

INSPECTION DEPARTMENT Main cable inspection. DATE. 06.04.15 to 09.04.15

(E2.1 Bridge) REPORT No. 468 MAIN CABLE

DATE: 06.04.15 to 09.04.15

An inspection of the main cable was carried out by the Bridge Inspectors between the above dates and general findings were as follows:

<u>Cable Bands</u>: All cable bands throughout the structures main cable remain in a satisfactory condition. New acoustic monitoring sensors have been installed throughout the structure since time of last inspection; the old sensors are still in place to be removed some time in the future.

<u>Cable Bands Bolts</u>: Cable band bolts and nuts that were replaced showing no signs of any defects this inspection, however, it should be noted that the new paint protective coating that was applied to the nut faces still makes it difficult to detect any defects.



Cable Bands Sealant: All the cable band sealant which is located on the top & bottom half of the collars is in-situ and remains in a satisfactory condition, no repairs have been carried out since time of last inspection, therefore the locations of the air leaks recorded previously remain as stated below: South West Side Span. : - PP 18. (north side) South East Side Span. : - PP 34. 9 (north side) South East Main Span. : - PP 62, 66, 70 &100 (all south side) North East Main Span. : PP 68. (north side) New Location: South West Main Span: PP64-66 on north- west corner of injection unit coverplate



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<u>Main Cable Wrapping</u>: All the main cable wrapping throughout the main cable remains in–situ and in a satisfactory condition.

<u>Main/Side Tower Sleeves:</u> All sleeves remain in a satisfactory condition. Cable bands immediately below all main tower sleeves, the bolts have slight to medium corrosion evident, protective paint covering broken down.





Handstrand Stanchions: All hand-strands & bolt fixings throughout the main cable remain in a satisfactory condition. At PP 92 on the south east main span & north east main span the internal locking nuts on the east & west face in the underside of the hand-strand stanchion (which is box section) are not on the threaded bolt. (this could have been when handstrand stanchions were removed to allow main cable gantry access and not been put back in place). Outer nuts remain in place and secure.



Locking nut position for hand-strand internal face



Handstrand Cable Casting Clamp/Post Connections: All remain in situ. All welds to hand-strand stanchions remain satisfactory, no defects found. Following survey carried out in 2007 with regards to movement / noise levels on the above, no work has been carried out. Approx 50% of wedges installed following survey remain in position. A program of works will be implemented to remove & replace existing wedges and to install new where required. Following this inspection, with information related to the above, again concern should be raised with regard to the internal condition of the bolt shank and the condition / deterioration/wear- down of the clamps phosphorous bronze sleeve and washers; if possible one of the worst examples should be removed and examined to ascertain its current condition, and to use this example to determine the wear- down of other locations.



<u>Anti-Skid:</u> The new anti-skid covering, in various locations, that was applied to the main cable, has started to show signs of wear and in some instances has come away completely at the edges; the existing anti-skid in general remains satisfactory.

Paintwork: As part of the cable band bolt replacement contract, it was agreed between both parties that following the completion of the bolts at every location, a protective paint coating would be applied by FRB painters. In various locations some of the paint has flaked off to expose the cadmium protective coating to the elements.

<u>Main Cable Gates:</u> All main cable access gates generally remain in a satisfactory condition; medium corrosion is evident on all plates & bolts.

All information has been recorded and entered onto the structural report program. Photographs taken can be viewed in relevant file.

Bridge Inspectors:

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