gridline nz
Seismic Clarity

Seismic Strengthening Design.

Seismic strengthening of a building is not just an engineering challenge. It is also about the use of the building, both during the upgrades and after the construction programme has been completed.

After receiving an engineer's seismic assessment, like a Detailed Seismic Assessment (DSA), which does not achieve the desired result, a process of designing an acceptable remediation solution is the logical next step.

For the design a brief is required for the engineer on the objectives of the client for the seismic strengthening. This needs to be more than just achieving an NBS score.

Building owners and other identified stakeholders' requirements should be part of the intelligence that informs the design process.

1. How to retain income, tenants and clients while remediating the building?
2. How to remediate the building?
3. How to retain the building's present use?
4. How to retain character features?

gridline[nz] is the expert resource to create the brief for the engineer. Engineering is an expensive resource that should be focussed on what it does well. Compiling Detailed Seismic Assessments and compiling Detailed Seismic Assessments (DSA) or calculating engineering solutions. Interpreting building owners' needs is a different skillset. gridline[nz] can work with your engineer to bring usability and buildability to a seismic strengthening design.

Building owners have different needs depending on their motivation.

- Are they a long-term asset owner looking to protect or improve their equity?
- An owner looking to sell the building?
- Or a prospective owner doing their due diligence?

	Client Objective:	NBS Compliance	Income	Asset Use
Equity	**Long-term asset owner**	Evidence for all stakeholders of a quality asset	Retain existing tenants & attract high value tenants	Use construction activity to make improvements too
Sell	**Practical solution to use in the negotiation of the property value**	100% focus on a cost-effective design	Feign concern but not really interested	Not concerned
Purchase	**Strategic valuation approach for due diligence & negotiation**	Evidence of a design solution that will support the asset value	A design that retains income during construction	A design that can grow income in the future

For long-term building owners, maintaining or improving equity in their properties is paramount. Seismic strengthening can protect this value by ensuring that structures achieve an acceptable NBS score. Buildings that are perceived as "safe" are more likely to retain existing tenants and attract new, premium renters who prioritise safety and security. A building rated seismically safe aligns with the obligation of owners and tenants to safeguard the well-being of people onsite.

A building's seismic rating has direct implications for financing and insurance. Properties that fail to meet acceptable safety standards face devaluation, which significantly affects debt ratios. For building owners, this can lead to more costly financing options.

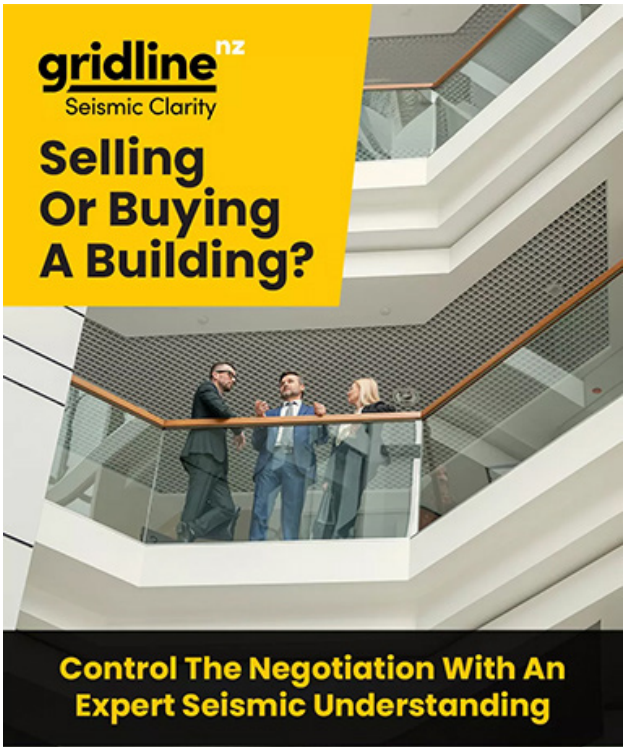
Moreover, insurance companies view risk differently; a poorly rated building could incur higher premiums or be rendered ineligible for coverage. This is especially crucial for business continuity insurance, which often factors a property's seismic rating into coverage decisions.

Building owners contemplating the sale of an asset need to proactively estimate the costs associated with seismic remediation. A proactive cost assessment prepares owners for the negotiation process, positioning them to maintain control during discussions.

Conversely, during the due diligence of acquiring a new asset, a thorough understanding of potential remediation costs is equally vital. Being aware of these expenses can give buyers leverage in negotiations, impacting purchase agreements and financial viability.

While the immediate costs of seismic upgrades may seem high, they often pale in comparison to the long-term benefits associated with retaining tenant goodwill and preventing future losses. An upgrade that improves the utility of a facility can offset costs, providing multiple benefits — safety, enhanced functionality, improved rent & higher occupancy.

An investment in the design process will help to mitigate impact on existing tenants and retain income during upgrades. The execution of an effective seismic remediation should strategically align with ongoing tenant relationships to minimize disruption. Bridging the gap between the ideal design and practical implementation requires a nuanced understanding of the owner's specific needs.



Acronyms:
NBS – New Building Standard
DSA – Detailed Seismic Assessment
ISA – Initial Seismic Assessment

Engineers are crucial to the design. Often engineers can, rightly, often be solely focussed on the engineering. This can be at a cost to the usability of the space. These skilled engineering professionals thrive in creating effective designs. They need clear detailed briefs to optimise their time, resources, and your money.

This is where gridline[nz] offers great value. Delivering services tailored to building owners' specific needs. gridline[nz] helps to identify and clarify project briefs. Focusing engineers on their strengths. By bridging the gap between the complexities of building design and the practical needs of their clients, gridline[nz] empowers building owners to make informed decisions.

Seismic strengthening is a reality of modern building management. Protection of asset value, maintaining tenant satisfaction & providing a safe working environment.

Enhance an owner's ability to navigate the challenges of seismic compliance. By prioritizing this critical area, building owners can secure both financial and structural integrity.

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