

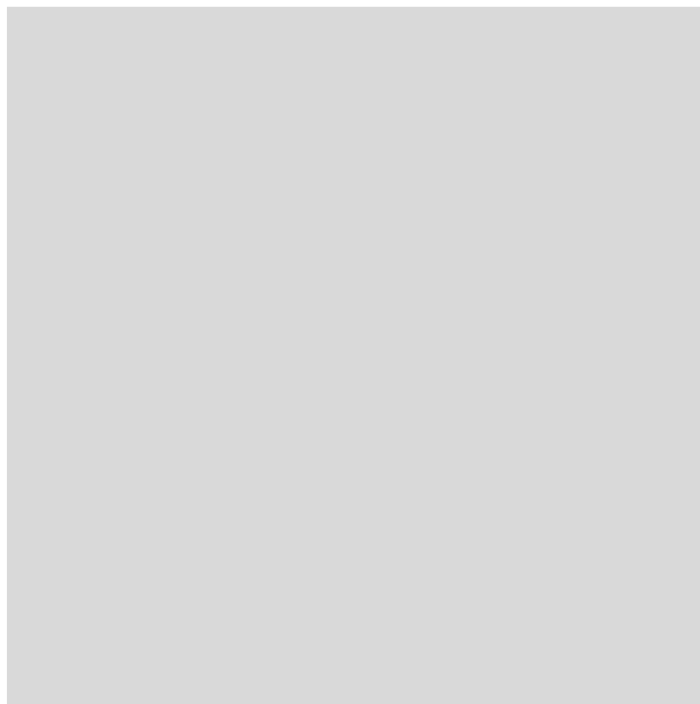


OWNER INSPECTIONS

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EXPERT WITNESS REPORT

Sample Property

Sample Property

Name withheld

09/06/2026

Inspector

Craig Palmer

1300 471 805

booking@ownerinspections.com.au

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Terms and Conditions – Expert Witness Reports

These Terms apply to all Building Expert Witness services provided by Owner Inspections Pty Ltd ("we", "us") to the client ("you"). By engaging our services or accepting our report, you agree to the following:

1. Purpose: The report is prepared solely for use in legal, tribunal, court or insurance matters based on your instructions. It must not be used for other purposes without written consent.
2. Scope: Inspections are visual and non-invasive unless stated otherwise. Findings are based on conditions observed during attendance. We are not liable for defects in inaccessible or concealed areas.
3. Expert Duty: Our expert acts impartially and independently in accordance with the relevant Expert Witness Code of Conduct. Their duty is to the tribunal or court, not to any party.
4. Instructions & Documents: You must provide accurate and complete information. Reports may be amended if new material is received.
5. Limitations: This is not a full structural or compliance report unless specified. Our opinion is based on the scope agreed and available evidence.
6. Fees: Fees are as quoted. Additional charges apply for conclave/hearing attendance or further work.
7. Cancellations: Cancellations within 48 hours may incur a fee. Rescheduling depends on availability.
8. Use & Distribution: The report is confidential and intended only for the client and relevant proceedings. Third-party use requires our written consent.
9. IP: All intellectual property remains ours. You are granted a limited licence for intended use.
10. Liability: Our liability is limited to the amount paid for the service. We are not responsible for misuse or reliance beyond the agreed scope.
11. Jurisdiction: These Terms are governed by the laws of the state or territory where services are provided. Invalid terms do not affect the rest.

By engaging our services, you confirm agreement with these Terms and Conditions.

 1.2.1 + Inspection Details - Inspection Summary (To be fixed): Defect 1

 4.1.1 Instructions - Instructions: Instruction details

 13.1.1 + House External - + General views of house EXTERNAL: Lintels & exposed structural steel — durability / corrosion (Items 1–7)

 13.1.2 + House External - + General views of house EXTERNAL: Axon cladding — fasteners, battens & water-control membrane (Items 8–12)

 13.1.3 + House External - + General views of house EXTERNAL: Window head flashings — upper-level gable openings (Items 13–18)

 13.1.4 + House External - + General views of house EXTERNAL: Downpipe bracket corrosion — upper-level fixings (Items 19–20)

 14.1.1 + Glazing - + Mirrors, windows and doors glasses: Window head flashings missing — upper-level gable windows (Items 13–18)

 15.1.1 Next Stages - Stage 3: Damage Repair Cost Estimate and Scott Schedule

 15.2.1 Next Stages - Stage 4: Expert Witness Services for Conclave



1: + INSPECTION DETAILS

		D	W	M	S	SP	O	MD
1.1	General Information							
1.2	Inspection Summary (To be fixed)							
1.3	+ Limitations							

D = Defective Design

W = Defective or faulty workmanship

M = Defective Material

S = Safety

SP = Structural Performance

O = Other Major Defects

MD = MAJOR DEFECT

Information

General Information: Property Address

Sample Property

, Suburb withheld

, QLD

General Information: Type Of Building

Residential, House

General Information: Inspection(s) Date

09/06/2026

General Information: Tribunal/Court Application Reference Number

TBC

General Information: Legal Advice

This report is a witness expert report and covers the technical side of the building only. The expert can present in the hearing if required (An extra charge applies). We highly recommend you get legal advice for the legal side of your matter.

Inspection Summary (To be fixed): The Purpose and Scope of the report

The purpose of this report:

The purpose of this report is to provide an independent and objective assessment of building defects and damages in accordance with the Australian Standards (AS), National Construction Codes (NCC), Building Acts and Regulations, and any other relevant authority documents. The findings of this report are intended to assist the jury in making an informed decision.

Scope of the Report:

The scope of this report is to identify and report any building defects and damages that are observed during the inspection process. The inspection will be conducted in accordance with the applicable industry standards and guidelines. The report will detail the nature, location, and extent of any defects or damages, as well as any relevant factors that may have contributed to their occurrence.

Observations

1.2.1 Inspection Summary (To be fixed)



Defective Work

DEFECT 1**Brief Description:****Major element" of a building? YES/No**

Internal or external load-bearing component

Foundations & Footings

Floors

Walls

Roofs

Columns and beams

Retaining Walls

Staircase and Balustrade

Fire safety system

Waterproofing

Any other element that is prescribed by the regulations as a major element of a building.

