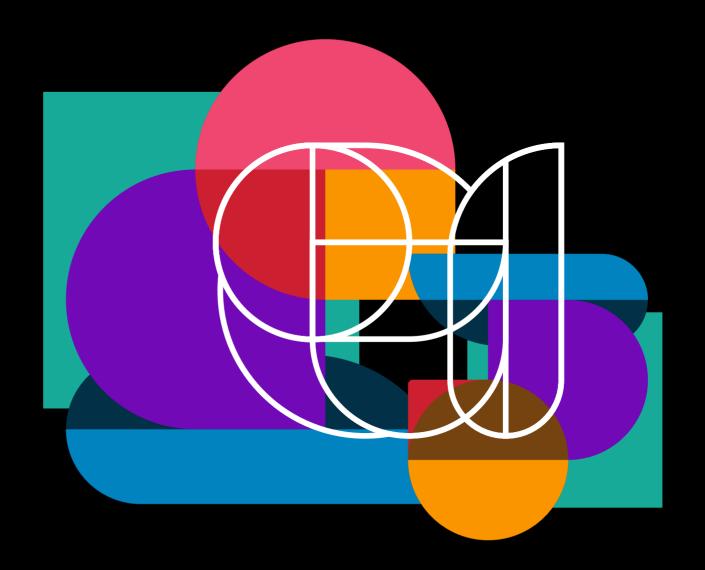
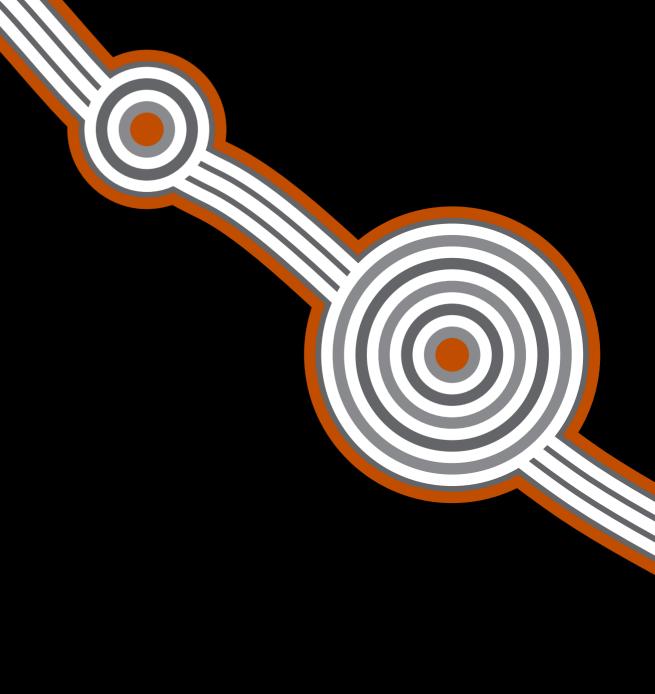
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# Acknowledgement

Hutchies acknowledges the Traditional Custodians of the land on which we work and live, and recognise their continuing connection to land, water and community. We also pay our respects to Elders past, present and emerging.





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# Introduction



# Heads up



### Housekeeping

Please switch your devices to silent mode

Toilets are located behind the stage, through the blue door and down the corridor

In an emergency, please follow the directions of Hutchies' Yatala Team and exit signage



### **Schedule**

10.30am / Morning Tea (15 mins)

12.30pm / Lunch (30 mins)

3.00pm / Wrap up, Yalata Site Walk & Beers

4.30pm / Bus Departs for Top Golf



### **Questions**

\_

If you have questions, please **raise your hand** (including on Microsoft Teams for our remote joiners).

If you need anything throughout the day, please chat to:

- > Natalie Roma
- > Harleigh Venables

# We're (still) COVIDSafe





### **Got symptoms?**

Please let a Hutchies host know immediately



### **Hands off**

Avoid shaking hands or touching your face



### Wash your hands

Regularly for 30 seconds and sanitise in between



### **Keep the space**

Maintain 1.5m from each other where practicable



# Cover up & dispose

When sneezing / coughing, use bins for your tissues



### **Follow directions**

Ensure you observe any current requirements

# Following today



# Survey

To provide feedback on the conference



# **PDF**

Copy of the presentation

# **Purpose of the Day**



Getting to know your peers



Sharing of knowledge and ideas



DM Document Library launch on Hutchies' Toolbox

# **Design Managers' Conference**

**Conference Outline** 

3 sessions of presentations, case studies and panel discussion

**Post Conference Events** 

Food, Beers & Site Walk of Yatala Yard

Top Golf



2022

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# Topics

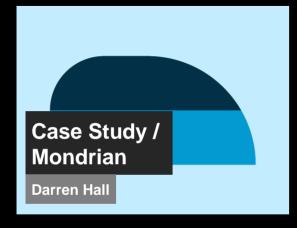


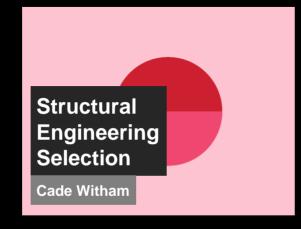




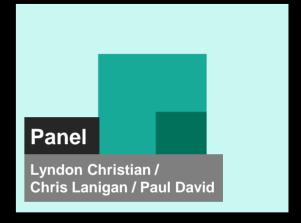










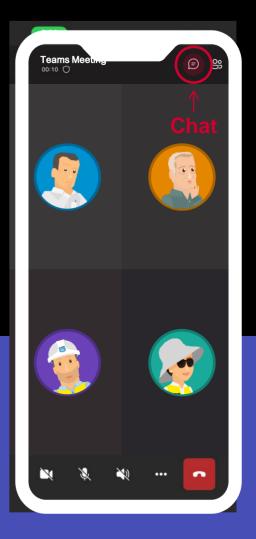




# Questions



Raise your hand or ask a question in Microsoft Teams chat



i

# Questions

Text the MOGI HOTLINE for anonymous questions & tips

Michael / 0429 773 010 Ogi / 0428 413 313



### **Current Market Conditions**

### Hutchinson Builders takes over Cbus Brisbane tower that broke Probuild

### Michael Bleby Senior reporter

May 2, 2022 - 4,56pm

Hutchinson Builders will take over the completion of Cbus Property's troubled residential development in Brisbane, one of most problematic projects for failed construction contractor Probuild

The awarding of the contract was widely expected, as family-owned Hutchies, the largest Oueensland-based builder, was seen as the only contractor capable

### Sydney developer Next enters voluntary administration with debts of \$15 million



A 259-bed student accommodation facility in Kensington, Sydney for incoming UNSW students is among Next's projects that are still under

- An aged care facility in Emu Plains and a student accommodation project are among the developments under construction that hang in the balance after Sydney builder Next entered voluntary administration vesterday, with its founder and director Joseph Di Girolamo hoping to salvage a deal with creditors.
- he company founded in 2007 and responsible for such projects as Edge Ultimo, Bay Central in Neutral Bay, and The Hensley in Potts Point - has debts of \$15 million.

Hard on the heels of high-profile development collapses this year such as Probuild and Condev, Di Girolamo has appointed John Vouris and Sule Arnautovic from Hall Chadwick as administrators.

"Quite a lot of building companies are facing a few issues. Next is not immune from those issues," Arnautovic

### Condev collapse to hit other **Oueensland builders**

Michael Bleby Senior reporter

Mar 16, 2022 - 3 55pm

The collapse of Queensland mid-tier builder Condev so soon after construction giant Probuild was placed into administration has increased pressure on other companies to hold up the subcontracting sector in an industry with razor-thin margins, the head of the state's largest building company said.

Worrells liquidator Jason Bettles was appointed to the manage the wind-down of the private builder on Wednesday, after it failed to secure the \$25 million it needed from developer clients. The business was crunched by materials costs that surged 25 per cent

Condey, which had 18 projects when it went under, was not directly hit by the failure of Probuild last month However, it did face higher after needing to replace subcontractors and suppliers knocked out by Probuild's failure.

Hutchinson Builders chairman Scott Hutchinson said Condev's own liquidation would increase the pressure



Hutchinson, Paul Harris



### **Since Last Conference...**



### **Team Engagement**

25 projects across 15 teams



### People, Training & CPD

Cadet Program

Monthly CPD sessions

New Starter Onboarding



### **External Audit**

2021 Audit recognised design management as an area of focus to improve project outcomes and reduce risk to the business



# **Quality Management System (QMS) & Toolbox**

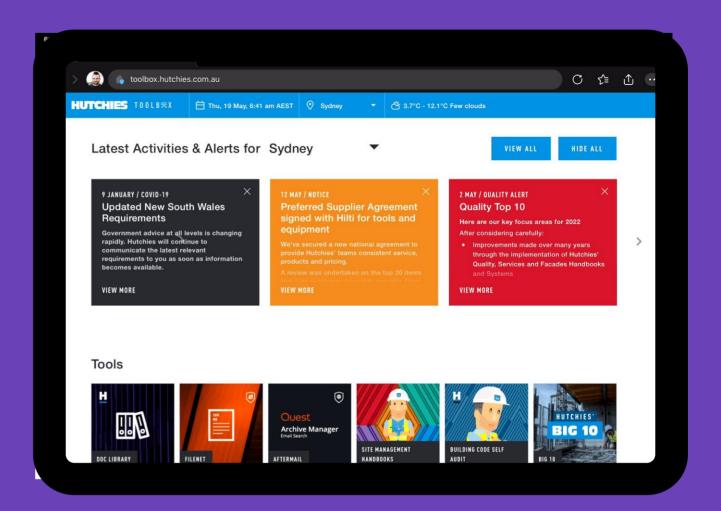
Audit complete, updated design management area on Hutchies' Document Library via Toolbox

# **Design Management > Toolbox & Document Library**

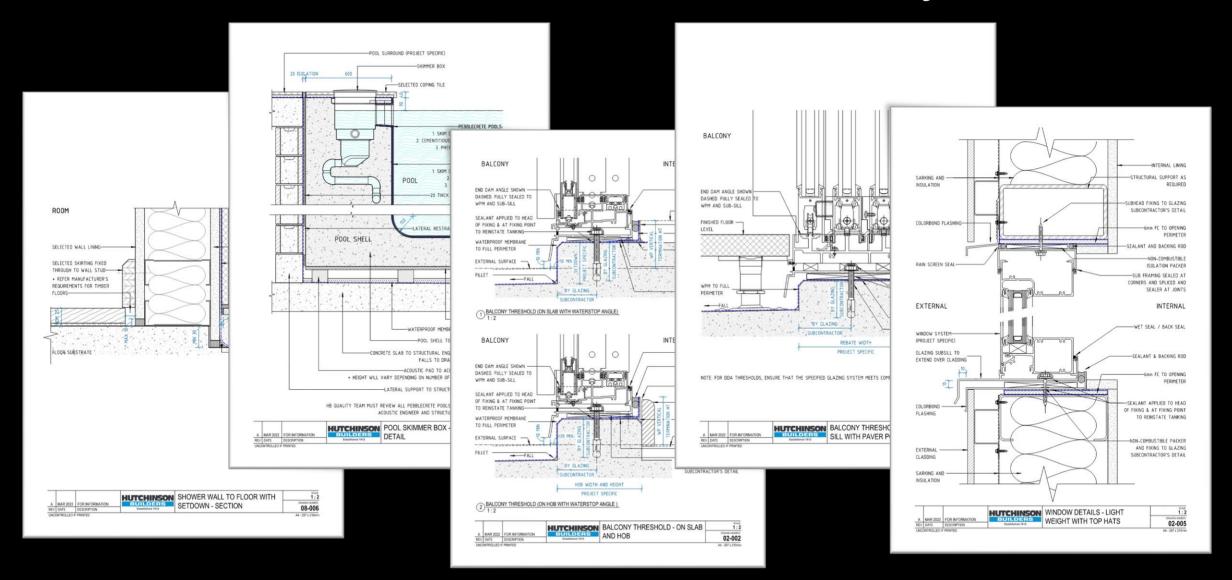




Available on Hutchies' Toolbox toolbox.hutchies.com.au

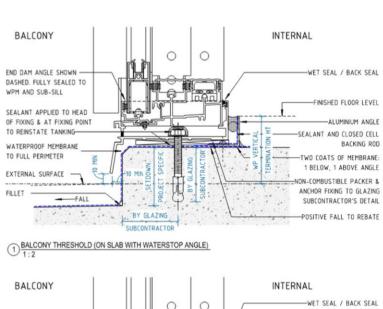


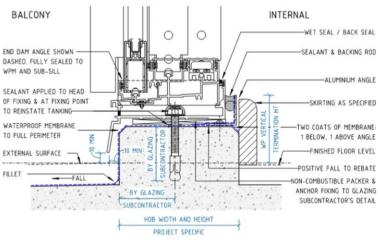
# **Hutchies' Standard Details now live on the Document Library**



### **Hutchies' Standard Details now live**

- > Approximately 40 details released with more to come
- > Drawing numbers reflect Hutchies' Quality Handbook topics
- > Intended to cover the majority of typical scenarios showing Hutchies *preferred* detail
- > Include in tenders, give to architects, share with subbies
- > If you have a better way to do something, we want to know!

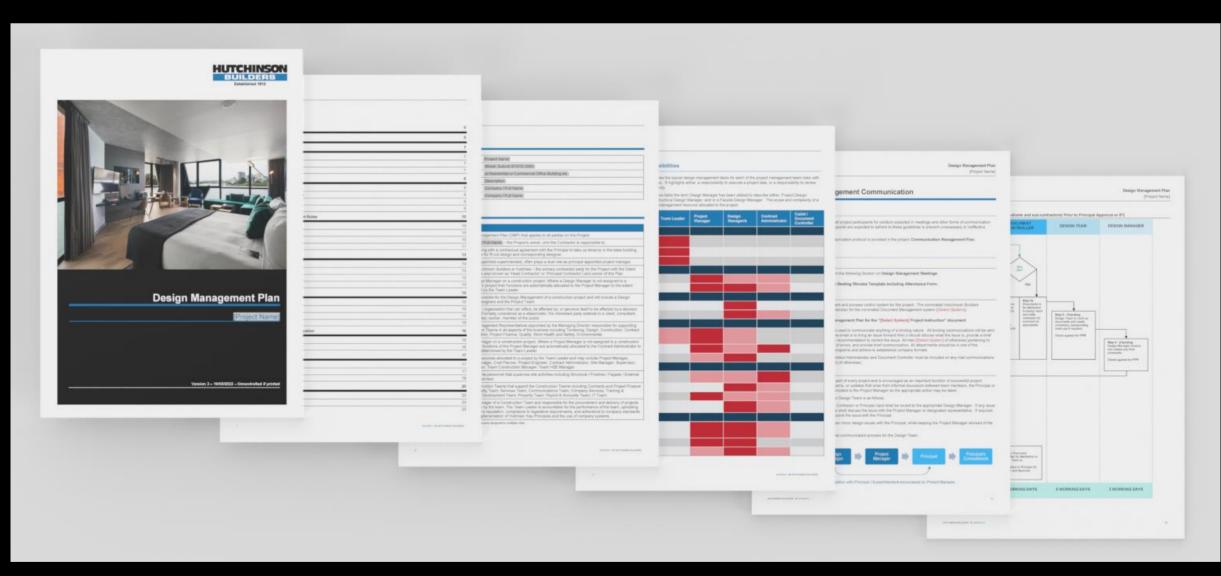




2 BALCONY THRESHOLD (ON HOB WITH WATERSTOP ANGLE

			HUTCHINSON	BALCONY THRESHOLD - ON SLAB	1:
A	MAR 2022	FOR INFORMATION		AND HOB	ORAMING MAKES
REV	DATE	DESCRIPTION	Established 1912	ANDTIOD	02-00
UNC	CONTROLLED	F PRINTED			A4 - 297 x 210m

# **Updated Design Management Plan Template**



# **Updated Safety in Design Template**

### 4. Project Safe Design Risk Register

Safe Design Report and Risk Assessment [Insert Discipline and Company]

ITEM	HAZARD CATEGORY	HAZARD DESCRIPTION	RISK LEVEL	PROPOSED DESIGN MITIGATION CONTROLS	RESIDUAL	ACTION BY	ADDITIONAL CONTROLS TO CLOSE OUT ITEM	STATUS
NO.	SITE ISSUE				RISK LEVEL			
1.1	Traffic and pedestrian management	Pedestrians mix with vehicular transport	High	Contractor to provide adequate/suitable warning signage to site access points. Provide details of site and contact numbers. No non site related pedestrian traffic to be allowed on site only as required.	Medium	Builder		Open
1.2	Slips, trips and falls	Trip and fall hazards, slipping	Medium	Contractor to assess risks and issue instructions for access or denial of. Consider slope stabilisation, screening or as appropriate to mitigate.	Low	Builder		Open
1.3	Access and egress	Unauthorised access into site during construction operations.	Extreme	Contractor to maintain a secure site. Secure suitable perimeter fencing to be maintained to all boundaries with appropriate warning signage. Perimeter security is to be specified to suit the locality and other measures such as an on-site security presence to be considered.	Low	Builder		Choose an item.
1.4	Underground services Overhead services	Risk of accidental contact with existing overhead and underground services	Extreme	Contractor to ascertain location of existing site services and take account of these in planning works and accessing site. Site personnel PPE to be utilised to suit appropriate application.	High	Electrical		Choose an item.
1.5	Mobile plant and equipment	Risk of injury from unauthorised access into site. Risk of theft of potentially dangerous construction machinery and materials.	Choose an item.	All materials, machinery and vehicles within the site are to be adequately secured, particularly during 'out-of-hours'. Perimeter security is to be maintained and appropriate warning signage displayed.	Choose an item.	Choose an item.		Choose an item.
1.6	Working within existing building	Working within existing building: Risk from unknown structure, services, materials and conditions.	Choose an item.	Provide full method statements for all construction processes likely to affect/be affected by the existing structure. Limits apply to lifting heights and associated plant.	Choose an item.	Choose an item.		Choose an item.
2.0	PRELIMINARY SITE WORKS							
2.1	Earthworks	Injury to personnel Injury to fauna and flora	Choose an item.	Adequate protection to be provided during site clearing operations. Undertake all recommendations of Environmental management plan including requirements for specialist spotters/environmental Consultants to overview works and procedures. Protective equipment to be provided for personnel.	Choose an item.	Choose an item.		Choose an item.
2.2	Demolition	Injury to personnel	Choose an item.	Appropriate PPE to be provided for personnel. Personnel are to be made aware of risks and appropriate working methods.	Choose an item.	Choose an item.		Choose an item.
2.3	Removal of debris from site	Risks associated with transportation of spoil / debris from site. Risks to personnel during loading procedures.	Choose an item.	Site access constraints are to be considered in planning debris removal. Personnel are to be provided with suitable Protective Equipment and made aware of risks.	Choose an item.	Choose an item.		Choose an item.
3.0	CONSTRUCTION PHASES: E	XCAVATION AND EARTHWORKS						
3.1	Hazardous substances	Potential risk to personnel from ground contaminants.	Choose an item.	Adequate investigation works are to be undertaken to identify presence of contaminants. Personnel are to be made aware of risks and provided with appropriate protective equipment. Refer all current Geotech information & testing.	Choose an item.	Choose an item.		Choose an item.
3.2	Works in Proximity of existing live services	Risk of injury through accidental contact with existing underground / overground services.	Choose an item.	The contractor is to ascertain location of all existing site services and take account of these in planning works. Appropriate warning signage and Protective Equipment is to be provided. Personnel are to be made aware of risks.	Choose an item.	Choose an item.		Choose an item.
3.3	Excavation and construction of foundations / underground tanks.	Falling into open excavations. Risks from instability of excavation edges. Potential clash of personnel and construction vehicles/ machinery during excavation works/ foundation construction.	Choose an item.	Adequate shoring /edge protection to be provided to trenches and other excavations. Operatives are to be made aware of risks and provided with appropriate Protective Equipment. Full warning signage to be provided with visual warning indicators. Sequence of works to be overviewed and scheduled to minimise risks.	Choose an item.	Choose an item.		Choose an item.
3.4	Excavation Works	Flooding or ingress of ground water during the works. Risks to personnel carrying out works and of creating instability in excavations.	Choose an item.	Adequate investigations are to be carried out to determine risks from ground water. Works should be sequenced to minimise associated risks. Personnel are to be made aware of risks.	Choose an item.	Choose an item.		Choose an item.
3.5	External works generally	Collapse of groundworks. Risks associated with construction incl offloading of heavy material.	Choose an item.	Deep excavations are to be minimised / avoided where possible. Adequate propping and guarding/edge protection to be provided. Operatives are to be made aware of risks and provided with	Choose an item.	Choose an item.		Choose an item.

CONSEQUENCES How severely it hurts someone (if it happens)					
LIKELIHOOD How likely it is to happen?	Insignificant no treatment required	Minor first aid treatment only; contained at site	Moderate medical treatment; contained but with outside help	Major extensive injuries, loss of production	Catastrophic death, irreversible damage
Almost Certain expected in most circumstances	Medium	High	High	Extreme	Extreme
<b>Likely</b> will occur in more circumstances	Medium	Medium	High	High	Extreme
Possible might occur at some time	Low	Medium	Medium	High	High
Unlikely could occur at some time	Low	Low	Medium	Medium	High
Very Unlikely may occur only in exceptional circumstances	Low	Low	Low	Medium	Medium

SCORE	ACTION			
Extreme	ACT NOW - do something about the risks immediately. Requires immediate attention. Redesign to eliminate or reduce risk			
Highest management attention is required, action plans and management responsibility specified. Redesign as far as is reasonably practicable and alert others of any residual risk				
Medium	Manage by specific monitoring or response procedures, with management responsibility specified. Redesign if reasonably practicable.			
Low	Manage by routine procedures, unlikely to need specific application of resources			

### Hierarchy of risk control

CONTROL	EFFECTIVENESS		DESCRIPTION		
Elimination	100% Hazard removed		Design the hazard out		
			e.g. relocating plant from roof level to ground level to eliminate hazard of working at heights for maintenance.		
Substitution	75%	Reducing the hazard	Hazard substituted with something of lesser risk		
			e.g. specifying low emissions paints, finishes or cabinetry. Replacing a manual process with an automatic process.		
Isolation	50%	You are reducing and controlling the hazard	Hazard controlled through isolation		
			e.g. isolating hazardous plant or chemicals.		
Engineering	50%	You are reducing and controlling the hazard	Hazard controlled through engineering		
			e.g. Safety switches, mechanical ventilators, guards around machinery.		
Administration / Training	25%	These are soft controls which rely on people	Use administrative controls to influence people		
			e.g. traffic management plan, procedures, safe work methods, signage.		
Personal Protective	5%	You are now limiting the damage	Use personal protective equipment		
Equipment (PPE)			e.g. hearing protection or hard hat.		

### Potential Hazard Categories

Earthworks	Formwork	Precast construction	Stepping on or striking objects
Electrical	Hazardous substances	Psychological	Structural stability
Entrapment	Heat sources	Radiation	Traffic and pedestrian management
Ergonomics and space	Lighting and ventilation	Security	Underground services
Falling objects	Manual tasks	Slips, trips and falls	Work at height
Falls from heights	Mobile plant and equipment	Steel construction	Work on or near water
Fire and emergency	Noise	Specialised plant and equipment	Other workplace issues
	Electrical Entrapment Ergonomics and space Falling objects Falls from heights	Electrical Hazardous substances  Entrapment Heat sources  Ergonomics and space Lighting and ventilation  Falling objects Manual tasks  Falls from heights Mobile plant and equipment	Electrical Hazardous substances Psychological  Entrapment Heat sources Radiation  Ergonomics and space Lighting and ventilation Security  Falling objects Manual tasks Slips, trips and falls  Falls from heights Mobile plant and equipment Steel construction

# Other Design Templates

Design program (under construction with Owen Lyden)

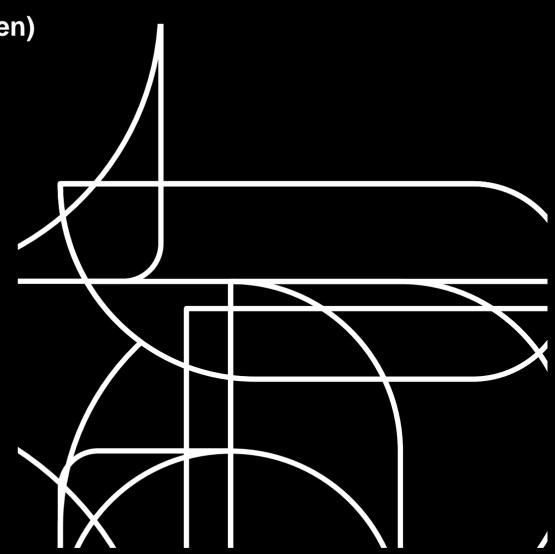
- > Linked to construction program
- > Linked to project procurement schedule
- > Drop down menu specific for your project

**Design checklists** 

**Meeting minute templates** 

**PPR** compliance schedule

We want to know what effective tools you use to deliver projects and share with others



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### Michael Lawlor National Design Manager

Joined Hutchies 2016

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# Ogi Latinovic National Design Manager

Joined Hutchies 2017

Phone

0428 413 313

Email

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# Contracts (for design managers)



### **Contracts (for design managers)**

# Content

- > What does D&C Mean?
- > Why Contract is important to Design Management?
- > Discrepancies
- > Principals' Project Requirements vs Prelim Design
- > Order of Precedence (OOP)
- > Complete the Annexures
- > Design / sample submission for approval
- > Program

- > Case Studies:
  - Midtown
  - DGC
  - Jewel



# What does D&C mean? Everyone has a different opinion.....

### **Principal (Client)**

- "builder wears all design risk"
- "I can make changes throughout the job."
- "builder can't change anything without my approval"

### **Architect**

> "I can up spec so I win an award"

### **Builder (ie Berlese)**

- > "I can change anything as long as we achieve CofC"
- > "achieve the performance requirements"
- > "I can make savings without effecting yield"

### **Design & Construct Subbie**

> "I will satisfy the minimum performance objectives"







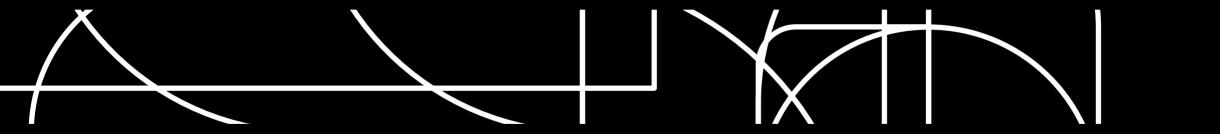


## What does D&C mean? Wins / Losses

Builders believe there is a D&C 'balance' via:

+ 'Wins' scaling back excessive designs to meet performance outcomes only ie 'design efficiency'

 - 'Losses' up-spec of design gaps to meet performance outcomes ie 'meeting the brief'



# Ever been frustrated?

- > Scope / qualifications
- > Highest and best
- > Credits
- > Principal design delays
- > Design rejections / changes



### What do we want?

### We want:

- —Clarity / no hesitation = speed
- –Pathway for discrepancies & less arguments / less credits
- A process & timeframe for design approvals and decisions
- Flexibility to amend engineering / make savings
- And ultimately <u>better margins</u>
- > Need to set up the contract correctly
- > I will show you how



### DANGER !!!! / Clause 8.1

### > AS4902 D&C contract

### 8.1 Discrepancies

Figured shall prevail over scaled dimensions in a discrepancy. Otherwise, if either party discovers any inconsistency, ambiguity or discrepancy in any document prepared for the purpose of carrying out WUC, that party shall give the Superintendent written notice of it. The Superintendent, thereupon, and upon otherwise becoming aware, shall direct the Contractor as to the interpretation and construction to be followed.

The Contractor shall bear the cost of compliance with a direction under this subclause to the extent that any inconsistency, ambiguity or discrepancy in the design documents or between the design documents and the Principal's project requirements necessitates the direction.

If compliance with any other direction under this subclause causes the Contractor to incur more or less cost than otherwise would have been incurred had the direction not been given, the difference shall be assessed by the Superintendent and added to or deducted from the contract sum.

# AS4902 Amended Contract (Ruby) / Discrepancy Clause 8.1

### 8.1 Discrepancies

Where there is an inconsistency, ambiguity or discrepancy in or between any document or documents prepared for the purpose of carrying out the WUC, the inconsistency, ambiguity or discrepancy shall be resolved as follows:

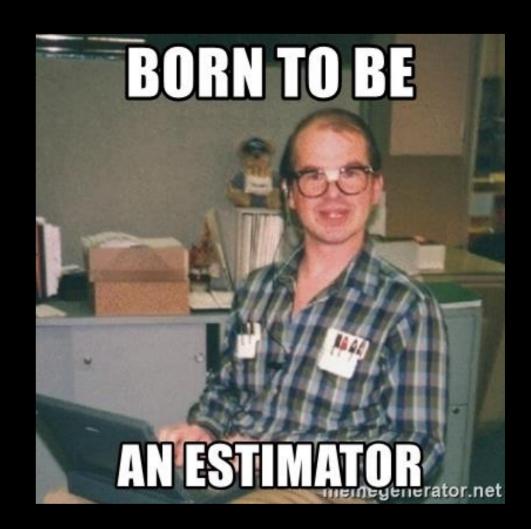
- (a) the Formal Instrument of Agreement and these general conditions have precedence over the other Contract Documents:
- (b) where inconsistent levels of quality are required, the higher level of quality will apply;
- (c) figured dimensions will take precedence over scaled dimensions;
- (d) drawings made to larger scales will take precedence over drawings made to smaller scales:
- (e) where the requirements for quality or any aspect of the WUC is not expressly specified or depicted, the quality must be consistent with the stated purpose of the Works; and
- (f) <u>drawings showing particular parts of the WUC take precedence over drawings for more general purposes.</u>

Figured shall prevail over scaled dimensions in a discrepancy. Otherwise, if If either party discovers any inconsistency, ambiguity or discrepancy in any document prepared for the purpose of carrying out WUC which cannot be resolved in accordance with the preceding paragraph, that party shall give the Superintendent written notice of it. The Superintendent, thereupon, and upon otherwise becoming aware, shall direct the Contractor as to the interpretation and construction to be followed.

