

Maintenance

It is important to maintain the interior and exterior of any building, and medium-density housing (MDH) is no exception. However, the maintenance needs of MDH can be more complex than for stand-alone homes. When this maintenance is not attended to, both building performance and occupants' health may suffer.

THERE ARE A NUMBER of factors that work to degrade or wear out building components. These include exposure to elements (rain, wind, UV, low or high temperatures) and normal wear and tear as well as how the building is used by occupants.

If a building is not maintained, it will not perform or be as durable as expected. Lack of maintenance may mean less-efficient operation of building systems and acceleration of deterioration where maintenance has not been carried out or issues have not been addressed. For example, an air-conditioning system that is effectively serviced and maintained uses approximately 10% less energy than one that is poorly maintained.

Deferring MDH maintenance also has an accumulative cost, and estimates suggest that maintenance can cost up to 500% more than the original repair over a 20-year period. In addition, there is some evidence to suggest that current MDH may not be built as well as it could be, further increasing the maintenance burden.

Like any building, poorly maintained MDH will lose value in the marketplace as deterioration spreads and accelerates, leading to greater overall maintenance costs than a well maintained building.

Durability requirements

New Zealand Building Code clause B2 *Durability* sets out the minimum durability requirements with normal maintenance. Like all buildings, MDH building elements must, with normal maintenance, continue to satisfy the performance requirements of the Building Code over the life of the building. The minimum time depends on the use of those building elements and the degree to which



Certain design features can increase maintenance requirements. In this example, the boxed windows will need more attention to ensure weathertightness.

they can be accessed and their maintenance requirements detected.

Maintenance can be defined as regular or routine work to achieve the expected durability and performance of building elements or components of buildings. It may involve the replacement of components subject to wear or damage. It includes:

- regular work (such as repainting exterior walls)
- major capital works (such as replacing a roof, recladding or replacing an air-conditioning unit)

- emergency major repairs (such as earthquake strengthening)
- repairs of building defects (such as responding to weathertightness issues or dealing with faulty passive fire protection).

Maintaining special MDH features

Medium-density construction usually includes special features related to fire protection and noise reduction as well as shared walls, floors and common spaces. These features can make MDH more complex to maintain

than traditional styles of single homes. As MDH is also often multi-storey, there are specific maintenance challenges relating to height and access.

These challenges and the lack of a general Acceptable Solution for MDH mean that maintenance needs to be specifically designed to the requirements of each particular building.

Building warrant of fitness

Most MDH requires a compliance schedule and must pass an annual building warrant of fitness. This is required if the MDH includes any of the following:

1. Automatic fire suppression systems.
2. Integrated or multi-unit emergency warning systems.
3. Electromagnetic or automatic doors or windows.
4. Emergency lighting systems.
5. Escape route pressurisation systems.
6. Riser mains for use by fire services.
7. Automatic backflow preventers connected to a potable water supply.
8. Lifts, escalators, travellers or other systems for moving people or goods.
9. Mechanical ventilation or air-conditioning systems.
10. Maintenance units to provide access to the exterior and interior walls.
11. Audio loops or other assistive listening systems.
12. Smoke control systems.
13. Emergency power systems or signs.
14. Any of the following features, provided they're part of the means of escape from fire and that means also includes automatic fire suppression, riser mains, mechanical ventilation/air-conditioning or smoke-control (items 1, 6, 9 or 13):
 - Spoken information to facilitate evacuation.
 - Signs intended to facilitate evacuation.
 - Final exits (as defined by the Building Code).
 - Fire separations.
 - Smoke separations.

All buildings with a cable car, including single residential buildings, require a compliance schedule.

The Ministry of Business, Innovation and Employment (MBIE) provides a compliance handbook to assist those required to meet these Building Code conditions.

The building warrant of fitness needs to be renewed every 12 months. It will be issued following an inspection of the building to

confirm it has been maintained as required in the building's compliance schedule. This is issued at the completion of consented building work along with a Code Compliance Certificate.

Joint responsibility

MDH maintenance is further complicated where there is joint ownership of the building. The Unit Titles Act provides a legal framework for the ownership and management of land and associated buildings and facilities.

It divides responsibility for maintaining MDH between two parties:

- The body corporate (maintains external and common systems).
- Each unit owner (maintains finishes and fitments within each dwelling).

Body corporate

The body corporate is the legal entity that represents all owners in a multi-unit property. It is comprised of all unit owners. The body corporate is responsible for:

- maintaining the common property owned on behalf of the unit owners, including infrastructure and building elements
- paying rates, setting levies, insurance and valuation, and setting operational rules (beyond those in the Unit Titles Regulations 2011)
- long-term maintenance planning to cover maintenance of common areas.

Infrastructure includes pipes, wires, ducts, conduits, gutters, watercourses, cables, channels, flues, gas, electricity, oil, shelter, fire protection, security, rubbish collection, air or any other services or utilities. Building elements include the structural integrity of the building, exterior aesthetics and the health and safety of those who occupy or use the building.

Body corporate levies may include an amount to cover the costs of repair and maintenance to common property or to building elements and infrastructure that serve more than one unit.

Often, a body corporate manager is contracted to perform some of the services of the body corporate on behalf of the unit owners. Companies that provide professional body corporate services typically offer services such as:

- arranging maintenance of common property
- organising facilities for meetings
- administering the body corporate's financial activities.

