

## **Quick guide to repairs to heritage items following disaster damage June 2007**

(Acknowledgement is made of *The National Trust Guide to Storm Damage & the Philosophy of Repair: National Trust Website 27/8/03* on which this material is largely based)

### **OVERVIEW**

Each year natural disasters, storms and other extreme weather conditions cause millions of dollars in damage to heritage structures, houses and places of heritage significance.

Often, the urgency to repair building damage leads to further loss of historic building fabric through unnecessary removal and replacement with modern, inappropriate materials.

This guide provides practical advice on a best practice approach.

### **DISASTER PROCEDURES IN PLACE FOR HERITAGE**

The Heritage Office, Department of Planning has a procedure for dealing with disaster events:

1. A Heritage Office Disaster Officer will coordinate the response to disasters affecting heritage items. Phone 9873 8500 to find out the name of the Disaster Officer.
2. Following a disaster the Disaster Officer will contact the local council to ascertain the scope of any damage.
3. If there is serious damage the Disaster Officer will arrange for the deployment of a heritage advisor to the area.
4. At the first visit the advisor will:
  - assess the extent of the damage;
  - make themselves known to any key emergency service providers;
  - advise on any emergency stabilisation measures required;
  - hand out their contact details to owners and other interested parties; and
  - commence a diary of all actions taken for a future report.
5. Following the first visit the advisor will prepare and distribute disaster response information, including:
  - this guideline;

- specific information relating to the type of disaster event that has occurred;
- the advisor's contact details and availability; and
- any useful contacts or other information relevant to the disaster area
- Most of the repair and maintenance and minor additional works are likely to be covered by the Standard Exemptions under the Heritage Act. This will mean either no formal approval from the Heritage Council or submission of an Exemption Notification Form for agreement from the Director, Heritage Office - Department of Planning. Details of the standard Exemptions are available on the Heritage Office, Department of Planning Website [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au) under **Development** tab.

6 If a state of emergency is declared, senior staff of emergency agencies will have delegated power to make overriding decisions that may affect heritage items

These actions rely on good communications – this may not always be the case in particular emergency situations.

## **ADVICE AND APPROVALS**

Your local heritage advisor will be helping owners and others with good and timely advice.

You can contact your heritage advisor by ringing the heritage contact person at your local council or by contacting the Disaster Officer at the Heritage Office, Department of Planning on (02) 9873 8500.

Owners of heritage listed properties can go ahead with “like for like” repairs or replacement in accordance with Standard Exemptions 1, 2 and 3 without waiting for any formal approval from the NSW Heritage Council. Details of the standard Exemptions are available on the Heritage Office, Department of Planning Website [www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au) under **Development** tab.

Owners should not undertake a change of building material or form unless permission from your heritage advisor has been given in writing or by fax. Your advisor will have delegated power to approve this work.

Bigger or important jobs may require more formal approval. You should discuss these matters with the heritage advisor and request that this be fast tracked to meet with your requirements.

## **REPAIR PRINCIPLES**

- Repairs must be carried out in a manner that does not result in the loss of historic fabric and the cultural significance of the place. Each individual situation needs to be carefully considered.
- Prevent further loss or damage after a storm by providing interim protection and security.

- Retain as much of the original fabric as possible for repair and reuse or to ensure that replacement materials match the original.
- Where new material is necessary, the replacement materials should match the original as much as possible in detail and design.
- New material should be recognisable as such, but not so different that it greatly diminishes the heritage significance of a place.
- Storm damage sometimes provides the opportunity to:
  - § remove discordant elements, eg window air conditioners and advertising hoardings
  - § introduce more sympathetic materials, eg a terracotta or iron roof in place of a later concrete tile roof
  - § reinstate missing elements to a building, eg a masonry parapet or verandah

This work should be carefully detailed on the evidence available rather than conjecture. The heritage advisor will be able to assist you.

