Omega Project Services
Structural - Civil/Stormwater - Construction Management

# STRUCTURAL INSPECTION

# REPORT FOR

# 25 WARILDA ST, SARATOGA NSW 2251




**Overhead view of the property-Google Maps**

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| Dated: | 01/02/2026 |
| Ref Number: | 20260227-401 |
| Client Name: | Ty Van Emden |
| Date of Inspection: | 21/07/2026 |

## A. INTRODUCTION

Omega Project Services, as Consulting Structural Engineers and Chartered Members of Engineers Australia, attended the property at 25 Warilda St, Saratoga NSW 2251 to carry out a structural inspection at the request of the client. The purpose of the inspection was to visually assess the dwelling n in terms of structural stability. The focus of this assessment was to assess the existing condition of the dwelling structure. This report presents the findings, assessment, and professional engineering recommendations based solely on the visual inspection.

## B. SCOPE OF WORK

The scope of the inspection included:

- Visual assessment of the dwelling and the substructure and adjacent structural members.
- Identification of visible defects affecting the structural integrity of the dwelling.
- Evaluation of deformation, decay, and potential load path disruptions.
- Preparation of this Structural Condition Report based solely on observable conditions (no invasive testing, or geotechnical data were available).

**Note:** *The assessment and conclusions presented herein are based exclusively on visual observations and professional engineering judgment.*

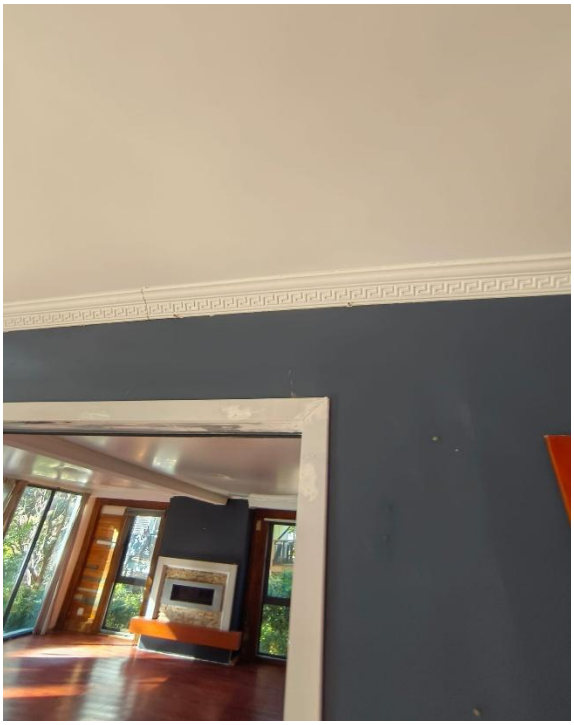
**Note:** *This structural assessment has been conducted based on the technical specifications and site data provided by the client.*

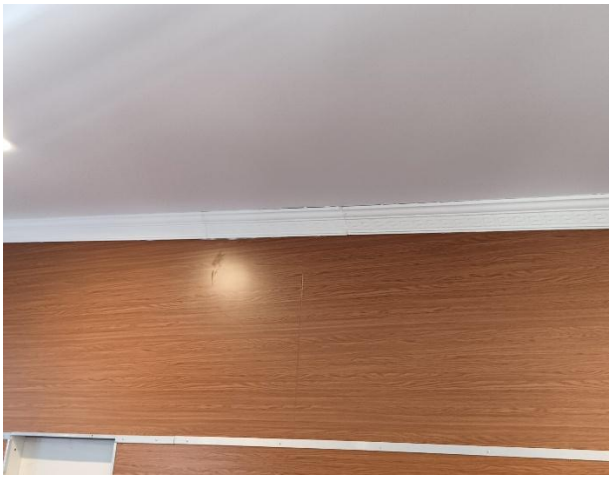
## C. STRUCTURAL OBSERVATIONS

- **Overall Structural Stability:** The dwelling exhibits good structural stability. The primary load-bearing structural members are in good condition, showing no visual signs of structural distress, overload, or instability.
- **Footing & Foundation Systems:** The footing systems (including the concrete/diconal wall footings) remain in good overall condition. No evidence of foundation subsidence, differential settlement, or soil heave was observed during the subfloor and footing inspection.
- **Subfloor & Ground Floor Slab:** Inspection of the subfloor framing and ground slab revealed no significant structural damage, movement, or floor slab heave.

- **External Envelope:** The external walls are structurally sound, with no visible signs of shear cracking, bulging, or structural failure.
- **Internal Finishes & Boudoir Ceiling:** Significant distress is present within the internal finishes. The boudoir/tray ceiling and associated internal wall linings exhibit noticeable deterioration, cracking, and sagging, requiring cosmetic and serviceability remediation.















**Structural Assessment: Substructure & Foundation Elements**

1. Description of Structural System

The primary support structure for the elevated ground/first-floor level consists of reinforced concrete wall piers/columns supporting a steel beam edge lintel and a precast/suspended concrete floor slab system ( Bondek or precast concrete panel construction).