Major Defect Type:

- defective design
- defective or faulty workmanship
- defective materials
- defect of a kind that is prescribed by the regulations as a major defect
- The use of a building product (within the meaning of the Building Products (Safety) Act 2017) in contravention of that Act.
- failure to comply with the structural performance requirements that cause or likely cause:
 - * The inability to inhabit or use the building (or part of the building) for its intended purpose - **Please Specify/Explain**
 - * The destruction of the building or any part of the building - **Please Specify/Explain**
 - * A threat of collapse of the building or any part of the building - **Please Specify/Explain**

2: EXECUTIVE SUMMARY

		D	W	M	S	SP	O	MD
2.1	Executive Summary							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

Information

Executive Summary: Executive Summary

The site inspection and the supporting documents reveal a substantial and technically credible dispute concerning corrosion durability, cladding support and fixing, moisture management and window weatherproofing. The strongest findings are those where the contract, the approved plans and the manufacturer's instructions all align with what was observed on site: the contract expressly required and the owners paid for R4 durability-class lintels and exposed steel because of salt-water proximity; the approved plans and the Axon guide require a water-control membrane behind the cladding; and both the NCC and the Axon guide require flashings to weather-exposed openings.

Overall assessment: The evidence supports a finding that several items are either non-conforming or have not been demonstrated to be compliant. The rectification actions recorded in the Record of Agreement do not, by themselves, provide a technically sufficient close-out. They are a list of promised actions; they are not proof that the completed work complies with the contract, the NCC, the referenced Australian Standards and the statutory warranties. No item should be treated as resolved until the relevant concealed work has been independently inspected and a complete documentary close-out has been provided.

Key procedural finding: The Record of Agreement records all items as resolved, with "Nil" unresolved and a due date of 12 June 2026 for the contractor's rectification actions. No evidence of completion was available for review, and the uploaded copy of the agreement has blank signature blocks. The owners should obtain the fully executed agreement and a complete close-out package, and should not treat any item as finalised until the rectification work has been independently verified.

3: INSPECTION SUMMARY

		D	W	M	S	SP	O	MD
3.1	Home Building Act 1989							
3.2	Expert's Opinion							
3.3	Defect 1							
3.4	Inspection Conclusion							

D = Defective Design

W = Defective or faulty workmanship

M = Defective Material

S = Safety

SP = Structural Performance

O = Other Major Defects

MD = MAJOR DEFECT

Information

Home Building Act 1989: Proceeding for BREACH OF WARRANTY - SEC 18E

(1) Proceedings for a breach of a statutory warranty must be commenced in accordance with the following provisions—

(a) proceedings must be commenced before the end of the warranty period for the breach,

(b) the warranty period is **6 years for a breach that results in a major defect** in residential building work or **2 years in any other case**,

(c) the warranty period starts on completion of the work to which it relates (but this does not prevent proceedings from being commenced before completion of the work),

(d) if the work is not completed, the warranty period starts on—

(i) the date the contract is terminated, or

(ii) if the contract is not terminated—the date on which work under the contract ceased, or

(iii) if the contract is not terminated and work under the contract was not commenced—the date of the contract,

(e) if the breach of warranty becomes apparent within the last 6 months of the warranty period, proceedings may be commenced within a further 6 months after the end of the warranty period,

(f) a breach of warranty "becomes apparent" when any person entitled to the benefit of the warranty first becomes aware (or ought reasonably to have become aware) of the breach.

4: INSTRUCTIONS

		D	W	M	S	SP	O	MD
4.1	Instructions							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

Observations

4.1.1 Instructions

INSTRUCTION DETAILS

 Information Only

The inspector was engaged to carry out an independent inspection of the external building envelope at Sample Property, Suburb withheld, and to prepare an expert report addressing the matters raised in QBCC complaint 9312281 and the related Record of Agreement (reference 3079916). The report is intended to be capable of use as evidence in a QBCC complaint and/or a QCAT proceeding.

The scope of work was to: inspect the lintels and exposed structural steel, the Axon cladding and its support and fixing, the weather-control membrane (so far as visible), the window flashings and the downpipe brackets; photograph the conditions observed; compare the constructed work and the proposed rectification actions against the contract, the approved plans, the NCC, the Axon installation guide, the referenced Australian Standards and the Queensland statutory warranties; and identify non-conformities, evidence gaps and the verification and rectification required to achieve a compliant close-out.

The inspection was visual and non-destructive. Where a finding depends on concealed construction or on testing that was outside this scope, the report says so and identifies what is required.

5: ASSUMPTIONS

		D	W	M	S	SP	O	MD
5.1	Assumptions							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

Information

Assumptions: Assumptions

The following limitations apply and should be read with the findings.

The inspection was a non-destructive visual inspection from safe, accessible positions, supported by photographs taken at the time of inspection. No destructive opening-up of concealed construction (membranes, flashings, batten cavities, lintel embedments) was carried out as part of this report.

No dry film thickness (DFT) testing, coating adhesion testing, product sampling or laboratory analysis was undertaken. Where such testing is required to close out a finding, this is identified in the report.

Findings expressed as non-compliant or defective mean that the contract, the approved plans, the manufacturer's instructions, the NCC or an Australian Standard appears, on the available evidence, to have been departed from. Final structural or facade certification remains a matter for a suitably qualified RPEQ, building certifier or the product manufacturer, and final legal conclusions are a matter for the owners' lawyer.

Australian Standards and manufacturer guides are copyright. This report identifies the relevant clauses and explains their function without reproducing substantial protected text. Photographs reproduced as figures are representative of conditions observed across the dwelling. The complete photographic record is retained and can be produced in full.

