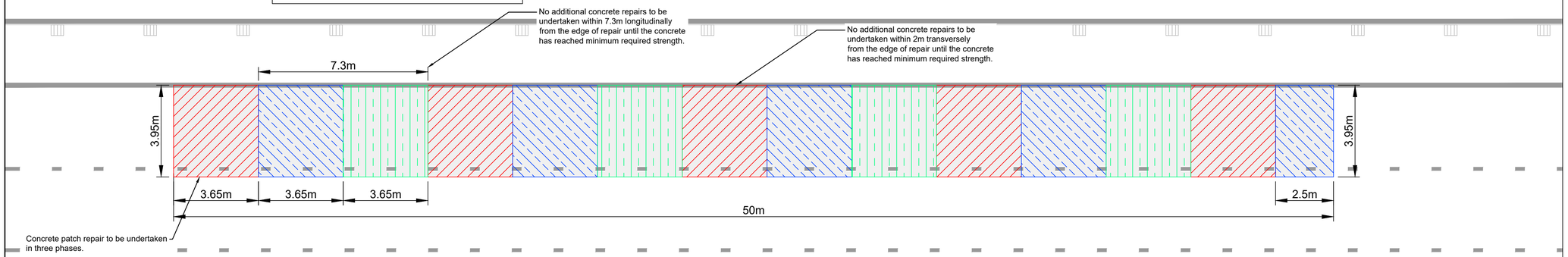
0 100

MP 198/7 B

The requirement on this drawing shall be applied to any other areas identified as being in need of concrete repairs.

