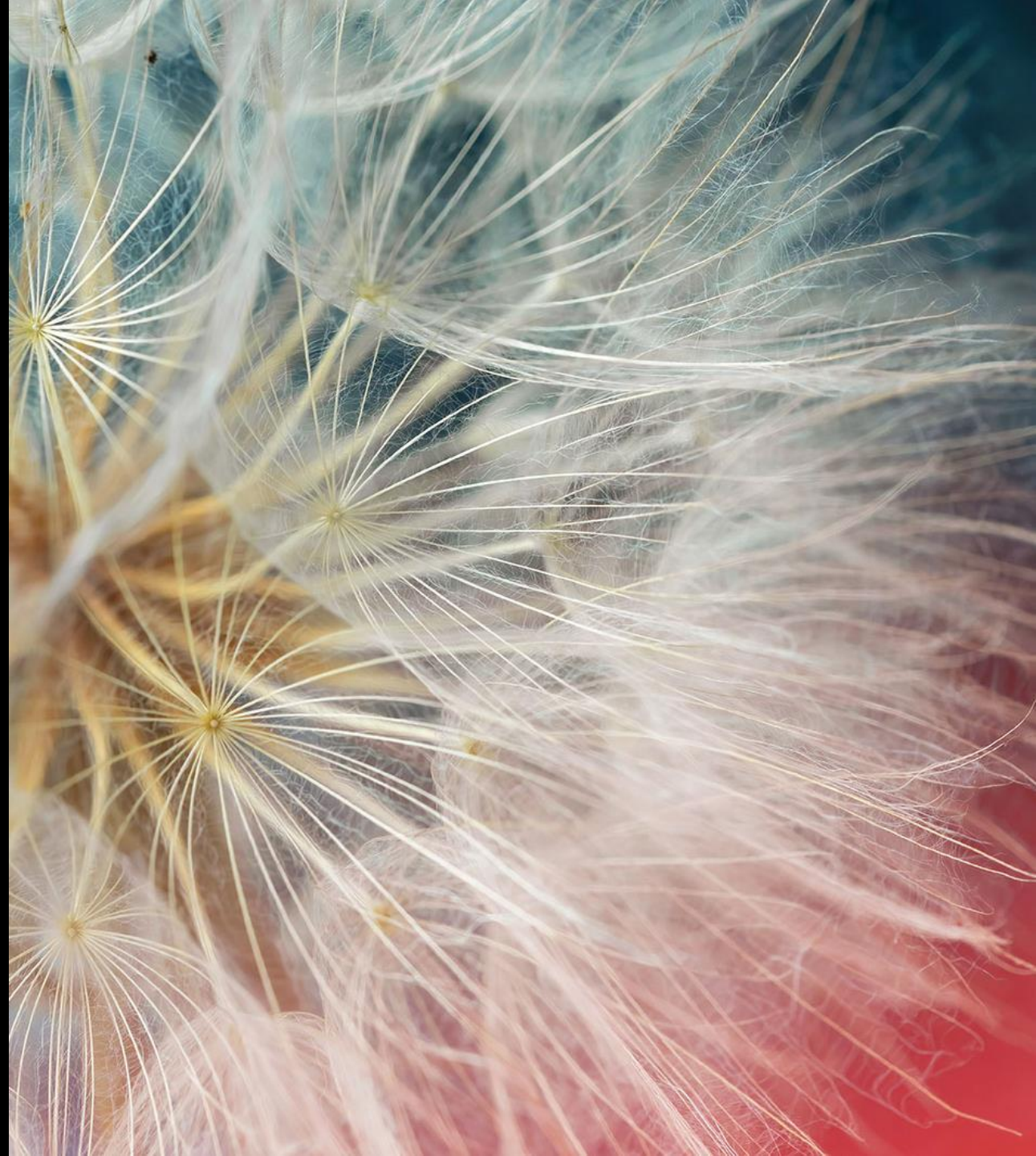
# OLD WYE BRIDGE – COMPLETE CLOSURE UPDATE