2. Field Observations

A visual inspection of the accessible exterior and sub-floor structural foundation elements revealed the following:

- Vertical Concrete Piers/Walls: The reinforced concrete piers supporting the upper structural frame exhibit no severe structural distress, significant wide-cracking, active spalling, or visible loss of structural integrity. Superficial surface staining, moss growth, and minor

weathering are present near the base due to ground proximity and ambient moisture, but these appear to be cosmetic at this stage.

- Steel Edge Beam / Lintel: The exposed structural steel lintel framing the edge of the suspended slab appears generally square and aligned. Light surface oxidation/rust staining is visible along the interface and joints, typical for exposed steelwork in external environments. No significant section loss or structural deflection was observed during the visual inspection.
- Slab Soffit: The exposed soffit of the floor slab shows minor surface staining and localized rust bleed/discoloration around joints or formwork lines, consistent with aging and exposure, but shows no signs of major structural sagging, widespread concrete cancer, or shear failure.
- Foundation Base & Surrounding Grade: The concrete footprint and visible ground level supporting the piers appear stable. No obvious differential settlement, lateral movement, or significant soil scour was observed around the immediate perimeter.

**3. Structural Condition & Assessment**

Overall Condition Rating: Satisfactory / Serviceable

Based on visual observations, the foundation and lower supporting structural framework are in an acceptable and structural sound condition. The load-bearing elements (concrete piers and steel lintels) show no indications of active structural instability, overload, or structural failure.

**Structural Assessment: Corner Column Pier & Substructure Footing**

**1. Visual Observations**

A visual inspection of the corner structural pier, cladding, and supporting concrete footings revealed the following conditions:

- Concrete Footing / Plinth Base: The cast-in-place concrete footing/upstand is physically sound and shows no evidence of major structural cracking, shear failure, or foundation settlement/heave. Localized dark organic staining (moss/algae) and weathering are present on the external face due to proximity to surrounding vegetation and soil moisture.
- Vertical Wall Pier / Cladding: The vertical element (a concrete/timber column clad in paneling with corner flashings) appears plumb and securely anchored to the concrete base

interface. Minor cosmetic weathering, dirt accumulation, and early sign of surface degradation are visible near the bottom edge of the cladding panel joint.

- Interface & Flashings: The interface between the concrete base plinth and the wall cladding shows minor gaps where joint sealant or corner edge trim has weathered. While currently intact, these areas are vulnerable to moisture ingress if left exposed long-term.



**2. Condition Assessment**

Overall Condition Rating: Satisfactory (Serviceable)

The structural capacity of the concrete footing and column base is fully maintained, with no indications of active structural instability, movement, or material compromise. The observed issues are strictly non-structural and durability-related, primarily driven by environmental exposure and ground-level moisture.

**Structural Assessment: Undercroft Framing, Beams & Suspended Slab Soffit**

**1. Description of Structural Components**

The sub-floor framing system comprises primary structural steel universal beams (UB) supporting a profile corrugated steel metal deck formwork system (e.g., Bondek/Condeck) for the concrete floor slab above. Vertical support is provided by reinforced concrete piers/columns and lateral timber bracing members.



**2. Field Observations**

A visual inspection of the undercroft area revealed the following structural and non-structural conditions:

- **Structural Steel Beams:** Primary steel supporting beams are straight, plumb, and well-seated on supporting piers. Minor, localized light surface oxidation is visible near beam connections and external interface points, but no measurable section loss, web buckling, or significant deflection was observed.
- **Corrugated Metal Decking (Soffit):** The galvanised profiled steel decking appears structurally sound across the primary spans. Light surface staining, biological growth, and localized surface discolouration are present near open edges, consistent with open environmental exposure and humidity in the undercroft zone.
- **Infill Panels / Ceilings:** Adjacent plasterboard/ceiling panels display visible seam deterioration, peeling tape/jointing compound, and moisture staining near panel boundaries. This is non-structural degradation related to ambient dampness and lack of weather-tightness.
- **Vertical Concrete Piers & Lateral Elements:** Vertical concrete piers and supporting plinths remain intact without visible structural cracking or shear displacement.

**3. Condition Assessment**

**Overall Condition Rating: Satisfactory / Serviceable (Requires Routine Maintenance)**

The primary load-bearing structural framework (steel beams, concrete piers, and composite slab deck) is **structurally sound** and performing its intended load-bearing function. The observed

defects primarily peeling ceiling joints, surface rust spots, and soffit discolouration are **non-structural and durability-driven**, stemming from humidity, exposure, and lack of sub-floor ventilation.

**Internal Condition Assessment: Ceiling Finishes & Bulkhead Structure**

**1. Description of Ceiling System**

The primary living area features a recessed tray / bordered "boudoir" style ceiling incorporating a perimeter drop-down bulkhead beam line, plasterboard lining, and recessed downlighting. The ceiling structure spans across the main open floor plan toward the external glazing wall.

