

Roofing Inspection Report

Property: Bairnsdale Primary School, [REDACTED] Bairnsdale, VIC 3875

Prepared by: Holymess Repairs

Date: 17 April 2025

Introduction

Holymess Repairs completed a thorough assessment of the toilet block roof and associated stormwater systems at Bairnsdale Primary School. As a licensed roof plumber registered with the Victorian Building Authority (VBA), We have conducted a detailed inspection in accordance with the *Building Act 1993*, *Building Regulations 2018*, *Plumbing Regulations 2018*, and the *National Construction Code (NCC) 2022*, including Volume Three (Plumbing Code of Australia) and relevant Australian Standards such as *AS/NZS 3500.3: Stormwater Drainage* and *SA HB 39: Installation Code for Metal Roof and Wall Cladding*.

This report provides an unbiased, expert analysis of the current condition of the toilet block's roofing and guttering systems. Our goal is to equip you with comprehensive information to make informed decisions based on your preferences, budget, and the school's operational needs. We have no bias toward any specific course of action; our role is to present the findings, outline compliance requirements, recommend options, and highlight the pros, cons, and risks of each. The decision on how to proceed rests entirely with you.

Below, we detail the findings, explain the urgency of addressing identified issues, and provide multiple repair and maintenance options tailored to various budget considerations. Each option is evaluated for compliance with VBA standards and the NCC, ensuring safety, functionality, and durability.

Property Overview

The toilet block at Bairnsdale Primary School is a brick construction with a pitched corrugated metal roof, external gutters, and multiple downpipes. The structure appears to be a modern rebuild of an older facility, as evidenced by the presence of Victorian clay drains alongside newer brickwork and aluminium windows. The roof features large polycarbonate skylights along the ridge line and external gutters with leaf eater systems

installed to manage debris. The site is impacted by overhanging trees (a gum tree and a pine), which contribute to gutter blockages.

The inspection revealed several areas requiring attention, including rusted gutters, dislodged gutter brackets, missing downpipe components, dented roof sheets, rusted screws, and damaged roof vents. While the roof is generally in fair condition for its age, proactive maintenance is necessary to ensure compliance with regulatory standards and to prevent costly damage.

Video of Toilet Block Overview:



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Regulatory Framework

All recommendations in this report align with the following regulations and standards:

1. **Victorian Building Authority (VBA):** The VBA regulates plumbing and building work under the *Building Act 1993* and *Plumbing Regulations 2018*. Roofing

(stormwater) work, including gutters and downpipes, must be performed by a licensed roof plumber and comply with *SA HB 39* and *SAA HB 114: Guidelines for the Design of Eaves and Box Gutters* [,].

2. **National Construction Code (NCC) 2022:** Volume Three (Plumbing Code of Australia) mandates compliance with *AS/NZS 3500.3* for stormwater drainage systems, ensuring effective water management and structural integrity [,].
3. **AS/NZS 3500.3: Stormwater Drainage:** This standard specifies requirements for gutter and downpipe sizing, overflow provisions, and maintenance to prevent water ingress and structural damage [,].
4. **SA HB 39: Installation Code for Metal Roof and Wall Cladding:** This outlines best practices for metal roofing installation, including fastening and ventilation requirements [,].

Failure to address non-compliant or deteriorating components may result in breaches of these regulations, potential fines, or liability for damage or injury.

Inspection Findings

The following observations were made during the inspection:

Video:



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Gutters

- **Rusted Gutter Section:** A corner section of the gutter is rusted, likely due to water pooling from inadequate falls or blockages [,].
- **Dislodged Gutter Brackets:** Gutters on one side have detached from their brackets, possibly due to improper securing or disturbance during cleaning. This has caused misalignment and ineffective water flow.
- **Leaf Eater System Issues:** While leaf eaters are installed to reduce debris, one downpipe pop is missing, and some are undersized (90 mm pop into a 100 mm pipe), reducing efficiency.
- **Lack of Overflow Provisions:** The gutters lack overflow mechanisms, which is non-compliant with *AS/NZS 3500.3* and increases the risk of water ingress during heavy rain [,].
- **Tree Debris:** Overhanging gum and pine trees contribute to significant leaf litter, exacerbating blockages and requiring regular maintenance.



