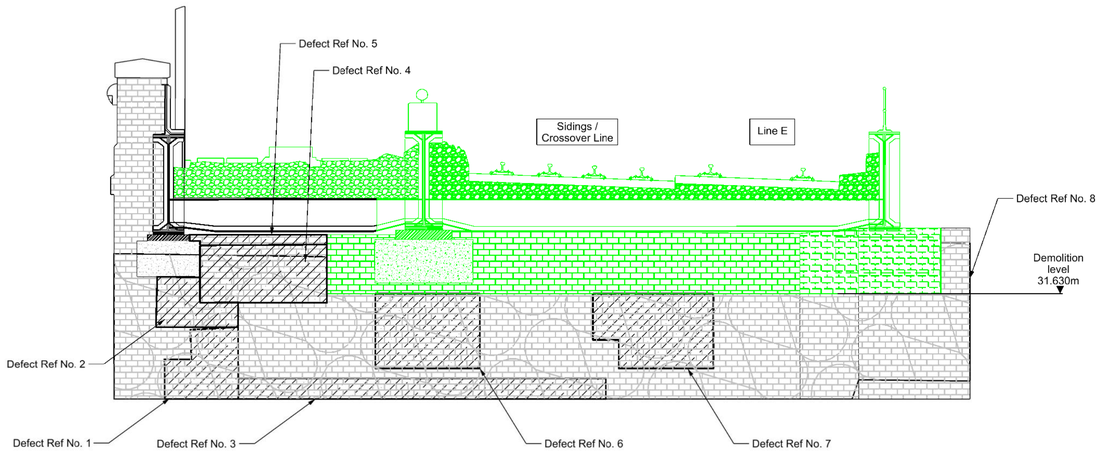
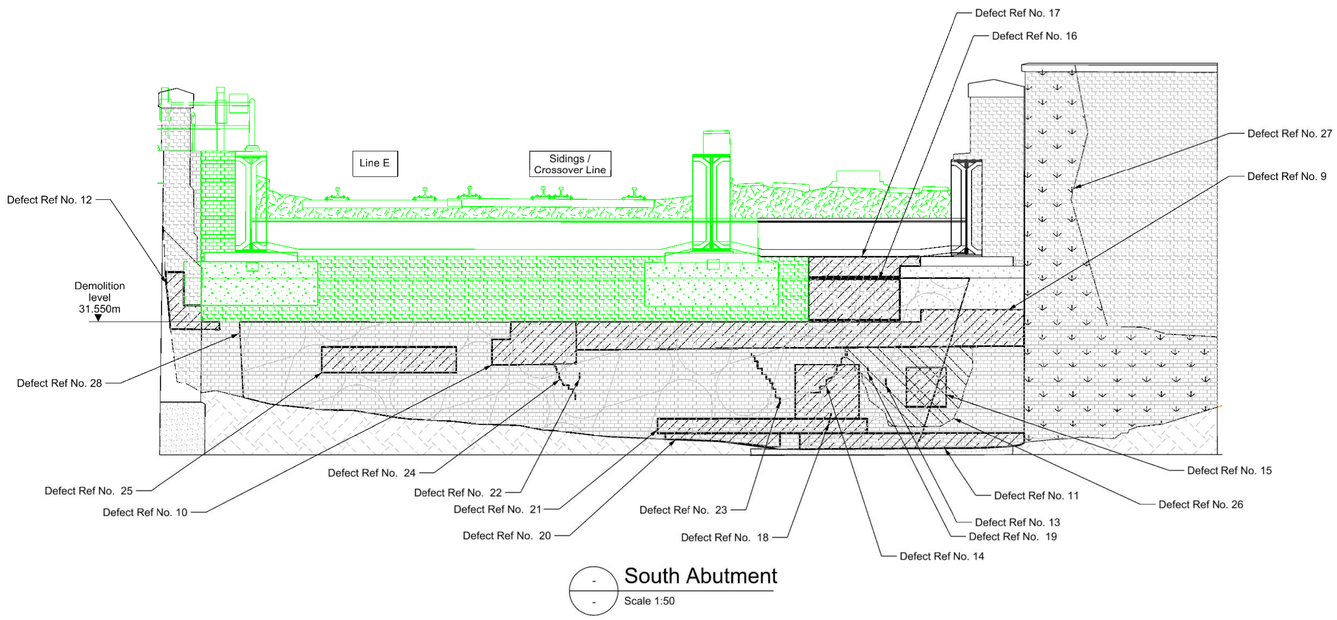