Any inconsistency, ambiguity, discrepancy, error or omission in or between any document prepared for the purpose of carrying out the WUC and/or any direction given under this clause will be at the Contractor's sole risk and the Contractor will not be entitled to any Claim against the Principal as a result of any such inconsistency, ambiguity, discrepancy, error or omission.

# Why is discrepancy clause a risk?

- > Hutchies' estimator and our subbies consider the documentation in an OOP
- > Each trades focuses on trade specific docs and ignores the others
- >Unlikely we have checked every document for discrepancy
- > We don't price 'highest and best'
- >Human nature motivated to win hence price the cheapest not the dearest



# Why is Discrepancy clause a risk?

### Examples /

- > Sparky will count lights on Elec plan, not an architectural RCP
- > Glazier will quote glass specified in the glazing schedule and not check the sales document
- > Sprinkler contractor will quote heads to suit code rather than look at RCP
- Stone contractor will price the specified stone without looking at the 3d renders
- > Mech contractor will price mech engineering without checking the performance brief or ceiling plans
- > Balustrade contractor will look at elevation and details if they are different will price the cheapest possible alternate



# How to set up our contract documents

# > Split

Split the documents (PPR and Preliminary design)

# > Sort

Sort the documents in an Order of Precedence (OOP)



# PPR vs prelim design – what's the difference?

The AS4902 D&C contract asks us to separate the PPR from Prelim design

means the documents stated in *Item* 11; preliminary design prescribed notice has the meaning in subclause 41.1; means the Principal stated in *Item* 1; Principal Principal's project means the Principal's 1 Preliminary design (if included in Item 11) are described in the following requirements described in the documen. ocuments (clause 1) shall include the intended: Preliminary design (a) A preliminary design may include the (clause 1) \* is included (b) \* is not included objectives for the W in the Principal's project requirements. If neither deleted, a preliminary design is not included (b) The preliminary design documents are where stated in It (c) design;

## Why split PPR from prelim design? .....Back to 8.1

Must disclose any discrepancy for the purpose of carrying out the WUC

Can't depart from the PPR

### 8.1 Discrepancies

Figured shall prevail over scaled dimensions in a discrepancy. Otherwise, if either party discovers any inconsistency, ambiguity or discrepancy in any document prepared for the purpose of carrying out *WUC*, that party shall give the *Superintendent* written notice of it. The *Superintendent*, thereupon, and upon otherwise becoming aware, shall direct the *Contractor* as to the interpretation and construction to be followed.

The Contractor shall bear the cost of compliance with a direction under this subclause to the extent that any inconsistency, ambiguity or discrepancy in the design documents or between the design documents and the Principal's project requirements necessitates the direction.

If compliance with any other direction under this subclause causes the Contractor to incur more or less cost than otherwise would have been incurred had the direction not been given, the difference shall be assessed by the Superintendent and added to or deducted from the contract sum.

### Begs the question /

Are we really going to advise of every change to a part finished engineering drawing? Hence why these can't be part of the PPR

### --- Contracts

## Why split PPR from Prelim Design? ......Back to 8.1

We wear the costs of compliance with PPR (importantly not the Prelim design)

Variation applies where direction is outside of the PPR

### 8.1 Discrepancies

Figured shall prevail over scaled dimensions in a discrepancy. Otherwise, if either party discovers any inconsistency, ambiguity or discrepancy in any document prepared for the purpose of carrying out WUC, that party shall give the Superintendent written notice of it. The Superintendent, thereupon, and upon otherwise becoming aware, shall direct the Contractor as to the interpretation and construction to be followed.

The Contractor shall bear the cost of compliance with a direction under this subclause to the extent that any inconsistency, ambiguity or discrepancy in the design documents or between the design documents and the Principal's project requirements necessitates the direction.

If compliance with any other direction under this subclause causes the Contractor to incur more or less cost than otherwise would have been incurred had the direction not been given, the difference shall be assessed by the Superintendent and added to or deducted from the contract sum.

## Why split prelim design from PPR? ..... Clause 8.3

### 8.3 Contractor-supplied documents

The Contractor shall supply to the Superintendent the documents and number of copies at the times or stages stated in Item 17.

Other documents and information required by the *Contract*, unless elsewhere stated in the *Contract*, shall be supplied not less than 14 days before the *work* described in the documents is commenced and shall be in a form satisfactory to the *Superintendent*.

If the *Contractor* submits a document to the *Superintendent*, then except where the *Contract* otherwise provides:

- (a) the Superintendent shall not be required to check that document for errors, omissions, inconsistencies, ambiguities, discrepancies or compliance with the Contract;
- (b) notwithstanding subclause 2.1, any Superintendent's acknowledgment or approval shall not prejudice the Contractor's obligations; and
- (c) if the Contract requires the Contractor to obtain the Superintendent's direction about that document, the Superintendent shall give, within the time stated in Item 18, the appropriate direction, including reasons if the document is not suitable.

A direction by the Superintendent to vary anything in the design documents shall be a variation to WUC only to the extent that the design documents, before such variation, complied, or would have complied, with the Principal's project requirements.

Copies of documents supplied by the *Contractor* shall be the *Principal's* property but shall not be used nor copied otherwise than for the use, repair, maintenance or alteration of the *Works*.

- > Must satisfy the PPR
- > Directions outside the PPR will be a variation

# Why split PPR from Prelim Design?

- > The contract requires Hutchies warrant the PPR
- > Hutchies can't warrant Prelim design (it's not finished)
- > We need the <u>flexibility to change</u> preliminary design
- > Any change to the <u>PPR</u> must be disclosed / directed by either party
  - Hence documents likely to change (eg engineering) shouldn't be listed as PPR
- > We want the Principal to make comment / approvals on drawing submissions in relation to the PPR only / not the entire Preliminary Design

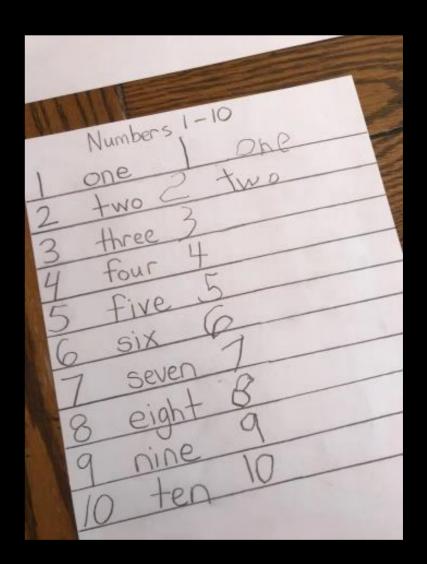


# What is order of precedence (of contract documents)?

Identifies the order in which the various contract documents are prioritised

when resolving a conflict or ambiguity,

within said contract documents.



# Order of Precedence (OOP)

#### **Contractor vs Principal**

- > Contractor (Hutchies) priorities:
  - Our offer VM / qualifications / exclusions at the top of the order
  - List reliance docs
  - It's how our subbies think
  - Certainty / speed
- > Principal priorities:
  - Satisfy town planning conditions
  - Back to back with sales / lease / contract with his end user
  - Finishes schedule
  - Highest and best / confusion





#### Order of Precedence / Formal Instrument

> A typically unhelpful FIA ....



#### INSTRUMENT OF AGREEMENT

Date of the Agreement:

#### PARTIES:

Cbus Property Sydney Residential Pty Ltd (ACN 607 511 035) of Level 7, 550 Bourke Street, Melbourne, Victoria, 3000 as trustee for the Sydney Residential 2015 Unit Trust ("Principal")

and

[INSERT] (ACN [INSERT]) of [INSERT REGISTERED ADDRESS] ("Contractor"
Contractor's Licence No: [INSERT]

#### RECITALS

- A. The Principal is seeking a builder to undertake the design and construction of works for Stage 2 of the Principal's project known as "Newmarket Randwick" ("Project") in accordance with the Contract, such work being domestic building work for the purposes of the Home Building 4ct
- B. The Contractor has agreed to enter into the Contract with the Principal whereby the Contractor is agreeing to undertake the design and construction of the Project.
- C. The Contractor represents to the Principal that it is experienced in the design and construction of work similar to WUC and that it will provide the necessary resources, personnel, skill and expertise required in order to comply with all its obligations in accordance with the Contract.
- D The Contractor acknowledges that the Principal has relied upon the representation in Recital C in entering into the Contract and agrees to its engagement on the terms of the Contract
- E. The Contractor acknowledges that the provisions to be incorporated in the Contract as a requirement of the Home Building Act are so incorporated and the Contractor acknowledges and warrants to the Principal that the Contractor has carefully examined the provisions of the Home Building Act.

#### OPERATIVE PROVISIONS

#### Performanc

- The parties have entered into the Contract for WUC, being the design and construction of Stage 2 of the Project in accordance with the Contract.
- The Contractor agrees to undertake the design and construction of WUC in accordance with the terms and conditions of the Contract.

- In consideration for the Contractor performing WUC in accordance with the terms and conditions of the Contract, the Principal shall pay the Contract or the Contract Sum
- Unless otherwise stated in the Contract, the date when WUC is to commence is the date the Contractor is given access to the Site for commencement of WUC on Site in accordance with clause 24.1
- The date when the Works shall be completed is defined as the Date for Practical Completion, as amended in accordance with the Contract.

#### Contract Sum

 The Contract Sum is the lump sum specified in Appendix 1 (excluding GST), which includes all Provisional Sum amounts

#### Contract Documents

- The Contract comprises the following documents, to which the following order of precedence applies to the interpretation of any discrepancies or inconsistencies: [Note: Order of Precedence to be confirmed]
  - a) this Instrument of Agreement;
  - (b) General Conditions of Contract and Annexure Part A:
  - (c) Appendix 1 (Contract Sum and Provisional Sums);
  - (d) subject to clause 7A of this Instrument of Agreement, Appendix 2 (Principal's Project Requirements);
  - (e) Appendix 3 (Site Plan);
  - (f) Appendix 12 (Contractor Warranty Deed and Contractor Warranty Deed Poll):
  - (g) Appendix 4 (Deed of Guarantee and Indemnity);
  - (h) Appendix 5 (Subcontractor's Statement):
  - Annexure Part D (Consultant's Deed of Novation and Design Certificate);
  - Annexure Part C (Subcontractor's Deed of Novation);
  - (k) Appendix 7 (Warranty Items and Warranty Periods);
  - (1) Appendix 8 (Form of Subcontractor Warranty);
  - (m) Appendix 10 (WH&S Certificate);
  - (n) Appendix 9 (Purchaser Upgrade Options);
  - (o) Appendix 6 (Value Management Options):
  - (p) Appendix 11 (Schedule of Rates for valuation of Variations);
  - (q) Appendix 14 (Principal Supplied Items);
  - (r) Annexure Part B (Approved form of Unconditional Undertaking);
  - Appendix 15 (Key Personnel);
  - (t) Appendix 16 (Charter); and
  - (u) Annexure Part E (Deletions, Additions and Amendments).
- 7A. The Information Documents are listed in Appendix 13, however they do not form part of the Contract. Reference Documents' are listed in Appendix Q to the Principal's Project Requirements, however they do not form part of the Contract unless otherwise expressly stated in the Contract.

## **Order of Precedence / Residential**

#### **Annexure F**

The following Contract documents are sorted in an order of precedence

<u>PPR</u>		<u>Prelimin</u>	<u>Preliminary Design</u>		
1.1	Performance (engineered) solutions:	2.1	Architectural Plans		
	- Fire engineering brief	2.2	Architectural specification		
	- Section J JV3 – alternate solution	2.3	Structural Plans		
	- DDA performance solution	2.4	Structural Specification		
1.2	NCC and Australian Standards	2.5	Mechanical Plans		
1.3	Approved HB tender qualifications	2.6	Mechanical Specification		
1.4	DA & matrix of responsibilities	2.7	Electrical Plans		
1.5	Sales Document / Lease	2.8	Electrical Specification		
1.6	Marketing images?	2.9	Hydraulic Plans		
1.7	Sales Display	2.10	Hydraulic Specification		
1.8	Site Condition reports	2.11	Fire Service Plans		
1.9	Client PPR	2.12	Fire Service Specification		
		2.13	Civil Plans / spec		
		2.14	Vertical Transport Plans / spec		



#### **CONTRACTS**

# Order of Precedence / Commercial

#### **Annexure F**

The following Contract documents are sorted in an order of precedence

	Ρ	P	R
--	---	---	---

1.1	<b>HB Departures To NT Govt Brief</b>	<u>Relianc</u>	<u>ce Documents</u>		
1.2	HB Tender Qualifications	2.1	Site Conditions Reports:		
1.3	HB Value Management Savings		Hazmat Report		
	3.		Geo-tech Report		

#### **Marked Plans**

1.5	DA Conditions	<u> Prelimir</u>	nary Design
1.6	NT Government Lease	3.1	Civil
1.7	NT Government Brief	3.2	Structural
1.7	Principal's PPR	3.3	Hydraulic
1.8	Latest Architectural	3.4	Electrical
	Plans, Elevations, Sections	3.5	Mechanical
		3.6	Fire Services



# Order of Precedence / Retail

#### **Annexure F**

The following Contract documents are sorted in an order of precedence

<u>PPR</u>	
1.1	HB Tender Qualifications
1.3	HB Value Management Savings & HB Marked Plans
1.5	DA Approval dated 1/11/21
1.6	Coles Lessors works
1.7	Coles Control Plan Rev G
1.7	Retail Tenancy Guide – Lessors works
1.8	Architectural Finishes schedule (common areas)

#### **Reliance Documents**

2.1	Fire engineered solution
	FEB rev 2.3
2.2	Site Conditions Reports:
	Hazmat Report
	Geo-tech Report

#### **Preliminary Design**

3.1	Architectural details
3.2	Civil plans 50%
3.2	Structural plans 50%
3.3	Hydraulic 50%
3.4	Electrical 50%
3.5	Mechanical 50%
3.6	Fire Services 50%



#### - Contracts

# Design (& sample) submissions for approval

> Which documents?

> By when?

- > Timeframe for response?
- Variation if outside the PPR(no reference to prelim design)Need to keep Super honest!

#### 8.3 Contractor-supplied documents

The Contractor shall supply to the Superintendent the documents and number of copies at the times or stages stated in Item 17.

Other documents and information required by the Contract, unless elsewhere stated in the Contract, shall be supplied not less than 14 days before the work described in the documents is commenced and shall be in a form satisfactory to the Superintendent.

If the *Contractor* submits a document to the *Superintendent*, then except where the *Contract* otherwise provides:

- (a) the *Superintendent* shall not be required to check that document for errors, omissions, inconsistencies, ambiguities, discrepancies or compliance with the *Contract*;
- (b) notwithstanding subclause 2.1, any Superintendent's acknowledgment or approval shall not prejudice the Contractor's obligations; and
- (c) if the Contract requires the Contractor to obtain the Superintendent's direction about that document, the Superintendent shall give, within the time stated in Item 18, the appropriate direction, including reasons if the document is not suitable.

A direction by the Superintendent to vary anything in the design documents shall be a variation to WUC only to the extent that the design documents, before such variation, complied, or would have complied, with the Principal's project requirements.

Copies of documents supplied by the *Contractor* shall be the *Principal's* property but shall not be used nor copied otherwise than for the use, repair, maintenance or alteration of *the Works*.

#### **Super's Document Responses / Rejections**

#### If Superintendent rejects / comments:

- > Check we satisfy the PPR
- > We don't submit to check if client 'likes our proposed design'
- > If our design satisfies the PPR but client doesn't like it – too bad!
- > Advise the comment rejection is a deemed variation and will attract cost <u>and time</u>

#### Respond quickly with estimates of time & delay

- > Often the Super (or Principal) will have no idea of the consequence of their design submission response
- > Follow up to see if they want us to quote the variation quoted



# **Completing the Annexures**

- > Lawyers or Superintendents often don't understand our offer
- > So don't allow anyone to complete the annexures!

> DMs – Help complete / Check Annexures!

#### AN NEXURE to the Australian Standard General Conditions of Contract for Design and Construct

#### Part A

This Annexure shall be completed and issued as part of the tender documents and, subject to any amendments to be incorporated into the *Contract*, is to be attached to the General Conditions of Contract and shall be read as part of the *Contract*.

Iten	2	
		$A \sim$
1	Principal	
	(clause 1)	
		ACNABN
2	Principal's address	7070
		(
		Phone Fax
		$(\mathcal{O}_{\Delta})$
	O. of water	
3	Contractor (clause 1)	
	(clause 1)	
		ACN ABN
	Contractor's address	
*	Contractor's address	1027
		V(-O-f
		Phone Fax
5	Superintendent	J
	(clause 1)	
	$O_{\Lambda}$	
	(0)	ACN ABN
6	Superintendent's address	
	4	
		Dhara Far
		Phone Fax
	$\checkmark$	
VACABLA	etandarde com au	© Standarde Australia

# **Completing the Annexures**

#### Checks /

- > Sales docs / saleable areas / images / sales display / finishes boards / lease / lessor scope
- > DA Matrix or responsibilities
- > Warranty schedule

#### Split and sort /

- > Split and sort in order of precedence the PPR, and preliminary design
- > Ensure our VM / qualifications / exclusions sit atop the order of precedence
- > Any reliance docs? ie site condition reports



# **Completing the Annexures / Program**

> The AS 4902 contemplates a list of Principal Documents or instructions and dates to be complete in item 27 of Annexure A!

Is Program agreed / appended?

> The AS contemplates a program may be submitted post contract (clause usually requires within 10 Business days) 27 The information, materials, documents or instructions and the times by, or periods within which they are to be given to the Contractor (clause 32)

	Documents or instructions	Times/Periods		
1				
2				
3				
4				
5				

#### 32 Programming

The Superintendent shall give to the Contractor the information, materials, documents and instructions by the times or within the periods both stated in Item 27.

The Contractor shall give the Superintendent reasonable advance notice of when the Contractor needs other information, materials, documents or instructions from the Superintendent or the Principal.

The *Principal* and the *Superintendent* shall not be obliged to give any information, materials, documents or instructions earlier than the *Principal* or the *Superintendent*, as the case may be, should reasonably have anticipated at the *date of acceptance of tender*.

The Superintendent may direct in what order and at what time the various stages or portions of WUC shall be carried out. If the Contractor can reasonably comply with the direction, the Contractor shall do so. If the Contractor cannot reasonably comply, the Contractor shall give the Superintendent written notice of the reasons.

A program is a written statement showing the dates by which, or the times within which, the various stages or portions of WUC are to be carried out or completed. It shall be deemed a Contract document.

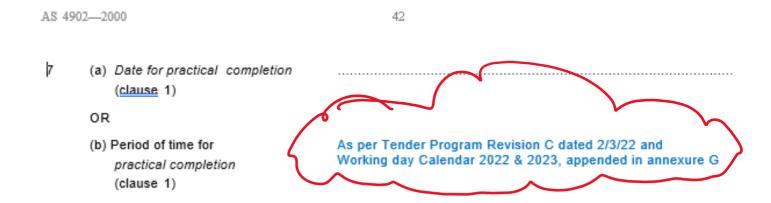
The Superintendent may direct the Contractor to give the Superintendent a program within the time and in the form directed.

#### - Contracts

# **Program / Critical Milestones**

- > If there is no provision to complete Principal deliverables (ie item 27)

  Our best approach is to append the Tender Program
- > The tender program will have far more detail than a few milestone dates in item 27 eg
  - Local authority Approvals
  - Utility connections
  - Prov sum approvals
  - Optional Variation latest date



+ Should attach the working day calendar

#### **Head Contracts**

# **Design Program**

#### **Design approval durations**

5 Bdays? 10 Bdays? 21 Cal' days?

#### **Milestones**

- > Principal milestones
- > Authority approvals
- > Utility connections
- > Prov sum milestones
- > Optional variations

#### **Hold the Super to account**

PRINCIPAL'S MILESTONES	30 days	Sun 5/01/20	Wed 19/02/20	180 days	
<ul> <li>Conditions subsequent for Contract</li> </ul>	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Finance Approval	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Site Posession	0 days	Sun 5/01/20	Sun 5/01/20	210 days	15SS
✓ Provisional Sums	30 days	Sun 5/01/20	Wed 19/02/20	180 days	
♣ Provisional Sum Item PS-001 xxx (ALLOW ADEQUATE)	32 days	Mon 6/01/20	Wed 19/02/20	194 days	
TIME FOR EACH STAGE) (REPEAT FOR EACH ITEM)					
Concept Design	5 days	Mon 6/01/20	Fri 10/01/20	194 days	
Approval	0 days	Fri 10/01/20	Fri 10/01/20	194 days	19
Design Development	5 days	Mon 13/01/20		194 days	20
Pricing	5 days	Mon 20/01/20	Fri 24/01/20	194 days	21
Approval / Rejection of Pricing	2 days	Tue 28/01/20	Wed 29/01/20	194 days	22
Design Changes as Req'd	5 days	Thu 30/01/20	Wed 5/02/20	194 days	23
Approval	0 days	Wed 5/02/20	Wed 5/02/20	194 days	24
Procurement	10 days	Thu 6/02/20	Wed 19/02/20	194 days	25
Provisional Sum Item PS-002 xxx (ALLOW ADEQUATE	32 days	Mon 6/01/20	Wed 19/02/20	194 days	
TIME FOR EACH STAGE) (REPEAT FOR EACH ITEM)					
	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
<ul> <li>Optional Variations / Purchaser changes</li> </ul>	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Optional Variation -001 (allow detail as above)	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Optional Variation -002	0 days	Sun 5/01/20	Sun 5/01/20	210 days	30SS
Last date for optional Variations	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
SUPERMARKET MILESTONES		Sun 5/01/20	Wed 20/05/20		
<ul> <li>Woolworths Milestones (Coles Similar) - Check Contract</li> </ul>	86 days	Sun 5/01/20	Wed 20/05/20	_	
Issue Construction Programme to Woolworths	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Refrigeration Cabinets Ready For Testing & Commissioning (8 weeks prior to Opening)	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Access Available to Woolworths Contractors	0 days	Sun 5/01/20	Sun 5/01/20	210 days	37SS
Pylon Signage Complete	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Handover Date	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Temporary Directional Signage Installed	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Door Cylinders Keyed to Woolworths Master System	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Power Connection, Services & Lighting Complete	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
Defects Complete	0 days	Sun 5/01/20	Sun 5/01/20	210 days	
O&M Manuals Handed Over to Woolworths	0 days	Wed 5/02/20	Wed 5/02/20	189 days	570
<sup>4</sup> Lessee Fit-out Period	40 days	Fri 13/03/20	Wed 20/05/20	124 days	
Woolworths Store F/O	40 days	Fri 13/03/20	Wed 20/05/20	124 days	572
Store Opening	0 days	Wed 20/05/20	Wed 20/05/20	124 days	47
	-				
△ DELIVERABLES	5 days?	Mon 6/01/20	Fri 10/01/20	221 days?	

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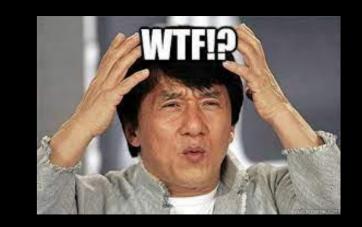


# **Case Study**

Destination Gold Coast (DGC) Tower 1



# All of these documents make up the PPR, not just the one called 'PPR'



- A Architectural Drawings and Specifications AA - Flooding and Hydraulic Impact Assessment Reports AB - Asbestos Management Plan
- AD Existing DAF Plant and Reconfiguration
- AE Saftey In Design Requirements
- AF Detailed Site Survey
- AG Land Title Survey

AC - For Information

- AH 3D Site Survey
- Al Signage Package
- AJ Seperable Portion Plans
- AK Not Used.
- AL Site Conditions and Operational Requirements
- AM Not Used
- AN Not Used
- 📕 AO Early Works Undertaken By Principal
- AP Not Used
- AO Public Art
- AR Not Used
- AS Proposed Building Management Statement
- AT Proposed Community Management Statement
- AU Not Used

- AV Sales and Marketing Collateral
- AW Not Used
- AX Maintenance Schedules
- AY Spares Requirements and Schedules
- AZ Preliminaries Specifications
- B Hotel Interiors Designer Drawings and Specifications
- BA RFI Register and BOQ RFIS
- C Dorsett Hotel Design Briefs and Departures
- D Structural Drawings and Specifications
- E Civil Drawings and Specifications
- F Electrical Drawings and Specifications
- G Mechanical Drawings and Specifications
- H Hydraulic Drawings and Specifications
- I Fire Protection Drawings and Specificatios
- J Landscape Drawings and Specifications
- K Pool, Spa and Sauna Brief
- L Fire Engineer Report
- M Fire Egress Strategy
- N Traffic Engineer Compliance Statement
- O Acoustic Engineer Report
- P Building Certification Report
- Q Disability Access Report

- R Vertical Transport Services Report.
- S Wind Engineer Reports
- T Facade Engineer Report
- U ESD and Sustainability Reports
- V Environmental Management Plan and EMR Searches
- W Water Network Capacity Assessment
- X Stormwater Management Plan
- Y Sewer Reticulation Plan
- Z Vegetation Management Plan
- ZZ01 Jupiters Casino Act
- ZZ02 Development Approval (DEC 2016)
- ZZ03 General In Accordance Approval (JAN 2018)
- 7704 Note Used
- 7705 Not Used
- ZZ06 NBN Agreement
- ZZ07 HV Infrastructure and Energex Documentation
- 7708 External Traffic Conditions and DTMR.
- ZZ09 APA (GAS) Group Offer
- ZZ10 Waste Management Plan
- ZZ11 Aurthorities Metering Schedule

✓ 🔑 PPR- Stage 1 Tower Rev H



PRINCIPAL PROJECT REQUIREMENTS

STAGE 1 TOWER RETAIL. HOTEL & APARTMENTS





Rules of Engagement / Day 1 Consideration

- > Process defined in the Contract
- > Follow these processes
- > Communicate processes to client / super
- > Agree on the interpretation of OOP
- > Client Team may change



#### **Order of Precedence**

Can be used by us and against us

DGC Example: Clause 2.3 (f)

VM documents take precedence

DGC refuse to acknowledge this ...

We <u>did NOT</u> establish rules of engagement on Day 1

4 x new DGC team through project

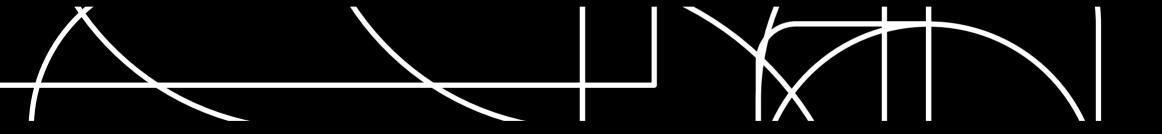
#### 2.3 Order of precedence

- (a) In the case of discrepancy, inconsistency or ambiguity in or between any of the Contract Documents, the following order of precedence applies:
  - Contract Particulars:
  - ii) the General Conditions:
  - (iii) the Principal's Project Requirements:
  - (iv) the Construction Management Plan:
  - (v) the Hotel Guidelines:
  - (vi) the Purchasers' Selections:
  - (vii) the Sample Sales Contract:
  - (viii) the Details:
  - (ix) the remaining Schedules; and
  - (x) the remaining Annexures.
- (b) To the extent that clause 2.3(a) does not resolve the discrepancy, inconsistency or ambiguity and the discrepancy, inconsistency or ambiguity is in relation to the quality or standard of the Works or the Project, the highest or most stringent standard will prevail.
- (c) To the extent that clause 2.3(a) or 2.3(b) does not resolve the discrepancy, inconsistency or ambiguity, and the discrepancy, inconsistency or ambiguity is between figured and scaled dimensions, the figured dimensions will prevail.
- (d) To the extent that clauses 2.3(a), 2.3(b) or 2.3(c) do not resolve the discrepancy, inconsistency or ambiguity, the Principal's Representative must direct the Contractor as to the interpretation to be followed.
- (e) The Contractor must comply with any direction issued by the Principal's Representative pursuant to clause 2.3(d).
- (f) Notwithstanding the foregoing paragraphs in this clause 2.3, to the extent that there is an inconsistency, ambiguity or discrepancy between an Agreed Value Engineering Item and any other document forming part of the Contract, the Agreed Value Engineering Item shall take precedence.

## **Design Development / PPR Compliance**

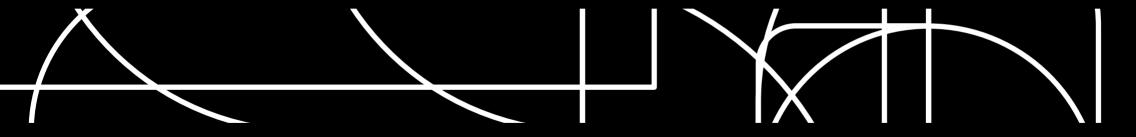
# **'Reverse Brief'** – this is a red flag to the Principal:

- > "What are Hutchies not delivering?"
- > "Design Compliance Statement"
- > Don't ever issue a 'Departure Schedule' ...
- > Change the focus. Instead, issue a 'PPR Compliance Tracker' which is a record of all changes (up-spec and down-spec) to the Contract / PPR design and documentation



### **Design Development / PPR Compliance**

- > Response to submission put them on notice ...
- > Tools for dispute resolution later
- > Don't rely on subbies to comply
- > Review all submissions never just forward on. Engage help if you need it
- > Enforce with subbies the use of a 'PPR Compliance Tracker'



### In-ground conduit reticulation

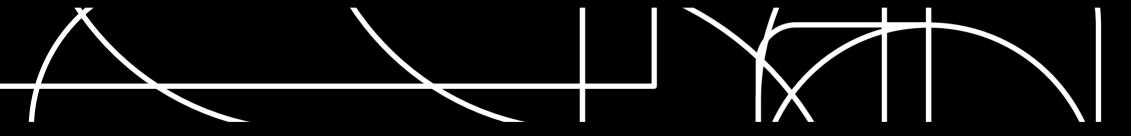
# Background /

- > Contract document says 'X'
- > Value management item alters the scope, 'X + 1'
- > Subbie chose to down-spec quantities of conduits and pits, while still meeting minimum spare capacity
- > Subbie encountered existing in-ground structure that forced reduction in quantities in some areas
- > Subbie issued departure schedule describing most changes never acknowledged by DGC

## In-ground conduit reticulation

## DGC issue **formal non-conformance** under the contract:

- > DGC overshot the value to a <\$1.5M> credit
- > Outcome: unresolved after 18 months of time-wasting, and a delay to Practical Completion
- > They are seeking a credit value of \$238k
- > This is more than the subble allowance under the contract!
- > Traditional D&C should be \$0 ... right?



