



INSPECTION DEPARTMENT
South Side Span Report 417.
DATE. 2014.02.17.

(E2.1 Bridge)  
REPORT No. 417  
SIDE SPAN SOUTH

DATE: 07.02.14 to 17.02.14

The South side Span was inspected over the above dates; generally the south side span remains in a satisfactory condition and the general findings were as follows:

**Structural Steelwork/Bolts:** All the structural steelwork on the south remains in a satisfactory condition, only 1 no. new missing bolt was found this inspection, this being located on beam 16 (cycle track) top chord connection.

**Paintwork :** Paintwork on the side span generally remains a satisfactory condition. There are areas (specifically) top and bottom chord lateral bolt clusters where the bolt heads are beginning to suffer from different levels of breakdown through corrosion.

**Deck Stiffeners:** Certain specific deck panel half joints on the south side span were becoming a re-occurring problem in relation to constant repair works having to be carried out on top plate (end trimmer) detail. This was being caused by the different levels at the deck panel ends through wear- down of the half joints themselves. A program of works was implemented to target the continual offenders. PPs 24 & 30 were selected. A procedure was carried out where all deck stringers were jacked up and levelled (following preparatory work to the half joints) and hardox packers were inserted. These new packers were inserted into the detail of the half joint and welded on both east and west sides of the half joint. During this procedure the old top plate was removed and a new top plate installed.

**Carriageway Concrete – Deck Soffit:** Generally the carriageway soffits both east and west side- span remain in a satisfactory condition. At PP.08 West an area of carriageway surfacing located in lane No1 at the south end of the panel showed signs of distress & surface crazing. An investigation in to the causes was carried out by FRB staff. It was found that an area of the concrete deck was defective. This was repaired and the area was temporarily resurfaced until a permanent surface of mastic asphalt could be laid. This was carried out by contractors (Leiths) during a program of works to repair all recorded defective areas of carriageway surfacing throughout. Shortly after completion of works it was observed that the same defective area of surfacing was beginning to show signs of distress again. Leiths were called back together with Stirling Lloyd who again carried out further repairs. Inspections carried out by bridge staff have revealed that there is further cracking and crazing evident. This area is being monitored and further investigations may have to be carried out.



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**Stringer Half Joints:** Monthly inspections continue to be carried out at PP12 SW as requested – current status remains satisfactory. There are certain deck panels on the south side span where excess movement at the half joint detail is evident. As far back as 2003 at Pp. 42 on both east and west sides was recorded. This still remains up to present day inspections; movement and noise remains evident.

**Cross Girders/Beams 8 & 3 E/W:** At time of inspection there was still evidence of road detritus in the beam rainwater passage channels at beams 8 & 3, thus not allowing the natural flow of water from the upper levels; these still require to be cleaned out.

**Inner Balustrades/Air & Water Ringmain:** These in general remain in a satisfactory condition; at time of inspection the water ringmain was turned off for the winter period.

All defects recorded and entered on the structural report programme with all individual defect sheets given to the appropriate Maintenance Supervisor.

Bridge Inspectors:



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