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DRAWN BY TS      ISSUE 21/08/2020

CLIENT

SUBURBAN LAND AGENCY



ARCHITECT

REDBOX DESIGN GROUP

**redbox**  
design group

PROJECT

Coombs Shelters

PRODUCT

PLATONOUS LEAF SHELTER - 9x8m

Documentation  
Readiness 75%



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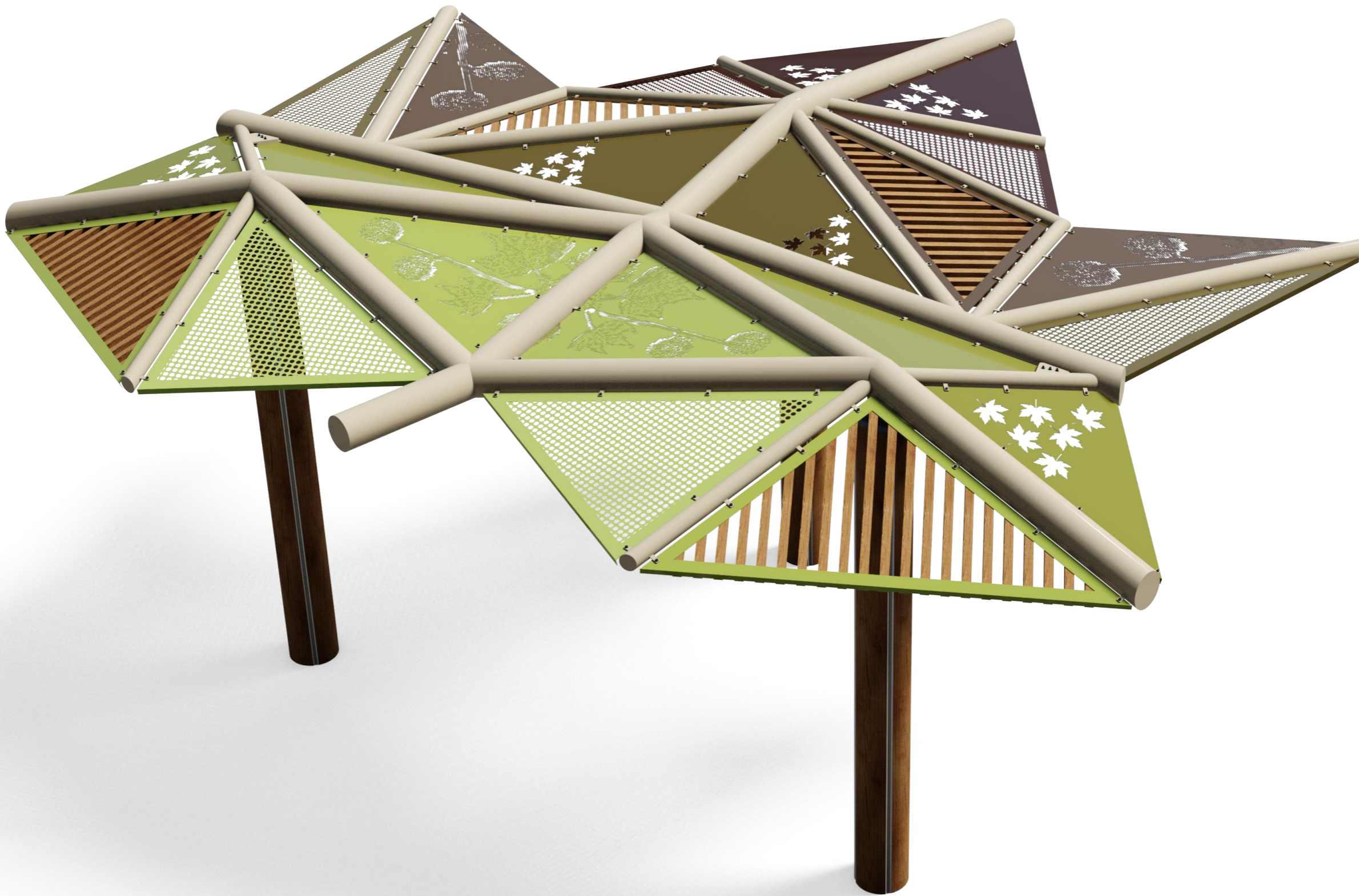
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ARCHITECT  
REDBOX DESIGN GROUP

