

Welcome to the Faulty Towers state, where any mug's an engineer

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I'm sorry, run that by me again? We don't require engineers to be licensed, qualified or registered? So the hundreds of shonky-looking resi-towers newly metastasising across our city don't just look like slums-in-waiting but may have no structural or fire integrity to speak of because anyone, including my great aunt Cecily's dog Tozer, can sign their engineering certificates. Seriously?

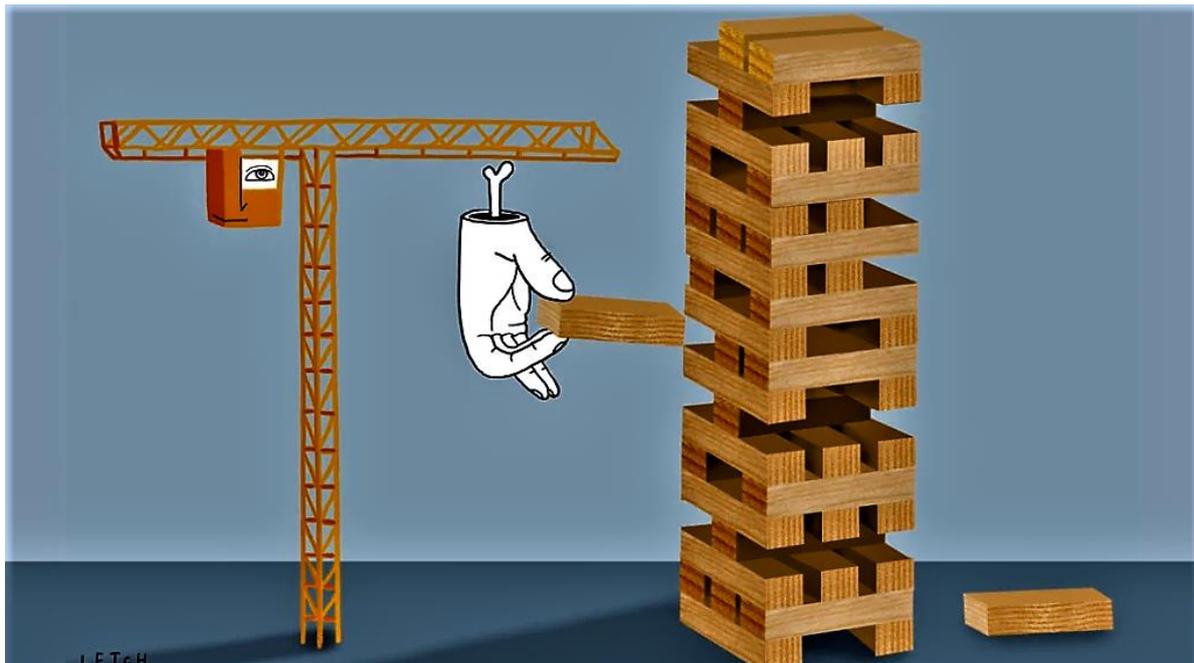


Illustration: Simon Letch *CREDIT:*

Tuesday's interim report on the twice-evacuated Opal tower, by engineering professors Hoffman, Cart and Foster, tells us the building is structurally sound, in that it (probably) won't fall down, but has major damage. Two causes are pinpointed: faulty design, using lower-than-required safety factors, and poor construction, deviating from both design and good practice.

The building, as you know, is pretty ornery to look at. A green glass faceted triangle far taller than any neighbours, its look of soulless oppression is relieved only by a number of tall "slots" or "vertical gardens", walled in six-storey pre-cast load-bearing concrete. It's in these walls, and the beams supporting them, that the damage has principally occurred.

But what's fascinating about this appalling concatenation of errors and deceits is the degree to which it is systemic. We don't know how widespread building

disasters are because no-one is collecting data, but as the UNSW City Futures Research Institute recently wrote, our “system allowing defective apartment buildings” creates huge social and economic risks for the new compact city.

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In our world, building is driven by profit. Beneath that, three systems intersect: legal, planning and engineering. If I owned a new Sydney apartment – which thank God I don’t – all three would be keeping me awake at night.

One, the legal situation. Although Opal may not collapse, the hundreds of owners currently embarking on a “no win no fee” class action may yet wish it had. At least then they’d be covered.

