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Centenary Stonework Program

2009 / 2010

Program Achievements



NSW
GOVERNMENT

Public Works



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NSW Public Works

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cover image - Fort Denison Gun Room, Morello Tower

this page - State Library Main Portico



PROGRAM SUMMARY

The NSW Government's Centenary Stonework Program provides a state wide strategic approach to the back log or 'catch-up' maintenance of State owned heritage stone buildings and monuments. The program's objective is to bring the fabric of these structures to a condition where planned cyclic maintenance programs could take over.

The 2009/10 Program received \$4,948,000 from Treasury. This allocation, with the additional supplementary funding of \$2,630,554 contributed by State agencies enabled works to be carried out on over 15 significant public buildings including the State Library NSW, Fort Denison, Royal Prince Alfred Hospital and Sydney Observatory.

The Program provides a critical mass and aggregation of materials, trade, resources and expertise to achieve efficient and prioritised outcomes for the State. The Program supports the Department's strong commitment to fostering heritage trades training. There are currently 25 stonemasons, 25% are apprentices, who work with a multidisciplinary team of heritage roofers, scaffolders, architects, technical officers and geologists.

The Minister's stone stockpile contains Yellowblock sandstone, quarried from the original source at Pyrmont and the Department is committed to continue to investigate new sources of Yellowblock to replace badly weathered elements of these significant public buildings.

PARTNERSHIP PROJECTS

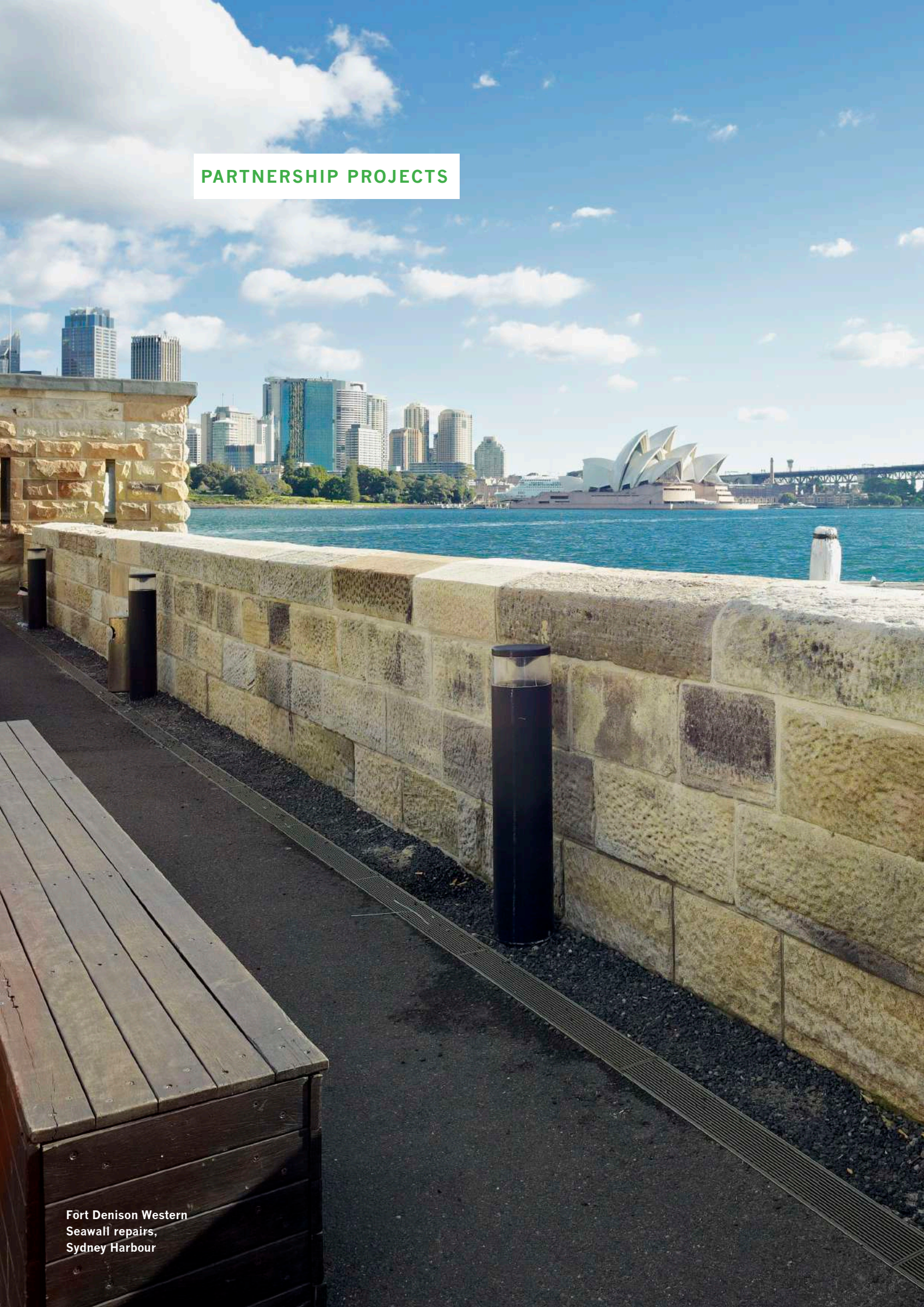
Contributory funding offered by State Government agencies is an increasingly important factor in achieving the objectives of the Stone Program. Agency funding results in a coordination of works and cost efficiencies. In 2009/10 the Program worked in funding partnership on several buildings where scaffold access was provided for stone façade, roof and chimney repairs, for example Macquarie Lodge in the Royal Botanic Gardens, Royal Prince Alfred Hospital, Prince of Wales Hospital, Australia Street Public School and Darlinghurst Fire Station.