**2. Field Observations**

A visual inspection of the interior ceiling linings, bulkhead framing, and adjoining wall interfaces revealed the following:

- **Ceiling & Bulkhead Deflection / Sagging:** Visible irregularities and minor surface sagging are present along the main horizontal ceiling plane and bulkhead margins. The ceiling line shows notable unevenness and loss of flat alignment across spans, indicating potential flexibility or loss of fixings in the concealed ceiling suspension / furring channel framework.
- **Moisture Ingress & Staining (Perimeter):** Discolouration and water staining/bubbling are present along the lower section of the adjacent plasterboard wall adjacent to the full-height glazing. This suggests localized water penetration from the external deck interface or window flashing system above.
- **Finishes & Joints:** Minor cracking and movement lines are visible at the wall-to-ceiling cornices and along the joints of the stepped ceiling bulkhead. While largely secondary/non-structural lining defects, they point to slight ongoing differential movement or moisture-induced expansion in the ceiling framing.
- **Structural Timber / Steel Integration:** The drop-down bulkhead appears to conceal structural cross-beams (supporting the suspended floor slab/deck above). While the underlying primary structural members do not display signs of catastrophic overload, the ceiling lining system hung from them is in poor cosmetic condition.

**3. Condition Assessment**

**Overall Condition Rating: Poor / Unsatisfactory (Requires Remediation)**

The internal ceiling system is in **poor overall cosmetic and serviceability condition**. While the primary load-bearing frame of the building remains intact, the ceiling linings and perimeter wall interfaces suffer from noticeable sagging, uneven alignment, and evidence of moisture ingress.

Note: **Rectify Water Ingress:** Identify and seal the source of perimeter water ingress near the external glazing track before completing any internal plasterboard repairs.

Note: **Re-level & Re-sheet Ceiling:** Strip back sagging or moisture-damaged plasterboard sections, replace compromised furring channels/fixings, and re-sheet the tray/boudoir ceiling to achieve a true, level finish.

**1. Description of Internal Elements**

The section inspected includes a painted internal wall partition incorporating a decorative cornice along the ceiling junction and a wide, timber-trimmed doorway opening leading into the main living space.

**2. Field Observations**

A visual inspection of the wall lining, decorative trim, and wall-to-ceiling interface revealed the following condition details:

- **Decorative Cornice Cracking:** A distinct vertical hairline-to-minor crack is visible running through the decorative plaster cornice near the center of the wall section. Minor separation and gap opening are also observable along the horizontal joint line where the cornice meets the wall plane.
- **Door Opening / Architrave Framing:** The upper corner joints of the door architrave/trim display visible filler paste and unfinished jointing compound, indicating recent patch repairs or adjustments around the opening frame.
- **Wall Partition Plasterboard:** The main wall surface appears generally flat, with no diagonal wall cracking (stair-step or shear cracking extending from the top corners of the

door opening) typically associated with significant foundational movement or load-bearing wall failure.

- **Ceiling Line Alignment:** The ceiling surface directly above the cornice remains horizontal without obvious localized sagging or dipping along this wall line.

**3. Condition Assessment**

**Overall Condition Rating: Minor Defect / Cosmetic (Serviceable)**

The cracking observed in the decorative cornice and joint line is **non-structural in nature**. This type of localized distress is typical of differential thermal and moisture movement between dissimilar materials (plasterboard, timber wall studs, and plaster moldings) or minor seasonal settling. There are no visual indications of structural wall overload or active foundation settlement affecting this partition.

## D. RECCOMENDATION

**Step 1: Substructure & Footing System Maintenance**

Clean all concrete piers and base plinths using a light pressure wash to remove biological growth (moss/algae). Keep vegetation and soil cleared at least 300 mm away from concrete footings to improve airflow and mitigate long-term moisture and pest risks.

**Step 2: Boudoir / Tray Ceiling Remediation**

Inspect the concealed timber/metal framing above the tray ceiling via an access hatch or cut-out to verify fixing integrity. Repair the source of any perimeter water ingress, then replace damaged furring channels and re-sheet/re-level the plasterboard lining to achieve a flat, stable finish.

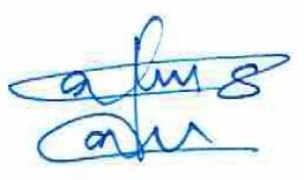
**Step 3: Cornice & Wall Joint Repair**

Rake out the non-structural vertical crack in the decorative cornice, apply a high-quality flexible acrylic sealant (gap filler) to accommodate minor thermal expansion, and sand and repaint the cornice and door trim finishes.

Thank you for engaging our services in this instance and I trust the above report has addressed all your concerns. Should you need anything further, or require any matters to be elaborated on, please contact the undersigned. This report is based on the site visit conducted on 21/07/2026.

Yours faithfully,

Omega Project Services



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Director – Principal Engineer

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