Final Report
Heritage Building and Construction Skills

A research report into the demand for heritage building and construction skills in the Tasmanian building and construction industry
Contents

Introduction ........................................................................................................................................... 3
Recommendations .................................................................................................................................... 4
Key Messages ........................................................................................................................................ 10
Literature Review .................................................................................................................................. 13
   Heritage Trades and Professional Training Project (2010) ................................................................. 13
   Heritage Skills Survey (2011) ............................................................................................................ 14
   Heritage Trade Training Scoping Project (2012) .................................................................................. 15
   Building Surveying Scoping Review (2012) ......................................................................................... 15
Heritage Skills: What are They? ............................................................................................................. 16
Heritage Skills: How are they Acquired? ............................................................................................... 20
   How are Heritage Trade Skills Taught and Acquired? ...................................................................... 20
   What Heritage Trade Skills Training is Available? .......................................................................... 22
      Accredited Courses and Training Package Qualifications .......................................................... 22
      Non-Accredited Courses .............................................................................................................. 31
Adaptive Reuse – A Hidden Training Opportunity ............................................................................ 34
   Case Study 1 – Redlands ................................................................................................................ 34
   Case Study 2 – Local Government .................................................................................................. 35
Heritage Practitioners: Who are They? ............................................................................................... 36
   Heritage Practitioners – Workforce Numbers ............................................................................... 36
   Heritage Services Directory ............................................................................................................ 36
   Heritage Practitioners – Demographic Profile .............................................................................. 37
Heritage Skills Work: What is Available? ............................................................................................ 38
   The Scope of Heritage Work in Tasmania ....................................................................................... 39
      Heritage Workforce Numbers – A Pragmatic Picture ................................................................ 41
      Occupational and Skill Shortage Data ......................................................................................... 42
Appendix A: Terms of Reference ....................................................................................................... 45
Appendix B: Abbreviations .................................................................................................................. 46
Appendix C: Source Documents ........................................................................................................ 47
   Curriculum Documents ................................................................................................................ 47
   Tasmanian Documents .................................................................................................................. 47
   National Documents ...................................................................................................................... 48
   International Documents .............................................................................................................. 49
   Websites ........................................................................................................................................... 50
Appendix D: Surveys ............................................................................................................................ 51
Introduction

The Tasmanian Building and Construction Industry Training Board (TBCITB) would like to ensure that a sufficient number of trained industry practitioners are available to undertake building and construction work on heritage buildings and structures so that they are preserved for the enjoyment of the present and future generations.

purple infinity was contracted by the TBCITB in December 2011 to research the current provision of and future demand for specialist heritage skills within Tasmania’s building and construction industry. This final report presents the findings and recommendations that have arisen from the research.

The Burra Charter – A Cautious Approach
First adopted in 1979 at the historic South Australian mining town of Burra, the Burra Charter sets a standard of practice for those who undertake works to places of cultural significance. It advocates a cautious approach to change: Do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained.¹

¹ Australia ICOMOS Burra Charter, 1999
Recommendations

1 Heritage Awareness for Apprentices

Ensure all apprentices develop an awareness of heritage values and conservation philosophy

Rather than developing heritage skills as a component of traditional apprenticeship training, the following heritage knowledge should be integrated within all relevant units of competency from the CPC08 Construction, Plumbing and Services Training Package at the apprenticeship level:

- Conservation processes and practices arising from principles of the Burra Charter
- Methods and processes relating to historic building construction, including the behaviour and use of traditional materials and the use of traditional tools and techniques
- Responsibilities with regard to conservation areas and heritage listed buildings
- Trade-specific techniques used in restoration and renovation work.

The primary focus of this recommendation is to equip all building and construction apprentices with heritage awareness to ensure that they:

a) know what to look for when working in (or adjacent to) heritage buildings and structures
b) know when to stop and seek specialist advice.

Amendments to National Training Packages

National Training Packages must have national application, and this can only be achieved by far-reaching consultation across all states and territories. A Heritage Trade Training Scoping Project has been commissioned by the Construction & Property Services Industry Skills Council (CPSISC) to determine whether or not the CPC08 Construction, Plumbing and Services Training Package adequately covers the skill and training needs of tradespeople working in the heritage sector. The Scoping Project is due for completion in mid to late 2012.

The success or otherwise of this recommendation rests with the findings of the Scoping Project.

Conditions of Delivery and Assessment

If the Scoping Project advises that heritage knowledge (as outlined above) be embedded within relevant CPC08 units of competency at the apprenticeship level (and CPSISC adopts this advice), it is recommended the updated units be delivered and assessed under the following conditions:

- Source derelict heritage buildings in partnership with state/local government and use these for training purposes (to develop heritage awareness amongst apprentices)
- Establish partnerships with property owners who are restoring heritage buildings and use these for training purposes (to develop heritage awareness amongst apprentices)
- Ensure all building and construction apprentices are introduced to the use and application of Heritage Checklists for Contractors.²

Training Focus: Apprenticeships

Implementation Responsibility: CPSISC; TBCITB; Skills Tasmania; RTOs; Australian Government Department of Industry, Innovation, Science, Research and Tertiary Education

² A good 2-page example can be found in ERM’s Heritage Management Plan for Anglesea Barracks (2004)
2 Incentives for Heritage Practitioners

Encourage heritage practitioners to sign on and mentor apprentices
Provide additional incentives (monetary and/or training support) to heritage practitioners who sign on building and construction apprentices and guarantee a minimum agreed component of the apprentice’s work and training to heritage restoration work. While difficult to regulate and enforce, this could serve to encourage a cohort of otherwise disinterested practitioners to take on apprentices and instruct them in heritage and mainstream (non-heritage) trade practices.

**Implementation Responsibility:** TBCITB

3 Heritage Practitioner Preference Scheme

Implement a non-mandatory practitioner preference scheme as a catalyst for change
Establish a non-mandatory practitioner preference scheme for the heritage trade sector, where suitably skilled and approved practitioners carry a **Preferred Heritage Practitioner** branding. This would assist property owners in their choice of heritage practitioners, and it would also provide an attractive, viable and highly visible incentive for tradespeople and construction professionals to acquire and practice heritage trade skills. The skill sets described in **Recommendation 4** could serve as the industry requirements necessary to acquire or be recognised for **Preferred Heritage Practitioner** status within Tasmania.

Provide national leadership in heritage skills recognition
A scheme of this nature may well attract tradespeople from other states and territories seeking **Preferred Heritage Practitioner** status. Conversely, Tasmania could outsource tradespeople with **Preferred Heritage Practitioner** status to undertake heritage works in other states/territories.

**Implementation Responsibility:** TBCITB; Heritage Tasmania; RTOs

4 Heritage Practitioner Preference Scheme – Skill Sets

Build practitioner value; not practitioner numbers
With little interest in full post-trade qualifications (due in part to time and cost constraints), the following heritage-specific skill sets are suggested as pragmatic upskilling options for Tasmania’s existing and future building and construction workforce.

<table>
<thead>
<tr>
<th>Heritage Restoration Skill Set</th>
<th>(refer page 23)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target Group</strong></td>
<td>This skill set is for skilled and experienced tradespersons (across disciplines) who are involved in heritage restoration and conservation projects.</td>
</tr>
<tr>
<td><strong>Units</strong></td>
<td>Prepare to undertake the heritage restoration process</td>
</tr>
<tr>
<td></td>
<td>Undertake the heritage restoration process</td>
</tr>
<tr>
<td><strong>Pathway</strong></td>
<td>These two units provide credit towards the <strong>CPC40611 Certificate IV in Building and Construction (Specialist Trades)</strong></td>
</tr>
<tr>
<td><strong>Suggested words for Statement of Attainment</strong></td>
<td>These competencies from the CPC08 Construction, Plumbing and Services Training Package meet industry requirements for undertaking heritage restoration works. This equates to <strong>Preferred Heritage Restorer</strong> status in Tasmania.</td>
</tr>
</tbody>
</table>
### Heritage Design Skill Set

**Target Group:** This skill set is for builders, project managers and construction professionals who are responsible for the design of heritage works during residential/commercial projects.

**Units:**
- CPCBC4037A Prepare drawings for heritage works
- CPCBC4038A Prepare work plans for restoration work

**Pathway:** These units provide credit towards the CPC40611 Certificate IV in Building and Construction (Specialist Trades)

**Suggested words for Statement of Attainment:** These competencies from the CPC08 Construction, Plumbing and Services Training Package meet industry requirements for preparing drawings and works plans for heritage works. This equates to *Preferred Heritage Designer* status in Tasmania.

### Heritage Works Planning Skill Set

**Target Group:** This skill set is for technical specialists, builders, project managers and construction professionals who plan and initiate heritage restoration works.

**Units:**
- CPCBC4040A Prepare report for heritage restoration work
- CPCBC4035A Initiate the heritage works process

**Pathway:** These units provide credit towards the CPC40611 Certificate IV in Building and Construction (Specialist Trades)

**Suggested words for Statement of Attainment:** These competencies from the CPC08 Construction, Plumbing and Services Training Package meet industry requirements for planning and initiating heritage restoration works. This equates to *Preferred Heritage Works Manager* status in Tasmania.

If these skill sets are delivered and assessed under the following strict conditions, the skill needs of Tasmania’s heritage building and construction sector will be upheld in the mid- to long-term:

- Promote the acquisition of post-trade heritage skills as an attractive, viable and highly visible niche market for experienced tradespeople, technical specialists, builders, project managers, construction industry professionals and heritage consultants
- Establish the skill sets as aspirational training programs to attract younger tradespeople and construction professionals to the heritage restoration sector
- Nominate each skill set as meeting industry requirements for *Preferred Heritage Practitioner* status within Tasmania (see page 37 and Recommendation 3)
- Deliver the skill sets every two, five or ten years (or as needed) to groups of between 12 and 25 targeted participants
- Contextualise the delivery of the skill sets to the needs of participants, and ensure problem solving, team work and peer review exercises are incorporated into the delivery approach
- Deliver the skill sets on-location at relevant heritage sites around the State
- Assess the skill sets in compliance with the VET Quality Framework (to ensure participants are certified for their *competence* and not merely for their *attendance* and *participation*)
- Ensure appropriately qualified, experienced and respected heritage specialists and trainers deliver and assess the training
- Support the delivery of the skill sets with specialist heritage mentors
- Support the delivery of the skill sets with relevant *Practice Notes* and *Technical Notes*
- Align the skill sets to an enhanced *Continuing Professional Development* (CPD) program.

**Training Focus:** Post-Trade  
**Implementation Responsibility:** TBCITB; Heritage Tasmania; RTOs
5 Generic Skills Training

Provide generic skills training to heritage practitioners
The following generic skills have been identified by heritage practitioners and property owners as currently in demand within Tasmania:
- CPCCCM1013A Plan and organise work (time management)
- CPCCCM2010A Work safely at heights (scaffolding)
- CPCPCM4002A Estimate and cost work (assessing and preparing quotes)
- ICAICT101A Operate a personal computer (basic computing skills)
- ICAU1129B Operate a word processing application (preparing reports).

The above skills are addressed by existing courses on the TBCITB’s List of Recommended Courses (www.tbcitb.com.au/TbcitbLists.php?t=courses). Generic skills training courses should therefore be marketed to heritage practitioners at the post-trade level with support from the Building and Construction Industry Training Fund. If considered appropriate, there is potential to add generic units of competency to the heritage-specific skill sets proposed at Recommendation 4.

Training Focus: Post-Trade
Implementation Responsibility: TBCITB; RTOs

6 Heritage-Specific Skills Training

Provide heritage specific skills training to heritage practitioners
The following heritage-specific skills have been identified by heritage practitioners and property owners as currently in demand within Tasmania:
- Blacksmithing (e.g. replacing missing hinges)
- Bricklaying, stonemasonry and general building (e.g. damp coursing buildings and walls; lime mortar brickwork and pointing; straightening and repairing broken and leaning walls)
- Carpentry and joinery (e.g. scribing; working with non-standard profiles)
- Heritage knowledge (e.g. Burra Charter basics; conservation management; heritage politics; responsibilities associated with working on heritage-listed properties)
- Painting and decorating (e.g. gilding; wood graining)
- Roof tiling (e.g. shingling/shaking; use of traditional timbers)
- Solid plastering (e.g. traditional internal plastering; external rendering)

Skills of this nature are currently being addressed via short non-accredited courses delivered by the Heritage Education and Skills Centre (see page 31). They will also be addressed through the skill sets proposed at Recommendation 4 (where delivery is contextualised to the specific trade area of participants).

Professional Development for Heritage Consultants
Throughout the consultation phase of this project, it was often suggested that heritage officers, consultants and advisors (at state and local government levels) would significantly benefit from undertaking courses of this nature as part of an ongoing professional development program.

Training Focus: Post-Trade / Government
Implementation Responsibility: TBCITB; Heritage Education and Skills Centre; RTOs
7 Heritage Awareness for Property Owners

Provide practical heritage awareness training to property owners
There is a significant need (although possibly not a demand) for a course in heritage awareness that includes minor heritage repair skills. Property owners are often required to undertake their own minor heritage repairs to ensure restoration works are completed on time and on budget. In a concerted attempt to maintain the quality and standard of minor repair activity to heritage properties throughout Tasmania, it is recommended that a Short Course in Heritage Awareness be developed, accredited (possibly) and marketed to property owners.

This Short Course in Heritage Awareness should, at a minimum, address the following areas:
- Heritage knowledge (e.g. Burra Charter basics; heritage politics; responsibilities associated with owning and managing heritage-listed properties)
- Heritage repairs (the distinction between minor and major heritage repairs)
- Knowing when to engage skilled and experienced heritage practitioners
- Knowing when to seek specialist advice
- Maintenance tips for heritage buildings and structures.

Hands-on Heritage Awareness
The concept of hands-on and pragmatic heritage awareness training for property owners does not have overwhelming support. However, the need for training in minor heritage repairs was raised directly by a small number of stakeholders and indirectly by the vast majority of property owners. As a result, it would be imprudent to ignore the very real and obvious need for training in this area. A self-evident condition of delivery would be the requirement that participants are not instilled with a false sense of heritage trade competence.

Training Focus: Community Support
Implementation Responsibility: TBCITB; Heritage Education and Skills Centre; RTOs

8 Specialist Mentor Bank

Establish a bank of specialist heritage mentors
There is a need (possibly not a demand) for a bank of specialist heritage mentors to be available by phone during work hours so that tradespeople with little/no heritage skills or experience can call and discuss heritage issues as they arise in the workplace.

Specialist heritage mentors to be available on the rotating bank could include the following:
- Retired/existing heritage officers, consultants and advisors (state and local government)
- Retired/existing heritage practitioners and tradespeople
- Retired/existing technical specialists with heritage knowledge and skills
- Retired/existing builders and project managers with heritage knowledge and skills
- Retired/existing construction professionals with heritage knowledge and skills.

If the Preferred Practitioner Scheme outlined at Recommendation 3 is realised within Tasmania, it is envisaged that inclusion on the specialist mentor bank would be contingent upon a person having acquired (or being recognised for) Preferred Heritage Practitioner status.

