



cathedral **stone**

Cathedral Stone, 395 Johnston Street Abbotsford, Victoria 3065
Commercial Builder (Limited) CB-L 31787
ABN: 360 506 079 06

2nd October 2018

Mr Jeremy Quinn
293 Church Street
RICHMOND VIC 3121

Dear Jeremy,

PROJECT **293 CHURCH STREET, RICHMOND (Lalor House)**
SUBJECT **HERITAGE FAÇADE INSPECTION and CONSERVATION SCHEDULE OF WORK**

Following our recent survey of Lalor House, please find below our photographic Condition Report and Conservation Methodology Specification. As agreed, a confirmation survey will be completed once scaffold is erected and quantities can be confirmed, prior to commencing works.

Please call should you wish to discuss.

Regards,

REBECCA ROBERTS
Project Manager
0406 649 349

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1. SUMMARY

Cathedral Stone was engaged by Jeremy Quinn (Owner) to undertake a Condition Inspection of the exterior rendered surfaces of historic Lalor House, and to prepare a Conservation Methodology Specification.

The facade inspection was conducted by Cathedral Stone in August 2018, with assistance from Nigel Lewis, Heritage Architect. Observations were made by accessing the roof, internal verandahs, and from ground level.

The majority of protected areas surveyed were found to be sound and in fair condition, with relatively minor signs of cracking, crazing, and drumminess developing. However, most high weathering zones are suffering from advanced crazing, drumminess, fracturing and fretting (loss of material), and deemed to be in poor condition. These areas are assessed as posing a high conservation, as well as public, risk. The principal findings and recommendations from the inspection were:

- The building's parapet, cornice, verandah balustrades, and all weatherings/copings are experiencing advanced cracking, fretting, and drumminess, and in need of immediate repair
- Generally, all weathering surfaces/copings/ledges should be replaced and protected with either lead flashing, or impregnated with a conservation grade water repelling agent
- Most steel/iron lintels inspected, though corroding and exposed, appear to retain structural integrity.
- An engineer should assess the structural integrity of all rendered areas prior to repairs being specified
- The nature of render is that once an area is open there is potential to remove several more kilograms of loose material. However, it is not in the best interest of the building to open up large areas unnecessarily. The full extent of repairs will not be known until a scaffold is erected and work begins.
- Lalor House exhibits a distinctive, organic, patina of age that has developed over many years of lightly abrasive weathering of the original stucco finish. This has resulted in a lightening of areas where the surface has been washed, or abraded, away to reveal the sand particles and secondary layers below the render's original finish coat, and conversely, a darkening of some protected, unweathered areas. Architect Nigel Lewis notes that 'The grandeur of the facade is enhanced by the patina', in his 2016 Heritage Impact Statement for the place. It is important that any render repairs specified respect the value of this patina and adhere to methodologies that seek to conserve its integrity.
- Generally, where areas of the façade have developed crazing and cracking that present no immediate risk, we recommend they be managed with fairly moderate early intervention repair methods to stabilise and consolidate the render, and increase the façade's resistance to weathering
- Isolated areas of salt crystallisation (efflorescence) and mild corrosion of embedded steel/iron are visible. Conservation and cleaning of these areas prior to treating is recommended
- Areas of biological growth (moss, lichen) should be treated and removed during any works to the building
- All slate and roof plumbing is excluded from this report and is being addressed separately

2. SCOPE OF REPORT

This Conservation Methodology Specification has been prepared for the Former Lalor House, 293 Church Street, Richmond, by Rebecca Roberts of Cathedral Stone, in August 2018. Nigel Lewis, consulting Heritage Architect, has reviewed and endorsed this report.

This Methodology Specification is keyed to an interim Schedule of conservation works, related to individual locations. The subject area of this Schedule is limited to the west elevation (Church Street) and a portion of the south elevation, as well as the rooftop parapet and chimneys. This document describes the physical render fabric of the site and is intended as a general guide for the appropriate conservation of the place. This report is restricted to scheduling render repairs and methodology only. A confirmation survey will be completed once scaffold is erected and quantities can be confirmed.

The inspection did not cover building services, appliances and fittings, or compliance with building regulations. This report is not intended to describe the works fully for the purposes of obtaining quotations. It is a general guide to the nature and extent of work likely to be required, and is to be read in conjunction with all relevant reports by Others.

