



ABC Conference

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IQPs: The ambulance at the
bottom of the cliff

Why this topic?

- **IQPs** find themselves dealing with many issues which are not picked up in the construction works.
- The industry does not seem to be improving.



What are the issues?

- Errors occur which are not picked up by pre-determined processes





Construction processes

- Concept
- Design
- Engineering
- Peer Reviews
- Building Consent
- Construction





Construction processes

- Quality control
- Trade Coordination
- Construction Monitoring
- PS3 & PS4 Certification
- Code Compliance
- Fitout works



Post-construction processes

- The building warrant of fitness
- Building Act 2004 Section 108 2)

“The purpose of the building warrant of fitness is to ensure that the specified systems listed on the compliance schedule are performing and will continue to perform to the performance standards laid out in the relevant building consent”



What causes failures?

- **The Swiss Cheese Model of Accident Causation** – Jason T Reason, University of Manchester
- Sometimes referred to as the **“Cumulative Effect”**



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What happens when problems are found?

- **“...but the council signed it off...”**
- Failure to issue the BWOE
- Potential fines
- Affects insurance, finance, licenses
- Risk to ongoing tenancy agreements
- Costs of remedial action



Accountability

- **Producer Statements are binding**
- Legal liability
- Civil action to recover costs for repair and trading losses
- This requires time and money