You buy an apartment trusting it to be sound, waterproof and safe. But the odds heavily are against you. Not only do studies show that almost three-quarters of apartment buildings have owner-reported defects (the figure rises to 85 per cent for buildings built after 2000) but the owners’ capacity to claim against the builder/developer is restricted to near-futility.

In 2015, amendments to the NSW Home Building Act reduced the standard seven-year liability period to six years for “major” defects – defined as a fault in a major element such as a roof or load-bearing structure that prevents a building being lived in – and a mere two years for everything else. Ostensibly, this was about reducing red tape, but those with a mere hundred-litre stormwater dam in their living room or a rotting front door had better be quick.

Any boom encourages fly-by-night developers, tempting them with quick bucks to employ underqualified and inexperienced architects, builders and subbies, who are more available and cheaper. Look around. Anyone with half an architectural eye can see defects everywhere – roof, window, balustrade and wall-capping details that invite water entry; structural sizings that are self-evidently inadequate; stuck-on plastic claddings. Such defects are often “latent” – which is to say they may not present for years and may take further years to diagnose. At least if your building collapses you have six years, not two.

Even so, your chances of legal remedy are remote. The 2014 High Court finding in the case of *Brookfield Multiplex v Owners Corporation Strata Plan* followed serious defects in a Chatswood resi-tower. The High Court found that, even with a building rendered uninhabitable, the developer-builder owed no duty of care to

purchasers, who apparently should have been able to negotiate protections into their original contract. This, combined with the excruciating cost of litigation, helps explain why so few such cases go to court and why, although it's manifestly unfair, most owners end up footing ongoing rectification costs themselves.

Then there's the planning system. Opal Tower, designed by Bates Smart, looks cheap. It wasn't, a one-bedroom apartment selling off the plan for \$720K, but it has the mean, undernourished look of the badly detailed and existentially insecure. So I was staggered to learn both that it had been approved as a State Significant Development and had achieved several storeys over the local height limit due to "design excellence".

State Significant? Design Excellence? How could a private residential tower amid a record building boom be state significant? And how could a nasty concoction of green glass and faceted spandrels be "design excellence"? The answer lies wedged into the chasm between rhetoric and motive.

SSD pretends to stop cowboy councils playing silly buggers with development but actually delivers the unfettered ministerial discretion necessary for rampant cronyism. With no requirement for ministers to justify the "state significant" designation, SSD enables an asset-stripping government to slide all crown and public lands under its own jurisdiction, then frantically up-zone for maximum profit.

Right now, this includes the Bays Precinct, Darling Harbour, Honeysuckle, Luna Park, Fox Studios, Taronga, Redfern-Waterloo, Barangaroo, the Rocks, the 17-storey Parramatta Eels hotel now proposed on crown land at Parramatta Park and – surprise – Olympic Park.

A developer need only propose something sufficiently gargantuan on public land and, presto! – straight to Minister Lurchalot. Said minister, if questioned, will likely point to the "Design Excellence" process that purports to ensure such outsize buildings are at least well designed. Except, well, Opal.

But by far the scariest of this week's Opal revelations is the fact that – excepting Queensland – Australia's engineers are entirely unregulated. Engineers Australia is the professional body. "Anyone can claim to be an engineer, provide engineering services and use it in their marketing without any regulation," its website says. The only register is voluntary. If EA strikes someone off for shonky practice, they can self-resurrect the next day, no questions asked.

This is nuts. Engineers – fire, structural and civil – we trust with our lives. In boom situations, where local firms are routinely swallowed by international conglomerates (such as WSP which engineered Opal), where the market is flooded with shonky materials and practices are self-certified, unregulated engineering makes sense like unregulated brain surgery. Welcome to Faulty Towers.

Elizabeth Farrelly is a Sydney-based columnist and author who holds a PhD in architecture and several international writing awards. A former editor and Sydney City Councillor, she is also Associate Professor (Practice) at the Australian Graduate School of Urbanism at UNSW. Her books include 'Glenn Murcutt: Three Houses', 'Blubberland; the dangers of happiness' and 'Caro Was Here', crime fiction for children (2014).

<https://www.smh.com.au/national/welcome-to-the-faulty-towers-state-where-any-mug-s-an-engineer-20190117-p50s14.html>

COMMENTS

Toast

The NSW state government may as well give everyone a cardboard box to live in, when they arrive in Sydney. It would be safer.