#### What did the contract cost us?

- > Delays?
- > Prelims? Extra humans?
- > Lost variations?
- > Credits?
- > D&C opportunity?

# **Lessons learned?**



# Get in touch with Hutchies' Building Services / ESD Team ServicesESDTeam@hutchies.com.au



**David Soletti Building Services Engineer** 

Joined Hutchies 2016

**Phone** 0411 426 690 **Email** 

david.soletti@hutchies.com.au

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# Case Study

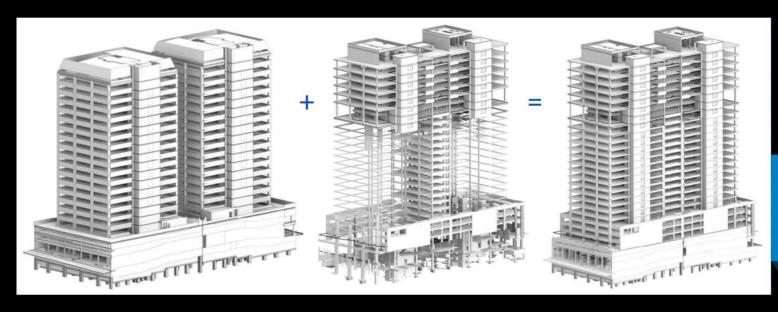
**Midtown Centre** 



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**Order of Precedence – Lessons Learnt** 

# 'Rescue job'...



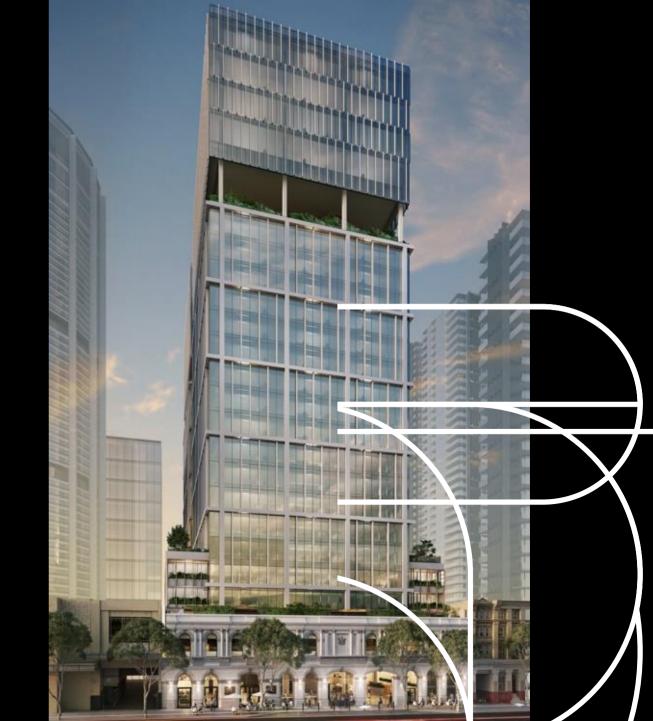




#### **Contracts / Case Study > Midtown Centre**

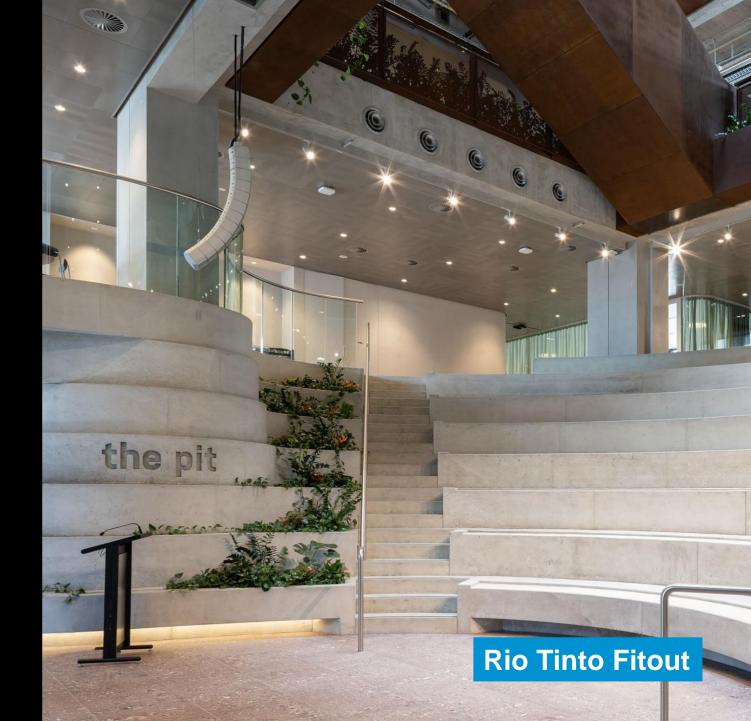
#### The contract

- > No OOP
- > All documents considered PPR
- > Discrepancies HB risk
- > HB qualifications and mark ups were NOT included in the Head Contract
- > Architectural drawing package did not reflect the HB offer
- > Program unclear (design approvals, samples, fitout program pre-conditions)



# Contracts / Case Study > Midtown Centre In summary

- > The Contract Drawings & Specs did not match the HB offer...
- > Drawings not coordinated
- No OOP we were forced to build things that we had not allowed but were contracted to complete



#### **Contracts / Case Study > Midtown Centre**

#### The outcome

#### Estimated effects of poor contracting:

- > Scope excluded
- > VM missed
- > Delays
- > Variations
- > Credits
- > Prelims over-run
- > Missed D&C opportunity



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# **Case Study**

Jewel / Phase 3 The Langham Hotel



DESIGN MANAGERS' CONFERENCE



**Order of Precedence – Lessons Learnt** 

# A gem for Hutchies





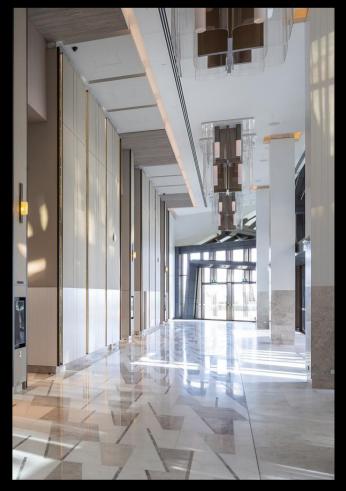
#### **Contracts / Case Study > Jewel Phase 3 – The Langham Hotel**

#### **Overview**

- > Jewel history
- > Contract negotiations took 26 weeks
- > Hutchies' offer to align was crucial to the project's success
  - Contract conditions
  - Order of precedence
  - Approvals / samples etc







#### **Contracts / Case Study > Jewel Phase 3 – The Langham Hotel**

# **Background**

- > Dangerous client with history v Multiplex
- > Strong OOP in FIA
- > PPR & Prelim Design split
- > HB Qualifications sat inside the PPR

#### 1.1 Documents forming the Contract

The following documents form the Contract:

- (a) this document, excluding its Schedules and Appendix;
- (b) the General Conditions of Contract (refer Schedule 1);
- the Principal's Project Requirements Rev 14, excluding its Attachments (refer Schedule 2);
- the Development Approval Matrix, in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Contractor's Qualifications, in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- (f) the Architectural General Arrangement Floor Plans in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- (g) the EMF Services Specifications in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Other Specifications & Reports in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Reflected Ceiling Plans in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Front of House Elevations in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Materials & Finishes Schedules in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- any other Attachments to the Principal's Project Requirements not already listed above, (but excluding Attachment 3 & Attachment 4 of the Principal's Project Requirements); and
- (m) the Preliminary Design, in Attachment 3 to the Principal's Project Requirements (refer Schedule 2).

#### ORDER OF PRECEDENCE - LESSONS LEARNT

#### **Our contract**

> Clear mechanism to deal with discrepancies

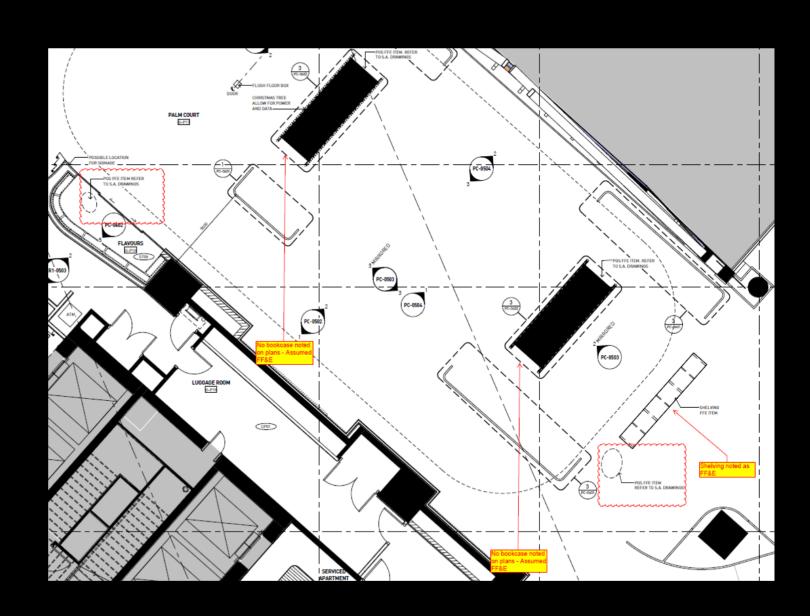
#### 4.3 Ambiguities between the Contract Documents

Any ambiguity, inconsistency or discrepancy between the documents set out in clause 4.1 is to be resolved and interpreted according to the same order of precedence as the documents are listed in clause 4.1, with the documents first in the list having higher priority (including with respect to the documents forming part of the Principal's Project Requirements, the documents first listed are to have higher priority).

#### Contracts / Case Study > Jewel Phase 3 - The Langham Hotel

## **Considerations**

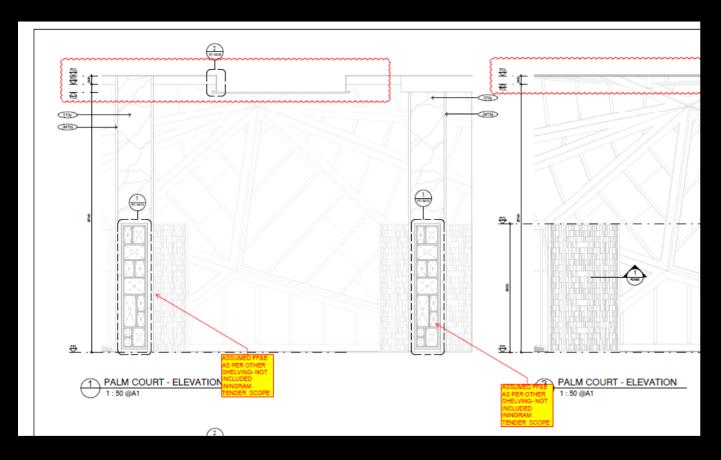
- > Bookcase Joinery Discrepancy
- > Tender Drawing
  - 'FFE item'
- > Client changed joinery to fixed joinery

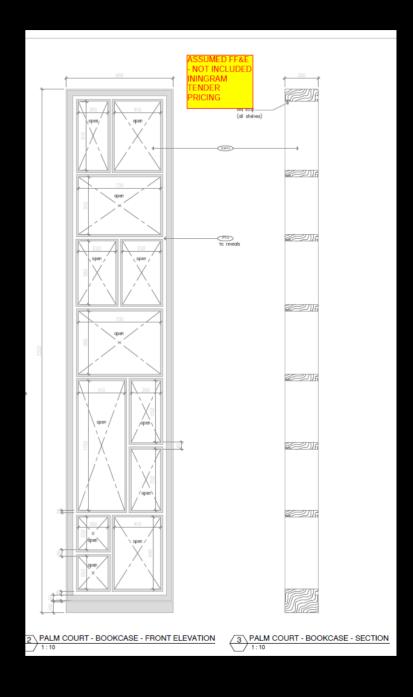


#### Contracts / Case Study > Jewel Phase 3 – The Langham Hotel

#### **Details**

> Contract drawing DBI-DRG-INT3-G-PC-0501\_2 clearly indicates that the bookcase is a joinery element required as part of the fitout





#### **Contracts / Case Study > Jewel Phase 3 – The Langham Hotel**

# **Details (continued)**

- > Contract floor plan is the higher document in the order of precedence
- > Therefore the additional bookcases were submitted as a Variation
- > Variation was approved in full for all 3 bookshelves totalling \$111,209.87 + GST



#### Contracts / Case Study > Jewel Phase 3 - The Langham Hotel

# **Details (continued)**

- > Design discrepancy hot water cylinders
- > Tender hydraulic specifications & tender hydraulic drawings
- > HB intending to proceed with the spec
- > We had priced the additional cylinders as noted on the drawings
- > Superintendent disagreed
- > HB and the client reach agreement based on the FIA

#### 1.1 Documents forming the Contract

The following documents form the Contract:

- (a) this document, excluding its Schedules and Appendix:
- (b) the General Conditions of Contract (refer Schedule 1):
- (c) the Principal's Project Requirements Rev 14, excluding its Attachments (refer Schedule 2);
- the Development Approval Matrix, in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- (e) the Contractor's Qualifications, in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Architectural General Arrangement Floor Plans in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- (g) the EMF Services Specifications in Attachment 2 to the Principal's Project Requirements (refer Schedule 2):
- the Other Specifications & Reports in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Reflected Ceiling Plans in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- (j) the Front of House Elevations in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- the Materials & Finishes Schedules in Attachment 2 to the Principal's Project Requirements (refer Schedule 2);
- any other Attachments to the Principal's Project Requirements not already listed above, (but excluding Attachment 3 & Attachment 4 of the Principal's Project Requirements); and
- (m) the Preliminary Design, in Attachment 3 to the Principal's Project Requirements (refer Schedule 2).

#### **Contracts / Case Study > Jewel Phase 3 – The Langham Hotel**

# **Details (continued)**

- > TT the Super applied a Credit of \$80k for the reduction in cylinders from 6 to 4
- > The Contract Specification is the higher document in OOP
- > HB submitted additional cylinders as a Variation
- > Super acknowledged bonafide variation
- > Variation was approved in full for \$42,698.24 + GST

EMF-SPC-PPR-0001 Issue 2 is dated 12/08/2019

EMF-SPC-HYD-0001 Issue 3 is dated 13/03/2020, EMF reviewed 13/07/2020, HB commented 16/07/2020

Drawing EMF-DRG-HYD-PD-GM-2112 Rev 0 is dated 12/08/2019, Rev 1 dated 04/03/2020

Therefore it's clear the HYD spec and drawing are more updated than the EMF PPR, and the intention is to have 6 tanks.

However, FIA Clause 4.3 reads Any ambiguity, inconsistency or discrepancy between the documents set out in clause 4.1 is to be resolved and interpreted according to the same order of precedence as the documents are listed in clause 4.1, with the documents first in the list having higher priority (including with respect to the documents forming part of the Principal's Project Requirements, the documents first listed are to have higher priority).

The contents in brackets means there's also an order of precedence in all the documents forming the PPR, and in this case EMF-SPC-PPR-0001 is above EMF-SPC-HYD-0001, and way above EMF-DRG-HYD-PD-GM-2112 Rev 1 which is in the Preliminary Design section.

And unfortunately EMF PPR 8.5 was not updated to match the other documents.

In light of this particular sentence in FIA Clause 4.3 bracket, AWJ asks the Superintendent to review the contract, re-visit the merit determination of this variation and then ask RLB to re-evaluate should the merit determination changes.

#### David

Thank you for your input. As you have portrayed, the clear intent of the authors of the design specifications and drawing was to update the older spec to match the newer spec and drawings to show 6 tanks, but unfortunately that did not happen.

You have raised a new consideration that hasn't been discussed before in how FIA clause 4.3 should be interpreted. I have reviewed this and confirm that, while it was not EMF's intent, clause 4.1 does render EMF-SPC-PPR-0001 to have a higher order of precedence than EMF-SPC-HYD-0001 and EMF-DRG-HYD-PD-GM-2112. Accordingly, the scope in EMF-SPC-PPR-0001 for two tanks prevails over the scope in EMF-SPC-HYD-0001 and EMF-DRG-HYD-PD-GM-2112 for six tanks and HB's HCV 097 will be re-assessed on this basis ie: include the cost of two additional tanks rather than a credit for two less tanks.

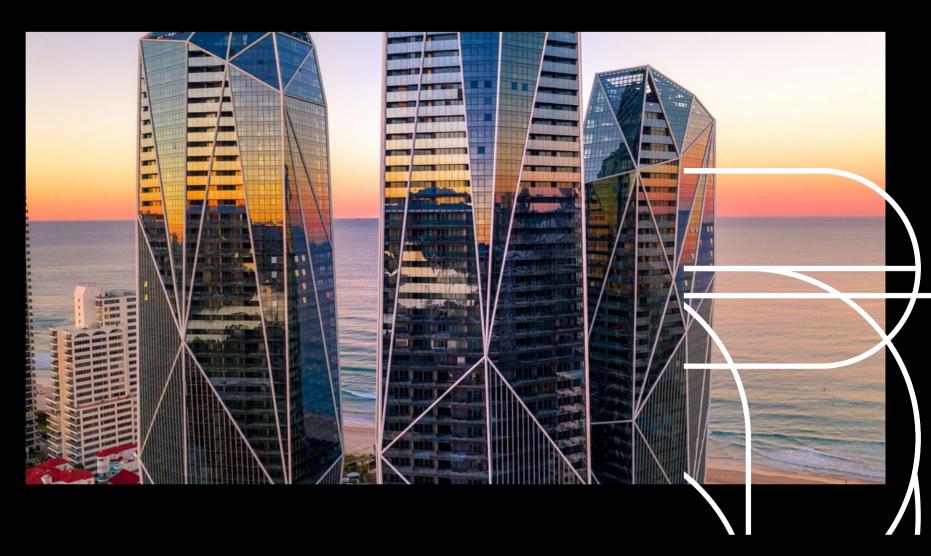
#### **Contracts / Case Study > Jewel Phase 3 – The Langham Hotel**

# **Outcome**

Estimated effects of good contracting:

- > Discrepancy delays?
- > Variations
- > Credits?
- > D&C gains?

> Lessons learned



#### **Contracts**

# **Design Managers and Head Contract**

# **Pre Contract /**

1 / Split

2/Sort

3 / HB Quals Highest

4 / Strong Design Program

# **Post Contract** /

4 / Manage design submissions

5 / Satisfy the PPR

6 / Jump on any direction outside PPR (and advise of consequences)

7 / Manage your Design program



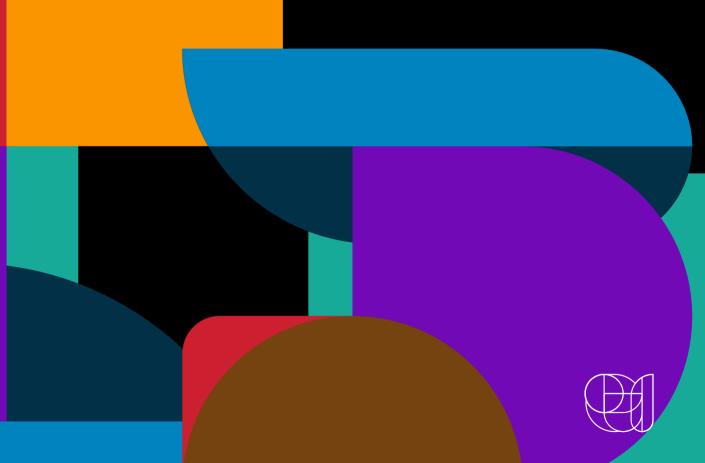
a Design Manager

2022
DESIGN
MANAGERS'
CONFERENCE

**Contractual Requirements** 

# Thank you

Questions



# **Get in contact**



# Harry White National Commercial Manager

Joined Hutchies 1992

Phone

0/19762429

Émail

harry.white@hutchies.com.au

2022
DESIGN
MANAGERS'
CONFERENCE



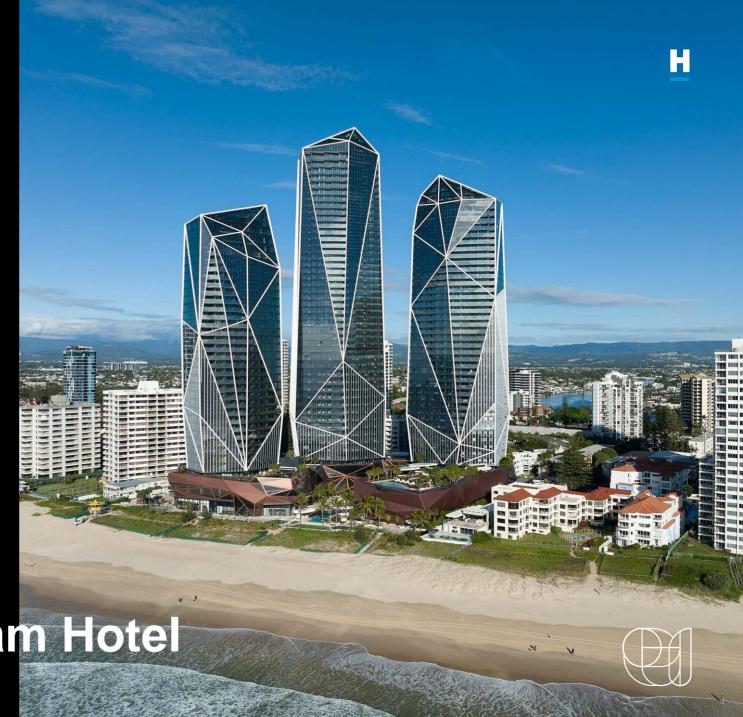
# Case Study / Jewel



2022
DESIGN
MANAGERS'
CONFERENCE

# Jewel

Phase 3 / The Langham Hotel



1

DESIGN MANAGERS' CONFERENCE

#### Case Study / Jewel

# Precinct / Phase 1 & 2

- > Multiplex Contract \$850M
- > Three towers (513 Apartments) above a 2 storey connecting podium and 3 basement levels, across 130 metres of direct beach frontage, including:
  - **Tower 1** 41 Storeys above podium level (232 Apartments)
  - Tower 2 47 Storeys above podium level (172 serviced apartments above 169 Hotel Rooms)
  - Tower 3 34 Storeys above podium level (108 Apartments)
- > **GBA** 144,315m<sup>2</sup> / **GFA** 95,000m<sup>2</sup>
- > Commencement September 2014
- > Completion July 2020



DESIGN MANAGERS' CONFERENCE



#### Case Study / Jewel

# Phase 3

- > Hutchies' Contract \$126M
- > 169 Hotel Suites including 2 x Executive Suites S and 1 x Presidential Suite. Hotel facilities including:
  - Podium 3 Chinese Restaurant and Kitchen (Michelin Star), Outdoor Bar
  - Podium 2 Gym, Yoga, Indoor Pool and Amenities, Spa, Kids Play Club, Conference Facilities including Kitchen
  - Podium 1 (Ground): ADD with Private Dining and Kitchen, Grab n Go, Lobby Bar c/w kitchen, Multi Function Room c/w Kitchen, Palm Court, Flavors, Hotel Arrival Lobby and Reception, BOH Reception, Pre-Function Lobby, Ballroom, Bridal Suite, 3 x Additional Retail Tenancies.
  - Basements Staff Amenities (Basement), Staff BOH Offices (Basement),
     Bridal Suite Lifts + Lobby
- > Commencement December 2020
- > Completion March 2022



# **Project Strategy**

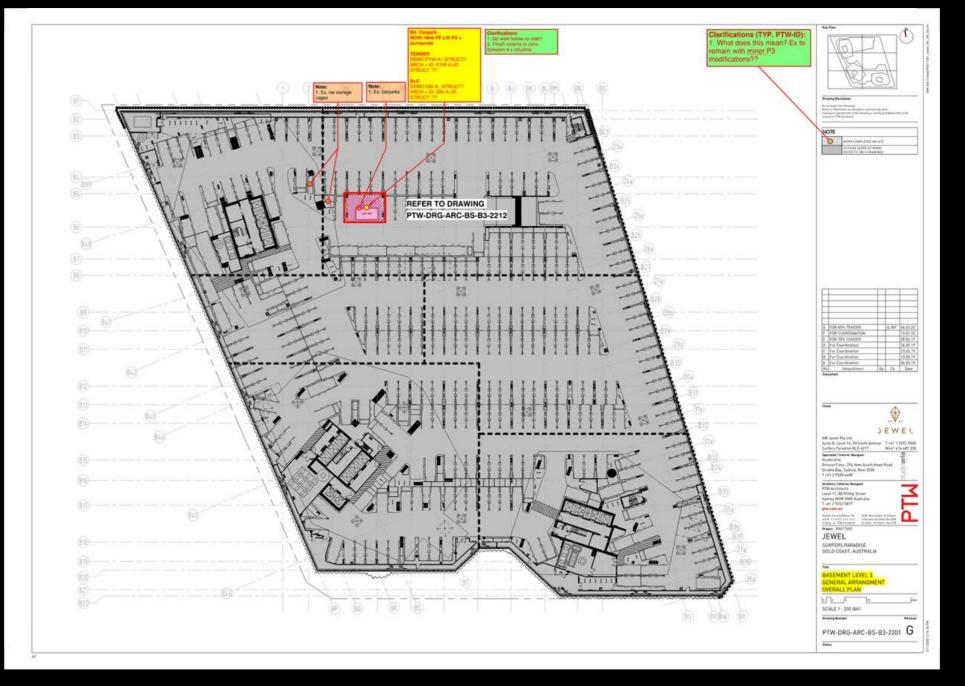
- > Program, strategy (design / approvals) and Design Groups
  - Documentation Status: DD80% vs reality
  - Architectural + ID Design Consultants
- > 3D cloud survey (Podium Areas)
- > Demarcation: Phase 1+2 works <> Phase 3 works.
- > Dilapidations Investigations to Phase 3 site
- > Order of Precedence for design decisions (PPR design, preliminary design, other documents)
- > Material signoffs: Staged samples approvals
- > DD80% > DD100% submissions including PPR departures schedules
- > Client VPR's vs conversions
- > Design coordination vs existing on site constraints (eg: wall panels / french cleats tolerances)
- > Repetitive / modular joinery and wall panels vs site constraints (separate base boards site scribed)