Training Focus: Post-Trade Support
Implementation Responsibility: TBCITB; Heritage Tasmania; Building and Construction Industry
9 Heritage Skills Information Hub

Provide “heritage advice to all” via an intuitive online information hub
Develop and maintain an intuitive and content-rich website to ensure heritage skills information is accessible to tradespeople, practitioners, professionals, property owners and members of the broader community. Acting as communication forum to aid the understanding of heritage value and significance, an information hub would serve to de-mystify the heritage sector by providing clear and easily accessible information, guidelines and advice to the following key stakeholders.

Tradespeople, Practitioners and Professionals:
• Access to heritage-specific training schedules (refer Recommendations 4, 5 and 6)
• Access to a bank of specialist heritage mentors (refer Recommendation 8)
• Access to heritage-specific webinars and audiovisual instructional resources
• Access to well written and up-to-date Practice Notes and Technical Notes
• Access to information and advice on good heritage practice
• Access to information and advice on working on (or adjacent to) heritage-listed properties
• Access to information and advice from materials suppliers (e.g. heritage paint charts)
• Access to technical books on heritage buildings
• Access to nomination forms for heritage building awards.

Property Owners:
• Access to tradespeople, practitioners and professionals, including a list of Preferred Heritage Practitioners (refer Recommendation 3)
• Access to heritage-specific training schedules (refer Recommendation 7)
• Access to heritage-specific webinars and audiovisual instructional resources
• Access to information and advice on good heritage practice
• Access to information and advice on owning and managing a heritage-listed property
• Access to heritage-specific funding and grant opportunities
• Maintenance tips for heritage buildings and structures
• Hints and tips on the adaptive re-use of heritage buildings and structures
• Access to previous winners of heritage building awards.

The critical need for clear and easily accessible heritage skills information was continually raised throughout the consultation phase of this project. The Heritage Skills Information Hub proposed in this recommendation is therefore limited in scope and context to Tasmania. It is important to note that Emma Brooks Maher (National Heritage Skills & Training Project) advocates a National Heritage Hub with similar content and functionality. Components of this recommendation draw upon suggestions made by Emma during a phone conversation in early April 2012.

Training Focus: Post-Trade / Community Support
Implementation Responsibility: All heritage stakeholders
Key Messages

Tasmania must nurture a critical mass of well trained heritage tradespeople to maintain the 5,500+ listed (and numerous un-listed) heritage buildings and structures that are so important to the State’s social, cultural, environmental and economic future.

The shortage of heritage trade skills and knowledge
- Most (if not all) building and construction skills are used in the conservation of heritage buildings
- Many builders lack heritage design skills, while property owners lack heritage design knowledge
- There is a widespread deficiency of traditional carpentry and joinery skills in Tasmania (as opposed to a shortage of carpentry and joinery tradespersons)
- There is a widespread deficiency of traditional painting and decorating skills in Tasmania (as opposed to a shortage of painting and decorating tradespersons)
- There is a critical shortage of specialist roof tilers and solid plasterers in Tasmania
- There are very few stained glass conservators operating in Tasmania
- Regardless of the industry, skill shortages in Tasmania are always exacerbated at regional levels (with few heritage tradespeople available on the West and North West Coasts)
- It is increasingly difficult to attract and retain specialist heritage trade teachers.

The acquisition of heritage trade skills and knowledge
- The foundation skills of Tasmania’s current heritage practitioners were acquired through formal trade training programs undertaken between 1962 and 1998 (in Australia, the UK and Europe)
- Heritage trade skills are predominantly picked up through experience (informally), while heritage trade knowledge is acquired through discussions with other heritage practitioners and specialists
- Heritage trade knowledge is also acquired through conferences and workshops
- A small percentage of tradespeople continue to research and learn heritage skills and knowledge in their own time and at their own expense
- Personal interest is one of the few remaining incentives to learn heritage trade skills in Tasmania
- Heritage skills are rarely addressed in current trade training; there are limited opportunities for apprentices to gain post-training experiences; and continuing development options are irregular, residential and (at times) restrictively expensive
- Younger tradespeople would be better positioned to learn heritage skills if there were sufficient opportunities available to practice these skills regularly.

The availability of heritage trade skills training
- There are a limited number of accredited courses and qualifications that specifically address heritage trade skills, and few (if any) of these are currently being delivered within Tasmania
- Responsibilities regarding heritage listed buildings is included as required knowledge in numerous units of competency at the apprenticeship level, but this is not being addressed in delivery
- For many years now, heritage skills training in Tasmania’s building and construction industry has been informal and non-accredited
- Alongside cost, tradespeople rate the lack of expert and respected trainers as a major barrier to their attending training
- The Heritage Education and Skills Centre in Oatlands has released its 2012 Heritage Skills Course Guide, which includes a number of non-accredited, heritage-specific short courses
- The University of Canberra offers a non-accredited 12-day Conservation of Traditional Buildings summer school program every second year. The next course is scheduled for January 2013.
The practitioners of heritage trade skills
- Tasmania’s heritage sector is currently serviced by an ageing, close-to-retiring workforce
- The majority of heritage trade practitioners in Tasmania are male, 42+ years of age with an average 26 years industry experience
- While they would make excellent mentors, few heritage practitioners sign on apprentices
- Over 90% of practitioners work in small to micro businesses, with many working as sole operators
- Older tradesmen are deciding not to transfer their heritage skills to younger generations because they sense the demand for heritage work is diminishing and losing commercial viability
- Apart from those approaching (or in) retirement, few practitioners quarantine their work efforts to heritage projects, as there is not enough consistently available work within the heritage sector (the supply of work is irregular and prone to fluctuation)
- As a result, the majority of practitioners also work within the mainstream (non-heritage) building sector to supplement their income – at a typical ratio of 20% heritage to 80% non-heritage work
- There are some within the industry who feel the distinction between heritage and non-heritage tradespeople should not be made, as a well-rounded tradesperson should possess both skill sets
- However, many practitioners feel there is a clear distinction between heritage and non-heritage tradespeople, and property owners who are not aware of this distinction continue to engage tradespeople who do not have requisite skills and knowledge to work on heritage buildings.

The owners of heritage properties
- Property owners in rural and regional Tasmania are often required to source local tradespeople without heritage skills to undertake heritage work due to the unavailability of heritage specialists
- Property owners in rural and regional Tasmania are often required to undertake heritage work themselves (to ensure the work is competed in a timely fashion and within budget)
- Property owners rate highly skilled stonemasons, conservation bricklayers and solid plasterers as the most difficult trades to source
- Alongside heritage bureaucracy, property owners rate the cost and accessibility of practitioners as a major barrier to sourcing specialist heritage skills
- Property owners often seek heritage management advice from the tradespeople they employ
- (Some) tradespeople impart heritage management advice without the requisite skill to do so
- A small number of larger heritage properties in Tasmania run induction programs (with heritage content) for inexperienced tradespeople who are required to work on-site.

The recognition of excellence in heritage skills and knowledge
- There is concern amongst practitioners that inclusion on Heritage Tasmania’s Heritage Services Directory is not vetted and therefore not representative of excellence in heritage craftsmanship
- There is significant concern amongst practitioners that the title heritage practitioner is too often self-imposed by tradespeople who simply do not have requisite heritage skills and knowledge
- A small percentage of stakeholders feel market forces will eventually differentiate good and bad craftsmanship (which is evidenced by property owners who regularly use the same practitioners)
- A greater percentage of stakeholders feel the potential for irreversible damage being caused by poor craftsmanship is simply too great a risk to allow market forces to differentiate practitioners
- As a result, there is cautious support for a non-mandated preference scheme (similar to Aurora Preferred) where practitioners are approved to carry a Preferred Heritage Practitioner branding
- Inclusion in the scheme would be tied to training in (or recognition against) one or more of the heritage restoration units from the Certificate IV in Building and Construction (Specialist Trades)
- This would (a) assist property owners in the selection of heritage tradespeople and (b) provide a market incentive for younger tradespeople to acquire and practice heritage trade skills.
The demand for heritage and generic skills training

- Heritage knowledge (not heritage trade skills) should be addressed in apprenticeship training, as apprentices need to be aware of the responsibilities associated with working on (or adjacent to) heritage properties.
- Heritage trade skills should be addressed at a post-trade level through short courses and skill sets (not through full qualifications).
- There is a need (possibly not a demand) for a knowledge-based course that equips builders with the capacity to understand and interpret the needs of property owners and the requirements of Heritage Tasmania and the Tasmanian Heritage Council.
- In essence, there is a desperate need to de-mystify the heritage sector for building tradespeople (with many stakeholders indicating the sector has been increasingly prone to over-complication at the hands of professionals and other non-trade practitioners).

The scope of heritage work in Tasmania

- It is difficult to determine the scope of heritage restoration work in Tasmania. If buildings are not listed, there is no requirement for owners to seek approval to undertake work on them. Without approval data, it is difficult to calculate the extent of heritage works and the subsequent number of heritage practitioners required to undertake such works.
- However, a comparison of heritage and non-heritage building approvals provides a reasonably close estimate of the scope of heritage restoration works in Tasmania:

**Building Works Approval Comparison**
Heritage and Non-Heritage Approvals, Tasmania (2005-2011)

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Heritage Building Job Approvals*</th>
<th>Heritage Works Approvals/Exemptions**</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>3239</td>
<td>545</td>
</tr>
<tr>
<td>2006-07</td>
<td>3583</td>
<td>502</td>
</tr>
<tr>
<td>2007-08</td>
<td>3650</td>
<td>534</td>
</tr>
<tr>
<td>2008-09</td>
<td>3883</td>
<td>477</td>
</tr>
<tr>
<td>2009-10</td>
<td>4098</td>
<td>495</td>
</tr>
<tr>
<td>2010-11</td>
<td>3740</td>
<td>404</td>
</tr>
</tbody>
</table>

*Source: Australian Bureau of Statistics, 8731.0 – Building Approvals, Australia, February 2012
**Source: Tasmanian Heritage Council, Annual Reports 2005-06 to 2010-11

- Only 12% (average) of approved building jobs over the period 2005-11 involved heritage works.
- Heritage restoration work is limited in scope and sporadic in nature.
- It has been suggested that a skilled workforce of 100 (possibly 80) would be sufficient to maintain Tasmania’s heritage buildings and structures.
Literature Review

Heritage Trades and Professional Training Project (2010)

In September 2010, Heritage Victoria released the findings of the *Heritage Trades and Professional Training Project*, which had been commissioned to identify and address gaps in professional historic heritage and traditional trades training in Australia and New Zealand. The project was undertaken by Godden Mackay Logan Pty Ltd Heritage Consultants, the Archaeology Program at La Trobe University and the Donald Horne Institute for Cultural Heritage at the University of Canberra.

Key Findings

The *Heritage Trades and Professional Training Project* identified the following key findings:

- There is an aging demographic of heritage trade practitioners and a lack of younger practitioners coming into the industry
- The level of training for practitioners entering the industry is largely seen as inadequate, with an evident disconnect between what the industry wants and what training providers are teaching
- A high rate of *current* heritage skills training is received on-the-job, does not lead to a formal qualification and is not covered by compliance standards
- A high rate of *formal* heritage skills training was undertaken over 20 years ago
- Heritage skills training programs are not evenly distributed throughout Australia
- Qualified specialist heritage trade skills are rare
- Many attempts to launch curricula in heritage trade skills training have failed due to inadequate funding and low interest.

It is worth noting that most of the above key findings have been raised by stakeholders during the consultation phase of this project.

General Recommendations

The *Heritage Trades and Professional Training Project* identified the following recommendations:

- Trade training organisations need to respond to the sporadic or rolling need cycle of the heritage industry
- Trade training organisations should be encouraged to develop professional development courses that are provided on a not-for-profit basis
- Government heritage agencies should lead by example and:
  - provide professional development training to staff
  - recognise the skills of their expert, well-trained staff
- A priority for heritage related research should be the maintenance of traditional trades practices as an issue of intangible heritage conservation
- Heritage training organisations should form their own liaison group to promote dialogue and co-ordination between heritage training organisations across Australia and New Zealand.3

Heritage Trades Training – Literature Review

The first stage of the *Heritage Trades and Professional Training Project* involved a literature review, and the following general themes – relating to heritage trades training – were repeated throughout a large majority of the literature:

- There is a lack of understanding (amongst apprentices and students) as to the behaviour and use of traditional materials and the use of traditional tools and techniques

---

• Trade training should be focused on apprentices and students, many of whom do not respond to learning in the same way as academics
• Apprentices receive limited opportunities for training in heritage trades (only 2% of heritage work is undertaken by apprentices)
• There is a lack of accessible and useable information on traditional heritage skills and techniques
• The current heritage trades workforce is small and aging rapidly, and there are few opportunities for aging practitioners to pass on their knowledge and skills
• Skilled practitioners who are retiring may be interested in volunteering their time for training
• Heritage work is intermittent and it is difficult for current heritage practitioners to commit solely to conservation work – an increase in new practitioners will exacerbate this situation
• Heritage trade training should be focused on gap filling rather than whole new courses, as most tradespeople possess a good skill base (around 60–70% of the necessary skills)
• Heritage trades training should be linked to the awarding of government grants (with priority given to grant proposals which involve training opportunities)
• The awarding of government tenders should be linked to employment requirements (quotas) of qualified heritage tradespeople (which could be achieved through an accredited tenderers list)
• Consideration should be given to a Bond System for work on heritage buildings, where those who undertake inappropriate work on heritage buildings are prosecuted
• The Newcastle earthquake highlighted the lack of qualified heritage trade practitioners
• Derelict unlisted (and not-likely-to-be listed) buildings should be used for training purposes
• There is a need for a centralised, high standard heritage trade training facility
• There is a need to review national trade competencies, as they are well below the standards to which many historic buildings were constructed.  

Heritage Skills Survey (2011)
In May 2011, the Centre for Heritage (Oatlands) released draft results of its Tasmanian Heritage Skills Survey. 139 people completed the online survey, including professionals, tradespersons, owners and managers of heritage properties and persons with an interest in heritage. The online survey aimed to identify areas of training interest, and the participating tradespeople identified the following areas in which they would be most interested in undertaking training:
• Carpentry and timber framing
• Windows and glazing
• Stonemasonry
• Modern works to old places
• Joinery and decorative timber
• Leadlighting and stained glass.

The survey also aimed to identify if there were any deficiencies in the pool of heritage skills currently available in Tasmania. Almost two thirds (63.3%) of the survey participants indicated that there were such deficiencies. When asked to identify the heritage skills that were hardest to access, participants rated the following as the most difficult to source:
• Traditional plaster techniques
• Stone repair
• Stone masonry
• Traditional paint and decorative finishes.  

4 Ibid, pp 6-7
5 Centre for Heritage at Oatlands, Tasmanian Heritage Skills – Draft Survey Results (2011), p 29
Heritage Trade Training Scoping Project (2012)
The Construction and Property Services Industry Skills Council (CPSISC) is currently undertaking a joint research project with the Heritage Chairs and Officials of Australia & New Zealand (HCOANZ). The findings of the project will inform the development of a national Heritage Training Policy. The project findings will also determine whether the existing CPC08 Construction, Plumbing and Services Training Package adequately covers the skills/training needs of tradespeople in the heritage sector.

