

Our File: 2059

By Email: [WProulx@trail.ca](mailto:WProulx@trail.ca)

2014 October 24

City of Trail  
1394 Pine Avenue  
Trail, BC V1R 4E6

Dear Sirs,

Attention: Warren Proulx, Engineering Technician

Re: Old Trail Bridge

As noted in our letter dated 2010 October 19, the capacity of the Old Trail Bridge piers is insufficient to meet current standards. This was, and still is, the main reason for our recommendation for closing the bridge to all public use.

Photos 1 through 7 (attached) show the level of pier deterioration we observed during our 2010 Fall inspection. This level of deterioration requires complete replacement of the piers. For any bridge, replacement of piers without replacing its superstructure is difficult and costly.

Photos 8 through 12 (attached) show the level of truss deterioration we observed during our 2010 Fall inspection. Given that the trusses are now over 100 years old, the remaining economic life of the superstructure is also limited, and rehabilitating them is costly.

The pier and truss deterioration has likely gotten worse since the 2010 Fall inspection. The most cost effective solution under such circumstances is a complete bridge replacement if a vehicle bridge is still required at this site.

In conclusion, we still do not recommend rehabilitation of the Old Trail Bridge.

Please contact us if you require further information.

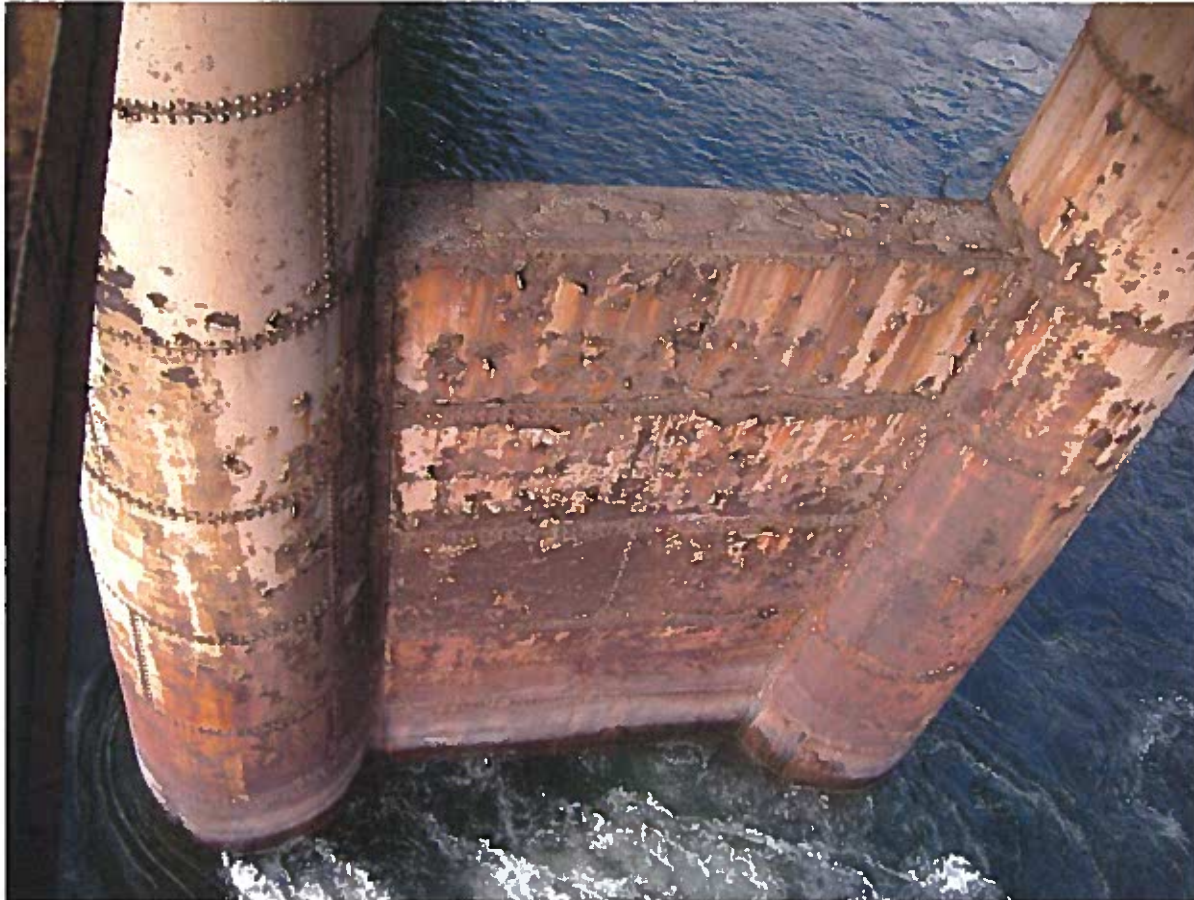
Yours truly,

BUCKLAND & TAYLOR LTD.