# **Architectural Overall Plans**

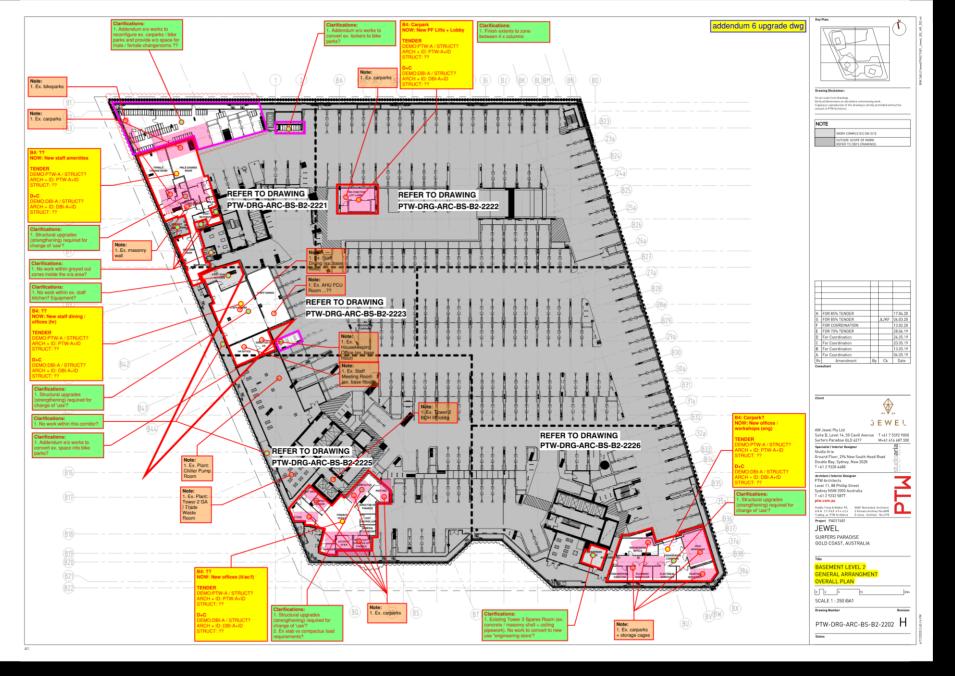
Scope & Demarcation



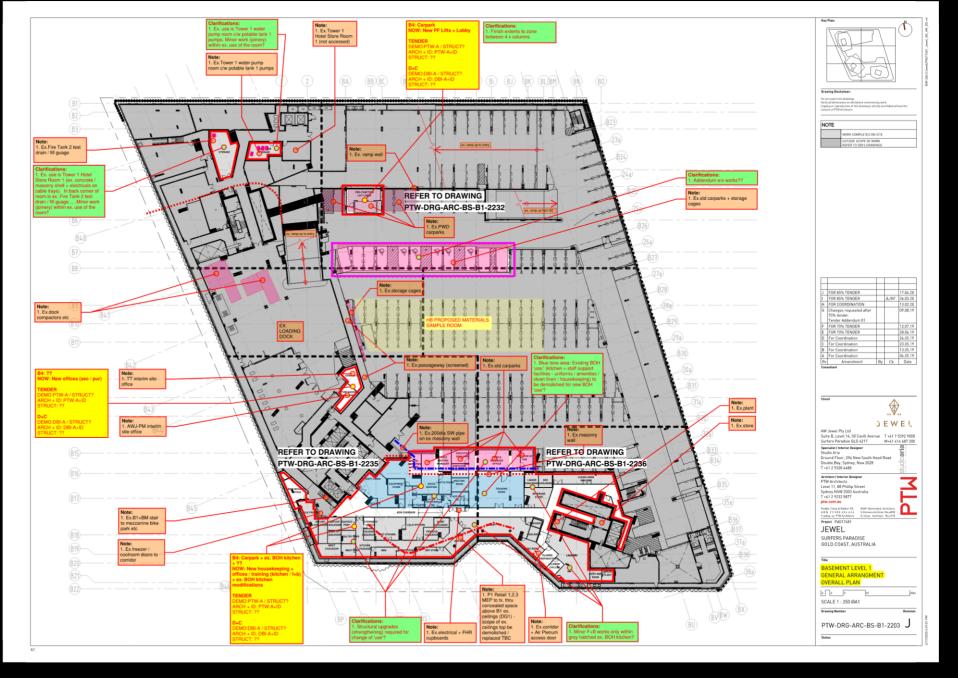
# **Basement 3**



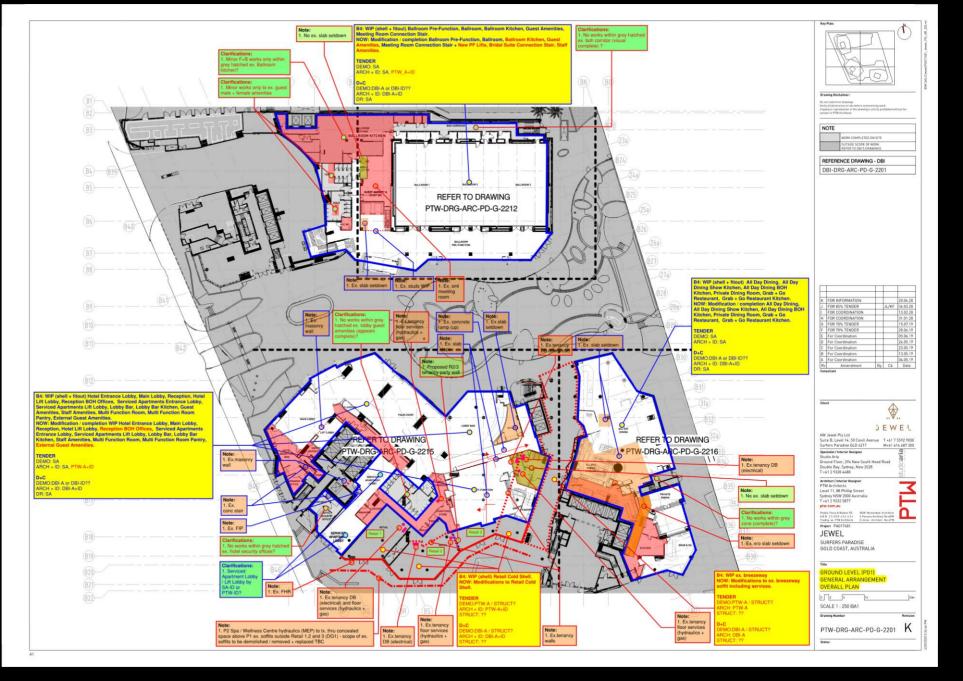
# **Basement 2**



# **Basement 1**



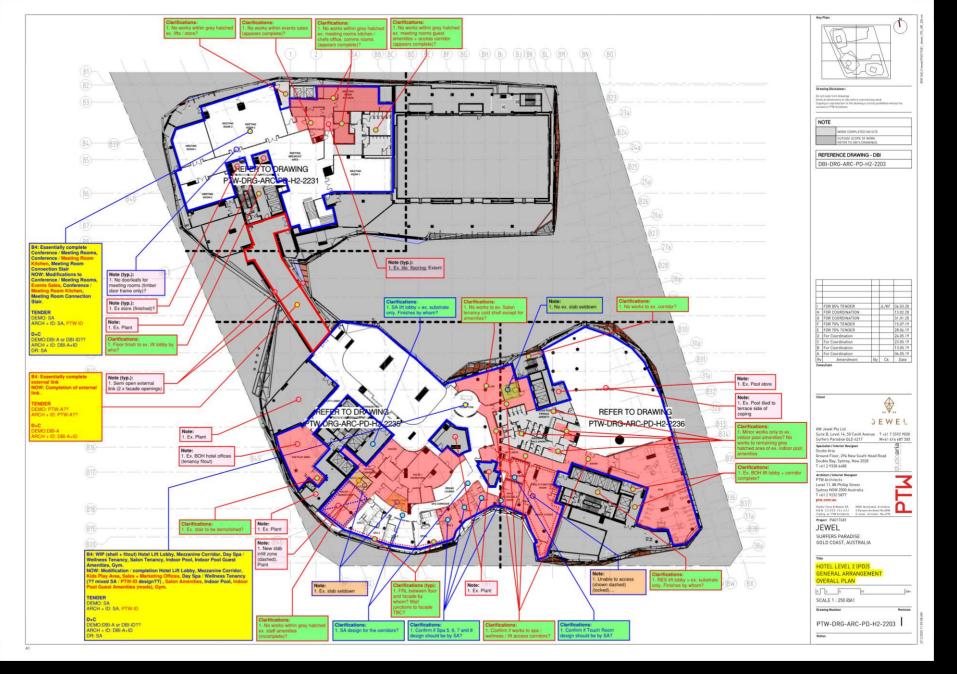
# Ground



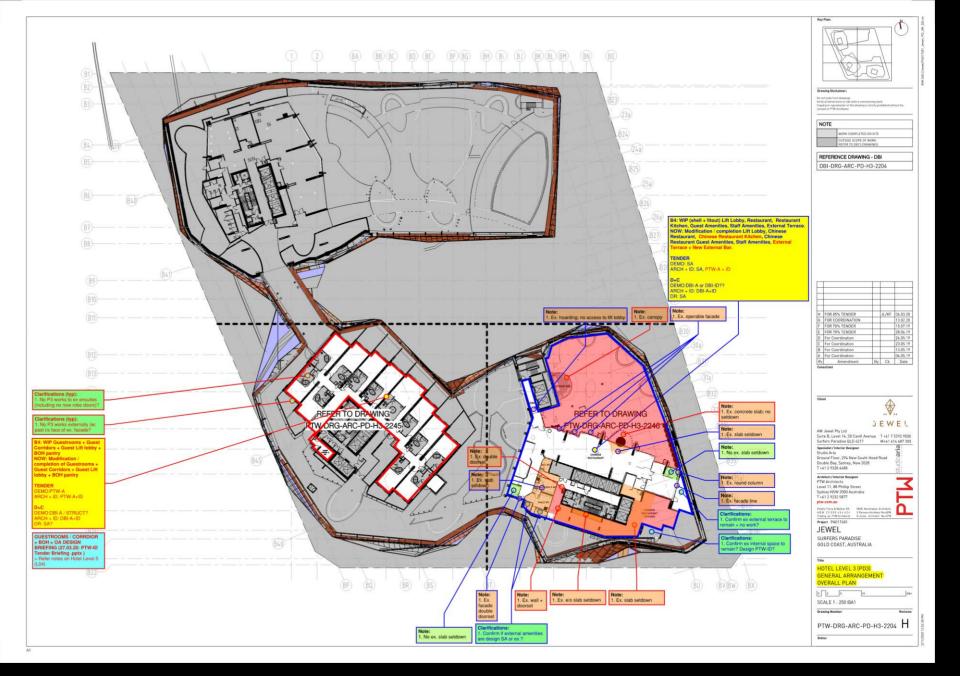
# **Ground Mezzanine**



# Level 2

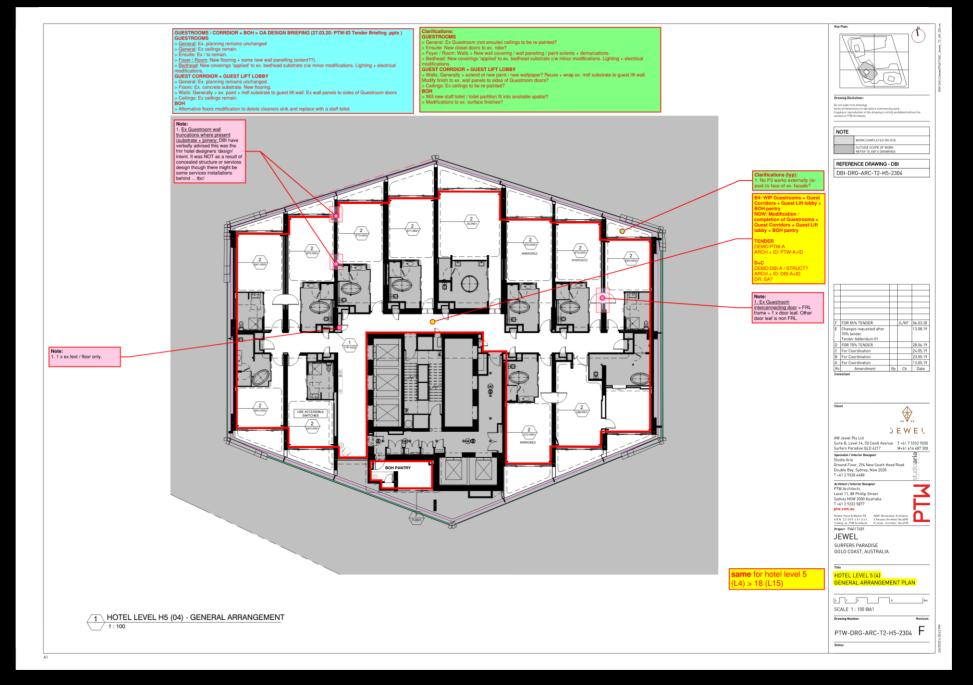


# Level 3



# Level 5

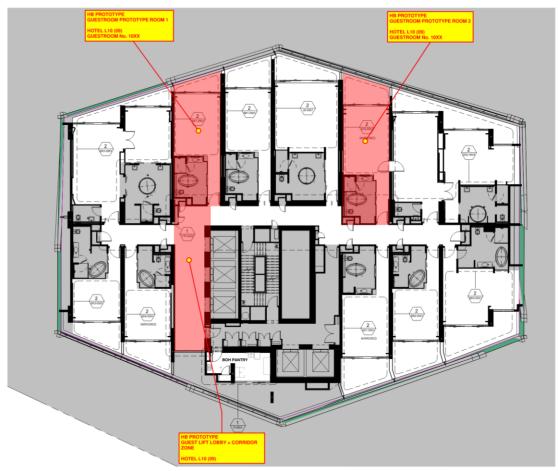
> Know your design documents and OOP. PPR plans indicate no work to bathrooms. Robe Doors were indicated in Preliminary design and excluded from HB offer.



#### Level 10

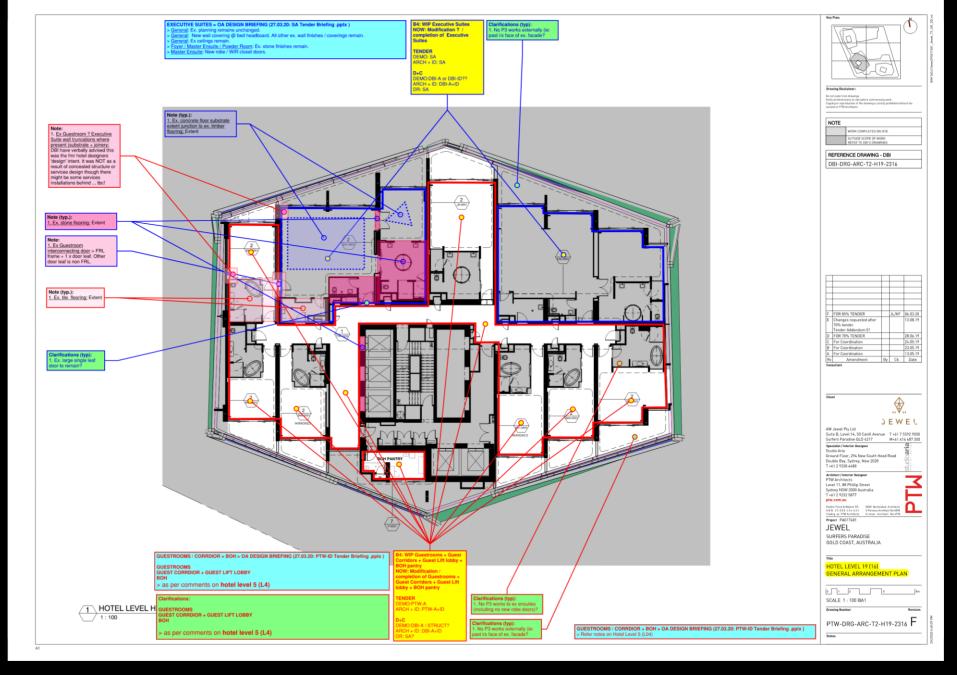
> PPR documents -Bedhead modification / refurbishment, TV wall panel to ex. TV bracket centreline.

> HB ended up demolishing the ex. bedheads and Client took the opportunity to modify bedhead and nightstand widths, and sought bedheads to align with centreline of TV panels. Existing lighting not considered.

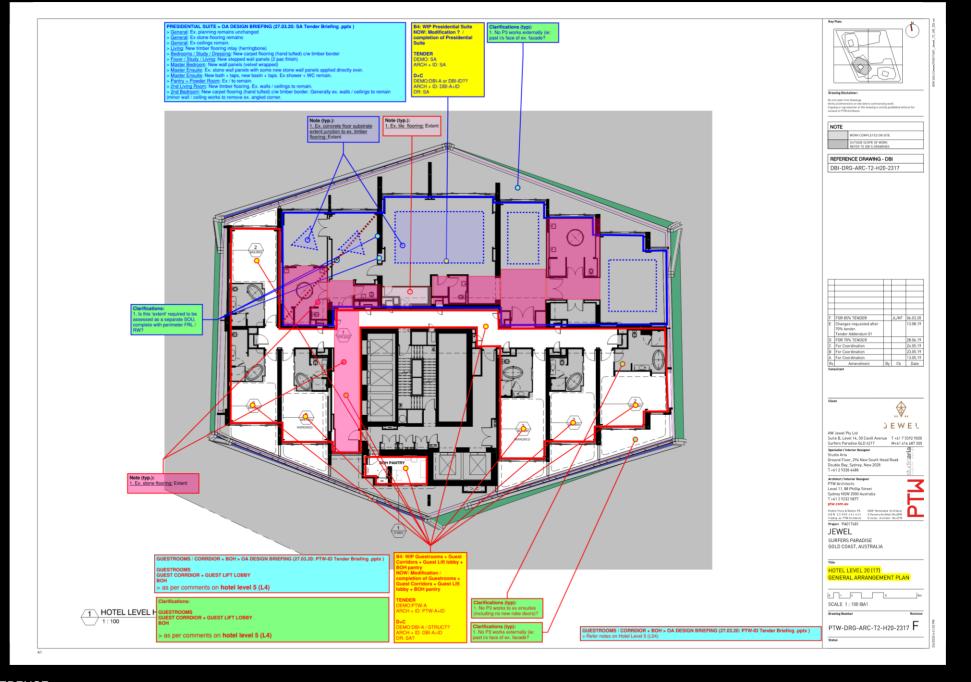


JEWEL COLD COAST ALISTRALIA PTW-DRG-ARC-T2-H10-2309

# Level 19



# Level 20



# Phase 1 + 2 Site





# Phase 1 + 2 Basement 1











# Phase 1 + 2 Podium 1 (Ground)











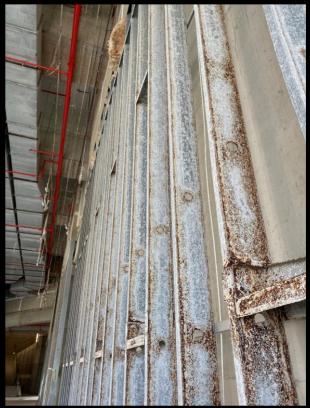


# Phase 1 + 2 Podium 1 (Ground)

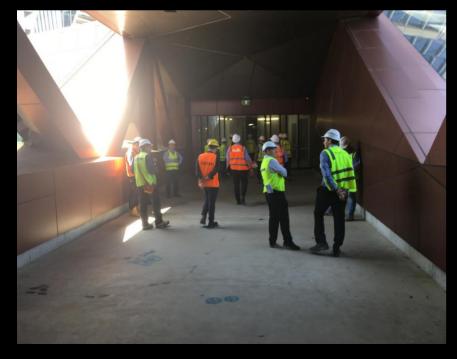






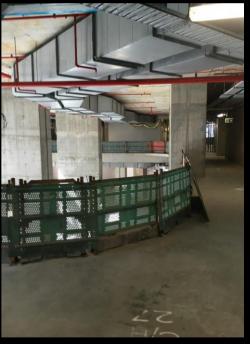


# Phase 1 + 2 Podium 02

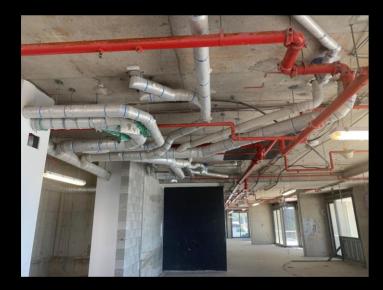








# Phase 1 + 2 Podium 03









# Phase 1 + 2 Typical Hotel









# Phase 1 + 2 H19 – Executive Suites









# **Phase 1 + 2 H20 Presidential Suites**







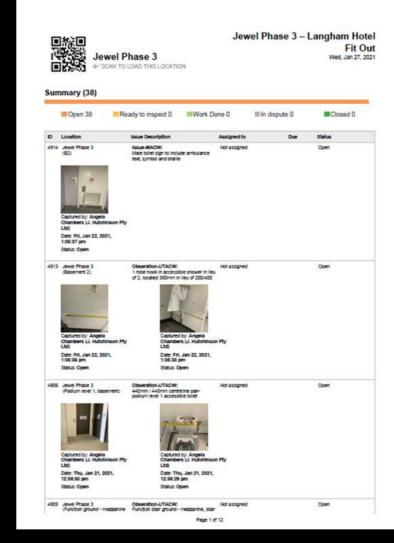


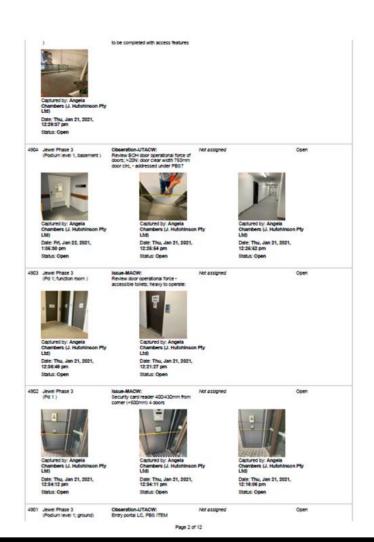
# **Phase 1 + 2 Dilapidation Investigations**

#### 2 REPORTS

21 Access

0.1 MGC Report





26333 Jewel Phase 3 Dispidation Report (Initial) Graniprogluciation, Jewel Phác - DESIGN MANACEMENTE, INSENSITION OF LANDATION IN METORTO, 210-22 July DLAP REPORTS, Cover -Sutterny Jewel, DIT, COVER AND DIVIDERS dates

BUILDERS

6



Cartured by: Angela Date: Thu. Jan 21, 2021. 12:14:18 pm



Captured by: Angela Chambers (J. Hutohinson Pty Ltd) Date: Thu, Jan 21, 2021, 12:14:12 pm

Status: Open

4900 Jewel Phase 3



Date: Thu, Jan 21, 2021, 12:10:66 pm Status: Open

4899 Jewel Phase 1

Status Open

Review passenger set down and location of TGSIs: break in TGSIs-

Status: Open



Captured by: Angela Chambers (J. Hutchinson Pty Ltd) Date: Thu, Jan 21, 2021, 12:07:27 pm



Date: Thu, Jan 21, 2021, 12:08:46 pm Status: Open



Date: Thu, Jan 21, 2021, 12:14:16 pm Status: Open



Captured by: Angela Chambers (J. Hutshinson Pty Ltd)

Date: Thu, Jan 21, 2021, 12:14:11 pm Status: Open

Observice JITAOW: Not assigned Review entry ramp TOSIS AND PROXIMITY TO RAMP HANDRAUS-> 300mm, note 1:20 grade ramo does not



Date: Thu, Jan 21, 2021, 12:10:64 pm

Iccum MACW Not assigned





Date: Thu, Jan 21, 2021, 12:10:63 pm

Status: Open

Centured by: Angela

Date: Thu, Jan 21, 2021, 12:14:14 pm

Open

Status Open

Date: Thu, Jan 21, 2021, 12:08:44 pm Status: Open



Captured by: Angela Chambers (J. Hufobloson Phy Date: Thu, Jan 21, 2021, 12-08-42 pm Status Open



Captured by: Angela Chambers Cl. Hutchinson Ptv Date: Thu, Jan 21, 2021, 12-08:41 pm Status Open

4895 Jewel Phase 3

Dewel Phase 3
[Podium level 1, Ground level, Review hazard TGSI TO ANGLED package of the package



Not assigned







4889 Jewel Phase 3

Status Open



Captured by: Angela Chambers (J. Hutchinson Pty Date: Thu, Jan 21, 2021, 12:02:34 pm

Status: Open



4888 Jewei Phase 3 (Level 2-3)

Captured by: Angela Chambers (J. Hutchinson Pty Date: Thu, Jan 21, 2021, 11:41:30 am Status: Open

Date: Thu, Jan 21, 2021, 11:41:33 am

Date: Thu, Jan 21, 2021,

Issue-MACW: Obstruction above handrall - stair P 4, within 600mm above

Not assigned

Captured by: Angela Chambers (J. Hutchinson Pty

Date: Thu, Jan 21, 2021, 11:41:31 am

Status: Open



Date: Thu, Jan 21, 2021, 11:38:23 am Status: Open



Date: Thu, Jan 21, 2021, 11:38:22 am Status: Open

Not assigned

Open

4887 Jewil Phase 1



Observation LITACISI

Date: Thu, Jan 21, 2021, 11:34:48 am Status Open



Date Thu Jan 21 2021 Status: Open

4885 Jewel Phase 3 Obseration-UTACW: Reduced walkway width <1m(970mm)



Captured by: Angela Chambers (J. Hutchinson Pty Status: Open

Captured by: Angela Chambers (J. Hutchinson Pty Ltd)

Status: Open

4882 Jewel Phase 3 (Level 3)



Status: Open





Captured by: Angela 11:30:20 am Status: Open



Captured by: Angela Status: Open

Page 3 of 12

Page 4 of 12

Page 5 of 12



Date: Thu, Jan 21, 2021, 11:30:17 am Status: Open



Captured by: Angela Chambers (J. Hutchinson Pty Date: Thu, Jan 21, 2021. Status: Open

4881 Jewel Phase 3 Obseration-UTACW: (Level 3 external, door access) Location of intercom > 1350mm AFFL

Obseration-UTACW:

Luminance contrast to glazed doors; functional compliance achieved

Status: Open

Captured by: Angela Chambers (J. Hutchinson Pty

Not assigned



Captured by: Angela Chambers (J. Hutchinson Pty Ltd) Date: Thu, Jan 21, 2021.



Captured by: Angela Chambers (J. Hutchinson Pty Ltd) Status: Open



Date: Thu, Jan 21, 2021, 11:22:27 am

4877 Jewel Phase 3

Status: Open

Review external saling doors operable force will vary given wind/ external conditions Op force to be not greater than 20N

Not assigned

Captured by: Angela Chambers (J. Hutch)

Status Open



Date: Thu, Jan 21, 2021. Status: Open



Captured by: Angela Chambers (J. Hufshinson Pty Date: Thu, Jan 21, 2021. Status: Open



Date: Thu, Jan 21, 2021. 11:21:12 am Status: Open

4875 Jewel Phase 3 (Pd 2)



Date: Thu, Jan 21, 2021, 11:17:16 am Status: Open



4869 Jewel Phase 3 (Pd2; pd1)

Obseration-UTACW: Adequate Braile and tactle sign-general note- 1315mm AFFL TO Braile Not assigned (subject to foor finish) pd2; 1270 pd1



Date: Frt, Jan 22, 2021, 1:06:38 pm Status Open



Captured by: Angela Chambers (J. Hutchinson Pty Date: Thu, Jan 21, 2021, 12:20:16 pm Status: Onen



Captured by: Angela Chambers (J. Hutchinson Pty Date: Thu, Jan 21, 2021, 11:13:06 am Status Coon

Obseration-UTACW: Male and female tollets- couldn't

Captured by: Angela Chambers (J. Hutohinson Pty Ltd) Date: Thu, Jan 21, 2021, 11:11:24 am

Issue-MACW: TGSis shall be installed full width of Not assigned

Page 7 of 12



Date: Thu, Jan 21, 2021, 11:09:29 am Status Open

 Jewel Phase 3
 (Podium level 1/2, hotel admin, Door control locations - BCH < 500 mm central tower BCH (Lobby) Internal come\* 4865 Jeun Phone 1



Captured by: Angela Date: Thu, Jan 21, 2021, 11:08:01 am Status: Open



Captured by: Angela Chambers (J. Hutchinson Pty Date: Thu, Jan 21, 2021. 11:01:27 am Status: Open



Onen

Captured by: Angela Chambers (J. Hutchinson Pty Date: Thu, Jan 21, 2021, 11:01:26 am Status: Open

Not assigned



Captured by: Angela Date: Thu, Jan 21, 2021, 10:64:07 am 10:63:23 am



Status: Open







Date: Thu, Jan 21, 2021.

Page 8 of 12

Status: Open

Date: Thu, Jan 21, 2021, 10:36:37 am

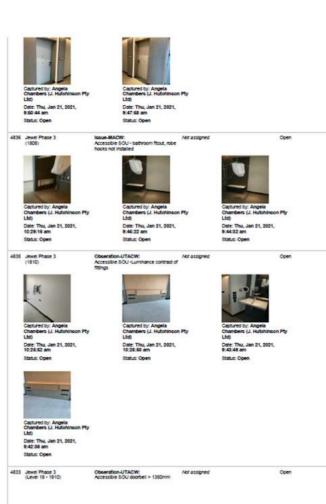
Status Open

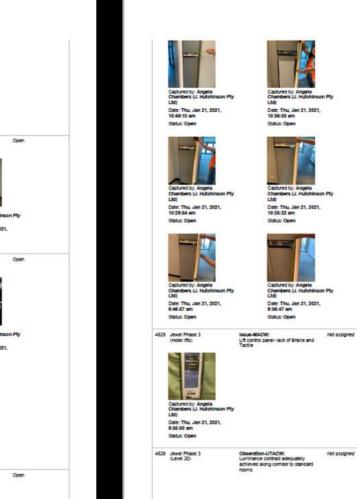
Obseration-UTACW:

Not assigned

Page 6 of 12







Captured by: Angela Chambers (J. Hutoh)

Date: Thu, Jan 21, 2021, 10:34:11 am

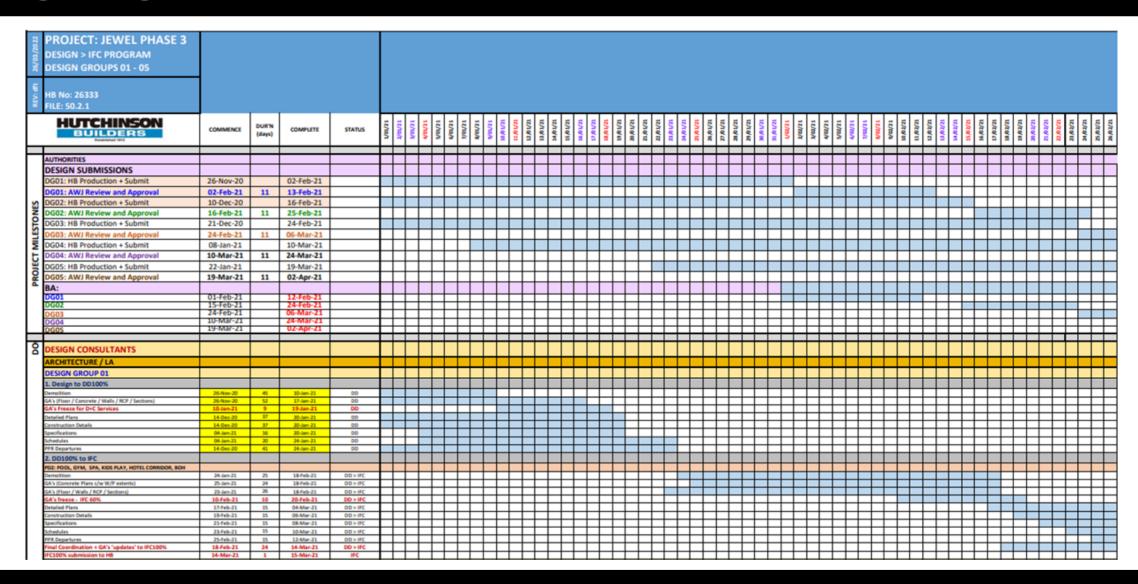
Captured by: Angela

Status: Open

Date: Thu, Jan 21, 2021,

Status Open

# **Design Program**

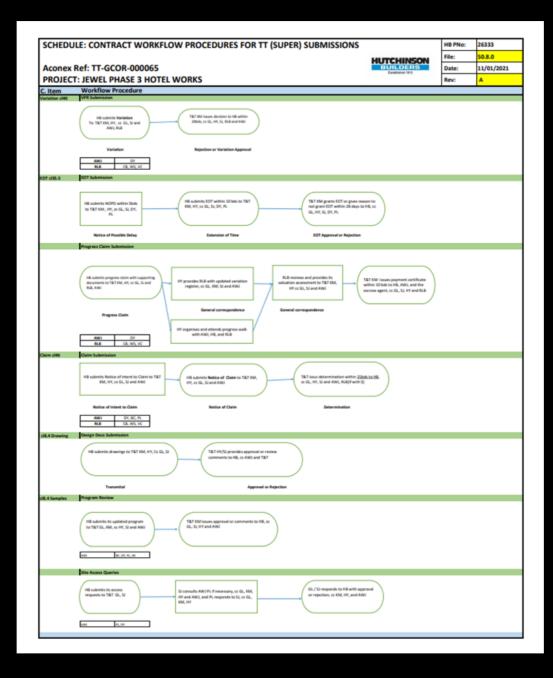


# **PPR Departure Schedule**

	E: DESIGN TO DD10 ROUP 01	PD1 Retail, External Breezeway,			RIFICATIONS real Steel Exo-Skeleton Cladding, PD2 FOH Corridor + PD2 Gym Facilities			HUTCHINSON	HB PNo: file:	26333
								BUILDERS	Dete:	1/02/2021
ROJECT	JEWEL PHASE 3 HC	OTEL WORKS						Established 1913	Revi.	8
	E: INTERIOR DESIG							7.1 	1444	1-
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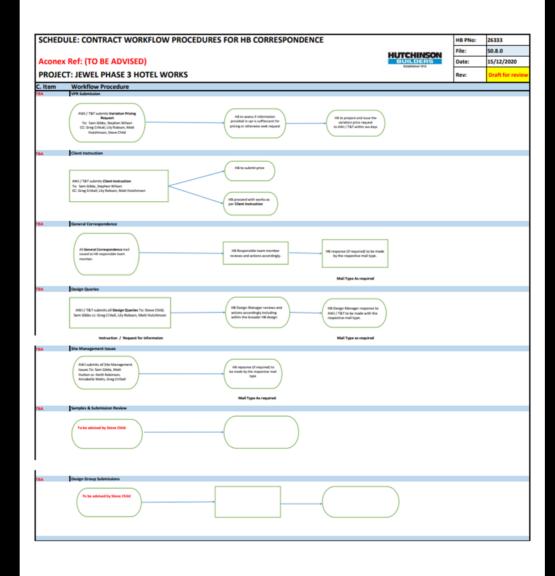
## **Contract Workflow**

