Blue Roofs – Ongoing Care

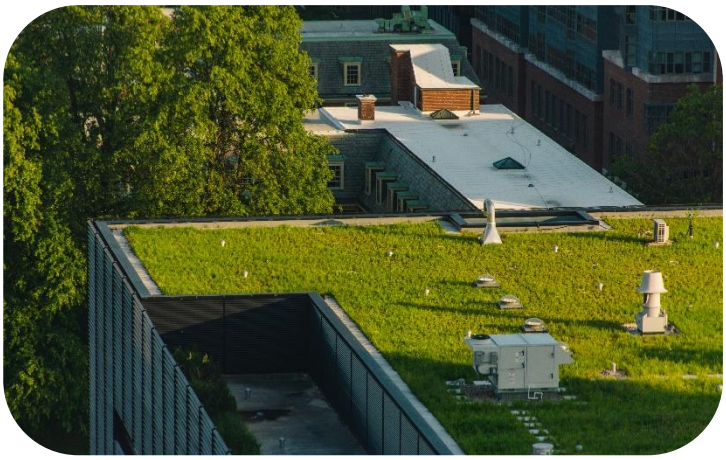
Blue Roofs assist in the attenuation of rainwater runoff as well as providing a number of environmental benefits. They do however require focussed ongoing care and management to reduce the risks of water damage and other related losses.

This Loss Prevention Standard provides guidance on maintaining and inspecting blue roof systems to help reduce the risks of loss or damage.

Version: 1.0
Date: 13th August 2025

Blue Roofs – Ongoing Care

Introduction



Loss Prevention Standard **Blue Roofs - Design and Installation** provides an overview of the technology, the associated risks and guidance to help reduce the potential for loss or damage during the design and installation phases.

This Loss Prevention Standard summarises the main material damage loss exposures, as they relate to maintenance and ongoing care of blue roof systems and provides useful guidance to help reduce the potential for loss and damage.

Note: This Loss Prevention Standard focusses on property loss prevention and related risk management guidance. It is not intended to address liability exposures. The presumption is that all regulatory requirements, such as fire risk assessments and compliance with local building regulations, codes, or standards, have or will be met.

Note: If there are any doubts about what ongoing care is needed for an installed blue roof, please contact your Insurance Broker and your lead Property Insurer.

Understanding the Risks

A lack of, or inadequate inspection and maintenance regimes, can lead to loss or damage, including but not limited to:

- **Leaks**. Wear of, or damage to waterproofing layers can lead to water penetrating buildings potentially causing structural damage.
- **Drainage**. Drainage systems can be blocked by debris if not regularly checked and cleared. This can lead to backing up and localised flooding of plant rooms, etc.
- **Insulation**. Prolonged moisture exposure can degrade insulation systems and cause problems with condensation.
- **Condensation**. Condensation can accumulate affecting air handling systems and also leading to corrosion-related damage, mould growth, damp, etc.
- **Mould and damp**. Mould and damp can affect structural integrity and building finishes and can be very expensive to remedy, as well as potentially leading to early deterioration of system components.
- **Freezing**. Any standing water can freeze in cold weather potentially damaging the system and membranes, blocking drains and outlets, etc. The weight of ice combined with heavy snow can also lead to structural faults.
- **Fire**. Prolonged dry weather can result in dry/partially dry plastic components, which are vulnerable to fire in the presence of ignition sources. Water can also leak onto electrical components or equipment potentially leading to electrical fires.
- **Lightning**. Lightning strike should be considered as a potential ignition source. Electrical surges can also damage electrical hardware, IT/comm's equipment etc.

Maintenance

A programme of regular maintenance can help ensure the risks of loss or damage to blue roof systems are managed and minimised.

- Ensure tenancy agreements clearly stipulate who is responsible for maintenance of blue roof systems and all parties understand how this will be managed.
- Ensure adequately trained and experienced workers and/or companies are used for inspection, servicing, and maintenance.
  - ✓ Formal contractor controls and arrangements should be in place for approving works, issuing, and signing off permits to work, ensuring works have been satisfactorily completed. Any fire detection and/or protections that have been isolated or covered should be reinstated/uncovered.
- Ensure any chemical cleaning agents that could be entrained into the blue roof system are compatible with such systems and components, e.g., do not lead to premature wear and failure of membrane systems, etc. Store any such chemicals in appropriate containers or cabinets, e.g. bunded and fire resisting, where necessary.
- Produce a formal recorded maintenance plan and appropriate timescales.
  - ✓ Routine auditing of a sample of completed maintenance documents to ensure compliance with site rules and procedures is recommended.

  Refer to Aviva Loss Prevention Standard **Maintenance Regimes** for further guidance.
- Ensure any electrical components, such as smart drainage, monitoring, detection equipment, etc., are inspected, tested and maintained in accordance with local regulatory requirements and the original equipment manufacturer (OEM) or installer's recommendations.
  - ✓ Any frost or freezing protection systems should be tested prior to the winter months or before any forecasted prolonged cold periods.

