

### BACKGROUND

Roof systems can deteriorate from: normal wear; severe weather conditions (e.g., wind and snow loads); building movement (e.g., settlement, material contraction/expansion); and improper design, construction and maintenance.

Any roof repairs not dealt with after the first signs of failure can result in increased damage to the building envelope and interior finishes, and a loss of occupant productivity if damage causes interruption in client services and program delivery. Failure of structural integrity can endanger occupant safety.

### PURPOSE

Regular inspection of building roof systems will lead to early detection of roof problems, protection of capital assets, and maintenance of safe working environments for building occupants.

### OBJECTIVES

- To determine if the roof system is performing according to its intended function.
- To identify signs of weakness, deterioration or hazard.
- To identify needed repairs.

### GENERAL APPROACH

- Inspect exterior for: continuity of roof covering; deterioration of fascias, gutters and soffits; and performance of flashings.
- Inspect interior finishes (ceilings and walls) for signs of water penetration, frost buildup and structural distress.
- Iron Sentry Inspectors prepare, record and report inspection findings.
- Our reports include photographs and test data so that changes in roof condition can be verified and a historic record of roof condition is available to future inspectors.
- Iron Sentry keeps and maintains records of all: inspections (including this checklist); test investigations (thermographic readings); and roofing repairs and replacements.
- Initiate maintenance and repair projects.
- A maintenance and repair plan is provided with an installation quote.
- Perform annual formal visual roof inspections when roofs are free of snow and materials, and informal inspections after every severe wind or rain condition.



**MCPU Polymer Engineering**  
A Division of MCP Industries, Inc.

## ROOF INSPECTION CHECKLIST

General Roof Condition	
Item	Remarks
Debris on Roof	
Drainage	
Physical Damage	
Attic Conditions	
Structural Deformation	
Other	
Flat / Membrane Roof	
Item	Remarks
Condition of Coating	
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	
Gutter / Drains, etc.	
Skylights	
Chimneys / Vents	
Fall Arrest Anchors	
Control Zone Access	
Drains / Vents	
Other	

Ceiling Conditions	
Item	Remarks
Cracks	
Water Staining	
Water leaks	
Seasonal Change	
Other	
Exterior Wall Surfaces	
Item	Remarks
Deformed Finish	
Surface Deterioration	
Staining	
Other	
Interior Wall Surfaces	
Item	Remarks
Cracks	
Water Staining	
Water Leaks	
Deformed Finish	
Seasonal Change	
Window Leaks	
Door / Window Alignment	
Other	
<b>Summary / Comments</b> (Highlight areas of concern and any rapid degradation in roof system)	

## ROOF INSPECTIONS

Comment on changes from previous inspections, and overall roof condition. Indicate recommended action of roof repair and/or further assessment, and estimated remaining life expectancy of roof system. Include any photographs and thermography records in this report.

## ROOF PLAN AND DETAILS

**– USE THIS AREA ONLY IF DEFICIENCIES ARE OBSERVED –**

Sketch roof plan. Include north arrow, the location of the items listed below, approximate dimensions of building, roofing materials, and other relevant items located on the roof. Show changes in roof elevations in a separate sketch.

**Identification Codes:**

A – Access Hatch	D – Roof Drain	G – Gutter System	K – Chimney	R – Roof Vent	U – HVAC Unit
B – Base Flashing	E – Expansion Joint Cover	H – Vent / Fan Hood	L – Ladder	S – Skylight	V – Vent Pipe
C – Cap Flashing	F – Fascia and Gravel Stop	J – Flag Pole	P – Parapet or Fire Wall	T – Walkway	W – Pondered Water

## GLOSSARY OF ROOFING TERMS USED IN THIS CHECKLIST

<b>Alligatoring</b>	Shrinkage cracking of the bituminous surface of built-up or smooth surface roofing, producing a pattern of deep cracks resembling an alligator hide.	<b>Fishmouth</b>	An opening of the lapped edge of applied felt in built-up roofing due to adhesion failure.
<b>Asphalt</b>	A highly viscous hydrocarbon produced from the residuum left after the distillation of petroleum; used as a waterproofing agent of a built-up roof.	<b>Flashing</b>	Connecting devices that seal membrane joints, drains, gravel stops and other places where membrane is interrupted. Base flashing forms the upturned edges of the watertight membrane. Cap or counter flashing shields the exposed edges and joints of the base flashing.
<b>Ballast</b>	An anchoring material (such as rock, gravel, pavers) used to resist wind uplift forces of roof membrane.	<b>Gravel Stop</b>	Flanged device, normally metallic, designed to prevent loose aggregate from washing off roof. It also provides a finished edge detail for built-up roofing assembly.
<b>Bitumen</b>	A generic term for asphalt or coal tar pitch roofing.	<b>High Risk Roof</b>	A roof which scores 15 or greater out of 20 using the Snow Overload Risk Assessment checklist.
<b>Blister</b>	A spongy raised portion of roofing membrane as a result of pressure of entrapped air or water vapor.	<b>Modified Bitumen</b>	Asphalt with the addition of polymer modifiers to increase cold temperature flexibility and warm temperature flow resistance and stability.
<b>Built-up Roofing (BUR)</b>	A continuous, semi-flexible roof covering consisting of laminations or plies of saturated or coated felts alternated with layers of bitumen.	<b>PVC</b>	A generic term for single ply plastic sheet membrane (poly vinyl chloride); seams are fused by solvent or hot-air welding techniques.
<b>Cant Strip</b>	A continuous strip of triangular cross-section, fitted into the angle formed by a structural deck and a wall or other vertical surface, and used to provide gradual transition for base flashing and horizontal roof membrane.	<b>Parapet</b>	The part of the wall entirely above the roof.
<b>Crack</b>	A break in a roofing membrane as a result of flexing, often occurring at a ridge or wrinkle.	<b>Ponding</b>	The collection of water in shallow pools on the roof surface.
<b>EPDM</b>	A synthetic rubber sheet used in single ply roof membrane (ethylene propylene diene monomer).	<b>Slope</b>	The ratio between the measures of the rise and the horizontal span.
<b>Expansion Joint</b>	A deliberate separation of two roof areas to allow expansion and contraction movements of the parts.	<b>Soffit</b>	The finish on the underside of a roof overhang.
<b>Eaves</b>	The protective overhang at the lower edge of a sloped roof.	<b>TPO</b>	Thermoplastic polyolefins are in the thermoplastic elastomer family and are commonly referred to as TPO in the single-ply roofing industry.
<b>Fascia</b>	The finish member covering the edge or eaves of a flat or sloping roof or roof overhang.		

PROJECT OWNER: \_\_\_\_\_

PROJECT ADDRESS: \_\_\_\_\_

Height at Eave: \_\_\_\_\_ Height at Ridge: \_\_\_\_\_

Clear Access?  Yes  No Front: \_\_\_\_\_ Sides: L \_\_\_\_\_ R \_\_\_\_\_ Rear: \_\_\_\_\_

Type of Roof:  Flat / Membrane: \_\_\_\_\_  Sloped: \_\_\_\_\_ Slope: \_\_\_\_\_ in 12

Size of Roof: \_\_\_\_\_ Year Installed: \_\_\_\_\_ Year Manufactured: \_\_\_\_\_

Manufacturer and Brand: \_\_\_\_\_ Color of Roof: \_\_\_\_\_

Inspected by: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Proper roof maintenance will:**

- Increase the life expectancy of your roof
- Save you the high cost of roof replacement
- Protect your assets from costly damage

For further information:

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