The scope of this Specification includes:

- i. Façade Render and Masonry
 - a. All west facing façade render finishes from Ground Level
 - b. Brickwork that forms the substrate to the rendered areas and was visible at time of inspection
 - c. A portion of the south facing elevation and former Surgery entrance
 - d. Areas of face brickwork were excluded from our inspection
- ii. Windows
 - a. This Schedule applies to mortar repairs to window surrounds only
- iii. Painting
 - a. This Schedule excludes all painting
- iv. Roof Plumbing
 - a. This Schedule excludes all roof plumbing (to be addressed by Other)

3. CONSERVATION RATIONALE

In the conservation management and restoration of historic buildings, it is useful to think of the façade as a 'system'. Within this system, each built element (the masonry, the joinery, the roof plumbing) and each finish (the render, the paint) should all function together, as an effective conservation element in that system: protecting the building from weather; enabling vapour movement; being durable; and aesthetic.

In Australia's traditional stucco (traditional render) we have inherited 'Portland Cement' (PC) stucco. Portland Cement is very different from the 'Ordinary Portland Cement' (OPC) that we use today - modern OPC is significantly harder and far less vapour permeable. Invariably, traditional stucco was sometimes finished with a water based paint so that it could be applied to a not yet dry, masonry façade. The application of a water based paint assisted the curing of the freshly applied stucco by slowing the drying process, yet allowing moderated moisture transfer. The use of water based paints or lime-based washes was also because the façade finish was intended to look like stone.

Over time, as these finishes have eroded away, they have been replaced with oil paint - long after full carbonation of the rendered elements has been reached. As more years pass, more layers of impervious paint are added, effectively wrapping the masonry in a plastic bag. Yet rather than protecting the façade from external elements, this 'plastic bag' effectly suffocates the building, trapping moisture and salt within. Water invariably gets behind these impervious layers of paint and, if it cannot escape, it will either find its way to the interior of the building, or will collect in areas and begin the process of breaking down the masonry by corroding internal steel/iron reinforcement, and concentrating salt crystals. All of which has an expansive, explosive effect on masonry. Masonry will spall, render will detach from its substrate and become drummy, fracture, and fall off. Openings in the façade will compromise the 'façade system', and exacerbate the deleterious effects caused by moisture and salt penetration. When the façade is compromised as such, the public safety risk then becomes a concern, in the event that the decay process is allowed to continue.

Thankfully, at Lalor House, the integrity of the façade remains intact and it has not been painted with the false hope of protecting it. However, the render is exhibiting typical signs of ageing and weathering, and from this point onward, as we reconstruct an effective, working façade system, it is imperative to retain this integrity and get the balance right, to avoid creating problems down the track.

Given the complexity of these issues, and the recognised cultural significance of the building, it is advisable to engage an independent heritage façade specialist, (such as Donald Ellsmore or David Young) to provide specialised knowledge and advice as to the best practice materials conservations for this historic façade.

4. PRIORITY RISK CLASSIFICATIONS

i. **PUBLIC SAFETY RISK:** A preliminary schedule of public safety works required has been prepared, but was necessarily restricted by only having ground level access. This has been assessed in three categories:

High - High risk due to defects and proximity to public accessed paths and entrances.

Moderate - Where paths are fairly close and there is some risk from structural defects

Low - Safe work zone, for areas only to be accessed by gardening or maintenance workers with compliant personal protective equipment.

- ii. **STRUCTURAL RISK:** This covers all issues related to water penetration, and where defective stones that will impact on structural performance.
- iii. **CONSERVATION RISK:** This addresses the potential loss of significant fabric and architectural detailing.
- iv. **AESTHETIC ISSUES:** This is where the defective stonework is located in entrances areas, or other highly visible features, and impacts on the commercial presentation of respective tenancies.

5. CONSERVATION ISSUES

a. *Drummy Render*

Drummy patches occur where there has been a failure of adhesion between render layers. Such failures may have numerous possible causes, including lack of suitability of the substrate and its preparation, or the mix used in one or more layers, or the initial drying conditions. In all cases, it is particularly important to the conservation of rendered facades to observe the principle outlined in Article 3 of the *Burra Charter – The Cautious Approach*, where intervention should change as much as necessary, but as little as possible.

Extensive crazing of render, such as that observed at Lalor House, is a normal condition that first occurs during the curing of the wet render. Areas of crazing that are also drummy often remain secure and should not be touched. Ideally, drummy patches associated with cracking and spalling should be cut out and re-rendered. However, efforts to eliminate non-adhering render in one location may disturb and loosen immediately adjacent sound areas.