It is envisaged the scoping report will provide advice on the following key areas:
- The demand for heritage trades (i.e. the volume of the heritage sector and the potential size of the training market)
- The adequacy of what is currently available in the CPC08 Construction, Plumbing and Services Training Package for the trades involved in heritage work (e.g. carpentry, painting, plastering, plumbing and stonemasonry)
- Whether or not additional skill development (i.e. additional to existing trade training) is required by tradespeople working in the heritage sector.

The scoping project is due for completion in mid to late 2012. Further information is available from the CPSISC website at:

Building Surveying Scoping Review (2012)
CPSISC is also undertaking a scoping review of the existing building surveying qualifications from the CPC08 Construction, Plumbing and Services Training Package; namely:
- CPC50108 Diploma of Building Surveying
- CPC60108 Advanced Diploma of Building Surveying.

The review is being undertaken by the same consultant responsible for the Heritage Trade Training Scoping Project, and a Scoping Report has been prepared that provides an overview of the findings of the exploratory phase of the review. The report can be downloaded from the CPSISC website at:

The Scoping Report proposes that the existing qualifications be replaced with the following:
- Diploma or Advanced Diploma of Building Surveying (to address the needs of entry level building surveyors)
- Vocational Graduate Diploma in Building Surveying (to address the needs of practitioners who move on to become practice principals and who work in either specialist roles or on high level and complex projects).

While the Scoping Report acknowledges that building surveyors have to understand and respond to the requirements of buildings with heritage values, there is no outline (as yet) of units that address specific heritage skills and knowledge such as:
- Adaptive reuse of heritage buildings
- Conservation of heritage buildings, including restoration of significant details
- Design of alterations and additions to heritage buildings
- Design of new structures to complement heritage buildings
- Installation of modern services on heritage buildings
- Integrated heritage project management
- Stabilisation of heritage structures.
Heritage Skills: What are They?

Most (if not all) building and construction skills are used in the conservation of heritage properties. Apart from sharp eyes, a genuine interest in heritage and an ability to unblock gutters, the key skills required for heritage restoration work in Tasmania have been identified as follows:

<table>
<thead>
<tr>
<th>Heritage Skill Areas</th>
<th>Comments</th>
</tr>
</thead>
</table>
| **Bricklaying / Stone Masonry**             | Ability to undertake traditional work and repairs, including:  
  • bricklaying with lime mortar  
  • dry stone walling  
  • eroded stone and brick replacement (invisible repairs)  
  • heritage stone and sandstock brick restoration  
  • pointing and re-pointing  
  • production of carved stonework  
  • remediation of rising damp (damp proofing)  
  • repairs to chimneys  
  • repairs to historic brick and stone fabric (particularly in lime mortar)  
  • rubble wall construction using field stone  
  • sourcing and preparing pointing mixes to match existing heritage stonework  
  • supplying stone for heritage projects  
  • tuck-pointing with lime mortar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| **Building, Building Design and Drafting**  | Building design skills and knowledge in the following areas:  
  • adaptive reuse of heritage buildings  
  • conservation of heritage buildings, including restoration of significant details  
  • design of alterations and additions to heritage buildings  
  • design of new structures to complement heritage buildings (i.e. infill)  
  • installation of modern services on heritage buildings  
  • integrated heritage project management (e.g. sourcing sympathetic heritage tradespeople and liaising with relevant heritage bodies)  
  • preparation of conservation management plans  
  • stabilisation of heritage structures (e.g. drainage works, managing damp intrusion, underpinning and installation of remedial supporting elements)  

*Skill Shortage / Skill Deficiency Notes*:  
There is a perception that building contractors lack heritage design skills and property owners lack heritage design knowledge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| **Carpentry and Joinery**                  | Ability to undertake traditional work and repairs, including:  
  • antique polishing  
  • authentic reproduction of architraves, skirting, mouldings and timber work  
  • coupled roof construction  
  • identifying and sourcing correct timber species  
  • mortice and tenon joints  
  • repairs to timber work in heritage buildings (e.g. windows, sashes, shutters, doors, locks, balustrades, verandahs, floors, eaves, fences and gates)  
  • restoration of existing timber structures and joinery work  
  • traditional timber joinery (e.g. windows, doors, stairs and handrails)  
  • wooden object conservation (e.g. furniture, interior fittings, exterior details)  

*Skill Shortage / Skill Deficiency Notes*:  
There is a widespread deficiency of traditional carpentry and joinery skills in Tasmania (as opposed to a shortage of carpentry and joinery tradespersons)
<table>
<thead>
<tr>
<th>Heritage Skill Areas</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Glazing                     | Ability to undertake traditional work and repairs, including:  
  • consultation on heritage glass works  
  • dealing with aperture openings in stone and timber (masonry and joinery)  
  • handling large scale stained glass  
  • manufacture of new works to match pre-existing windows  
  • restoration and conservation of heritage stained glass  
  • restoration and conservation of leadlight glass, rolled glass and drawn glass  
  • working on/with scaffolding

*Skill Shortage / Skill Deficiency Notes:* There are very few stained glass conservators operating in Tasmania.                                                                                                                                                                                                 |
| Landscape Design*           | Ability to:  
  • manage historic plantings (particularly hedges and mature trees)  
  • plan and design heritage landscapes and gardens  
  • re-establish gardens around heritage buildings

*Skill Shortage / Skill Deficiency Notes:* The input of landscape designers is not always sought in the preparation of heritage building plans.                                                                                                                                                                                                 |
| Painting and Decorating     | Ability to undertake traditional work and repairs, including:  
  • application of decorative paint finishes and original coatings (e.g. wood graining, stenciling, marbling, gilding, limewash, distemper, oil)  
  • authentic reproduction and restoration of traditional painted finishes (e.g. shellac, waxing, oiling, staining)  
  • awareness of advantages of oil based paints  
  • colour matching and sampling  
  • heritage and preservation painting  
  • paint removal and substrate repairs  
  • wallpapering

*Skill Shortage / Skill Deficiency Notes:* There is a widespread deficiency of traditional painting and decorating skills in Tasmania (as opposed to a shortage of painting & decorating tradespersons).                                                                                                                                                                                                 |
| Roof Plumbing               | Ability to undertake traditional work and repairs, including:  
  • working in zinc, copper, lead and split galvanized sheet-metal  
  • brazing and soldering  
  • working with flashings, roofing trims, rain heads, bay window and canopy roofs, metal down pipes, poled trims and Pittsburgh jointing

| Roof Slating and Tiling     | Ability to undertake traditional work and repairs, including:  
  • lead welding (slate)  
  • roof restorations and maintenance (e.g. roof tile repairs/replacement, slate repairs, ridges, pointing, structural/corrective work to defective rafters)  
  • working with shakes/shingles  
  • working with slate  
  • working with timber, peg tiles and decorative facia boards

*Skill Shortage / Skill Deficiency Notes:* There are approximately 300 slate roofs remaining in Tasmania, and it is very difficult to access contractors willing undertake slate roof repairs. There is an attrition of bushcraft skills in Tasmania, as the demand for shingles has dwindled (possibly due to the increasing difficulty in sourcing logs) There is a critical shortage of specialist roof tilers in Tasmania. |
<table>
<thead>
<tr>
<th>Heritage Skill Areas</th>
<th>Comments</th>
</tr>
</thead>
</table>
| **Solid Plastering** | Ability to undertake traditional work and repairs, including:  
|                      | • applying decorative plaster  
|                      | • running mouldings and repairing lath plaster  
|                      | • working with traditional plaster and renders  
|                      |  
| **Skill Shortage / Deficiency Notes:** | There is a critical shortage of solid plasterers in Tasmania. |

Restoration work at Distillery Creek  
Photos courtesy Duncan Reece (Perfect Placement Stonework)
The UK Experience
In his 2007 presentation titled *The Retention and Development of Traditional Craft Skills in England*, John Fidler identified the following key skill sets for conservation and restoration work:

- Stone masonry
- Bricklaying
- Carpentry and joinery
- Plastering
- Slating and tiling
- Lead, zinc and copper sheet working
- Steeplejacks
- Stained glass working
- Thatching
- Dry stone walling
- Flint knapping
- Cob and adobe walling
- Blacksmithing
- Painting and decorating
- Paving.

---


---

Heritage Skills: How are they Acquired?

How are Heritage Trade Skills Taught and Acquired?
The Heritage Trades and Professional Training Project (see page 13) discovered that the majority of formal heritage trade skills training in Australia was delivered and received more than 20 years ago, and this is evidently the case in Tasmania. With the gradual eradication of heritage skills from formal training programs and apprenticeships, heritage trade skills are now primarily gained informally (on-the-job), with a small percentage of tradespeople continuing to research heritage skills at their own expense. It could be assumed that the only real incentive to learn heritage trade skills in Tasmania is personal interest. There are a number of examples of formal heritage trade skills being passed down through the generations of family businesses (e.g. solid plastering, painting, bricklaying), but these instances are becoming less common. Older generations are deciding not to pass on heritage skills to younger generations because they sense the demand for heritage work is diminishing and therefore losing its commercial viability.

While heritage trade skills are predominantly picked up through experience, another common form of skill acquisition is via discussions with heritage practitioners. Specific knowledge is often acquired through discussions with heritage specialists, including Heritage Tasmania staff. The Technical Notes and Practice Notes (www.heritage.tas.gov.au/practice_notes.html) that are developed and provided by Heritage Tasmania serve as valuable knowledge and skill resources for experienced tradespeople. It has been suggested that well written and up-to-date Technical Notes (coupled with short intensive training courses) would go a long way to addressing the skill needs of Tasmania’s heritage sector.

The following Practice Notes and Technical Notes (with direct relevance to building and construction trades) are currently available from Heritage Tasmania:

- Practice Note 1: Guidelines for Works to the Roofs of Heritage Places
- Practice Note 15: Stained and Leadlight Glass – Guidelines to Conservation
- Practice Note 16: Installing Modern Services on Heritage Buildings
- Technical Note 1: Applied Finishes for Heritage Buildings (June 2011)
- Technical Note 2: Limewash (May 2011)
- Technical Note 3: Lime Mortar for Brick and Stonework (May 2011)
- Technical Note 4: Lime Render and Plasterwork (January 2012)

Additional publications are anticipated, and the topics that may be addressed are as follows:

- Preparation of Conservation Management Plans
- Additions to Old Houses
- Remediating Rising Damp
- Improving the Thermal Performance of Old Houses
- Upgrading Electrical and Plumbing Services in Old Houses.

Heritage Skills and Practitioner Maturity
There is a perception within the building and construction industry that a certain level of maturity is required to develop and maintain heritage skills, and this is seen to be directly related to a learner’s level of general interest in heritage buildings and structures. Some practitioners are even prepared to nominate an age – 35 years. Tradespeople under 35 apparently lack the experience, interest and maturity to acquire heritage skills, while tradespeople over 35 have the experience, sensibility and passion necessary to research and learn heritage skills in their own time and at their own expense.
It is unreasonable to suggest younger tradespeople lack the maturity to develop heritage trade skills, especially given the fact that the majority of heritage trade practitioners currently operating within Tasmania were under 35 when they began to develop their existing heritage skills. It would seem far more reasonable to suggest that younger tradespeople would be better positioned to learn heritage trade skills if there were sufficient opportunities available to practice these skills regularly.

The UK Experience
In his 2007 presentation titled *The Retention and Development of Traditional Craft Skills in England*, John Fidler suggests traditional building skills for conservation/restoration work are often acquired through a combination of apprenticeships, post-training experience and continuing development. Unfortunately, this may have been the case in Tasmania 20 years ago, it is unfortunately not reflective of the current learning environment. Heritage skills are rarely (if ever) addressed in current apprenticeship training, there are fewer opportunities for students to gain post-training experiences and continuing development options are limited. The professional development programs that are available (within Tasmania and throughout Australia) are irregular, residential and (at times) restrictively expensive.

Specialist Centre for Heritage Trades (Holmesglen Institute of TAFE)
Established in 2006 by the Holmesglen Institute of TAFE with significant funding from the Victorian Government, the *Specialist Centre for Heritage Trades* was set up to offer short, specialised heritage training courses for tradespeople and apprentices in areas such as bricklaying, timberwork, painting and decorating, glass and glazing, stonemasonry, plumbing, wall and floor tiling, plastering and roof slating. The short courses were also designed to underpin the *CPC40611 Certificate IV in Building and Construction (Specialist Trades)*.

Unfortunately, funding for the Centre was withdrawn in 2007 after less than 12 months in operation. Demand for the courses was apparently insufficient to support the Centre’s ongoing operations, and the courses that were offered tended to have low numbers. The untimely demise of the Centre was seen by many as yet another failure to beset traditional trades training in Australia:

> In the end, what started with great promise fell in a heap in less than a year when there was a low demand for courses and student numbers fell below expectation.

Throughout the consultation phase of this research project, heritage practitioners regularly indicated their preference for short, targeted programs of training. On this basis alone, a recommendation has been made that involves the delivery of such programs to interested tradespeople (under very strict delivery and assessment conditions). It is imperative that this recommendation be given realistic and pragmatic deliberation in light of the issues that plagued Holmesglen’s *Specialist Centre for Heritage Trades*.

---

9 Willis, I. *Traditional Trades Training – A Story of Failure and Success*, The Australian TAFE Teacher (Spring 2011), p 11
What Heritage Trade Skills Training is Available?
There are a limited number of nationally accredited courses and training package qualifications that specifically address heritage skills, but few (if any) of these are being delivered within Tasmania. For a considerable number of years, heritage trade skills training in the State’s building and construction industry has been informal and non-accredited. The accredited and non-accredited heritage training courses that are currently (or at least potentially) available within Tasmania are summarised below.

Accredited Courses and Training Package Qualifications
CPC40611 Certificate IV in Building and Construction (Specialist Trades)
The CPC08 Construction, Plumbing and Services Training Package includes a Certificate IV in Building and Construction (Specialist Trades) which is designed to meet the needs of tradespersons who are seeking to expand their skills in a diverse range of technical areas. This qualification offers a heritage restoration stream that contains the following units of competency:

<table>
<thead>
<tr>
<th>CPC8 Heritage Restoration Stream – Units of Competency</th>
<th>Nominal Hours*</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCCBC4035A Initiate the heritage works process</td>
<td>20</td>
</tr>
<tr>
<td>CPCCBC4036A Prepare to undertake the heritage restoration process</td>
<td>40</td>
</tr>
<tr>
<td>CPCCBC4037A Prepare drawings for heritage works</td>
<td>40</td>
</tr>
<tr>
<td>CPCCBC4038A Prepare work plans for restoration work</td>
<td>40</td>
</tr>
<tr>
<td>CPCCBC4039A Undertake the heritage restoration process</td>
<td>40</td>
</tr>
<tr>
<td>CPCCBC4040A Prepare report for heritage restoration work</td>
<td>20</td>
</tr>
</tbody>
</table>


Tradespersons wishing to undertake the heritage restoration stream of the Certificate IV in Building and Construction (Specialist Trades) must hold one of the following qualifications (or its equivalent):
- CPC30111 Certificate III in Bricklaying/Blocklaying
- CPC30211 Certificate III in Carpentry
- CPC30611 Certificate III in Painting and Decorating
- CPC31011 Certificate III in Solid Plastering
- CPC32011 Certificate III in Carpentry and Joinery
- CPC32311 Certificate III in Stonemasonry (Monumental/Installation).


