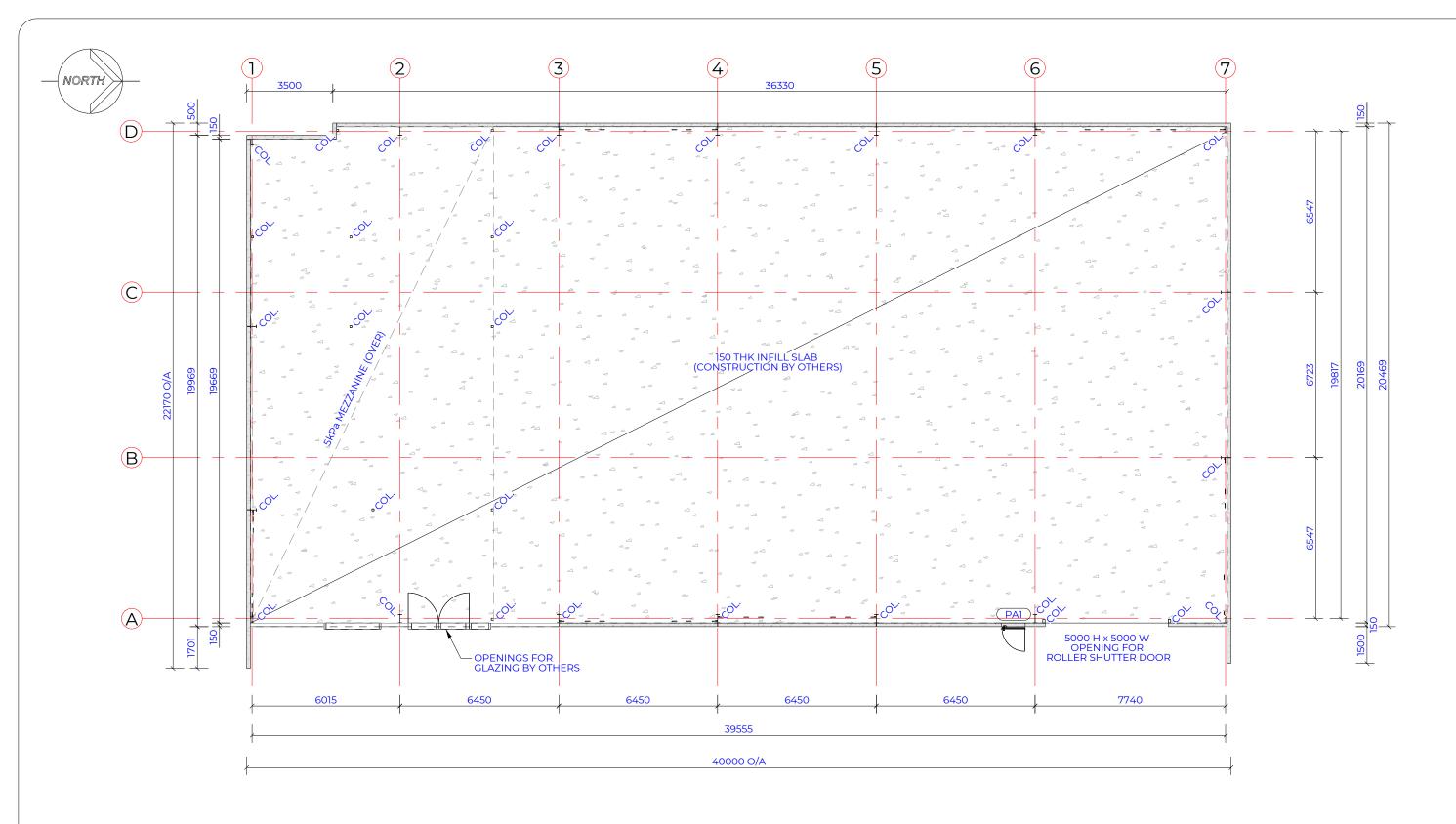


O THIS DRAWING IS THE PROPERTY OF CENTRAL STEEL BUILD. THIS DRAWING & ANY ASSOCIATED DRAWINGS AND/OR COMPUTATIONS MUST NOT BE MANUFACTURED FROM COPIED OR TRANSMITTED TO A THIRD PARTY WITHOUT WRITTEN PERMISSION FROM CENTRAL STEEL