Roof

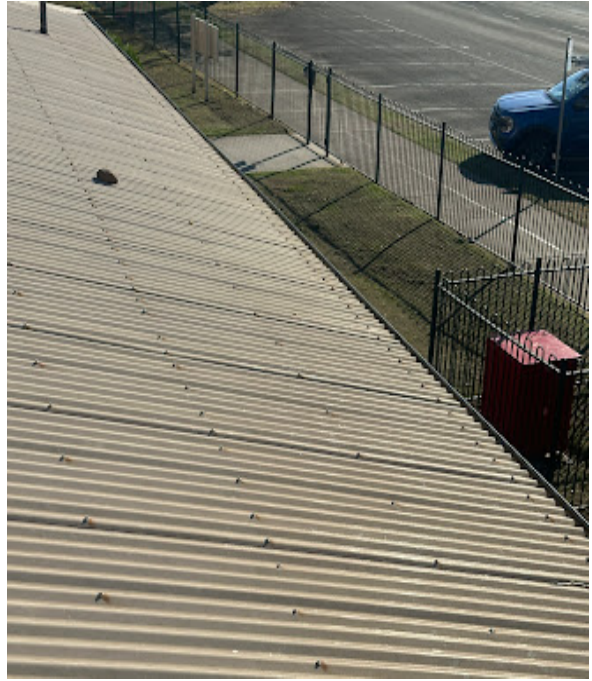
- **Dented Roof Sheets:** Roof sheets along the ridge line are dented, likely from children climbing or throwing objects. This poses a safety risk if sheets dislodge or debris falls [].
- **Rusted Screws:** Many screws show surface rust, indicating potential long-term corrosion. The screws are a different color from the roof, suggesting past repairs or painting.
- **Damaged Vents:** Two roof vents have missing or damaged cowls, allowing vermin ingress and reducing ventilation efficiency [].
- **Debris on Roof:** Rocks and other debris on the roof pose a safety hazard and could damage the roof surface if not removed.
- **Skylight Seals:** Rubber seals on the skylights show signs of shrinkage and moss buildup, indicating potential future leaks if not resealed.

Video:



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General Observations

- The roof appears to have been painted and had screws replaced previously, suggesting it is older but has been maintained.
- Screw patterns are inconsistent, with some areas overscrewed, but this does not currently compromise structural integrity.
- The overall condition is fair, but proactive maintenance is critical to avoid escalation of minor issues.

Conclusion Video:



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Why Action Is Needed

Taking prompt action is essential to:

1. **Ensure Compliance:** Non-compliant components, such as undersized downpipes and missing overflow provisions, contravene *AS/NZS 3500.3* and VBA regulations, risking fines or disciplinary action [].
2. **Prevent Water Damage:** Rusty gutters, dislodged brackets, and blockages increase the risk of water overflowing into eaves, ceilings, or walls, leading to costly repairs.

3. **Mitigate Safety Risks:** Dented roof sheets and debris on the roof pose hazards to students and staff, potentially resulting in injury or liability.
4. **Extend Roof Lifespan:** Addressing rust, resealing skylights, and improving gutter maintenance will prolong the roof's service life, reducing long-term costs.

Consequences of Inaction

- **Structural Damage:** Water ingress from faulty gutters can damage brickwork, fascia, and internal structures, with repair costs potentially exceeding \$10,000–\$20,000 for a building of this size.
- **Safety Incidents:** Falling debris or compromised skylights could injure students, leading to legal and reputational consequences.
- **Increased Costs:** Delaying repairs allows minor issues (e.g., rust, leaks) to escalate, requiring more extensive and expensive interventions.
- **Regulatory Penalties:** Non-compliance with VBA and NCC standards may result in inspections, fines, or mandatory rectification orders.

Recommendations and Options

Below are tailored options to address the identified issues, ranging from budget-conscious to comprehensive solutions. Each option includes pros, cons, risks, and regulatory compliance details to help you make an informed decision.

Option 1: Basic Repairs and Maintenance (Budget-Conscious)

Description: Focus on immediate repairs to restore functionality and safety, including replacing the rusted gutter section, resealing dislodged gutters, replacing missing downpipe pops, removing roof debris, and monitoring rust.

Estimated Cost: \$2,500–\$4,000 (depending on labor and materials).

Compliance: Aligns with *Plumbing Regulations 2018* and *AS/NZS 3500.3* for basic gutter repairs but does not address overflow provisions or skylight replacement.

Scope of Work

- Replace rusted gutter corner with new Colorbond steel guttering (*SA HB 39* compliant).
- Reattach dislodged gutters with new brackets and screws, ensuring proper falls.
- Install a 90 mm downpipe pop to replace the missing component.
- Remove rocks and debris from the roof.
- Inspect and monitor rusted screws during gutter cleaning.

Pros

- **Cost-Effective:** Minimizes upfront costs, ideal for tight budgets.
- **Restores Functionality:** Addresses immediate gutter and safety issues.
- **Quick Implementation:** Can be completed in 1–2 days.

Cons

- **Limited Scope:** Does not address dented roof sheets, damaged vents, or overflow provisions, leaving some non-compliance risks.
- **Ongoing Maintenance:** Frequent gutter cleaning is still required due to tree debris.
- **Temporary Fix:** Rust and skylight issues may worsen, requiring future repairs.

Risks

- **Water Ingress:** Lack of overflow provisions increases the risk of overflow during heavy rain, potentially damaging eaves or interiors.
- **Safety Concerns:** Dented roof sheets remain a hazard if not replaced.
- **Escalating Costs:** Delaying comprehensive repairs may lead to more expensive interventions later.

Why Recommended: This option is suitable for a price-conscious client prioritizing immediate functionality and safety within a limited budget. However, you should be aware that choosing this option may defer costs to the future as unresolved issues progress.