1 / To Superintendent



## **Contract Workflow**

2 / From Hutchinson Builders

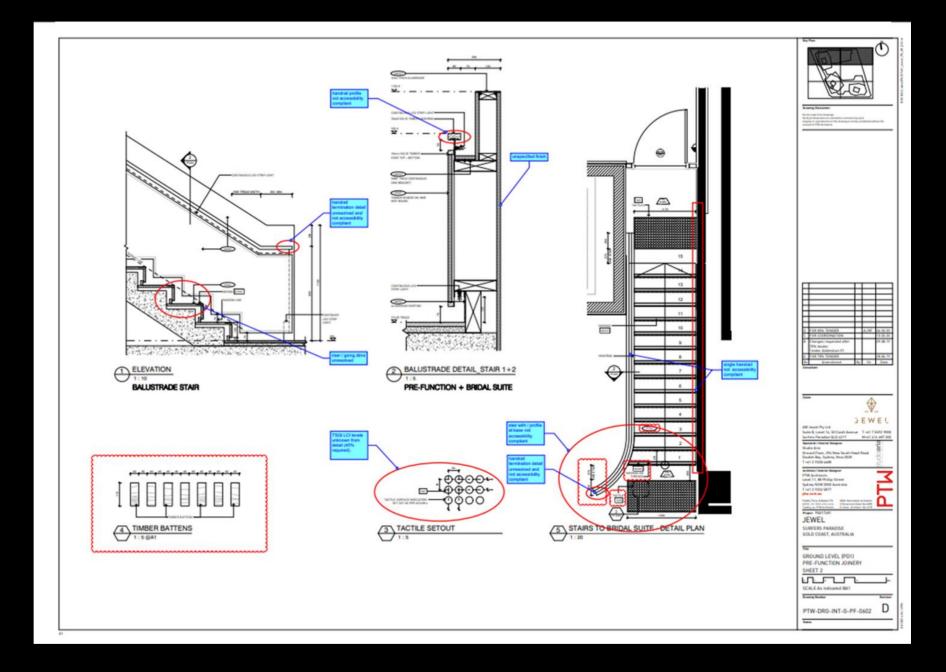


# **Client Sought Approvals – Feature Stair**

Sample



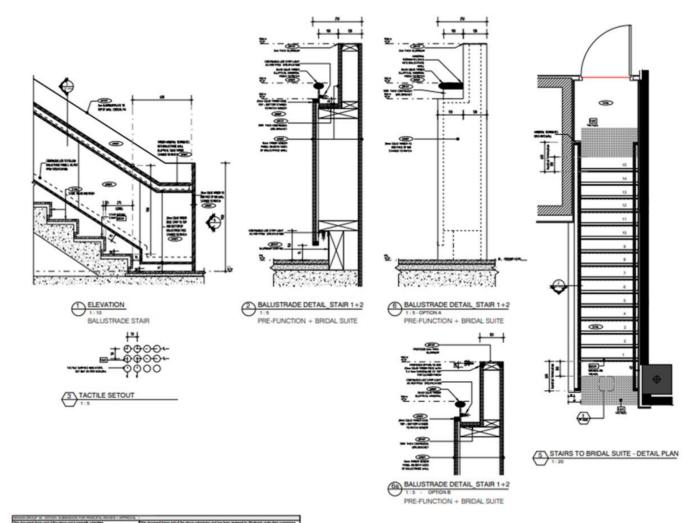


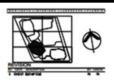


JEWEL PHASE 3 | CLIENT SOUGHT APPROVALS

#### 2. Hutchinson Builders Proposal / Submission

Refer attached DBI-ID mark-up package.













JEWEL PHASE 3 HOTEL WORKS

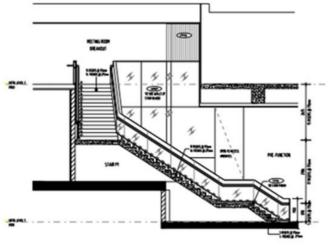
GOLD COAST, AUSTRALIA GROUND LEVEL (PD1) PRE-FUNCTION JOINERY SHEET 2

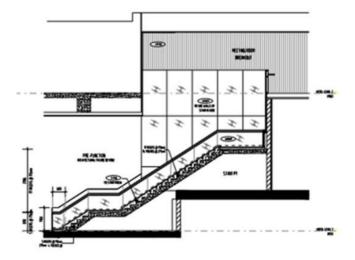
SURFERS PARADISE

04040	PROJECT GRECTOR	2	_
KA.	as shown @ A.1	_	-
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PROJECT NO.	265135		_
DBI-DRI	G-INT3-G-PF-0602		A

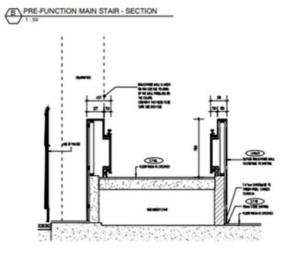
PROTOFINGON BUILDERS # CLIENT APPROVAL FORM

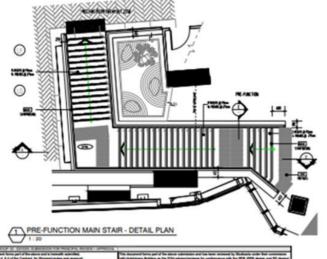
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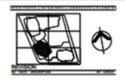


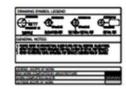
















JEWEL PHASE 3 HOTEL WORKS SURFERS PARADISE GOLD (OAST, AUSTRALIA

GROUND LEVEL (PD1)
PRE-FUNCTION MAIN STAIR
DETAIL SHEET

0-60-60	PROJECT DIRECTOR	9
	PROJECT LEADER	-
BON.A	as shown (B.A.)	
GATE.	OCTOBER 2020	
PROJECT NO.	265135	
COL DOOR	-INT3-G-PF-060	

JEWEL PHASE 3 | CLIENT SOUGHT APPROVALS

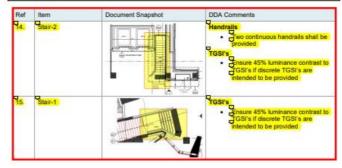
#### 3. Additional Specifications / Information

Refer attached MGC Access Consultancy Report (Appendix) Design Group 3 (04.02.21) - Reference Items 14 and 15.

Accessibility Design Review Jewel Phase 3 C:\Usen\alie\Desktop\201142 - Jewel Phase 3\(\text{FixportDesign}\)
Group-3\(\text{201142} - Jewel Phase 3\)
Design Group 3\(\text{DDA Review}\)
(Appendix)\(\text{doc}\)

#### Pre-Function Room

Design Group 2



#### Bridal Suite

Ref	Item	Document Snapshot	DDA Comments
16.	Doors		Door Circulation Space  Ensure compliant door latch side circulation space is provided  Luminance contrast  Ensure 30% luminance contrast is provided on both sides of the doorways

HUTORINSON BUILDERS # CLEINT APPROVAL FORM
G PROJANGTUDEDERS # CHEINT APPROVALED FOR MYPROMISE STARLEWEL PO\_CIA\_FEATURE STARLEWEL PO\_CIA\_FEATURE STARLEWEL

Brisbane | Gold Coast | Melbourne | Sydney | www.mckerzie-group.com.au ARSS | team Date: 23-04-0218



JEWEL PHASE 3 | CLIENT SOUGHT APPROVALS

#### 4. Principal Approval\* (Principal or Principal's Representative)

DATE

A DRINGIDAL

\* by signing, the PRINCIPAL confirms they have received & reviewed physical samples where applicable in addition to this submission.

OR

#### B. PRINCIPALS AGENT / REPRESENTATIVE - GARY LANDERS

PRINCIPAL'S AGENT / REPRESENTATIVE (TURNER & TOWNSEND) on behalf of AW JEWEL PTY LTD

\* by signing, the PRINCIPAL'S AGENT / REPRESENTATIVE confirms they have received & reviewed physical samples where applicable in addition to this submission

NAME

#### DATE

 = NOTE: This approval does not overwrite Hutchinson Builders contractual obligations of having to meet all NCC and Australian Standards requirements.

For more information, please contact

Sam Gibbs, Project Manager Mobile +61 419 762 555 Email sagm.gibbs@hutchinsonbuilders.com.au

# **Loose Sample Submission**

Sample



PROJECT: **JEWEL PHASE 3** 

**SCHEDULE:** SAMPLE REVIEW FORM

HUT-SMP-PCU3-00-00-0005[A] ACONEX REF:



SAMPLE DETAILS								
SAMPLE No:	СТ06	СТ06			REV: A			
DATE SUBMITTED:	15-02-202	15-02-2021						
SUBCONTRACTOR:	Hutchinso	Hutchinson Builders						
SAMPLE TITLE:	Floor Tile	Floor Tile						
DESCRIPTION:	Range: Bauhaus Series Modular Mosaic Tile. Size: 100mm x 100mm.							
MANUFACTURER:	Glennon Tiles							
MODEL No:	9075	907S FINISH:				Matt – I	Unglazed	
SAMPLE TYPE:	PHYSICA	L:				PHOTO		×
TECH DATA INCL:	Refer Atta	achment 1		YES	×	NO		
ASSOCIATED SAMPLES:	N/A							
PPR DEPARTURE:	YES NO (Specified			fied item)	×	Refer to	commen	ts.

APPROVALS	
HUTCHINSON BUILDERS	print: Steve Child
sign: ÆWWWW	date: 01-03-2021
SUPERINTENDANT	print:
sign:	date:
PRINCIPAL	print:
sign:	date:

NOTES/COMMENTS:

NOTE BY:

Note: The attached sample submission has been reviewed by the HB design team including DBI Group & Studio Aria.	нв
Sample and Prototype Schedule (Head Contract): #144.  PTW Materials & Finishes Schedule (PTW-INT-SCH-MR-0001[I]): p3 & p28.  DBI Schedule of Finishes + Fixtures (DBI-ID-SCH-INT3-PD-01-0001[G]): p6 & p70.	НВ
Refer Attachment 1: Tech Data - Bauhaus Series - Glennon Tiles.	НВ



PROJECT: JEWEL PHASE 3

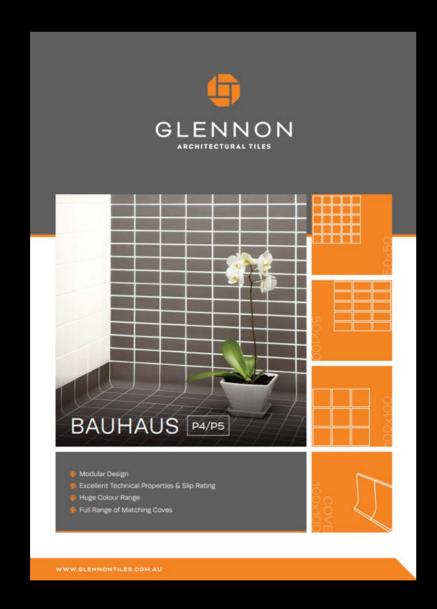
SCHEDULE: SAMPLE REVIEW FORM

ACONEX REF: HUT-SMP-PCU3-00-00-0005[A]

**PHOTOS** 







#### BAUHAUS

Floor C Wall Tile

The Bauhaus Series is Glennon Tiles' own signature range of coordinated ceramic floor and wall tiles. Available in 3 sizes and in 22 colours, the range comes with coordinating cove tiles and is modular, with floor and wall tiles fitting together seamlessly.

Boasting a refined aesthetic and technical competency, it's the perfect solution for environments with an increased risk of slips – like hospitals, schools and airports.

#### UNGLAZED



#### GLAZED

221	220
MATT WHITE	GLOSS WHITE
223	222
GLOSS DK GREY TAUPE	GLOSS TAUPE
226	225
GLOSS IVORY	GLOSS BEIGE





WHILES TO GLAZED TILES ONLY



#### PRODUCT CODES



COLOUR	50x50	50x100	100x100	100x100
UGL GRAPHITE	5001		901	COVE 901
UGL MIDNIGHT	5903	5703	903	ODVE 903
UCIL COBALT	5004		904	COVE 904
UQL PEWTER			907	COVE 907
UGL NICKEL	5008		908	COVE 908
LIGIL COPPER OXIDE	5909			COVE 909
UOL ICE	5910	5710	910	COVE 910
UGL CARBON	5011	5711	911	COVE 911
UOL BURNT IRON	9017	5717	917	COVE 917
UGL ASH	5031		931	COVE 931
UOL DUST			938	COVE 938
UGL SMOKE	5030	5730	939	COVE 939
UGL GRUNGE			940	COVE 940
UGL DARK COPPER			941	COVE 941
UGL SHADOW	5942	5742	942	OOVE 942
UOL MARINA	5943		943	COVE 943
UGL STONE			946	COVE 946
UGL 0000			948	COVE 948
UGL CHARCOAL			940	COVE 949
UGL MEDITERRANEAN			950	COVE 950
UOL STEEL			953	COVE 953
UGLFUNT			954	COVE 954
GL WL GLOSS WHITE			GCT220	
GL WL MATT WHITE			OCT221	
OL WL GLOSS TALPE			OC1222	
OL WL GLOSS DK GREY TAUPE			GCT223	
OL WL BEIGE			QCT225	
GL WL IVORY			GCT226	

#### SLIP RATING

UNGLAZED Indicative slip resistance values (A8/NZ8 4586:2004)							
Modular Size	Work Size	Oli Wet Ramp	Wet Pendulum	Barefoot			
100x100x7.5mm	96.5x96.5x7.5mm	RTT	p4	С			
100x50x7.5mm	95.0x45.0x7.5mm	RII	P4	C			
50x50x7.5mm	46.5x46.5x75mm	R12	PS PS	C			

These figures are indicative only for tiles bested under suboratory conditions and cannot be guaranteed for tiles supplied. All tiles are sheeted (except core sitrorings). Note: Cotor variation is an inherent property of ceramic tiles. All tiles vary in batch and in cotor. It less supplied may inherently valy from these samples.

#### Modular Design

ree-dimensional griment and preserve e visual appeal and tegrity of your design.



Excellent Technical Properties & Slip Rating

Provides you security in design and confidence that Bauhaus will meet the most stringent applications and meet project safety and standard requirements.





rige Colour Hange manding projects? Cover all or needs with Bauhaus.



Full Range of Matching Coves Bauhaus lets you finish





At this vary in twitch and in colour. Thes supplied may trinerantly very from these samples.

Test results above are indicative only for this tested under laboratory conditions and carnot be guaranteed for this supplied.

WWW.GLENNONTILES.COM.AU

# **Sample Room**

















# **Prototype Room**

1003 - Installation









# **Completed Works**









# Podium 01 (Ground) – Reception / Palm Court / Lobby Bar / MF Room















# Podium 01 (Ground) – Pre-Function / Ballroom













# Podium 01 (Ground) – All Day Dining / Grab & Go













# Podium 01 (Ground Mezzanine) – Stair / Meeting Room Breakout















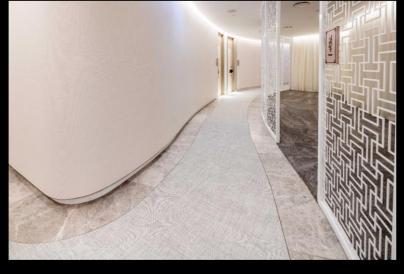
# Podium 02 – Spa















# Podium 02 – Gym / Kids Play











# **Podium 03 – Chinese Restaurant / Private Dining**













## Podium 03 – Outdoor Bar









# Serviced Apartment Lobby / Typical Room / Presidential Suite















# **Project Completion Celebration T2 (L51)**























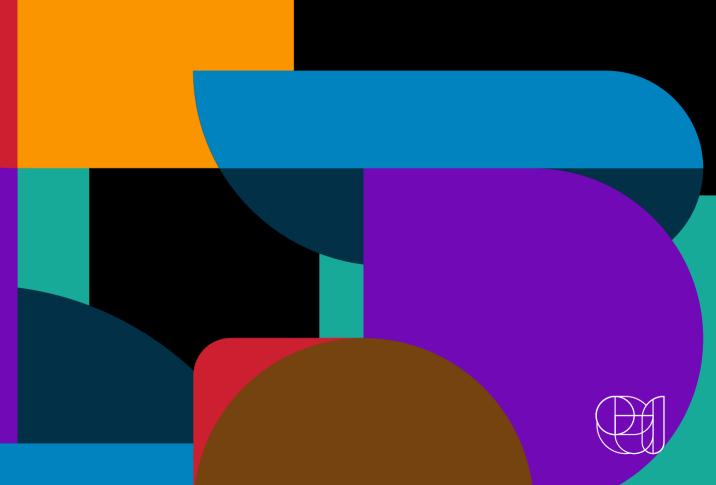




Case Study / Jewel

# Thank you

Questions





## **Get in contact**



Steve Child Design Manager

Joined Hutchies 2019

**Phone** 0409 444 346 **Email** 

steve.child@hutchies.com.au

# Back soon











# Hutchies



#### **Hutchies Update**

# from Jack Jnr

- > Hutchies' history
- > Hutchies' core values
- > Unique structure to remain





#### **Hutchies Update**

# from Rusty

#### Issues & Risks /

- > Escalation
- > Quality
- > Program

## Position of Strength /

- > Strong debt free balance sheet
- > Quality teams with diverse workbook
- > Preferred position with subbies and clients
- > Central support teams





2022
DESIGN
MANAGERS'
CONFERENCE

### **Hutchies Update**

# from Harty

- > 86 Design Managers in Hutchies
- > Design management makes Hutchies a builder of choice
- > Be proud of being part of transforming Hutchies into what we are today





### **Hutchies Update**

# **Around the Grounds**



**Tasmania** 



Melbourne



**Sydney** 



Coolangatta



Southport



Toowoomba



**Sunshine Coast** 



Rockhampton



**Airlie Beach** 



**Townsville** 



**Cairns** 



**Brisbane** 

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MANAGERS'
CONFERENCE

**Hutchies Update** 

# Thank you

Questions



2022
DESIGN
MANAGERS'
CONFERENCE





# Facades



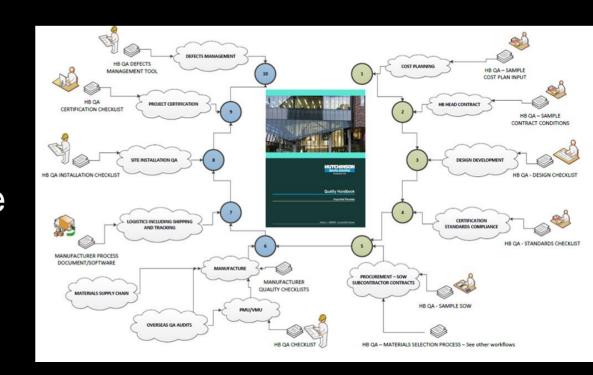
### Content

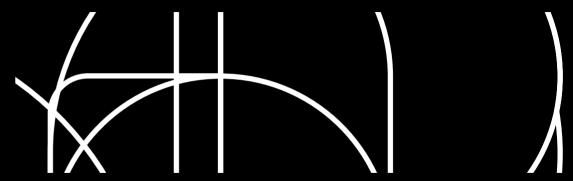


- 1 / Facade workflow
- 2 / Design tools
- 3 / Case study #1 > design / installation
- 4 / Case study #2 > design / samples and warranty
- 5 / Case study #3 > design / PMU testing
- 6 / Top 5 design related issues
- 7 / Questions & answers

## **Facade Workflow**

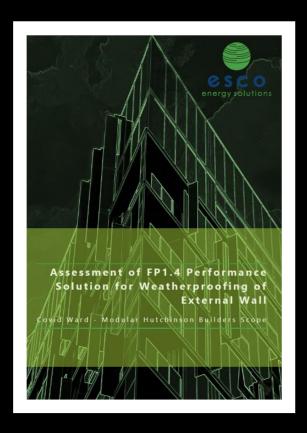
- 1 / Cost planning
- 2 / Contract
- 3 / Design development
- 4 / Certification & standards compliance
- 5 / Procurement
- 6 / Manufacture / QA
- 7 / Logistics & shipping
- 8 / Site installation / QA / testing
- 9 / Project certification
- 10 / Defects management

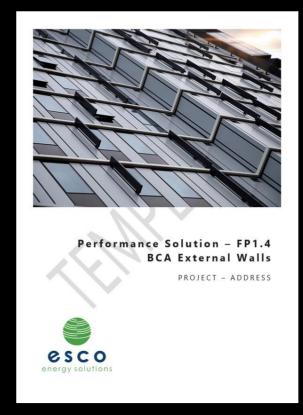




# **Design Tools & Documentation**









# **Design Tools & Documentation**

#### FP1.4 Weatherproofing

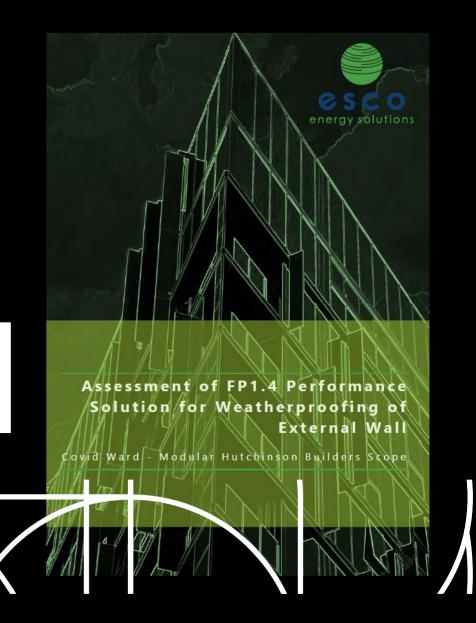
A roof and external wall (including openings around windows and doors) must prevent the penetration of water that could cause—

- (a) unhealthy or dangerous conditions, or loss of amenity for occupants; and
- (b) undue dampness or deterioration of building elements.

#### F1.0 Deemed-to-Satisfy Provisions

(a) Performance Requirement FP1.4, for the prevention of the penetration of water through external walls, must be complied with.

There are no Deemed-to-Satisfy Provisions for this Performance Requirement in respect of external walls.



# FP1.4 – Where do you start? What do you do?

- Mark up your elevations
- Every component on the walls
- Every component on the roofs

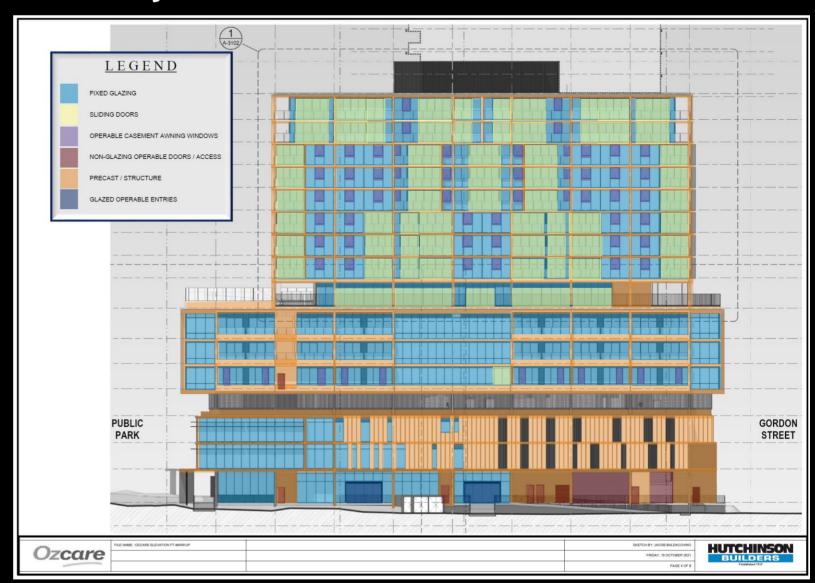
These all need to meet certain Test Criteria for compliance with FP1.4

### **IF THEY DO NOT**

### Then we need a:

- Performance Solution; or
- New subbie or
- Tell the client we can't build it that way

Do not decide to build it wrong! there's ways we can help.

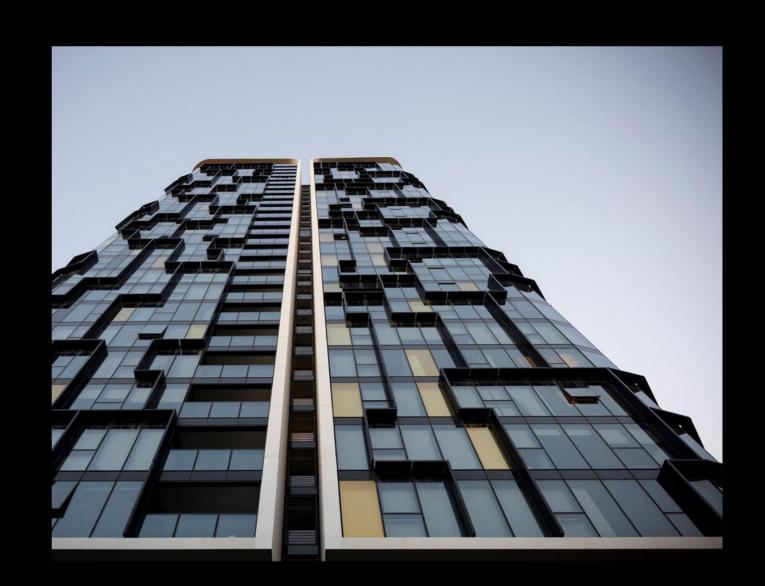


# Case Study #1

### Project /

- > High Rise Apartment Tower UCW
- > Awning windows
- > Terraces / Balconies with Sliding Doors
- > External feature fins / shades
- > Faceted panel junctions
- > Multiple Interfaces (pre-cast in particular)

Facade Team assistance to help identify the source of water ingress and leaks, and what remedial actions could be undertaken to prevent further ingress.



