

## GENERAL INSPECTION REPORT

(BC15)

REPORT No. 277

DATE: 27/10/2009 TO 04/11/2009

VIADUCT EXTERNAL (NORTH)

The entire viaduct external (**North**) was visually inspected over an intermittent period between the above dates, albeit generally satisfactory, deterioration continues. General findings were as follows.

It should be recorded that this is the first inspection to be carried out following the principal inspection carried out in 2006 and that no remedial works have been carried out following the completion of the principal inspection of 2006 and following reports submitted prior to that.

**Outriggers & Beams.** : Deterioration continues. Edge breakdown & paint breakdown remains apparent on both outriggers & beams. Medium to heavy corrosion evident throughout.

**Cycle track soffits E & W.** : Deterioration continues. During inspection bridge inspectors removed several loose spalled areas of concrete which they considered could possibly be unsafe and could fall into the bridge policies below. It is of our opinion that a programme of works be implemented to carry out the removal of all spalled areas on both cycle track deck soffits to ensure that there is no future possibility of any areas of concrete falling which could result in possible injury to the general public who may be on occasion be in the vicinity of the areas directly below.

**Box girders. E&W** : Deterioration continues. There are several areas throughout the box girders more specifically the East outer face where corrosion /heavy staining/discoloration are more prominent this inspection. At these areas generally there are water marks and damp patches evident on the deck soffit.. Transverse Past repairs have been carried out on the transverse joints on the cycle track surfacing. Could it be that now they are losing their adhesion to the original surface below and allowing the passage of water into the concrete deck below.

**Pier top drains covers & frames.** : All drain covers & frames both east & west are either missing, suffering from deterioration, heavy corrosion. & frame displacement, all require to be replaced.

**Roller & pin bearings.** Roller & pin bearings located on pier tops remain in a state of continual deterioration. Heavy corrosion & paint breakdown evident. It is well documented with regards to the current status of the aforementioned that several surveys have been carried out by consultants & contractors recently a capital plan of works for replacement of all bearings is scheduled for 2010/2011.

**Permanent access platforms.** : Platforms & fixings now suffering from medium to heavy corrosion throughout. There has been new permanent drop down edge protection handrail fitted since last inspection Work remains to be incomplete with the installation of raised areas at the box girder access hatches still to be carried out.

**Abutment Barrier/Handrail (west side):** It has been noted since as far back as December 2004 that the barrier/handrail is severely corroded, and many of the posts are holed. In February 2009 an individual report was submitted for ESM to review with regard to this matter, but no progress has been made to date. It is suggested by the inspectors that this barrier/handrail be removed and replaced with concrete block as has been done on the east side, noting however that a removable section (possibly box section of significant wall thickness) be required above duct access covers. There are a sufficient number of block in south anchorage to complete this job.

### Bridge Inspectors:

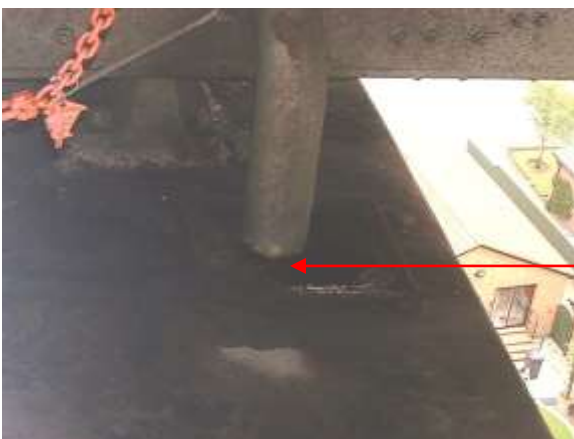
## GENERAL INSPECTION REPORT



Drain cover missing on pier  
top drain.



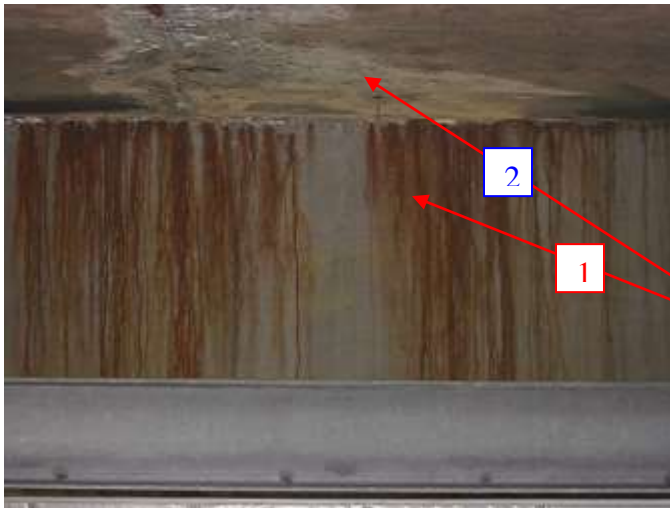
Drain cover framework  
missing/distorted /heavily corroded  
on pier top.



Drain cover  
heavily  
corroded on  
pier top

Will drain covers on pier tops be replaced as part of capital works to replace North viaduct bearings.

## GENERAL INSPECTION REPORT



**1** denotes Areas of heavy discoloration / staining evident throughout the North east box girder outer ( East face. )

**2** denotes Areas of water marks /damp areas evident at time of inspection.



Water stain / damp marks evident on the soffit of the east cycle track concrete would suggest that water is being directed by the camber on the surfacing being projected downwards and inwards, bearing in mind that transverse repairs to cycle track joints have been carried out in the past. Could it be that some of these repairs have lost their adhesion to the existing original material below allowing the passage of water through to the soffit of the concrete and on to the face of the box girder causing the heavy staining and discolouration as shown on the photographs.

## GENERAL INSPECTION REPORT



Areas of paint breakdown /  
unpainted box girder & outrigger  
beams.



Areas of paint breakdown &  
corrosion evident on outrigger  
& crossbeam edges. & box  
girder face.