There are no Tasmanian training organisations currently registered to offer the CPC40611 Certificate IV in Building and Construction (Specialist Trades).

Heritage-Specific Skill Sets
There is potential for the six heritage restoration units of competency to be packaged and marketed as skill sets. While the CPC08 Construction, Plumbing and Services Training Package does not include heritage-specific skill sets, this does not prevent RTOs from packaging, marketing and delivering skill sets of this nature. Skill sets are defined as single units (or combinations of units) from an endorsed Training Package that link to a licence/regulatory requirement or a defined industry need. Skill sets are not qualifications – they simply provide a means to identify a logical grouping of competencies. Participants who successfully complete a skill set receive a Statement of Attainment.
Heritage Restoration Skill Set
If the following two units from the Certificate IV in Building and Construction (Specialist Trades) were to be packaged and delivered as a Heritage Restoration Skill Set and marketed to skilled/experienced tradespersons who are involved in heritage restoration and conservation projects, it would go a long way to addressing the skill deficiencies identified within the heritage restoration sector.

<table>
<thead>
<tr>
<th>CPCBC4036A</th>
<th>Prepare to undertake the heritage restoration process (40 hours)</th>
<th>CPCBC4039A</th>
<th>Undertake the heritage restoration process (40 hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Element</td>
<td>Performance Criteria</td>
<td>Element</td>
<td>Performance Criteria</td>
</tr>
<tr>
<td>1. Ensure compliance with conservation and workplace standards</td>
<td>1.1 Conservation requirements and processes associated with the preservation of historically significant buildings are identified. 1.2 Quality assurance requirements associated with the performance of the relevant trade skill are identified. 1.3 OHS requirements, including the identification of personal protective equipment are identified. 1.4 Safety hazards are identified and correct procedures to minimise risk to self and others are identified and implemented.</td>
<td>1. Undertake restoration work</td>
<td>1.1 Performance of the technical restoration work is undertaken in accordance with the highest standards of the relevant trade skills. 1.2 Legislative and organisational requirements are complied with throughout the heritage restoration work. 1.3 Ongoing consultations with the architect and relevant stakeholders are maintained to ensure contractual requirements are fulfilled.</td>
</tr>
<tr>
<td>2. Identify and obtain historical data</td>
<td>2.1 Period and style of construction of the building or structure are ascertained and recorded. 2.2 Available construction information is sourced from engineers and records and analysed for relevant and historically accurate information. 2.3 Materials used for previous restoration work are identified, recorded and verified as appropriate for the work. 2.4 Information relevant to the location, structure and specifications of the building are photographed or collated using alternative means and recorded.</td>
<td>2. Monitor progress of restoration work</td>
<td>2.1 Conformance to the restoration work plan is monitored during completion of the restoration work. 2.2 Adjustments to processes and the work plan to address problems that emerge during the heritage restoration are made and documented as required, in accordance with established organisational or job procedures. 2.3 Reporting of work progress is completed in accordance with established work plan, and job and contractual requirements. 2.4 Technical issues arising during the restoration that impact on the work of related trades are identified and communicated. 2.5 Effective strategies for problem resolution are identified within the project team.</td>
</tr>
<tr>
<td>3. Prepare work area and resources</td>
<td>3.1 Cover protection of nearby surfaces is carried out in accordance with restoration activities. 3.2 Scaffolding barricades and signage are erected to OHS regulations in accordance with job requirements. 3.3 Appropriate lighting is erected at the site. 3.4 Materials required for the identified restoration work are calculated and acquired in accordance with organisational procedures. 3.5 Tools and equipment are selected and checked for serviceability.</td>
<td>3. Ensure area is cleaned at completion of the restoration work</td>
<td>3.1 Scaffolding is dismantled carefully, removed and stored. 3.2 Cover protection for surfaces is carefully removed. 3.3 Surface protection and unused materials are removed and stored. 3.4 Work area is cleared and all waste material is disposed of in accordance with legislative and organisational requirements. 3.5 Tools and equipment are cleaned, maintained and stored.</td>
</tr>
<tr>
<td>4. Establish and maintain records for restoration purposes</td>
<td>4.1 Method of organising files is determined in accordance with organisational procedures. 4.2 System of presentation of the file is organised and a list made of relevant categories of information. 4.3 Photographs of the current structure are taken and stored for future reference as required. 4.4 Details of materials used, including colour matches, are recorded and filed throughout the life of the restoration project.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Required Knowledge (applicable to both units)
- Building Code of Australia (BCA) and other Australian standards relevant to the nature of work and materials being used
- Conservation processes, including good conservation practice arising from principles of the Burra Charter
- Methods/processes relating to historic building construction, including the range/use of building materials, structure of buildings and drafting techniques
- Relevant architectural knowledge, including orders of architecture, characteristics and features of period architecture and period plastering associated with historic buildings
- Workplace and equipment safety requirements, including relevant statutory regulations, codes and standards.

Source: DEEWR, CPC08 Construction, Plumbing and Services Training Package, Release 7.0 (2011)
Heritage Design Skill Set
It has been suggested that building contractors lack heritage design knowledge and skills, especially in relation to the development of heritage documentation and adaptive reuse of heritage buildings. If the following units from the Certificate IV in Building and Construction (Specialist Trades) were to be packaged and delivered as a Heritage Design Skill Set and marketed to builders, project managers and professionals responsible for heritage restorations during residential and commercial projects, it would go a long way to addressing the skill deficiencies identified within the building design sector.

<table>
<thead>
<tr>
<th>CPCBC4037A</th>
<th>CPCBC4038A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element</strong></td>
<td><strong>Performance Criteria</strong></td>
</tr>
<tr>
<td>1. Plan and prepare for drawing requirements</td>
<td>1.1 Specifications for drawing are identified from request or conservation authority requirements.</td>
</tr>
<tr>
<td></td>
<td>1.2 Dimensions of the historical or significant building are determined in accordance with appropriate methods, taking into account the type of structure, access to details and previous drawings available, if applicable.</td>
</tr>
<tr>
<td></td>
<td>1.3 Method of recording feature details is determined in accordance with nature of the feature, location and accessibility.</td>
</tr>
<tr>
<td></td>
<td>1.4 Method and system of recording identification, location and dimensional information are determined and applied in accordance with requested drawing requirements.</td>
</tr>
<tr>
<td></td>
<td>1.5 Equipment and instruments required are identified, listed and used in accordance with recording task requirements</td>
</tr>
<tr>
<td>2. Organise information for drawing preparation</td>
<td>2.1 Information is gathered and organised to determine overall dimensions of the building, structure or details to be drafted.</td>
</tr>
<tr>
<td></td>
<td>2.2 Information is gathered to identify and group all recorded details associated with each area or section of the building or structure.</td>
</tr>
<tr>
<td></td>
<td>2.3 Size of the drawing and scale to be used is determined in accordance with dimensions of building, structure or section.</td>
</tr>
<tr>
<td></td>
<td>2.4 Sketches, tracings or photographs of recorded features are identified and located with other recorded information related to feature work.</td>
</tr>
<tr>
<td>3. Draw or develop orthographic description</td>
<td>3.1 Block layout of views and designed spacings, where applicable, are drawn or developed to planned layout and scaled accurately to recorded or calculated dimensions.</td>
</tr>
<tr>
<td></td>
<td>3.2 Orthographic description views are detailed to show visible lines of structure and elements as seen with each view to correct scale representation of recorded dimensions.</td>
</tr>
<tr>
<td></td>
<td>3.3 Architectural drawing conventions, symbols and hatching, where applicable, are shown on drawings in accordance with AS1100.301 – 1985 Architectural Drafting.</td>
</tr>
<tr>
<td></td>
<td>3.4 Plans of large buildings are produced by use of grids, where applicable, to provide cross-referencing and dimensioning by coordinates.</td>
</tr>
<tr>
<td></td>
<td>3.5 Dimensions and reference notations are located relevantly on drawings to provide full detailed descriptions as required with each view.</td>
</tr>
<tr>
<td></td>
<td>3.6 Appendices and reference details of drawing are provided with drawing as required and in accordance with overall request.</td>
</tr>
<tr>
<td>4. Draw or develop sectional detailed drawings</td>
<td>4.1 Sectional detailed drawings are drawn or developed to scale to show detailed structural description of relationship between elements in accordance with recorded dimensions.</td>
</tr>
<tr>
<td></td>
<td>4.2 Architectural hatching is shown on drawings to represent materials, in accordance with relevant Australian standards.</td>
</tr>
<tr>
<td></td>
<td>4.3 Dimensions and reference notation are located on drawings to provide full details of sectional description.</td>
</tr>
<tr>
<td>CPCB0037A</td>
<td>CPCB0038A</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td><strong>Prepare drawings for heritage works (40 hours)</strong></td>
<td><strong>Prepare work plans for restoration work (40 hours)</strong></td>
</tr>
<tr>
<td><strong>5. Develop detailed drawings of feature work</strong></td>
<td><strong>5. Identify and record restoration processes</strong></td>
</tr>
<tr>
<td>5.1 Photographic recording of feature work shape and design is enlarged by photocopying to provide more realistic size for analysis and reproduction.</td>
<td>5.1 Preparation of surfaces, where applicable, is identified for stage processes and application work and comments are recorded in accordance with organisational procedures.</td>
</tr>
<tr>
<td>5.2 Gridlines are determined in accordance with actual dimensions of the feature work shape and are reproduced to enlarged photocopy.</td>
<td>5.2 Application, fixing or installation of material is determined and particular comments are recorded in accordance with organisational procedures.</td>
</tr>
<tr>
<td>5.3 Enlarged photocopy is closely examined for distortion from the photographing process and adjustments are made to the design, as necessary.</td>
<td>5.3 Application of finishing processes is identified and particular comments are recorded in accordance with organisational procedures.</td>
</tr>
<tr>
<td>5.4 Tracing recordings are examined in accordance with the whole feature or part thereof and linked with other tracings or sketches to ascertain the feature shape to be reproduced.</td>
<td>5.4 Repairs and restoration work to disturbed locations are identified and comments are recorded for inclusion in work plan.</td>
</tr>
<tr>
<td>5.5 Design shape drawings are developed to produce accurate design to scale with grid lines where applicable.</td>
<td></td>
</tr>
<tr>
<td>5.6 Cross-sectional details are produced accurately to scale, to provide three-dimensional information.</td>
<td></td>
</tr>
<tr>
<td>5.7 Dimensions, reference notation, specific location and appendices are produced for drawings in accordance with client request or design aims.</td>
<td></td>
</tr>
<tr>
<td><strong>6. Complete work</strong></td>
<td><strong>6. Identify and record clean-up procedures</strong></td>
</tr>
<tr>
<td>6.1 Drawings are checked for accuracy, clarity of line, completeness of drawing and associated dimensions and details.</td>
<td>6.1 Items for clean-up and removal are listed and relevant procedures included in the work plan.</td>
</tr>
<tr>
<td>6.2 Copies are made, where applicable, in accordance with original request.</td>
<td>6.2 Unused or reusable materials and waste are listed for storage or removal procedures.</td>
</tr>
<tr>
<td>6.3 Production details and coded reference information are recorded.</td>
<td>6.3 Cleaning of the area is specified and relevant comments of anticipated processes are noted.</td>
</tr>
<tr>
<td><strong>7. Prepare work plan</strong></td>
<td><strong>7. Prepare work plan</strong></td>
</tr>
<tr>
<td>7.1 Recorded notes and information are reviewed for direct reference and inclusion in work plan.</td>
<td>7.1 Recorded notes and information are reviewed for direct reference and inclusion in work plan.</td>
</tr>
<tr>
<td>7.2 Additional areas of information for work plan are researched and determined in content and expression.</td>
<td>7.2 Additional areas of information for work plan are researched and determined in content and expression.</td>
</tr>
<tr>
<td>7.3 Information is prepared and work plan written in accordance with organisational procedures.</td>
<td>7.3 Information is prepared and work plan written in accordance with organisational procedures.</td>
</tr>
<tr>
<td>7.4 Draft work plan is checked and amended to ensure completeness of all necessary stages prior to work plan presentation</td>
<td>7.4 Draft work plan is checked and amended to ensure completeness of all necessary stages prior to work plan presentation</td>
</tr>
</tbody>
</table>

**Required Knowledge (applicable to both units)**

- Australian standards relevant to the nature of work and demolition
- Conservation processes, including good conservation practice arising from principles of the Burra Charter
- Conservation processes, including good conservation practice arising from principles of decorating/finishing techniques used in restoration work
- Finishing trade applications to materials
- Methods/processes relating to historic building construction, including the range/use of building materials, structure of buildings and drafting techniques
- Methods of measuring
- Relevant architectural knowledge, including orders of architecture and the characteristics and features of period architecture
- Site preparation and organisational skills
- Workplace and equipment safety requirements, including relevant statutory regulations, codes and standards.

Source: DEEWR, CPC08 Construction, Plumbing and Services Training Package, Release 7.0 (2011)
Heritage Works Planning Skill Set
If the following two units from the *Certificate IV in Building and Construction (Specialist Trades)* were to be packaged as a *Heritage Works Planning Skill Set* and marketed to technical specialists, builders, project managers, construction professionals, heritage consultants and anyone else who may have a role in the planning and initiation of heritage restoration works, it would go a long way to addressing the skill deficiencies identified within the heritage planning sector.