# **Water Ingress**



External façade view of facete panels



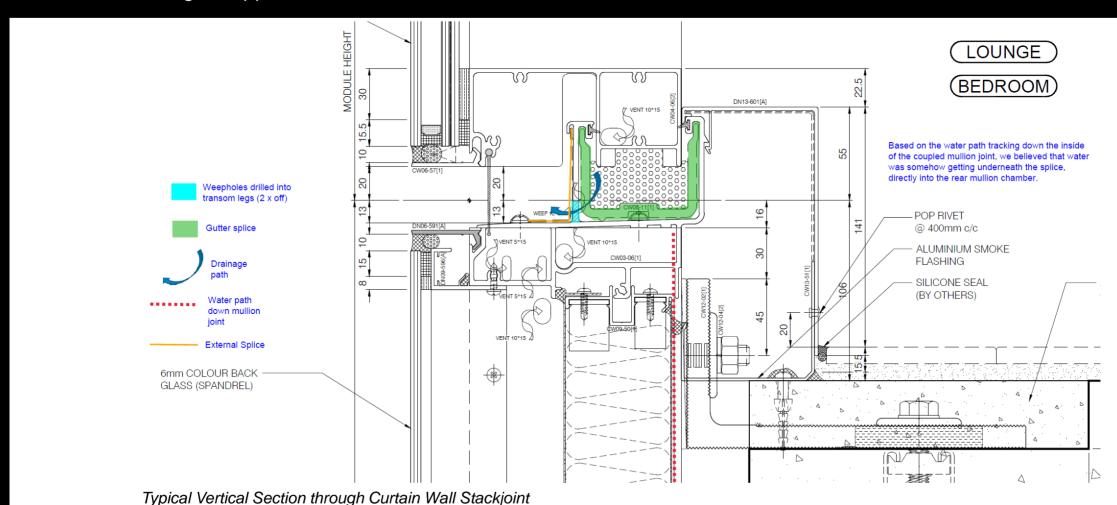
Water tracking down mullion



Water ponding on floor

# **Shop Drawing Status**

Facet Panels Design – Appeared ok:

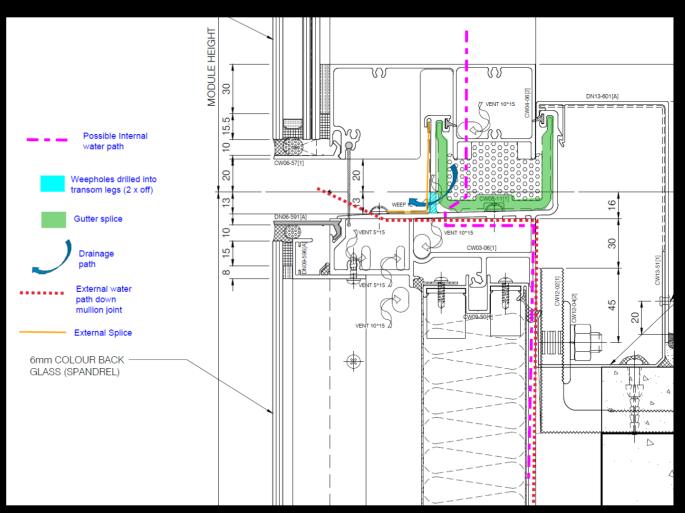


# **Cause of Ingress**

### Point of Ingress:



Water Ingress down mullion behind the slab



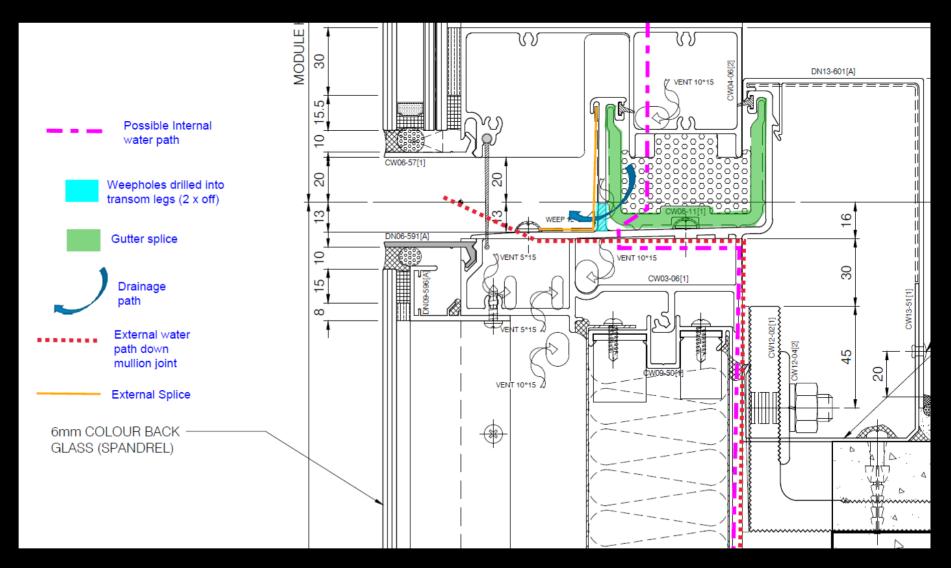
Suspected Water Ingress Path

# What did we discover?



Exposed framing / Missing external sleeves





Weepholes Blocked

# Could these have been identified before completion?

### 1. Contract / **Subbie Award**

- Scope of Works
- Testing Allowances (off and on site)



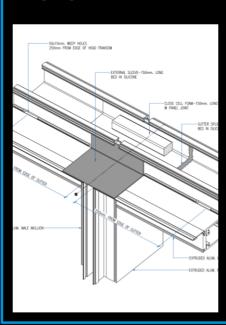
#### 2. QHSE

- Project Quality Plan
- Design Reviews
- More detailed ITP & ITCs



#### 3. DIP Design

- Additional details
- 3D views of iunctions
- Design peer review
- Shop drawings review



#### 4. VMU / PMU

- Mock-up the non typical detail
- Off-site test of the non-typical detail



#### 5. Installation



- ITP / ITCs
- Design review with installer before starting
- Install sample Quality hold point
- Site hose testing
- Peer inspections / reviews



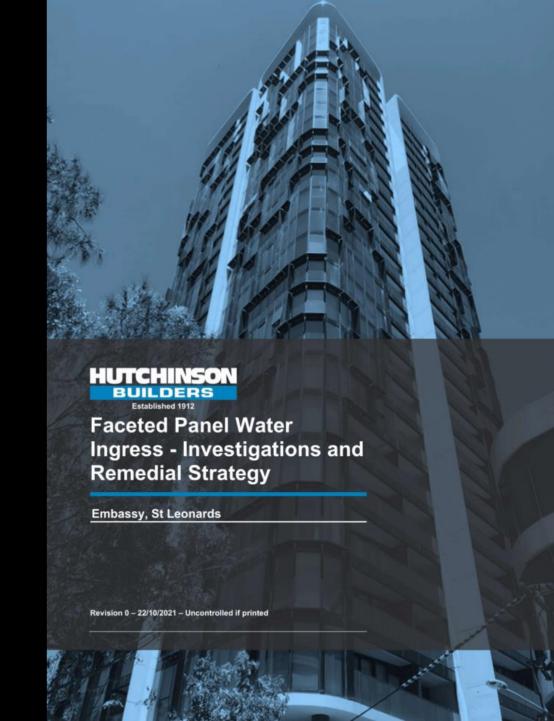
Last opportunity to identify and rectify

# **Remedial Strategy**

- > Remove all silicone at external 4-way joint
- > Applied sealant to the underside of the gutter splice
- > Install & seal external sleeve
- > Drill new weepholes into head transom
- > Seal over blocked weepholes

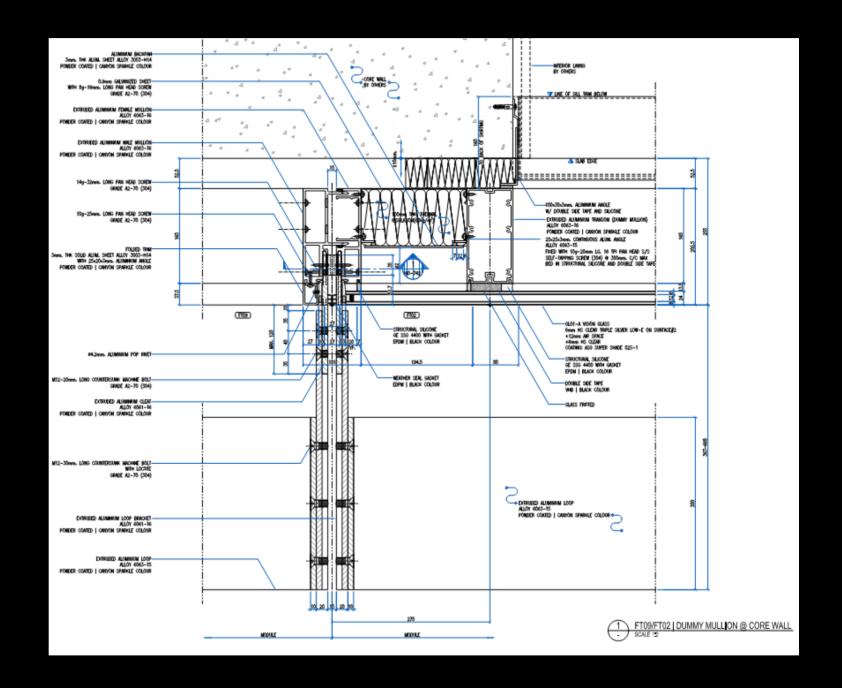
### Note /

This solution allows for all rectification to be done externally removing impact to occupants



# **Design Planning**

- > Are we capturing the right details?
- > Have all interfaces been considered?
- > Should we 3D model key junctions?
- > Who is reviewing / checking drawings
- > Has the subby / designer considered the stages of the project that follow design?



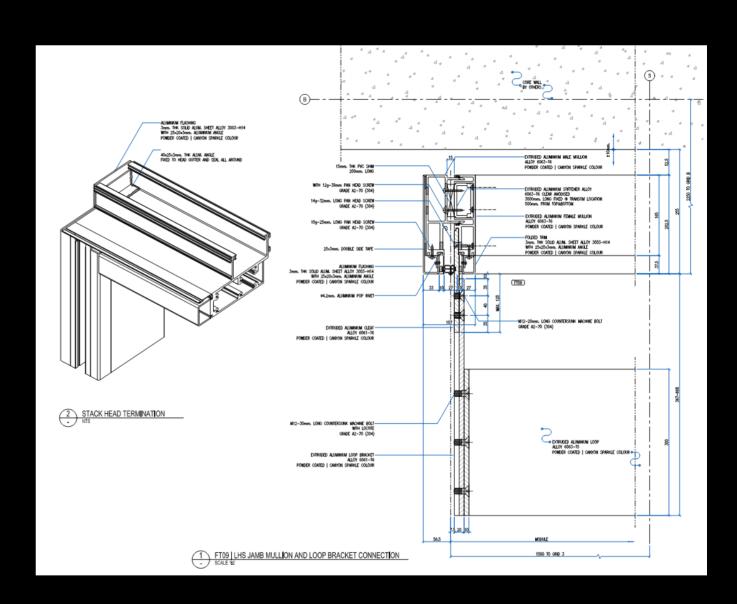
# **Design Planning**

### Design directly affects /

- > System Design and engineering
- > Fabrication drawings
- > Façade Subby/Partners
- > Test facility
- > Material suppliers
- > Fabrication and assembly
- > Site Installation

The shop drawing stage is the best opportunity to capture design issues that may impact us later in the project.

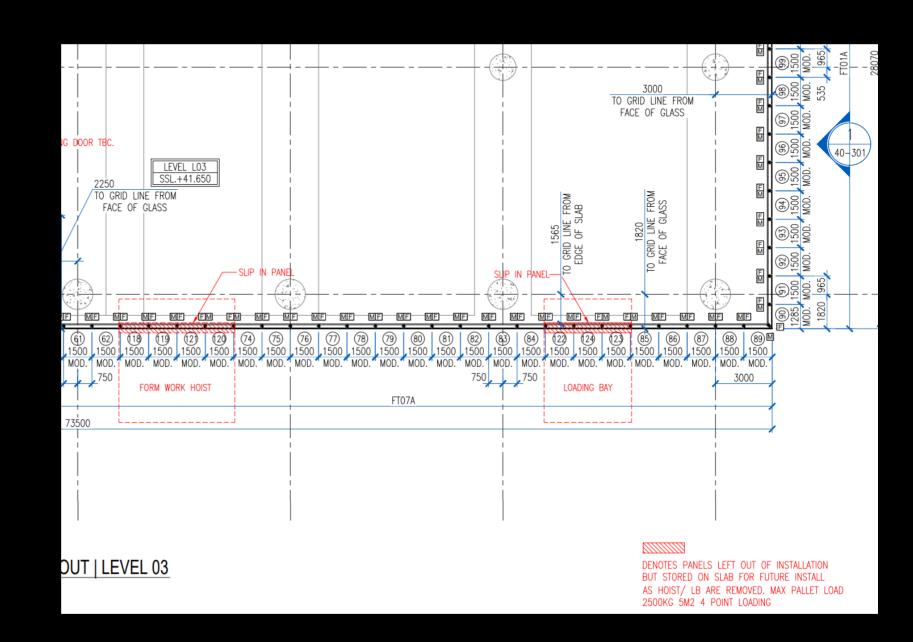
How we intent to deliver the project plays a large role in what needs to be considered at the design stage.



# **Design Planning**

# Site Installation and Sequence?

- > Alimak
- > Loading Bay
- > Slider Panels
- > Installation Sequence
- > Column locations
- > Backpropping
- > Access and materials handling

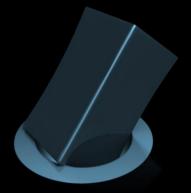


# **Design decisions**

Decisions made during the design development stages can have significant impact to our projects once the upfront design is completed



- > Are we asking the right questions upfront?
- > Are our subcontractors looking at the critical details?
- > Have the relevant stakeholders had a say?
- > Can it be fixed when it gets to site?



# **Façade Design**

There are many different aspects of a complete facade design that we need to understand.

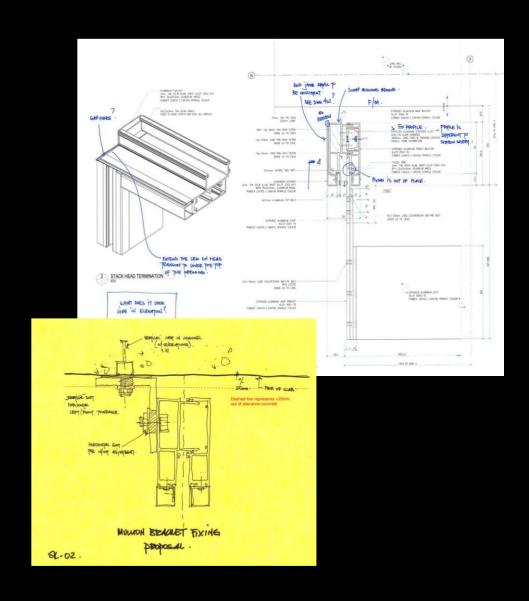
Facade design needs to consider:

- > Aesthetics / architectural intent
- > Structural performance
- > Thermal performance
- > Acoustic performance
- > BCA/NCC compliance
- > Code and Standard Compliance
- > Material selection
- > Fabrication and Installation
- > Maintenance



### What do we do?

- >More detailed reviews of shop drawings
- >Early engagement with site team to review design
- >Early engagement with fabricator / installer to review design
- >3D images to explain key interface details
- >Holistic view of the scope not stage by stage
- >We need to understand the process, and ask the right questions upfront.



# Case Study #2

## Project /

- > High rise apartment building in Sydney
- > Change in design after the project started (finish specified as anodised, but powdercoat approved)
- > No QA process / verification in approval
- > No QA process / verification in manufacture
- > High profile "rich and famous" apartment owners
- > Hutchies resources ongoing for 10 years to address issues
- > Financial implications are?
- > Worst case solution full facade replacement
- > What could this mean for Hutchies?



# **Site Observations**

Do we consider that design is completed when the shop drawings are IFC?

What checks were made to ensure the documented design followed through to the next façade stages (procurement, install etc)?









# Case Study #3

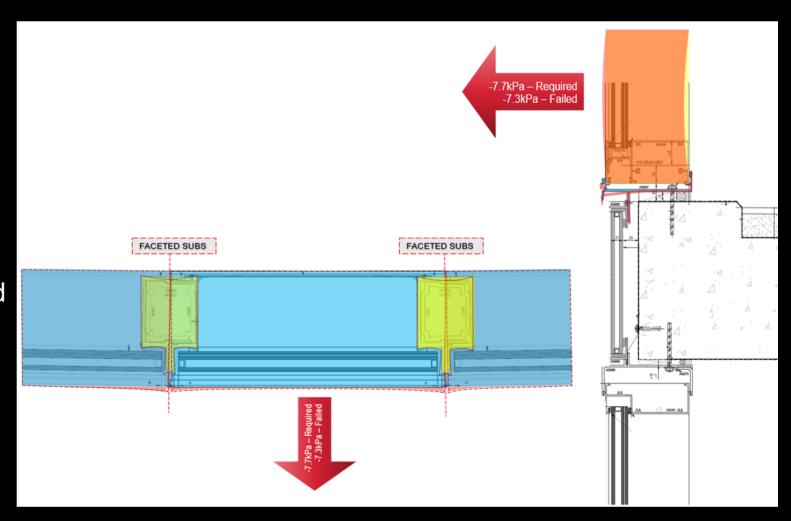
## Project /

- > Faceted panels
- > Slab edge detail
- > System not as per the supplied performance test report
- > Technically not conforming to AS2047 (BCA requirement under FP1.4)
- > Engineering reviewed requiring system strengthening
- > All works carried outside of normal hours whilst the project was still progressing
- > Time and cost



# **Testing Summary**

- > -7.9kPa wind loads (huge!)
- > Test report design orientation was typical / straight
- > Project design orientation was faceted panels
- > Misunderstanding of AS2047 requirements on what can be considered to be a "previously tested system"
- > Consultant identified discrepancies that our subby couldn't answer
- > Testing 1 completed = fail
- > Testing 2 completed = fail
- > Testing 3 completed = pass

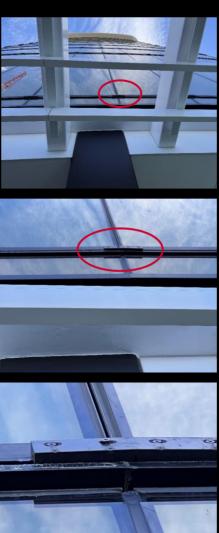


# **Rectification Strategy?**

- > Changes to the system design as required to achieve a successful test pass
- > Over 50% of the façade had already been installed
- > Weekend only access to carry out rectification works
- > All works had to be completed from ropes
- > Program delays and disruption to the project

#### Questions /

- > Do we track critical milestones such as testing, and understand the risks involved if we move ahead on the project?
- > Do we typically accept what the subby is telling us is correct?





# The Top 5

What issues are we seeing across our Projects that present themselves during design, or are impacted by the decisions we make during design development?









# 1 / Subcontractors and SOW

#### HUTCHIES

#### **HUTCHIES FACADE ALERT #101**

Conforming & non-conforming Tender Checklist



When tendering Facade Scopes, critical documentation & project specifics outline minimum performance requirements, code compliance & project specifics. Each subcontractor prices differently, allows for products & materials available in their supply chain, but these are not always necessarily conforming.

The intention of this Alert is to get our Teams & Subbies using the attached checklist during tender submissions, allowing Hutchies teams to get a clearer understanding on what has been priced clarifying conforming & non-conforming components within their

#### PROJECT DOCUMENTATION & COMMUNICATION

We understand that not all tenders have the same level of documentation & in some circumstances this offers risk, just like we understand our Subbies are likely to get further & deeper into the technical side of the documentation than our initial reviews. We need to ensure all discrepancies & risk items are identified & clarified to mitigate these risks.





Please ensure the attached checklists are completed with our Façade-Subby submissions to clearly identify scope inclusions /



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#### HUTCHIES

#### CONFORMING & NON-CONFORMING TENDER CHECKLIST

PROJECT NAME	ENTER PROJECT NAME		
PROJECT ADDRESS	ENTER PROJECT ADDRESS		
COMPANY SUBMITTING QUOTATION	SUBCONTRACTING COMPANIES NAME		
PERSON SUBMITTING QUOTATION	EMPLOYEE SUBMITTING FOR SUBCONTRACTOR		
JOB TITLE	ENTER PERSONS JOB TITLE		
PHONE	ENTER PERSONS PHONE		
EMAIL	ENTER PERSONS EMAIL		

DATE OF Click or tap here to enter text. Click or tap here to DATE RECEIVED enter text.

YOU MUST TICK ONE

YOU MUST TICK ONE

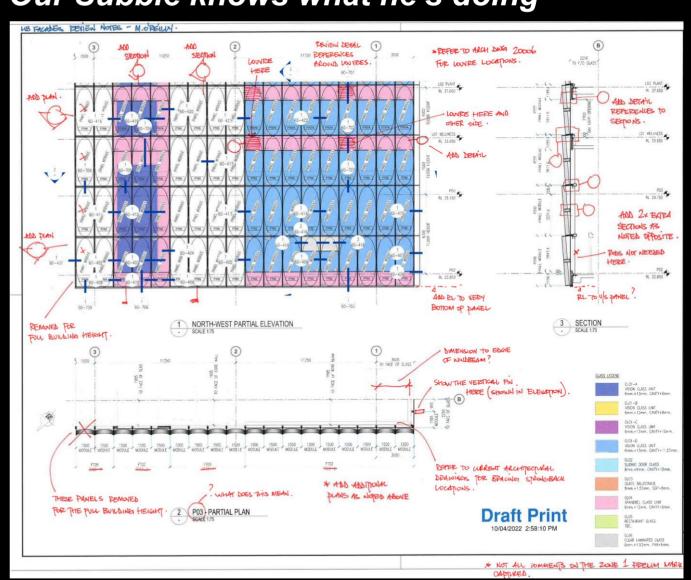
		TOO MOST FICK ONE		
		YES	NO	UN-SURE
Item	Quotation Performance Requirements Confirmation	Conforming As Per Spec	Non-Conforming Alternative	Clarification Required
1	System proposed in quotation meets Section J / ESD performance requirements for this project			
2	System proposed meets wind loads & facade performance specification requirements for this project			
3	System proposed in quotation meet architects design intent (colours and appearance)			
4	Proposed systems materials make-up meets the minimum Australian Standards & Certification requirements			

		100 moot finit one	
		YES	NO
Item	Submission Requirements	As Per Spec	Alternative
5	I have downloaded, read & understand all of the attached documentation for this project & consider this submission:		
6	I have allowed for all site parts required or nominated otherwise in tender clarifications within the attached quote:		
7	I understand the project program and have capacity to deliver to the sequence required & project dates nominated:		
8	I have attached a scope of works mark-up identifying Inclusions and Exclusions of scope:		
9	I have attached a schedule of rates referencing the highlighted scope of works:		
10	I have confirmed who my certifying engineer is (Design & Install):	(Enter certifying engineer)	
11	I have attached tender clarifications to our quotation package:		

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# 2 / Shop Drawings + Engineering - 'Our Subbie knows what he's doing'

- > Incomplete shop drawing packages
- > Typical system detailing only
- > Lack of consideration for fabrication and site installation ("they'll just work it out on site")
- > Lack of nomination of materials and components
- No accompanying engineering, or inconsistencies between the two document sets
- No design planning how much work and when by?
- > Shop drawing admin (review, status, close-out etc)

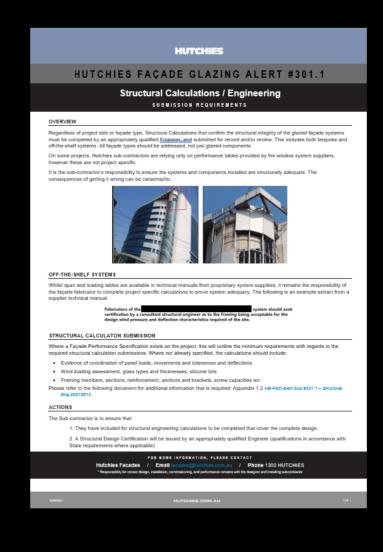


# 2 / Shop Drawings + Engineering

Engineering of facade systems is critical, and getting it wrong could be disastrous.

Major risks include failure of the façade, resulting in items falling off, or damage to people and properties.

- > Some subbies don't have anyone doing a structural engineering check, or rely on manuals or own experience as being sufficient
- > Incorrect wind load assumptions (design pressures must be derived in accordance with AS1170)
- > Engineering calculations don't match shop drawings
- > Engineering calculations don't cover all components (eg anchor sizes and frequency, minimum edge or embedment dimensions)





# 3 / Offsite Testing

Off-site testing is very important to confirm that the design intent / documented design actually works.

#### It can cover:

- > Structural tests
- > Material tests
- > Adhesion / Compatibility
- > Water penetration
- > Air infiltration
- > Acoustic performance
- > Asbestos
- > Impact
- > Anchor pullout etc

#### HUTCHIES

#### HUTCHIES FACADE GLAZING ALERT #302

#### **PMU Comparison Reports**

PERFORMANCE MOCK-UPS TESTED TO AS2047 AND AS/NZS4284



#### OVERVIEW

Hutchies are experiencing on multiple projects, leaks through the façade post construction. The façade sub-contractors have relied upon test reports for previously tested systems as justification for performance compliance.

Where proprietary systems are adopted (fabricator purchasing a standard system from a window supplier), test reports for standard systems and configurations are often provided to justify system performance instead of carrying out new testing.

Hutchies are finding that sub-contractors are relying on previously tested system data, without providing any assessment as to how this data applies to the project. In some cases, it has been sound that the results should not be relied upon as the tested system is not comparable with the current project (<u>windloads</u>, size, configuration etc).

#### PERFORMANCE TESTING & THE BCA / NCC

Window performance testing is either carried out to AS2047, or AS/NZS4284 depending upon the type of façades used on the project. Both Standards are referenced in the BCA, Section FP1.4, as requirements as part of the Performance Solution required to verify compliance for weatherproofing.

#### COMMON FINDINGS

Particularly with regards to off the shelf tested systems, we are discovering that:

- Windloads for tested systems are lower than what the projects are subjected to.
- Project window sizes exceed the 15% increase in area allowed for to consider the test results applicable.
- The detailing of the tested system does not align with the project details.
- Sub-framing has not been incorporated into the tabled test reports, or doesn't match the project detailing
- Test reports have been carried out to old versions of the Standards.

#### ACTION - PMU COMPARISON REPORT

If you are relying upon an existing test report as compliance for AS2047 or AS/NZS4284, you must provide a Comparison Report that compares the tested system criteria against the project requirements. This is be prepared by your Certifying Engineer, and should include:

- 1. Windload.comparison
- 2. Module size comparison.
- 3. Framing assessment (structural).
- 4. Water penetration and air infiltration assessment.
- 6. Commentary on compliance with the current version of the Standard (where the test report is to an outdated version).

#### FOR NORE INFORMATION, PLEASE CONTACT

Hutchies Facades / Email facades@hutchies.com.au / Phone 1300 HUTCHIES

\*Responsibility for comed design, installation, commissioning, and performance remains with the designer and installation autocommeter.

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# **Off-Site Testing**



# 4 / Samples and Material Selection

Selecting the right materials when we design, ensuring they performance as required, and making sure we get the correct submissions from our subbies must not be underestimated.

Making the right material related design choice at the beginning of the project can significantly reduce our risk for years to come.

- > What sample submissions are we getting from our subbies?
- > Do they meet any project Specifications?
- > Do they comply with relevant Codes and Standards?

#### HUTCHIES

#### **HUTCHIES FACADE GLAZING ALERT #305**

#### Façade Glazing Sample Management Checklist

MINIMUM CODE CONFORMANCE HB-FAC-306

#### OVERVIEW

Façade systems comprise of numerous elements, all of which have minimum Australian Standards to achieve compliance. Typically, we see submission & approvals based on Aesthetics (Glass / Powdercoat etc.), however there are far more elements to take into consideration. Reference Appendix: A1 4 for HB-FAC-305 Facades – Sample Management Checklist takes into consideration compliance & QA issues relevant to issues seen on Hutchies projects in attempt to mitigate the risks associated. This checklist should be complied with as a minimum Hutchies standard for products utilised in the supply & approval of our glazing systems.

#### 'FACADE'S' IN TODAYS CONSTRUCTION INDUSTRY

Compliance relative to components in our Façade Systems is under constant scrutiny & only becoming more of a risk. In an industry that is solely dependent on O/S Supply for one item or another, Compliance to Australian Codes & Standards has never seen such a level of in-depth technical scrutiny.

We have seen Project Teams & Subbies in endless pursuits 'seeking compliance', at stages of projects where it's too late to change products & the cost & time lost to all involved as well as reputation, is not a reflection anyone

wants, after working so hard

#### WHAT WE ARE SEEING

Projects are being scrutinised for hardware not complying with AS4145, this standard has a codification requirement to be stamped / stickered on each product. This <u>isn't</u> commonly seen as a majority of our products are O/S procurement. We need to push our suppliers towards the path of conformance to avoid these delays.

#### ACTION

- Refer attached HB-FAC-306 Façade Sample Management Checklist
- 2. Subbies should complete this checklist as a minimum for a project
- 3. We need to identify any non-conforming products as early as possible in a project
- If there are components deemed non-conforming, bring this to the attention of your Hutchies Project Team & determine the path-forward.



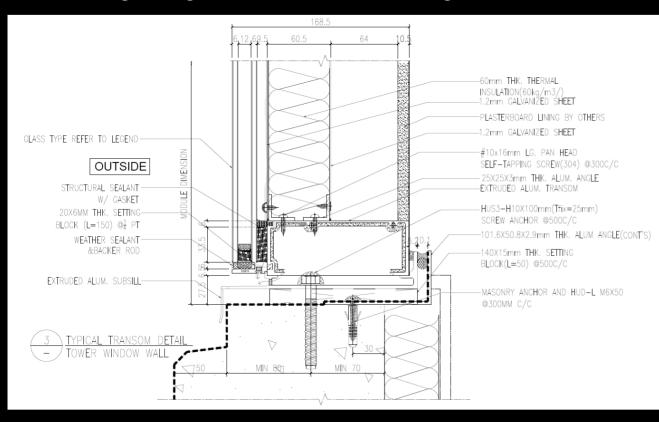
OR MORE INFORMATION, PLEASE CONTACT

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\*Responsibility for correct design, installation, commissioning & performance remains with the designer & installing subcontractor

# 4 / Samples and Material Selection

Are we using the right materials when we design?