6: USED EQUIPMENT

		D	W	M	S	SP	O	MD
6.1	Used equipment							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

7: OTHER EXPERTS' OPINION

		D	W	M	S	SP	O	MD
7.1	Other Expert Reports Relied On							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

8: RECEIVED DOCUMENTS

		D	W	M	S	SP	O	MD
8.1	Received Documents							

D = Defective Design

W = Defective or faulty workmanship

M = Defective Material

S = Safety

SP = Structural Performance

O = Other Major Defects

MD = MAJOR DEFECT

9: REFERENCE DOCUMENTS

		D	W	M	S	SP	O	MD
9.1	Reference Documents							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

Information

Reference Documents: Home
Building Act 1989

10: INSPECTOR'S DETAILS

		D	W	M	S	SP	O	MD
10.1	Expert Witness: Craig Palmer							
10.2	Expert Witness: Ty Pearson							
10.3	Expert Witness: Mehran Orangi							
10.4	Expert's Codes of Conduct							

D = Defective Design

W = Defective or faulty workmanship

M = Defective Material

S = Safety

SP = Structural Performance

O = Other Major Defects

MD = MAJOR DEFECT

Information

Expert Witness: Craig Palmer: Details, Qualifications and Experience

Expert's Details:

Full Name: Craig Palmer

Company: [to be completed]

Address: [to be completed]

Email: [to be completed]

Phone: [to be completed]

Licence/Registration No.: [to be completed]

Qualifications & Experience: [to be completed]

Expert Witness: Craig Palmer: Statement that explains why the expert is qualified to make the report

I have completed hundreds of building inspection reports along with building many houses, townhouses and apartments since 2006 when I graduated from the university as a civil engineer and then got my builder licence in 2014. Combining my knowledge and experience in design, supervising and actual building, support me in providing accurate and honest reports in building processes and defects. I have gone through the Acts, Regulations and Standards and have a broad knowledge of the latest updates of building standards, Acts and regulations.

Expert Witness: Craig Palmer: Reference to any personal or professional relationship between the expert witness and the party for whom the report is prepared

The expert has NO personal or professional relationship with the party for whom the report is prepared.

Expert Witness: Craig Palmer: Inspector's declaration and Signature - Craig Palmer

I have read the relevant Procedural Direction Note and followed the instructions in preparing this report and agree to be bound by it.

I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have to my knowledge been withheld from the Tribunal.

Signature:



Expert Witness: Ty Pearson: Details, Qualifications and Experience

Expert's Details:

Full Name: Ty Pearson

Address: Level 14, Sample Property, Melbourne, VIC 3000

Email: enquiries@ownerinspections.com.au

Mobile: withheld

Inspector's Qualifications:

- * VBA Registered Domestic Building Contractor – DB-Unlimited / 62996.
- * Qualified Carpenter - Certificate III in Carpentry, Formwork and Finishing - BCG30798.
- * Certificate IV in Building & Construction (Building) - BCG40106.
- * Diploma of Building and Construction (Building) - CPC50210.
- * Advanced Diploma of Building Surveying – CPC60115. (Jan 2021- TBC Nov 2022)
- * Waterproofing Compliance Certificate of Attainment - Master Builders
- * Thermal Imaging - Infrared Theory & Applications - Flir
- * Bachelor of Architecture:
 - COMS1007 - APC100 - Academic and Professional Communications.
 - ARCH1019 - BAS110 - Architecture Design.
 - ARCH1020 - BAS115 - Architecture Methods.
 - ARCH1010 - BAS130 - Understanding Architecture.
 - ARCH1009 - BAS120 - Technology of Design

Inspector's Experience:

- 7 years of Site Supervision experience (Architectural Residential, Government Commercial, Project Residential, Medium Density Attached).

- **Currently completed (Approx) 300 varied Building Inspections to date.**

Expert Witness: Ty Pearson: Statement that explains why the expert is qualified to make the report

Originating as a carpenter in 2003 allowed me to gain a practical understanding of both the primary and secondary elements of a building's structure. My 8 years as a carpenter gave me knowledge of the structural framework, lockup, internal fixing, fit-off, conventional timber pitched roofing and concrete formwork in preparation for pouring concrete. During my years as a Site Supervisor which began in 2010, allowed me to obtain my Builders License in 2015 which followed the completion of a Cert IV and then a Diploma in Building and Construction. Throughout this period I managed approximately 200 diverse and complex buildings learning the machinations of building processes and ensuring the quality of workmanship and compliance. Becoming an Independent Building Inspector (2020) I have since completed a diverse range of Building Inspections (approx. 250). I am presently undertaking an Advanced Diploma in Building Surveying (Jan 2021- TBC Nov 2022) which covers both building compliance and the legislative building hierarchy (Acts, Regulations, Code, Standards, Guides). I have also obtained a Certificate of attainment from the Master Builders for a Waterproofing Compliance Course (2019), and completed multiple units of a Bachelor of Architecture which has allowed me to better understand design drawings, material qualities, research methods and problem-solving skills.

Expert Witness: Ty Pearson: Reference to any personal or professional relationship between the expert witness and the party for whom the report is prepared

The expert has NO personal or professional relationship with the party for whom the report is prepared.

Expert Witness: Ty Pearson: Inspector's declaration and Signature - Ty Pearson

I have read the relevant Expert Witness Code of Conduct and followed the instructions in preparing this report and agree to be bound by it.

I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have to my knowledge been withheld from the Tribunal.

Signature:



Expert Witness: Mehran Orangi: Details, Qualifications and Experience

Expert's Details:

Full Name: Mehran Orangi

Email: enquiries@ownerinspections.com.au

Qualifications, Affiliations, and Memberships:

- Bachelor of Science in Civil/Structural Engineering from IUT
- Diploma of Building Surveying from Tasmania TAFE
- Master of Engineering in Construction Management from the University of Calgary & SUT
- Registered Structural Engineer (EC41610-VBA)
- Registered Builder Unlimited (DB-U63182)
- Member of the Institute of Engineers of Australia (IEAust)
- Chartered Professional Engineer (CPEng)
- Member of the Association of Civil/Structural Engineers of Victoria (ACSEV)
- Member of the Australian Institute of Building Surveyors (AIBS)
- Member of the Australian Society of Building Consultants (ASBC)
- Member of the Building Dispute Practitioners Society (BDPS)
- Certificate III in Business
- Termite Inspection & Reporting
- Assessment of Welds for Steel Structures Course
- Safety Courses relating to Industrial and Hazardous Areas including Confined Spaces and Breathing Apparatus
- Asbestos Assessment associated with Removal by Alertforce
- Termite & Pest Management Course
- Legal Obligation Course (MBAV) -Course CPCCBC4003A
- Estimation of Building Works Course (MBAV) - Course CPC40110
- Manage Occupational Health & Safety (MBAV) Course

Inspector's Experience:

Mehran Orangi is a seasoned civil and structural engineer with over 22 years of experience in the industry. His career spans across various sectors, including residential, commercial, and industrial fields, resulting in a comprehensive and versatile skill set. His academic background includes a B.S in Civil/Structural Engineering from IUT (1997), a Diploma of Building Surveying from Tasmania TAFE (2014), and an M.E in Construction Management from the University of Calgary & SUT (2005).