  Refer to Aviva Loss Prevention Standard **Weight of Snow** for further guidance.
- Lightning protection systems should also be maintained in accordance with local regulatory requirements and original equipment manufacturers (OEM) or installers' recommendations.
  - ✓ In the United Kingdom lightning protection systems should be maintained in accordance with **BS EN 62305 pts 1 to 4 – Protection Against Lightning**.

  Refer to Aviva Loss Prevention Standard **Lightning Protection** for further guidance.
- Ensure emergency call out arrangements are in place in respect of leaks or damage.
- Ensure sufficient spares are retained to support servicing and prompt repairs.
  - ✓ Ensure like-for-like replacement parts are utilised wherever possible.
  - ✓ Where this is not possible, check the replacement parts are compatible with the installed system.
  - ✓ Replacement parts should be non-combustible wherever possible.
- A strict hot works management programme must be followed where hot works are unavoidable during maintenance works, and thermographic cameras are used throughout the process, and during fire watches.
  - ✓ Fire watches should be undertaken for up to 240 minutes after the hot works, and only reduced where supported by a specific risk assessment.
  - ✓ A minimum fire watch period of 120 minutes should be enforced.

  Refer to Aviva Loss Prevention Standard **Hot Work Operations** for further guidance.

- Smoking and the installation of smoking shelters should not be permitted on, or within 10 metres proximity of the blue roof system.
  - ✓ There should be no cigarette waste receptacles provided, and adequate warning signage erected.
  - ✓ Any evidence of smoking waste noted during self-inspections should be investigated and actioned appropriately.
- Catering equipment that uses solid fuels e.g. charcoal, wood pellets or chips etc., such as barbeques, smokers, pizza ovens etc., are not suitable for use on buildings featuring blue roofs and should not be permitted.
  - ✓ Portable gas fired catering equipment should only be used on non-combustible surfaces and sited at least 5 metres from blue roof systems and components.
  - ✓ Any fuel cylinders should be safely secured in a non-combustible store when not in use.
- Any alteration, upgrading or repairs to the blue roof system should be managed under a formal Management of Change programme and all relevant stakeholders involved in planning and works discussions.
  - ✓ Close project management can help reduce the potential for errors, delays, expensive rectifications, and unplanned changes.
  - ✓ Any such changes should be discussed with your Insurance Broker and your lead Property Insurer.

  Refer to Aviva Loss Prevention Standard **Managing Change - Property** for guidance.
- Review emergency response plans, key roles and responsibilities, and training provision at least annually to ensure they remain adequate.

  Refer to Aviva Loss Prevention Standard **Emergency Response Teams** for further guidance.
- Business Continuity Plans should be reviewed at least annually to ensure disaster recovery and continuity arrangements remain adequate. Any actions generated should be addressed promptly.

  Refer to Aviva Loss Prevention Standard **Business Continuity** for further guidance.

Self-Inspection

The blue roof should be subject to a recorded monthly self-inspection programme to help identify areas of damage, faults, condition of components, leaks, blockages and drainage issues, etc. The use of photographic evidence with such inspections can prove invaluable. Self-inspections should include but not limited to:

- Housekeeping inspections that include the removal of any waste, leaf litter, etc. The frequency of such checks may need to be increased during autumn and winter periods.
- Checks to ensure tree branches do not overhang any system inlets.
- Inspections of outlets and restrictors for signs of blockage, damage or tampering.
- Ensure inspection chambers and any filters are physically checked for blockages, damage, wear or tampering. Ensure they are securely closed upon completion of these checks.
- Check drainage and overflows, including seals, are working normally and are unimpeded.

- Checks of overflows for any signs of unintended operation. This may suggest a fault or blockage.
- Check waterproofing membranes are undamaged and carried up the walls adequately. This is typically at least 150mm above the finished roof level.
- Check any leak detection, monitoring systems, water diversion systems, isolation valves, etc., are operating normally.
- Use thermographic cameras to check for temperature variations that may indicate leaks or insulation issues.
- Use optical fibre cameras for inspections of voids, internal areas, confined spaces etc.

Note: The self-inspection regime should also be undertaken following any significant storm event or remedial works to ensure normal operation of the blue roof system.

Refer to Aviva Loss Prevention Standard **Self-Inspections** and **Use of Thermographic Cameras - General Considerations** for further guidance.

- Where any roof mounted Solar PV systems are present ensure:
  - ✓ No damage, deterioration or issues are evident on the panels, the associated cabling or equipment.
  - ✓ No nesting or detritus accumulation is noted beneath panels.

Note: Guidance for maintaining solar PV systems should be sought from the system installer.