It would be prudent, in our opinion, to treat all affected areas by either:

- (i) removing the existing render and applying a new render finish; or
- (ii) drill small diameter holes (<10 mm) through the render into the substrate; insert stainless steel pins, possibly inject micro/nano-lime grout, and patch up the drill holes with a conservation grade repair material.

b. *Cracking and Corrosion of Steel/Iron Reinforcement*

Cracking to render is often associated with corroding steel/iron reinforcement with the render, and the varying rates of thermal expansion and contraction between the steel/iron and the render. It is likely the spalls and cracking that were observed has been caused by corrosion of this nature. This type of deterioration is a gradual process and can often, though not always, be detected by the presence of rust staining emerging from cracks prior to the fragment spalling off. At Lalor House, little if any rust staining was visible at the deterioration sites unless the steel/iron was completely exposed.

c. *Crazing*

Whilst the presence of crazing in the render is not a concern from an adhesion perspective, it does have an aesthetic impact and there will be a visible difference in appearance of new repairs alongside crazed fabric. Crazing associated with drummy render should be treated as outlined above, under a. Drummy Render.

d. *Efflorescence (Salt Crystallisation)*

There is presence of minor efflorescence in a few isolated areas of exterior façade at cornice/soffit level and just below the verandah floor, where continued wetting and flow of water and led to salt transfer. The salt crystallization associated this 'wick action' process appears to be responsible for the dilapidation of the cornice soffit and decorative features below. A recommend method of remediation is to use a captive head washing system, such as BlueVac, to desalinate the areas.

6. CONSERVATION METHODOLOGY SPECIFICATION

- i) Areas of render requiring conservation and repair are identified in photographs contained in the below Schedule, and on a schematic drawing of the south elevation.
- ii) This Conservation Specification proposes a that samples of extant original render from three separate weathering zones (upper parapet, cornice soffit and internal protect verandah wall) be sent for materials testing to determine the composition whether a finish was applied to the stucco when it was originally completed.
- iii) Test results and expert consultation will inform the mortar ratio specification
- iv) Repair render composition is expected to be a mix of 9 parts sand, 2 parts lime putty or NHL, 1 part cement. However, it may be agreed on site that this mix could vary, depending on test results. Natural Hydraulic Lime might be more appropriate (as well as being more compatible with the original render material)
- v) Some destructive investigations may be required once on site to ensure the brick substrate is sound before rendering over.
- vi) A better understanding of the extent of mineral salts (concentration & distribution) in the façade needs to be ascertained, as these may be deleterious to the durability of both existing and new render repairs.
- vii) Testing of existing salt levels in the façade fabric is recommended
- viii) Testing of moisture activity within the façade is also recommended
- ix) All new work to have a matching colour and finish to the existing colours and finishes of adjacent areas.
- x) Colour matching of patched areas to be assisted by Alan Grimes, as required.

7. CONSERVATION REPAIR METHODOLOGY CODES

BIO - Remove organic growth Remove lichen and other organic growth from render over all surfaces of façade as specified, by pressure washing followed by application of approved biocide.

WSH - Light pressure wash

Remove any loose material and apply new render wash coat approximately 1 mm thick. Render mix to be as specified to match original render colour and texture, including Abilox oxide.

DES – Captive-head washing/Desalination

Using a recognised captive-head wet vacuum system (such as BlueVac), target salt/efflorescence effected areas in a process of repeated passes of the wet vacuum. Several passes of the captive head are required to adequately saturate the render, mobilise the salts, and vacuum the saline water away. The number of passes varies in each scenario, and should be continued until the salinity of the water collected reaches a level that indicates the salt in the wall has been effectively reduced.

CRK - Crack repair

Cut out face render to the defective area to the solid substrate below. Clean out cracked area with compressed air jet and inject and fill crack with approved epoxy resin or mortar grout, kept back 25 mm from render surface. Install new render to cracked area with a finish to match adjacent areas.

STR - Structural repair

Cut out face render to the defective area to the solid substrate below. Dismantle brickwork, stack bricks for reuse. Clean out cracked area with compressed air jet. Install stainless steel mesh or dowels to reinforce over the cracked area where necessary. Install new render to cracked area with a finish to match adjacent areas.

STL - Treat embedded steel/iron

Cut out render around steel/iron to a sound surface. Remove rust using wire brushes or hammer, and apply rust converter to all exposed areas. Apply two 1 mm thick coats of Nanocrete AP cementitious protective coating. Render as specified to match adjacent render.

