

## **FIRE PROTECTION STEPS – The process to ensure buildings are fire protected:**

- **Building consent requested.**

documents will include a fire report, which identifies the fire-protection requirements. The local council will approve or decline the design.

- **On completion of installation, producer statements are issued.**

council can accept a producer statement if the author is on the council's approved list or it can accept it subject to a peer review.

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- **Council's building control team process the consent to ensure compliance.**

Fire reports/fire safety systems can be further tested and assessed by the council or peer reviewed.

During construction council inspectors check the fire safety systems. If everything complies the building is awarded a "pass". **There is no independent certification** requirement of passive fire systems or fire stopping.

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- **The council does a final inspection and issues a Code of Compliance certificate.**

Before a building is a year old, IQP's check the building's specified systems. If all is OK and regular inspections have been completed during the year, a 12A form is issued for each specified system and a building warrant of fitness is issued. This check then occurs annually.

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In reality .....



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## Qualifications & What to look for in an installer

There is **NO independent certification** requirement of passive fire systems!!??

Anyone with “suitable training” can apply passive fire protection products!

*The buck stops with the Fire Engineer and the IQP*



**STOP  
THE  
MADNESS**

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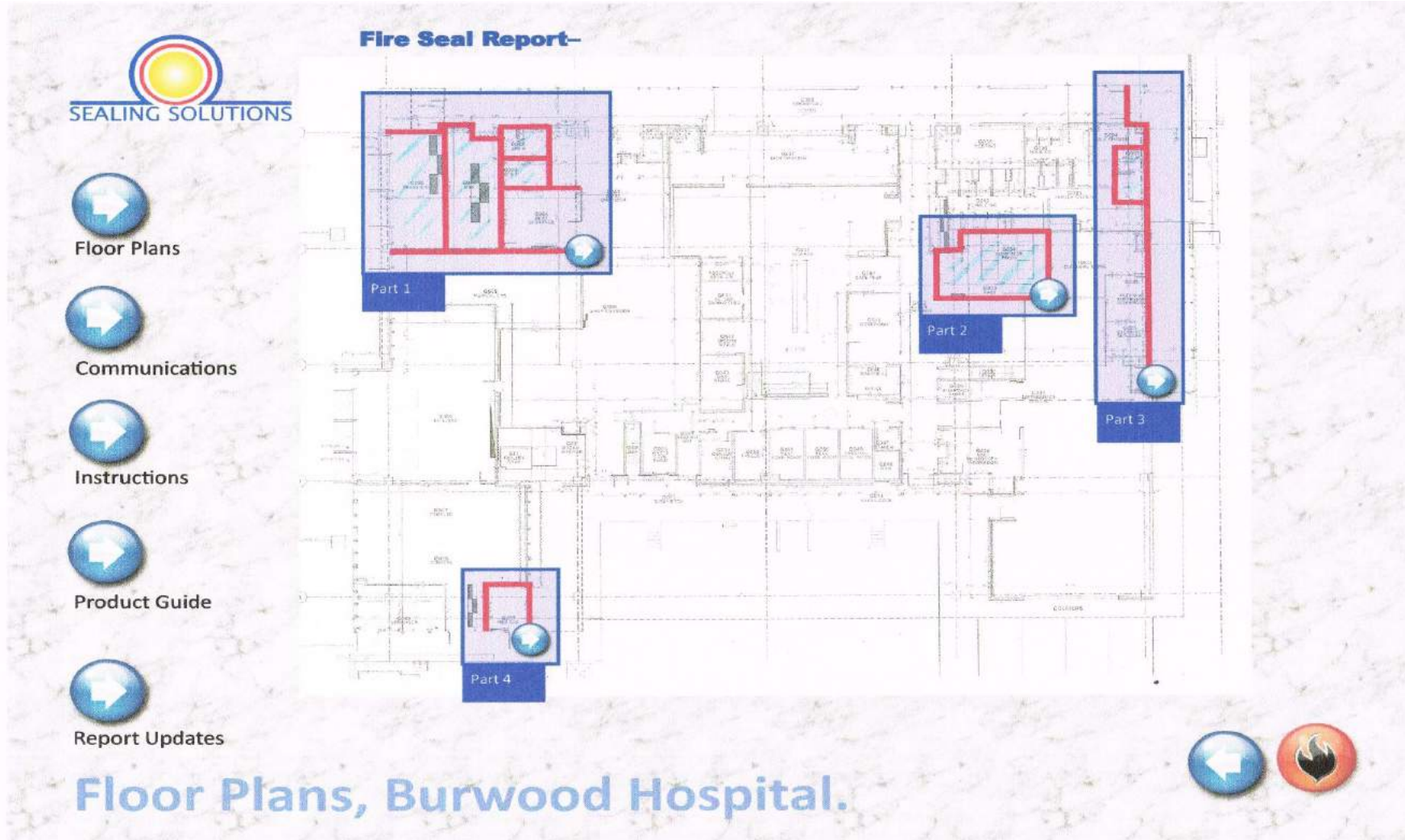


