



Report

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**RIBBLE CROSSING
COMPOUND, BRIDGE AND
HAUL ROAD
ARBORICULTURAL IMPACT
ASSESSMENT**

STRABAG UK LIMITED

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Ribble Crossing – BS 5837: 2012 Arboricultural Report, Impact Assessment and Method Statement

Strabag UK Ltd

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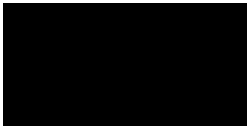
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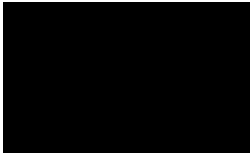
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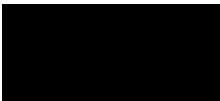
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Executive Summary

On behalf of Strabag UK Ltd (the Client), Cura Terrae Land and Nature Limited (Cura Terrae) has carried out a tree survey to BS 5837:2012 Trees in relation to design, demolition and construction – Recommendations in November 2025 at the site referred to as Ribble Crossing. This survey has formed the basis for an assessment of the impacts that development proposals may have on the existing tree cover and recommends methodologies that will need to be adopted to protect retained trees during development.

The survey recorded all significant trees within the site and those that may be affected by any development proposed within the site boundary, recording several parameters, including species, crown spread, and Root Protection Area (RPA).

The RPA of any given tree is calculated in accordance with BS 5837:2012 and is generally a circular plot centred on its stem. This area around each tree should not be disturbed by excavation, compaction, contamination, or other related demolition and construction activities. Minor encroachment into the RPA may be possible if specific methodologies are implemented that reduce the likelihood of the tree being negatively impacted.

The survey recorded one hundred and eighty-five (185) individual trees, fifty-eight (58) tree groups and nine (9) hedgerows. Collectively, the two hundred and fifty-two (252) surveyed tree entities were composed primarily of species considered native to the UK.

An online search using the Multi Agency Geographical Information for the Countryside (MAGIC) website for statutory conservation sites was undertaken (where appropriate) to determine the presence of Ancient Woodland within 15.0 metres of the site boundary.

United Utilities is replacing six existing underground tunnel sections of the 110-kilometre Haweswater Aqueduct (Haweswater Aqueduct Resilience Programme - HARP). To facilitate the replacement of the tunnel sections, vegetation clearance and arboricultural works are required, which are to be informed by Arboricultural Impact Assessments (AIA) specific to the nominated project sites.

This report details arboricultural impacts at Site 2 - Ribble Crossing.

The implementation of this project will require the removal (or partial removal) of nine (9) tree entities. Construction works may also have an impact on the roots, stems, and canopies of retained trees unless suitable protection measures are put in place.

This report details the potential arboricultural impacts of development at the site and offers a range of protection measures and construction methodologies that should be adopted. These measures aim to prevent accidental damage and other adverse effects on the health of retained trees.

The report also makes recommendations for any measures to mitigate or compensate for the loss of trees within the site and the likely impact on the site and the wider local landscape.

1.4 Protected Species

Bats

- 1.4.1 Mature trees can often contain cavities or hollows, which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e., roosts) are protected under *The Conservation of Habitats and Species Regulations 2017* (Habitats Regulations 2017). They also receive legal protection under the *Wildlife and Countryside Act* (WCA) 1981. Consequently, causing damage to a bat roost constitutes an offence.
- 1.4.2 Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site, then an appropriately licensed bat worker should be consulted for advice.

Birds

- 1.4.3 Trees and hedgerows can provide habitat for nesting birds, which are protected under the *Wildlife and Countryside Act* (WCA) 1981. Some species are further protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.
- 1.4.4 As the trees at the site provide potential habitat for nesting birds, all tree work should ideally be completed outside the peak nesting bird season (Generally March to August inclusive).
- 1.4.5 If this is not possible, then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist before commencement of works. If active nests are identified, then the vegetation and a defined buffer zone will need to remain in place until the young have fully fledged.

2. Tree Survey Methodology

2.1 Site survey

- 2.1.1 Cura Terrae has undertaken the tree survey in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, to provide detailed and independent arboricultural advice in the context of potential development. The survey was a ground-based visual inspection carried out by a suitably qualified arboriculturist. No trees were tagged as part of the survey.
- 2.1.2 The tree survey was carried out between 26th November & 2nd December 2025 by Liam Evans – Consultant Arborist, when deciduous trees are generally not in leaf or may be in partial leaf.
- 2.1.3 The weather on the days of the survey alternated between clear and overcast, allowing for a thorough inspection of all trees within the survey area where access permitted.
- 2.1.4 The survey recorded trees with a stem diameter of 75 millimetres or more at a height of 1.5 metres above ground level within the site boundary. Any significant trees outside the boundary that could be significantly affected by the future development of the site were also recorded.

The following characteristics were recorded:

- Species
- Stem diameter at 1.5 m above ground level (mm)
- Estimated height (m)
- Approximate crown spread (m) in North, East, South, and West directions
- Estimate of the number of years that the tree is likely to remain suitable for retention
- Age class
- Condition category in accordance with BS 5837:2012. The categories are defined as:
 - o **Category U** = Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

2.2 Calculation of Root Protection Area (RPA)

- 2.2.1 The Root Protection Area (RPA) is calculated according to the formulae set out in BS 5837:2012. This is a layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of the roots and soil structure should be treated as a priority.
- 2.2.2 Due to the specific topography of the site and the presence of surrounding structures, the RPA is likely to be a simplified representation of the actual morphology and disposition of tree roots. Any deviation in the shape of the RPA from the calculated circular shape will largely be based on conjecture and so should generally be avoided. However, where significant site features are present that could clearly influence the disposition of tree root growth (e.g., water courses, building foundations, and retaining walls), the RPA may be amended to take these features into account.

5. References

BS 3998:2010 *Tree work – Recommendations*. ISBN 978 0 580 53777 6

BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*. ISBN 978 0 580 69917 7

BS 8545:2014 *Trees: from nursery to independence in the landscape – Recommendations*. ISBN 978 0 580 71317 0

Littlefair P. (2011). *Site layout planning for daylight and sunlight: a guide to good practice* (BR 209). ISBN 978 1 84806 178 1.

Volume 4 National Joint Utilities Group (NJUG) *Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees, Volume 4: Issue 2: 16/11/2007*, www.njug.org.uk

Appendix 1: Tree Survey Schedule

Appendix 3: Figures