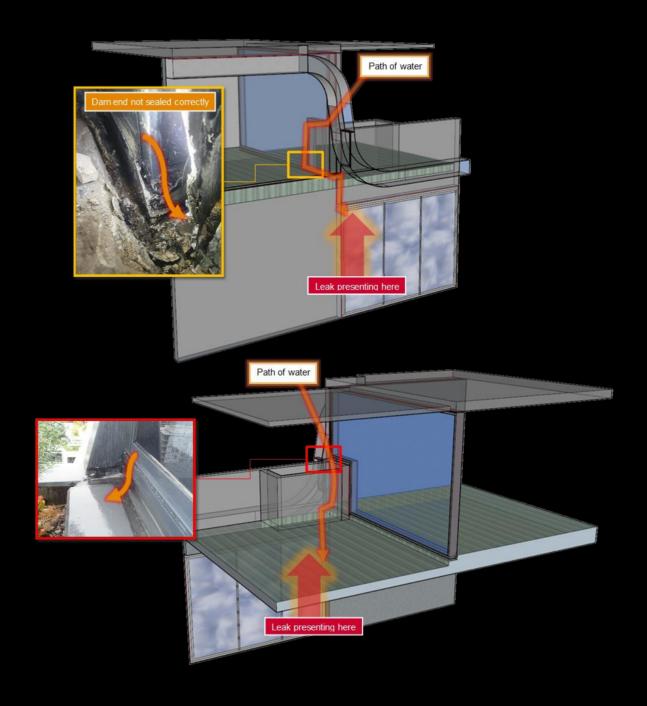




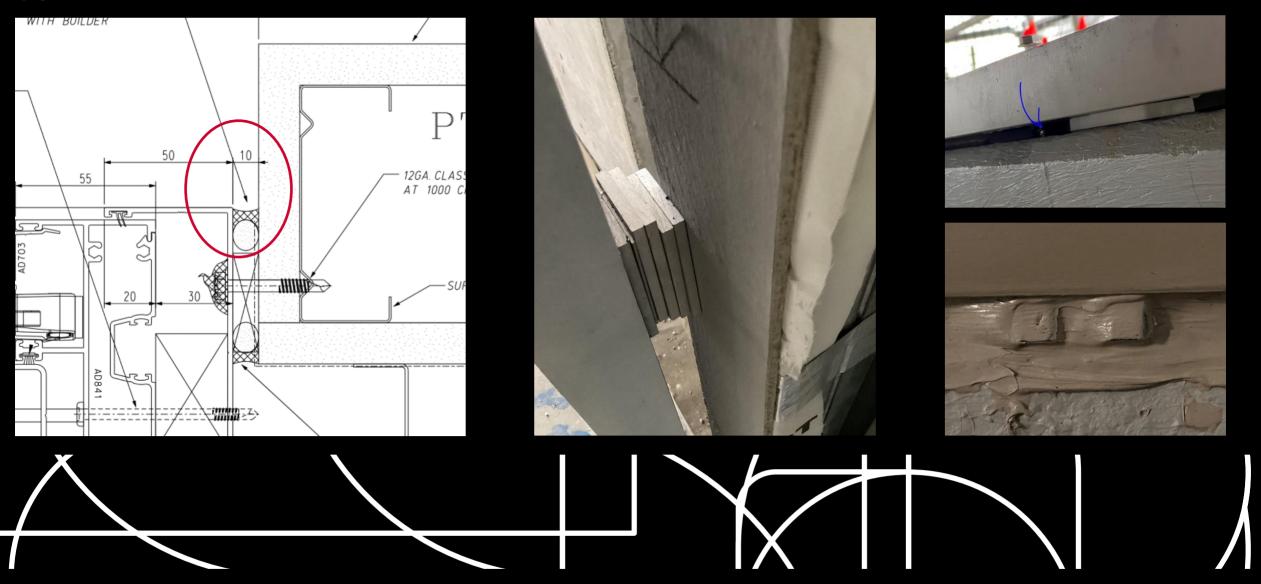


### 5 / Installation

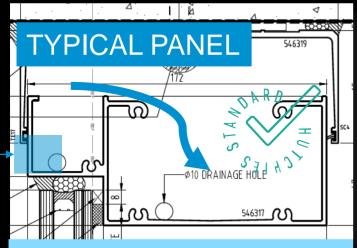
- > Conditions on site have changed and the install doesn't match the design
- > Outdated drawings used on site
- > No drawings on site
- > No design for non-typical / difficult interfaces ('they can work it our on site')
- > Lack of design related items in ITP's and ITC's (eg torquing of anchor bolts)
- > Installers are typically a subcontractor to the façade subby, and not aware of some design requirements



# 5 / Installation



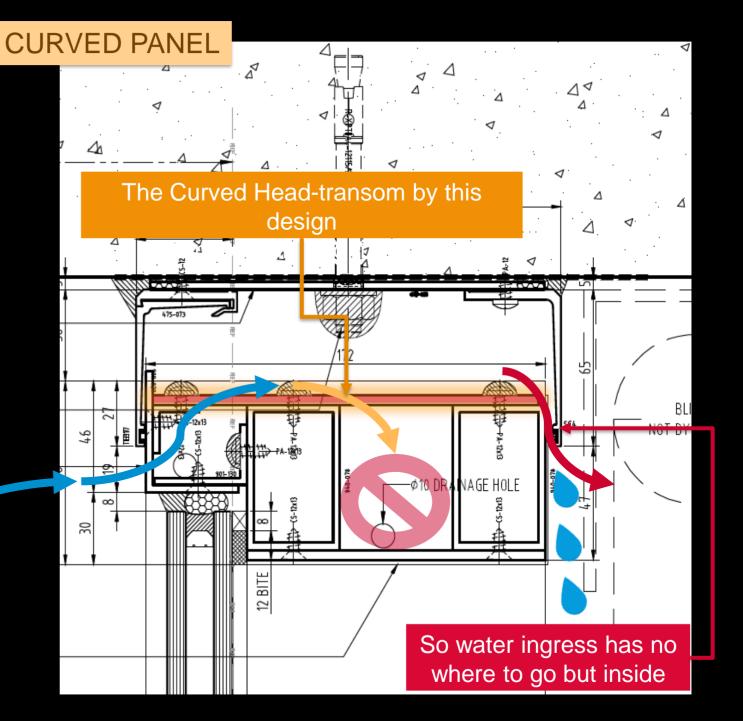
#### 5 / Installation



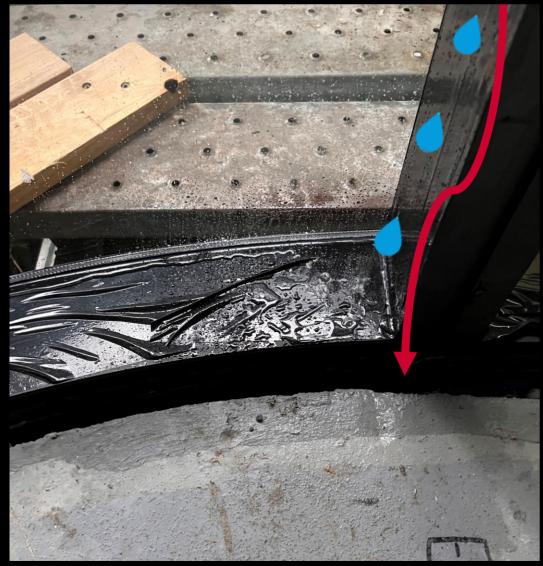
- Water gets in the head transom; &
- Drains back into the mullion; &
- Out through the subsill / stackhead



Water gets in the head transom at the mullion joints in heavy storms



### 5 / Installation



# We simply poured water from a cup here



& it instantly came through here

#### 5 / Installation

Door Installation – plan for them to fail!

Competing factors (water penetration vs DDA compliance)

To comply with FP1.4:

DTS - F1.13 - AS2047 = off sitetesting

Hinged doors often struggle to meet the project pressures – have our subbies considered this in the system they propose?

Performance Solution is the alternative approach for frames glazed, and framed bifold doors to achieve.





**Facades** 

# Thank you

Questions



#### **Get in contact**



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Harry Jobs

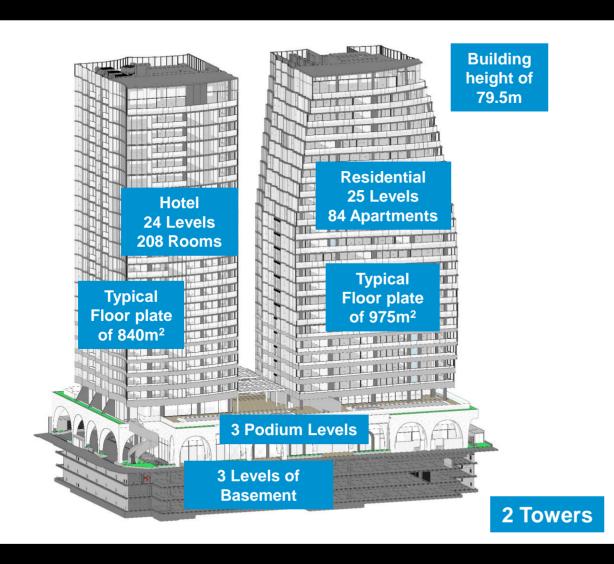




# Case Study / Mondrian

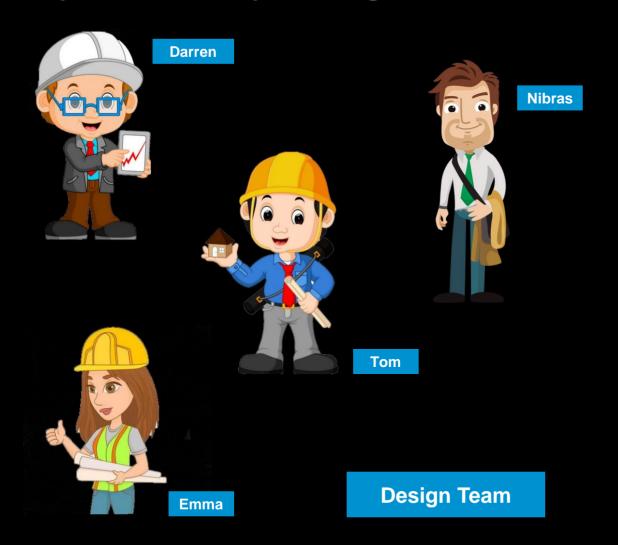


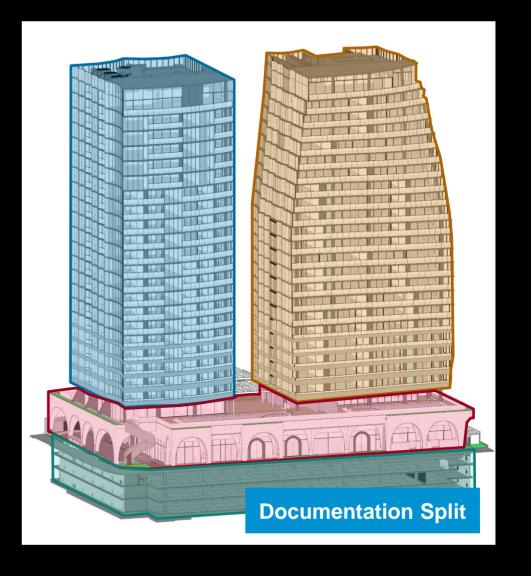
# **Project Summary**



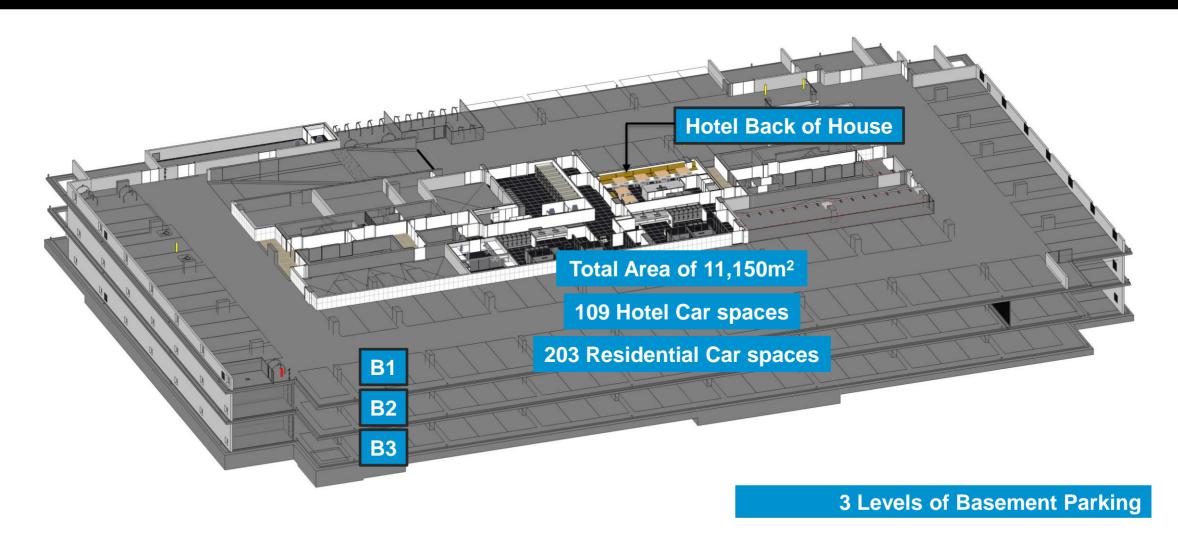


# **Project Summary / Design Team**

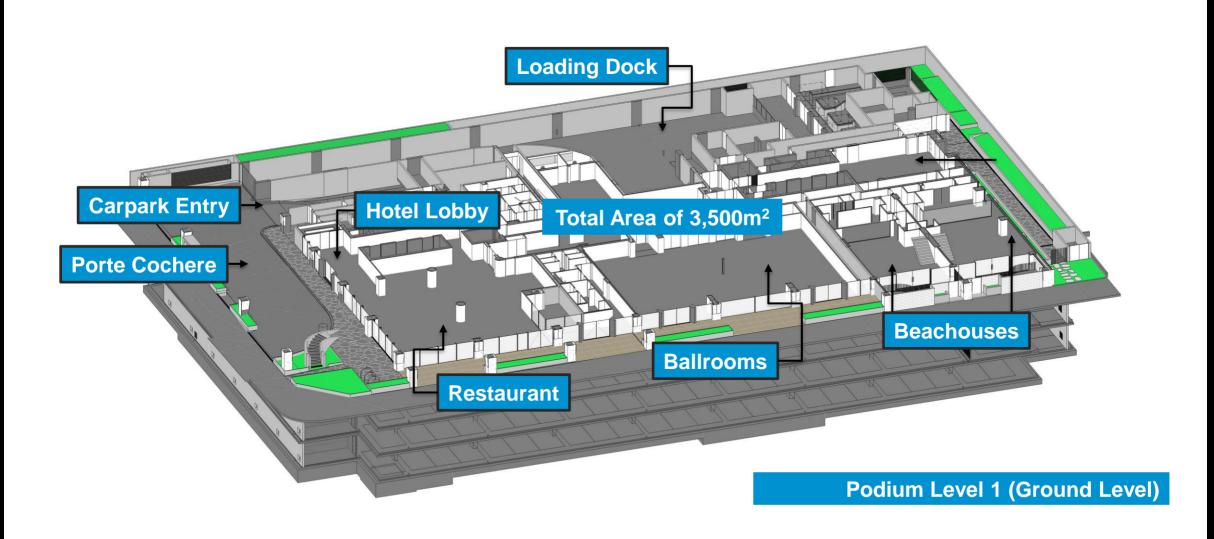




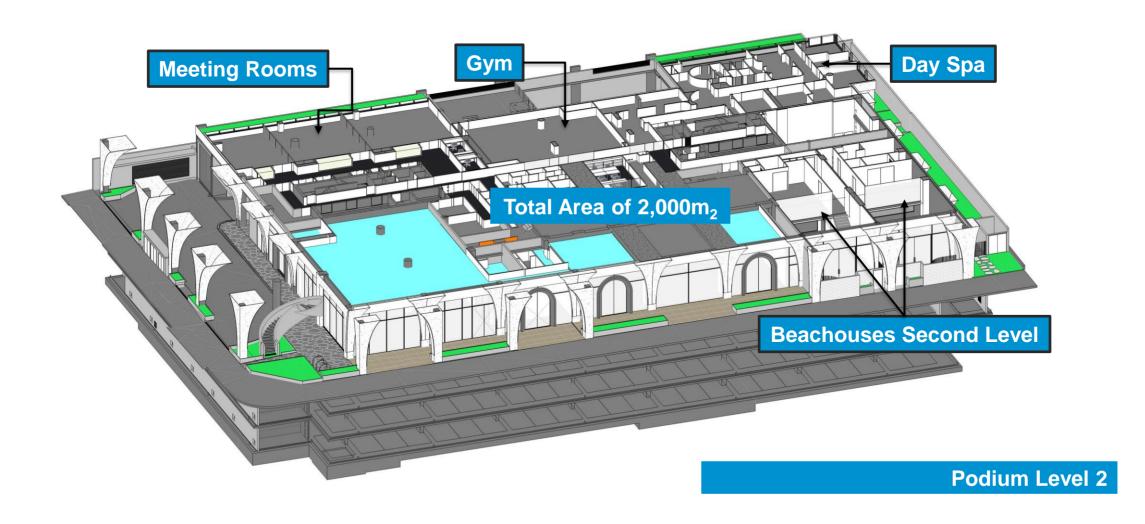
### **Project Breakup / Basement Levels**



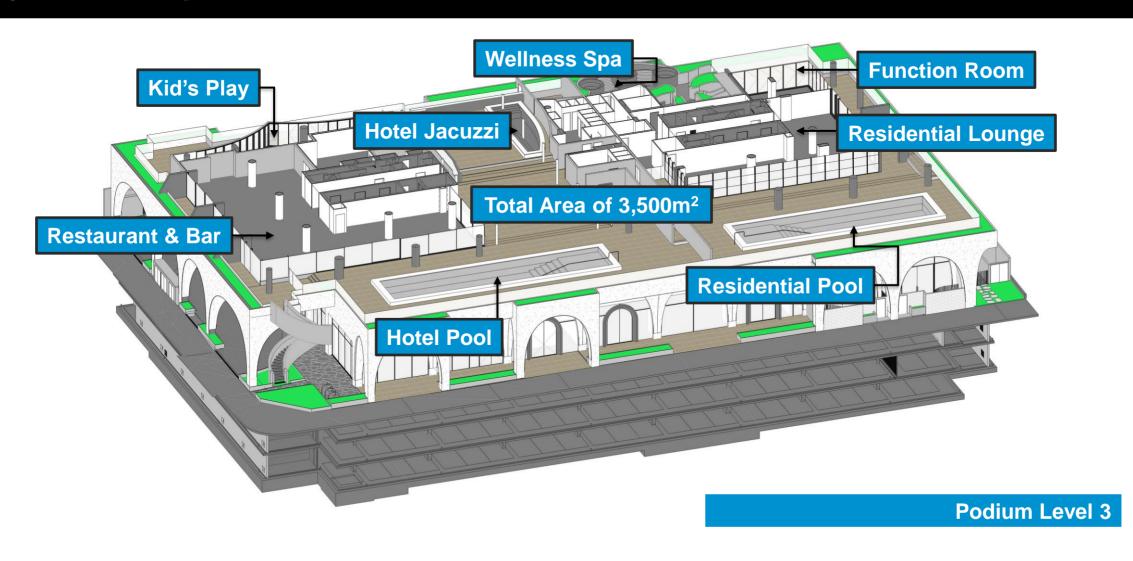
### **Project Breakup / Podium Levels**



### **Project Breakup / Podium Levels**



# **Project Breakup / Podium Levels**

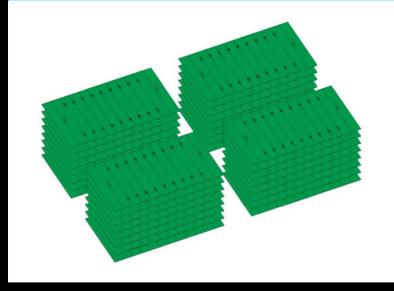


# **Project Stats**

**Project Concrete Quantities** 

25,900m<sup>3</sup> of concrete

Equates to roughly 32 rugby league fields



**Project Steel Quantities** 

3,200 tonne of steel

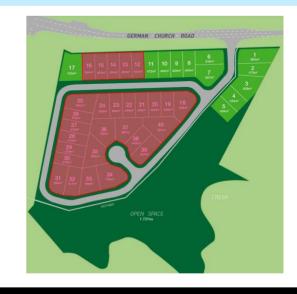
**Equates to roughly 100** adult humpback whales



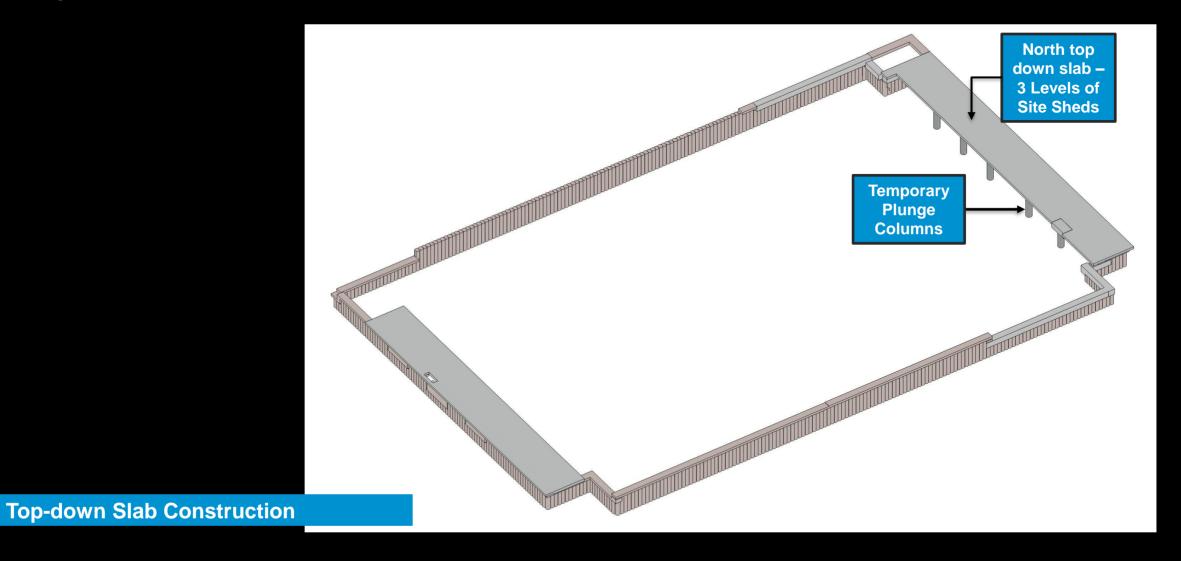
**Project Glazing Quantities** 

14,200m<sup>2</sup> of glazing

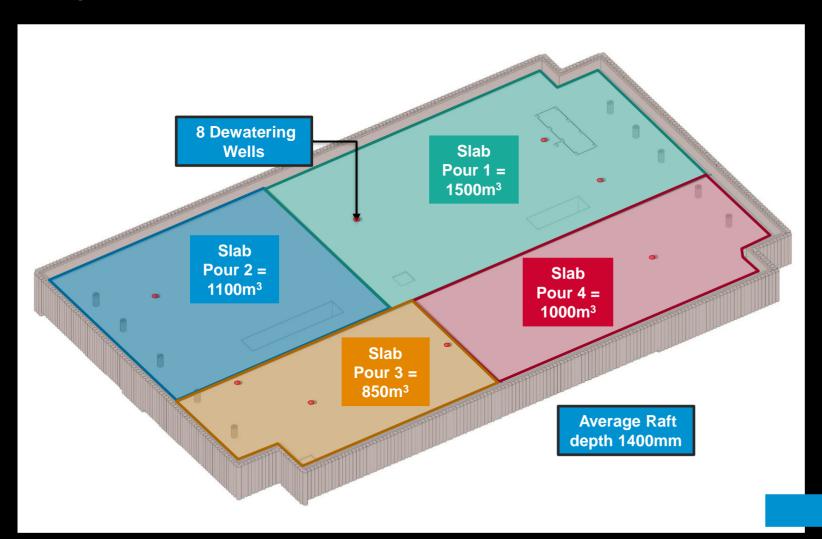
Equates to roughly 30 average size residential subdivision blocks of land



# **Early Construction**



# **Early Construction**



**Basement Construction** 

# **Project Features / Porte Cochere**



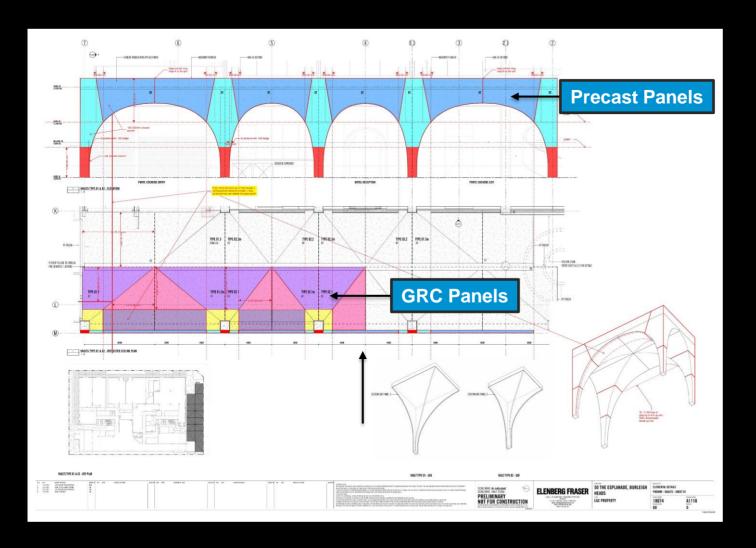
Original Project Render

# **Project Features / Porte Cochere**

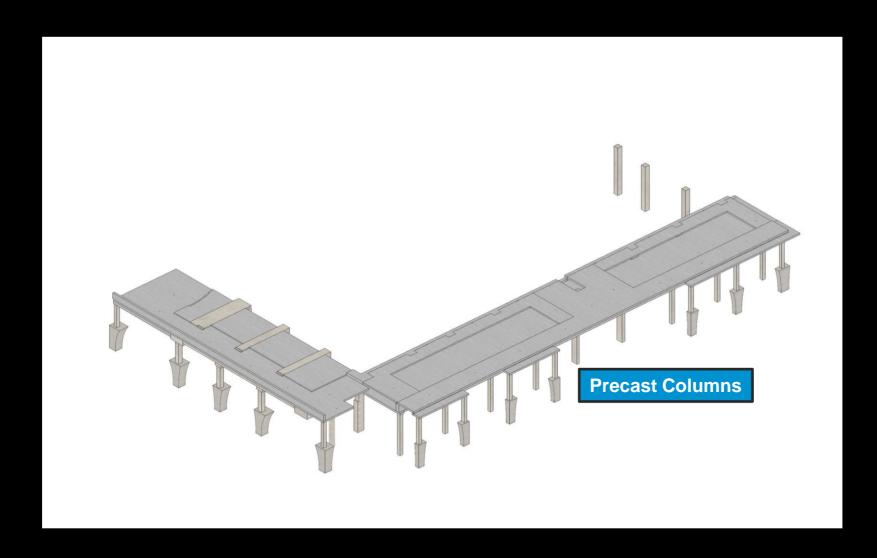
4. BEAM SHELLS VIEWED FROM REAR 5. ARCH PANELS VIEWED FROM REAR 6. VAULT PANELS VIEWED FROM REAR 7. INSITU CONCRETE VIEWED FROM REAR 3D VIEW VIEWED FROM FRONT TAS-TROWEL FIBISH - VISIBLE (SIM. TO CLASS 2) PRECAST CONCRETE **MONDRAIN HOTEL 50** TO TROVEL FIRISH - NOT VISIBLE **CONSTRUCTION SEQ** HC OFF HOULD - NOT VISIBLE R > BOOGN FINISH TO HRTS TO P>POLISHED FINISH

Original Methodology Entirely Precast

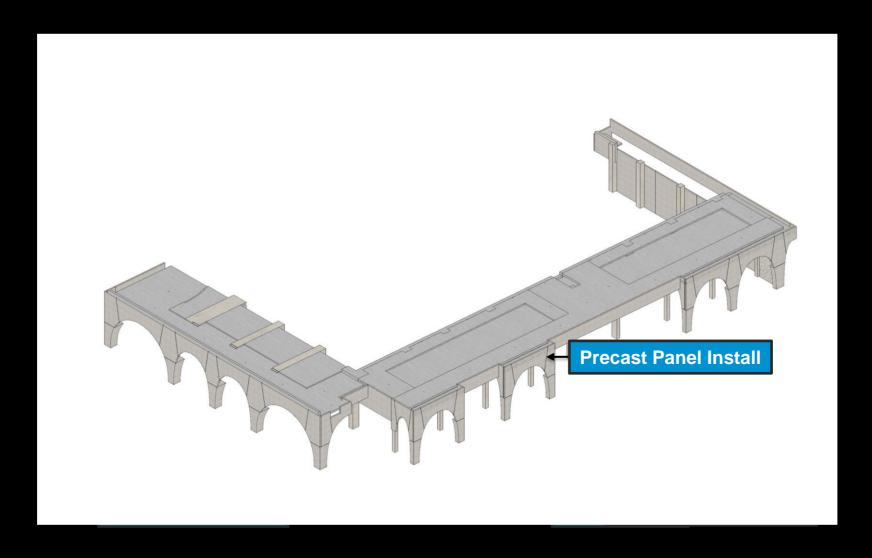
# **Project Features / Porte Cochere**



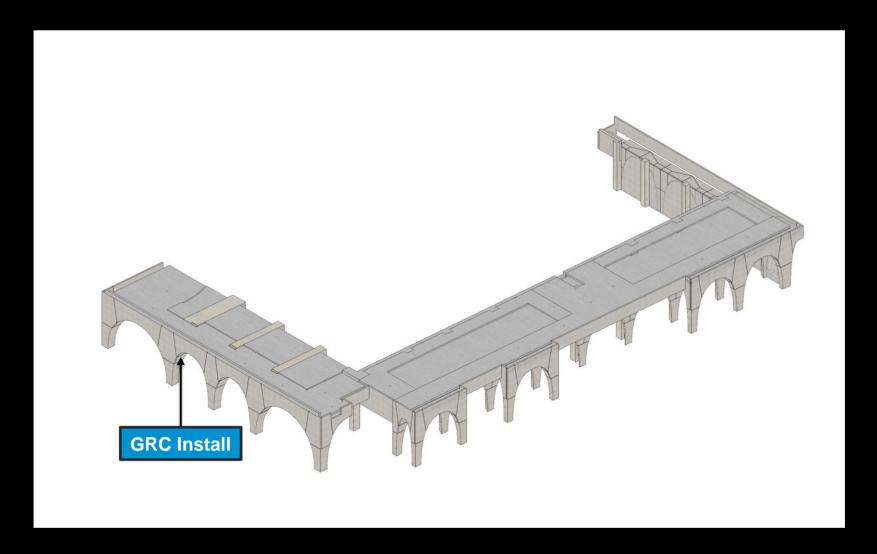
New Methodology Precast / GRC















### **Project Features / Pools**

# 8 pools in total

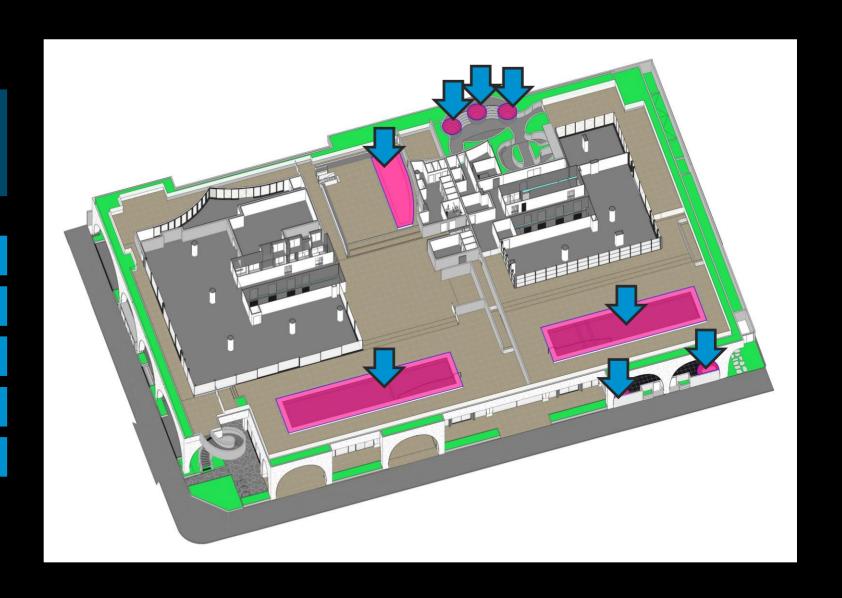
1 x Hotel Pool

1 x Hotel Jacuzzi Pool

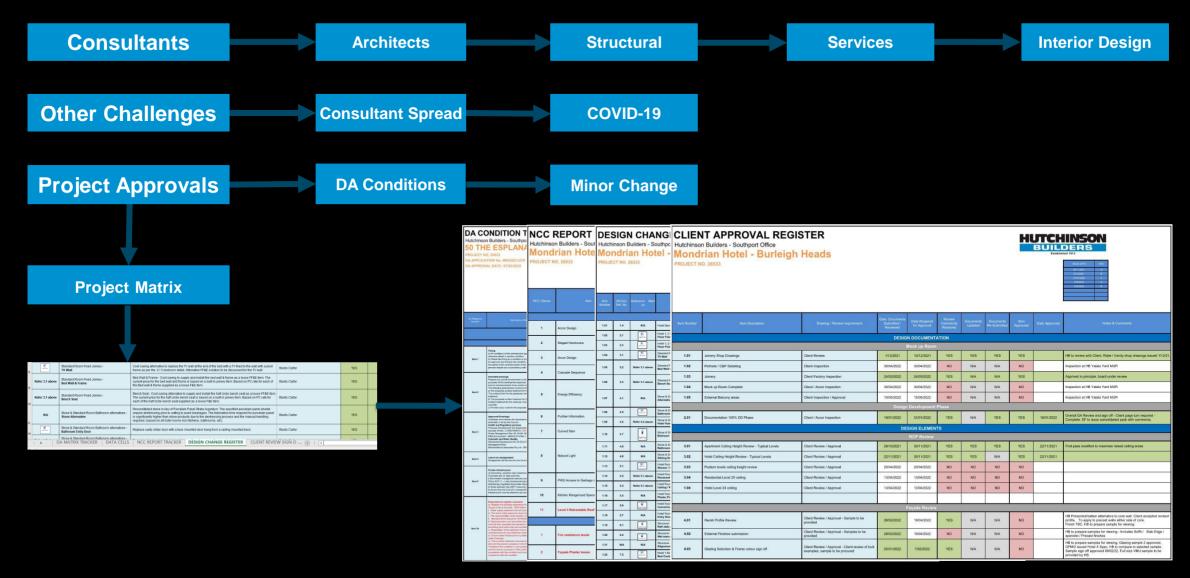
1 x Residential Pool

3 x Wellness Spa Pools

2 x Beachouse Plunge Pools



# **Project Challenges**



**Case Study / Mondrian** 

# Thank you

Questions





# **Get in contact**



Darren Hall Senior Design Manager

Joined Hutchies 2021

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darren.hall@hutchies.com.au

# Back soon





# Structural Engineering Selection



#### **Structural Engineering Selection**

# Do you know who I am?

- >I'm not Jeff Vader
- >Mixed bag of experience
- > Commercial, high-rise residential and large span steel experience
- >Both PM and more recently DM
- >Used to be renowned for my good looks
- >Now I rely on old photos