## A good installer should show signs of:

- Field knowledge – penetration id & label, penetration register, neutrality
- Product knowledge
- Manufacturer accreditation – esp. coatings / sprays
- Being up with NZBC requirements – **AS 4072.1-2005** sets out minimum requirements for the construction, installation and application of fire resistance tests to sealing systems
- Operate a building information management (**BIM**)

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**Fire Seal Report-**

SEALING SOLUTIONS

Floor Plans

Communications

Instructions

Product Guide

Report Updates

Part 1

Part 2

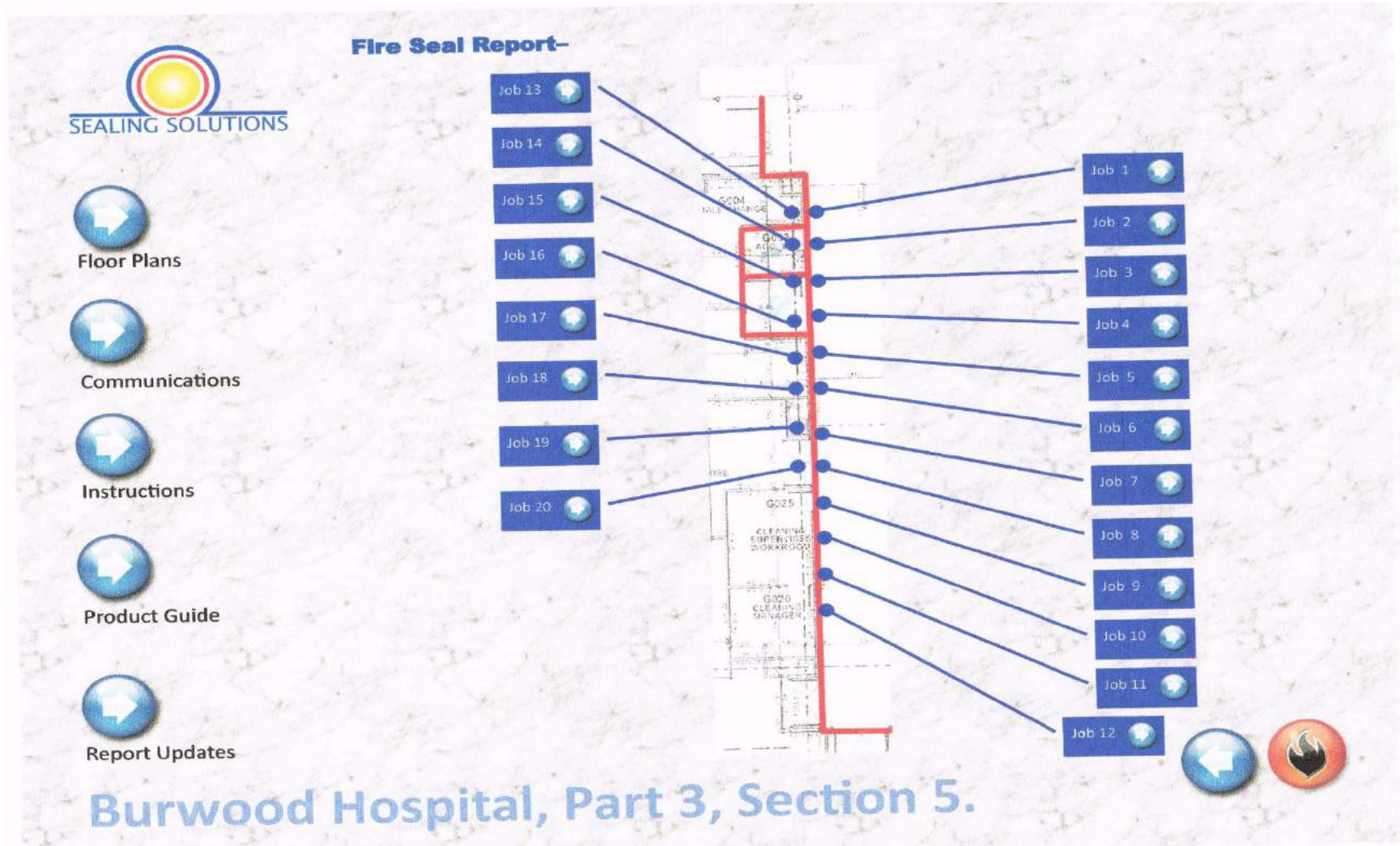
Part 3

Part 4

Floor Plans, Burwood Hospital.

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**Fire Seal Report-**

SEALING SOLUTIONS

- Floor Plans
- Communications
- Instructions
- Product Guide
- Report Updates

Job 13

Job 14

Job 15

Job 16

Job 17

Job 18

Job 19

Job 20

Job 1

Job 2

Job 3

Job 4

Job 5

Job 6

Job 7

Job 8

Job 9

Job 10

Job 11

Job 12

Burwood Hospital, Part 3, Section 5.

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## AS 4072.1-2005

- The design of fire stopping systems
- Stipulating requirements for movement
- Serviceability in particular
- Guidance relating to acceptable variations from fire tested specimens
- Installation requirements
- Requirements for marking or labelling
- Relevant documentation used for certification purposes.

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## Quality aspects to consider

- *Field knowledge – penetration id & label, penetration register, neutrality*
- *Product knowledge*
- *Manufacturer accreditation – esp. coatings / sprays*
- *Being up with NZBC requirements*
- *As tested! Use, application and installation*
- *Read the data sheets – many a hook and disclaimer*
- **Peanuts + Monkeys = STRIFE**