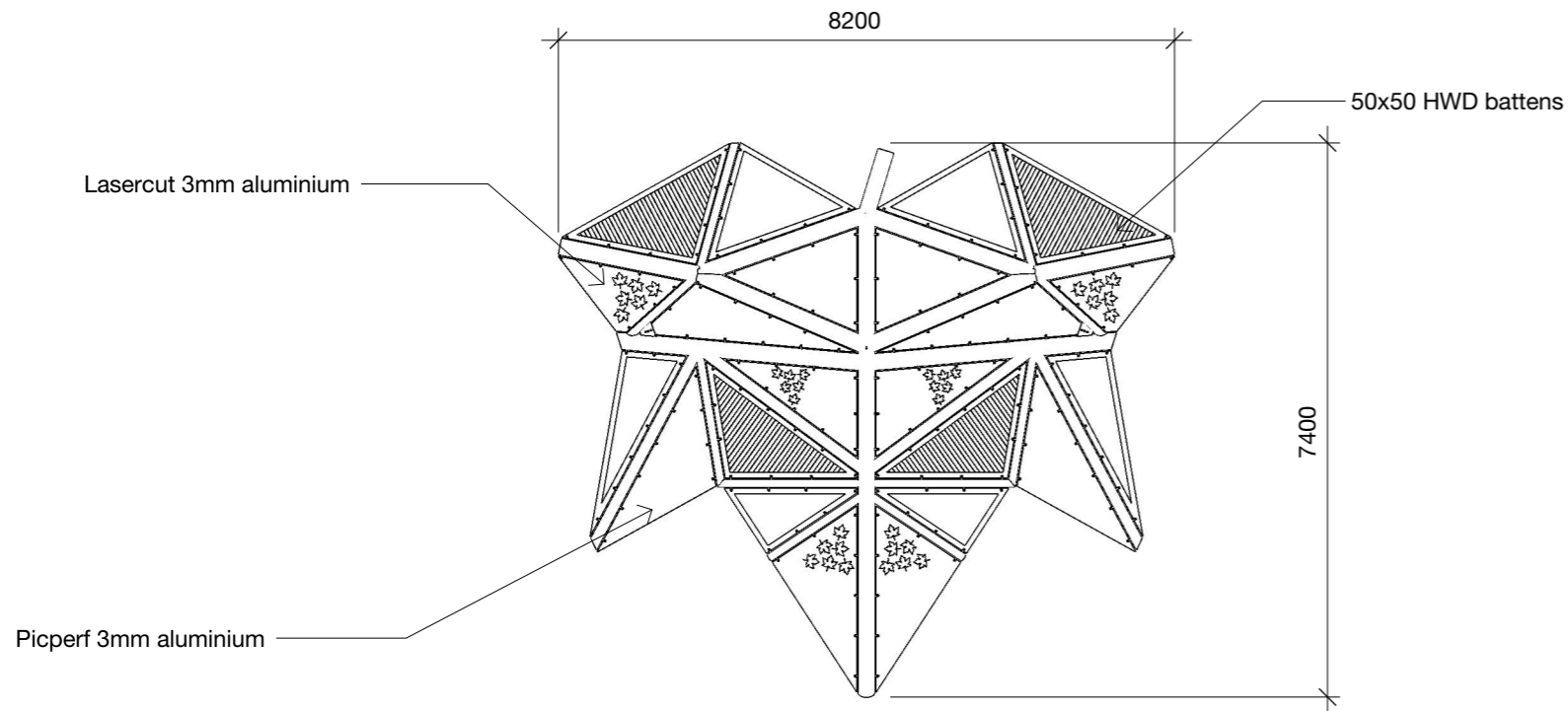


PROJECT  
Coombs Shelters

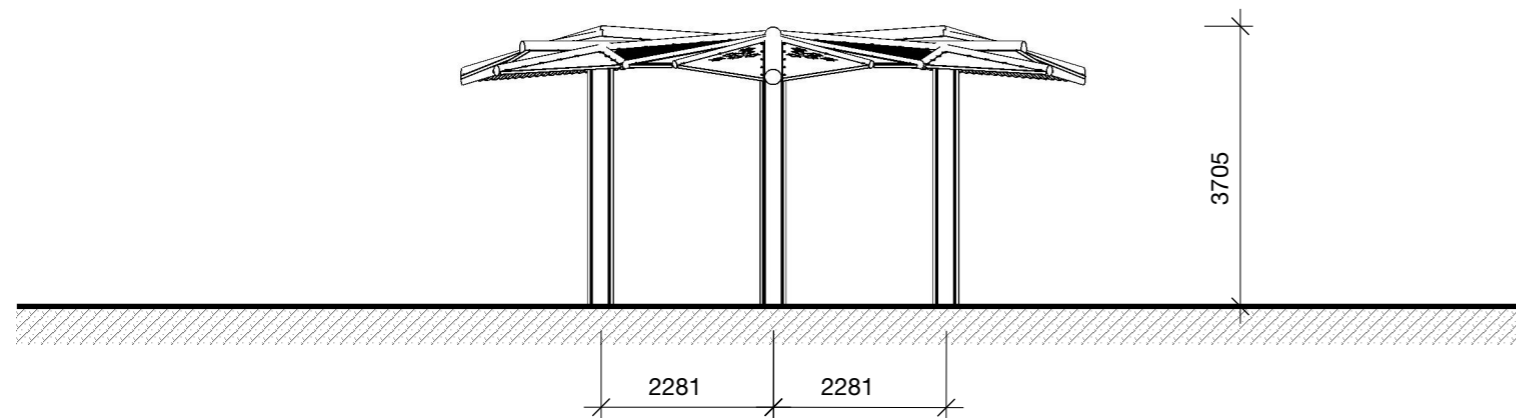
PRODUCT  
PLATONOUS LEAF SHELTER - 9x8m

Documentation Readiness 75%

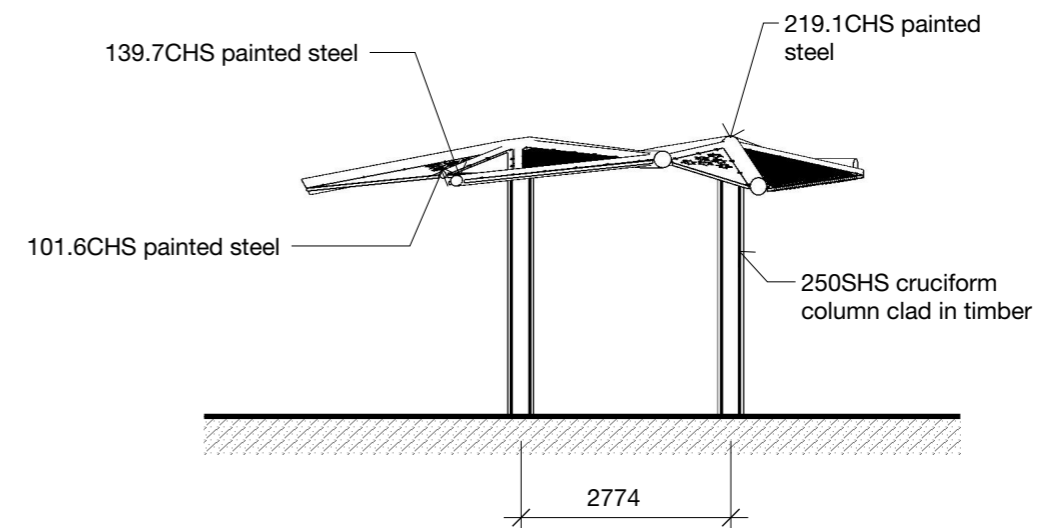
Colour scheme is indicative. Actual colours to be determined by available powdercoat colours.



**A** PLAN  
scale: 1:100



**B** FRONT VIEW  
scale: 1:100



**C** SIDE VIEW  
scale: 1:100



# Tax Invoice

17 Ormsby Place, Wetherill Park, New South Wales, 2164,  
Australia  
Phone: 1300 989 100 Fax: 1300 686 670  
ABN: 40000789748  
www.fleetwoodurban.com.au  
info@fleetwoodurban.com.au

Purchase Order: **SL210086**

**Invoice To:**  
**Att: Maria GIDIS**  
Suburban Land Agency  
TransACT House, 470 Northbourne Avenue  
Dickson, ACT 2602

<b>Invoice Number</b>	499
<b>Invoice Date</b>	03/03/2021
<b>Customer ABN</b>	27105505367

Product	Customer Reference	Due Date
Play	Progress Billing Claim No. 1	30/04/2021

Description	Net Value
Progress Billing Claim No. 1	\$22,000.00
Subtotal	\$22,000.00
Retention	\$0.00
GST	\$2,200.00
<b>Total</b>	<b>\$24,200.00</b>

Project Information	
Project Number:	10442
Project Name:	Edgeworth Dr, Coombs

All goods remain the property of Fleetwood Urban Pty Ltd until payment is received in full. This is a payment claimed under the Building and Construction Industry Security of Payment Act 1999 NSW as amended.

**REMITTANCE ADVICE** Please reference invoice number when payment is made.

<b>Invoice No.</b>	<b>Due For Payment</b>	<b>Amount Payable</b>
499	30/04/2021	\$24,200.00

## HOW TO PAY

### By Direct

Schedule 2.2(a)(xi)

### By Cheque

Detach remittance advice and mail to Head Office:  
Fleetwood Urban Pty Ltd  
PO Box 6544  
WETHERILL PARK DC NSW 2164



## PLAY TOWER:

### Product Description

- Bommy Knocker Play Structure

### Documents Referenced

- 10362 - Coombes Play Rev B

### Design Parameters

- Design Parameters: Code: AS4685

### Product and Material Notes

- Footings: Reinforced concrete footings. We have allowed for 750mm diameter reinforced concrete piers to a maximum depth of 3.5m for the three towers. Any changes to this may represent a variation.
- Main Support Columns: Timber clad steel
- Tower Framework: Painted steel
- Window Frames: Painted Steel
- Tower Cladding: Durability Class 1 Australian hardwood battens
- Tower Cladding Features: 250mm diameter end logs and 3mm steel disks
- Decking to Towers: Durability class 1 seasoned Australian hardwood
- Internal and External Anti-Climb Mesh: Stainless steel web net
- Art Panels: Delivery of steel panels and management of artists
- All fasteners: Galvanised
- 2 No. plastic slides
- 1 No. stainless steel bar slide
- Horizontal rope tunnels
- Vertical tube net tunnel
- Rope floor
- Timber Ladder
- Cargo climb nets
- Timber scramble decks

## SHELTERS:

### Product Description

- 2 No. Small Euc Shelter
- 3 No. Medium Euc Shelter
- 3 No. Large Euc Shelter
- 2 No. Large Euc Shelter with Swings
- 1 No. Medium Euc Shelters with swings
- 4 No. Platonus Shelters

### Documents Referenced

- 11083 - Euc Shelter - 6x3m
- 11083 - Euc Shelter - 9x3m
- 11083 - Euc Shelter - 12x4m
- 11083 - Euc Shelter - 9x3m with swings
- 11083 - Euc Shelter - 12x4m with swings
- 11083 - Plat Shelter - 9x8m

### Design Parameters

- Design Parameters: Code: AS1170
- Roof Area: Various

### Product and Material Notes

- Footings: Reinforced concrete footings. We have allowed for 600mm piers to a maximum depth of 2m (6m Eucalypt), 3m (9m Eucalypt), 4m (12m Eucalypt and Plantunus Shelters). Any changes to this may represent a variation.
- Structural frame: Painted steel
- Timber cladding: Class 1 Australian hardwood
- Roofing material: Powdercoated aluminium
- Fasteners: Galvanised



25 June 2020

Philip Joyce  
To Whom it May Concern,

**Marsh Pty Ltd**  
ABN 86 004 651 512  
ONE INTERNATIONAL TOWERS, 100  
BARANGAROO AVE,  
BARANGAROO NSW 2000  
PO Box H176  
AUSTRALIA SQUARE NSW 1215  
Tel +61 2 9290 8000  
Fax +61 2 9299 7280  
www.marsh.com.au

**Certificate of Currency**

**Our Ref: 098002**

<b>INSURANCE CLASS</b>	Public & Products Liability
<b>INSURED</b>	Fleetwood Urban Pty Ltd, Fleetwood Urban (QLD) Pty Ltd, Urban Infrastructure Engineering Pty Ltd ATF the VT trust and all other Subsidiary companies for their respective rights and interests  This Policy also insures other parties as specified in the definition of the Insured herein.
<b>BUSINESS</b>	Urban Landscape construction works, walking tracks, bridges, amenities, shade shelters, seating design, boardwalks, hand railing, balustrading, community structures and playground structures. and otherwise as defined.
<b>PERIOD OF INSURANCE</b>	From: 30 June 2020 at 4:00pm Local Time (NSW).  To: 30 June 2021 at 4:00pm Local Time (NSW).
<b>SCOPE OF COVER</b>	<b>1. Legal Liability</b> The Insurers will under this Policy indemnify the Insured against the Insured's legal liability to pay damages or compensation in respect of:  a) Personal Injury; b) Property Damage; or c) Advertising Injury,
<b>GEOGRAPHICAL SCOPE</b>	Anywhere in the Commonwealth of Australia, below the 25 <sup>th</sup> parallel, including whilst in transit (which includes coastal marine and inland waterway shipments) between any places therein.
<b>LIMITS OF LIABILITY</b>	\$20,000,000 any one Occurrence, unlimited in the aggregate during the Period of Insurance, but limited to \$20,000,000 in the aggregate during the Period of Insurance arising from Completed Operations / Products Liability.

<b>INSURER</b>	<b>PROPORTION</b>	<b>POLICY NUMBER</b>
Lloyd's of London through Chase Underwriting Pty Ltd	100.000%	499689

This certificate of currency provides a summary of the policy cover and is current on the date of issue. It is not intended to amend, extend, replace or override the policy terms and conditions contained in the actual policy document. This certificate of currency is issued as a matter of information only and confers no rights upon the certificate holder. We accept no responsibility whatsoever for any inadvertent or negligent act, error or omission on our part in preparing these statements or in transmitting this certificate by email or for any loss, damage or expense thereby occasioned to any recipient of this letter.