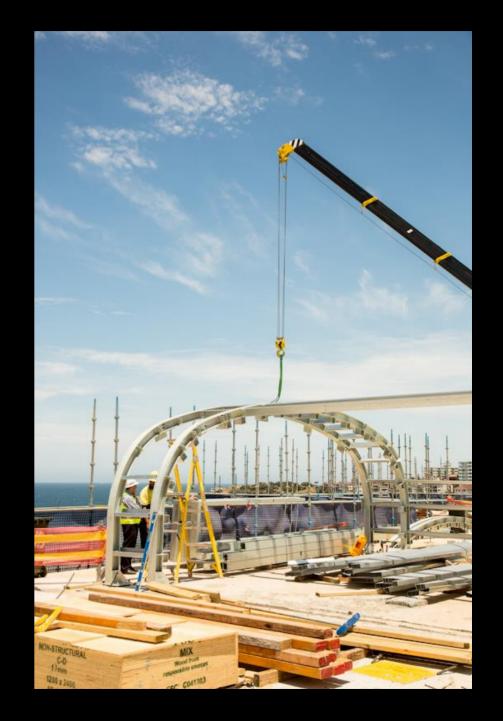


#### **Structural Engineering Selection**

#### **Work winning**

- >What can we control in D&C and where's the risk?
  - -Structure is obvious
  - Build method and product selection
  - Speed of completion
  - Some value in fitout but this often gets kicked down the line to the CA's to make letting margins

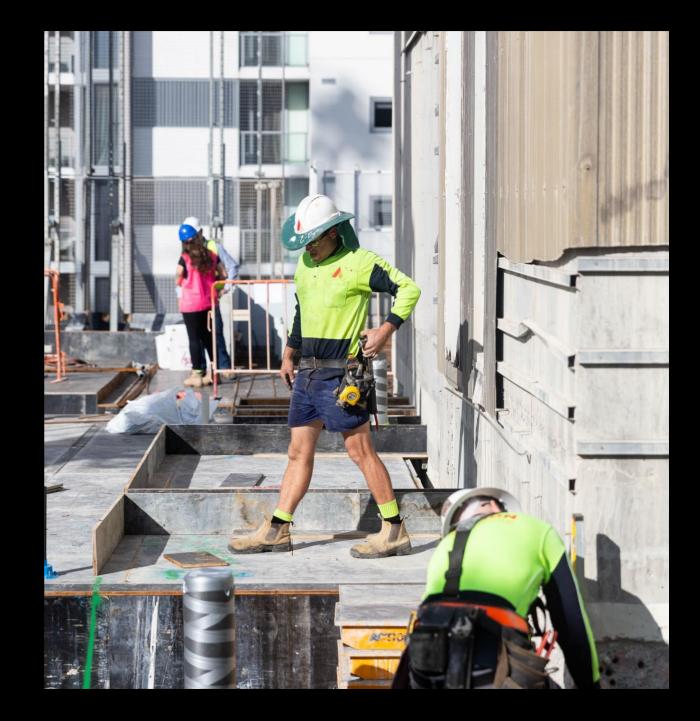
>Lets focus on structure



#### **Structural Engineering Selection**

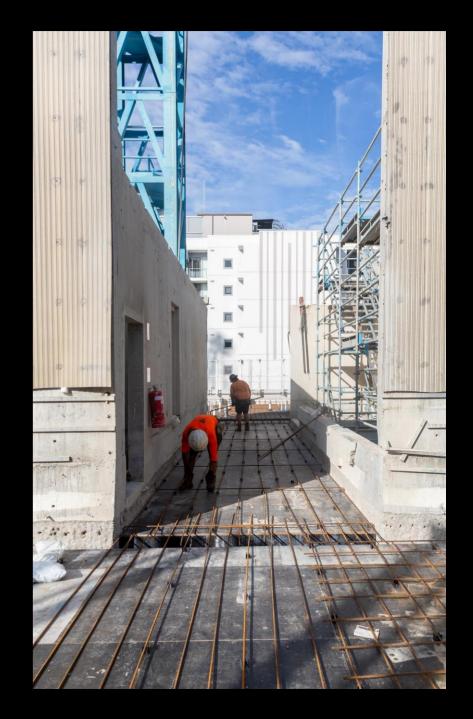
# Who do you use and why?

- >Old favourites ie trust?
- > No favourites?
- >Fresh blood?
- >Cheapest??????
- >Quickest?
- >Easiest?
- >Incumbent?
- > Don't care just get the job done?



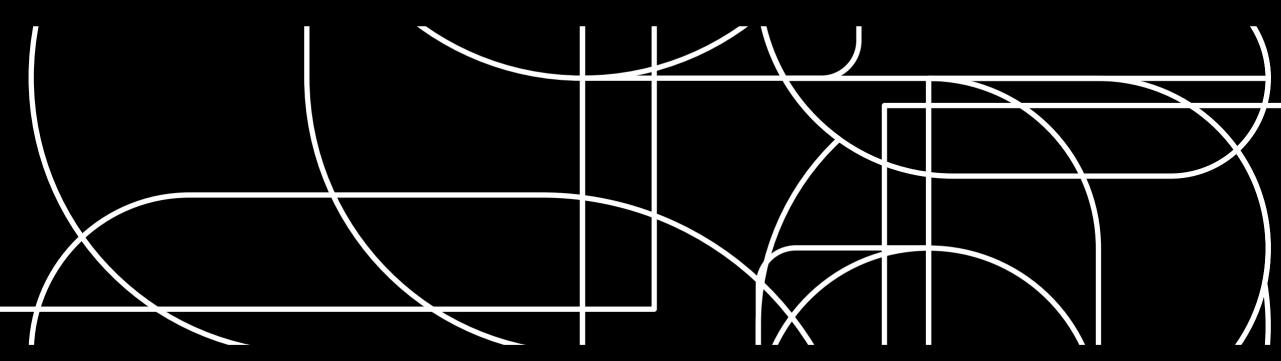
## Consultant fees – example job

- > Incumbent = 66,200 (0.736%) Used before and semi reliable
- > Option 1 = \$36,000 (0.4%) Used before and very reliable
- > Option 2 = \$45,000 (0.5%) Not used before but good name
- > Option 3 = \$24,000 (0.267%) Not used before but good name
- > Project value / Approx \$9M
- > ALL CONSULTANTS ARE CONSIDERED RELIABLE AND APPROPRIATE
- > Who would you use?



## The guts

- >Hot rolled steel incumbent design = 99 tonnes including connections
- >BUT steel is ordered in stock lengths and waste occurs
- > When available lengths are factored, this becomes 101 tonnes
- > At time of tender = allowed \$6,500 / tonne, or total \$655K



## **Design Competition**

Run a design competition – the lightest design gets the gig

Supply red pens with the quote

Hold them to the red pens

Not everyone took it seriously, they weren't used to this

Some took it seriously as they realised this is the way forward now

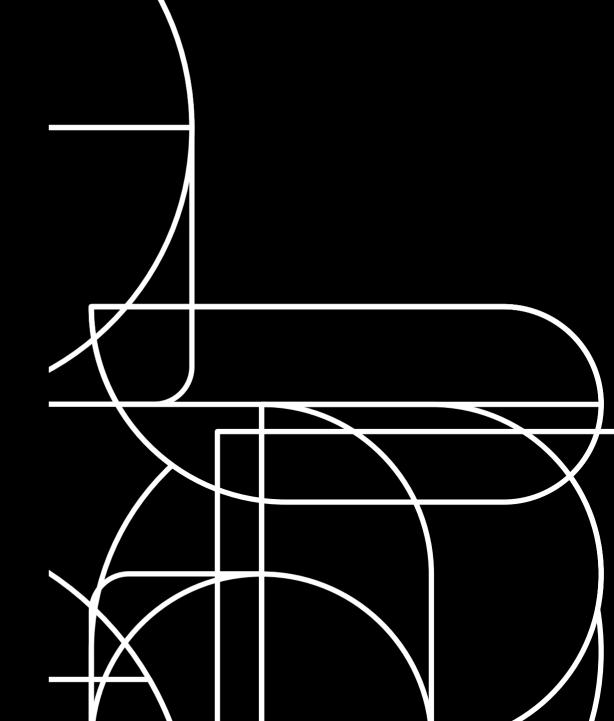
# Comparison

Designer	Design Fee	Measured Tonnage	Steel cost	Total Cost
Incumbent	\$66,200	100.8 T	\$655,600	\$721,800
Option 1	\$36,000	77.98 T	\$506,000	\$542,000
Option 2	\$45,000	N/A	N/A	Unknown
Option 3	\$24,000	86.17 T	\$560,000	\$584,000

# Who would you use now?

### The wash up

- > We tendered 2 similar jobs at once for same client
- > Both had the same set of consultants
- > Based on the design comp for project A, Option 1 consultant was selected for both, and we went in on their masses
- > Client said we would not win both, but we won the more complex project – Project B
- > Option 1 consultant offered same order of saving on Project B
- > Option 1 consultant was good to his word and delivered a design on Project B that was 20% lighter than incumbent

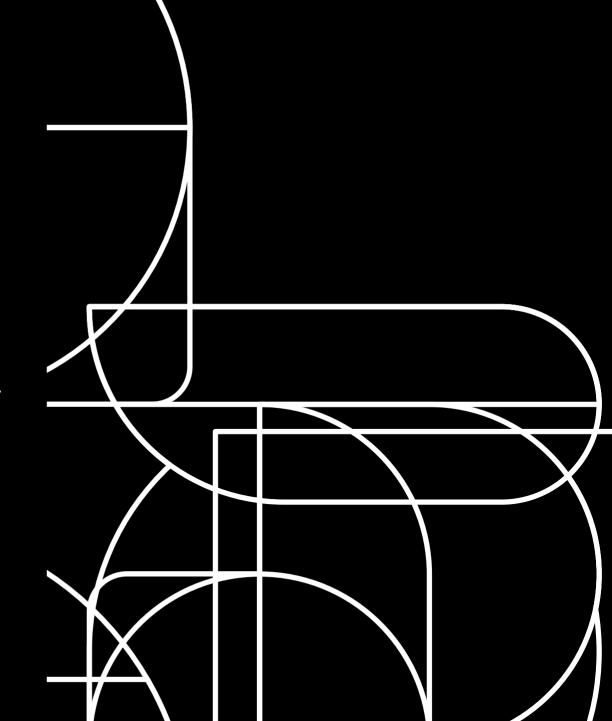


## Are fees important?

- > Of course they are, but equally need to allow enough such that they don't run dry during design
- > Difference in steel cost makes the design fees inconsequential
- > Don't just look at any one factor in isolation when choosing a consult
  - History
  - Resourcing
  - Technical ability
  - Willingness to help
  - Cost
- > Savings in steel and design fees mean nothing if the project is delayed due to poor / late documentation and approvals
- > Allow design contingency

## **Going Forward**

- > Is the project you are tendering heavy in one particular design aspect?
  - Structural Steel
  - Concrete pavements
  - Suspended concrete
- > Consider Running a design comp to select engineer
- > If they aren't willing to commit, then you know you have the wrong engineer, fees mean nothing
- > Keep it simple and to the point, let them apply their own smarts
- > Very easy way to make bulk \$ saving without guessing or making stuff up

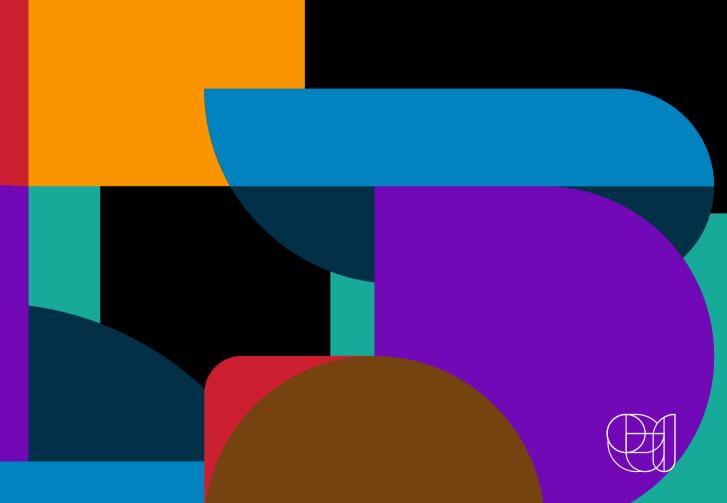


2022
DESIGN
MANAGERS'
CONFERENCE

Structural Engineering Selection

# Thank you

Questions



# **Get in contact**



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2022
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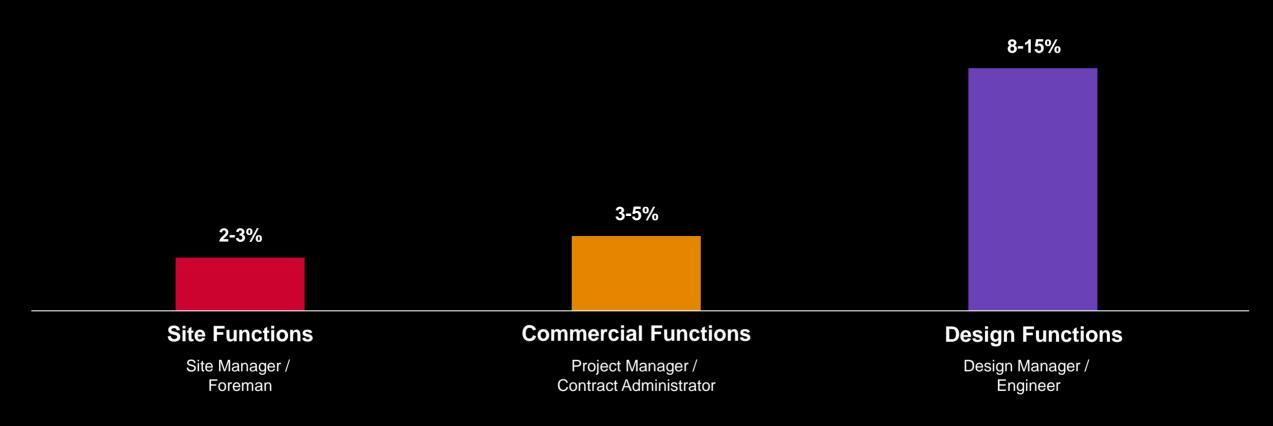


# Escalation



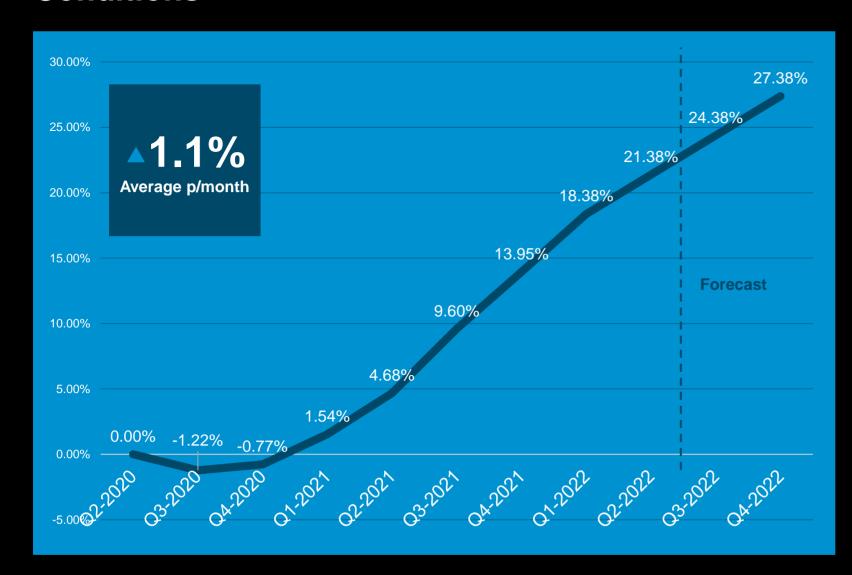
#### Escalation

## Influence over profitability



#### **Escalation**

#### **Conditions**







# Labour shortages

- > Negative migration
- > Ageing workforce
- > Skill drain / apprentice training

### 12 Month Material Increase / South East Queensland



▲20%

**Concrete supply** 



▲30%

Formwork



**▲23%** 

Structural steel



▲20%

**Ceilings & partitions** 



**▲23%** 

**Painting** 



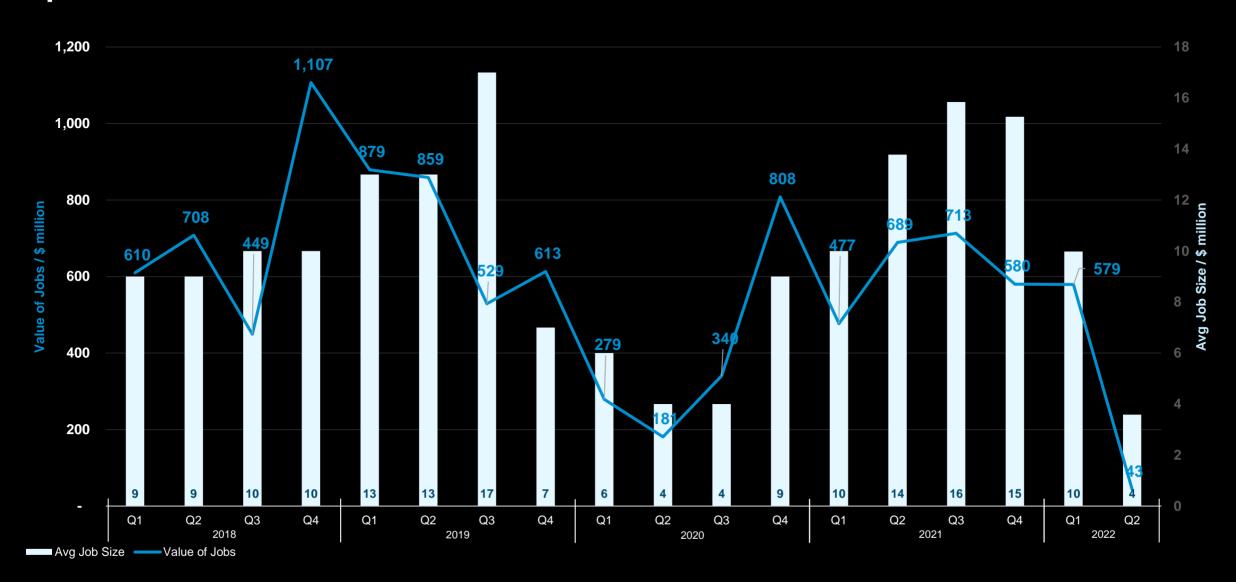
**▲41%** 

Blockwork



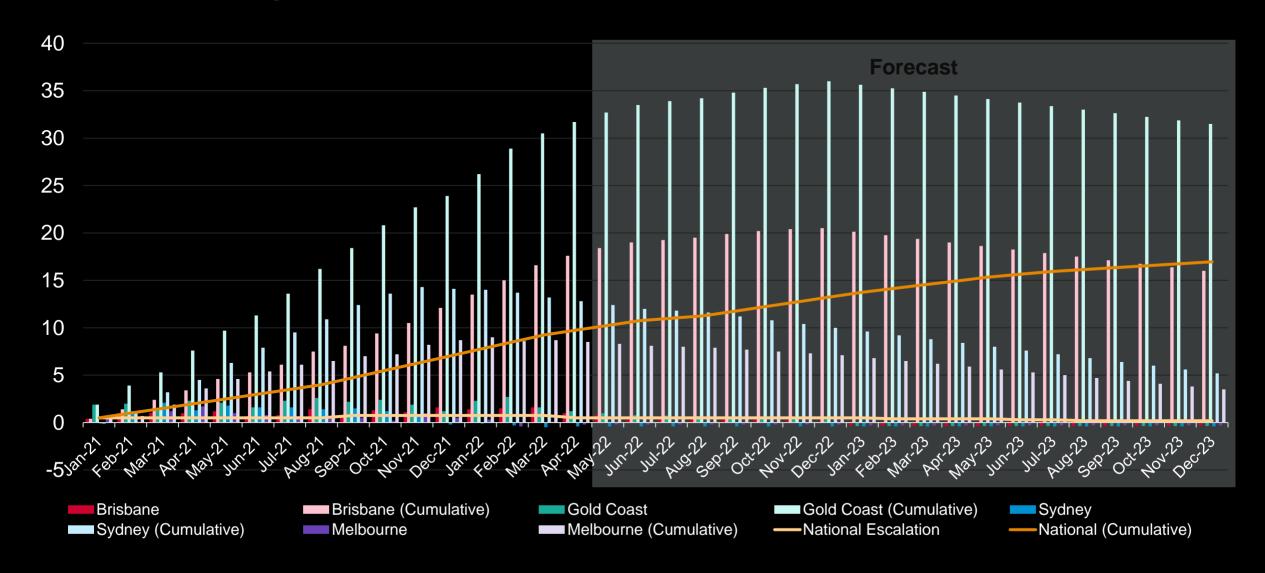
#### Workbook

# **Pipeline**



#### **Escalation**

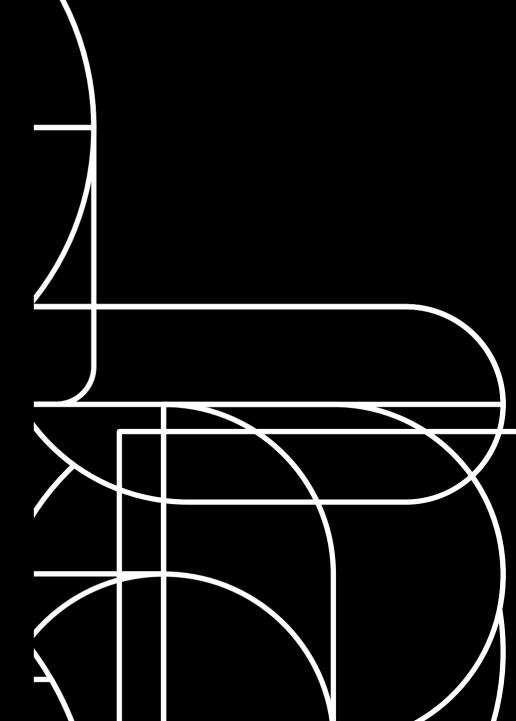
## **National Development Costs**



#### **Escalation**

#### Market

- > Unprecedented material volatility
- > Full construction labour employment
- > Subcontractor Solvency
- > Builder solvency
- > Supply chain disruption
- > Subcontractors' appetite
- > Unseasonal weather and climatic change



#### **Pressure**

Rising construction costs

Rising design consultant costs

Rising finance costs

\_\_

Rising sales and marketing costs

Falling property values

\_

Ailing consumer confidence

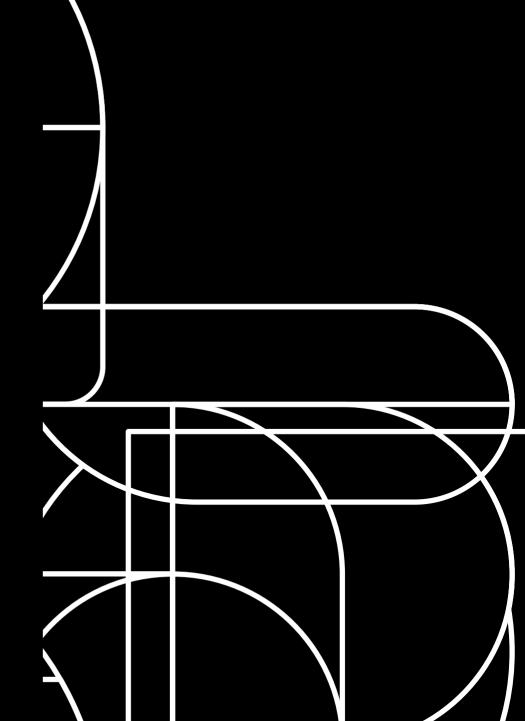
Finance harder to obtain

Withdrawal of foreign investment (Asia)

#### **Escalation**

#### **Hutchies**

- > Unprecedented amount of bank interest in Hutchies and increasing referral
- > Client enquiry rates
- > Negotiation preferred over tender
- > Early involvement and input
- > Hutchies' changing role problem solving



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**Escalation** 

# Thank you

Questions



# **Get in contact**



Paul David
Head of New Business

Joined Hutchies 1996

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0419 762 400
Email
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# Panel Discussion



# Panel



Lyndon Christian
ESD / Services Team Leader

Joined Hutchies 2007



Chris Lanigan
Design Manager

Joined Hutchies 2005



Paul David
Head of New Business

Joined Hutchies 1996



Jamie Coe Project Director / Modular

Joined Hutchies 2016

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# Conference Close



# Following today



# Survey

To provide feedback on the conference



# **PDF**

Copy of the presentation



# 2023 Conference





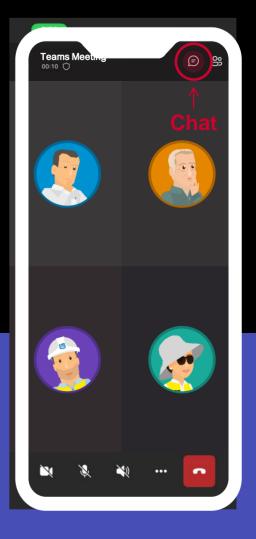




# Questions



Raise your hand or ask a question in Microsoft Teams chat



#### **Get in contact**

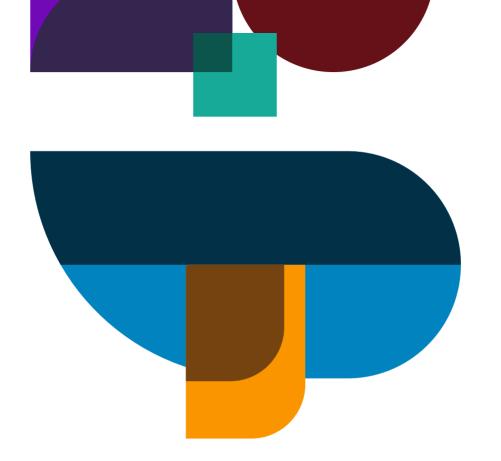
## **Hutchies' Construction & Operations Support Teams**

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Hoists Murray Snowden 0400 040 910 msnowden@hutchies.com.au	Modular Rohan Barry / Sean Lees 0421 743 752 / 0438 454 756 modular@hutchies.com.au	Nat. Construction / Quality Chris Stevenson 0402 780 498 cstevenson@hutchies.com.au	Plant & Scaffold Tim McGregor 0422 411 331 tmcgregor@hutchies.com.au	Post Completion Monique Hamilton 0412 869 477 mhamilton@hutchies.com.au	Procurement Tim McGregor 0422 411 331 tmcgregor@hutchies.com.au
Programming Owen Lyden 0450 881 858 olyden@hutchies.com.au	Regional Construction Murray Creevey 0419 701 957 mcreevey@hutchies.com.au	Technical / Quality John Groom 0466 919 966 jgroom@hutchies.com.au	Work Health & Safety Danny O'Reilly 0408 920 496 doreilly@hutchies.com.au	Accounts Payable Mandie Quint 07 3335 5000 ap@hutchinsonbuilders.com.au	Accounts Receivable Evelyn De Jesus 07 3335 5080 ar@hutchinsonbuilders.com.au
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>Thank you



# Next generation construction

The Hutchies way



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