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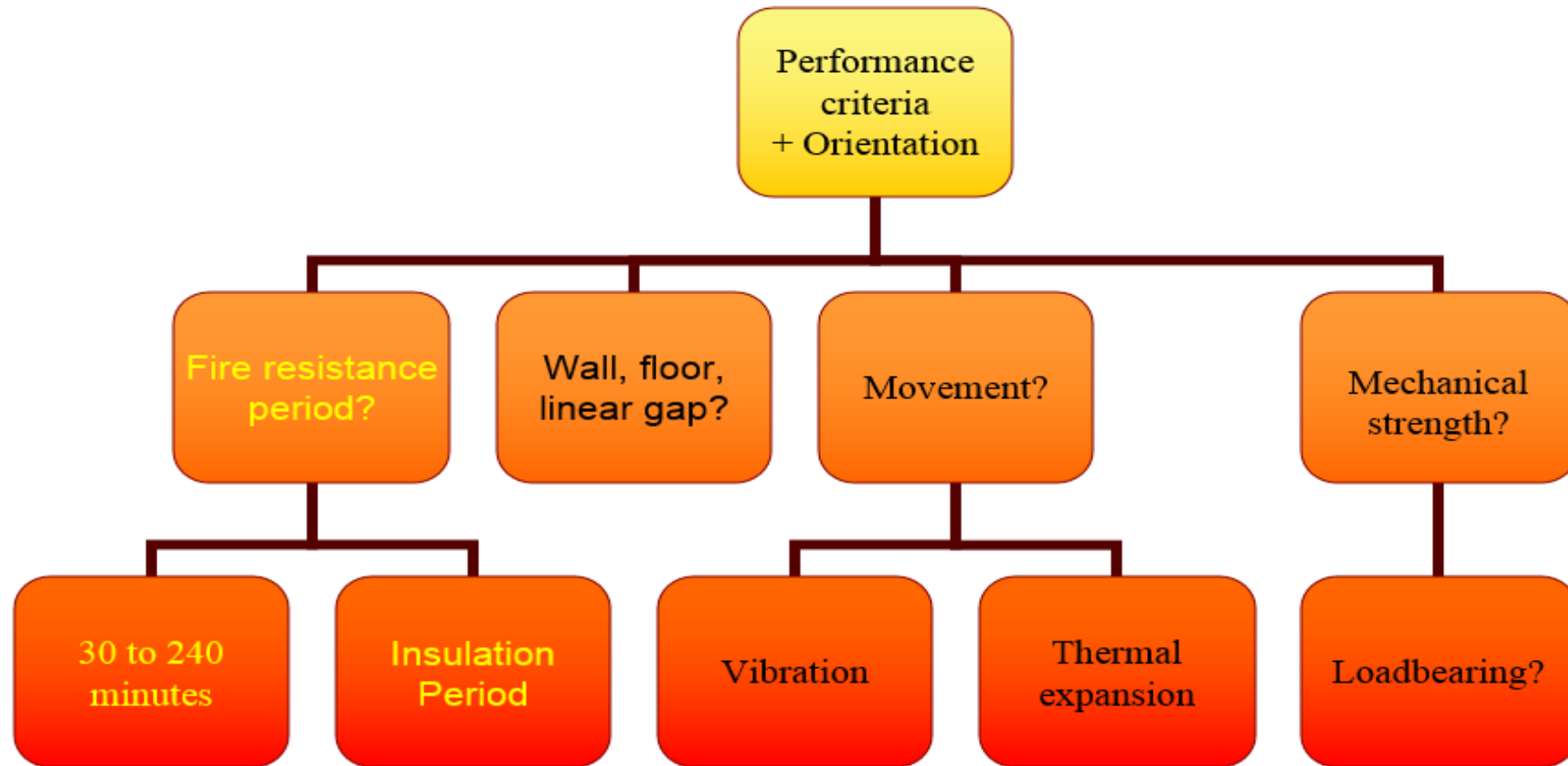
- DO IT ONCE, DO IT *RIGHT!!*
- Be prepared!
- Allow more contingency \$\$ for PFP in your budget



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## Considerations for Passive Fire Protection?



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## What is Passive Fire Protection?

- “Non-active elements that are built into a building fabric to provide protection for the structure and occupants”
- The key goal being to prevent or slow the spread of fire into other building spaces
- Also designed to limit the damage to the source and surrounding buildings
- Most importantly.... The goal is to provide sufficient time for occupants to evacuate or reach an area of safe refuge

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## Passive Fire Protection includes:

- Penetration management
- Cavity barriers
- Ceiling systems
- Compartment walls
- Ducting
- Gap and joint seals
- Structural steel protection

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## Everyday problems



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**Relax, it's taken care of**