<table>
<thead>
<tr>
<th>Element</th>
<th>Performance Criteria</th>
<th>Element</th>
<th>Performance Criteria</th>
</tr>
</thead>
</table>
| 1. Gather information to be included in the report | 1.1. Details of the area of the structure and information regarding areas of fault are identified.  
1.2. General description of the building or structure and its period of construction are identified.  
1.3. Surrounding area and faults are identified for inspection and investigation.  
1.4. Assessment of unsafe conditions is conducted and identified for investigation. | 1. Identify project, location and surrounds | 1.1. Location and nature of the restoration work to be undertaken are identified and recorded following consultations with the architect and site inspections.  
1.2. Site access and egress for work location are noted and recorded.  
1.3. Area to be disturbed is determined and surrounding areas are noted for possible work application effects and cover protection requirements.  
1.4. Nature of the work is assessed and noted for possible use of heavy or bulky equipment  
1.5. Effect on public access is assessed/recorded to ensure protection of the public & environment is undertaken. |
| 2. Assess and outline possible means of restoring the areas of the structure | 2.1. Assessment of conditions and degree of deterioration and disturbance are conducted and recorded using appropriate technical language.  
2.2. Possible causes for deterioration of condition and stability are assessed and recorded as guidelines for investigatory enquiries/restoration considerations.  
2.3. Sound construction or finish applications surrounding or adjacent to the faulted area are identified and recorded to inform restoration processes.  
2.4. Relevant information regarding unsafe conditions at or around the structure are identified and recorded.  
2.5. Advice regarding restoration techniques and work required is identified and documented based on assessment of the structure. | 2. Consult with technical specialists | 2.1. Consultations with the conservator, engineer or supervisor are conducted to discuss and clarify specific job requirements.  
2.2. Specific risks and areas of concern arising due to the nature of the heritage and conservation aspects of the work are identified.  
2.3. Agreed processes and timeframes are established to ensure effective communications between project team members.  
2.4. Role responsibilities and requirements are discussed, understood and agreed with project team members. |
| 3. Document and present the report | 3.1. Method of presenting the report in a logical and sequential manner is determined with key stakeholders and implemented.  
3.2. Report is written to provide all investigated and determined information in accordance with request and agreed format.  
3.3. Report is written in a manner that will be readily understood by relevant stakeholders. | 3. Consult with clients and stakeholders | 3.1 Consultations are held with the client and other stakeholders, as appropriate, to clarify expectations regarding access to the site, performance of the work and timeframes.  
3.2. Clients and stakeholders are consulted to ensure common understanding of the historical and/or cultural significance of the heritage building under restoration.  
3.3. Appropriate communication channels and reporting processes are discussed and agreed, as appropriate, with the client and other relevant stakeholders. |
| 4. Clarify the impact of contractual requirements | 4.1. Relevant contractual requirements affecting the performance of the restoration work are identified and clarified.  
4.2. Relevant dispute resolution processes that are to be used if required are identified. | |

Required Knowledge (applicable to both units)
- Building Code of Australia (BCA) and other Australian standards relevant to the nature of work and materials being used
- Conservation processes, including good conservation practice arising from principles of the Burra Charter
- Dispute resolution processes
- Methods/processes relating to historic building construction, including the range/use of building materials, structure of buildings and drafting techniques
- Relevant architectural knowledge, including orders of architecture and the characteristics and features of period architecture
- Trade-specific techniques used in restoration work
- Workplace and equipment safety requirements, including relevant statutory regulations, codes and standards.

Source: DEEWR, CPC08 Construction, Plumbing and Services Training Package, Release 7.0 (2011)
Heritage-Specific Skill Sets – Conditions of Delivery and Assessment

If the skill sets proposed in this report were delivered and assessed under the following conditions, the post-trade skill needs of Tasmania’s heritage sector would be upheld in the mid- to long-term:

- Promote the acquisition of post-trade heritage skills as a training pathway towards an attractive, viable and highly visible niche market
- Establish the skill sets as aspirational programs to attract younger tradespeople and professionals to the heritage restoration sector
- Nominate each skill set as the training necessary to acquire Preferred Heritage Practitioner status within Tasmania
- Deliver the skill sets every two, five or ten years (or as needed) to groups of between 12 and 25 targeted participants
- Contextualise the delivery of the skill sets to the needs and specific trade areas of participants
- Ensure problem solving, team work and peer review exercises are incorporated into the delivery of the skill sets
- Deliver the skill sets on-location at relevant heritage sites around the State
- Assess the skill sets in compliance with the VET Quality Framework (to ensure participants receive certification for their competence and not merely for their attendance and participation)
- Ensure appropriately qualified, experienced and respected heritage specialists and trainers deliver and assess the training
- Support the delivery of the skill sets with specialist heritage mentors
- Support the delivery of the skill sets with relevant and current Practice Notes and Technical Notes
- Align the skill sets to an enhanced/targeted Continuing Professional Development (CPD) program.

The skill sets proposed in this report are linked to defined industry needs within the heritage sector of Tasmania’s building and construction industry.
CPC08 Construction, Plumbing and Services Training Package – Trade Apprenticeships

There is a perception that heritage values and conservation philosophy were once an integral part of apprenticeship training, but that this knowledge base has slowly been disappearing from the formal apprenticeship system over the past 20 years. Practitioners holding this perception also believe that if current apprentices had – at the very least – an understanding of heritage values and conservation philosophy, they would not barge in and strip wallpaper from the walls of heritage buildings or rip up flooring from traditional structures to lay electrical cable. They would stand back, recognise heritage value and seek specialist advice. Equipped with this critical knowledge and understanding, they may even elect to undertake the heritage restoration stream from the CPC40611 Certificate IV in Building and Construction (Specialist Trades) when they finish their apprenticeship.

The fact is, heritage values and conservation philosophy are still embedded (as required knowledge) within selected units of competency from the following building and construction apprenticeships:

- CPC30111 Certificate III in Bricklaying/Blocklaying
- CPC30611 Certificate III in Painting and Decorating
- CPC31011 Certificate III in Solid Plastering
- CPC31311 Certificate III in Wall and Floor Tiling

Required knowledge is included in all Training Package units of competency, and it identifies what a person needs to know to perform the work in an informed and effective manner. RTOs must ensure apprentices have the required knowledge identified in a unit before they undertake any assessments against the unit (unless the assessment activities are structured in such a way to assess the required knowledge at the same time as the skill-based tasks). The following table summarises the heritage-specific required knowledge that is still addressed in building and construction units of competency (at both apprenticeship and post-trade levels):

<table>
<thead>
<tr>
<th>Unit of Competency (Apprenticeship)</th>
<th>Heritage-Specific Required Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPCCBL3017A Carry out tuck pointing to brickwork</td>
<td>Heritage brickwork materials and bonding techniques</td>
</tr>
<tr>
<td>CPCCPD3022A Apply paint by brush and roller</td>
<td>Responsibilities with regard to conservation areas and heritage listed buildings</td>
</tr>
<tr>
<td></td>
<td>Variances in work carried out within sectors of painting and decorating industry for:</td>
</tr>
<tr>
<td></td>
<td>• new building (residential, commercial and high rise)</td>
</tr>
<tr>
<td></td>
<td>• maintenance, renovation and refurbishment</td>
</tr>
<tr>
<td></td>
<td>• restoration</td>
</tr>
<tr>
<td></td>
<td>• conservation</td>
</tr>
<tr>
<td>CPCCPD3025A Match specified paint colour</td>
<td>Colours used in heritage painting or restoration</td>
</tr>
<tr>
<td>CPCCPD3026A Apply stains and clear timber finishes</td>
<td>Hazards associated with solvents, chemicals and dust (heritage listed buildings)</td>
</tr>
<tr>
<td></td>
<td>Responsibilities with regard to restoration</td>
</tr>
<tr>
<td>CPCCPD3027A Apply wallpaper</td>
<td>Responsibilities with regard to conservation areas and heritage listed buildings</td>
</tr>
<tr>
<td>CPCCPD3032A Apply advanced wallpaper techniques</td>
<td></td>
</tr>
<tr>
<td>CPCCSP3004A Restore and renovate solid plasterwork</td>
<td>Solid plastering, restoration and renovation techniques</td>
</tr>
<tr>
<td>CPCCWF3005A Carry out decorative tiling</td>
<td>Heritage tiles and patterns</td>
</tr>
<tr>
<td>Unit of Competency (Post-Trade)</td>
<td>Heritage-Specific Required Knowledge</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>CPCCBC4035A Initiate the heritage works process</td>
<td>Conservation processes, including good conservation practice arising from principles of the Burra Charter</td>
</tr>
<tr>
<td>CPCCBC4036A Prepare to undertake the heritage restoration process</td>
<td>Methods and processes relating to historic building construction, including the range and use of building materials, structure of buildings &amp; drafting techniques</td>
</tr>
<tr>
<td>CPCCBC4037A Prepare drawings for heritage works</td>
<td>Relevant architectural knowledge, including orders of architecture, characteristics and features of period architecture and period plastering associated with historic buildings</td>
</tr>
<tr>
<td>CPCCBC4038A Prepare work plans for restoration work</td>
<td>Trade-specific techniques used in restoration work</td>
</tr>
<tr>
<td>CPCCBC4039A Undertake the heritage restoration process</td>
<td>Decorating and finishing techniques used in restoration work</td>
</tr>
<tr>
<td>CPCCBC4040A Prepare report for heritage restoration work</td>
<td></td>
</tr>
</tbody>
</table>

It would be preferable if heritage-specific required knowledge was embedded in all relevant building and construction units of competency at the trade (apprenticeship) level, and not just those listed in the table above. On this basis, it is proposed the following heritage values be embedded as required knowledge within all relevant trade-based units:

- Conservation processes and practices arising from principles of the Burra Charter
- Methods and processes relating to historic building construction, including the behaviour and use of traditional materials and the use of traditional tools and techniques
- Responsibilities with regard to conservation areas and heritage listed buildings
- Trade-specific techniques used in restoration and renovation work.

This proposal has been prioritised above all others in this report (see Recommendation 1 on page 4). Unfortunately, it may not be attainable. National Training Packages must have national application, and the inclusion of heritage knowledge in core and elective units of competency may disadvantage employers, apprentices and Registered Training Organisations (RTOs) in states and territories where there are limited opportunities to undertake work on heritage buildings. For example, Tasmania has more heritage-listed places than the Northern Territory and Australian Capital Territory. While most Tasmanian apprentices will eventually encounter a heritage structure of some description, the same cannot be said for apprentices in the NT or ACT. As a result, it may be unviable to include mandatory heritage knowledge in national units of competency.

This sentiment will be conveyed to the CPSISC Heritage Trade Training Scoping Project (see page 15).

21844VIC Certificate II in Building and Construction (Stream Title) Pre-apprenticeship
This Victorian accredited course includes six industry streams (bricklaying; carpentry; painting and decorating; wall and ceiling lining; wall and floor tiling and solid plastering).

The solid plastering stream includes an elective module titled VBQM223 Introduction to restoration and renovation, which covers the skills required to identify risks and hazardous materials necessary to safely undertake restoration and renovation work in the solid plastering industry. The curriculum documentation for this course is available to RTO’s through an AEShareNet Preserve Integrity license and can be downloaded from Victoria’s Training Support Network website at the following address: http://trainingsupport.skills.vic.gov.au/curriculumDisplay.cfm?courseCode=3539

There are no Tasmanian training organisations currently registered to offer the 21844VIC Certificate II in Building and Construction (Stream Title) Pre-apprenticeship.
11353TAS Certificate IV in Construction (Conservation of Cultural Heritage) – LAPSED
Developed/accredited in Tasmania and delivered by TAFE Tasmania, the accreditation of this course lapsed in 2002. A number of heritage practitioners who are currently working in Tasmania undertook the 178-hour program in 1998-99. Facilitated by Robert Vincent, the course comprised the following six modules (all of which focused on conservation planning and heritage restoration):

<table>
<thead>
<tr>
<th>Modules</th>
<th>Learning Outcomes</th>
</tr>
</thead>
</table>
| An understanding the cultural heritage industry   | • Describe the history of cultural heritage practice in Australia  
• Define and explain the terms used in cultural heritage  
• Describe the options for managing a cultural heritage place  
• Identify and outline the coverage and scope of government organisations, organisations other than government and individuals involved in cultural heritage  
• Identify those practitioners who work in the cultural heritage industry and explain their basic role  
• Identify those people who are occasional participants in the cultural heritage industry |
| 18 hours                                          |                                                                                                                                                                                                                  |
| Understanding the evidence                        | • Outline the major historical developments of a region  
• Identify the basic architectural development and building techniques of Australia’s built heritage and the influences which determined the choice of particular styles  
• Describe the sources from which an understanding of the past is derived  
• Explain the role of sources in conservation practice  
• Describe the strengths, weaknesses and use of all sources |
| 40 hours                                          |                                                                                                                                                                                                                  |
| Conservation planning                             | • Explain the process for establishing ‘cultural significance’  
• Describe the stages taken when preparing a conservation plan  
• Explain how a conservation policy is developed in the conservation planning process |
| 30 hours                                          |                                                                                                                                                                                                                  |
| Conservation practice                             | • Describe current specialist conservation practices for stone, brick, mortars, plasters, renders, timber, metals, glass, paints and finishes  
• Describe current specialist conservation practices for architecture, archaeology, cultural resource management, curating, engineering, heritage tourism, landscape architecture  
• Describe traditional building practices and their importance in conservation work  
• Explain the process for undertaking a conservation activity |
| 60 hours                                          |                                                                                                                                                                                                                  |
| Cultural heritage resource management             | • Identify and describe the impact of cultural heritage resource management issues  
• Identify various approaches to cultural heritage resource management and their effects  
• Discuss the role of interpretation for cultural heritage places |
| 30 hours                                          |                                                                                                                                                                                                                  |
| Conservation planning project                     | • Prepare a conservation plan for a nominated cultural heritage place |
Non-Accredited Courses

Short Courses in Heritage Skills – Heritage Education and Skills Centre
Established by the Southern Midlands Council in 2010, the Heritage Education and Skills Centre is a not-for-profit organisation based in Oatlands that aims to address heritage-specific skill shortages. While the Centre does not deliver nationally recognised training, it is considering becoming an RTO in its own right and has established a partnership with the Tasmanian Skills Institute.

2012 Heritage Skills Course Guide
Based on the findings of its Tasmanian Heritage Skills Survey (refer page 14), the Centre has recently released its 2012 Heritage Skills Course Guide, which includes the following non-accredited courses:

- Basic Maintenance and Repair of Masonry (2 days @ $308)
- Interior Finishes (2 days)
- Introduction to the Burra Charter (1 day @ $170.50)
- Timber Detailing and Interiors (1 day @ $198)
- Traditional Plasters and Renders (2 days)
- Traditional Timber Staircase Building and Repairs (3 days @ $368.50)
- Use of Traditional Lime Products in Masonry Repair (2 days).

Course in Advanced Conservation Techniques – The Longford Academy
Presented by members of the APT (Association for Preservation Technology) Australasia Chapter, the Longford Academy is a series of advanced residential short courses on the conservation of traditional structures and heritage collections. The next offering of the Academy is a (not-so-short) 5-day Course in Advanced Conservation Techniques, which is to be held in May 2012 at Woolmers and Brickendon Estates in Longford. There is a $1,200 tuition fee for the course ($900 for full-time students), and this covers all activities, refreshments and lunches. Accommodation is an additional cost and is available on-site at Woolmers Estate or Brickendon Historic Farming Village. Staff from Heritage Tasmania and the National Trust of Australia (Tasmania) will also present sections of the course, which will include the following themes and topics (see overleaf).

<table>
<thead>
<tr>
<th>Themes</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation planning and management</td>
<td>• Recording prior to work</td>
</tr>
<tr>
<td></td>
<td>• Archaeological assessment and risk management</td>
</tr>
<tr>
<td>Conservation of structures</td>
<td>• Stabilisation and repair of timber and masonry structures</td>
</tr>
<tr>
<td></td>
<td>• Specification of works</td>
</tr>
<tr>
<td>Fabric conservation</td>
<td>• Mortars and plasters</td>
</tr>
<tr>
<td></td>
<td>• Damp and desalination</td>
</tr>
<tr>
<td></td>
<td>• Organic and inorganic materials</td>
</tr>
<tr>
<td></td>
<td>• Surface coatings on wood and plasters</td>
</tr>
<tr>
<td>Interiors conservation</td>
<td>• Relative humidity, microclimate and monitoring</td>
</tr>
<tr>
<td></td>
<td>• Soiling, damage and repair</td>
</tr>
<tr>
<td></td>
<td>• Conservation of interior fabric</td>
</tr>
<tr>
<td>Conservation quality and sustainability</td>
<td>• Quality measures for sustainable conservation outcomes</td>
</tr>
</tbody>
</table>

Further information on the Longford Academy and its series of residential courses is available from the APT Australasia Chapter website at: http://aptaustralasia.wordpress.com/
The Conservation of Traditional Buildings – University of Canberra

A 12-day intensive course titled The Conservation of Traditional Buildings is conducted as a heritage conservation summer school program at the University of Canberra. It is aimed at those involved in the care and physical management of buildings, including architects, builders and tradespeople. The course focuses on traditional building materials (stone, brick, mortar, wood, metals and decorative finishes) and covers the following topics:

- Rising damp and salt attack
- Repointing mortar joints
- Termites and other biodeterioration of timber
- Corrugated roofing
- Galvanic corrosion of metals
- Researching and understanding traditional paint finishes.

