Insights
Real Estate

ZURICH

Water damage in commercial residential properties

Introduction

Water damage is one of the major causes of loss in commercial residential properties. Each year there are numerous insurance claims for damage to residential buildings and their contents caused by water.

The problem has increased in recent years through our increasing use of water in our daily lives. In the average residential property water is used in a range of domestic appliances, including: washing machines, dishwashers, water coolers, refrigerators with chilled water dispensers, etc. Also, showers with multiple heads and power showers are now commonplace. Premises adapted for people with disabilities often include wet rooms. All of these facilities represent a potential water damage risk if a failure occurs.

Many modern residential buildings are now constructed from lightweight materials which are unlikely to withstand severe exposure to water. Ornate building features and contents such as carpets, curtains and valuable paintings are particularly sensitive to water damage. Mould or corrosion can develop and they may easily be damaged beyond economical repair or salvage.

The unusual rainfall pattern seen in recent years has caused flooding in areas historically considered to be at low risk, and both the frequency and the size of flood losses has increased significantly.

Many other losses are caused by failure of the building's internal water supply system (eg. burst pipes).

Buildings which suffer regular problems of water damage, whether it be from external sources such as rainwater ingress or flooding, or internal leaks from pipework, etc, are less attractive to tenants. They are likely to be more difficult to let and may well command reduced rental income compared to other similar buildings which do not suffer the same problems.

This Risk Insight is intended to assist Property Owners by providing information on the various ways in which water damage can occur in commercial residential buildings, and to suggest ways in which the risk of an incident and the magnitude of any subsequent consequential loss may be prevented or reduced. Although the guidance is aimed specifically at commercial residential buildings, the general principles apply just as much to most types of other commercial properties.

Rainfall – building maintenance

The fabric of the building must be well maintained to protect the premises from the elements. All buildings need frequent and careful examination. Those in elevated positions exposed to the prevailing winds, are particularly at risk from rain entry. The following regular checks are recommended. Appropriate remedial action should be taken as quickly as possible to address any defects noted:

- Check the roof and replace any loose or damaged tiles, slates, ridge tiles and any other roof claddings and flashings.
- Check flat roof coverings are in good condition, not showing evidence of cracks or splits, and are firmly stuck down, particularly at joints. Bitumen felt flat roof coverings generally need to be renewed about every ten years.
- Check the condition of roof lights for leaks, cracks or breakages.
- Check and repair as necessary all cement brickwork pointing, especially to chimneys, coping stones, lintels and ledges.
- Check roof gutters and downpipes are clean and free from obstructions such as leaves and vegetation. As a general rule these should be cleaned out at least once a year.
- Check that if gutters overflow in storm conditions the water will be discharged outside the building. This is especially important where there are valley gutters and roof parapets. Overflow weirs should be considered if not already fitted.
- Check all internal drainpipe systems as follows:
  - Are they securely fixed and protected from mechanical damage?
  - Are all inspection covers easily accessible and free from obstruction?
  - Are the covers securely fixed to prevent leakage?
- Where possible check the condition of the underground drains:
  - Lift manhole covers and check the drains are clean.
  - Make sure that the water runs freely without backing-up inside the manhole.
  - If the pipes are dirty or the water appears to run more slowly than would be expected, have the drainage system cleaned.
- Check that all gullies, gratings and drainage channels both inside and outside the building are clean and free from obstruction.
- Where any of the following are noted, it is possible there might be a more serious drainage problem. If this is felt to be the case, the advice of a qualified building surveyor should be sought:
  - Gutters that regularly overflow even though they are clean and well maintained.
  - Constant damp patches on walls.
  - Puddles that collect on flat roofs.

Water pipes, tanks and cisterns – protection against leakage

There are four principal causes of water loss from pipes and tanks – mechanical damage, corrosion, freezing and overflowing (tanks).

In addition, problems can often arise in commercial residential properties where, for example, new plumbing is installed within the individual apartments, but the common mains to which the new pipes are connected are still the original. In older properties in particular, the original mains may well be of cast iron or lead which are vulnerable to fracture as they age.

As well as providing water for domestic purposes, water pipes can also serve fire protection systems (eg. sprinklers). Where this is the case, it is especially important to ensure the system is maintained in good condition and not susceptible to leaks.

The following points will help minimise the risk of leakage and to limit the effects should a leak occur:

- A regular maintenance and inspection programme should be initiated with prompt remedial action taken when defects are discovered.
- Check the age and general condition of the system. If found to be in poor condition call in a professional plumbing contractor to replace or improve the defective areas.

