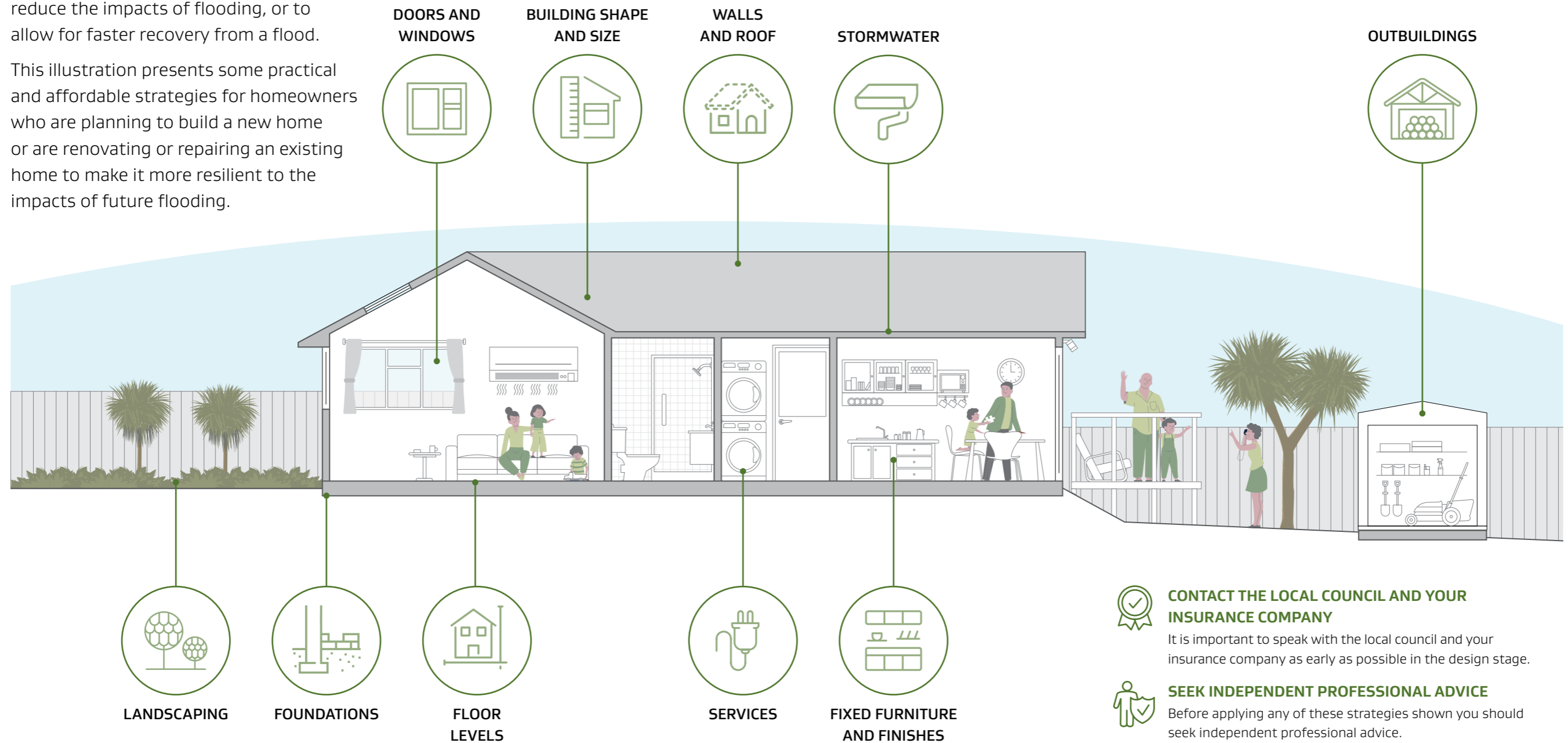


FLOOD RESILIENT HOME

A flood resilient home is a home that is designed, built and used in a way to reduce the impacts of flooding, or to allow for faster recovery from a flood.

This illustration presents some practical and affordable strategies for homeowners who are planning to build a new home or are renovating or repairing an existing home to make it more resilient to the impacts of future flooding.



