

EMERGENCY
AGENDA COVER MEMO BUSINESS

DATE: February 17, 2006

TO: Lane County Board of Commissioners

DEPT.: Public Works

PRESENTED BY: Sonny Chickering
County Engineer

AGENDA ITEM TITLE: In the Matter of Imposing a Temporary Closure of the Green Creek Road Bridge (Bridge 18751) at Approximate M.P. 0.23.

I. MOTION

THAT THE ORDER BE APPROVED IMPOSING A TEMPORARY CLOSURE OF THE GREEN CREEK ROAD BRIDGE OVER THE LONG TOM RIVER AT APPROXIMATE M.P. 0.23

II. ISSUE OR PROBLEM

Recent inspections have revealed structural deterioration and damage warranting a temporary closure of this bridge.

III. DISCUSSION

A. Background

Green Creek Road is a Local Access Road (LAR) in the Elmira area that intersects with the east line of Knight Road at approximate M.P. 2.925, about midway between Warthen Road and West Sheffler Road. The road extends easterly from Knight Road a distance of 0.797 miles and crosses the Long Tom River at about M.P. 0.23.

The bridge is a salvaged railroad flat car about 60 feet in length, and the two ends of the span rest only on the native embankment material. This road was created and dedicated as a public road in 1965, and it appears that this bridge may have been in place since that time.

Based on an inspection done in November 2004, this bridge has been posted for 23 tons for three-axle vehicles, and a subsequent inspection done in June 2005 showed extensive deterioration of the superstructure of the bridge to the extent that some portions of the structural members were completely rusted through. This deterioration was sufficient to cause the State Bridge Engineer to recommend reducing the posting of the bridge to 3 tons maximum loading, but the reduced load limit had not yet been put into effect.

A more recent follow-up inspection done within the last several weeks showed severe scouring of the embankment material, particularly on the east end of the bridge. The scour occurred during the recent period of high flow on the Long Tom River and has progressed to the extent that only about 3 feet of the flatcar is resting on each of the embankments. Based on this inspection, the State Bridge Engineer has recommended that the bridge be closed until the needed repairs can be made.

When the needed repairs/reconstruction of the bridge's foundation is completed, the State Bridge Engineer recommends that the bridge be reposted for a maximum of 3 tons; the lowest level of loading that is accepted by the Federal Highway Administration for bridges open to vehicular traffic. A 3-ton loading is only suitable for passenger car and light pickup traffic and is not sufficient for fire and other emergency vehicle use.

B. Analysis

Lane Code 15.215 provides that the Director of the Department of Public Works is delegated authority by the Board to impose temporary weight restrictions on roads and bridges under emergency conditions, and may post bridges or roads with such weight restrictions in the event of threat to public safety or extensive damage to public roads or bridges. The code language requires that the action be abated unless confirmed at the next public meeting of the Board with a duly executed Board Order.

Based on analysis by the State Bridge Engineer, the Director of Public Works has determined that the deterioration and damage constitutes an emergency situation, and in accordance with the recommendations of the State Bridge Engineer, has ordered that the bridge be posted as closed, but not barricaded at this time so that residents can continue to use it at their own risk if they choose to do so.

The Public Works Bridge Crew installed temporary signage warning of the bridge closure on February 16, 2006, and returned on February 17, 2006, to install permanent signage once utility locates could be marked. In addition, the Bridge Crew made personal contact with 4 of the property owners on the road and left copies of the closure letter at two additional residences where no one was home at the time. Three additional property owners were notified by closure by US Mail. Based on the Assessment and Taxation records, it appears that 7 of the parcels which must use the bridge for access

are improved with dwellings or manufactured homes. Two additional parcels are not used as home sites.

C. Alternatives/Options

1. Approve the Order confirming the action of the Director of the Department of Public Works in imposing the temporary bridge closure of the Green Creek Road Bridge at M.P. 0.23.

2. Decline to approve the Order and direct staff otherwise.

D. Recommendations

Alternative No. 1 is recommended.

E. Timing

The temporary weight restriction will become effective as of the date the Order is approved.

IV. IMPLEMENTATION/FOLLOW-UP

Staff will notify local news media of the revised posting.