Mehran's substantial engineering and inspection experience, paired with his strong academic foundation, has equipped him to deliver top-tier services and build robust relationships with clients and industry professionals. His passion for his work and commitment to maintaining the highest industry standards is reflected in every project he undertakes.

Expert Witness: Mehran Orangi: Statement that explains why the expert is qualified to make the report

With over 22 years of hands-on experience in the civil and structural engineering industry, I've had the opportunity to work on a wide variety of projects, ranging from residential to commercial and industrial. This breadth of experience allows me to provide a comprehensive and balanced viewpoint when assessing and providing expert opinions on cases related to these fields.

In terms of formal education, I hold a B.S. in Civil/Structural Engineering, a Diploma of Building Surveying, and an M.E. in Construction Management. These qualifications have provided me with a deep theoretical understanding of the construction industry, allowing me to evaluate technical details accurately and convey them clearly in a report.

Furthermore, my various professional affiliations and certifications, such as my membership with the Institute of Engineers of Australia and my registered builder unlimited status, demonstrate my commitment to staying updated on the latest industry standards and best practices. I am also a Chartered Professional Engineer (CPEng) and Registered Professional Engineer in Queensland (RPEQ), designations that are recognized as marks of engineering competence.

Beyond my experience and qualifications, I understand the legal and ethical obligations involved in providing an expert witness report. I am well-versed in adhering to these guidelines to ensure my reports are unbiased, thorough, and reliable.

In sum, my extensive industry experience, in-depth educational background, and high professional standards make me eminently qualified to produce expert witness reports in the field of civil and structural engineering. I am dedicated to providing precise, well-researched, and clear assessments to assist in the fair resolution of disputes.

Expert Witness: Mehran Orangi: Reference to any personal or professional relationship between the expert witness and the party for whom the report is prepared

The expert has NO personal or professional relationship with the party for whom the report is prepared.

Expert Witness: Mehran Orangi: Inspector's declaration and Signature - Mehran Orangi

I have read the relevant Procedural Direction Note and followed the instructions in preparing this report and agree to be bound by it.

I have made all the inquiries that I believe are desirable and appropriate and that no matters of significance that I regard as relevant have to my knowledge been withheld from the Tribunal.

Signature:

Expert's Codes of Conduct: The Procedural Practice Note that Inspector read and followed for preparing this report and agree to be bound by it:

		D	W	M	S	SP	O	MD
--	--	---	---	---	---	----	---	----

SP = Structural Performance

MD = MAJOR DEFECT

12: + ROOF DRAINAGE SYSTEM

		D	W	M	S	SP	O	MD
12.1	+ Gutter and Fascia							
12.2	+ Rainheads							
12.3	+ Downpipes							
12.4	+ Downpipe spreaders							
12.5	+ Flashings							
12.6	+ Air conditioner Drainage							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

Information

Downpipe brackets — corrosion (Roof Drainage Items 19–20)

Corrosion was observed at the upper fixing brackets of seven (7) downpipes. The bracket corrosion compromises the long-term fixing and durability of the downpipes.

A field-applied epoxy/coating repair to the corroded brackets is not considered a reliable rectification, because surface preparation in situ is difficult to achieve to the required standard and existing corrosion can continue beneath a field-applied coating. Replacement of the affected brackets (with fixings of a durability class suitable for the coastal exposure) is the preferred and more reliable solution.

Required close-out: replace the corroded upper downpipe brackets (preferred), or provide a certified, durable rectification with evidence of correct surface preparation and coating performance for the exposure, across all seven affected downpipes.

13: + HOUSE EXTERNAL

		D	W	M	S	SP	O	MD
13.1	+ General views of house EXTERNAL							
13.2	+ Fence / Gate							
13.3	+ Eaves							
13.4	+ Retaining Walls							
13.5	+ Windows (External)							
13.6	+ Doors (External)							
13.7	+ External Appliances							
13.8	+ Stairs (External)							
13.9	Mould							
13.10	+ Balustrades/Handrails (External)							
13.11	+ Termite Management Notice							
13.12	+ Fire Safety							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
 O = Other Major Defects MD = MAJOR DEFECT

Observations

13.1.1 + General views of house EXTERNAL

**LINTELS & EXPOSED STRUCTURAL STEEL — DURABILITY / CORROSION (ITEMS 1-7)**

LINTELS AND EXPOSED STRUCTURAL STEEL TO EXTERNAL OPENINGS (FRONT DOOR, KITCHEN WINDOW, LAUNDRY DOOR, GARAGE, LIVING, FAMILY, DINING REAR DOOR) AND EXPOSED GABLE/BALCONY STEEL

Lintels and exposed structural steel — durability and corrosion (House External Items 1-7).

Documentary position. The contract tender contains a separately priced item for R4 durability-class brick lintels and exposed steel, selected in lieu of standard members specifically because of the dwelling's proximity to salt water. The first-floor plan correspondingly notes R4 durability-class lintels and associated steelwork to be installed in accordance with AS 3700. The owners therefore paid for, and the approved documents required, an upgraded R4 durability system at these openings.

Site observations. Lintels at several external openings were observed to carry an R3 marking — a lower durability classification than the contracted R4. The garage lintel was unmarked and exhibited visible corrosion. Exposed structural steel members inspected at the gable, balcony and garage zones showed inconsistent coatings, with surface roughness, coating thinning and rust-coloured staining bleeding through the paint film at fixings and junctions. These conditions are consistent with the corrosion and durability concerns raised and are inconsistent with the specified R4 requirement for this exposure.

Technical assessment. Where an installed lintel is marked R3, the material does not meet the express R4 contractual specification unless it can be demonstrated that a separately approved, complete R4 treatment was applied and certified after manufacture. A bare assertion, or an average coating-thickness reading, is not sufficient. An R4 classification under AS/NZS 2699.3 ordinarily depends on a complete system — product identification, galvanised base, controlled surface preparation, epoxy and topcoat layers, and permanent marking — rather than a single mean dry film thickness (DFT) value. The actual supplier, product and durability class installed at each opening remain unconfirmed. Visible early corrosion on exposed steel independently indicates that the durability system has not performed as an R4 system should.

