to use.

The OSMOS technology showed the center span of the bridge complies with the requirements of the Highway Bridge Code and does not need strengthening. This has resulted in a significant saving of money to the owner of this bridge and the Owner can invest money on repairs and that he knows are a wise investment. This bridge was subsequently enhanced with new guide rails and repair to concrete spalling areas with full confidence that the bridge is structural sound and the money invested in the bridge was wisely spent.