North Abutment
Scale 1:50



South Abutment
Scale 1:50

Ref.	Location	Defect	Dimensions	Proposed Repair
1	High mileage abutment	Open joints at 25mm depth	1.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
2	High mileage abutment	Open joints at 10mm depth	1m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
3	High mileage abutment	Open joints at 5-10mm depth	2m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
4	High mileage abutment	Open joints at 40mm depth	2m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
5	High mileage abutment	Open joints at 30mm depth	1.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
6	High mileage abutment	Open joints at 10mm depth	2m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
7	High mileage abutment	Open joints at 10-15mm depth	2m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
8	High mileage abutment	Non- offensive graffitti	30m^2	Jet wash abutment (see Note 10.)
9	Low mileage abutment	Open joints at 10mm depth	3.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
10	Low mileage abutment	Open joints at 5-10mm depth	1m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
11	Low mileage abutment	Open joints at 10mm depth	1.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
12	Low mileage abutment	Open joints at 10mm depth	0.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
13	Low mileage abutment	Hairline fracture	Through 1No. brick	No action. Monitor as part of ongoing maintenance regime.
14	Low mileage abutment	Hairline fracture through mortar and brickwork	10No. brick courses	Stitch fractures in accordance with Drawing NR/CIV/SD/110.
15	Low mileage abutment	Open joints at 10mm depth	0.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
16	Low mileage abutment	Open joints at 5-10mm depth	1m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
17	Low mileage abutment	Open joints at 20mm depth	1m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
18	Low mileage abutment	Hairline fracture	Through 1No. brick	No action. Monitor as part of ongoing maintenance regime.
19	Low mileage abutment	Hairline fracture	Through 1No. brick	No action. Monitor as part of ongoing maintenance regime.
20	Low mileage abutment	Open joints at 10mm depth	0.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
21	Low mileage abutment	Open joints at 10mm depth	1m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
22	Low mileage abutment	Hairline fracture	Through 1No. brick	No action. Monitor as part of ongoing maintenance regime.
23	Low mileage abutment	Hairline fracture	Through 13No. brick	Stitch fractures in accordance with Drawing NR/CIV/SD/110.
24	Low mileage abutment	Hairline fracture through mortar and brickwork	Through 10No. bricks	Stitch fractures in accordance with Drawing NR/CIV/SD/110.
25	Low mileage abutment	Open joints at 5mm depth	0.5m^2	Rake out and repoint in accordance with drawing NR/CIV/SD/101.
26	Low mileage abutment	Leachate staining.	2.5m^2	Leachate staining to be removed (see Note 10).
27	Low mileage wingwall	Vegetation growth covering wall.	3m^2	See Note 9.
28	Low mileage abutment	Non- offensive graffitti	25m^2	Jet wash abutment (see Note 10.)

Key

- Open Joints
- Leachate
- Graffitti
- Vegetation/ Moss growth
- Fracture

Notes

1. All dimensions are in millimetres unless stated otherwise.
2. Do not scale from this drawing.
3. This drawing is based on available Network Rail record information, and a topographical survey undertaken by Plowman Craven in May 2019.
4. The defects shown on this drawing are based on the most recent examinations by Mott Macdonald engineers on 07/09/21.
5. All brickwork repairs are to be carried out in accordance with the following drawings and the specifications included thereon; NR/CIV/SD/101 - specification for the works. NR/CIV/SD/111 - Spot Replacement of Bricks Specification for the Works.
6. Detailed as built records in the form of before and after photographs of each repair are to be provided.
7. All detailed and any further repair locations found on site are to be marked out by the contractor and agreed with the client/client's representative.
8. No additional works to be undertaken without prior written authorisation from Network Rail.
9. All undesigned/ unmanaged vegetation on or within 3m of the structure to be treated with glyphosate or similar approved herbicide and allowed to die. All resulting debris to be cut back and removed from site. Root systems to be removed as far as practicable and any structural elements made good, resulting open joints to be raked out and re-pointed in accordance with repair drawing NR/CIV/SD/101.
10. The chemicals used for jet washing are to be fully biodegradable, non-hazardous and completely neutralised by water allowing normal drainage use for disposal. The pressure used for jet washing must be controlled so that it does not damage the masonry and mortar bed and does not leave stains to the elevations. If the contractor proposes to use other alternatives, approval must be sort from Network Rail and the Environment Agency.
11. Mortar used for wingwall reconstruction shall be as follows:- 1:¼ : 4 cement/lime/sand with the addition of an approved air entraining agent to enhance frost resistance.
    Cement for mortar shall be 'Portland' complying with BS 12.
    Lime shall be high calcium lime, semi-hydraulic lime or magnesium lime complying with BS EN 459-1.
    Sand shall comply with BS EN 1313 and shall be washed sand or natural-crushed rock. It shall not be of a marine source.
    Water shall not contain impurities and be tested in accordance with BS EN 1008.
    Batched mixes shall be used up within 2 hours of mixing.
12. Where additional/replacement bricks are required for wingwall re-instatement brickwork shall be constructed from bricks with strength, size and aesthetic characteristics to match existing. The use of compatible reclaimed examples is encouraged.
13. The precise extent of all brickwork repairs to be agreed on site with with NR Engineer following devegetation activities.

N.B. Existing brickwork often consists of imperial dimensioned bricks.

Rev	Date	Drawn	Description	Ch'k'd	App'd
P01	02/11/2021	EY	Form1/2 Submission	IJC	RES

Status Stamp

NOT FOR CONSTRUCTION

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Client

STORY

NetworkRail

Title

LEC1/9E Canal Bridge
Masonry Repairs

Designed	B. Standring	RES	Eng check	I. Crook	IJC
Drawn	E. Yip	EY	Coordination	B. Standring	RES
Dwg check	I. Crook	IJC	Approved	B. Standring	RES

MMD Project Number	Scale at A1	Security
410044	AS SHOWN	STD

Suitability Description	Suit. Code
Work In Progress	S0

Drawing Number	Revision
164941-MMD-00-XX-DR-C-1005	A01