Maintain your roof. Manage your risk.

Simply put, your building's roof system is not static and, if ignored, will certainly deteriorate over time. Since wear and tear (normal aging) is not covered by your insurance policy, it is important to institute a formal Roof Maintenance Program that includes regular roofing inspections.

Detect minor problems before they become big ones

By instituting a Roof Maintenance Program, you will be able to detect and repair minor problems before they become major problems. While it is important that your own maintenance staff is vigilant and on the lookout for potential issues, comprehensive inspections should be carried out by a professional roofing company. Roofs should be inspected at least twice a year – in the spring and again in the fall, as well as after any significant weather or construction event. Inspections should determine the current condition of the roof covering/membrane, the flashings and seams, and the eaves troughs and downspouts. If required, immediate corrective action should be taken before moisture can enter the roof system or building interior.

The evaluation of either existing or potential damage requires the experience and expertise of professionals in the field who can also offer suggestions for appropriate repairs. Moreover, all resulting work should be completed by professional bonded roofers with adequate commercial general liability insurance and appropriate Workers Compensation arrangements applicable to your Province or Territory.

Components of a comprehensive inspection

The following highlights the scope and thoroughness of a professional roofing inspection. It can serve as a guideline for an inspection checklist, as well as a record for future reference.

<u>General inspection</u>

- Examine the underside of the roof deck, if accessible, and the outside of the building. Look for cracks, stains, rusting, watermarks, efflorescence, wet spots, chipped mortar etc. or other signs of excessive moisture or deterioration on internal and external walls plus ceilings. These observations may provide clues to not only roofing problems but also other conditions affecting the performance of the building envelope.
- Inspect the external roof covering, checking for obvious physical damage or structural deformation.
- Trim overhanging tree branches to prevent leaves, small branches and other debris from building up and keeping the roof permanently wet.
- Make sure that the eaves troughs and downspouts are cleaned regularly.
- Identify any debris that should be removed.

Sloped or Pitched Roofs are particularly susceptible to wind damage when not properly maintained.

- Check for
  - granular erosion on asphalt shingles
  - deformed edges,
  - curled or missing shingles
  - missing or loose tabs
  - loose, slipped or missing slates or roof tiles

- Check that the roof space/attic is adequately ventilated throughout the year. Adequate ventilation ensures that heat and moisture do not build up in the attic area. It also prevents water from accumulating at the bottom of the roof and then freezing, which can cause ice damning and further damage to your building. Improper ventilation of attic spaces can also result in curling, blistering and buckling of asphalt shingles.
- Keep areas with louvers, ridge vents, roof vents, and soffit vents clear at all times.
- Inspect all caulking and flashing.

Flat Roofs are particularly susceptible to water damage when not properly maintained.

- Check the surface condition of the roof; look for punctures, blistering, granular loss, cracking or 'alligatoring' (shrinkage of the roofing material in smooth-surface roofing systems produces a pattern of deep cracks resembling alligator skin).
- Inspect seams for open joints, ridging or 'fishmouthing' (the opening of lapped edges of applied felt in built-up roofing systems due to adhesion failure).
- Note areas where adhesion is lacking or deteriorating on fully-adhered roofing systems.
- Ensure that no fasteners are popping or backing out on mechanically-fastened roofing systems.
- Check the weight and depth of the stone ballast against the design specifications in a *Ballasted Roofing System* (a popular single-ply application for low-slope applications whereby a single membrane is laid over insulation board and held down by a ballast such as gravel, smooth river stone or paving stones).
- Look for 'ponding' or 'pooling' of water which can be caused by an insufficient slope to roof drains, building settlement or even structural movement.
- Check for flashing failure around roof drains and vents, as well as damage to capping at parapets and expansion joints.

Non-destructive moisture detection

A key factor in the overall condition of a roof system is whether or not the insulation remains dry. A roof may appear to be in excellent shape from the surface, but areas of wet or saturated insulation indicate water leakage. This can severely affect the thermal efficiency of the roof and ultimately its condition and effectiveness.

To detect areas of moisture in the insulation beneath an outer roof covering, non-destructive moisture detection is commonly employed by specialist inspectors or contractors. This testing generally utilizes an infrared thermographic survey of the roof.

Conclusion

The importance of preventive maintenance and damage control cannot be underestimated. When it comes to the 'health' of your roof system, engaging professionals to help you manage and mitigate the risks offers important added benefits. Included among them is the peace of mind that comes with knowing that your insurance protection is there should you need it.

Finally, a word of caution, when unqualified personnel or volunteers access a roof, there is a heightened risk of personal injury or even death, exposing your organization to serious liability. For information about the hazards of 'working at height', refer to Ecclesiastical's ***Ladder Safety Bulletin***.

Roof Maintenance Checklist

Roof Condition	
Item	Remarks
General Appearance	
Debris on Roof	
Drainage	
Physical Damage	
Attic Conditions	
Structural Deformation	
Other	
Flat / Membrane Roof	
Item	Remarks
Condition of Covering	
Granular Loss	
Punctures	
Cracks / Alligatoring	
Blisters / Fishmouths	
Ponding	
Other	
Sloped Roof	
Item	Remarks
Roof Material	
Condition of Surface	
Deformed Edges	
Shingle: Buckled	
Curled	
Missing Tabs	
Granular Loss	
Other	
Metal: Corrosion	
Fasteners	
Other	
Roof Features	
Item	Remarks
Fascia	
Soffit	
Flashing	
Eavestrough / downspouts etc.	
Skylights	
Chimneys / Vents	
Fall Arrest Anchors	
Drains / Vents	
Other	

Ceiling Conditions	
Item	Remarks
Cracks	
Water Staining	
Water Leaks	
Seasonal Change	