**Relax, it's taken care of**







**Relax, it's taken care of**







**Relax, it's taken care of**





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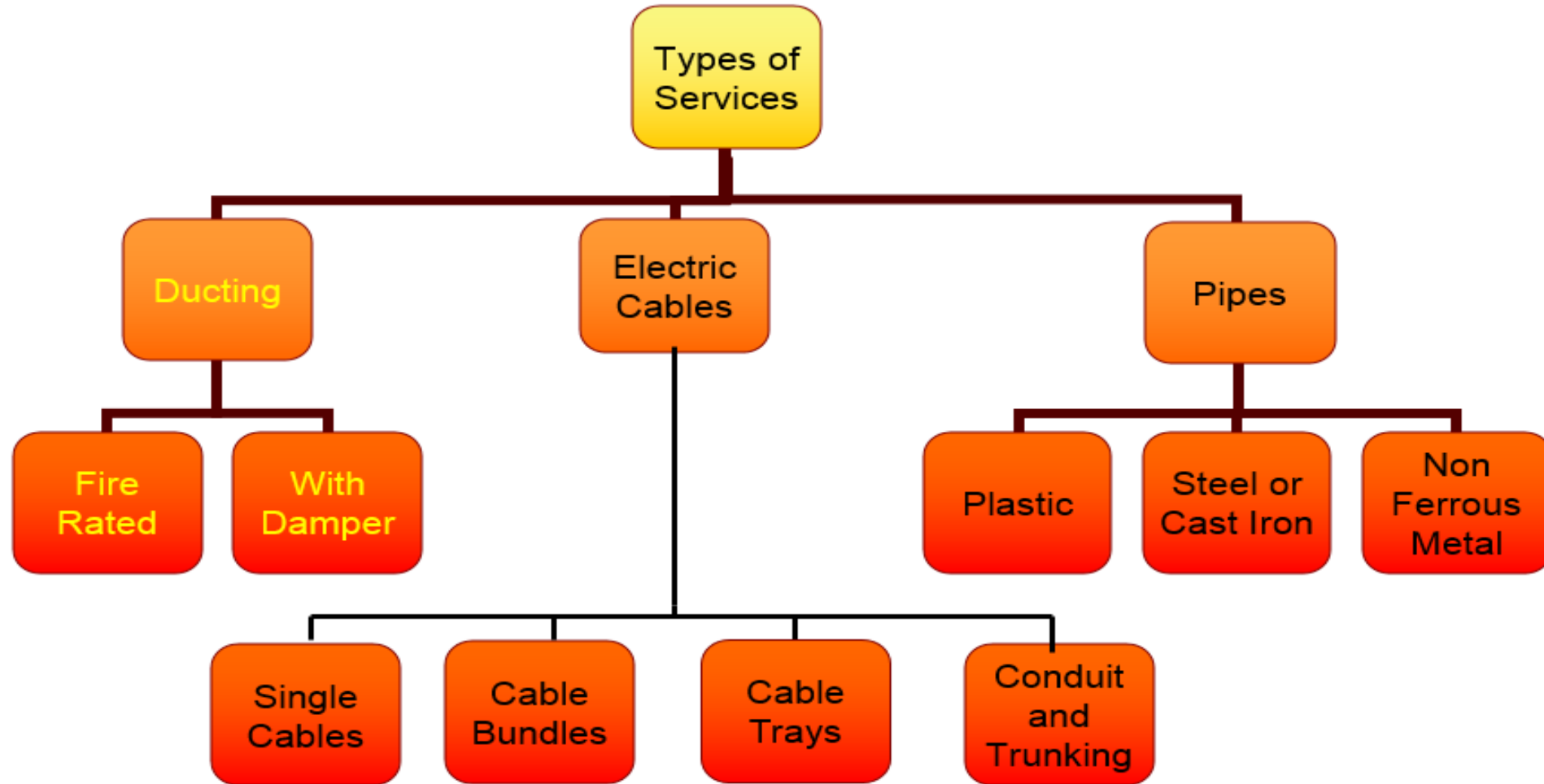




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## Mechanical Services Considerations