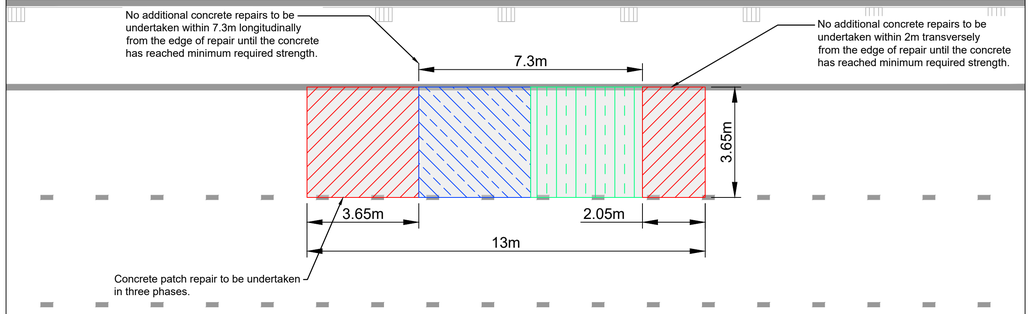


M4 Eastbound

PHASING DETAILS FOR PATCH A
COCRETE PATCH REPAIR
SCALE 1:1000

0 10 20 40 60 80 100m
SCALE 1:1000 @ A1; 1:2000 @ A3

MP 198/4 B



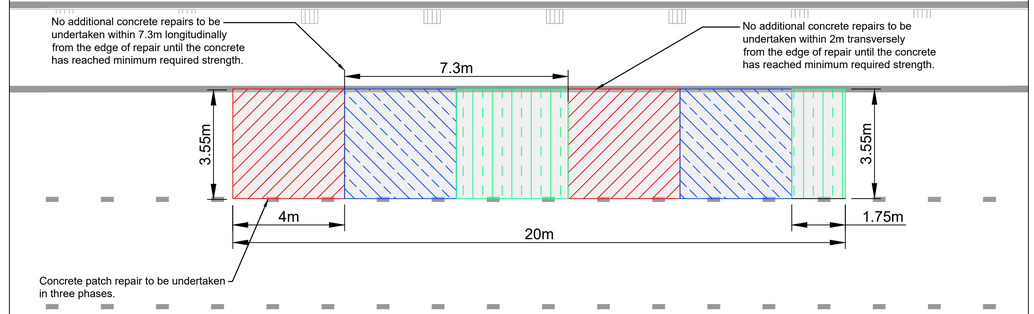
M4 Eastbound

PHASING DETAILS FOR PATCH B
COCRETE PATCH REPAIR
SCALE 1:1000

0 10 20 40 60 80 100m
SCALE 1:1000 @ A1; 1:2000 @ A3

- Phase shall be competed in numerical order
- All phase 1 work shall be be completed concurrently across all three repair areas.
- Before any other phase commences, the concrete/repair material shall have reaches a cube strength of 40 N/mm² (as proven by the standard methods of testing described in the contract documents).
- All phase 2 work shall be completed concurrently across all three repair areas.
- Before phase 3 work commences, the concrete/repair material shall have reaches a cube strength of 40 N/mm² (as proven by the standard methods of testing described in the contract documents).
- All phase 3 work shall be completed concurrently across all three repair areas.
- Repair areas may be used for site traffic when they have achieved a cube strength of 20 N/mm².
- The lane shall not be reopened to traffic until the repaired areas have reached the required 70N/mm² strength (as proven by the standard methods of testing described in the contract documents).
- Repair areas may not be waterproofed until 168 hours have elapsed since the final pour - preparation for waterproofing may begin before this, but the application of any primer, or the waterproofing membrane itself, must be after 168 hours.

MP 198/3 B



M4 Eastbound

PHASING DETAILS FOR PATCH C
COCRETE PATCH REPAIR
SCALE1:1000

0 10 20 40 60 80 100m
SCALE 1:1000 @ A1; 1:2000 @ A3

NOTES

1. Do not scale from this drawing.
2. All dimensions are in millimetres unless otherwise stated.
3. Dimensions are taken from record drawings and have not been confirmed on site by measurement
4. Carriageway resurfacing works confined to the Cable Stay Bridge.
5. Where a deep concrete repair is undertaken no additional concrete repair shall be undertaken within 7.3m longitudinally and 2m transversely from the edge of the repair until it has reached the minimum required strength.
6. Traffic Management works extends beyond the boundary of the Bridge.
7. For further detail on concrete patch repair and patch locations, refer to drawing SBIM-POW-TO824-0008.
8. This drawing is to be read in conjunction with drawings in the:- SBIM-POW-TO824 Series.
9. Any repairs encountered may be treated as non-structural repairs if their areas is 0.1m² or less, and they have an average depth of not less than 10mm. These shall be achieved with the Appendix 57 R4 repair material onto a cleaned and roughened substrate.
10. All other repairs shall be structural repairs in accordance with CS 462.
11. If repair by Appendix 17 concrete is chosen. concrete removal shall extend 25mm behind the lowest bar (from the longitudinal or transverse bars).
12. If repair using a Series 5700 concrete repair material is adopted, the concrete removal must extend a depth below the lowest bar equal to 2.5 times the aggregate size used in the repair material.
13. Measurements from a reinforcing bar shall be based on the maximum diameter of the bar (i.e. including ribs).
14. The Appendix 17 concrete specified for repair shall become an option for use where 1m³ or more of repair material is required in a single shift. The appendix 5700 material shall always be available as an option for all sizes of repair.

KEY:

MP 197/9 B — Marker Posts

Area of carriageway where patch repair is required

Phase 1 of concrete patch repair

Phase 2 of concrete patch repair

Phase 3 of concrete patch repair

RESIDUAL DESIGN HAZARDS

(The following information has been collected from Preconstruction Information and the Amey CDM Hazard Management Process).
Residual Design Hazards:

HS-01 - Striking existing utilities
HS-02 - Temporary instability of bridge as a result of concrete removal
HS-03 - Risk of Injury from protruding reinforcement
HS-04 - RA1 Procedure limitations
HS-05 - Reduction in deck thickness due to hydro demolition
HS-06 - Depth of deck when breaking out concrete
HS-07 - Trafficking of the deck following treatment

Rev	Revision details	Drwn	Chkd	Appd	Date
P01	For Tender	AD	TB	LG	12.04.24

Designed:	Amey	Date:	12.04.2024
Drawn:	Alex Davey	Date:	12.04.2024
Checked:	Tom Bolton	Date:	12.04.2024
Approved:	Laurence Green	Date:	12.04.2024

Amey
www.amey.co.uk

Client: national highways

Project Name
M4 Prince of Wales Bridge Resurfacing Strategy

Drawing Title
Details of Phasing for Concrete Patch Repairs and Requirements for Other Concrete Repairs

Original Drawing Size : A1	Scale : As Shown
Dimensions : -	

Drawing Status	Suitability
For Tender	S2

Drawing No	Rev
SBIM-POW-TO824-DWG-0009	P01