Schedule 2.2(a)(ii)



Andrew Kay  
Managing Principal

# GENERAL NOTES

## GENERAL NOTES:

- G1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DOCUMENTS INCLUDING ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS) AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
- G2 ANY DISCREPANCY ON THE DRAWINGS OR BETWEEN THE DRAWINGS AND/OR THE SPECIFICATION AND/OR THE SPECIFIED SAA STANDARD SHALL BE REFERRED TO THE SUPERINTENDENT AND A WRITTEN INSTRUCTION RECEIVED PRIOR TO PROCEEDING WITH THE WORK. DURING TENDERING THE TENDER SHALL ASSUME THE LARGER/GREATER CRITERIA IN TERMS OF COST IN THE ABSENCE OF OTHER INSTRUCTIONS.
- G3 ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE. ALL LEVELS ARE IN METERS UNLESS NOTED OTHERWISE.
- G4 THE DOCUMENTED DESIGN CONSTITUTES THE MAIN STRUCTURAL FRAMING BUT DOES NOT INCLUDE A FULL SCOPE OF SECONDARY STEEL TO SUPPORT FACADE CLADDING, HANDRAILS, INTERNAL PARTITION WALLS, ETC.
- G5 THESE DRAWINGS SHOW TYPICAL CONNECTION DETAILS ONLY. THE SHOP DRAFTER IS REQUIRED TO DEVELOP ALL CONNECTION DETAILS NOT SPECIFICALLY SHOWN. THE CONTRACTOR IS REQUIRED TO PRICE FOR ALL ASSOCIATED ENGINEERING DESIGN AND DETAILING FOR CONNECTIONS NOT SPECIFICALLY SHOWN.
- G6 THE STRUCTURAL DRAWINGS DO NOT SHOW ALL DETAILS OF FIXTURES, INSERTS, SLEEVES, OPENINGS, ETC. REQUIRED BY THE VARIOUS TRADES. ALL SUCH DETAILS, INCLUDING OPENINGS FOR CONSTRUCTION PURPOSES, MUST BE APPROVED BY THE SUPERINTENDENT BEFORE PROCEEDING WITH CONSTRUCTION.
- G7 WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING CODE OF AUSTRALIA. THE RELEVANT CURRENT AUSTRALIAN STANDARDS INCLUDING ALL AMENDMENTS, AND THE REQUIREMENTS OF THE LOCAL STATUTORY AUTHORITIES, EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
- G8 ALL DIMENSIONS RELEVANT TO SETTING OUT AND OFF-SITE WORK SHALL BE VERIFIED BY THE CONTRACTOR BEFORE CONSTRUCTION OR FABRICATION IS COMMENCED. THE ENGINEER'S DRAWINGS SHALL NOT BE SCALED.
- G9 DURING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND ADJACENT STRUCTURES IN A STABLE CONDITION AND ENSURING NO PART SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY BRACING AND/OR PROPPING AS NECESSARY, INCLUDING ANY TEMPORARY SUPPORT FOR EXCAVATIONS.
- G10 ALL PROPS AND FORMWORK FOR FLOOR BEAMS AND SLABS SHALL BE REMOVED BEFORE CONSTRUCTION OF ANY MASONRY WALLS OR PARTITIONS ON THE FLOOR.
- G11 THE CONTRACTOR SHALL ENSURE THAT ALL STRUCTURAL MEMBERS AND/OR COMPONENT MATERIALS ARE PROTECTED FROM THE WEATHER AND THAT STRUCTURAL PROPERTIES ARE NOT IMPAIRED IN ANY WAY DURING THE CONSTRUCTION PERIOD.
- G12 THE APPROVAL OF A SUBSTITUTION SHALL BE SOUGHT FROM THE SUPERINTENDENT. APPROVAL BY THE ENGINEER OF AN ALTERNATIVE IS NOT AN AUTHORIZATION FOR A COST VARIATION. ANY CLAIM FOR A COST VARIATION MUST BE SUBMITTED TO THE SUPERINTENDENT BEFORE THE WORK COMMENCES.
- G13 ALL PENETRATIONS AND/OR SET DOWNS SHOWN ON STRUCTURAL DRAWINGS ARE INDICATIVE ONLY. THE CONTRACTOR SHALL COORDINATE ALL SERVICES AND ENSURE THAT THE FINAL LOCATION AND SIZE OF PENETRATIONS AND/OR SET DOWNS ARE CONFIRMED BY THE APPROPRIATE SUB-CONTRACTOR. FINAL DETAILS ARE TO BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO CONSTRUCTION.
- G14 ALL PROPRIETARY PRODUCTS SPECIFIED ON THESE DRAWINGS SHALL BE USED STRICTLY IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS. ALTERNATIVE PRODUCTS MAY ONLY BE USED WITH THE APPROVAL OF THE SUPERINTENDENT, FOLLOWING SUBMISSION OF EVIDENCE OF EQUIVALENCE.
- G15 ALL NON-LOADBEARING WALLS SHALL BE KEPT 20mm CLEAR OF THE UNDERSIDE OF SLABS AND BEAMS UNLESS NOTED OTHERWISE.
- G16 THE STRUCTURAL BUILDING DOCUMENTED ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING PURPOSES USES:  
- SHELTER  
- PLAY STRUCTURE
- G17 ANY MODIFICATIONS INCLUDING PENETRATIONS, TRENCHING, CUT OUTS AND THE LIKE) TO THE STRUCTURAL MEMBERS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO COMMENCEMENT OF SUCH WORK.
- G18 THE STRUCTURAL WORK ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING LOADS:

AREA	SSL		LIVE LOAD	
	kPa	kg/m <sup>2</sup>	kPa	kg/m <sup>2</sup>
ROOF	0.2	20	0.25	25
PLAY	0.7	70	1.5	150

REFER TO LOADING DIAGRAMS ON THE DRAWINGS FOR SPECIFIC LOCATIONS

### WIND LOAD CRITERIA:

DIRECTION	TERRAIN CATEGORY	ULTIMATE REGIONAL WIND SPEED m/s	SERVICEABILITY REGIONAL WIND SPEED m/s
NORTH	7	45	37
SOUTH	7	45	37
EAST	7	45	37
WEST	7	45	37

### EARTHQUAKE CRITERIA:

IMPORTANCE LEVEL	=	1
PROBABILITY FACTOR (p)	=	0.08
HAZARD FACTOR (Z)	=	1.00
SITE SUB-SOIL CLASS	=	NA
EARTHQUAKE DESIGN CATEGORY (EDC)	=	NA
FRE RESISTANCE PERIOD	=	NA

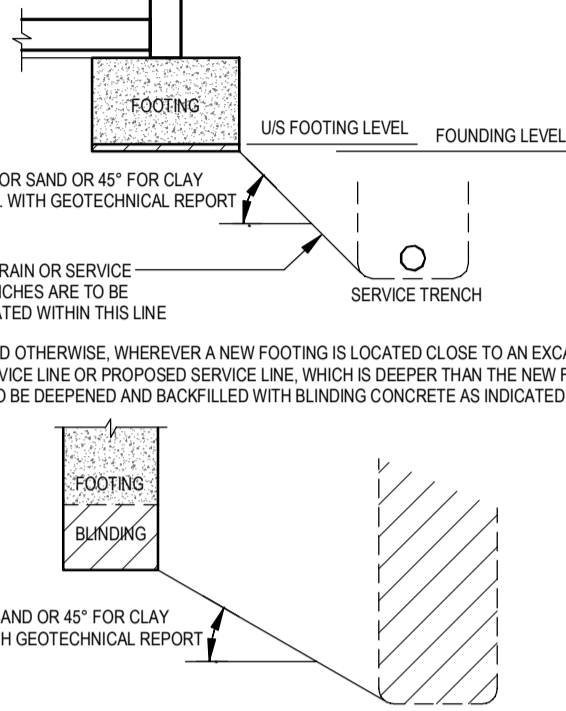
ELEMENT	FIRE RESISTANCE PERIOD (MIN)
ALL	NIL

### DURABILITY CLASSIFICATION:

NORMAL

## FOOTING NOTES:

- F1 THE MINIMUM SAFE BEARING CAPACITY OF THE FOUNDATION MATERIAL IS TO BE 150 kPa FOR PAD FOOTINGS AND 150 kPa FOR STRIP FOOTINGS AND 150 kPa FOR END BEARING FOR BORED PIER PILES
- F2 THE CONTRACTOR IS TO ALLOW FOR THE ENGAGEMENT OF A GEOTECHNICAL ENGINEER TO VERIFY THE FOUNDING MATERIAL PRIOR TO PLACEMENT OF CONCRETE.
- F3 THE CONTRACTOR IS TO IMPLEMENT ALL THE RECOMMENDATIONS CONTAINED IN THE GEOTECHNICAL REPORT.
- F4 SITE CLASSIFICATION IN ACCORDANCE WITH AS 2870 IS CLASS 'NA'
- F5 OVER EXCAVATION WITHIN THE INFLUENCE ZONE (45 DEGREE LINE DOWN FROM BASE OF FOOTING AND/OR WALL) OF ANY FOOTING AND/OR RETAINING WALL IS NOT ALLOWED WITHOUT THE PRIOR APPROVAL OF THE EXCAVATION SEQUENCE BY THE SUPERINTENDENT.
- F6 UNLESS NOTED OTHERWISE, WHEREVER A NEW FOOTING IS LOCATED CLOSE TO AN EXCAVATION, BATTER, EXISTING FOOTING, EXISTING STRUCTURE OR PROPOSED SERVICE LINE, WHICH IS DEEPER THAN THE NEW FOOTING, THE EXCAVATION FOR THE NEW FOOTING IS TO BE DEEPENED AND BACKFILLED WITH BLINDING CONCRETE AS INDICATED BELOW.
- F7 THE ASSUMED BEARING LEVELS OF THE FOOTINGS ARE TO BE AS INDICATED ON THE DRAWINGS. BEFORE ANY REINFORCEMENT OR CONCRETE IS PLACED, THE SAFE BEARING CAPACITY OF THE GROUND IS TO BE VERIFIED BY A GEOTECHNICAL ENGINEER. EXCAVATION SHALL CONTINUE UNTIL THE REQUIRED BEARING CAPACITY IS FOUND. OVER-EXCAVATION SHALL BE BACK-FILLED WITH BLINDING CONCRETE TO THE REQUIRED FOUNDING LEVEL.