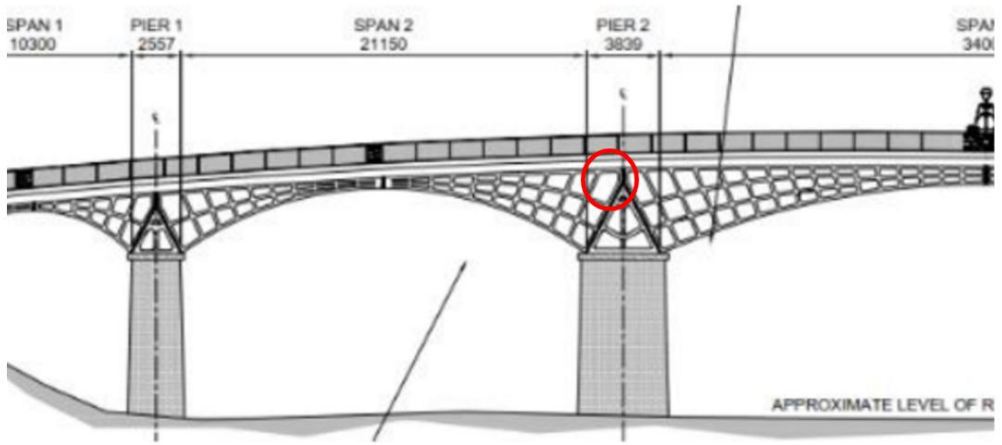
**PRESENTATION TO MONMOUTHSHIRE COUNTY COUNCIL**

Presented to MCC | 31st March 2026



# Timeline to Date

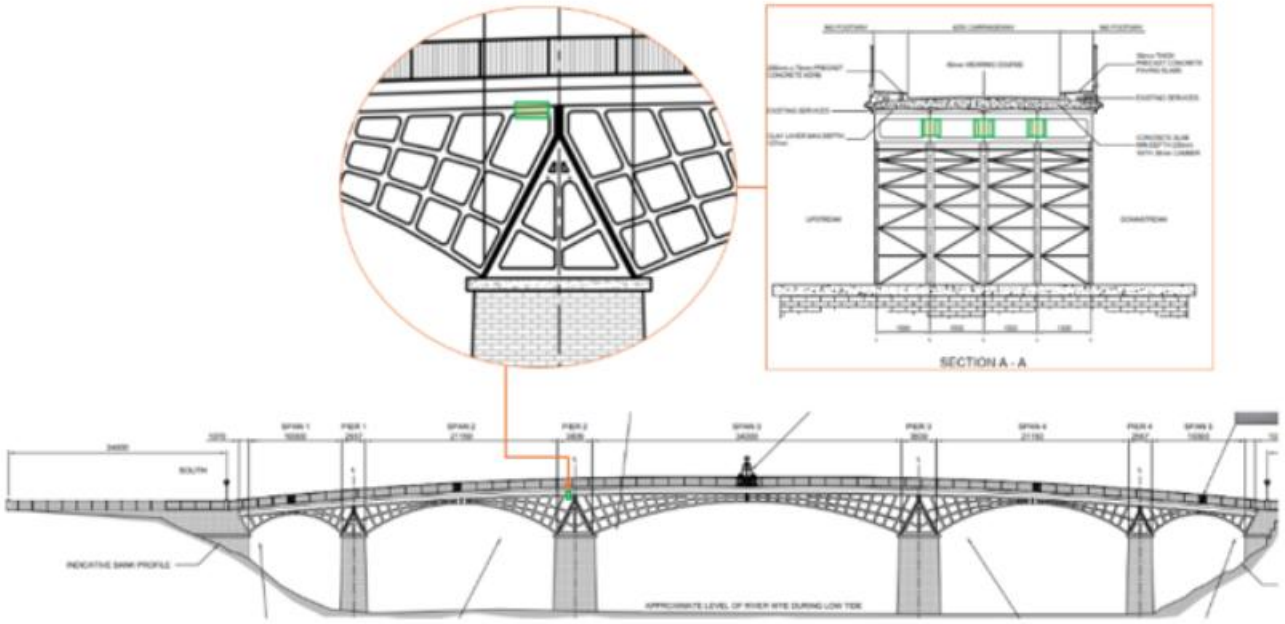
- **01-Oct-25** – Crack discovered in span 2, girder 3 on routine 6-month inspection by surveyor
- **01-Oct-25** – Bridge closed on recommendation from WSP for vehicular traffic and crowds.
- **02-Oct-25** – Agreement to carry out structural assessment that examines the removal of girder 3 on span 2.
- **23-Oct-25** – Completion of updating the structural assessment model and removal of girder 3, span 2.
- **24-Oct-25** – Presentation to council on findings and recommendations.
- **18-Nov-25** - Presentation to Council on Next Stages.
- **14-Jan-26** – Agreement to proceed with Next Stage (Assessment, Material Extraction & Options Report)
- **14-Jan-26 – 25-Mar-26** – Assessment on structural members likely to fail next and temperatures limits. Ongoing planning for monitoring works and material extraction works.
- **25-Mar-26** – Special Inspection undertaken on the week commencing 25-Mar, new cracks discovered.



