# **Auckland Harbour Bridge Alliance**

# Special Structural Inspection Box Girder Internal Special 4





Auckland Harbour Bridge

PART OF THE AUCKLAND MOTORWAY ALLIANCE

# Auckland Harbour Bridge Alliance

**Special Structural Inspection** 

## Box Girder Internal Special 4 – 2020/2021

Inspection Deta	ils			28
Inspector	Date of Inspection			)
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			74.	
Quality Assurar	s 9(2)(a)			
Report Prepared	by:	IL.		
Approved for issu	ie by:	A		
Issued to:		<u>с</u> т.		
Revision Schee	dule			
Rev. No Date	Description	Prepared by	Reviewed by	Approved by
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#### 1 Scope

The final Box Girder Internal inspections was undertaken in March 2021 as part of the 2020-2021 structural inspection programme. This inspection included the 3 monthly inspection items, which as stated in the special inspection register, are the trough splice fillet welds in the east box 75-80 T+3 and west box 66-70 T+3.

As part of the special inspection, weld cracks that are already known to us are also monitored. Weld cracks that have grown, if any, will be shown in this report. Any other new defects found on members that are not included as part of the special inspection items but are identified during this inspection will also be reported.

Table 1 and 2 provide a brief description of the current (yet to be repaired) trough splice cracks and trough to deck cracks. A more detailed record of these defects, including information on when they were last reported can be found in the Inspection box girder crack register.

#### 2 Condition Rating

One new vertical web stiffener weld crack was found during this inspection. There was no sign of growth in the existing weld cracks.

Defect ID	efect description	Priority
Previous report	East box. Box join 56/57. Trough 4.	Н
BGIS3-20/21	Trough splice crack.	1 Year
Previous report	East box. Box join 30/31. Trough 5.	Н
BGIS3-20/21	Trough splice crack.	1 Year

Table 1 - To	be	repaired	trough	splice crack	S
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Table 2 – To be repaired trough to deck cracks

Photo ID	Defect description	Priority
N/A	All known cracks have been repaired.	N/A
2		
$\mathbf{\nabla}$		

#### Table 3 – Marking code

1	Priority	No. Defects	
<b></b>	-		
2	-	-	
R	H	-	
R	IVI	-	
S	н	-	
S	M	1	
S	L	-	
	Total	1	
	OUN	DERT	E OFFICIAL ME





# 3 Defects

# **3.1 Box Girder Internal Special 4**

Photo ID	Marking Code	Description of Defects	Maintenance/ Repairs Recommendations	Maintenance/ Repairs Priority & Timeframe
BGI-1	S	- wB 90/2.5 Ews fficin	HARANGE BORNATIO	AC
		West box outer. Box 80 between crossbeams 2 and 3. Vertical stiffener to web weld crack.	Weld crack repair	M 1-2 Years
et l'	AST			

r Ne

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 $\Box$ 

### Appendix A – Marking Code and Prioritisation of the Works

The following timeframes are used for prioritising maintenance works: High – must be done as soon as possible, within 12 months Medium – preferable to do as soon as possible, with Low - no work required within the next 2 v<sup>c</sup>

- .ii sible, .2 years