- A piece of the original material should be retained to ensure that replacement materials match the original.
- Replacement of traditional details should be to an earlier known form, or, if not known, a typical or sympathetic form should be used.
- Where materials and other building elements have to be entirely replaced, it is important to retain samples of the original fabric within the structure of the place, such as in the roof space, or under the floor.
- In the case of highly significant buildings date stamp reproduced elements.
- When in doubt seek expert advice from your local heritage advisor – a free service – or from other heritage professionals. The Heritage Office, Department of Planning website has online “Heritage Consultant Directory” which may be of assistance to you: –  
[http://www.heritage.nsw.gov.au/03\\_index.htm#directory](http://www.heritage.nsw.gov.au/03_index.htm#directory)

## **PRACTICAL ISSUES**

- A disaster area can be a dangerous place. Never place yourself or others at unnecessary risk.
- Consider and plan for possible consequential damage from a disaster event, eg falling masonry items including ceilings and possible short circuit fires as a result of water damage to defective wiring.

- Where possible delay work as long as possible to obtain the best advice, trades expertise and prices. Take necessary interim measures in the meantime, eg tarpaulins to keep out water; props to hold walls in place.
- Most insurance companies will allow minor work to be done immediately and charged to them later. Bigger jobs will require insurance company assessment and approval. Owners must check these matters with their insurance companies.
- Use experienced licensed tradespeople. Ask questions to assess their understanding of heritage approaches and ask to see examples of their work. The Heritage Office, Department of Planning website has a “Conservation Suppliers and Services Directory” which may be of assistance to you: [http://www.heritage.nsw.gov.au/03\\_index.htm#directory](http://www.heritage.nsw.gov.au/03_index.htm#directory)
- Always obtain a written scope of works and schedule for conservation repairs, listing materials and methods, before entering into any contract.
- Take extensive photographs of the building. As a minimum photograph every side of the building and detailed interior and exterior photos of the damaged areas. Keep these photographs and all other records for insurance and heritage advice purposes.
- Government heritage funding support is not normally necessary as most work will be covered by insurance. However, where urgent support is required – eg to obtain specialist advice on the retention of seriously damaged items - please raise this matter in the first instance with your local heritage advisor. Where the advisor is not immediately available ring the Heritage Office, Department of Planning Disaster Officer on 9873 8500.

## **CHANGE OF DETAILS OR MATERIAL**

In the following circumstances it may be appropriate to change the detail or materials of any new work:

- where materials are no longer available; or
- where the original materials were unsuitable or dangerous for their chosen use eg cloth covered electrical wiring or asbestos.

Your heritage advisor will be able to advise you on this.

## **ROOFS**

Roofing materials are often the most frequently damaged building elements in any storm.

Since European settlement in Australia, a wide variety of roofing materials has been used: shingles, shakes, slate, iron tiles, corrugated iron and terracotta tiles, to name just a few. A number of ridging materials, such as terracotta, lead, iron, copper have also been used.

## **Terra Cotta Tiles**

From about the 1880s, interlocked terracotta Marseilles tiles became a popular roofing material. This material reached its height in popularity during the Federation period, and is typically used on a complicated roof form and finished with terracotta finials, ridge crests and chimney pots.

The following approach is recommended:

- retain as much undamaged material as possible;
- match replacement tiles and finishing elements with the existing;
- where it is not possible to match the tiles use undamaged tiles taken from less visible slopes or gutter lines to cover the most important areas, and then use less matching tiles in the less visible areas.

Two Sydney companies specialise in second-hand tiles. You must take a tile along for colour design and size matching.

1. Heritage Roof Tile Recycling  
246 Reynolds Road, Londonderry (Gloria and Noel Benson)  
Ph: 4578 1037.
2. Roof Tile Recyclers  
16 Sleigh Street, Wetherill Park (Kevin Wetherill)  
Ph: 9756 3350.

## **Shingles**

The earliest roofs in Australia were usually made of bark or shingles. Timber shingles tended to be split, with Casuarina being the preferred timber species. Sawn shingles were also used, but generally for vertical surfaces rather than roofs. Shingles have a limited life span because of their tendency to weather; they can last approximately 25 to 30 years, depending on the climate and method of construction.

Repair and replace shingles to match the existing in timber type, size, and construction if the shingle roof has not been covered by more recent roofing materials. Because of the limited life span of these materials, it may not be appropriate to replace them with similar materials.

Where examples of shingles or bark are found underneath corrugated galvanised iron the following approach is recommended:

- replace the corrugated iron;
- retain the earlier material;
- add new battens where they are required, even if they are additional to earlier material;
- make minimal disturbance to the original materials in the repair or reinforcement of the roof structure.