Darlinghurst Fire Station: Partnership funding was provided by the NSW Fire Brigade. Stonework Conservation completed to the upper areas of the Darlinghurst Road facade.



PARTNERSHIP PROJECTS



Fört Denison Western
Seawall repairs,
Sydney Harbour





ANNIVERSARY CELEBRATIONS

Mitchell Library opened its doors on 9th March 1910 and this year the State Library NSW celebrated its centenary. CSP completed stonework conservation works to the main north façade with careful programming and coordination with repairs by others, in preparation for a major events program.

One hundred years following construction of Darlinghurst Fire Station was marked with the replacement of the date stone in Darlinghurst Road. The original date stone had lost all of its carved surface due to deterioration.

AWARDS

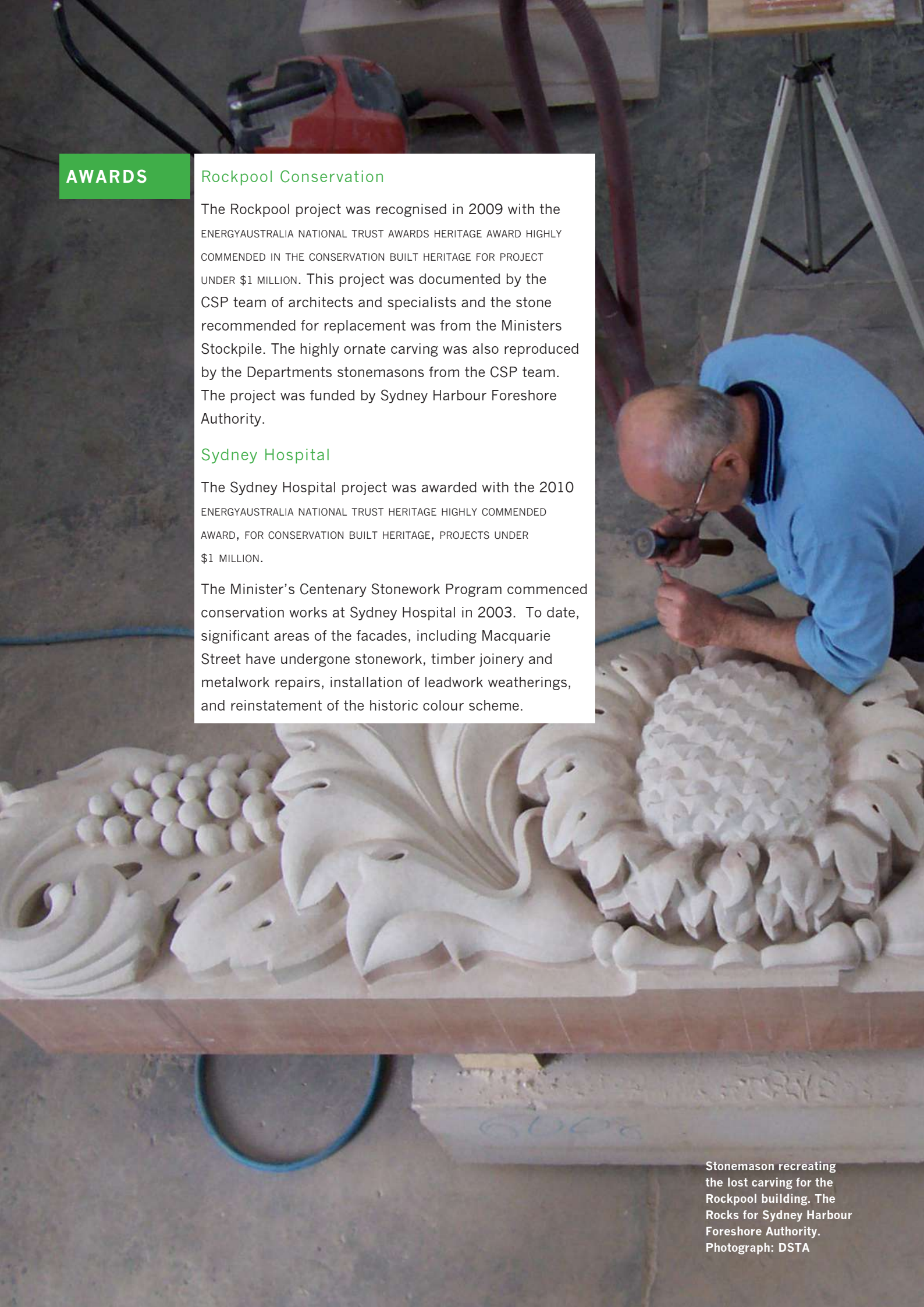
Rockpool Conservation

The Rockpool project was recognised in 2009 with the ENERGYAUSTRALIA NATIONAL TRUST AWARDS HERITAGE AWARD HIGHLY COMMENDED IN THE CONSERVATION BUILT HERITAGE FOR PROJECT UNDER \$1 MILLION. This project was documented by the CSP team of architects and specialists and the stone recommended for replacement was from the Ministers Stockpile. The highly ornate carving was also reproduced by the Departments stonemasons from the CSP team. The project was funded by Sydney Harbour Foreshore Authority.

Sydney Hospital

The Sydney Hospital project was awarded with the 2010 ENERGYAUSTRALIA NATIONAL TRUST HERITAGE HIGHLY COMMENDED AWARD, FOR CONSERVATION BUILT HERITAGE, PROJECTS UNDER \$1 MILLION.

The Minister's Centenary Stonework Program commenced conservation works at Sydney Hospital in 2003. To date, significant areas of the facades, including Macquarie Street have undergone stonework, timber joinery and metalwork repairs, installation of leadwork weatherings, and reinstatement of the historic colour scheme.