Why an average DFT process is incomplete. Reliance on an averaged dry film thickness measurement does not demonstrate compliance. AS 3894.3 is a test method for determining the range and mean DFT of a coating; it does not, by itself, identify the coating chemistry, verify galvanising, prove surface preparation, confirm adhesion or continuity, or establish that inaccessible faces, edges and ends are protected. Localised areas of low coating thickness, and corrosion already initiated, are concealed by an average figure and will continue to progress.

Required close-out for Items 1-7.

- Identify the manufacturer, product, batch and original durability class for every lintel and exposed steel member, and tie each to the opening schedule.
- Photograph all visible durability markings before any further coating; where markings are concealed, provide supplier delivery records and product certificates.
- For R3-marked lintels and the unmarked, corroded garage lintel, replace or remediate under a written engineer/manufacturer-approved specification demonstrating how the completed system achieves R4 durability and the required service life.
- Perform DFT testing to AS 3894.3 with a calibrated gauge and report every reading, location, minimum, maximum and mean — not only an average.
- Inspect and document edge, underside, end and masonry-interface protection — common weak points not represented by accessible-face readings.
- Provide an RPEQ or manufacturer completion statement and an explicit warranty for the repaired system.



Figure 1 — Contract Tender Item 42: the separately priced upgrade to R4 durability-class lintels and exposed steel, specified because of salt-water proximity (Source: [builder withheld] contract tender).



Figure 2 — Approved site survey: the property adjoins a tidal canal and concrete revetment wall, confirming a salt-water / coastal exposure (Source: [builder withheld] plan set, survey sheet).

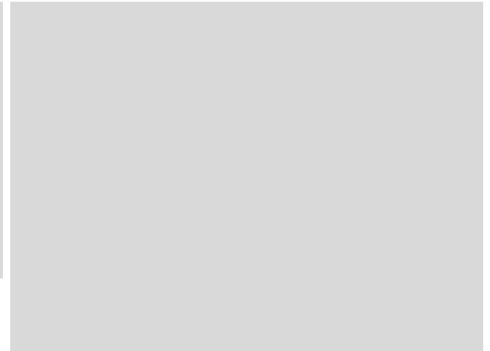


Figure 3 — [builder withheld] construction detail (sheet 1 of 2): cladding junction and lintel details referenced in the durability assessment (Source: [builder withheld] plan set, detail QS-TYP-CLAD-01).



Figure 4 — [builder withheld] construction detail (sheet 2 of 2): further cladding and junction details forming part of the approved documentation (Source: [builder withheld] plan set, detail QS-TYP-CLAD-01).

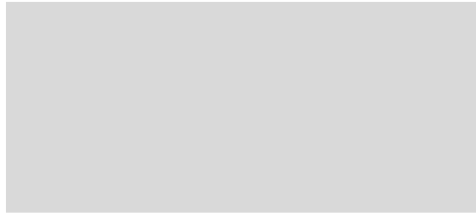


Figure 5 — Internal inconsistency in the contractual cladding details: the approved plans show conflicting horizontal and vertical 50 × 38 batten arrangements (Source: [builder withheld] detail QS-TYP-CLAD-01).



Figure 6 — James Hardie Axon installation guide (September 2021): water-control membrane, pre-cladding flashing and support-spacing requirements (Source: JH September 2021 guide).

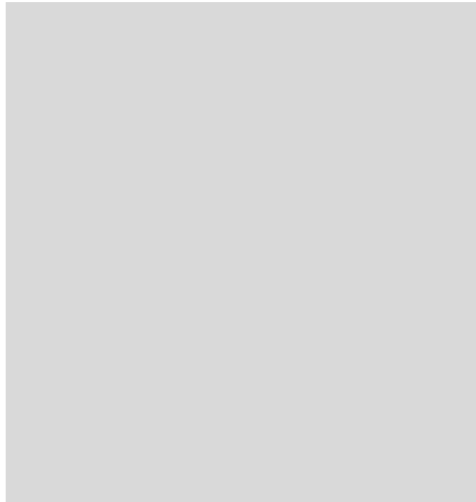


Figure 7 — James Hardie Axon guide accessory / fastener schedule: coastal fastener durability note (Class 4 / stainless within 1 km of the coast; salt-spray and other corrosive environments). Source: JH September 2021 guide.

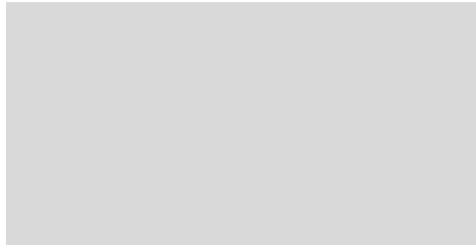


Figure 8 — Approved elevations identifying the upper-level Axon-clad window openings in dispute; the head-flashing requirement applies to each exposed opening (Source: [builder withheld] elevations).

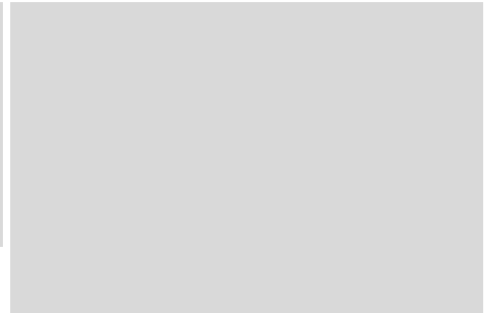


Figure 9 — Conceptual compliant window-head arrangement: corrosion-resistant head flashing integrated behind the weather barrier and draining outward, with sealant supplementary (illustrative detail).



Roof-space view of the external wall build-up behind the cladding — timber framing, sarking and services visible; Fixings missing supporting battens.



Roof-space view of a steel/timber member with rust-coloured staining against the sarking behind the cladding — early-corrosion indicator relevant to the durability assessment.



Roof-space view of a timber member with a metal bracket / bolt fixing against the membrane — fixing penetrations have missed battens.



Roof-space view of timber framing against the wall lining fixings missing battens



Roof-space framing — treated-pine studs/battens with a metal bracket connector and membrane behind; relevant to batten size/orientation and fixing into framing.