NB: timber shingles under corrugated iron provide excellent insulation.

## **Slate**

Since the 1830s, imported slates have been used as a roofing material. From the 1840s, Australian slate was also available. This material often represented high quality craftsmanship and prestige. Slate ages very well and develops an attractive patina over time. The architectural style of many buildings is complemented by the low profile and colour of slate roofs. Depending on the quality of the material, slate roofs can last for a long time with only minor repairs. Although slate roofs may cost more than other roof types to maintain and repair they are very durable once soundly fixed and can therefore last a long time.

The following approach is recommended:

- retain slate roofs where possible because the character and significance of a building with slate roofs will be severely diminished by replacement with other materials.

Where it is not possible to match the slates the following approach is recommended:

- re-fix the original slates rather than replace them;
- repair the most visible and important slopes with original slates;
- use new or second hand slates on other slopes;
- use reproduction slates on less visible slopes; and
- use appropriate slate nails.

The Heritage Office, Department of Planning website has a “Conservation Suppliers and Services Directory” which may be of assistance to you:

[http://www.heritage.nsw.gov.au/03\\_index.htm#directory](http://www.heritage.nsw.gov.au/03_index.htm#directory)

### **Galvanised Iron**

Corrugated galvanised iron is one of the most widely used roofing materials in Australia. Galvanised iron acquires a significant patina as it ages, and can be easily shaped and repaired. Once it became readily available after the 1840s it was often placed directly over earlier forms of roofing, such as shingles or bark. It was originally available in 8 foot lengths.

It is preferable to retain as much original fabric as possible. The following approach is recommended:

- repair, re-roll and reuse existing corrugated galvanised iron where possible;
- use new corrugated galvanised iron to replace the original material where necessary;
- use sheets of the same length and finished in the same manner as the original; and
- treat rusting galvanized iron by using rust converting and galvanising paints.

The use of other contemporary products such as Zinalume or Colorbond is not encouraged because they do not have the distinctive visual and performance characteristics of galvanised corrugated iron. It is also sometimes inappropriate to use them with earlier flashing and fittings because of potential corrosion.

## **GUTTERING AND DOWNPIPES**

The earliest buildings in Australia tended to have neither gutters nor downpipes, and this practice seems to have continued until the mid-19th century. Cast iron half round and ogee pattern gutters were probably the first used, with lead, copper, timber and box and secret gutters being used in later years. From about 1840, galvanised gutters were most commonly used.

Downpipes and other rain water goods were generally made from cast iron, galvanised iron, lead, or copper.

The following approach is recommended:

- reuse damaged original material in the repair of guttering and downpipes;
- repair and replace damaged gutters, downpipe and rainwater heads in a form and material to match the existing ones, eg round downpipes should be replaced with round downpipes and not rectangular; ogee profile guttering should be replaced with ogee guttering and not bull nose profile guttering.

A change of roofing materials can lead to the necessity of changing the rainwater goods as well to provide a better match.

## **WINDOWS AND DOORS**

Traditional joinery details are very important as they reflect different periods and styles very clearly.

The following approach is recommended:

- protect historic glass with tape or masonite prior to or during a storm;
- repair, rather than replace, traditional windows and doors;
- repair, rather than replace, other joinery items, such as finials, brackets and bargeboards; and
- where replacement is necessary, the joinery should appear to match the original.

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## **LANDSCAPE ELEMENTS**

Landscape elements associated with buildings can also be important contributing factors to the cultural significance of a place. These include fences, paths, driveways and landscaping. They generally provide an important setting for a significant place.

The following approach is recommended:

- repair or reconstruct these elements;
- replace highly significant elements; and

- carefully assess storm-damaged trees and plantings before recommending their removal.

## **PREVENTION**

While a storm can strike at any time, many parts of NSW are more likely to suffer storms between October and April than at other times of the year. There are a number of preventive measures you can take to reduce the risk of damage to property.

The following approach is recommended:

- keep roofs, gutters and downpipes clean and in good condition;
- remove loose objects from outdoor areas;
- trim any trees that are near the buildings; and
- keep a list of emergency contact numbers handy.

## **FURTHER ADVICE IS AVAILABLE FROM:**

The Disaster Officer at the NSW Heritage Office, ph 9873 8500.  
The heritage advisor to your local Council – ring your council' heritage contact person.