Stonemason recreating the lost carving for the Rockpool building. The Rocks for Sydney Harbour Foreshore Authority. Photograph: DSTA



THE TEAM

Lee Adamou, Mark Adamson, Kico Andonovski, Micheal Anello, Matthew Barnes, Sue Brennan, Paul Connell, Merinda Danks, Desmond Corby, Matthew Devine, Milena Crawford, Peter Dalley, Chris Daniels, Angus Donald, Laila Ellmoos, Peter Fatseas, Fernando Ferreira, Glen Fuller, Ben Gardner, James Gardner, Ron Grady, Katie Hicks, Phil Hilder, Billy Hughes, Darren Hurst, Bob Kavanagh, Anita Krivickas, Chris Loughman, Jasper Luckhurst, Catherine Macarthur, Lew McDonnell, Denis Mahboub, Craig Miller, Brad Mills, Greg Paul, Warren Pearson, Manuel Pereira, Bruce Pettman, Alfonso Pires, Gary Rimmer, Andrew Seeto, Keith Shaw, Paul Sherring, Peter Siktar, Joy Singh, Vivian Sioutas, Merv Spowart, Mark Stevens, Bill Thomas, Paul Thurloe, Tyrone Toby, Peter Trick, Patrick Tunny, Ruben Varfi, Bunito Wangsa, Howard West, Chris Williams, Louke Witjes, Sonny Oliveri, Lachlan Pearce, Chris Daniels, Ian Hood, Luke McDermott, Peter Markatos, Craig Bonnici, David Reid, Phillip Parsons, Robert Dennis, Adrian Postill, Sebastian Kirmaier (not all team members present in photograph)



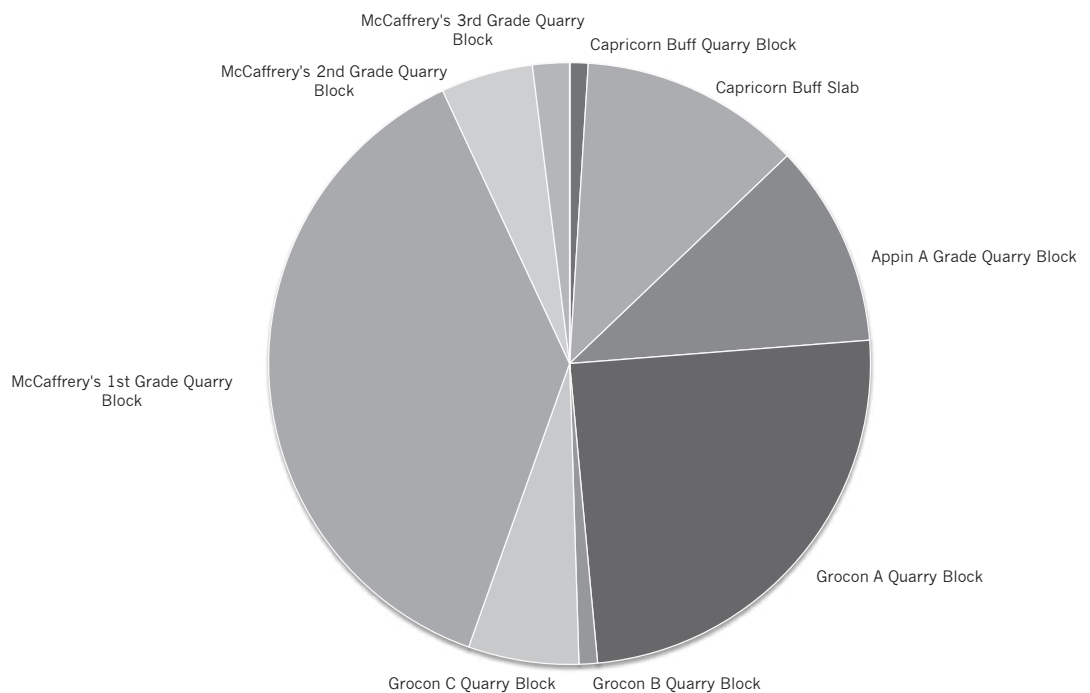
MINISTER'S STOCKPILE

The Minister's stone stockpile is unique in Australia and contains approximately 3000 cubic meters of sandstone for restoration. McCaffrey's 'yellow block' sandstone forms an important part of the stockpile and was quarried from a Redevelopment Site, in Pyrmont in 2000. The stone, apart from being used for various restoration projects, has been stored since then in quarry blocks at the Department's Sandstone Stockpile at Sandy Point, south of Sydney.