PIN - Pin Mouldings

Drill 6 mm diameter holes through render moulding into sound substrate, approximately 250 mm deep, at 150 mm centres. Clear out holes with compressed air. Insert 3 mm threaded Grade 316 stainless steel rods in Hilti HIT or similar suitable epoxy construction adhesive. Rod and epoxy to be 25 mm back from face of render. Fill holes with render to match adjacent.

BRK - Reconstruct brickwork

Remove any loose material. Cut second hand red brick to fit hole. Bed in 1:2:9 mortar. Render as specified to match original render colour and texture.

R1 - Replace drummy render to flat areas

Cut out drummy render to sound substrate. Clean with compressed air or water. Apply render mix to match existing adjacent render, allow for sufficient samples to achieve matching render colour, composition and texture.

R2 - Apply new render weathering Remove all loose and deteriorated render from ledges, cornices and similar. Prepare and install new render weathering surface as specified, to fall to away from wall surface.

MLD - Rerun moulded render

All cornice and other mouldings where required to be repaired or replaced shall be run in situ to match the original profile, built up in three or more coats and given a fine sand finish. On completion the work shall be cured to prevent crazing and cracking.

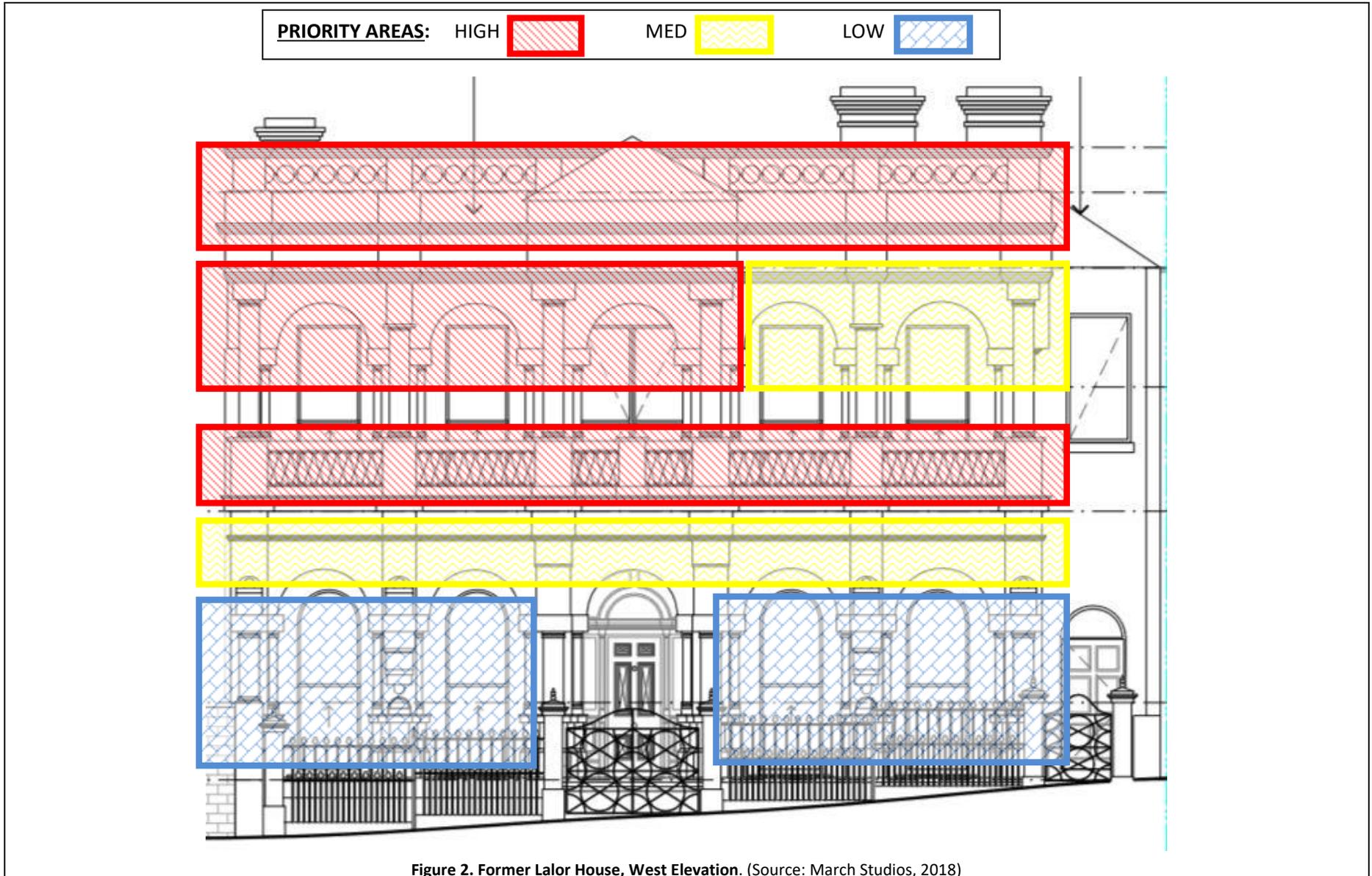
8. HISTORIC PHOTOGRAPH OF ORIGINAL FAÇADE