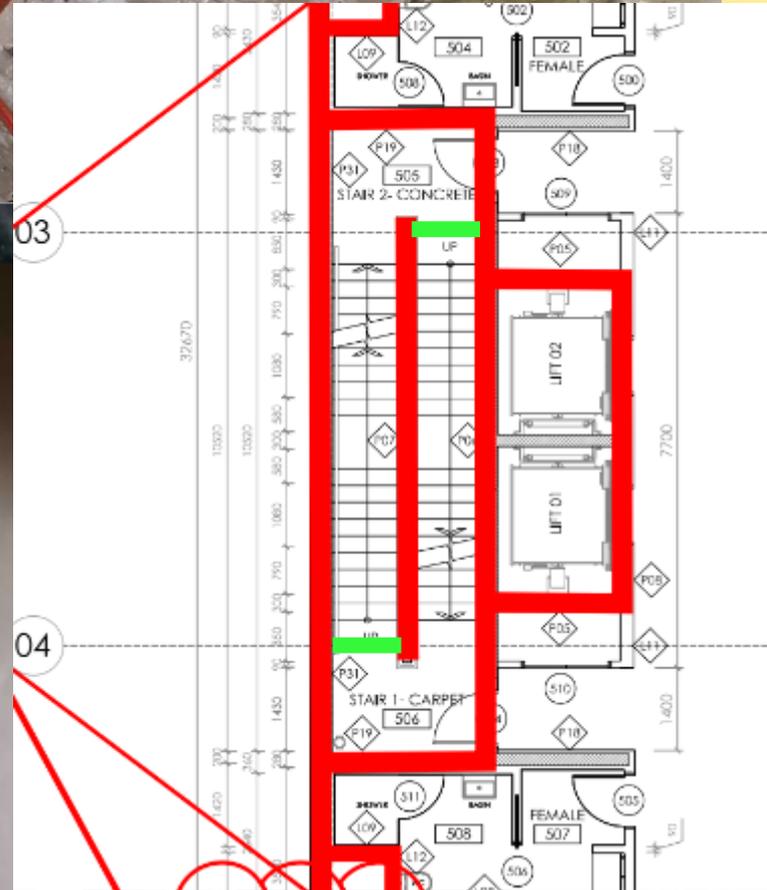


Case Study - Christchurch

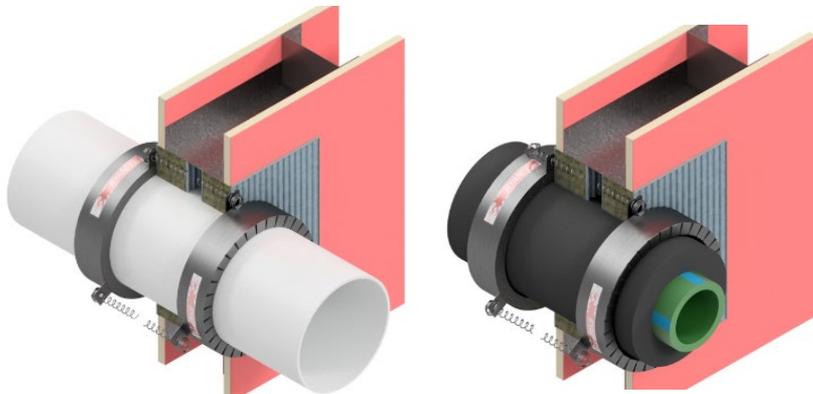
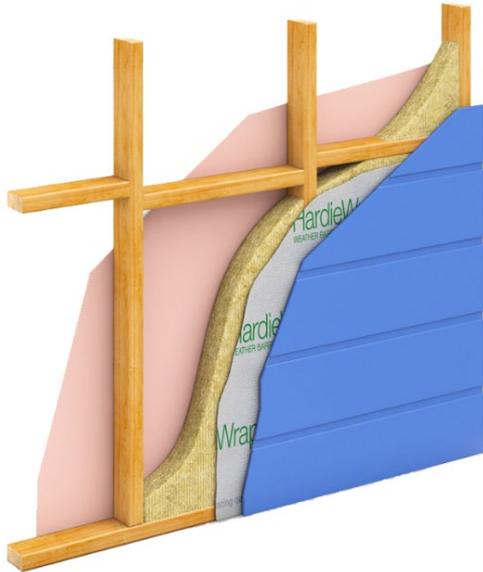
- Building Constructed 2014-2015
- Ground floor retail
- First Floor car parking
- 4 floors of offices @~750m² each
- Code Compliance issued April 2015
- 6 BWOFs issued
- New owner 2021 undertakes due diligence
- Incoming IQP finds myriad of issues



Case Study - Christchurch



Case Study - Christchurch



Case Study - Christchurch



- Building owner evaluates repairs at \$500k
- Investigates legal action against:
 - Developer / Previous owner
 - Constructor (PS3)
 - Fire Engineer (PS4)
 - Council (Code Compliance)
 - Previous IQP (12A)
- Decides that legal action will take too long (impacting the BWO, security of tenancies) and be too costly with some risk of failure. Funds repairs themselves.
- No accountability on those at fault.



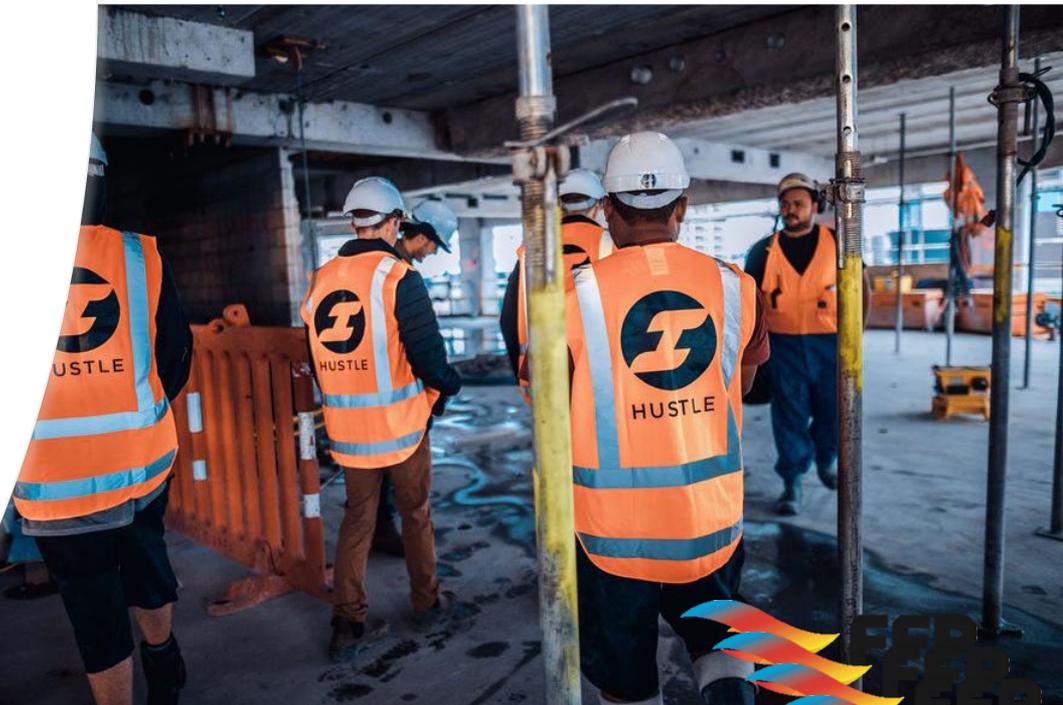
Design

- The “Perfect World”.
- Lack of trade coordination.
- The design may be impractical to implement for some trades.
- This leads to necessary innovation on site.
- Unplanned alterations can lead to oversight.