In 2009/10 a review continued on the remaining resources which included quality testing and grading reassessment. A study was undertaken on McCaffrey's durability and colour match 10 years after quarrying. The mineralogical and textural parameters indicated that the long-term viability of McCaffrey's sandstone, for use as a dimension stone, have not been affected during the term of its stockpiling.

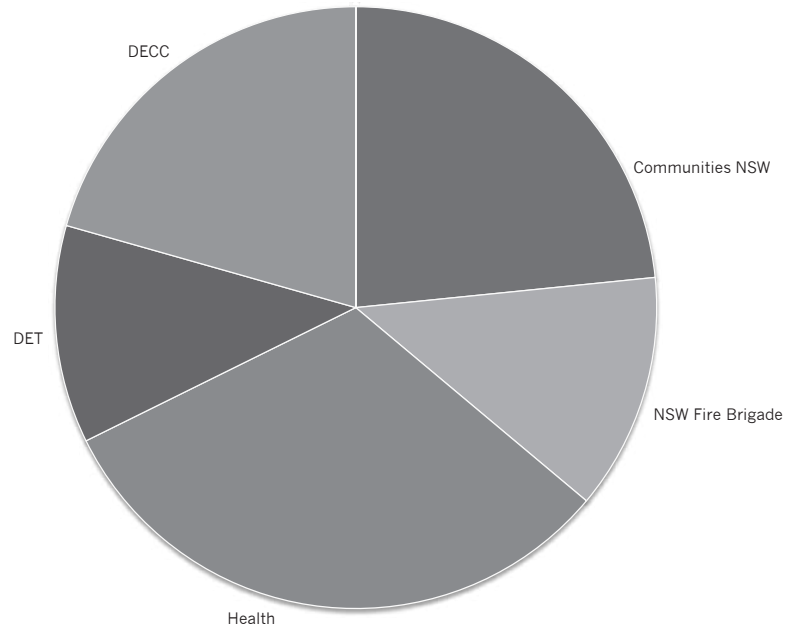
410 cubic metres of raw quarry block were used in 2009-10 from the Minister's Stockpile and the break-up of the stones used is indicated below.

Stone Types Used



CLIENTS

Indication of funding by client



Communities NSW 23.4%

- Powerhouse Museum
- Observatory
- State Library NSW
- Centennial Parklands

Health 31.6%

- Former Redfern Courthouse
- Royal Prince Alfred Hospital
- Prince of Wales Hospital

DET 11.7%

- Australia Street Public School
- Paddington Public School
- Marrickville Public School

DECC 20.6%

- Royal Botanic Gardens
- Fort Denison



Repairs to the Fort Wall
at Observatory Hill,
which dates from 1804

PROJECT SHEETS

During 2009-10 conservation work was carried out on the following projects and information sheets included.

Fort Denison	\$454,000
Marrickville PS	\$31,353
State Library	\$910,000
Macquarie Lodge	\$816,000
Prince of Wales	\$991,500
Australia Street PS	\$465,000
Stockpile Management	\$29,555
Darlinghurst Court Area S	\$300,000
Hartley Court	\$50,000
Paddington PS	\$20,000
Observatory	\$200,000





FORT DENISON

CLIENT	Department of Environment, Climate Change & Water
LOCATION	Sydney Harbour
BUDGET	\$454,000
COMPLETION	Ongoing

Background and Significance

Fort Denison is of national and international significance as an exceptionally fine and intact example of a nineteenth century defence fortification that is unique within Australia.

The Fort is the only island site entirely covered with a fortification within Australia and retains the integrity of its completed 1862 form.

Conservation Work Undertaken to Date

A 3 Year program of 'catch-up' stonework conservation commenced in 2007 with partnership funding between the Centenary Stonework Program and DECCW. Year 1 of the program included repairs to the slipway, external repairs to the West Room and drainage investigations.

Year 2 of the programme included external repairs to the Tide Gauge Room, completion of works to the slipway, chimney repairs, site drainage improvements, preparation of a paint strategy, and desalination of major rooms.