Undated historic photograph of Lalor House showing original parapet urn embellishments.



Figure 1. Former Lalor House, West Elevation. (Source: Supplied by Jeremy Quinn)

9. FAÇADE CONDITION REPORT AND CONSERVATION WORKS SCHEDULE



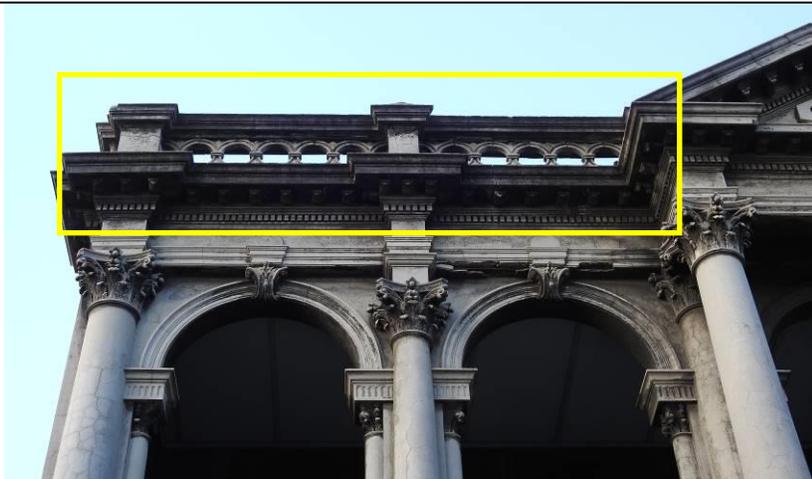
WEST ELEVATION – PARAPET BALUSTRADE and CORNICE

LOCATION: Roof (Parapet Coping)

PRIORITY: HIGH (Safety/Structural Risk)

General Condition:

- Extensive cracked, fretting and drummy render
- Vertical and horizontal stress fractures resulting in loss of material
- Corroded steel/iron lintels appear to retain most of their original profile and integrity
- Moderate efflorescence to soffit moulds



001



002



003



004



005



006



007



008



009

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
001	Parapet and coping experiencing advanced cracking	2m ²	BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD
002, 003, 004, 005	Horizontal cracking through parapet and above coping. Rusting lintels	Several metres (requires elevated access to quantify)	BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD
006, 007, 008, 009	Horizontal and vertical cracking through cornice. Efflorescence observed.	As Above	DES, WSH, CRK, STR, STL, BRK, R1, R2, MLD

WEST ELEVATION – FIRST FLOOR VERANDAH (North Side)

LOCATION: Columns, Capitals, String Course

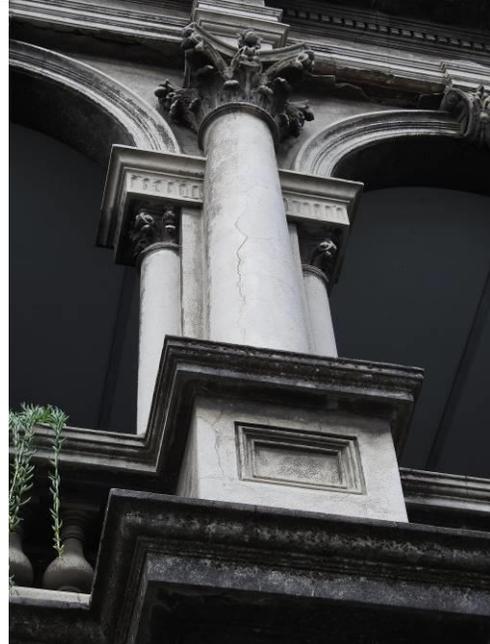
PRIORITY: HIGH (Safety/Structural Risk)