## BORED PIER NOTES:

- B1 THE WORK TO BE CARRIED OUT BY THE CONTRACTOR COMPRISES THE DESIGN AND CONSTRUCTION OF THE BORED PIER FOOTINGS SHOWN ON THE DRAWINGS.
- B2 REFER TO FOOTING NOTES ON THE DRAWINGS FOR DETAILS OF THE GEOTECHNICAL REPORT.
- B3 ALL BORED PIERS SHALL BE DESIGNED TO THE REQUIREMENTS OF AS 5139.
- B4 THE BORED PIERS MAY BE REDESIGNED BY THE CONTRACTOR, IN WHICH CASE THE DESIGN OF THE BORED PIERS IS TO BE THE RESPONSIBILITY OF THE CONTRACTOR. THE DESIGN OF THE BORED PIERS IS TO BE BASED ON THE REQUIRED SAFE WORKING LOADS AS NOTED ON THE DRAWINGS AND THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. ALTERNATIVE DESIGN COMPUTATIONS AND DRAWINGS ARE TO BE SUBMITTED TO THE SUPERINTENDENT, THE CERTIFYING ENGINEER AND THE BUILDING SURVEYOR IN ORDER TO OBTAIN A BUILDING PERMIT FOR THE BORED PIERS. PERMANENT LINING IS TO BE AS DETAILED ON THE DRAWINGS. ALTERNATIVELY, THE PERMANENT LINING ON THE BORED PIERS MAY BE REDESIGNED AND DETAILED BY THE CONTRACTOR SUCH THAT THE LINING SHALL VERTICALLY ISOLATE THE BORED PIER FROM THE SURROUNDING GROUND WHILE PROVIDING THE REQUIRED HORIZONTAL SUPPORT WHERE THE FINAL CUT-OFF LEVEL IS ABOVE NATURAL GROUND LEVEL. THE PIERS MUST BE FORMED TO THE CORRECT LEVEL BY USING TEMPORARY LINERS.
- B5 ADJACENT BUILDINGS AND SERVICES THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY VIBRATIONS AND/OR HORIZONTAL OR VERTICAL GROUND DISPLACEMENTS ARE CONTROLLED AND DO NOT IMPACT ON ADJOINING BUILDINGS OR SERVICES. THE CONTRACTOR SHALL ALLOW FOR THE COST AND UNDERTAKE ANY MONITORING REQUIRED FOR ADJACENT BUILDINGS OR SERVICES.
- B6 THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SETTING OUT THE PIER LOCATIONS. FOUNDING LEVELS OF THE BORED PIER BASES ARE TO BE DETERMINED ON SITE AND APPROVED BY THE GEOTECHNICAL ENGINEER. ANY MINIMUM TOP OF PIER OR MAXIMUM BASE OF PIER LEVELS INDICATED ON THE DRAWINGS SHALL BE COMPLIED WITH BY THE CONTRACTOR. THE VERTICAL CENTRELINE OF THE BORED PIERS ARE TO BE WITHIN +50mm OF THE POSITION OF THE CENTRELINE OF EACH BORED PIER AS SHOWN ON THE DRAWINGS. EVERY SHAFT SHALL BE BORED TO WITHIN A TOLERANCE IN RESPECT OF DEPARTURE FROM TRUE VERTICALLY OF 1 IN 100 OR 75mm WHICHEVER IS THE LESSER.
- B7 THE INSTALLED PIERS SHALL CARRY THE DESIGN LOADS NOTED ON THE DRAWINGS WITHIN THE TOLERANCE REQUIREMENTS SPECIFIED IN AS 5139. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION THAT THE INSTALLED PIERS ACHIEVE THE SPECIFIED PERFORMANCE REQUIREMENTS TO THE SATISFACTION OF THE SUPERINTENDENT.
- B8 THE ROCK SOCKET IS THE LENGTH OF SHAFT AT THE LOWER END OF THE BORED PIER WHICH IS ENTIRELY IN 'SILTY CLAY' AND IS THE PORTION OF THE SHAFT THROUGH WHICH THE LOAD IN THE PIER IS TRANSFERRED BY SOLE FRICTION TO THE FOUNDATION MATERIAL. THE VERTICAL SURFACE OF THE ROCK SOCKET MUST BE LEFT IN A ROUGH CONDITION BY SPRAY GROUTING AFTER EXCAVATION, FREE FROM LOOSE MATERIAL AND/OR CLAY SHEAR. THE CONTRACTOR IS TO MAKE ALLOWANCE FOR VARYING ROCK CONDITIONS ALONG THE LENGTH OF THE ROCK SOCKET IN THE TENDER. THE LENGTH OF THE ROCK SOCKET IS TO BE ADJUSTED ACCORDINGLY TO SUIT THE ROCK CONDITIONS ENCOUNTERED DURING BORING OPERATIONS.
- B9 TEMPORARY LINING OF SHAFTS AS NECESSARY SHALL BE PROVIDED BY THE CONTRACTOR TO PREVENT COLLAPSE DUE TO THE PRESENCE OF UNSTABLE MATERIAL, GROUND WATER OR OTHER UNPREDSEEN CIRCUMSTANCES. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY FOR PLACEMENT AND REMOVAL OF TEMPORARY LINERS.
- B10 PERMANENT LINING IS TO BE AS DETAILED ON THE DRAWINGS. ALTERNATIVELY, THE PERMANENT LINING ON THE BORED PIERS MAY BE REDESIGNED AND DETAILED BY THE CONTRACTOR SUCH THAT THE LINING SHALL VERTICALLY ISOLATE THE BORED PIER FROM THE SURROUNDING GROUND WHILE PROVIDING THE REQUIRED HORIZONTAL SUPPORT WHERE THE FINAL CUT-OFF LEVEL IS ABOVE NATURAL GROUND LEVEL. THE PIERS MUST BE FORMED TO THE CORRECT LEVEL BY USING TEMPORARY LINERS.
- B11 AFTER EXCAVATIONS HAVE BEEN COMPLETED THE BASES SHALL BE CLEANED OUT AND RECEIVE APPROVAL FROM THE GEOTECHNICAL ENGINEER BEFORE REINFORCEMENT CAGES ARE SET IN POSITION AND CONCRETE IS PLACED. CLEARING OUT THE BASE OF ANY SHAFT MEANS ALL LOOSE AND SOFTENED MATERIAL SHALL BE REMOVED AND DE-WATERED IF REQUIRED BY THE GEOTECHNICAL ENGINEER. THE CONTRACTOR SHALL ALLOW FOR THE COST OF GEOTECHNICAL INSPECTIONS AND FOR ANY DE-WATERING REQUIRED.
- B12 WATER SHALL BE DIVERTED TO A PROPERLY SITED SUMP AND THE PILING CONTRACTOR SHALL SUPPLY AND INSTALL A PUMP OF ADEQUATE CAPACITY AND HAVE ON SITE A STANDBY UNIT OF SIMILAR CAPACITY. THE TOP OF THE HOLE SHALL BE PROPERLY COVERED TO PREVENT SURFACE WATER OR RAINFALL FROM ENTERING THE HOLE.
- B13 ALL STEEL REINFORCEMENT SHALL COMPLY WITH THE REQUIREMENTS OF AS 1302, AS 1303 AND AS 3600. LOOSE LIME SCALE, RUST, OIL, PAINT, GREASE AND OTHER MATTER SHALL BE REMOVED BEFORE PLACING THE REINFORCEMENT IN POSITION AND THE REINFORCEMENT SHALL BE KEPT FREE OF SUCH MATTER UNTIL THE CONCRETE IS PLACED. REINFORCEMENT SHALL BE PROPERLY FABRICATED INTO CAGES. SHALL BE INSTALLED IMMEDIATELY THE BASE OF ANY SHAFT HAS BEEN APPROVED AND SHALL BE SECURELY FIXED SO THAT NO VERTICAL MOVEMENT OCCURS UNLESS BEING PLACED. APPROVED SPACERS SHALL BE PROVIDED AT 2 METRE MAXIMUM CENTRES ALONG THE LENGTH OF THE BORED PIER TO MAINTAIN ADEQUATE COVER.
- B14 CONCRETE IN BASES AND SHAFTS SHALL BE PLACED CONTINUOUSLY UP TO THE UNDERSIDE OF PIER CAPS. CONCRETE SHALL NOT BE DROPPED BUT SHALL BE PLACED USING A CONCRETE PUMP OR A PROPERLY CONSTRUCTED CHUTE WHERE PERMITTED BY THE SUPERINTENDENT. CONCRETE SHALL BE PLACED UNDERWATER USING A TREMIE. POURING SHALL PROCEED WITH THE TREMIE DISCHARGING AT ALL TIMES BELOW THE TOP SURFACE OF THE POURED CONCRETE. THE CONCRETE LEVEL SHALL BE BROUGHT UP CONTINUOUSLY UNTIL THE TOP LAYER OF CONCRETE THAT HAS BEEN IN CONTACT WITH THE FREE WATER CAN BE SATISFACTORILY REMOVED AND CONCRETING CAN PROCEED ABOVE WATER IN THE USUAL MANNER. CONCRETING SHALL BE TEMPORARILY STOPPED WHEN THE CONCRETE IS WITHIN ONE METRE OF THE TOP OF EACH LENGTH OF LINER, IF PROVIDED, AND THAT LENGTH OF LINER SHALL BE WITHDRAWN AND THE CONCRETE VIBRATED WITH AN IMMERSION TYPE VIBRATOR.
- B15 PROPER SAFETY PRECAUTIONS SHALL BE TAKEN TO AVOID INJURY TO PEOPLE. UNATTENDED HOLES SHALL BE COVERED OR FENCED OFF AT ALL TIMES.
- B16 THE CONTRACTOR SHALL ALLOW FOR THE COST AND ARRANGE FOR THE INTEGRITY TESTING OF ALL BORED PIERS.

