



Maintenance Strategy – Roof Systems

This category covers a broad range of a buildings roofing systems and sub systems. The information contained in this document are general recommendations and guidelines designed to bring attention to the importance and benefits of preventive maintenance strategies supporting quality educational environments. It is important for facility managers and maintenance staff to be aware of the specific systems asset types and maintenance required to effectively maintain the systems functionality and reliability through preventive maintenance requirements. Qualified in-house maintenance combined with certified vendor staff may be necessary to manage systems safely and effectively. Consult manufacturer recommendations on building roof system maintenance requirements.

A roof is one of the most important building systems. It is the first line of defense against the elements constantly wearing at the building envelope. Roof systems need to be properly maintained to remain fully functional over their manufacturer recommended lifespan. There are a lot of things that go into managing a roof properly and it all depends on what stage the roof is in.

Some owners choose to save money by skipping roof maintenance, but owners should not forget the level of stress and anxiety that comes from having a roof in disarray. The damage that a leaking roof can cause to the structure and safety of a building is immense. Moisture damage is one of the biggest fears as it weakens the buildings infrastructure in many ways. There has also been an increase in roof repairs due to poor installation, craftsmanship, and lack of maintenance, which has led to an increased demand for roof warranties and insurance claims.

MAINTENANCE AND REPAIR. No matter the roof type, the surfaces undergo the process of constant wear and begin to break down due to exposure to environmental elements such as water, sunlight, drain run-off, materials from trees, windblown debris and sand to name just a few. All roofs require routine cleaning and maintenance. From general cleaning to minor repairs, they need this attention as environmental stresses, and temperature fluctuations are producing minor defects and are constantly at work. Regardless of the cause, the result is the same -- without preventive maintenance the systems ultimately deteriorates before it is time and may cause unnecessary capital repairs. Preventive maintenance means the early detection and repair of minor defects, before major reactive action is necessary; it is a proper way to care for roofing systems. Roof systems should be routinely reviewed to remove trash and debris in and around drains, overall cleanliness supporting quality drainage and conducting minor repairs to sub components and proper upkeep supporting a safe and functional asset.

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An important factor in roof maintenance is understanding the components of roofs. Facility Managers and staff need to understand the type and age of their roofs and the maintenance schedule it follows to meet the manufacturer

recommended life span supporting a quality educational environment. This is the best measure they can take to keep a roof system healthy and functional.

Inspection and Evaluation - Roof systems are an out of site and out of mind system that holds a great importance to the protection of the overall building envelope. All roofing manufacturers recommend that facility maintenance programs implement scheduled maintenance on all roof systems. Creating a proactive scheduled maintenance routine will go a long way to supporting the systems reliability and maintaining the warranties. One of the overall goals is to create a system that is reliable and working to protect the occupants and other building systems assets. Although some roof systems take less maintenance than other systems, all roof systems should be checked periodically to be sure that they are free of debris and drains are clear.

The best preventative maintenance that facility managers can do is perform quarterly or semi-annual inspections to identify and solve problems as they occur. Roofs get more abuse from the elements than any other part of the building, and preventive maintenance is a key strategy to saving money on your roof by providing a longer service life. The key to successful maintenance is careful planning and programming of the work to be done. The first step in planning is a periodic evaluation of all roof systems and their sub components. Roofs should be thoroughly inspected at least twice a year for surface condition, structural strength, and drainage. The inspection should be done on foot rather than from a slow moving vehicle. This enables the inspector to notice very small cracks and defects. Subtle signs of future trouble, such as mud or water on the pavement, can be detected and recorded.

Preventive maintenance is always cheaper than reactive repairs and pays dividends in the long run.

Maintenance Recommendations: ROOFS / FLASHING / GUTTERS (weight: 10): There should be evidence of routine cleaning & maintenance occurring in this category. Systems should be operating properly with no evidence of damage. Utility supports should be intact and properly installed. A PM Schedule should be developed for preventive maintenance to maintain the system warranty and ensure systems continue to work as designed.

Recommended Maintenance: Review manufacturers' recommendations for site details. Monthly / Quarterly / Semiannual Preventive Maintenance should be considered.

- **Roof:** Check for evidence of ponding, erosion & for debris in the drains (and on roof) physical damage, vandalism or other problems. Check for covers on the drains & proper drainage. Check the condition of parapets and for debris or equipment that needs to be removed. Review for damaged category elements and coordinate repairs.
- **Flashing:** Review flashing to ensure it is intact & in good condition around devices, drains, pitch pans etc. Check for wear & tear, deterioration or physical damage. Check the condition of parapets and pitch pans for potential problems.
- **Gutters:** check that downspouts & drains are clean and free of debris & work as designed. Check splash blocks & canals for function, alignment & obstructions.
- **Skylights:** Check for evidence of leaks or broken lenses, glasses & seal integrity. Check for effective perimeter flashing.
- Safety, risks, hazards or physical property damage should be mitigated to prevent additional damage or risks.
- **Other maintenance considerations:** Annual detailed review for physical conditions to ensure conditions are intact as working as designed.