Roof-space structural framing — timber members with proprietary metal bracket connectors and bracing at the cladding wall.



Roof-space framing — timber members fixed with metal strap / bracket connectors; load path and fixing into framing relevant to Items 9–11.



Roof-space view of timber framing against the wall lining fixings missing battens



Rust spots forming on the lintel above the garage. - this side faces away from the saltwater canal.



Rust spots forming on the lintel above the garage. - this side faces away from the saltwater canal.



Rust spots forming on the lintel above the garage. - this side faces away from the saltwater canal.



Rust spots forming on the lintel above the garage. - this side faces away from the saltwater canal.



Rust spots forming on the lintel above the garage. - this side faces away from the saltwater canal.



Overview of double garage door - front facade of the property.



Garage Door.



Rendered parapet / wall top with capping — external wall finish at the upper level. - no signs of moisture ingress from above.



Upper-level window head corner with insect screen — head trim / reveal detail relevant to the window head-flashing assessment (Items 13–18).



Alfresco / balcony area — window viewed beneath the pergola louvre structure with rendered reveals.



Ground-level alfresco glazing beneath the pergola, with the adjoining tidal canal beyond — confirming the coastal exposure.



Alfresco glazing and screens beneath the pergola, canal beyond — coastal salt-water exposure context.



Window head beneath the pergola louvres with rendered reveals — alfresco area.



Alfresco glazing beneath the pergola with cladding and eave above — ground-level view of the rear elevation.



Eave / soffit and fascia underside — gutter and roof-edge detailing.



Axon-clad wall with a downpipe — context for the downpipe bracket corrosion assessment (Items 19-20).



Downpipe fixed to the Axon-clad wall — upper bracket location relevant to the corrosion complaint (Items 19-20).



Upper-level sliding window with insect screen set in Axon cladding — head detailing relevant to the flashing assessment (Items 13-18).



Alfresco sliding doors / glazing beneath the pergola louvres, with the outdoor area and canal beyond — coastal exposure context.



Eave / soffit and downpipe at a raking junction viewed against the sky — roof-edge and rainwater drainage detailing above the cladding.



Gable-end upper level — Axon cladding with eave and gutter above and render below; horizontal joint line at the cladding/render junction.



Gable-end elevation — Axon vertical-board cladding with eave above and a small upper window at right; cladding/render junction visible.



Eave / soffit underside with a downpipe running down the Axon cladding — rainwater downpipe and bracket location (Items 19–20).



Upper-level sliding window with insect screen set in Axon cladding — head and surround relevant to the window flashing assessment (Items 13–18).



Garage opening head / lintel zone viewed from within the garage (sectional door and head) — corresponding to the garage lintel reported as unmarked and significantly corroded (Item 3).



Garage opening head viewed from within the garage — sectional door head and track at the lintel zone (Item 3 garage lintel reported unmarked and corroded).



Garage opening head and door opener viewed from within the garage — head / lintel zone (Item 3 garage lintel reported unmarked and corroded).



Interior structural post / column with bolt fixings and rust-coloured spotting — exposed steel showing early-corrosion indicators (Items 1–7).



Interior wall / column junction with rust-coloured staining and spotting — coating breakdown / early corrosion at a structural interface (Items 1–7).



Eave / balcony soffit underside with rust-coloured staining and cladding above, scaffold and neighbouring dwelling beyond — coastal exposure and roof-edge detailing.



Eave / fascia and downpipe at an upper level with rust-coloured staining around the fixings — early-corrosion indicator at a downpipe bracket location (Items 19–20).



Upper-level window jamb / sill corner with insect screen meeting the Axon cladding — window perimeter and sill detailing relevant to the flashing assessment (Items 13–18).



Upper-level window sill with insect screen — sill trim meeting the Axon cladding above the render; sill drainage detail relevant to the flashing assessment (Items 13–18).



Upper-level window jamb / sill corner with the adjoining canal reflected — window perimeter and sill meeting the cladding (coastal exposure context).



Upper-level window corner with insect screen — outdoor / canal area reflected; window perimeter detailing relevant to the flashing assessment (Items 13–18).



Raking gable cladding junction — Axon vertical boards meeting at the gable apex beneath the eave; membrane and flashing continuity significant at this junction.



Raking gable cladding beneath the eave — Axon vertical boards at the gable; representative of the upper-level cladding terminations.



Upper-level gable window with insect screen in raking Axon cladding — head meets the raking cladding with no eave above the opening (Items 13–18).



Upper-level gable windows in raking Axon cladding with the eave at the apex and canal beyond — head-flashing condition in dispute (Items 13–18).



Upper-level window head / jamb in raking gable cladding — slim head trim with no projecting head flashing visible (Items 13–18).



Eave / soffit underside and cladding return — representative of the upper-level eave and cladding terminations.



Downpipe and upper bracket at the eave / fascia running down past the cladding — upper bracket location relevant to the corrosion complaint (Items 19–20).



Downpipe at the eave / fascia corner running down past the Axon cladding — upper bracket fixing location to be assessed for corrosion (Items 19–20).



Upper flashing between 1st and ground floors - has been laid with a fall INTO the property.



Upper flashing between 1st and ground floors - has been laid with a fall INTO the property.

13.1.2 + General views of house EXTERNAL

**AXON CLADDING — FASTENERS, BATTENS & WATER-CONTROL MEMBRANE (ITEMS 8–12)****Axon cladding — fasteners, battens and water-control membrane (House External Items 8–12).**

Applicable guidance. The James Hardie Axon installation guide nearest in time to the 2022 installation (September 2021) establishes the obligations for fastener durability, flush nail driving, support spacing and a water-control membrane behind the cladding. The October 2023 guide post-dates the work and introduces a formal cavity-fix system; its later batten minimums should not be applied retrospectively without qualification. The approved [builder withheld] plans adopt a custom cavity-batten arrangement, which makes documented design evidence for the as-built system the decisive issue.

Item 8 — fastener durability. Terminology should be corrected: lintels use an R4 durability classification, whereas cladding fasteners are described as Class 4 or stainless where required. The 2021 guide requires durability appropriate to the project and identifies highly corrosive environments and areas within 1 km of the coast as requiring Class 4 or stainless fixings, and separately addresses salt spray. The builder's reliance on a "breaking surf" limitation is narrower than the guide wording. The site directly adjoins a tidal canal and the contract itself adopted salt-water upgrades, so the requirement should be resolved by documented product identification and a site-specific exposure assessment — not a breaking-surf assertion.