In this last year, works identified in the paint strategy were implemented, including the consolidation of paint in the Martello Tower, desalination of major rooms, and limewashing to one of the Magazine Rooms. In addition, the sacrificial render to the interior of the Tide Gauge Room was replaced, a metals strategy was prepared, and repairs to the eastern seawall were undertaken. Repairs to the western seawall also commenced with the purchase of scaffolding and anchors as well as the procession of stone.



MARRICKVILLE PUBLIC SCHOOL

CLIENT Department of Education and Technology

LOCATION 116 Chapel Street, Marrickville

BUDGET \$31,353

COMPLETION November 2009

Background and Significance

Marrickville Public School is listed as a heritage item on the *Marrickville Council Local Environmental Plan 2001*. The School is significant as one of the earliest remnants of the original village of Marrickville which was laid out to Victoria Road and Chapel Street in 1855. Marrickville Public School includes a range of school buildings from the second half of the 19th century.

Conservation Work Undertaken to Date

Conservation works first commenced on Marrickville Public School in 2006 to the Chapel Street elevation of the 1890 school building, which is a two-storey brick structure

with classical sandstone detailing. The works included a substantial amount of stone replacement to cornices and the pediment as well as brick repairs, painting of timber joinery, metal vent repairs and bird proofing. Lead weatherings were also applied to all projecting elements of the facade.

In this last year, conservation works to the Chapel Street main entry of the 1890 school building were completed. The works included stone repairs to the engaged piers and steps as well as metal vent repairs. Stabilisation works were also undertaken to the windows which were painted and secured.



NSW STATE LIBRARY

CLIENT	NSW State Library
LOCATION	Macquarie Street, Sydney
BUDGET	\$910,000
COMPLETION	December 2010

Background and Significance

The State Library of NSW is the second purpose built library, and the only remaining public library building constructed in Sydney dating from the early twentieth century. The building is significant as one of only two Government buildings in the Federation Academic Classical style, and for its historical associations with important people such as Government Architect W.L. Vernon. Constructed in four distinct stages between 1910 and 1964 the building reflects changing attitudes to library planning theory.

Conservation Work Undertaken to Date

Stone conservation works to date have been undertaken to the western and northern elevations of the 1910 Michell Wing and the

1942 entrance portico between 2002-2009.

Works undertaken during this time included replacement of deteriorated stone, installation of lead weatherings and birdproofing, structural stabilisation and conservation of the metal windows and bronze statue of Trim the Cat.

Scope of Works during 2009-2010

During the 2009-2010 program, stone conservation works continued to the eastern half of the front elevation, dating from 1942 (Area 1). The works included replacement of deteriorated stone, stone desalination and cleaning, installation of lead weatherings and bird proofing, and associated works such as metal window conservation and painting.



MACQUARIE LODGE

CLIENT	Royal Botanical Gardens
LOCATION	Conservatorium Road, Sydney
BUDGET	\$816,000
COMPLETION	Ongoing

Background and Significance

Macquarie Lodge has historic, aesthetic and technical significance at a State level. Constructed between 1846-1848 to a design by Colonial Architect Mortimer William Lewis, the building is a rare example of the Colonial Gothic style architecture. Together with Government House and the Conservatorium of Music, Macquarie Lodge forms part of a rare suite of Colonial Gothic style buildings constructed for the task of administering the colony of NSW.

Conservation Work Undertaken to Date

A stone safety inspection of Macquarie Lodge was undertaken in April 2006. During the inspection it was noted that works undertaken in the 1970s left the building vulnerable

to deterioration. Stonework of the parapet and stringcourse was found to be loose and cracking, and sections removed that were at risk of falling. Documentation for stone conservation works was prepared.

Scope of Works during 2009-2010

Stone conservation work undertaken during the 2009-2010 program have included the replacement of deteriorated stone to the parapet and stringcourse, removal of redundant fixings into stone blocks, and construction of a new lead sheeted roof over the tower.

Works are continuing and will include synthetic stone repair, reinstatement of the slate roof and repainting.