V. ATTACHMENTS

Letter from Bruce V. Johnson, P.E. State Bridge Engineer

**IN THE BOARD OF COUNTY COMMISSIONERS OF LANE COUNTY
STATE OF OREGON**

ORDER

**(IN THE MATTER OF IMPOSING A
TEMPORARY CLOSURE OF THE GREEN
CREEK ROAD BRIDGE (BRIDGE 18751) AT
APPROXIMATE M.P. 0.23.**

WHEREAS, Green Creek Road is a Local Access Road (LAR) in the Elmira area of Lane County which crosses the Long Tom River via a bridge at approximate MP 0.23; and

WHEREAS, said bridge is not maintained by Lane County, but has been inspected under the direction of the Oregon State Bridge Engineer; and

WHEREAS, said inspection revealed deterioration and damage in the load-carrying members of the bridge as well as severe scouring of the earth embankments supporting the bridge; and

WHEREAS, the State Bridge Engineer has recommended that the bridge be closed until the needed repairs can be made; and

WHEREAS, per Lane Code 15.215, the Director of the Department of Public Works is delegated authority to impose temporary weight restrictions on roads or bridges under emergency conditions and to have such action confirmed by Board action at the next public meeting of the Board; and

WHEREAS, based on the recommendation of the Bridge Engineer, the Director of Public Works has determined that the deterioration and damage to the bridge does constitute an emergency situation, and that therefore a temporary closure should be imposed prior to Board authorization, and has ordered that the bridge be posted as closed; and

WHEREAS, Lane Code provides that such action shall be abated unless confirmed at the next public meeting of the Board with a duly executed Board Order; **NOW THEREFORE**

BE IT ORDERED, that the Director of Public Works' imposition of a temporary closure of the Green Creek Road Bridge at MP 0.23 is hereby confirmed.

Dated this _____ day of _____, 2006.

Chair,
Lane County Board of Commissioners



Oregon

Theodore R. Kulongoski, Governor

Department of
Transportation

Transportation Building
355 Capitol St. NE, Rm. 301
Salem, OR 97301-3871

FILE CODE: MAI 18751

February 15, 2006

Oliver Snowden
Lane County Engineering
3040 N Delta Hwy
Eugene, OR 97408

Carl Harrison
23519 Green Creek Road
Elmira, OR 97437

Ginger Justis
23020 Green Creek Road
Elmira, OR 97437

**SUBJECT: Load Restriction Recommendations
Long Tom River, Public Road (Bridge 18751)
Lane County**

Bridge 18751, Long Tom River, Public Road, is made up of a railroad flat car with a timber wearing surface and no foundation. This bridge is posted at 23 tons for three axle vehicles, based on the load rating that was updated in November 2004. The most recent inspection in June 2005 found the superstructure to be in critical condition with some portions of the structural members being almost completely rusted through.

Of even greater concern is the lack of a foundation. The channel has widened due in part to a rock dam that is near the bridge. Both embankments have eroded to the point that there is just 3 feet of material supporting the bridge on each end. The scour countermeasures that were in place have failed, with riprap being displaced to the point of no longer being functional and large scour holes forming at one end of the bridge.

The foundation is so unstable that a cable has been wrapped around the bridge to keep it from washing away. This cable is anchored to nearby trees. During high flow conditions, the level of the water is at least to the level of the girders, as noted on the 2001 inspection report.

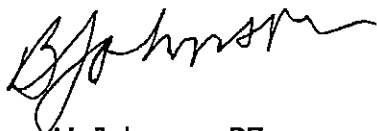
Due to the critical condition of the foundation, this bridge should be closed until repairs are made. If repairs are made to the foundation to reopen the bridge, the weight limit should be reduced to 3 tons. This is the lowest level of loading that is accepted by the Federal Highway Administration for bridges open to vehicular traffic. The reason for the reduction in the weight limit is the excessive corrosion that has occurred since the load rating was accomplished. The 3 ton limit should stay in place until the load rating can be updated to reflect the current conditions. An updated load rating may show the bridge can carry limited loads, or may show that the bridge has less than a 3 ton capacity and should be closed.

Until this bridge is closed, it should be monitored frequently to ensure that the foundation condition does not worsen. With the recent heavy rains and snow pack, the Long Tom River could return to high flow conditions before repairs are made.

We would like to preserve public safety and the ability of this bridge to carry loads until it is replaced. ODOT is prepared to work with Lane County to ensure that sufficient personnel and materials are available to expedite the needed repairs.

Please contact Joe Charbonneau, Load Rater, at (503) 986-3387 for any questions on these issues.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Johnson", written in a cursive style.

Bruce V. Johnson, PE
State Bridge Engineer

cc: Holly Winston, Interim Bridge Program Unit Manager
Gary Bowling, Bridge Operations Managing Engineer
Steve Tuttle, Local Agency Coordinator

bc: Richard Groff, Senior Load Rating Engineer
Joe Charbonneau, Load Rating Engineer
Bert Hartman, Load Rating Engineer
Jon Rooper, Load Rater

BVJ/jdj