Nedim Alca, PE  
Vice-President

**SUBSTRUCTURE**



**Photo 1: Typical Steel Shell Deterioration at Pier (corrosion is so extensive that the frame behavior of the piers is doubtful)**



Photo 2: Close-up photo at Pier Cross Beam / Pipe Pier Interface showing loss of steel section and rubble (instead of concretes) within pier legs





**Photo 3:** Close up photo at pier cross beam showing loss of concrete structural integrity within steel casing (steel casing can be pushed inwards) and heavy corrosion of the steel shell



**Photo 4:** Close up photo at pier cross beam – heavy deterioration of steel shell





**Photo 5:** Close-up photo at Pier Cross Beam / Pipe Pier Interface showing loss of steel section and concrete rubble within pipe (heavy deterioration)



**Photo 6:** Close up photo at pier cross beam – heavy deterioration of steel shell



**Photo 7:** Pier Cross beam showing loss of concrete structure integrity within steel shell



**SUPERSTRUCTURE**



**Photo 8: Loss of section in steel superstructure members**



**Photo 9:** Loss of section in steel superstructure members

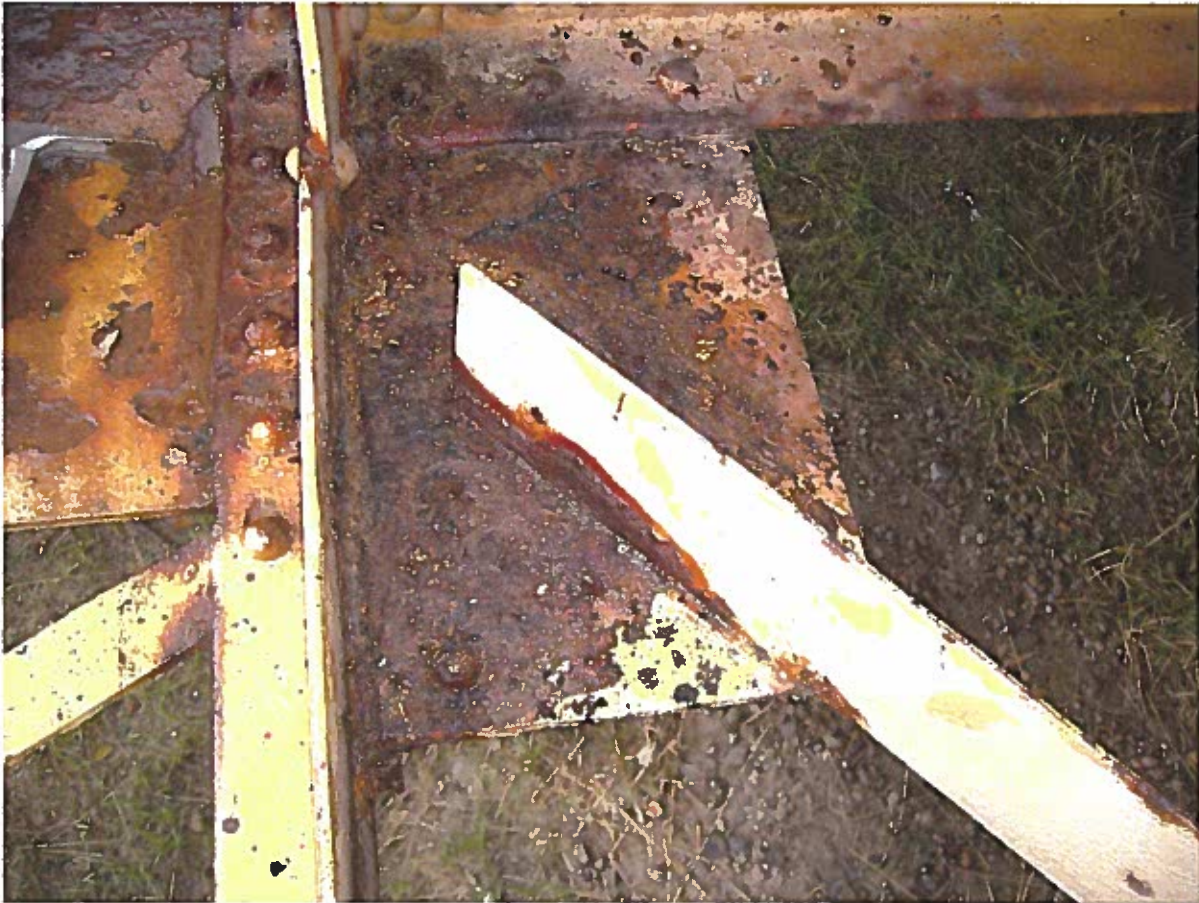


**Photo 10: Severe corrosion in steel superstructure connections**





**Photo 11:** Loss of section in steel superstructure members



**Photo 12: Severe corrosion in steel superstructure riveted connections**