The Conservation of Traditional Buildings is a non-award professional development course run every second year. On alternate years, a 7-day Cultural Heritage Management course is offered. Neither is examined and participants receive a certificate of attendance. When last delivered in January 2011, The Conservation of Traditional Buildings course had a $4,290 tuition fee. This included course costs, lunches and most dinners, but it did not include accommodation (which is available on campus or in nearby hotels). The next course is planned for January 2013.

Further detail on both summer school programs is available from the University of Canberra website at: www.canberra.edu.au/faculties/arts-design/conservation-summer-schools

A number of heritage practitioners have travelled to Canberra to undertake the 12-day Conservation of Traditional Buildings course. The TBCITB has also provided support for Tasmanian practitioners to undertake the course, most notably in 1993 when it was offered in Hobart (when 10 of 25 attendees were supported). Since that time, several practitioners have undertaken the course in Canberra with TBCITB support.

Annual Conferences – Australia ICOMOS

A number of existing practitioners maintain their heritage skills by attending annual conferences run by Australia ICOMOS (International Council on Monuments and Sites). Further details on the themes covered by the conferences are available from the Australia ICOMOS website at: www.aicomos.com/

Annual Conferences – Australian Institute for the Conservation of Cultural Material

Some existing practitioners maintain their heritage skills by attending annual conferences run by the Australian Institute for the Conservation of Cultural Material (AICCM). Further details on the themes covered by the conferences are available from the AICCM website at: www.aiccm.org.au

Heritage Artisan Support Program – SA Construction Industry Training Board

The South Australian Construction Industry Training Board offers a heritage artisan training program aimed at preserving rare, heritage and artisan trades. To-date, courses have been offered in heritage timber framing and stonemasonry, with courses planned for fibrous plastering and heritage painting.

Specialist Courses – United Kingdom and Belgium
A number of existing practitioners have also undertaken specialist heritage skills training in Belgium and the United Kingdom (some of whom received funding through the Winston Churchill Fellowship Trust). A selection of the qualifications and short courses undertaken abroad are listed below:

<table>
<thead>
<tr>
<th>Organisation (UK and Belgium)</th>
<th>Qualification / Short Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACEBE Institute (Antwerp)</td>
<td>• Plumbing Apprenticeship (Theory)</td>
</tr>
</tbody>
</table>
| City & Guilds                | • Advanced Stonemasonry  
                               | • Roof Slating and Tiling |
| Derbyshire Eco Centre        | • Stone Masonry |
| Institute for Construction Training (Kapelle-op-den-bos) | • Basic Lead and Zinc |
| Scottish Lime Centre Trust   | • Making and Using Traditional Mortars  
                               | • Ashlar Pointing and Grouting  
                               | • Rubble Pointing for Homeowners  
                               | • Stone Scheduling Masterclass  
                               | • Structural Repair of Historic Buildings Workshop  
                               | • Ruin Consolidation Workshop |
| Society for the Protection of Ancient Buildings | • Repair of Old Buildings |
| University of York           | • Conservation Studies – Historic Buildings |
| VDAB (Hasselt)               | • Master Slater Course |

Restoration work at Oatlands  
Photos courtesy Hans Hellemans (Heritage Roofing Company)
Adaptive Reuse – A Hidden Training Opportunity

Adaptive reuse is a process that changes a disused or ineffective item into a new item that can be used for a different purpose. The re-use of a historic building should have minimal impact on the heritage significance of the building and its setting. Developers should gain an understanding of why the building has heritage status and pursue development that is sympathetic to the building to give it a new purpose. Adaptive reuse is self-defeating if it fails to protect the building’s heritage values.10

Anecdotal evidence suggests that property owners are tempted (through sheer frustration) to allow heritage buildings and structures to disintegrate rather than to restore them. Their reasons typically involve insufficient funds and excessive bureaucracy, but they may be unaware of the economic (let alone social, cultural and environmental) benefits that well restored properties can attract. Heritage restoration typically requires recurrent funding over an extended period, so return on investment is paramount to those considering ventures of this nature. If the concept of adaptive reuse was better appreciated within the heritage sector, more heritage properties would be under restoration, which in turn would increase the availability of training locations for apprentices and younger tradespeople throughout the State.

Case Study 1 – Redlands

Built by convicts more than 150 years ago, Redlands Estate in the Derwent Valley was once a thriving hop and grain farm. Unfortunately, the heritage buildings dotted throughout the property have been neglected over many years, and they now sit in varying states of deterioration. The property requires extensive restoration to return it to a working farm, and that’s precisely what new owners Peter and Elizabeth Hope have in mind. Their vision for Redlands is underpinned by an ambitious plan to adapt the property and its structures to accommodate the following:

- Whisky distillery (barley will be grown, harvested, malted, distilled and bottled on site)
- Visitor centre and gift shop (guided tours, cellar door sales, whisky tasting and cellaring room)
- Bakehouse, centre for excellence restaurant and tourism accommodation.

Peter estimates his long-term vision for Redlands (which is dependent on a more flexible approach to strata title approvals) will employ up to 80 trade/professional workers over an 18 month period. This would provide an excellent location for young tradespeople to learn and apply heritage skills.

![Heritage buildings at Redlands Estate](Image1)

The problem is properties can’t make enough money from farming for the upkeep of heritage buildings. The only way to get money from these properties – to restore and maintain the heritage buildings – is to think differently. We hope what we’re doing here will provide a template to help others find ways to save our heritage estates.11

---

Case Study 2 – Local Government

A key recommendation arising from the Heritage Trades and Professional Training Project (see page 13) involves the use of derelict unlisted (and not-likely-to-be listed) buildings for training purposes. This presents an ideal location for apprentices and interested tradespeople to discover how to work with traditional materials, tools and techniques. It also avoids the use of well-kept heritage buildings for training purposes, which in turn assures owners that their valuable properties are not being used as training grounds for inexperienced practitioners.

Projects of this nature are currently under consideration by at least two Tasmanian councils. In both instances, a heritage property in significant disrepair within the municipality is purchased by council and renovated in partnership with local training organisations. Apprentices are supervised on-site by council staff and mentored by heritage specialists. When the restoration is complete, the property is sold and proceeds used to purchase another local (and deteriorating) heritage property for the same purpose. This self-sustaining approach to heritage skills training and property restoration is not new. The United Kingdom’s Heritage Lottery Fund and Spitalfields Historic Buildings Trust, while greater in scale and scope, are based on similar principles. However, the approach is visionary within this State, and the resolve of local councils to consider (and hopefully implement) adaptive reuse schemes of this nature must be applauded and supported by all stakeholders within Tasmania’s heritage sector.

Restoration work at Callington Mill
Photos courtesy Brad Williams (Southern Midlands Council)
Heritage Practitioners: Who are They?

Heritage Practitioners – Workforce Numbers
It is difficult to determine accurate numbers of heritage trade practitioners currently working within the State’s building and construction industry. While Heritage Tasmania’s Heritage Services Directory (www.heritage.tas.gov.au/heritage_services_directory.html) provides contact details for specialist tradespeople across a range of building and construction trade areas, not all practitioners are willing to publicly list their details. However, the directory does provide an estimate of state-and interstate-based individuals and companies offering specialist heritage services within Tasmania. The following table summarises the state-based practitioners listed on the directory (as at March 27, 2012).

<table>
<thead>
<tr>
<th>Heritage Category</th>
<th>Description</th>
<th>Number of state-based individuals/companies listed on directory*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Design/Drafting</td>
<td>Includes architecture, conservation works &amp; planning</td>
<td>15</td>
</tr>
<tr>
<td>Building</td>
<td>Includes conservation works and stabilisation</td>
<td>10</td>
</tr>
<tr>
<td>Joinery</td>
<td>Includes conservation works, cabinetry, French polishing and repairs</td>
<td>11</td>
</tr>
<tr>
<td>Glazing</td>
<td>Materials conservation (glass)</td>
<td>2</td>
</tr>
<tr>
<td>Painting</td>
<td>Includes conservation works, paint removal and paint suppliers</td>
<td>7</td>
</tr>
<tr>
<td>Plastering</td>
<td>Includes conservation works</td>
<td>3</td>
</tr>
<tr>
<td>Roofing</td>
<td>Includes repairs, restoration, plumbing, slating and tiling</td>
<td>8</td>
</tr>
<tr>
<td>Stone Masonry</td>
<td>Includes conservation works, rendering, brickwork, pointing and stone supplies</td>
<td>15</td>
</tr>
</tbody>
</table>

*Please note that some practitioners are listed in multiple heritage categories (particularly building and joinery).

Heritage Services Directory
Individuals and companies wishing to advertise their products/services on the directory must submit an Application for Inclusion form to Heritage Tasmania. Inclusion on the directory in no way equates to an endorsement by Heritage Tasmania, and users of the directory (including property owners and others seeking heritage advice and specialist skills) are advised to make their own assessment of the ability of an individual or company to carry out their work in a competent, punctual and professional manner. This is further underpinned by a legal disclaimer that relinquishes all responsibility from the Tasmanian Heritage Council and the State of Tasmania for any injury, loss or damage caused by – or attributable to – the work of an individual or company listed on the Heritage Services Directory.

On this basis, the directory serves as a current and convenient list of trade and professional heritage practitioners, and throughout the consultation phase of this project it was often compared to group listings in the Yellow Pages. However, the directory is not a mandated list, and Heritage Tasmania is not equipped to evaluate and vet applications before uploading them to the departmental website. It was this issue that prompted significant discussion as to the need for a non-mandated practitioner preference scheme similar to Aurora Preferred.
Aurora Preferred

*Aurora Preferred* is a guarantee of workmanship and installation, and only those businesses that are authorised to display the *Aurora Preferred* branding (see below) carry this guarantee. Consumers are in no way obliged to use an *Aurora Preferred* business, but by doing so, they are guaranteed that the work will be done well. More information on the scheme is available at the Aurora Preferred website at [www.aurorapreferred.com.au/](http://www.aurorapreferred.com.au/)

Heritage Preferred

A similar system may be suited to the heritage trades sector, where approved practitioners carry the *Preferred Heritage Practitioner* branding. This would assist property owners in the choice of heritage tradespeople, and it would also provide a market incentive for tradespeople to acquire and practice heritage trade skills within their business. The following heritage-specific skill sets could serve as the training necessary to acquire *Preferred Heritage Practitioner* status within Tasmania:

- *Heritage Restoration Skill Set* (see page 23)
- *Heritage Design Skill Set* (see page 24)
- *Heritage Works Planning Skill Set* (see page 26).

These skill sets could also serve as aspirational training programs to draw younger tradespeople and professionals to the heritage sector.

Heritage Practitioners – Demographic Profile

The following table provides a very basic demographic profile of heritage tradespersons currently operating within Tasmania.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Profile</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>42+</td>
<td>Typifying an ageing and close-to-retiring workforce in the building and construction industry</td>
</tr>
<tr>
<td>Industry Experience</td>
<td>26 years</td>
<td>Average (ranging between 15 and 41 years)</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Few (if any) female heritage trade practitioners are currently operating within Tasmania</td>
</tr>
<tr>
<td>Business Type</td>
<td>Small to Micro Business</td>
<td>Australian Bureau of Statistics (ABS) data indicates that more than 90% of construction businesses in Tasmania employ less than 20 people. A number of current heritage practitioners are 3rd generation bricklayers, painters and plasterers. Many are sole operators.</td>
</tr>
</tbody>
</table>

---

Heritage Skills Work: What is Available?

Tasmania’s Historic Cultural Heritage Act 1995 states that a person must not carry out any works in relation to a registered place or a place within a heritage area which may affect the historic cultural heritage significance of the place unless the works are approved by the Tasmanian Heritage Council. When assessing works applications, the Heritage Council’s Works Application Assessment Committee will typically make one of the following three decisions:

- Approve the application
- Refuse the application
- Issue an exemption for works that will not affect the heritage significance of a place.

The following table and chart summarise the Committee’s decisions over the period 2005 to 2011.

<table>
<thead>
<tr>
<th>Works Applications (2005 to 2011)</th>
<th>Number Per Year (Average)</th>
<th>% Per Year (Average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications received</td>
<td>276</td>
<td></td>
</tr>
<tr>
<td>Applications approved</td>
<td>266</td>
<td>96%</td>
</tr>
<tr>
<td>Applications refused</td>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>Exemptions issued</td>
<td>227</td>
<td>-</td>
</tr>
<tr>
<td>Total applications approved &amp; exemptions issued</td>
<td>493</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Tasmanian Heritage Council, Annual Reports 2005-06 to 2010-11

Heritage Works Applications
Tasmanian Heritage Council, 2005 to 2011

Source: Tasmanian Heritage Council, Annual Reports 2005-06 to 2010-11

---

13 Historic Cultural Heritage Act 1995 (No. 117 of 1995), Part 6, Section 32 (1)
The Scope of Heritage Work in Tasmania

It is difficult to accurately determine the scope of heritage building and construction work available within Tasmania. If a building is not heritage-listed, there is no requirement for the property owner to seek approval to undertake work on the building. Without approval data, it is virtually impossible to calculate the extent of heritage works and subsequent number of heritage practitioners required to undertake the work. It is also difficult to ascertain the extent of heritage works being undertaken by people without heritage skills, as unskilled property owners (or tradesmen without heritage skills) will often undertake heritage-based restoration work in order to:

- avoid bureaucratic red tape
- reduce restoration timeframes
- save restoration costs.