Item 9 — under-driven and over-driven fasteners. Both the 2021 and 2023 guides require nails to be driven flush and illustrate under- and over-driven nails as unacceptable. Under-driven fasteners may not clamp the sheet; over-driven fasteners damage the panel face, reduce head bearing and create local moisture and finish defects. Face-fixed fasteners were visible on inspection and the alleged extent is significant (up to half the nails in some panels). A general undertaking to "inspect and rectify if required" is not a measurable close-out; a panel-by-panel fixing map is required, with supplementary compliant fasteners or sheet replacement where driving defects are extensive rather than cosmetic filling alone.

Items 10–11 — batten spacing, size and orientation. The approved plans contain a material internal inconsistency, showing both 50 × 38 horizontal battens at 600 mm centres and 50 × 38 vertical battens over studs — a design-control problem in itself. The agreement's proposed 650 mm batten spacing is not supported by the [builder withheld] detail (600 mm), the 2021 Axon table (600 mm) or the NCC 2019 generic N3 support spacing, and the more restrictive 450 mm applies within 1.2 m of external corners. The reference to a 70 × 35 "batten" needs qualification: in the guides 70 × 35 is the minimum intermediate stud (direct-fix) or the tested cavity batten, whereas the plans nominate 50 × 38 in a custom arrangement. The whole installed custom cavity system therefore requires documented structural, drainage, ventilation, fixing-penetration and weatherproofing evidence for N3 conditions.

Item 12 — water-control membrane and missed battens. The 2021 guide requires a water-control membrane under the cladding in accordance with AS/NZS 4200.2 and the NCC, and requires all openings, penetrations, sills, heads and jambs to be flashed before cladding. The [builder withheld] details repeatedly depict a vapour-permeable membrane behind the cladding. The builder's assertion that membrane is unnecessary "above the top plate" does not answer whether that area forms part of the external Axon-clad wall; if cladding encloses the space, the membrane is required, and any termination requires a documented drainage/weatherproofing detail. The allegation that at least 10 fixings missed the battens is a separate structural defect — missed supports do not provide the required load path and can puncture the weather barrier.

Required close-out for Items 8–12.

- Identify every cladding fastener type and confirm Class 4 / stainless suitability against a site-specific exposure assessment; replace inadequate fixings.
- Produce a panel-by-panel fixing map; re-fix or replace per manufacturer tolerances where nails are under-driven, over-driven or have missed framing.

- Provide an as-built batten survey; achieve 600 mm maximum centres (450 mm at corners) or a specific certified alternative design.
- Obtain written James Hardie or RPEQ acceptance of the custom cavity-batten system for N3 structural and weatherproofing performance.
- Open up to confirm a continuous water-control membrane with documented laps, penetrations and terminations; install or repair where missing.

13.1.3 + General views of house EXTERNAL



WINDOW HEAD FLASHINGS — UPPER-LEVEL GABLE OPENINGS (ITEMS 13–18)

Window flashings — upper-level openings in raking gable cladding (House External Items 13–18).

Applicable requirements. For work of this period, NCC 2019 Volume Two clause 3.5.4.6 applies (the complaint's reference to the 2022 clause 7.5.6 corresponds to this provision; the substance is materially the same). Openings in external wall cladding exposed to weather must be flashed with materials complying with AS/NZS 2904. Flashings are required at the head, jambs and sill, must extend beyond the reveals where practicable, attach to the window and framing, and drain to the outside face. The James Hardie Axon guide similarly requires sills, heads and jambs to be flashed before cladding, and its window-head detail shows a corrosion-resistant flashing in addition to sealant — the sealant is supplementary, not a substitute for the flashing.

Site observations. The upper-level windows identified are set into raking gable cladding. On inspection these heads are finished with a slim head trim and sealant, with no visible projecting head flashing and no eave or soffit above them to protect the opening. This is consistent with the complaint and is precisely the condition the NCC clause and the Axon guide are directed at preventing.

Assessment of the proposed options. Installing or extending an integrated head flashing generally aligns with the NCC objective, provided the flashing sits behind the weather barrier, extends beyond the reveals where practicable, drains outward and is installed without damaging the window surround. A perimeter-sealant-only treatment is not shown in the NCC or the Axon guide as a substitute for the concealed flashing and drainage path: sealant is exposed, maintenance-dependent and cannot reliably manage water that passes the outer joint. A sealant-only approach should be accepted only with a formal Performance Solution or written James Hardie / RPEQ / certifier approval demonstrating compliance with NCC P2.2.2 for each opening.

Eave exception. The NCC permits omission of the head flashing only where the opening is adequately protected by an eave wider than three times the height of cladding above the opening. The observed openings are in raking gable walls with no eave above them, so the exception cannot be assumed to apply. It must be calculated for each individual opening and should not be applied across all upper-level windows.

Required close-out for Items 13–18.

- For each opening, install an integrated head flashing complying with NCC 2019 clause 3.5.4.6 and AS/NZS 2904, dressed behind the weather barrier and draining outward, or provide a documented Performance Solution.
- Provide a site-specific detail, material identification and photographs before concealment, plus end/side treatment and independent inspection.
- Where the eave exception is claimed for any opening, provide the opening-by-opening calculation demonstrating the eave width relative to cladding height above the opening.

13.1.4 + General views of house EXTERNAL

**DOWNPIPE BRACKET CORROSION — UPPER-LEVEL FIXINGS (ITEMS 19–20)**

Downpipe brackets — early corrosion at upper-level fixings (House External Items 19–20).

Site observations. Staining and corrosion indicators were observed at downpipe fixings and at box-gutter / rainhead outlet junctions at the upper-level locations identified — consistent with the complaint, which records significant corrosion at the upper brackets of seven downpipes (four to the right side, three to the left). The pattern appearing on both sides strengthens the concern that the issue is systemic rather than isolated.

Regulatory and technical position. NCC 2019 Part 3.5.3 governs gutters and downpipes and references AS/NZS 3500.3, requiring metal gutters, downpipes, brackets and flashings to be suitable and compatible with adjoining materials. Bracket durability is also captured by the statutory warranty that materials be suitable for their purpose and location. Visible significant corrosion within approximately three years is, on its face, evidence that the selected material or coating was not suitable for this coastal micro-environment, that the coating was damaged, or that incompatible / crevice conditions accelerated corrosion.