- Remember to include common mains running through the building as part of the maintenance and inspection programme as they may well be older and of a different type of pipework to the plumbing within the actual residential portions (see earlier comments).
- Check whether pipes are located in positions vulnerable to mechanical damage. Provide suitable guards or warning signs where necessary.
- Metal pipes may be liable to corrosion, internally or externally. Check that closed systems, such as heating pipes, are protected with suitable anti-corrosive additives.
- Check that the premises are adequately heated, pipes lagged and water tanks protected against freezing. (Note – pipe lagging on its own is not normally sufficient to prevent freezing in sustained sub-zero temperatures. As a minimum frost-stat heating or other special frost protection will need to be considered in times of extremely cold weather).
- Check overflow pipes on water tanks and cisterns are of adequate size, and have unobstructed discharge to a suitable place (eg. to outside the building).
- Make sure the location of the stopcock on the mains water supply is known and accessible. Check it is operational.
- In places where water spillage could possibly run down a wall, check that electrical switch gear boxes are protected, and preferably spaced away from the wall.
- Sprinkler installations need special attention and any specific instructions and maintenance requirements should be followed.
- Air conditioning units can produce large volumes of condensed water. For those mounted externally this is not generally a problem, but the small units often fitted internally have caused serious problems as their drain lines can become disconnected.

Floodwater protection

Flooding is normally associated with inundation from sea, reservoir, river or canal. However, it can also be caused by intense rainstorms or melting snow with which drainage systems cannot cope. The risk of the premises being affected by floodwater needs to be assessed and appropriate precautions taken.

Some buildings constructed using 'Modern Methods of Construction' can be particularly susceptible to damage from flooding. In some cases additional flood protection measures over and above country specific Building Regulations' requirements may be necessary to adequately protect the premises against permanent floodwater damage. A separate Risk Insight is available from Zurich about 'Modern Methods of Construction'.

The following general points should be considered in relation to flooding:

- Check whether there has been a history of flooding in the area.
- Check the current local flood risk with the responsible Government agency.
- Have recent developments in the area made flooding more likely? Local Government agencies and local water companies/authorities should be able to advise on specific areas which are liable to flood, and on recent modifications to drainage routes.
- Have the authorities installed new flood prevention measure?
- Where applicable, check you understand how the local flood warning system operates and have an emergency plan prepared for such an event (see later).
- If flooding is known to be a possibility, preventive measures to stop floodwater include:
  - installation of intervening walls or banks, provision of floodboards and sills to doorways or gateways in walls,
  - blocking up unnecessary openings in the building,
  - provision of sandbags for emergency use.
- Check for any signs of site drains overflowing. If this has occurred, was it due to a blockage or were the drains inadequately sized? – Next time the flood could be more serious. (Also see earlier comments under 'Rainfall – Building Maintenance' about the need to check drains and gullies to ensure they remain clean and free from obstructions).
- Check that basement areas are provided with adequate drainage. Where necessary, sump pumps should be provided.

Unoccupied buildings (including unoccupied flats)

Unoccupied premises (including unoccupied flats in residential blocks) are especially vulnerable to water damage as the ingress or leak can go unnoticed for some time, thereby worsening the damage.

Unless there are firm plans for the premises to be occupied in the near future, consideration should be given to isolating the water installation at the main stopcock and draining the system.

Where this is not practical, frost-stat heating should be provided in Winter as mentioned earlier in the guidance.

Ornate building features (eg. decorative plasterwork, special wall or floor coverings etc.) are especially vulnerable to water damage and can be ruined beyond economical repair. Contents such as rare carpets, curtains and valuable paintings, artwork etc. are similarly vulnerable. Consideration should be given to providing special protection against water damage for these features, or to their temporary removal to a place of safe keeping, to be re-installed at a suitable later date when the premises are re-occupied.

Emergency plans

If all suitable precautions to prevent water damage from all causes have been carefully considered and appropriate measures taken, the risks of damage occurring will be greatly reduced – but not eliminated.

In most organisations it is normal practice to make emergency plans for such hazards as fire and various other eventualities – preparations for a water damage event should also be considered in the same context.

Larger organisations may include this as part of their Business Continuity Plan. Smaller concerns may well use external consultants or managing agents to look after the day to day management of their property portfolio. Where an external firm is used, the property owner should satisfy themselves that suitable emergency plans to deal with water damage incidents are in place.

The Plan should include a list of the following contacts and should be kept in a safe and readily accessible location:

- The fire brigade or appropriate service for pumping out.
- Plumber.
- Salvage firms.
- Your insurance brokers and local Zurich office.

Water Leakage Technology

Various water leakage detection devices are available on the market which can be installed in suitable premises to either raise an alarm or shut off the water supply in the event of a leak. These are not suitable for all types of buildings, but can be effective in the right circumstances.

Zurich HelpPoint

Water Damage can present any number of problems for the real estate owner and property manager. Zurich and their Risk Engineering team have a wealth of experience in helping customers prevent and minimise the risks of water damage to premises and contents. We can assist in the assessment of risk and advise on the most appropriate protection measures. This will help reduce the total cost of risk and help eliminate the potential requirement for additional loss control measures to be installed retrospectively.

As the leading Global Real Estate insurer Zurich has a deep understanding of the Real Estate business and a market leading Risk Engineering team that can help real estate companies identify and manage risk.

If you have any questions regarding this document or would like to know more about how Zurich Risk Engineering can help you identify and manage risk in your business please send them to: realestaterisk@zurich.com

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