Having said this, a comparison of heritage and non-heritage building approvals provides a reasonably close estimate of the scope of heritage building work within Tasmania, so the following two key data sources have been analysed and compared to underpin the industry appraisals provided overleaf:

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Australian Bureau of Statistics, 8731.0 – Building Approvals, Australia, February 2012:  
- Table 17: Number of Dwelling Units Approved, By Sector, Original – Tasmania  
- Table 65: Number of Non-residential Building Jobs Approved, by Value Range, Original – Tasmania | These tables relate to building works approved in Tasmania from July 2001 to February 2012, and they have been compiled from:  
- permits issued by local government authorities and other principal certifying authorities  
- contracts let or day labour work authorised by commonwealth, state, semi-government and local government authorities  
- major building approvals in areas not subject to normal administrative approval (e.g. building on remote mine sites).  
The statistics comprise the following:  
- construction of new buildings  
- alterations and additions to existing buildings  
- approved non-structural renovation and refurbishment work  
- approved installation of integral building fixtures.  
The coverage of the statistics is as follows:  
- all approved residential building valued at $10,000 or more  
- all approved non-residential building valued at $50,000 or more.  
Refer: [www.abs.gov.au](http://www.abs.gov.au) |
| Tasmanian Heritage Council, Annual Reports (2005-06 to 2010-11) | Over the past 6 six years, the Tasmanian Heritage Council’s Annual Reports have included summary data on the assessment of works applications that have been submitted for heritage-listed properties.  
These statistics include:  
- the number of exemptions issued for works that would not affect the heritage significance of a property  
- the number of works applications approved  
- the number of works applications refused  
- the percentage of works applications approved.  
An average 12% of all approved building jobs over the period 2005 to 2011 involved heritage works.
It is interesting to note that over the past six years, non-heritage building works approvals remained heavily focused on residential and non-residential new builds. In the period 2005 to 2011, only 1% of approved building activity involved alterations, additions and conversions (despite record renovation activity during the financial year 2010/11).\(^{14}\)

**Non-Heritage Building Works Approvals**

*Tasmania (2005-2011)*

It must be stressed that the data underpinning the industry appraisals in this report does not include non-approved building activity in the heritage and non-heritage sectors, as this is virtually impossible to calculate. Non-approved building activity primarily involves alterations, additions and conversions under $10,000, and this is a key market for heritage practitioners. As a result, it is extremely difficult to determine the scope of heritage restoration work over and above that which has been approved or exempted by the Heritage Council’s *Works Application Assessment Committee*.

**Heritage Workforce Numbers – A Pragmatic Picture**

Occupying a small sector of Tasmania’s building and construction industry, heritage restoration work is limited in scope and sporadic in nature. With an average 490 approved / exempted heritage works applications every year and an average 340\(^{15}\) apprentices completing their training and entering the building and construction workforce every year, there is no urgent necessity for each new entrant to be equipped with heritage trade skills. However, there is a definite need to inform new tradespeople about their associated responsibilities when working on (or working adjacent to) heritage properties, regardless of whether the property is heritage-listed.


\(^{15}\) Tasmanian Building and Construction Industry Training Board, *Total Number of Apprenticeship Completions in the Tasmanian Construction Industry*, TBCITB (2011)
In terms of the number of skilled practitioners needed to maintain Tasmania’s heritage buildings and structures, it has been suggested that a skilled workforce of 100 or less (possibly 80) would suffice.

### Occupational and Skill Shortage Data

The following table summarises the main tasks heritage practitioners are (and will be) applying their trade skills within Tasmania. The table also includes occupational and skill shortage data for building professions (architects only) and construction trades. This data has been sourced from the Australian Government Department of Education, Employment and Workplace Relations (DEEWR) website at [www.deewr.gov.au/Employment/LMI/SkillShortages/Pages/Overview.aspx](http://www.deewr.gov.au/Employment/LMI/SkillShortages/Pages/Overview.aspx)

<table>
<thead>
<tr>
<th>ANZSCO</th>
<th>Occupation</th>
<th>Type and Amount of Work Available</th>
</tr>
</thead>
</table>
| 2321-11  | Architect     | Tasks to which practitioners are (and will be) applying their skills:  
• architectural services for extensions and adaptations  
• conservation management plans  
• heritage and building science advice (e.g. how to solve rising damp, causes of and solutions to building movement problems, mortar mixes, best paint types, sandstone decay issues)  
• heritage assessments and condition reports  
• making buildings work in a modern sense  

*Labour Market Rating April 2011 – Shortage (Tasmania)*  
Building approvals in Tasmania peaked in October 2009 and have been steadily declining since. Evidence suggests non-residential construction is slowing with the winding down of the Australian Government stimulus packages (e.g. Building the Education Revolution program). According to the ABS Count of Australian Businesses data 2009 (ABS Cat. No. 8165.0, released October 2010), 46.4% of all architectural services businesses in Tasmania did not employ anyone and a further 52.3% employed fewer than 20 people. Anecdotal information suggests that most in this latter group employ fewer than 10 people. |
| 3311-11  | Bricklayer    | Tasks to which practitioners are (and will be) applying their skills:  
• chimney repairs  
• damp proofing brick walls  
• stone and brick replacement  
• using lime mortar in brick repair  

*Labour Market Rating August 2011 – No Shortage (Tasmania)*  
Bricklayers have been in shortage for many years in Tasmania. However, recent research shows no shortage. This rating is mainly due to the fall in the number of domestic dwellings being built and the relatively subdued construction industry as a whole over the last 18 months.  

*Practitioners Comments*  
Anecdotal evidence reveals limited work options in heritage bricklaying, with limited future prospects in the short to midterm. |
| 3311-12  | Stonemason    | Tasks to which practitioners are (and will be) applying their skills:  
• assessing and preparing quotes and strategies for working on heritage buildings and walls  

*Labour Market Rating: Aug 2011 – Shortage (National)*  
Employers are filling less than 50% of advertised vacancies and attracting a relatively small number of suitable applicants (with the vast majority of applicants considered unsuitable).  

*RTO Comments*  
• Apprentices are required to travel to Victoria to undertake training. |
<table>
<thead>
<tr>
<th>ANZSCO</th>
<th>Occupation</th>
<th>Type and Amount of Work Available</th>
</tr>
</thead>
</table>
| 3312-11 | Carpenter and Joiner           | Tasks to which practitioners are (and will be) applying their skills:  
• arched window frames and sashes  
• decorative mouldings and fittings (architraves and skirtings)  
• doors  
• fencing (post and rail, paling)  
• fitted furniture  
• mortice and tenon joints  
• repairs to timber work in heritage buildings  
• restoration of existing timber structures and joinery work  
• staircase finishing (balusters and hand-rails)  
• timber construction, repair and treatment  
• traditional timber joinery  

*Labour Market Rating: Sep 2011 – Recruitment Difficulty (Tasmania)*  
Specialist joinery skills are in demand  
*RTO Comments*  
• Dedicated joinery apprenticeships are no longer offered in Tasmania. See Cabinetmaking below.          |
| 3312-12 | Carpenter                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3312-13 | Joiner*                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 3941-11 | Cabinetmaker*                 | Tasks to which practitioners are (and will be) applying their skills:  
• traditional work and repairs  

*Labour Market Rating: Sep 2010 – Shortage (Tasmania)*  
The demand for craftsman built cabinetry is limited to a small market in Tasmania. However, while demand is low, it is difficult to get a qualified and/or experienced cabinetmaker when vacancies occur.  
*RTO Comments*  
• Cabinetmaking apprenticeships from the LMF02 Furnishing Training Package are now used as training pathways for joiners in Tasmania. |
| 3322-11 | Painting Trades Worker        | Tasks to which practitioners are (and will be) applying their skills:  
• application of decorative paint finishes (limewash, distemper and oil)  
• decorative coatings to encapsulate existing substrates for preservation  
• French polishing  
• interior finishes  
• paint stripping from both wood and masonry surfaces  
• removal and re-finishing of painted surfaces  
• restoration of traditional painted finishes  
• wallpaper installation  

*Labour Market Rating: Sep 2011 – No Shortage (Tasmania)*  
Employers have had some difficulty in recruiting qualified painters over the past few years. However, recent research shows no shortage. This rating is mainly due to the fall in the number of domestic dwellings being built and the relatively subdued construction industry as a whole over the last 18 months. |
| 3331-11 | Glazier                       | Tasks to which practitioners are (and will be) applying their skills:  
• consultation on heritage glass works  
• manufacture of new works to match pre-existing windows  
• restoration and conservation of heritage stained glass  
• restoration of Church windows  

*Labour Market Rating: Aug 2011 – Regional Shortage (National)*  
Employers in regional areas continue to experience difficulty recruiting and retaining qualified glaziers. |
<table>
<thead>
<tr>
<th>ANZSCO</th>
<th>Occupation</th>
<th>Type and Amount of Work Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>3332-12</td>
<td>Solid Plasterer</td>
<td>Tasks to which practitioners are (and will be) applying their skills:&lt;br&gt;• running mouldings and repairing lath plaster  &lt;br&gt;<strong>Labour Market Rating: Sep 2010 – Shortage (Tasmania)</strong> &lt;br&gt;As a trade, solid plastering is in low demand. However, there is still a shortage of qualified tradespersons. Texture coating and render have replaced traditional solid plastering techniques. The addition of external texture coat/rendering techniques to the painting and decorating trade has blurred the definition of solid plastering within the industry.  &lt;br&gt;<strong>Demand and Supply Trends:</strong>&lt;br&gt;• Due to the changing nature of construction methods used within the building and construction industry, the demand for solid plasterers has decreased. Lath/plaster is no long used within the industry (it has been replaced by dry wall or fibrous sheets)&lt;br&gt;• Industry sources continue to advise that there is a decline in demand for internal solid plastering (i.e. restoration or renovation of heritage style properties with lath/plaster, ornate cornices and ceiling roses)&lt;br&gt;• Industry sources suggests 85-90% of current plastering work involves external render and texture coat, while the balance (10-15%) involves small interior solid plastering&lt;br&gt;• TSI data shows a rapid decline in solid plastering commencements in the past 5 years, from a high of 16 in 2005–06 to a low of 3 in 2009–10&lt;br&gt;• In the past 5 years, less than 3 solid plasterers (on average) completed their trade each year.&lt;br&gt;<strong>RTO Comments</strong>&lt;br&gt;• Apprentices are required to travel to Victoria to undertake training.</td>
</tr>
<tr>
<td>3333-11</td>
<td>Roof Tiler</td>
<td>Tasks to which practitioners are (and will be) applying their skills:&lt;br&gt;• roof restorations and maintenance&lt;br&gt;• roof tile repairs  &lt;br&gt;<strong>Labour Market Rating: Jul 2011 – Regional Shortage (National)</strong> &lt;br&gt;Roof tilers have been in shortage since 2006, and shortages in the trade continue to persist in regional areas.</td>
</tr>
<tr>
<td>3334-11</td>
<td>Wall and Floor Tiler</td>
<td><strong>Labour Market Rating: Aug 2011 – Shortage (Tasmania)</strong>  &lt;br&gt;There have been persistent shortages of qualified wall and floor tilers in Tasmania over the past decade. Employers report that while unqualified wall and floor tilers are (somewhat) easier to recruit, wall and floor tilers who have completed formal training are still hard to find. Employers prefer to wait on the availability of qualified tilers (even if it causes time-line delays) in order to better meet industry standards and client expectations.</td>
</tr>
<tr>
<td>3341-15</td>
<td>Roof Plumber</td>
<td>Tasks to which practitioners are (and will be) applying their skills:&lt;br&gt;• general roof plumbing (e.g. leaking roofs)&lt;br&gt;• working in zinc, copper, lead and soldered galvanized sheet-metal &lt;br&gt;<strong>Labour Market Rating: Sep 2011 – Recruitment Difficulty (Tasmania)</strong> &lt;br&gt;Demand for roof plumbers (which have been considered in shortage in previous years) is low.</td>
</tr>
</tbody>
</table>
Appendix A: Terms of Reference

The TBCITB wants to ensure that a sufficient number of trained industry practitioners are available to undertake building and construction work on heritage buildings and structures so that they are preserved for the enjoyment of the present and future generations. On this basis, the TBCITB has developed the following terms of reference to guide this project:

1. Identify what building and construction skills are used in conserving heritage buildings and structures.

2. Determine what training courses/units are available and how those heritage building and construction skills are taught and acquired.

3. Assess how many practitioners have those skills. Provide a demographic profile of this workforce.

4. Describe the extent of the tasks to which those practitioners are and will be applying their skills (amount and type of work available).

5. Establish what the demand is for training in heritage building and construction skills in Tasmania.
### Appendix B: Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>AHPI</td>
<td>Australian Heritage Places Inventory</td>
</tr>
<tr>
<td>AIA</td>
<td>Australian Institute of Architects</td>
</tr>
<tr>
<td>AICCM</td>
<td>Australian Institute for the Conservation of Cultural Material</td>
</tr>
<tr>
<td>ANZSCO</td>
<td>Australian and New Zealand Standard Classification of Occupations</td>
</tr>
<tr>
<td>APT</td>
<td>Association for Preservation Technology</td>
</tr>
<tr>
<td>AS</td>
<td>Australian Standard</td>
</tr>
<tr>
<td>CITB</td>
<td>Construction Industry Training Board</td>
</tr>
<tr>
<td>CPD</td>
<td>Continuing Professional Development</td>
</tr>
<tr>
<td>CPSISC</td>
<td>Construction and Property Services Industry Skills Council</td>
</tr>
<tr>
<td>DEEWR</td>
<td>Department of Education, Employment and Workplace Relations</td>
</tr>
<tr>
<td>DIISRTE</td>
<td>Department of Industry, Innovation, Science, Research and Tertiary Education</td>
</tr>
<tr>
<td>HCOANZ</td>
<td>Heritage Chairs and Officials of Australia and New Zealand</td>
</tr>
<tr>
<td>ICOMOS</td>
<td>International Council on Monuments and Sites</td>
</tr>
<tr>
<td>NCVER</td>
<td>National Centre for Vocational Education Research</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment</td>
</tr>
<tr>
<td>RPL</td>
<td>Recognition of Prior Learning</td>
</tr>
<tr>
<td>RTO</td>
<td>Registered Training Organisation</td>
</tr>
<tr>
<td>SLCT</td>
<td>Scottish Lime Centre Trust</td>
</tr>
<tr>
<td>SPAB</td>
<td>Society for the Protection of Ancient Buildings</td>
</tr>
<tr>
<td>TAFE</td>
<td>Technical and Further Education</td>
</tr>
<tr>
<td>TBCITB</td>
<td>Tasmanian Building and Construction Industry Training Board</td>
</tr>
<tr>
<td>TRA</td>
<td>training.gov.au</td>
</tr>
<tr>
<td>TSI</td>
<td>Tasmanian Skills Institute</td>
</tr>
<tr>
<td>TSN</td>
<td>Training Support Network</td>
</tr>
<tr>
<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organization</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational Education and Training</td>
</tr>
<tr>
<td>WAAC</td>
<td>Works Application Assessment Committee (Tasmanian Heritage Council)</td>
</tr>
</tbody>
</table>
Appendix C: Source Documents

Curriculum Documents
The following curriculum documents were sourced to inform this research report:

- Australian Government Department of Education, Employment and Workplace Relations, CPC08 Construction, Plumbing and Services Training Package, Release 7.0 (2011)

Tasmanian Documents
The following Tasmanian documents were sourced to inform this research report:

- Centre for Heritage at Oatlands, Tasmanian Heritage Skills – Draft Survey Results (2011)
- Heritage Tasmania, Practice Note 1: Guidelines for Works to the Roofs of Heritage Places
- Heritage Tasmania, Practice Note 15: Stained and Leadlight Glass – Guidelines to Conservation
- Heritage Tasmania, Practice Note 16: Installing Modern Services on Heritage Buildings
- Heritage Tasmania, Tasmanian Heritage Register (July 29, 2011)
- Heritage Tasmania, Tasmanian Heritage Services Directory (2012)
- Heritage Tasmania, Technical Note 2: Limewash (2011)
- Tasmanian Building and Construction Industry Training Board, Total Number of Apprentices In Training in the Tasmanian Construction Industry, TBCITB (2011)
- Tasmanian Building and Construction Industry Training Board, Total Number of Apprenticeship Commencements in the Tasmanian Construction Industry, TBCITB (2011)
• Tasmanian Building and Construction Industry Training Board, *Total Number of Apprenticeship Completions in the Tasmanian Construction Industry*, TBCITB (2011)
• Tasmanian Building and Construction Industry Training Board, *Total Number of Apprenticeship Non-Completions in the Tasmanian Construction Industry*, TBCITB (2011)
• Tasmanian Heritage Council, *Annual Report 2005-06*
• Tasmanian Heritage Council, *Annual Report 2006-07*
• Tasmanian Heritage Council, *Annual Report 2007-08*
• Tasmanian Heritage Council, *Annual Report 2008-09*
• Tasmanian Heritage Council, *Annual Report 2009-10*
• Tasmanian Heritage Council, *Annual Report 2010-11*

**National Documents**

The following national documents were sourced to inform this research report:

• Australian Bureau of Statistics, 1384.6 – *Statistics – Tasmania*, 2008
• Australian Bureau of Statistics, 8731.0 - *Building Approvals, Australia, February 2012: Table 17, Number of Dwelling Units Approved, By Sector, Original – Tasmania* (2012)
• Australian Bureau of Statistics, 8731.0 - *Building Approvals, Australia, February 2012: Table 65, Number of Non-residential Building Jobs Approved, by Value Range, Original – Tasmania* (2012)
• Australian Government Department of Education, Employment and Workplace Relations, *Skill Shortage List – Tasmania* (current at 31 December 2011)
• Willis, I. *Traditional Trades Training – A Story of Failure and Success*, The Australian TAFE Teacher (Spring 2011), pp 10-12

**International Documents**
The following international documents were sourced to inform this research report:

• National Heritage Training Group, *Traditional Building Craft Skills, Skills Needs Analysis of the Built Heritage Sector – Ireland 2009*
• National Heritage Training Group, *Traditional Building Craft Skills, Skills Needs Analysis of the Built Heritage Sector in Scotland 2007*
• National Heritage Training Group, *Traditional Building Craft Skills, Skills Needs Analysis of the Built Heritage Sector in Wales 2007*
Websites
The following websites were sourced to inform this research report:

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Website Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>APT Australasia Chapter</td>
<td><a href="http://aptaustralasia.wordpress.com/">http://aptaustralasia.wordpress.com/</a></td>
</tr>
<tr>
<td>Australia ICOMOS</td>
<td><a href="http://www.aicomos.com/">www.aicomos.com/</a></td>
</tr>
<tr>
<td>Australian Bureau of Statistics</td>
<td><a href="http://www.abs.gov.au">www.abs.gov.au</a></td>
</tr>
<tr>
<td>Australian Education Union</td>
<td><a href="http://www.aeufederal.org.au/">www.aeufederal.org.au/</a></td>
</tr>
<tr>
<td>Australian Government Department of Education, Employment and Workplace Relations</td>
<td><a href="http://www.deewr.gov.au">www.deewr.gov.au</a></td>
</tr>
<tr>
<td>Australian Heritage Database</td>
<td><a href="http://www.environment.gov.au/cgi-bin/ahdb/search.pl">www.environment.gov.au/cgi-bin/ahdb/search.pl</a></td>
</tr>
<tr>
<td>Construction and Property Services Industry Skills Council</td>
<td><a href="http://www.cpsisc.com.au">www.cpsisc.com.au</a></td>
</tr>
<tr>
<td>Construction Industry Training Board</td>
<td><a href="http://www.citb.org.au/">www.citb.org.au/</a></td>
</tr>
<tr>
<td>English Heritage</td>
<td>www/english-heritage.org.uk/</td>
</tr>
<tr>
<td>Heritage Lottery Fund</td>
<td><a href="http://www.hlf.org.uk">www.hlf.org.uk</a></td>
</tr>
<tr>
<td>National Heritage Training Group</td>
<td><a href="http://www.nhtg.org.uk/">http://www.nhtg.org.uk/</a></td>
</tr>
<tr>
<td>National Trust of Australia (Tasmania)</td>
<td><a href="http://www.nationaltrusttas.org.au/">www.nationaltrusttas.org.au/</a></td>
</tr>
<tr>
<td>Premier Heritage</td>
<td><a href="http://www.premier-heritage.co.uk/">www.premier-heritage.co.uk/</a></td>
</tr>
<tr>
<td>Society for the Protection of Ancient Buildings</td>
<td><a href="http://www.spab.org.uk/">www.spab.org.uk/</a></td>
</tr>
<tr>
<td>Tasmanian Legislation Online</td>
<td><a href="http://www.thelaw.tas.gov.au">www.thelaw.tas.gov.au</a></td>
</tr>
<tr>
<td>Training Support Network</td>
<td><a href="http://trainingsupport.skills.vic.gov.au">http://trainingsupport.skills.vic.gov.au</a></td>
</tr>
<tr>
<td>training.gov.au</td>
<td><a href="http://training.gov.au">http://training.gov.au</a></td>
</tr>
<tr>
<td>Understanding Conservation</td>
<td><a href="http://www.understandingconservation.org/">www.understandingconservation.org/</a></td>
</tr>
<tr>
<td>University of Canberra</td>
<td><a href="http://www.canberra.edu.au">www.canberra.edu.au</a></td>
</tr>
</tbody>
</table>
Appendix D: Surveys

1. Key Stakeholder Survey
2. Practitioner Survey
3. Property Owner Survey

The Key Stakeholder Survey was used to guide interviews with the following:
- Tasmanian Heritage Council
- Heritage Tasmania
- National Trust of Australia (Tasmania)
- Parks and Wildlife Service
- Local government organisations
- Training organisations (state and national)
- Building and construction industry associations (state and national)

The Practitioner Survey was used to guide interviews with heritage skills practitioners as listed on the Tasmanian Heritage Services Directory at [www.heritage.tas.gov.au/heritage_services_directory.html](http://www.heritage.tas.gov.au/heritage_services_directory.html)

The Property Owner Survey was used to guide interviews with the following:
- Owners of heritage buildings and structures
- Community groups involved in the maintenance of heritage buildings and structures
Key Stakeholder Survey
Heritage Building and Construction Skills

Purpose
The Tasmanian Building and Construction Industry Training Board (TBCITB) wants to ensure that a sufficient number of trained practitioners are available to undertake building and construction work on heritage buildings and structures so that they are preserved for the enjoyment of the present and future generations. Your answers to the following questions will reveal critical information about the current provision of (and demand for) heritage building and construction skills within Tasmania.

Confidentiality
All information gathered through this survey will be treated in the STRICTEST OF CONFIDENCE and used in accordance with the Information Privacy Principles from Section 14 of the Privacy Act 1988. The information will only be used to inform research into the demand for and provision of specialist heritage building and construction skills within Tasmania. It will not be used to inform research into compliance (or otherwise) with the Historic Cultural Heritage Act 1995.

Your participation is important (but not compulsory), and the time you take to complete the survey is greatly appreciated!

When you complete the survey, please return it by email or post to:

Email: andrew@purpleinfinity.com.au
Post: Andrew Jones, purple infinity, PO Box 29, Colebrook Tasmania 7027

If you have any questions regarding this survey, please contact Andrew Jones on (03) 6259 7119 or by email at andrew@purpleinfinity.com.au

Your Details
Name: ....................................................................................................................................
Title/Position: ....................................................................................................................................
Organisation: ....................................................................................................................................
Address: ....................................................................................................................................
....................................................................................................................................
Suburb: .................................................................  Postcode: .................................
Phone: ....................................................................................................................................
Email: ....................................................................................................................................
Questions

1. Please describe the main building and construction skills that you feel are required to maintain heritage buildings and structures in Tasmania.
   (e.g. Building, drafting, fencing, joinery, masonry, painting, plumbing, plastering, rendering, roofing etc)

2. Are you aware of any practitioners who currently undertake this type of work in Tasmania?
   □ Yes  □ No

   If Yes, can you describe (in general terms) the level and quality of skills that are held by heritage building and construction practitioners in Tasmania?

   If No, can you describe how heritage buildings and structures are maintained in Tasmania? For example, are they maintained by owners and/or tradespeople without specialist heritage skills?
3. Are you aware of any heritage building and construction services that are currently needed but not available in Tasmania?

☐ Yes
☐ No

If Yes, please describe the services.

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

4. Are you aware of any heritage skills training programs for building and construction personnel that are currently needed but not available in Tasmania?

☐ Yes
☐ No

If Yes, please describe the training programs.

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

5. Are you aware of any barriers that property owners and/or community groups face when trying to access heritage building and construction services in Tasmania?

☐ Yes
☐ No

If Yes, please describe the barriers (e.g. cost, accessibility, quality, approval processes).

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
6. Do you have any other thoughts or comments on how to ensure a sufficient number of trained practitioners are available to undertake building and construction work on heritage buildings and structures so they are preserved for the enjoyment of the present and future generations?

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

Thank you for your time and participation!
Practitioner Survey

Heritage Building and Construction Skills

Purpose
The Tasmanian Building and Construction Industry Training Board (TBCITB) wants to ensure that a sufficient number of trained practitioners are available to undertake building and construction work on heritage buildings and structures so that they are preserved for the enjoyment of the present and future generations. Your answers to the following questions will reveal critical information about the current provision of (and demand for) heritage building and construction skills within Tasmania.

Confidentiality
All information gathered through this survey will be treated in the STRICTEST OF CONFIDENCE and used in accordance with the Information Privacy Principles from Section 14 of the Privacy Act 1988. The information will only be used to inform research into the demand for and provision of specialist heritage building and construction skills within Tasmania. It will not be used to inform research into compliance (or otherwise) with the Historic Cultural Heritage Act 1995.

Your participation is important (but not compulsory), and the time you take to complete the survey is greatly appreciated!

When you complete the survey, please return it by email or post to:

Email: andrew@purpleinfinity.com.au
Post: Andrew Jones, purple infinity, PO Box 29, Colebrook Tasmania 7027

If you have any questions regarding this survey, please contact Andrew Jones on (03) 6259 7119 or by email at andrew@purpleinfinity.com.au

Your Details

Name: ....................................................................................................................................
Title/Position: .............................................................................................................................
Organisation: ...............................................................................................................................
Address: ....................................................................................................................................
Suburb: ......................................................... Postcode: ...................................................
Phone: ....................................................................................................................................
Email: .....................................................................................................................................
Questions

1. Do you currently undertake building and construction work on heritage buildings in Tasmania?
   - Yes
   - No (go to question 3)

   If Yes, please describe the building and construction services that you provide.
   (e.g. Building, drafting, fencing, joinery, masonry, painting, plumbing, plastering, rendering, roofing etc)

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

2. What are the most common building and construction requests that you receive from owners of heritage buildings? In other words, what heritage tasks make up the majority of your workload?

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

3. From your experience, what are the main skills that are currently being used by practitioners to conserve heritage buildings in Tasmania?

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

Heritage Building and Construction Skills | Practitioner Survey
4. How do specialist practitioners typically acquire their heritage building and construction skills? 
(e.g. Trade-based training programs, informal training courses, handed down through generations, picked up through experience, learnt on-the-job)

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

5. Have you ever undertaken training in heritage building and construction skills?
☐ Yes
☐ No

If Yes, please describe the training (including who provided it and how it was delivered).
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

6. Are there any heritage building and construction skills that you currently need but do not have?
☐ Yes
☐ No

If Yes, please list the skills.
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

7. Are you aware of any heritage skills training programs for building and construction personnel that are currently needed but not available in Tasmania?
   ☐ Yes
   ☐ No

   If Yes, please describe:
   a) the type of training
   b) the likely level of demand for the training
   c) what heritage practitioners would be prepared to pay to access the training.

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

8. Are you aware of any barriers to accessing training in heritage building and construction skills?
   ☐ Yes
   ☐ No

   If Yes, please describe the barriers (e.g. cost, accessibility, quality, mode of delivery).

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

9. Do you have any other thoughts or comments on how to ensure a sufficient number of trained practitioners are available to undertake building and construction work on heritage buildings and structures so they are preserved for the enjoyment of the present and future generations?

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

Thank you for your time and participation!
Property Owner Survey

Heritage Building and Construction Skills

Purpose
The Tasmanian Building and Construction Industry Training Board (TBCITB) wants to ensure that a sufficient number of trained practitioners are available to undertake building and construction work on heritage buildings and structures so that they are preserved for the enjoyment of the present and future generations. Your answers to the following questions will reveal critical information about the current provision of (and demand for) heritage building and construction skills within Tasmania.

Confidentiality
All information gathered through this survey will be treated in the STRICTEST OF CONFIDENCE and used in accordance with the Information Privacy Principles from Section 14 of the Privacy Act 1988. The information will only be used to inform research into the demand for and provision of specialist heritage building and construction skills within Tasmania. It will not be used to inform research into compliance (or otherwise) with the Historic Cultural Heritage Act 1995.

Your participation is important (but not compulsory), and the time you take to complete the survey is greatly appreciated!

When you complete the survey, please return it by email or post to:
Email: andrew@purpleinfinity.com.au
Post: Andrew Jones, purple infinity, PO Box 29, Colebrook Tasmania 7027
If you have any questions regarding this survey, please contact Andrew Jones on (03) 6259 7119 or by email at andrew@purpleinfinity.com.au

Your Details

Name: ........................................................................................................................................
Address: ......................................................................................................................................
Suburb: .......................................................... Postcode: ............................
Phone: .........................................................................................................................................
Email: ...........................................................................................................................................
Heritage Property: ...........................................................................................................................
(If more than one, list those requiring the majority of building and construction work)
......................................................................................................................................................
Questions

1. Please describe the building and construction skills that you typically require to maintain your heritage property.
   (e.g. Building, drafting, fencing, joinery, masonry, painting, plumbing, plastering, rendering, roofing etc)

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

2. Do you use specialist heritage practitioners to undertake this work?
   □ Yes
   □ No

   If Yes, please list the specialist heritage practitioners that you use and their area of expertise.

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

   If No, please describe how you maintain your property. For example, you may undertake your own maintenance, or you may use tradespeople without specialist heritage skills.

..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

3. If you use specialist heritage practitioners, are you satisfied with the level/quality of their skills?
   ☐ Yes
   ☐ No

   If No, please outline your reasons.

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

4. Are there any heritage building and construction services that you currently need but cannot access (because they are not available in Tasmania)?
   ☐ Yes
   ☐ No

   If Yes, please describe the services.

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................

5. Are there any heritage skills training programs that you feel are needed by practitioners but are not currently available in Tasmania?
   ☐ Yes
   ☐ No

   If Yes, please describe the training programs.

   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................
   ..........................................................................................................................................................................


6. Have you encountered any barriers to accessing heritage building and construction services in Tasmania?
☐ Yes
☐ No

If Yes, please describe the barriers (e.g. cost, accessibility, quality, approval processes).
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

7. Do you have any other thoughts or comments on how to ensure a sufficient number of trained practitioners are available to undertake building and construction work on heritage buildings and structures so they are preserved for the enjoyment of the present and future generations?
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................
..........................................................................................................................................................................

Thank you for your time and participation!