## CONCRETE NOTES:

- C1 ALL MATERIALS, WORKMANSHIP, HANDLING AND PLACEMENT SHALL BE IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS, EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
- C2 BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS. BEAMS AND SLABS ARE TO BE POURED TOGETHER UNLESS NOTED OTHERWISE.
- C3 SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
- C4 HOLES, CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE MADE IN ANY STRUCTURAL CONCRETE WITHOUT PRIOR APPROVAL OF THE SUPERINTENDENT.
- C5 CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND USED ONLY WHERE SHOWN ON THE DRAWINGS OR SPECIFICALLY APPROVED BY THE SUPERINTENDENT.
- C6 ALL EXPOSED CONCRETE CORNERS TO HAVE 15mm CHAMFER U.N.O.
- C7 CAMBER TO SUSPENDED SLABS SHALL BE POSITIVE UPWARD CAMBER OF 3mm PER 1000mm SPAN UNLESS NOTED OTHERWISE. BEAMS SHALL BE CAMBERED AS SHOWN ON DRAWINGS. NO CAMBER IS REQUIRED TO POSIT TENSIONED BEAMS AND SLABS.
- C8 FORMWORK AND BACKPROPPING SHALL BE DESIGNED, CONSTRUCTED AND STRIPPED IN ACCORDANCE WITH AS 3610. REFER TO ARCHITECTURAL DRAWINGS AND THE SPECIFICATION FOR CLASSES OF FORMWORK FINISH.
- C9 UNLESS OTHERWISE NOTED ON THE DRAWINGS THE FOLLOWING CONCRETE STRENGTHS AND COVER TO REINFORCEMENT, INCLUDING LIGATURES AND TIES, SHALL BE PROVIDED:
- | CONCRETE ELEMENT    | CONCRETE STRENGTH (MPa) | BOTTOM COVER (mm) | TOP COVER (mm) | SIDE COVER (mm) |
|---------------------|-------------------------|-------------------|----------------|-----------------|
| BORED PIERS / PILES | 32                      | -                 | -              | 75              |
| PAD FOOTINGS        | 32                      | 50                | 50             | 50              |

SIDE COVER TO BEAMS SHALL BE 50mm UNLESS NOTED OTHERWISE.

- MAXIMUM AGGREGATE SIZE SHALL BE 20mm
- C10 CONCRETE IS TO HAVE A MAXIMUM SHRINKAGE STRAIN OF 600 MICROSTRAIN
- C11 ALL CEMENT IS TO BE 'GP' GENERAL PURPOSE PORTLAND CEMENT OR 'GP' GENERAL PURPOSE BLENDED CEMENT OR TYPE 'SR' SULPHATE-RESISTING CEMENT AS REQUIRED, COMPLYING WITH AS 5192 UNLESS NOTED OTHERWISE ON THE DRAWINGS. EXTRA RAPID HARDENING SUPERPLASTICATED AND HIGH ALUMINA CEMENTS AND CEMENTS CONTAINING CHLORIDE SHALL NOT BE USED. THE USE OF FLY ASH AND/OR SILICA FUME AS A CEMENT SUBSTITUTE, OTHER THAN THAT PROPORTION ALLOWED AS PART OF THE 'GP' CEMENT CONTENT WILL ONLY BE PERMITTED AS PART OF A DESIGNED CONCRETE MIX WHICH HAS BEEN APPROVED BY THE SUPERINTENDENT.
- C12 (D) DENOTES SPECIAL DURABLE CONCRETE WHERE THE ELEMENT HAS AT LEAST ONE FACE EXPOSED TO THE WEATHER OR POSSIBLE CORROSION ATTACK. (THIS CONCRETE REQUIRES A SPECIAL TOLERANCE FOR THE COVERS OF 0-10mm +10mm). SPECIAL PRECAUTIONS ARE REQUIRED TO IMPROVE THE LONG TERM PERFORMANCE OF THESE FACES OF CONCRETE. IN PARTICULAR, NO METAL INSERTS, METAL BAR CHAIRS OR METAL FORM SPACERS OF ANY KIND ARE TO BE PLACED IN THE COVER ZONES WITHOUT THE EXPRESS PERMISSION OF THE SUPERINTENDENT. TAKE SPECIAL CARE TO AVOID SCRAP THE WIRE OR OTHER MATERIAL BEING PRESENT. REFER DRAWINGS FOR LOCATIONS.
- C13 CONCRETE TESTING SHALL COMPLY WITH THE REQUIREMENTS OF AS 1378 FOR PROJECT ASSESSMENT.
- C14 CONCRETE SLUMP TO BE A MAXIMUM OF 80mm UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- C15 FREE DROPPING OF CONCRETE FROM A HEIGHT GREATER THAN 1000mm IS NOT PERMITTED.
- C16 SURFACES RECEIVING GROUT SHALL BE LEFT ROUGH AND FREE OF LAITANCE.
- C17 CONCRETE MUST BE CURED BY AN APPROVED CURING COMPOUND ACHIEVING A MINIMUM 90% MOISTURE RETENTION IN ACCORDANCE WITH AS 5799.
- C18 REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION OR SCALE.
- C19 REINFORCEMENT SYMBOLS:  
N - NORMAL DUCTILITY CLASS HOT ROLLED DEFORMED BARS OR MESH TO ASNZS 4671 WITH fy=500 MPa  
R - NORMAL DUCTILITY CLASS 20mm PLAIN ROUND BAR TO ASNZS 4671 WITH fy=250 MPa  
L - LOW DUCTILITY CLASS 20mm REINFORCING MESH OR BAR TO ASNZS 4671 WITH fy=500 MPa  
L - LOW DUCTILITY CLASS 1 REINFORCEMENT IS NOT TO BE USED OTHER THAN WHERE SHOWN ON DRAWINGS THE NUMBER FOLLOWING THE BAR SYMBOL IS THE NORMAL BAR DIAMETER IN MILLIMETRES.
- C20 SPLICES IN REINFORCEMENT SHALL BE MADE IN THE POSITIONS SHOWN OR AS OTHERWISE APPROVED BY THE SUPERINTENDENT. MINIMUM LAP FOR ALL FABRICS SHALL BE THE SPACING OF TWO TRANSVERSE WIRES PLUS 20mm. GRADE 500N BARS SHALL BE LAPPED IN ACCORDANCE WITH THE STANDARD LAP LENGTH TABLE IF NOT STATED OTHERWISE ON THE DRAWINGS.
- C21 HOOKS AND CROSS SHALL COMPLY WITH AS 3600 UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
- C22 CUTTING OR WELDING OF REINFORCEMENT IS NOT ALLOWED WITHOUT THE APPROVAL OF THE SUPERINTENDENT.
- C23 ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS AT 1000mm MAXIMUM CENTRES. THE CHAIR MATERIAL SHALL SUIT THE EXPOSURE CONDITIONS.
- C24 CONDUITS AND OTHER CAST IN ITEMS SHALL BE FABRICATED AND INSTALLED SO THAT NO CUTTING, BENDING OR DISPLACEMENT OF THE REINFORCEMENT FROM ITS PROPER POSITION WILL BE REQUIRED.
- C25 3Mx2-100 TOP DIAGONAL CORNER TRIMMER BARS 1200mm LONG ARE REQUIRED DIAGONALLY ACROSS ALL RE-ENTRANT CORNERS FOR SLABS ON GROUND. 2Mx16-100 TOP DIAGONAL CORNER TRIMMER BARS 1500mm LONG ARE REQUIRED DIAGONALLY ACROSS ALL RE-ENTRANT CORNERS OF SUSPENDED SLABS AND WALLS.
- C26 REINFORCEMENT LENGTHS INDICATED ARE IN MILLIMETRES AND ARE PLAN LENGTH ONLY. TURN DOWNS AND CRANKS ARE NOT INCLUDED IN THE DIMENSION.
- C27 BARS SHOWN STAGGERED ON PLAN SHALL BE PLACED ALTERNATELY.
- C28 BARS SHALL BE EVENLY DISTRIBUTED OVER THE WIDTH OF THE STRIP INDICATED ON THE DRAWINGS UNLESS NOTED OTHERWISE.
- C29 ALL STEEL EMBEDMENTS WITHIN THE CONCRETE COVER ZONE SHALL BE HOT DIP GALVANIZED UNLESS APPROVED OTHERWISE BY THE SUPERINTENDENT.
- C30 CONCRETE SHALL BE SEPARATED FROM SUPPORTING MASONRY BY TWO LAYERS OF MALTHOID (OR AN APPROVED EQUIVALENT). VERTICAL FACES OF CONCRETE SHALL BE KEPT FREE OF ADJOINING SURFACES BY 10mm THICKNESS OF ASBESTOS OR AN APPROVED EQUIVALENT UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL NON-LOADBEARING WALLS SHALL BE KEPT CLEAR OF THE UNDERSIDE OF SLABS AND BEAMS BY 20mm UNLESS NOTED OTHERWISE ON THE DRAWINGS.