PRINCE OF WALES HOSPITAL EDMUND BLACKET BUILDING

CLIENT	NSW Health
LOCATION	Avoca Street, Randwick
BUDGET	\$991,500 (plus client \$800,000)
COMPLETION	Ongoing 2010

Background and Significance

The Edmund Blackett Building, Prince of Wales Hospital, is part of a fine group of restrained classical sandstone buildings at the hospital, designed by E T Blackett. The Southern Wing is a three storey building dated 1860, (to the original 1858 complex). Later additions include the 1915 timber verandahs. This large building roofed in slate and constructed of locally quarried sandstone with large imposing pediments and highly carved corner quoins which are considered amongst the finest and earliest surviving examples of Sydney.

Conservation Work

Slate roof repairs and stone conservation was carried out to the East Wing in 2009. Since

2009 a 2-year program of 'catch-up' stone conservation work has been established which will address the east and west gables of the Southern Wing, & remaining work of the East Wing in association with a major slate reroofing program funded by NSW Health. By the end of 2009-10 the slate roof works and stone conservation to the east gable are nearing completion using Appin banded sandstone. This includes selected replacement stone (gable & windows sills) and seismic stabilisation of this gable & 2 chimneys. Other conservation works have included synthetic stone repair and lead weatherings to protect overhanging and vulnerable stone elements. Following completion of these works, conservation of the West elevation is proposed to commence.



AUSTRALIA ST PUBLIC SCHOOL

CLIENT	Department of Education
LOCATION	229 Australia Street, Newtown
BUDGET	\$465,000 (plus client \$240,000)
COMPLETION	December 2009

Background and Significance

Australia Street Public School, built in 1889 exclusively for infant education and enlarged in 1912 is a two storey brick building with sandstone trim. Sandstone elements include sills, lintels, string courses, chimney caps, a carved date stone, acroterion over the doorway and other decorative features. Various other relatively minor additions have taken place in association with land acquisition.

Conservation Work

Following documentation and some stone processing in 2008-09, stone elements of the Australia St elevation and the two stone chimneys have been conserved and lead weatherings installed to vulnerable elements.

Decorative window features, stone sills, string courses and the pediment joining the two stages of the building were replaced or indented with McCaffrey's sandstone. The decorative chimney caps were replaced and seismic stabilisation introduced in both cases. Replacement of roof cladding and guttering and painting of window & eaves joinery funded by the client were co-ordinated with the stone conservation work. Seismic work to non-stone chimneys was also documented. External constraints required the scaffold to be dismantled prior to completion of lower level stone elements of the Australia St elevation. This work is proposed to be completed as a second stage later in 2010 along with the remaining elevations to the school yard.



STOCKPILE MANAGEMENT

CLIENT	CSP
LOCATION	Sandy Point, Sydney
BUDGET	\$29,555
COMPLETION	Ongoing

Following completion of the Review of the Minister's Stone Stockpile in 2008-09, further projects relating to stockpile management have been established. This review identified that i) McCaffrey's yellowblock supplies are likely to run out in the near future, ii) reclassification of yellowblock was required to enable effective / efficient use of remaining supplies, and iii) effects of stockpiling oxidising sandstone needs to be understood. Stockpile management work that has been carried this year includes:

1 - Participation in external investigations of future stone supply from the Barrangaroo development site (Walsh Bay).

2 - Commencement of reclassification of McCaffrey's yellowblock.

3 - Geological physical testing and Petrographic analysis of oxidising sandstone to examine its oxidising qualities when stockpiled.

4 - A 3-D diagram of the McCaffrey's quarry was prepared to enable understanding of the relative location of various extraction benches, in particular for positioning testing results.

5 - Information management: Previous physical stone testing results carried out for the CSP (1997 - 2007) have been scanned & archived electronically for reference by the CSP team.

6 - Review of proposals for sale / purchase of stone considered surplus to CSP needs (advice provided on: Ravensfield, Consolidated and Capricorn).



