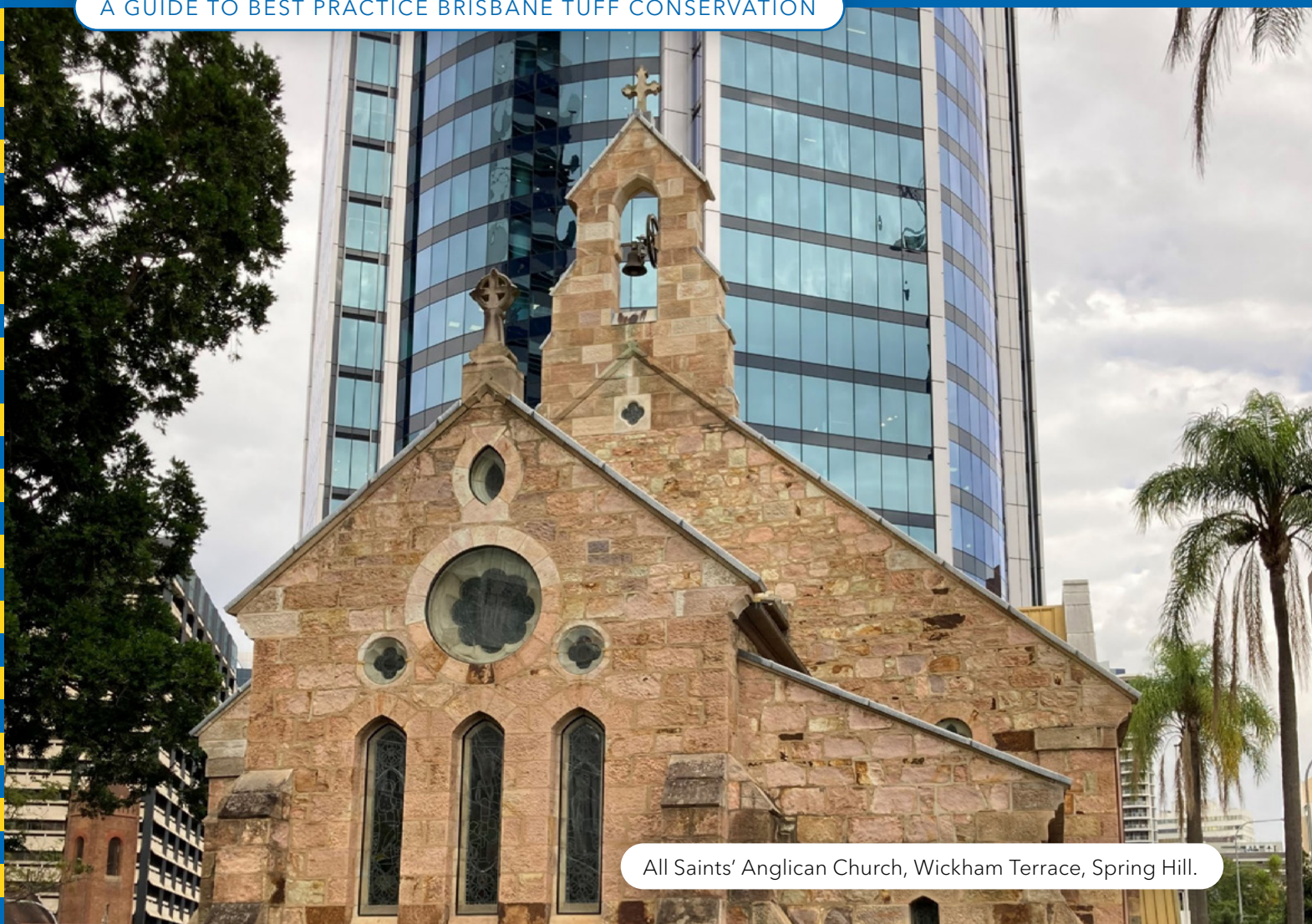


Working with Brisbane Tuff

A GUIDE TO BEST PRACTICE BRISBANE TUFF CONSERVATION



All Saints' Anglican Church, Wickham Terrace, Spring Hill.

Brisbane Tuff is a distinctive local stone widely used since the 1820s in many of Brisbane's earliest public buildings.

This fact sheet covers:

- Brisbane Tuff uses and identification
- repairs, cleaning and maintenance
- temporary removal and storage.

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Approvals

Works to Local heritage places

Some Brisbane Tuff projects may require a development approval.

Brisbane Local heritage places are protected under the Heritage overlay of the local planning scheme, *Brisbane City Plan 2014* (City Plan).

If your property is a Local heritage place, you may require approval. Works that will have more than a minor impact on the cultural significance of a heritage place require development approval.

Minor works that have no impact, or no more than a minor impact, on the cultural significance of a heritage place may be eligible for an exemption certificate.

Before starting a project, visit brisbane.qld.gov.au and search 'heritage properties' and 'heritage exemption certificates' or call Brisbane City Council on 3403 8888 and ask to speak with a Planning Information Officer.

For more information about heritage places and their values search [Local Heritage Places online](#).

State heritage places

The Queensland Government is responsible for assessing and approving works on State heritage places, which are places identified in the Queensland Heritage Register and are important to Queensland. For more information, visit qld.gov.au and search 'changing or developing heritage places'.

Brisbane Tuff

Commonly carved into large blocks, and visually distinct in colouring, Brisbane Tuff features prominently in landmarks such as the Commissariat Store (William Street), the Treasury Building (George Street), St Stephen's Cathedral (Elizabeth Street) and All Saints' Anglican Church (Spring Hill).