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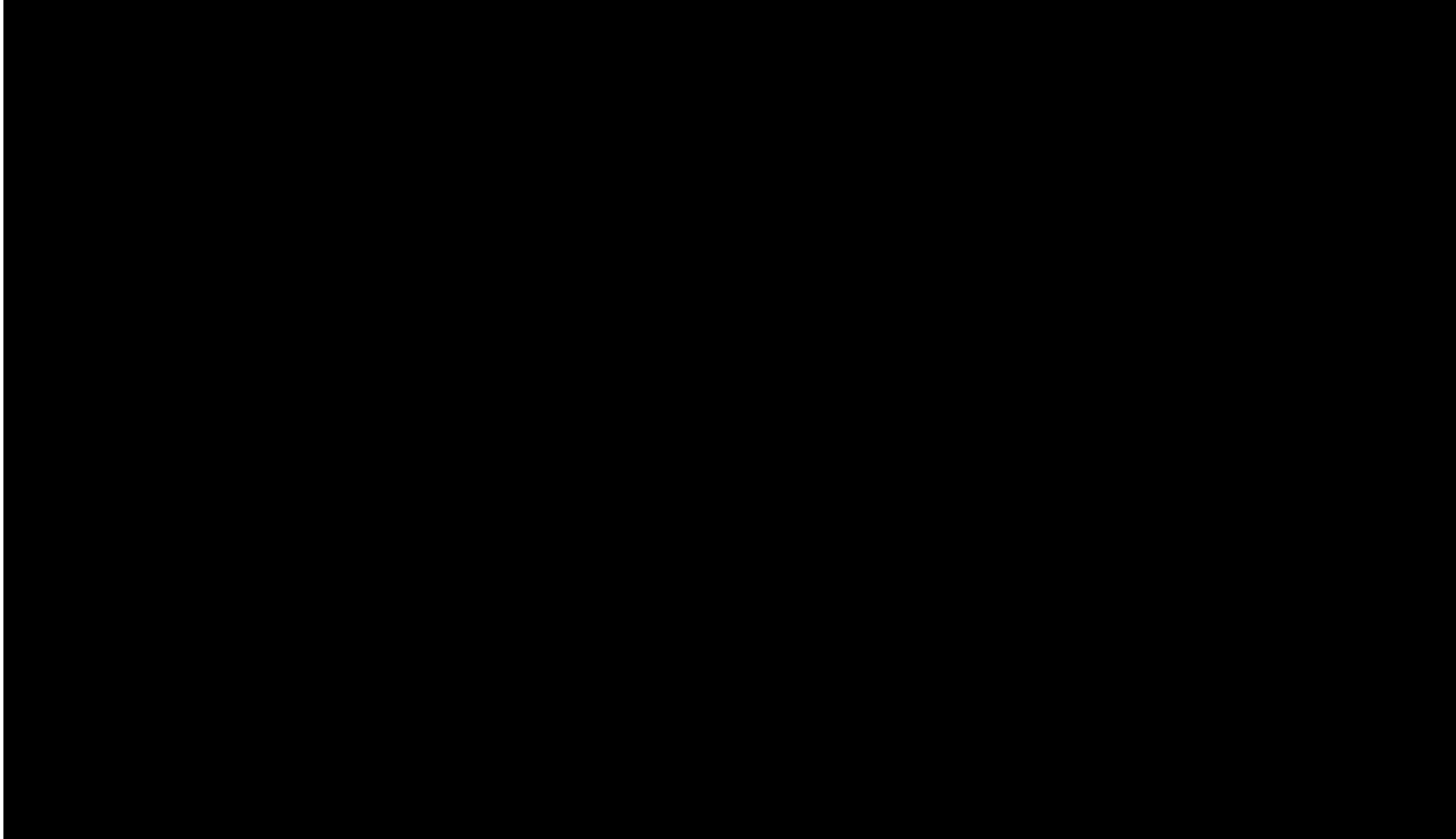


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## Fire Test On Unprotected Concrete



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## QUICK TIPS

- Using stainless steel encased collars, doesn't harbour rust
- Get inspections done prior to ceilings going in, earlier the better
- Have architectural plans, showing fire separations, at the ready, in PDF
- Be prepared! Risk analysis, contingency sums
- Keep with legislative requirements
- Always use a specialist PFP applicator that uses Building Information Management systems
- *The only way to keep costs down, is to keep ahead of the market*

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