It is a government's job to enforce standards to keep its citizens safe.

41 McLaren

All those people who want "local councils" taken out of the equation (or even states) be careful of what you wish for. Centralised bureaucracies which are targeted for industry capture allow for a bigger pond, larger and more powerful sharks and much bigger consequences.

Building Certifier

As a building certifier in NSW, under the current accreditation scheme administered by Minister Matt Kean & the State Govt, I can verify that apart from the building certifier, there is no requirement under NSW legislation for any other discipline in the design or construction process to be accredited. Hence there is no requirement for any architect, design engineer, builder, sub-contractor or fire services consultant to hold any minimum level of qualification, nor to have any level of professional indemnity insurance nor undertake any mandatory site supervision or inspections, nor issue any formal certification for the completed building works, nor have any legal accountability for their professional input or contribution toward a development.

This is the reality of the design and construction industry of NSW.

The accredited building certifier is the only profession in the entire supply chain of design and construction who is required to be accredited under legislation and is required to hold mandatory PI. The reality is that the current State Govt has no actual understanding of the accreditation scheme that it has implemented and administers in NSW.

Ray

Its a worry as State Significant Development seems more a way to cut out those pesky locally elected Councils and their technical people. The Department of Planning and Environment doesn't employ building engineers unlike most Councils. DPE pretty much take everything developers say at face value and rely on the information paid for and provided by the developer.

Darcy

Elizabeth Farrelly - Another revealing and well written article that should be read by all potential purchasers of an apartment in Sydney.

Midginbilly

Great article. This is a terrifying concept with potentially hundreds of shoddy buildings all over the city. What will it take to go back to the strict quality assurances we had in the past when Australia believed in world's best practice? Hopefully not the collapse of a building with massive loss of life.

Neweyboy

This is just another example of where the bottom line of the Profit and Loss Statement has become the ruling factor in all decisions - not safety, not regulations, not quality.....

brainstem

Then don't buy the rubbish.

jmc

Conservative governments, lobbied by business and developers, are always trying to remove "red tape".

But red tape is the checks and balances that are needed to stop the cowboys and shortcuts that cause these problems.

Redsaunas

More evidence that Australia, taken over by developers, is now a 'developing' country.

Fabbz

Opal Tower may not collapse, but Sydney's apartment market will. This will exacerbate the housing crash unfolding in Sydney and Melbourne. Who will want to buy an apartment and run the risk of living in another Opal? Flammable cladding is also an issue. The push to build the most tall, thin, ultramodern towers as cheaply and quickly as possible will hopefully come to an end. Rapacious developers have destroyed Sydney and Melbourne.

ryokai

Everything is built to 'investor grade', so investors will keep buying apartments. Oh that's right, the Chinese have pulled out of the market and are no longer buying bulk apartments sight-unseen. "Investor grade" means something like Opal Tower that stands as a physical entity and poses for a photo but try not to zoom in.

A Realistic Engineer

As a qualified professional engineer, (yes including being an RPEQ), I have always found it crazy that a half-baked, uninsured, shonky can be used to design a major structure that clearly is a huge public safety risk if it fails. Yet no one seemed to care.

Not4Profit

Welcome to NSW, the State of malfeasance, where the true skill is burying your responsibility under so many layers you will be long dead by the time they discover your impropriety.

Yoghurt

This is the absurdity of the situation, that if certifiers don't certify they lose work in the future. So they are motivated to certify rubbish. That leaves zero accountability in the entire chain.

inge

If government allows certifying by anyone, why would dodgy people not 'make hay while the sun shines'? Isn't that our capitalist system? Find niches, exploit, get out...find new niche, exploit, get out...

Rob Gynea Bay

Elizabeth, you have said it all except the NSW LNP Government green lighted this mess. It did when it virtually abandoned any independent oversight and certification. Remember the mantra of cutting of redtape, this is the result. Not to mention that these oversized individual buildings are the slums of the future. This government is on the nose and overdeveloped slums are the prime reason.

Toast

It did work in the past and only needs implementation.

The system at the moment may be working for builders, but it is not working for the customer.

Plus it's too late once the project/house is built.

We want safe well-built buildings, but we are not getting them.

We must change something and quickly.