Beyond major buildings, Brisbane Tuff was used across Brisbane for kerbing (e.g. CBD), retaining walls (e.g. Cambridge Parade, Manly), decorative features around windows and archways, and smaller structures like monuments.

The stone was extensively quarried, beginning with a convict-era quarry at Kangaroo Point in the early 1820s—now visible as the Kangaroo Point Cliffs. Other quarries operated at Leichhardt Street (now St Paul's Terrace) Spring Hill, Windsor Town Quarry Park (Lutwyche Road), and Skyring's Quarry near All Hallows' Convent in Fortitude Valley (Ann Street).

In the late 1800s, as some early buildings were demolished, Brisbane Tuff was often salvaged and reused in houses for garden edging, decorative paving, building bases and footings under timber stumps.

By the 1880s, the rise of materials like concrete led to a decline in Brisbane Tuff's use and availability. Found only in very localised rock formations, its quarries were gradually closed to make way for housing and suburban development. Today, Brisbane Tuff is rare and in limited supply.

Examples of Brisbane Tuff in city structures



St Stephen's Cathedral, Elizabeth Street, Brisbane.



All Saints' Anglican Church, Wickham Terrace, Spring Hill.



Brisbane Tuff retaining wall, Ann Street, Brisbane.



Brisbane Tuff plinth foundation, Treasury Building, Queen Street, Brisbane.



A Brisbane Tuff house base, Thorpe's Residence, Victoria Street, Spring Hill.



Brisbane Tuff kerbing, George Street, Brisbane.



Brisbane Tuff in a variety of natural colours, All Saints' Anglican Church, Wickham Terrace, Spring Hill.

Identification

Brisbane Tuff is a hard, dense rock formed after volcanic eruptions and consists of lava, pumice and rock fragments fused by intense heat and pressure. It is sometimes called Brisbane Porphyry, though true porphyry is an igneous rock formed by magma cooling close to the Earth's surface.

Brisbane Tuff is fine-to-medium grain, often containing small stone fragments and displaying a mix of colours such as tan, grey, green, pink and purple. Due to its varied appearance, it can be difficult to identify, so consulting a heritage masonry expert is recommended.

Repairs

Brisbane Tuff is rare and in limited supply, making proper care essential for preserving many significant buildings and features.

General conservation

- Retain in situ wherever possible; only undertake work when necessary for long-term conservation.
- Engage qualified professionals, such as specialist stonemasons, builders or landscapers experienced working with Brisbane Tuff.
- Plan and prepare carefully before starting work to avoid accidental damage.
- Work by hand near Brisbane Tuff and protect it with temporary waterproof barriers (e.g. plastic or plywood sheeting). Never attach barriers directly to the stone.

Mortar repairs

- Use lime-based mortar only; avoid cement-based mortar, which traps moisture and damages the stone. Lime mortar is more porous than the stone, acting as a sacrificial material to absorb moisture and reduce damage to the Tuff.
- Avoid oxides, as they reduce mortar porosity.
- Do not disturb intact original lime mortar.
- Where present, remove cement mortar carefully and replace with lime-based mortar that closely matches the original colour and composition. Exact matching is not required.

Tuff replacement

- Replace damaged or cracked Brisbane Tuff with the same stone type. If unavailable, use neutral-coloured concrete blocks of the same size and shape, with lime-based mortar.
- Use Brisbane Tuff only where historically appropriate; avoid introducing it in locations where other materials (e.g. brick or timber) were originally used.
- Do not use imitations such as painted concrete or replica porphyry to mimic the appearance of Brisbane Tuff.

Inspection, cleaning and maintenance

- Inspect regularly for damage. Identify and record cracks more than 10 mm at the widest point, and loss of mortar/stone. Plan repairs to prevent further deterioration.
- Manually remove plant growth and dirt buildup from the stone.
- Do not use high-pressure washing, sandblasting, harsh abrasives or mechanical tools.
- Use gentle cleaning methods only such as low-pressure water (below 100 PSI at the surface).
- Remove cement mortar carefully where possible, avoiding damage to the stone, and replace with lime-based mortar (see Mortar repairs).
- Do not apply sealants or coatings, as they trap moisture and accelerate stone decay.

Temporary removal and storage

Avoid removing or relocating Brisbane Tuff unless essential. If temporary removal is necessary for conservation, plan carefully to ensure accurate reinstatement.

Recommended procedure

- Create a detailed location plan before removal, numbering each stone.
- Mark stones using a non-abrasive, chemically inert material (e.g. chalk) that won't damage the stone and can be removed by hand.
- Remove stones by hand to avoid damage.
- Store stones in a secure, weatherproof location—do not wrap in non-breathable materials like plastic.
- Reinstall each stone by hand in its original position, following the prepared plan.

Useful references

- D Trague, *Brisbane Tuff*, Windsor and Districts Historical Society Inc., 2008, <https://windsorhistorical.org.au/brisbane-tuff>
- D Young, *Lime mortars for the repair of masonry*, Heritage Council of Victoria, 2020, www.heritage.vic.gov.au/__data/assets/pdf_file/0020/505262/Lime-mortars-for-the-repair-of-masonry.pdf
- D Young, *Mortars: materials, mixes, and methods*, Heritage Council of Victoria, 2021, <https://assets.heritagecouncil.vic.gov.au/assets/MortarsTechnicalGuide-online.pdf>
- Queensland Government, *Minor repairs: stone and masonry*, Department of Environment and Resource Management, Brisbane, 2011, via <https://qldgov.softlinkhosting.com.au>

Disclaimer

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