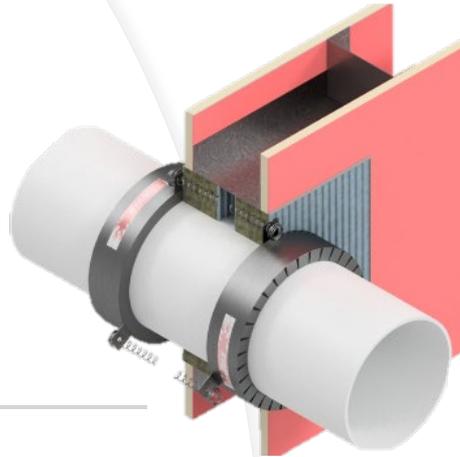
Construction

- Lack of qualified staff
- Staff Training
- Oversight and supervision
- Cost pressures
- Tendering finds the lowest common denominator
- Cheap gets the job





Construction Monitoring

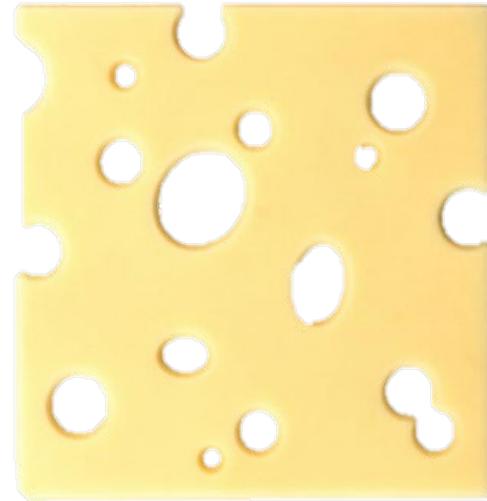


- Evolution of the site works means necessity to be on site regularly.
- Designers are not always installation experts.
- Site inspections don't see every aspect.
- Actual construction may not fit the textbook solution.
- The engineer who creates problems doesn't get the next job.



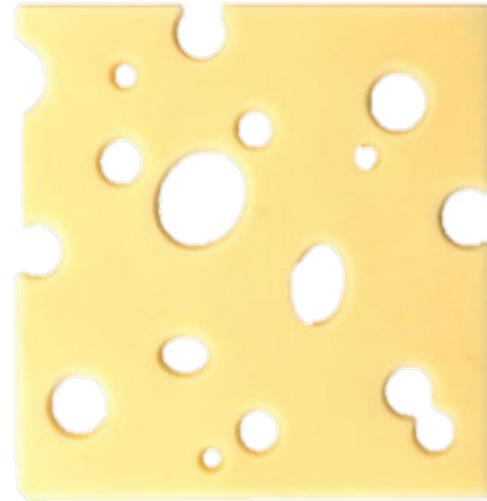
The solutions

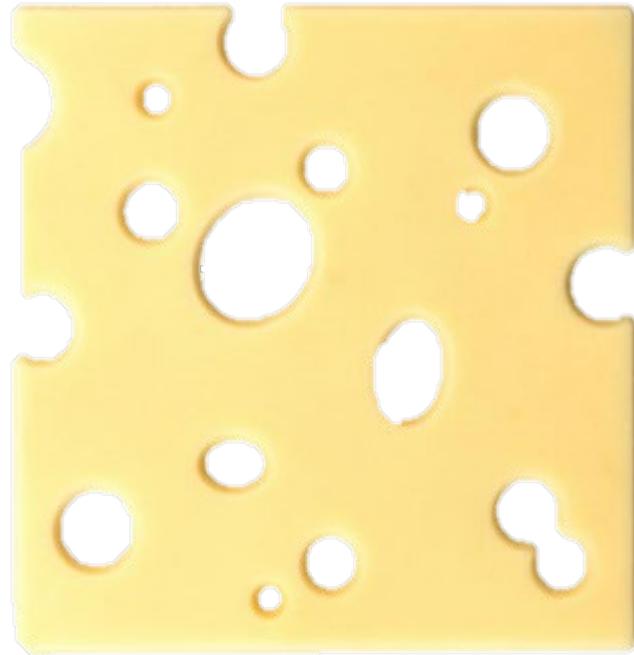
- Having fewer holes, not more slices of cheese.
- Improve the quality of the process, don't just add more flawed processes.
- Have certification of more contractors in life safety trades.
- Improve qualifications and make these requirements to operate.
- Have these trades accountable for errors.



The solutions

- Create a process to deal with complaints and hold trades to account.
- Discourage shady contractors through accountability.
- Ensure regular recertification processes exist.
- Assist victims to seek compensation and justice in a timely manner.









IQPs : AN AMBULANCE AT THE BOTTOM OF THE CLIFF

Road to Improve Building Safety->

IT'S STILL NOT WORKING

Maybe we should have better processes such as licenced installers, better oversight and construction monitoring, & avoid tendering work to the cheapest bidder?

DON'T BE STUPID — WE'RE GOING TO KEEP DOING THIS TILL IT WORKS!

MURDOCH 12/2/17

Sincere apologies to Murdoch...



Thank you.





FFP
FFP CANTERBURY