CONTACT THE LOCAL COUNCIL AND YOUR INSURANCE COMPANY

It is important to speak with the local council and your insurance company as early as possible in the design stage.



SEEK INDEPENDENT PROFESSIONAL ADVICE

Before applying any of these strategies shown you should seek independent professional advice.

FLOOD RESILIENT HOME

AN EXISTING HOME

When altering or repairing an existing home, it is a good time to think about including flood resilient design features.

Homes are altered for a number of reasons – it may be to add an extension, alter the internal layout, or to increase the performance of the house by adding insulation or upgrading windows. Homes may also need to be repaired after a flood, which can be a costly exercise. By including resilient design features, some of these costs may be reduced or avoided after the next flooding event.

A NEW HOME*

New homes need to comply with the Building Code. The Building Code sets the minimum performance requirements for buildings. Building better than the minimum that is required by the Building Code will result in a more resilient home.



APPLIES TO NEW HOMES ONLY

All other strategies apply to both new and existing homes



DOORS AND WINDOWS

- Limit skylights as they are vulnerable to wind-driven rain.



BUILDING SHAPE AND SIZE

- Use simple and compact building shapes with a single type of cladding. This reduces vulnerable junctions that may fail over time
- Build a smaller house or a house with a smaller footprint by building two-storeys. This allows more space for landscaping that can absorb flood water, reducing the load on stormwater infrastructure
- Use simple pitched roofs with fewer junctions which are less at-risk of wind driven rain during storms and high winds.



WALLS AND ROOF

- Use steel framing or timber-framed walls raised on plinths to avoid the framing getting wet and to maintain the durability of the timber
- Ensure that the wall and roof cladding is and continues to be maintained regularly
- Design the wall build up in a way that water does not easily enter the cavity, or can drain away easily
- Choose wall cladding that is suitable for the type, location and design of the building
- Ensure cladding is designed and installed in a way that will not trap water and debris behind the cladding
- Consider using rigid air barriers (RAB) on the outside of the wall structure, rather than a flexible wrap, to prevent water, silt and debris building up in the wall cavity
- Choose insulation that either doesn't retain moisture or is water repellent.



STORMWATER

- Connect to stormwater infrastructure where available
- Consider if stormwater detention and retention systems to control stormwater are required
- Ensure roof downpipes and gutters are easy to access and are regularly cleared of debris such as leaves
- Choose external gutters over hidden gutters, so they can be easily maintained and accessed for regular cleaning.



LANDSCAPING

- Ensure that there is adequate space for good landscape design, which can act like a 'sponge' that allows water to slowly absorb into the ground. This will decrease the impact and load on infrastructure during a storm or flooding event
- Design and locate fences so they do not divert water towards the home or other property, or cause water to build up or pond
- Ensure that there is space between planting and the side of the house for water to flow freely and drain away
- Choose permeable paving, porous concrete or gravel that will allow water to be absorbed or drained easily
- Reduce the load on the drainage system by planting vegetation to retain and reduce stormwater run off.



OUTBUILDINGS

- Ensure that access to and around the house and to important outbuildings are above flood levels.



FOUNDATIONS

- Ensure the house is securely attached to its foundations to withstand the force of potential flood waters.



FIXED FURNITURE AND FINISHES

- Choose durable or moisture resistant wall linings that are required for bracing, fire separation or acoustic performance
- Choose durable or moisture resistant floor coverings or those that are easy to remove and replace
- Raise kitchen cabinets and bathroom vanities off the floor
- Choose solid timber internal doors – avoid MDF or hollow core doors.



SERVICES

- Raise internal services such as data points, WIFI routers, meter boxes and electrical sockets above the predicted flood level
- Raise external services such as heat pump condensers, sockets, light fittings and meter boxes above predicted flood levels.



FLOOR LEVELS

- Raise the floor levels of the house higher than the predicted flood level and include a 'freeboard', or extra height, to allow for surges of water caused by wind and the movement of the water
- Raise the floor levels of outbuildings and the access routes to them
- Ensure that access routes are high enough to allow access during and immediately after a flood.

*While many of these strategies are to ensure weathertightness, they will also contribute to a flood resilient home.