
NORTHUMBERLAND COUNTY COUNCIL

SWINDON KENNELS BRIDGE UNDERWATER INSPECTION REPORT MAY 2019



**REPORT TITLE: SWINDON KENNELS BRIDGE
INSPECTION REPORT – 31ST MAY 2019**

INDEX

INTRODUCTION

 Description of Structure

 Description of Inspection

CONDITION REPORT

CONCLUSION AND RECOMMENDATIONS

APPENDICES

 Appendix A Photographs

 Appendix B Soundings Drawings

INTRODUCTION

Description of Structure

The bridge is a single span simply supported concrete slab on masonry abutments. The bridge carries an unclassified road across the Grassless burn.

The bridge is orientated north to south and the burn runs in an Easterly direction.

Description of Inspection

The inspection was carried out by a dive team from Sealane Inshore on 31st May 2019. The weather was fine and sunny.

The inspection was a purely visual/touch. No excavation or testing was required by Northumberland CC.

INSPECTION INFORMATION

ABUTMENTS.

South Abutment.

The abutment was of masonry construction noted to be free from damage and defects with no scour or undercutting to the base of the abutment.

The masonry block work joints are well filled with mortar.

It was noted that two vertical cracks run beneath the deck of the bridge these measured 30mm at the top of the wall on the east end down to zero at the bed level.

It was also noted to have rotated out by approximately 30mm at the top.

The vertical crack at the west end of the abutment again runs the full height and measures 40mm at the widest point which is at the top, again the masonry was noted to have rotated 30mm at the top. The crack tapers from the top to the bottom. (See Photo 1,2)

No other damage or defects were noted.

North Abutment.

The abutment was of masonry construction it was noted to have a small area of scour at the bed. The masonry block work joints are well filled with mortar.

It was noted that two vertical cracks run beneath the deck of the bridge these measure; on the west end from the top of the wall to the bed at its widest it measures 20mm down to zero at the bed. The east end crack only runs from the top of the wall and measures 5mm wide at the widest point down to zero, it only measures 2.3m long. (See photo 3)

At the west end of the abutment a small area of scour was noted on the return corner this measures 1m long x 400mm deep at the deepest point and 40mm high at the highest point. (See photo 4) No other damage or defects were noted.

Both of the north and south abutment cracks have been re-pointed at some point and this has cracked due to the rotation.

Invert

The invert is made up of sand and various different size rocks. The level was taken from the underside of the soffit on the north abutment and measured 3.1m to the water level.

Deck

The deck was constructed of encased RSJ and a concrete deck it was noted to be free from defects and damage. (See photo 5)

CONCLUSION AND RECOMMENDATIONS

The bridge was found to be in generally good condition.
No loss of mortar with the exception of the cracks which appear on the abutments.
The south side of the bridge which seems to have more rotation than the north should be monitored for further rotation.
The area of scour area on the west end of the north abutment should be monitored for further deterioration.

APPENDIX A- PHOTOGRAPHS

Photo 1



Rotation at top of south abutment



Photo 2 South abutment, arrows show cracks.



Photo 3 North abutment



Photo 4 Scour area on west end of north abutment shown by arrow.



Photo 5 Underside of deck.

APPENDIX B- SOUNDINGS DRAWING