## TIMBER NOTES:

- T1 ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 1684, AS 1684.1 AND AS 1710 EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
- T2 TIMBER MEMBERS NOT SIZED OR SCHEDULED ON THE DRAWINGS SHALL BE SELECTED USING AS 1684.1
- T3 ALL TIMBER CONNECTIONS TO BE IN ACCORDANCE WITH AS 1684 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- T4 ALL TIMBER MEMBERS ARE TO CONSIST OF A SINGLE NATURAL PIECE OF TIMBER. LAMINATIONS OR FINGER JOINTS ARE NOT ALLOWED WITHOUT THE APPROVAL OF THE SUPERINTENDENT.
- T5 TIMBER JOINTS SHALL BE FREE OF DEFECTS.
- T6 NO PENETRATIONS ARE ALLOWED IN TIMBER MEMBERS UNLESS APPROVED BY THE SUPERINTENDENT.
- T7 ALL PROPRIETARY CONNECTORS AND FIXINGS ARE TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS' SPECIFICATIONS.
- T8 TIMBER MEMBERS SHALL HAVE THE FOLLOWING MINIMUM STRESS GRADES UNLESS NOTED OTHERWISE ON THE DRAWINGS:  
MPC10 FOR SEASONED PINE  
F8 FOR UNSEASONED HARDWOOD  
F8 FOR OREGON  
F17 FOR SEASONED HARDWOOD
- T9 MAXIMUM UNDERSIZE FOR ALL TIMBER MEMBERS SHALL BE AS FOLLOWS:  
(i) 0 FOR SEASONED PINE SPECIES AND OTHER SEASONED SOFTWOODS  
(ii) 3mm FOR UNSEASONED HARDWOODS  
(iii) 4mm FOR OREGON
- T10 ALL NAILS, BOLTS AND SCREWS SHALL BE GALVANIZED UNLESS APPROVED OTHERWISE BY THE SUPERINTENDENT.
- T11 ALL TIMBER TO BE MIN. GRADE F17 L.N.O.

## STRUCTURAL STEELWORK NOTES:

- S1 ALL MATERIALS, WORKMANSHIP, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT AUSTRALIAN STANDARD NAMELY AS 4100, AS/NZS 4600, AS/NZS 1554 AND AS/NZS 860, EXCEPT WHERE VARYED BY THE CONTRACT DOCUMENTS.
- S2 NOT ALL SECONDARY STEELWORK IS SHOWN ON THE STRUCTURAL DRAWINGS. THE CONTRACTOR SHALL PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL, TIMBER AND OTHER ELEMENTS TO STEELWORK WHETHER OR NOT DETAILD ON THE STRUCTURAL DRAWINGS. IN ADDITION TRIMMING MEMBERS FOR WALLS, FREE EDGES, RIDGES, SERVICE PENETRATIONS ETC. SHALL BE PROVIDED AT NO ADDITIONAL COST. TO ALL EDGES OF SHEETING AT AN ANGLE OF OTHER THAN 90 DEGREES TO THE PURLINE. REFER TO PURLIN MANUFACTURER FOR DETAILS. REFER TO THE ARCHITECTS AND SERVICES ENGINEERS DRAWINGS AND/OR SPECIFICATIONS FOR DETAILS OF SECONDARY STEELWORK REQUIRED.
- S3 SUBSTITUTIONS FOR STEEL SECTIONS SHOWN ON DRAWINGS SHALL NOT BE MADE WITHOUT THE WRITTEN APPROVAL OF THE SUPERINTENDENT.
- S4 THE CONTRACTOR SHALL PROVIDE AND LEAVE IN PLACE, UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED, SUCH TEMPORARY BRACING AS IS NECESSARY TO STABILIZE THE STRUCTURE DURING ERECTION.
- S5 BEFORE FABRICATION IS COMMENCED THE CONTRACTOR SHALL SUBMIT COPIES OF THE SHOP DRAWINGS TO THE SUPERINTENDENT FOR REVIEW AND APPROVAL. REVIEW DOES NOT INCLUDE CHECKING OF DIMENSIONS.
- S6 THE FABRICATION AND ERECTION OF THE STRUCTURAL STEELWORK SHALL BE SUPERVISED BY QUALIFIED PERSONNEL, EXPERIENCED IN SUCH SUPERVISION TO ENSURE THAT ALL REQUIREMENTS OF THE DESIGN AND CHAS ARE MET. ERECTION OF STEELWORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AS 3608. DETAILS OF ERECTION SEQUENCE SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR REVIEW PRIOR TO COMMENCEMENT OF ERECTION. THE APPROVED ERECTION SEQUENCE SHALL NOT BE VARYED DURING THE ERECTION PROCESS WITHOUT THE APPROVAL OF THE SUPERINTENDENT. A MINIMUM OF 20% OF THE STEELWORK IS TO BE INSPECTED.
- S7 UNLESS NOTED OTHERWISE, ALL STEEL SHALL BE:  
GRADE 300 PLUS FOR HOT ROLLED SECTIONS  
GRADE 300 PLUS FOR WELDED SECTIONS (WV, WC)  
GRADE 300 PLUS FOR MERCHANT BAR (ROUND, SQUARE AND FLAT)  
GRADE 250 FOR PLATES  
GRADE C350 FOR RHS, SHS AND CHS
- S8 COMMERCIAL GRADE BOLTS SHALL CONFORM TO AS/NZS 1111 AND AS 4100. HIGH STRENGTH STRUCTURAL BOLTS SHALL CONFORM TO AS/NZS 1252 AND AS 4100.
- S9 BOLT DESIGNATION:  
4.6S DENOTES COMMERCIAL BOLTS OF STRENGTH GRADE 4.6 TO AS 1111 TIGHTENED TO A SNUG TIGHT CONDITION.  
8.8S DENOTES HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 TIGHTENED TO A SNUG TIGHT CONDITION.  
8.8TB DENOTES HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A BEARING JOINT (SOME S.P. ALLOWED).
- S10 8.8TF DENOTES HIGH STRENGTH STRUCTURAL BOLTS OF GRADE 8.8 TO AS 1252 FULLY TENSIONED TO AS 4100 AS A FRICTION JOINT
- S11 ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED.
- S12 LOAD INDICATING WASHERS SHALL BE USED TO VERIFY TIGHTENING OF BOLTS IN TF AND TB CONNECTIONS. TORQUE WRENCHES SHALL NOT BE USED. A HARDENED WASHER SHALL BE USED UNDER THE BOLT HEAD OR NUT, WHICHEVER IS ROTATED. THE RE-USE OF FULLY TENSIONED BOLTS IS PROHIBITED.
- S13 ALL DETAILS, GAUGE LINES ETC. WHERE NOT SPECIFICALLY SHOWN ARE TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE ASI DESIGN CONNECTION HANDBOOK AND ASI DESIGN GUIDES.
- S14 ALL WELDING SHALL COMPLY WITH AS 1554 AND AS 1500.
- S15 ALL WELDS SHALL BE CATEGORY SP IN ACCORDANCE WITH AS 1554. MINIMUM NOMINAL TENSILE STRENGTH OF WELD METAL TO BE fyw = 490 MPa AND ALL BUTT WELDS SHALL BE FULL STRENGTH COMPLETE PENETRATION WELDS UNLESS NOTED OTHERWISE.
- S16 BEFORE COMMENCING FABRICATION SUBMIT DETAILS OF PROPOSED WELDING PROCEDURES USING THE FORM IN APPENDIX C OF AS 1554.1. DO NOT COMMENCE FABRICATION UNTIL WELDING PROCEDURES HAVE BEEN ACCEPTED.
- S17 WELDING SHALL BE CARRIED OUT UNDER THE IMMEDIATE AND CONTINUOUS SUPERVISION OF A SUPERVISOR EMPLOYED BY THE FABRICATOR. THIS PERSON SHALL HAVE QUALIFICATIONS AS DESCRIBED IN AS 1554 SECTION 4.2.1 AND THESE QUALIFICATIONS SHALL BE SUBMITTED TO THE SUPERINTENDENT ON REQUEST.
- S18 WELDING SHALL BE PERFORMED ONLY BY WELDERS WITH QUALIFICATIONS AS DESCRIBED IN AS 1554 SECTION 4.2.2.
- S19 OTHER THAN ANY SITE WELDS SHOWN ON THE SHOP DRAWINGS, DO NOT WELD UP SITE WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT. WHEREVER POSSIBLE, LOCATE SITE WELDS IN POSITIONS FOR DOWN HAND WELDING.
- S20 ALL BUTT WELDS, EXCEPT WHEN PRODUCED WITH THE AID OF BACKING MATERIAL, SHALL HAVE THE ROOT OR INITIAL LAYER GOUGED OR CHIPPED OUT ON THE BACK SIDE BEFORE WELDING IS STARTED FROM THAT SIDE. BUTT WELDS MADE WITH THE USE OF A BACKING STRIP SHALL HAVE THE WELD METAL FUSED WITH THE BACKING STRIP. ENDS OF BUTTS SHALL HAVE THE START AND STOP ZONES REMOVED BY THE USE OF RUN ON AND RUN OFF PLATES. SUCH PLATES SHALL BE REMOVED AFTER USE.
- S21 WELDING INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AUTHORITY AT THE CONTRACTORS EXPENSE. DEFAULT WELD TESTING SHALL BE AS FOLLOWS:

WELD TYPE	NON DESTRUCTIVE WELD EXAMINATION INDEX SCHEDULE			
	VISUAL SCANNING	VISUAL EXAMINATION	MAGNETIC PARTICLE OR LIQUID PENETRANT	ULTRASONIC OR RADIOGRAPHY
GF FILLET WELD	100%	10%	N/A	N/A
SP FILLET WELD	100%	25%	10%	10%
BUTT WELDS IN TRUSSES, BRACES OR PORTALS	100%	100%	10%	10%
BUTT WELDS IN OTHER MEMBERS	100%	50%	10%	2%
SITE BUTT WELDS	100%	100%	N/A	100%

- ALL TESTING SHALL BE IN ACCORDANCE WITH AS/NZS 1554.1
- S21 AFTER REPAIRING A FAULTY WELD REVEALED BY NON-DESTRUCTIVE EXAMINATION, REPEAT THE SPECIFIED EXAMINATION AND FURNISH THE AUTHORITY'S REPORT TO THE SUPERINTENDENT.
- S22 ALL ROLL FORMED PURLINS, GRITS, BRIDGING AND ACCESSORIES SHALL BE LYSAGHT PURLINS & GRITS, GRADE 455 MINIMUM COMPLYING WITH AS 1397 AND AS 4600 UNLESS NOTED OTHERWISE. ALTERNATIVE PRODUCTS MAY BE USED FOLLOWING SUBMISSION AND APPROVAL BY THE SUPERINTENDENT OF SECTION PROPERTIES, PURLIN CAPACITY CALCULATIONS AND BRIDGING CAPACITY CALCULATIONS PRODUCED AND DETAILED FOR THE PROJECT. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS, WITH PARTICULAR REGARD TO BOLT LOCATIONS AND LAP LENGTHS. ALL HANGERS TO BE HUNG FROM PURLIN WEBS, NOT FLANGES.
- S23 ALL EXPOSED STEEL SHALL BE HOT DIPPED GALVANIZED OR OTHERWISE PAINT PROTECTED IN ACCORDANCE WITH AS 3212. ALL HOT DIP GALVANIZED MEMBERS SHALL BE PROVIDED WITH VENT AND DRAINAGE HOLES IN ACCORDANCE WITH THE GALVANIZERS'S RECOMMENDATIONS AND TO THE ACCEPTANCE OF THE SUPERINTENDENT.
- S24 GALVANIZED STEELWORK THAT IS SITE WELDED OR SUSTAINS ANY OTHER FORM OF SURFACE DAMAGE IS TO BE PREPARED TO AS 3212 CLASS 3 AND PRIMED WITH 2 COATS OF GALVANITE (MANUFACTURED BY JOTUN) OR APPROVED EQUIVALENT TO MANUFACTURERS SPECIFICATION.
- S25 WHERE MEMBERS SHOWN ON THE STRUCTURAL OR ARCHITECTURAL DRAWINGS ARE REQUIRED TO BE CURVED, BENT OR ROLLED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE METHODS REQUIRED TO ACHIEVE THE REQUIRED SHAPES WITHOUT LOCALIZED DISTORTION OF THE MEMBERS.
- S26 CAMBERING OF MEMBERS SHALL BE AS NOTED ON THE DRAWINGS. WHERE CAMBERS OCCUR IN MEMBERS AS A RESULT OF THE FABRICATION PROCESS THE MEMBER SHALL BE INSTALLED WITH CAMBER UPWARDS. MEMBERS INSTALLED WITH DOWNWARD CAMBERS SHALL BE LABELED TO REJECTION, REMOVED AND REPLACEMENT AT THE CONTRACTORS EXPENSE.
- S27 UNLESS SHOWN OTHERWISE ON THE DRAWINGS, ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH THE FOLLOWING MINIMUM REQUIREMENTS:  
(i) ALL WELDS SHALL BE BMM CONTINUOUS FILLET WELDS ALL ROUND.  
(ii) ALL BOLTS SHALL BE M20 - 8.8S WITH A MINIMUM OF 2 BOLTS PER CONNECTION.  
(iii) PURLIN BOLTS TO BE M12 - 8.8S WITH A MINIMUM OF 2 BOLTS PER PURLIN END.  
(iv) ALL CLEAT, STIFFENER AND GUSSET PLATES SHALL BE 10mm THICK.  
(v) ALL CAP PLATES SHALL BE 12mm THICK.  
(vi) ALL BASE PLATES SHALL BE 20mm THICK.  
(vii) ALL BOLT HOLES SHALL BE 2mm LARGER THAN THE NOMINATED BOLT DIAMETER UNLESS NOTED OTHERWISE. EXCEPT HOLES IN BASE PLATES WHICH SHALL BE 6mm LARGER THAN THE NOMINATED BOLT DIAMETER.
- S28 COLUMNS AND MULLIONS SHALL HAVE THEIR BASE PLATES FULLY GROUTED WITH 40 MPa GROUT UNLESS NOTED OTHERWISE AFTER PLUMBING AND LEVELLING ON NEOPRENE PACKERS.
- S29 CONTACT SURFACES OF TF CONNECTIONS SHALL BE LEFT UNPAINTED AND FREE OF SCALE UNLESS NOTED OTHERWISE. (NORGANIC ZINC SILICATE PAINT IS ACCEPTABLE IN BJT JOINTS).
- S30 CONCRETE ENCASED STEELWORK SHALL HAVE A MINIMUM OF 50mm OF CONCRETE ENCASEMENT REINFORCED WITH WS WIRE WRAPPING AT 150 CTS OR FIBRE FABRIC UNLESS NOTED OTHERWISE.
- S31 ALL STEELWORK BELOW GROUND OR FINISHED SURFACE LEVEL IS TO BE ENCASED IN 75mm MIN. CONCRETE ALL ROUND.
- S32 THE ENDS OF ALL TUBULAR MEMBERS ARE TO BE SEALED WITH NOMINAL THICKNESS SLABS AND CONTINUOUS FILLET WELDED UNLESS NOTED OTHERWISE.
- S33 STRUCTURAL STEELWORK SHALL HAVE THE FOLLOWING SURFACE TREATMENT IN ACCORDANCE WITH AS/NZS 2312 AND THE SPECIFICATIONS

ELEMENT	SURFACE CLEANING	PRIME COAT	SURFACE COAT
ALL MEMBERS EXCEPT HOT DIP GALVANIZED	CLASS 1	75 MICRONS	REFER TO ARCHITECT

MEMBERS TO BE ENCASED IN CONCRETE OR FIRE SPRAYED MUST NOT BE PAINTED AND MUST BE FREE OF SCALE

S34 ALL STEELWORK SHARPPROUGH EDGES TO BE GROUND BACK TO A SMOOTH SURFACE.