Option 2: Targeted Upgrades and Maintenance (Mid-Range)

Description: Includes all repairs from Option 1, plus replacing dented roof sheets, installing overflow provisions, and upsizing downpipe pops to 100 mm for improved drainage.

Estimated Cost: \$6,000–\$9,000.

Compliance: Fully complies with *AS/NZS 3500.3* for gutter sizing and overflow provisions and *SA HB 39* for skylight installation.

Scope of Work

- All repairs from Option 1.
- Replace dented polycarbonate skylight sheets with new, untinted sheets to improve safety and aesthetics.

- Install rainheads at downpipes to provide overflow provisions, as required by AS/NZS 3500.3.
- Upgrade 90 mm downpipe pops to 100 mm to match pipe sizing, improving drainage capacity.
- Clean gutters and recommend a biannual maintenance schedule to manage tree debris.

Pros

- **Enhanced Compliance:** Addresses overflow provisions and skylight safety, reducing regulatory risks.
- **Improved Safety:** New skylights eliminate the risk of falling debris or sheet failure.
- **Better Drainage:** Upgraded downpipes and rainheads improve water management, reducing overflow risks.

Cons

- **Higher Cost:** More expensive than Option 1, which may strain budgets.
- **Ongoing Maintenance:** Tree debris still requires regular cleaning, though rainheads simplify this.
- **Partial Rust Solution:** Rusted screws are monitored but not replaced, potentially requiring future attention.

Risks

- **Rust Progression:** Untreated screw rust may lead to leaks or sheet corrosion over time.
- **Budget Trade-Off:** Higher upfront costs may limit funds for other school priorities.

Why Recommended: This option balances cost and compliance, addressing critical safety and drainage issues while extending the roof's lifespan. It's ideal for clients seeking a robust solution without a full system overhaul.

Option 3: Comprehensive Roof and Gutter Restoration (Premium)

Description: A complete restoration, including replacing all gutters with new Colorbond steel, installing leaf guard systems, replacing all rusted screws, resealing skylights, replacing damaged vents, and implementing a maintenance plan.

Estimated Cost: \$12,000–\$18,000.

Compliance: Exceeds *AS/NZS 3500.3*, *SA HB 39*, and *NCC 2022* requirements, ensuring long-term compliance and durability [,,].

Scope of Work

- Replace all gutters with new Colorbond steel gutters, ensuring proper falls and overflow provisions (*AS/NZS 3500.3*).
- Install leaf guard systems (e.g., Leaf Eater Advanced) to minimize debris buildup.
- Replace all rusted screws with corrosion-resistant, color-matched screws (*SA HB 39*).
- Reseal polycarbonate skylight rubber seals to prevent leaks.
- Replace damaged vent cowls to restore ventilation and prevent vermin ingress (*NCC Volume One*).
- Remove roof debris and implement a quarterly maintenance plan, including gutter cleaning and rust inspections.

Pros

- **Full Compliance:** Meets or exceeds all VBA and NCC standards, minimizing regulatory risks.
- **Long-Term Durability:** New gutters, screws, and leaf guards extend the roof's lifespan by 15–20 years.
- **Reduced Maintenance:** Leaf guards and rainheads significantly reduce cleaning frequency.
- **Enhanced Safety:** Comprehensive repairs eliminate all identified hazards.

Cons

- **High Cost:** Significant investment may not align with tight budgets.
- **Disruption:** Work may take 3–5 days, potentially affecting school operations.

Risks

- **Budget Constraints:** High costs may divert funds from other priorities.
- **Over-Engineering:** Some components (e.g., screws) may not require immediate replacement, though proactive replacement prevents future issues.

Why Recommended: This option is ideal for clients prioritizing long-term durability, safety, and minimal maintenance. It's a proactive investment that prevents future costly repairs and ensures full compliance.

Additional Considerations

- **Tree Management:** The overhanging gum and pine trees are a primary cause of gutter blockages. Consider consulting an arborist to trim branches, reducing debris and maintenance needs.
- **Maintenance Plan:** Regardless of the chosen option, establish a regular maintenance schedule (biannual or quarterly) to monitor rust, clean gutters, and inspect for new damage.
- **Safety Protocols:** Given the evidence of children accessing the roof, consider installing barriers or signage to restrict access, aligning with *Prevention of Falls when Working at Heights* guidelines.

Our Commitment to You

As a qualified roof plumber, my approach is rooted in ensuring your property remains safe, compliant, and functional. The inspection was conducted with a roofer's eye for detail, focusing on how environmental factors (e.g., tree debris, heavy rainfall) and usage patterns (e.g., children accessing the roof) impact the system. We've provided a range of options to suit different budgets, from basic repairs to comprehensive restoration, so you can choose what aligns with your priorities.

We have no preference for which option you select; our role is to empower you with clear, honest information. Each option is designed to address specific issues while balancing cost, compliance, and longevity. If you have questions or need further clarification, please contact me directly.