DARLINGHURST COURT

CLIENT	Attorney General's Department
LOCATION	Taylor Square
BUDGET	\$300,000
COMPLETION	June 09

Background

Darlinghurst Court is representative of the evolution of formal public architecture throughout Australia, including the substantial work by the Colonial Architect, Mortimer Lewis. The development of the building complex exhibits the works of four early Colonial Architects each using a different interpretation of neo-classical architecture, with their designs being related to the earlier Lewis stage.

Works undertaken to date

The Darlinghurst Court conservation program has been a jointly funded project between the Centenary Stonework Program and the Attorney General's Department. In partnership 8 stages

have been completed including Work Areas C & F in 2003/04, Work Areas D, E & F in 2005/06 and Work Area P, B & O in 2006/07. The Centenary Stonework Program fully funded conservation works to Area A in 2007/08. Financial year 2009/10 the Attorney General's Department have fully funded the \$300,000 for stone processing for Area S with a minor contribution for the Centenary Stonework Program.



HARTLEY COURT

CLIENT	National Parks and Wildlife
LOCATION	Hartley
BUDGET	\$50,000 partnership \$50,000 CSP

History & Significance

The Hartley Historic Site comprises the following four buildings, the former Hartley Court, the former Royal Hotel and Bernard's Church and Presbytery. Historically highly significant for its close association with early settlement west of the Blue Mountains, for its role as an early government centre. The village has an extremely high level of intactness and contains a rich range of building forms, materials and architectural styles. The site is of Heritage Significance at State Level.

Conservation Works/ Scope of Works

In March 2008 a stone safety inspection was carried out and a comprehensive report was prepared with recommendations for repairs. Based on this report stone processing has commenced for the front elevation of Hartley Courthouse facing the street.

Coloured Appin stone was selected as a good match to the existing stone due to texture with texture, porosity and colour. To date nearly all the cornice and coping stones have been processed.



PADDINGTON PUBLIC SCHOOL

CLIENT	Department of Education & Training
LOCATION	Oxford Street
BUDGET	\$20,000
COMPLETION	November 2009

History and Significance

The Paddington Public School originally started as an “Iron House” in 1856. The building was purchased in England (via mail and shipped to Sydney.) However, it was not long before the building became redundant through continual maintenance issues and a dramatic increase in enrolments.

The Iron House was replaced by a single storey building, designed in 1870 by GA Mansfield in the Gothic Revival style with a later second storey addition in 1880 by the same architect.

Conservation work undertaken to date

A makesafe inspection including removal of loose and decaying stone was undertaken in 2005. Conservation work was carried out on the former main entry to Oxford Street in 2007-08.

The front steps were replaced to complete Area 4, 5 & 6 of the Oxford Street Elevation.



SYDNEY OBSERVATORY FORT WALL AND RAILING

CLIENT	Powerhouse Museum
LOCATION	Observatory Hill
BUDGET	\$ 200,000
COMPLETION	June 2010

Background

The site of the Sydney Observatory has been a significant place in Sydney and has undergone a number of name changes. It was known as Windmill Hill in the 1790s when it was the site of the first windmill. After 1804 references are made to it as Fort Phillip or Citadel Hill, referring to plans to build a citadel on the site at Governor King's instruction for use in the case of an insurrection in Sydney. This was prompted by an influx of 'Death or Liberty' Boys after the abortive 1798 uprising in Ireland, some of whom he believed to be of the most desperate character and cause for constant suspicion.

Construction began but the citadel was not completed until Bligh had been installed in

office. There were further discussions about a citadel during the Macquarie period but nothing eventuated beyond a half built powder magazine, Francis Greenway's first work after his appointment as civil architect in 1815.

Works undertaken to date

The CSP has funded and carried out works to all the main façade areas of the Sydney Observatory building as well as the Signal Master's Cottage.

This financial year the fort wall was conserved with replacement of cracked coping stones, cleaning and repointing of missing joints. The existing metal fence was also unsafe both structurally and did not meet BCA standards. The fence was repaired and amended to meet the BCA.



CHRIS BELL
-EQUIPMENT

HYDRA PLUS

Sydney Hospital project received a commendation in the 2010 EnergyAustralia National Trust Awards. Photograph: DSTA