Disclosures

The Unit Titles Act requires that certain information is disclosed when a unit title is sold. This provides prospective owners with information about a unit, the development and the activities of the body corporate. The required disclosures include:

- any unpaid costs relating to repairs to the unit
- the body corporate levy
- the details of proposed maintenance in the coming year
- any claims under the Weathertight Homes Resolution Services Act 2006.

Maintenance planning

Maintenance is a continuous requirement throughout the life of the building. A maintenance plan can help ensure maintenance tasks are carried out in a timely manner and costs are not unexpected. Plans for MDH maintenance usually reflect one (or more) of the four approaches outlined in Table 1.

Long-term maintenance

While there is no requirement to develop a maintenance plan for each dwelling, the Unit Titles Act requires MDH developments to have a long-term plan for the maintenance of common areas. This is to identify future maintenance requirements, provide a basis for the levying of unit owners and provide ongoing guidance on maintenance decisions.

The plan must cover a period of at least 10 years and must describe:

- the common property, building elements

Table 1 Different approaches to MDH maintenance.

Approach	Planning basis	Maintenance carried out
Conditional	Regular monitoring and inspection	According to need
Predictive	Extensive diagnosis and monitoring	As predicted
Cyclic	Scheduling	As scheduled
Responsive	Emergency	When an emergency or opportunity arises

- and infrastructure of the unit title development and any additional items the body corporate includes in the plan
- the items the body corporate may opt not to maintain while the plan is in effect
 - the period covered by the plan
 - the age and remaining life of each item covered by the plan
 - the cost of maintaining and replacing each item covered by the plan
 - the long-term maintenance fund and the amount required to maintain it each year
 - the entity that prepared the plan.

The Unit Titles Act requires a body corporate to establish and maintain a long-term maintenance fund for expenditure relating to the long-term maintenance plan.

MBIE has published a template for use by bodies corporate to help ensure long-term maintenance plans include the correct information.

MDH maintenance challenges

MDH developments pose several unique challenges when it comes to maintenance.

Incentivising developers

The developer also has a major influence on future maintenance of MDH as they set in place the parameters for the building design and the level of specification for materials and finishes. However, there are few incentives for developers to consider or limit the ongoing costs of maintenance or even to ensure maintenance is possible.

Developers bear all the costs and none of the benefits from designing and building low-maintenance or easily maintained housing. Further, it is not in the interests of the developer to clearly identify long-term maintenance requirements.

Informing owners

First-time purchasers of MDH are often unaware of their legal rights and obligations and those of the body corporate. While MBIE and HOBANZ (Home Owners and Buyers Association) provide information specifically for MDH owners, it is not always used by those who need it.

Within one development, the body corporate can comprise a massively diverse range of owners, all with different motivations and

abilities to plan for and pay for maintenance. A concern is that purchasers of units may not be aware that they will be required to fund the replacement or repair of major components as a separate levy.

Quality of advice

Often, a body corporate will depend on independent advice from experts in the building industry, particularly relating to the maintenance requirements of common areas of the building. However, when an industry expert prepares a long-term maintenance plan for a body corporate, there is an incentive to overstate requirements so they will not be held liable for inadequate advice. This could result in owners paying more for maintenance than necessary. Sometimes, plans are prepared by people who do not have the appropriate qualifications or competencies.

Funding maintenance

Funding maintenance can be a challenge, especially when costs are high. When no contingency has been set aside in a long-term maintenance or replacement fund, major repairs can be difficult to fund. In the last 20 years, repairs have been required due to earthquakes (as well as earthquake strengthening) and moisture problems (leaky homes).

Special levies, loans, insurances and legal action are options for bodies corporate when the long-term maintenance fund is insufficient to cover the cost of emergency repairs. However, owners may lack the ability to pay special levies, loans may be unavailable or at high cost, insurance companies may be unwilling to contribute and legal action is inherently uncertain.

Further information

BRANZ Study Report SR386 *Maintenance and common repair issues in medium-density housing*

MBIE Compliance Schedule Handbook
www.building.govt.nz/building-code-compliance/building-code-and-handbooks/compliance-schedule-handbook

MBIE Long-term Maintenance Plan for Body Corporate
www.tenancy.govt.nz/assets/unit-titles/ltmp-body-corporates-complex.doc

HOBANZ
www.hobanz.org.nz

BRANZ Maintenance Schedules
www.maintenanceschedules.co.nz

Leaky homes

It is likely that some MDH developments over 10 years old are leaky homes. In these cases, the Weathertight Homes Resolution Services Act does not apply, and owners are precluded from obtaining funding from the government for repairs or accessing the dispute resolution services.

Earthquake strengthening

MDH that is two or more storeys high and comprises three or more dwellings must comply with the Building (Earthquake-prone Buildings) Amendment Act 2016. Once in force, councils will identify potentially earthquake-prone buildings and notify owners. Notified owners will need to obtain an engineering assessment and complete any remedial work within a specified timeframe.

Owners of multi-storey buildings, including MDH, must also comply with regional earthquake-strengthening requirements. The first of these requires owners to secure unreinforced masonry parapets and façades on buildings in certain areas of Wellington City, Hutt City, Marlborough District and Hurunui District.

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