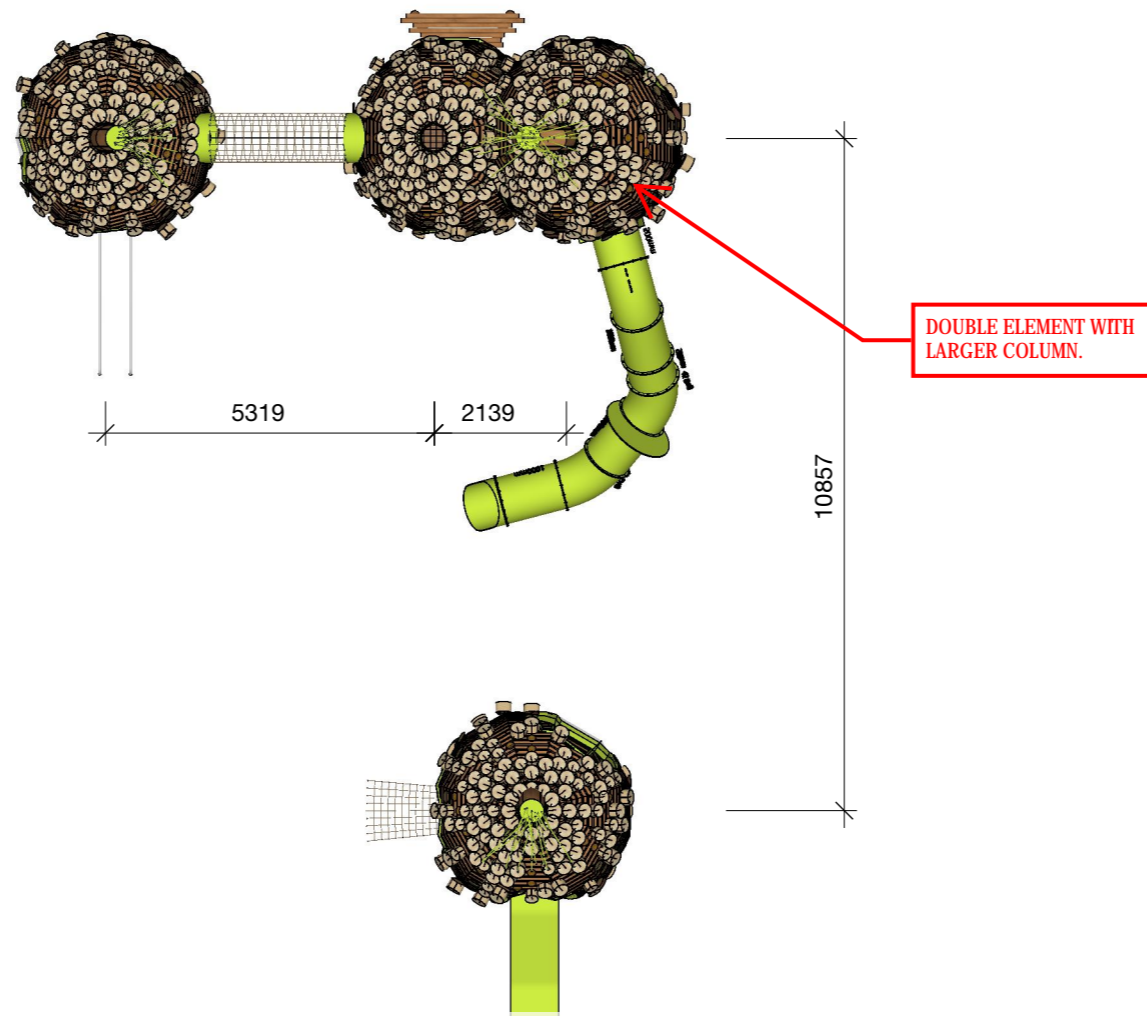
DATE	AUGUST 2020	DRAWN	BW4
SCALE	AS SHOWN	CHECKED	
SHEET SIZE	AS SHOWN	APPROVED	
PROJECT	COOMBS PLAY STRUCTURE AND SHELTERS		
CLIENT	FLEETWOOD URBAN		
TITLE	GENERAL NOTES		
PROJECT NO.	PS118430	DRAWING NO.	S000
		REVISION	P1



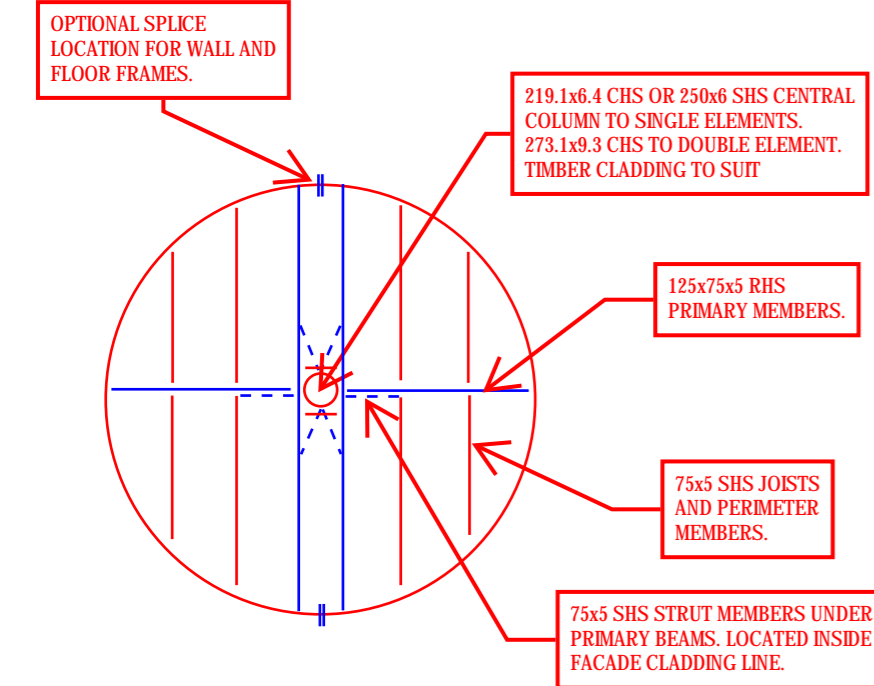
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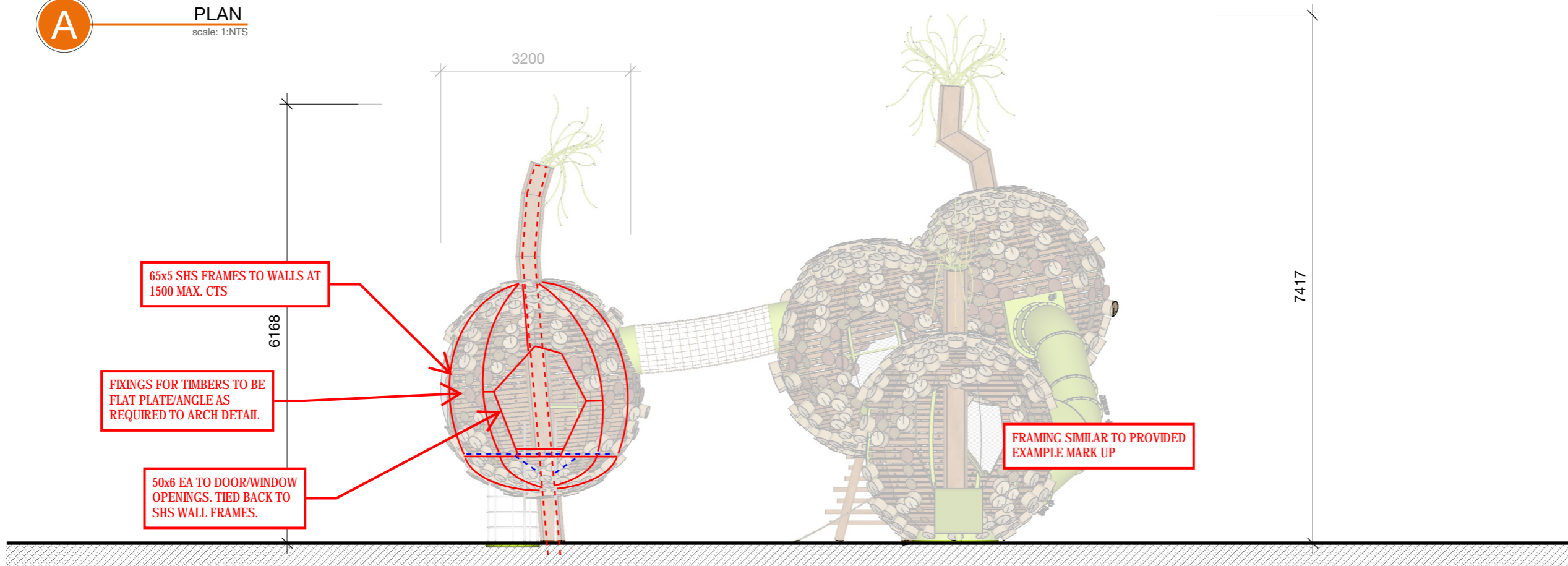


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SCALE AS SHOWN	CHECKED	
SHEET SIZE AS SHOWN	APPROVED	
PROJECT COOMBES PLAY STRUCTURE AND SHELTERS		TITLE BOMMY KNOCKER DRAWING 1
CLIENT FLEETWOOD URBAN		PROJECT NO. PS118430
		DRAWING NO. S001
		REVISION P1



TYPICAL FLOOR FRAMING PLAN


**A** PLAN  
scale: 1:NTS



**B** FRONT VIEW  
scale: 1:NTS

REFER NEXT DRAWING FOR FOOTINGS

**PRELIMINARY**

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SCALE AS SHOWN	CHECKED			
SHEET SIZE AS SHOWN	APPROVED			
PROJECT COOMBES PLAY STRUCTURE AND SHELTERS		TITLE BOBBY KNOCKER DRAWING 2		
CLIENT FLEETWOOD URBAN		PROJECT NO. PS118430	DRAWING NO. S002	REVISION P1

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TS

ISSUE  
27/07/2020

CLIENT  
**SUBURBAN LAND AGENCY**



ARCHITECT  
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PROJECT  
**Coombes Play**

PRODUCT  
**BOBBY KNOCKERS**

3D PRODUCT DRAWING