General Condition:

- Extensive crazed, cracked, fretting and drummy render
- Vertical and horizontal stress fractures resulting in loss of material
- Corroded steel/iron lintels to appear to retain most of their original profile and integrity



010



011



012



013



014



015

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
010,011	Columns and pressed cement capitals display extensive crazing though structurally sound	2	WSH, Monitor, Inspect when scaffold erected
012, 013, 014, 015	Horizontal cracking through string course. Rusting lintels	Several metres (requires elevated access to quantify)	BIO, WSH, CRK, STR, STL, PIN, BRK, R1, R2, MLD

WEST ELEVATION – FIRST FLOOR VERANDAH

LOCATION: Balustrade and Cornice

PRIORITY: HIGH (Safety/Structural Risk)

General Condition:

- Extensive crazed, cracked, fretting and drummy render
- Vertical and horizontal stress fractures resulting in loss of material
- Corroded steel/iron lintels appear to retain most of their original profile and integrity
- Moderate efflorescence to soffit moulds



016



017



018



019

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
016,017, 018, 019	Horizontal cracking through parapet and above coping. Rusting lintels. Efflorescence observed.	Several metres (requires elevated access to quantify)	DES, BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD,

WEST ELEVATION – CENTRAL PORTICO

LOCATION: First Floor, Columns, Gable, Balustrade

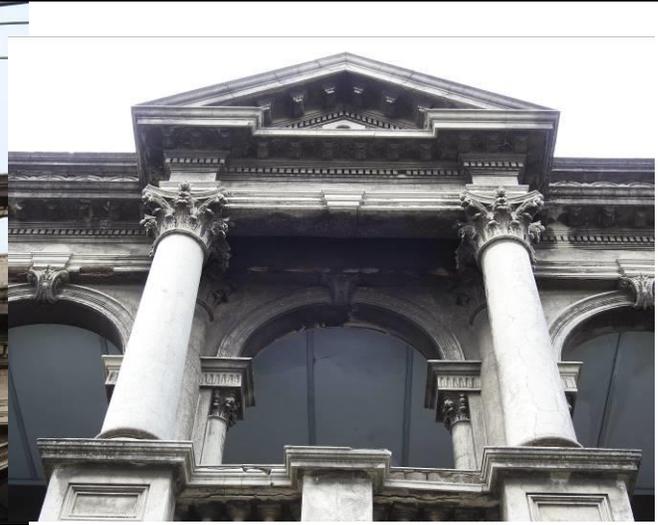
PRIORITY: HIGH (Safety/Structural Risk)

General Condition:

- Extensive crazed, cracked, fretting and drummy render
- Vertical and horizontal stress fractures resulting in loss of material
- Corroded steel/iron lintels appear to retain most of their original profile and integrity
- Moderate efflorescence to soffit moulds



020



021



022



023



024



025



026



027

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
020-027	Horizontal cracking through parapet and above coping. Rusting lintels. Efflorescence observed.	Several metres (requires elevated access to quantify)	DES, BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD,

WEST ELEVATION – VERANDAH (INTERNAL)

LOCATION: Lower Cornice, Balustrade, Columns, Arch

PRIORITY: HIGH (Safety/Structural Risk)

General Condition:

- Large areas of crazed and drummy render, though mostly sound
- Extensive horizontal and vertical stress fractures to balustrade
- Moderate efflorescence to soffit moulds



028



029



030



031

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
028-031	Horizontal cracking through balustrade and above coping. Rusting lintels. Efflorescence observed.	Several metres (requires elevated access to quantify)	DES, BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD,

WEST ELEVATION – PARAPET, FIRST FLOOR VERANDAH (South Side)

LOCATION: Balustrades, Columns, Cornice, String Course

PRIORITY: HIGH (Safety/Structural Risk)

General Condition:

- Extensive crazed, cracked, fretting and drummy render
- Vertical and horizontal stress fractures resulting in loss of material
- Corroded steel/iron lintels appear to retain most of their original profile and integrity
- Moderate efflorescence to soffit moulds



032



033



034



035



036



037



038



039



040



041

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
032-034	Extensive crazing though structurally sound	4	WSH, Monitor, Inspect when scaffold erected
035-041	Horizontal cracking through balustrades, cornice, string course. Rusting lintels and moderate efflorescence	Several metres (requires elevated access to quantify)	DES, BIO, WSH, CRK, STR, STL, PIN, BRK, R1, R2, MLD

WEST ELEVATION – VERANDAH (INTERNAL)