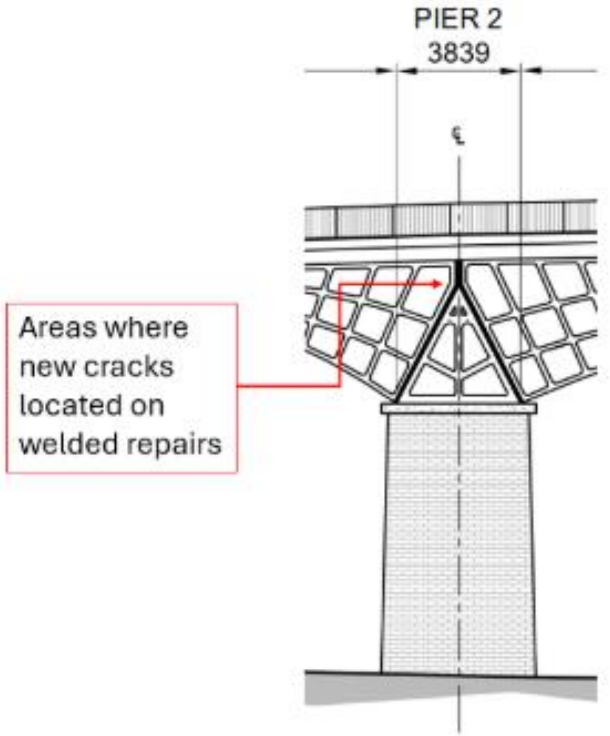
# March 2026 Survey Results

- Special Inspection undertaken by Up&Under on the week commencing 23-Mar-26
- New defects found in Pier 2 on the 24-Mar-26
- New defects found on Pier 4 on the 25-Mar-26
- Analysis and review of the defects undertaken on the 25-Mar-26
- Decision to close the bridge to pedestrians on the 26-Mar-26