Refer to Aviva Loss Prevention Standard **Roof Mounted Photovoltaic Solar Panel Systems - General Considerations** and **Roof Mounted Photovoltaic Solar Panel Systems - Installed and Ongoing Care** for further information in managing solar PV systems.

Additional Information

Relevant Aviva Loss Prevention Standards include:

- **Blue Roofs - Ongoing Care**
- **Living Roofs - Design and Installation**
- **Living Roofs - Ongoing Care**
- **Living Walls and Roofs - 12 Top tips**
- **Self-Inspections**
- **Maintenance Regimes**
- **Roof Mounted Photovoltaic Solar Panel Systems - General Considerations**
- **Roof Mounted Photovoltaic Solar Panel Systems - Installed and Ongoing Care**
- **Hot Work operations**
- **Lightning Protections**
- **Managing Change - Property**
- **Emergency Response Teams**
- **Business Continuity**
- **Weight of Snow**
- **Use of Thermographic Cameras - General Considerations**
- **Use of Thermographic Cameras - Checklist**

To find out more, please visit Aviva Risk Management Solutions **or speak to one of our advisors.**

Email us at riskadvice@aviva.com or call 0345 366 6666.*

*The cost of calls to 03 prefixed numbers are charged at national call rates (charges may vary dependent on your network provider) and are usually included in inclusive minute plans from landlines and mobiles. For our joint protection telephone calls may be recorded and/or monitored.

Appendix 1 – Blue Roofs – Ongoing Care Checklist

Location	
Date	
Completed by (name and signature)	

	Maintenance	Y/N	Comments
1.	Are maintenance responsibilities agreed in tenancy agreements?		
2.	Are adequately trained and experienced workers and/or companies used for inspection, servicing, and maintenance of the blue roof and any associated systems?		
3.	• Are formal contractor controls and arrangements in place in respect of: ✓ Approving works? ✓ Issuing, and signing off permits to work? ✓ Ensuring works have been satisfactorily completed? ✓ Fire detections and/or protections reinstated where previously isolated or covered? • Are permits to work routinely inspected to ensure compliance with rules and stipulated procedures?		
4.	• Are any alterations, repairs, etc. managed under a Managing Change programme?		
5.	• Are electrical components and lightning protection systems maintained in accordance with local regulatory requirements and the original equipment manufacturer (OEM) or installers' recommendations?		
6.	• Is a formal recorded maintenance plan and inspection programme in place in respect of the blue roof and associated systems? • Do you routinely audit completed maintenance documents to ensure compliance with site rules and procedures?		

	Maintenance Cont'd	Y/N	Comments
7.	• Are emergency call out arrangements in place in respect of leaks or other damage? • Are sufficient spares retained to support servicing and prompt repairs? • Are like for like replacement parts utilised wherever possible? • Where this is not possible, are the replacement parts compatible with the system? • Are replacement parts non-combustible wherever possible?		

	Self-Inspection	Y/N	Comments
8.	• Has any waste and leaf litter been removed from the roof? • Is the frequency of such checks increased during autumn and winter periods?		
9.	• Are any tree branches overhanging inlets? • If so, have they been removed or scheduled for removal?		
10.	• Is there any evidence of smoking on or in proximity to blue roof systems? • If so, has appropriate action been taken?		
11.	• Is there any evidence of catering equipment being used on the blue roof? • If so, has appropriate action been taken?		
12.	Have outlets and restrictors been inspected for signs of damage or tampering?		
13.	Have inspection chambers and any filters been checked for blockages, damage, wear or tampering? Are they securely closed upon completion?		
14.	Are drainage systems and overflows including seals working normally and unimpeded?		
15.	Have overflows been checked for unintended operation, suggesting a fault or blockage?		
16.	Are waterproofing membranes undamaged and carried up the wall to the appropriate height?		
17.	Are any frost or freezing protection systems checked prior to winter or prolonged cold periods?		

	Self-Inspection Cont'd	Y/N	Comments
18.	• Where roof mounted Solar PV systems are present, is there any signs of: ✓ Damage, deterioration or other issues? ✓ Nesting or detritus accumulation beneath panels? • If so, has this been addressed or scheduled for action?		
19.	Have thermographic cameras been used for checking temperature variances?		
20.	Have optical fibre cameras been used to inspect voids, confined spaces, attenuation layers, etc.?		
21.	Additional comments:		

Please Note

This document contains general information and guidance only and may be superseded and/or subject to amendment without further notice. Aviva has no liability to any third parties arising out of ARMS' communications whatsoever (including Loss Prevention Standards), and nor shall any third party rely on them. Other than liability which cannot be excluded by law, Aviva shall not be liable to any person for any indirect, special, consequential or other losses or damages of whatsoever kind arising out of access to, or use of, or reliance on anything contained in ARMS' communications. The document may not cover every risk, exposure or hazard that may arise, and Aviva recommend that you obtain specific advice relevant to the circumstances.

13th August 2025

Version 1.0

ARMSGI2852025