Assessment of the proposed field-epoxy repair. The agreement asserts the materials comply but offers application of the same epoxy proposed for the garage lintel. A field epoxy is a valid repair only where the substrate can be fully prepared and all corroding surfaces accessed. Brackets commonly have concealed faces, crevices and fastener interfaces that cannot be treated in place, so coating only the visible face may trap or conceal continuing corrosion. Documented replacement with a compatible, corrosion-resistant bracket and fastener system is the more reliable remedy unless a coating specialist specifies and warrants the repair to the site exposure.

Required close-out for Items 19–20.

- Remove at least representative brackets to assess concealed corrosion and fasteners.
- Identify the bracket and fastener materials and confirm compatibility with the downpipe, fascia and wall system.
- Replace materially corroded brackets rather than coating over section loss or active corrosion.
- Where a coating repair is retained, specify preparation, coating system, DFT and edge/fastener treatment to AS/NZS 2312.1 and AS 3894.3 principles, with a written durability warranty.

14: + GLAZING

		D	W	M	S	SP	O	MD
14.1	+ Mirrors, windows and doors glassses							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
 O = Other Major Defects MD = MAJOR DEFECT

Observations

14.1.1 + Mirrors, windows and doors glassses

WINDOW HEAD FLASHINGS MISSING — UPPER-LEVEL GABLE WINDOWS (ITEMS 13–18)

UPPER-LEVEL GABLE WINDOWS (NO EAVE ABOVE)

Window head flashings to upper-level gable windows (Glazing Items 13–18).



The upper-level gable windows were observed to be weatherproofed with sealant only. No head flashing was installed over these window openings, and there is no eave above the gable windows to provide protection. Reliance on sealant alone is not an acceptable substitute for a head flashing, because sealant has a limited service life and is not a durable, primary means of preventing water entry above an opening.

The relevant building code provisions for weatherproofing of external wall openings require flashings to openings unless a compliant alternative is provided. The eave-protection exception cannot apply here because there is no eave above the gable windows.

Two rectification options were considered: (1) install a properly formed and lapped head flashing over each affected window, integrated with the wall cladding and any membrane; or (2) provide an alternative compliant weatherproofing detail certified as equivalent. Option (1) is the preferred and most reliable solution. In either case, sealant-only treatment must not be relied upon as the primary weatherproofing measure.

Required close-out: install compliant head flashings (or a certified equivalent detail) to all affected upper-level gable windows and provide evidence of correct integration with the cladding system.

15: NEXT STAGES

		D	W	M	S	SP	O	MD
15.1	Stage 3							
15.2	Stage 4							

D = Defective Design W = Defective or faulty workmanship M = Defective Material S = Safety SP = Structural Performance
O = Other Major Defects MD = MAJOR DEFECT

Information

Stage 3: Recommended next stages — rectification & close-out

The following rectification and close-out actions are recommended before the relevant building stage is accepted as complete:

1. Lintels & exposed structural steel (House External): provide steel members marked to the specified R4 durability classification, replace or remediate the corroded and non-conforming lintels (including the unmarked, corroded garage lintel), and provide engineering certification confirming the durability requirement is met at each opening.
2. Axon cladding (External Wall/Cladding): re-fix using fasteners of the durability class suitable for the coastal exposure; correct all under-driven and over-driven fasteners; correct batten spacing to the required maximum of 600mm (and batten size/orientation); and install the water-control membrane continuously and correctly lapped behind the cladding.
3. Window head flashings (Glazing): install compliant head flashings (or a certified equivalent detail) to all affected upper-level gable windows, properly integrated with the cladding system; sealant-only treatment is not to be relied upon as the primary weatherproofing.
4. Downpipe brackets (Roof Drainage System): replace the corroded upper brackets at the seven affected downpipes (preferred), or provide a certified durable rectification with evidence of correct surface preparation and coating performance for the exposure.
5. General close-out: on completion of the above, arrange a re-inspection to verify each item has been rectified and to obtain the supporting evidence/certification referenced above before the works are accepted.

Observations

15.1.1 Stage 3



Information Only

DAMAGE REPAIR COST ESTIMATE AND SCOTT SCHEDULE

If the client requires a damage repair cost estimate and Scott Schedule, we can provide this service as part of our Stage 3 inspection report. This service is included in the initial quotation and will be provided upon request. However, the cost of this service will depend on a number of factors, including the number of defects, the complexity of the repair work required, and other relevant factors.

The Scott Schedule is a tool used to help calculate the cost of repairs for building defects. It is named after the legal case Scott v. Avery, which established the use of a schedule of rates for calculating damages in court cases. A Scott Schedule provides a detailed breakdown of the repair work required, along with an estimate of the costs associated with each item. It is an essential component of any expert witness inspection report where damage repair cost estimation is required.

The Scott Schedule is particularly useful when dealing with complex repair work, as it allows for a more accurate assessment of the costs involved. By breaking down the repair work into individual components, the schedule enables the client to see exactly what work is required and how much it is likely to cost. This information can be used to inform decisions about whether to proceed with the repairs and how best to prioritise the work. It is designed to provide parties with a clear and accurate assessment of the repair work required, along with an estimate of the costs involved. The Scott Schedule is an essential tool for calculating the costs of complex repair work and is an important component of any expert witness inspection report.

15.2.1 Stage 4

EXPERT WITNESS SERVICES FOR CONCLAVE

Information Only

Our expert witness can attend the conclave and provide valuable insights and recommendations to help facilitate a resolution. Here's what you need to know:

What is a conclave?

A conclave is a process where parties involved in a dispute come together to try and resolve the issue outside of court. This can be a more cost-effective and efficient way to resolve disputes and can help to avoid the need for a lengthy and costly court process.

Benefits of using our services:

Our expert witness has specialised knowledge and expertise in their respective fields and can provide valuable insights and recommendations to help facilitate a resolution. By engaging our services, you can benefit from:

- Professionalism and commitment to providing the highest quality of service
- Highly trained and experienced expert witnesses
- Assistance in achieving agreement on all of most of the defects and the repair costs before the hearing