# Existing Cracks (Pier 2)



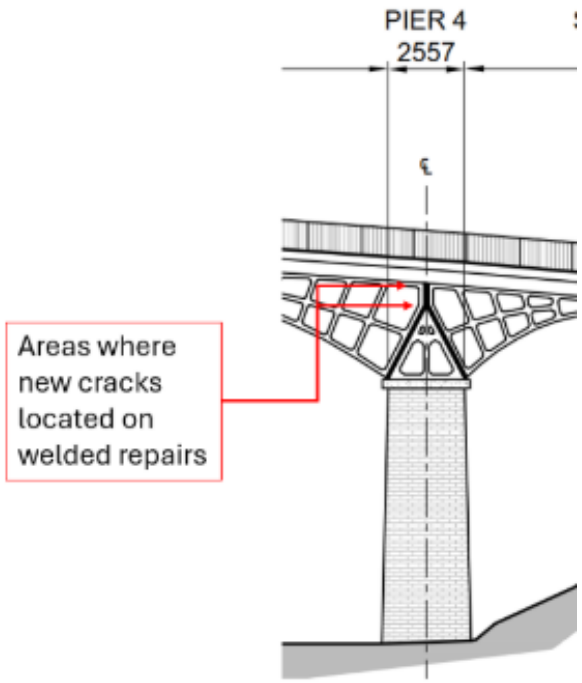

# New Defect (No.1) – Pier 2, Girder 2

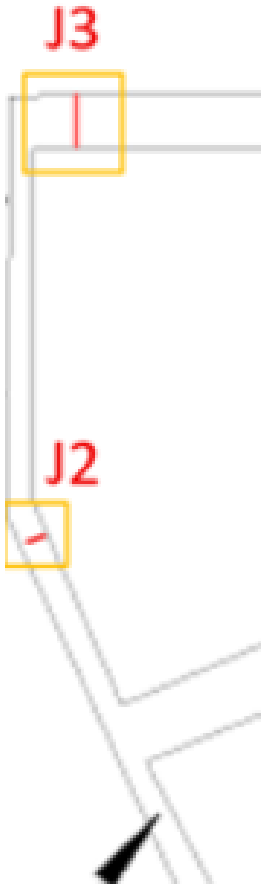


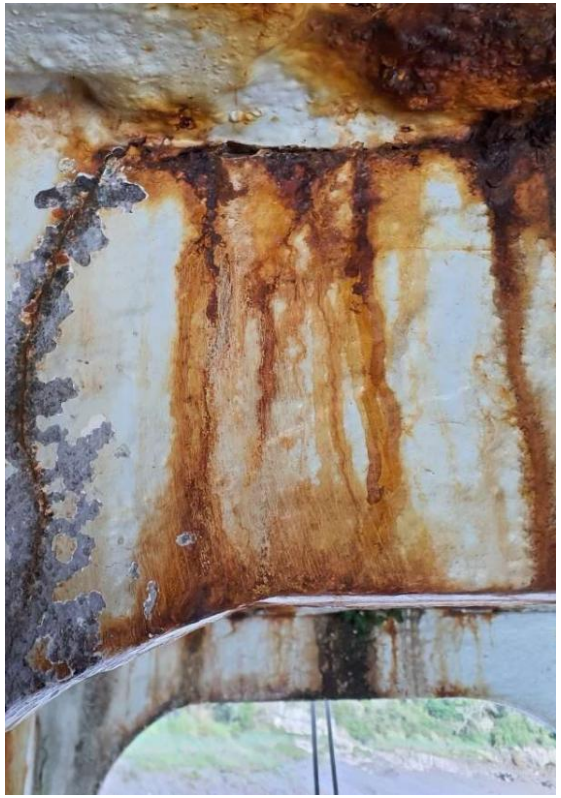


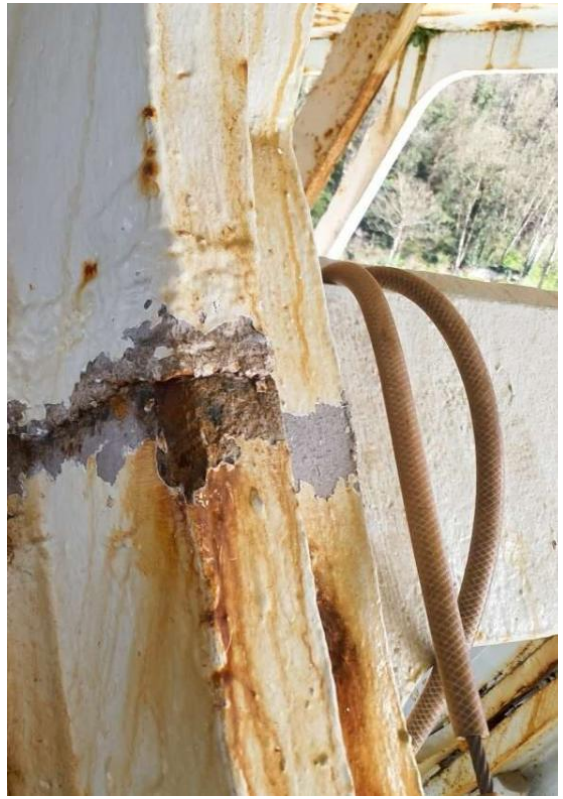
# New Defect (No.2) – Pier 2, Girder 3


# New Defect (No.3&4) – Pier 4, Girder 2



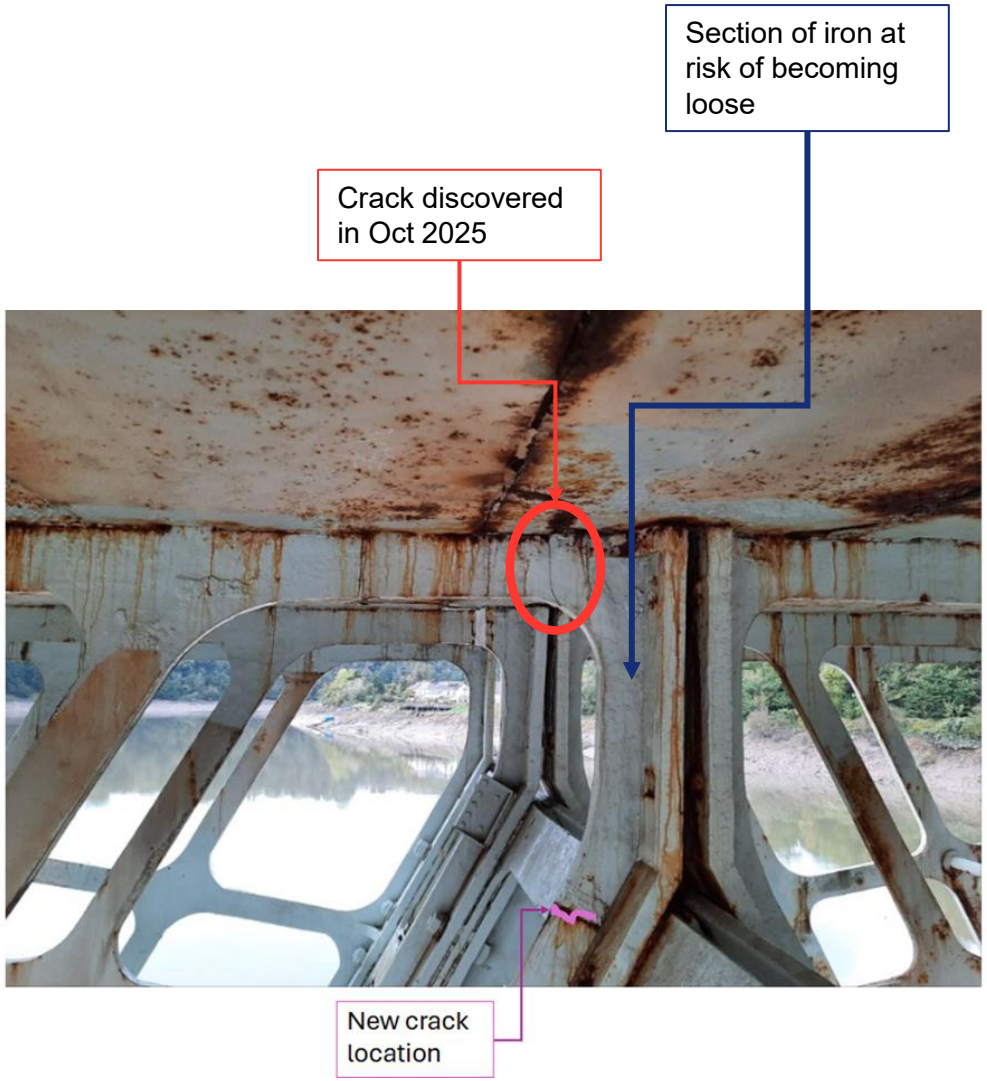





# Reason for pedestrian closure

- New cracks are most likely to have occurred as the bridge contracted during cold weather over the winter, with the cracks discovered in Oct 2025 due to expansion in hot weather over the summer.
- Cast iron is susceptible to fatigue, so cycles of load/stress from temperature changes and vehicle loads will have accumulated damage in the metal. This means that cracking can occur even at loads that the bridge has previously supported without cracking.
- Provisional calculations have shown that cracks that have occurred do not significantly affect the ability of the bridge to carry its own weight, or those of pedestrians. However, if there is further cracking of several additional members, this could begin to reduce the capacity of the bridge.