LOCATION: First Floor Balustrade

PRIORITY: HIGH (Safety/Cons/Structural Risk)

General Condition:

- Large areas of crazed and drummy render, though mostly sound
- Isolated vertical stress fractures
- Advanced horizontal cracking to lintels and copings
-



042



043



044



045

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
042-045	Horizontal cracking through balustrades, cornice, string course. Rusting lintels and moderate efflorescence	Several metres (requires elevated access to quantify)	DES, BIO, WSH, CRK, STR, STL, PIN, BRK, R1, R2, MLD

WEST ELEVATION – VERANDAH (INTERNAL)

LOCATION: First Floor

PRIORITY: LOW (Conservation Risk)

General Condition:

- Large areas of crazed and drummy render, though mostly sound
- Vertical stress fractures above two window lintels
- Moderate horizontal cracking to window jambs
- Moderate moisture penetration evidenced by washed, clean render surface in north west corner.



046



047



048



049

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
046	Moderately drummy, extensive crazing	2m ²	Monitor
047	Vertical cracking through lintel and above window	2 x 400mm	WSH, CRK
048	Vertical cracking above lintel	1 x 400mm	WSH, CRK
049	Horizontal cracking previously repaired	4 x 150mm	WSH, CRK

WEST ELEVATION – PARAPET BALUSTRADE (REAR)

LOCATION: Roof (Rear of Parapet)

PRIORITY: MOD (Structural/Conservation Risk)

General Condition:

- Isolated areas of drummy and spalling render across whole back of parapet wall and ledges
- Crazing and weather fatigue to 100% of rendered areas
- Steel bracing in place to tie parapet wall back to roof structure
- Moderate corrosion of steel/iron reinforcement in balustrade pressed cement, with mild cracking of necks and joints associated. Bottles appear structurally sound with no threat of falling in the immediate term.
- 4 missing urns and 2 missing balls from top of coping.
- Lead flashing to be addressed by roof plumber



050



051



052



053

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
050-053	Moderately drummy, extensive crazing, fatigued/eroded sand finish. Loss of Urns and Balls. Refer Figure 1, Section 8 of this Report.	20m ²	BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD. Replace missing decorations

WEST ELEVATION – PARAPET COPING

LOCATION: Roof (Parapet Coping)

PRIORITY: LOW (Conservation Risk)

General Condition:

- Isolated areas of drummy and spalling render across whole back of parapet wall and ledges
 - Crazeing and weather fatigue to 100% of rendered areas
- Corrosion of steel/iron reinforcement in balustrade pressed cement, with mild cracking of necks and joints associated. Bottles appear structurally sound with no threat of falling in the immediate term.
- Lead flashing to be addressed by roof plumber



054



055



056



057

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
054-057	Moderately drummy, extensive cracking and loss of material, fatigued/eroded sand finish. Corroded steel/iron reinforcement	15m ²	BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD. Replace missing decorations.

WEST ELEVATION – ALL

LOCATION: Weatherings – General Observations

PRIORITY: HIGH (Conservation Risk)

General Condition:

- Large areas of cracked and drummy render to all weathering surfaces, compromising the essential water shedding capabilities of these elements
- Heavily eroded top coat/sand finish exposing sand grains
-



058



059



060



061

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
058-060	Widespread cracking, moderately drummy, extensive crazing, water penetration	All Areas	BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD. Consider flashing or water repellent
061	Heavily weathered surfaces generally observed integral to integrity of patina	All Areas	Monitor, repair only in high risk areas

ALL ELEVATIONS – ROOF

LOCATION: Parapet (South) and Chimneys

PRIORITY: MOD (Conservation Risk)

General Condition:

- Large areas of crazed and drummy render, though mostly sound
- Moderate horizontal cracking to chimney mouldings
- Decorative fans missing from two chimneys, compromising the integrity of these elements



062



063



064



065



066

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
062-066	Moderately drummy, extensive crazing	2m ²	WSH, CRK, STR, STL, BRK, R1, R2, MLD. Replace missing decorations.

SOUTH ELEVATION – GROUND and FIRST FLOOR

LOCATION: Walls, windows, string course, and doors

PRIORITY: MOD (Cons/Structural Risk)

General Condition:

- Large areas of crazed and drummy render, though mostly sound
- Stress fractures, to lintels and sills resulting in lost fabric
- Moderate horizontal cracking to window and door jambs
- Moderate moisture penetration and corroded steel/iron in isolated areas



067



068



069



070



071



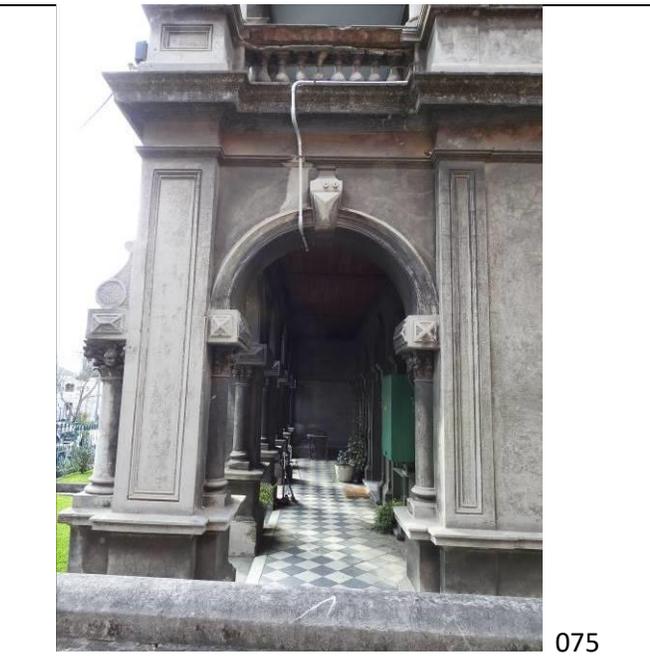
072



073



074



075



076



077



078



079



080

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
067-080	Extensive crazing though structurally sound. Minor cracks.	All Areas, (requires elevated access to quantify)	BIO, WSH, CRK, STR, STL, BRK, R1, R2, MLD.

GROUND FLOOR

LOCATION: Floor surfaces and steps

PRIORITY: MOD (Cons/PublicRisk)

General Condition:

- Weathered and fretting floor tiles
- Eroded slate threshold stones and steps



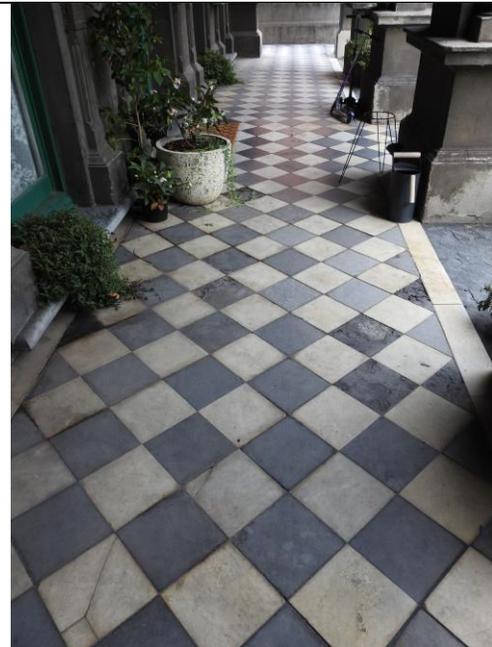
081



082



083



084



085



086

REPAIR METHODOLOGY:

ITEM	DESCRIPTION	APPROX. DIMENSIONS	REPAIR CODE
081-086	Cracked tiles, eroded slates, open joints	All Areas	Monitor, remove loose trips hazards, replace cracked/missing tiles, grout

10. CONCLUSION

High Priority remedial works to the west elevation and rooftop parapet should be treated as urgent and addressed within the next 3-6 months. The timing to carry out the lower priority items listed above is discretionary, but given access costs will be a significant proportion of any works carried out, it is our recommendation that all the work items be addressed at the same time to maximise economies of scale savings.

In the interest of maintaining the integrity of the façade in its current state of patination, it is important that all conservation interventions observe the Burra Charter principle of repairing as much as necessary, but as little as possible. Remembering that these repairs will not be painted, it is imperative that only highly skilled, experienced craftsmen perform these works. All those tendering for the works should be required to show evidence of material composition and colour matching QA processes directly relating to this method of stucco façade repair. Sample repairs are to be carried out in discreet locations and approved by the Conservation Architect prior to completing the full scope of works.

Should only high priority works be carried out in the immediate term, a Cyclic Maintenance Management Plan will need to be implemented, with documented MakeSafe Inspections carried out every 12-18 months.

Please contact me if you wish to discuss any details of this report.

Regards,

Rebecca Roberts
CATHEDRAL STONE
 0406 649 349