- The new cracks at Piers 2 and 4 leave a section of the cast iron structure that is disconnected from the bridge by cracks. These sections support cast iron deckplates, that in turn support the road and footways. This results in a loss of support to the deck plates and there is a concern that three of the deck plates in the area over Pier 2 and two deck plates near Pier 4 have a loss of support and that therefore the road/footway in these regions doesn't have adequate support.



# Immediate next steps

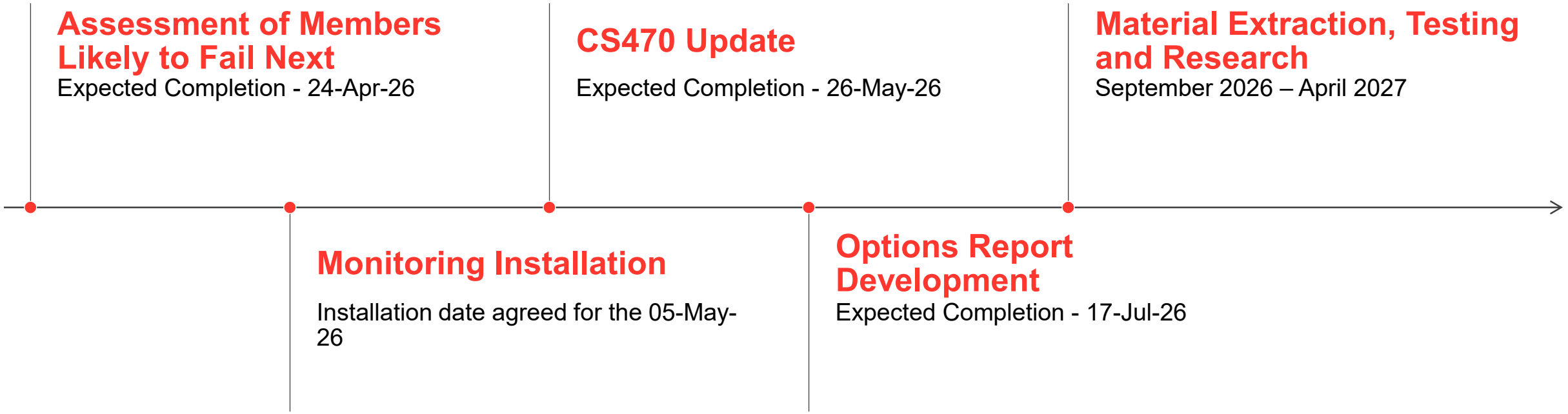
- Install real-time monitoring and cameras under the bridge, so that we can ensure that cracking has not progressed to a point where the capacity of the bridge is compromised. (currently inspections are every 6 months and require costly roped-access teams).
- Calculations of the local stability of support to the road / footway around the cracks.
- Investigation of the concrete slab on the bridge to understand whether this is strong enough to bridge over the damaged components.

Once these three are complete, and providing the results are favourable, it may be possible to re-open the eastern footway for pedestrians. This will be documented in a “CS470” report that will assess the structural risks and the mitigations to manage them.

# Next steps

- We are developing options for strengthening the structure to secure it for the long term. These may include local repairs, strengthening of members, measures to manage thermal stresses, or the installation of new structural members to carry the loads.
- Extraction of samples of the metal on the bridge for analysis at Oxford University to understand the level of damage in the metal and the specific properties of the cast iron this bridge is built from. Because of the Grade 1 listed status, there are statutory processes to mean this will not be able to take place until September 2026.

# Timeline – Major Milestones



# THANK YOU