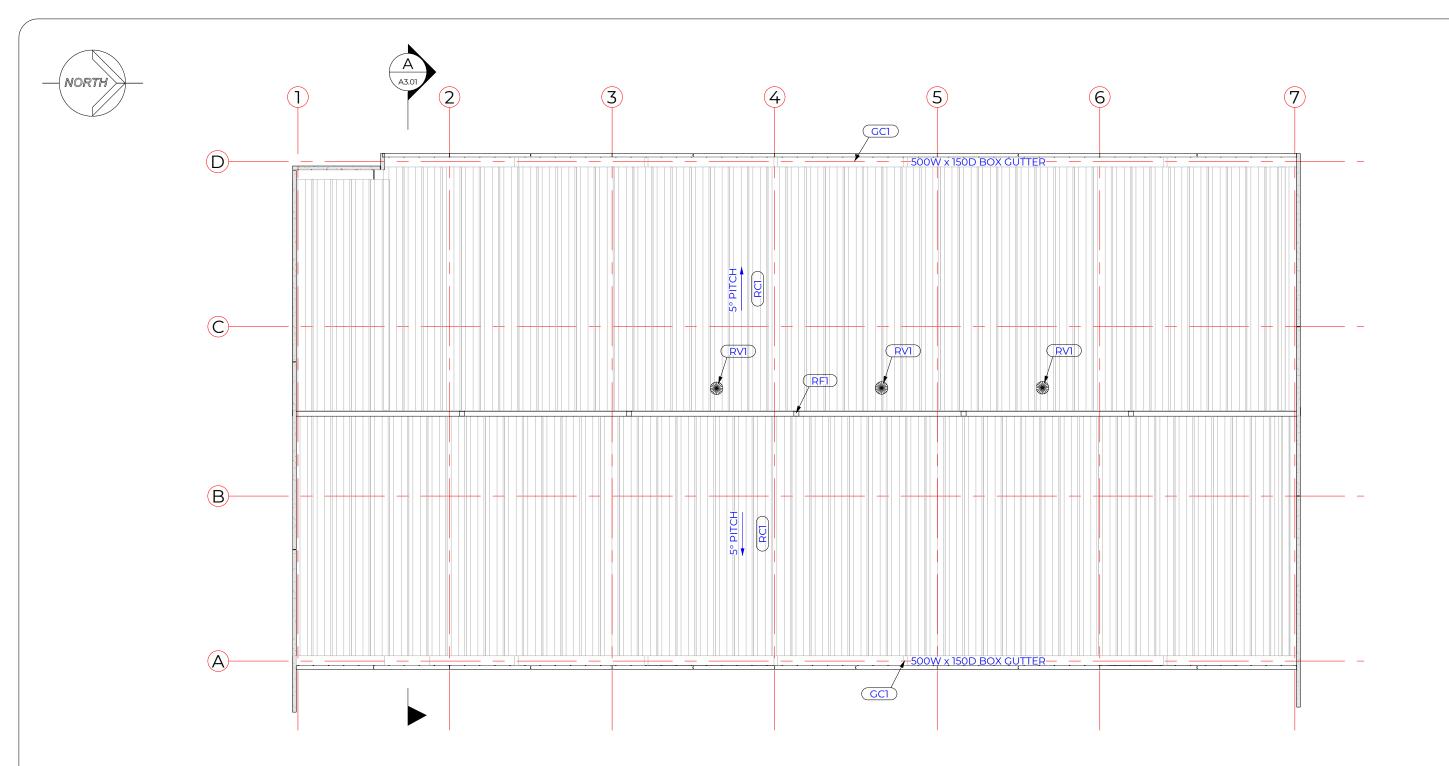


DOOR SCHEDULE				
ITEM	SIZE	QTY	COMMENTS	
PA1	920 w x 2040 h	1	920x2040 HD PA DOOR CBOND (TBC) DUTY: HEAVY DUTY	

ISSUED FOR CONSTRUCTION

FLOOR PLAN		JOB 2106	9	SHEET	Γ <b>Α1.01</b>
THESE DRAWINGS ARE TO SHOW THE DESIGN INTENT OF THE BUILD. FOR ALL STRUCTURAL ELEMENTS REFER TO THE ENGINEERING DRAWINGS SUPPLIED BY CSB	REV	DESCRIPTION	DATE	DRAWN	
SIZE A3 SCALE 1:200 PAGE 2 OF 5	0	CONSTRUCTION	28/05/2025	AK	





NOTE: 55mm BLANKET & SAFETY MESH INCLUDED IN ROOF ONLY

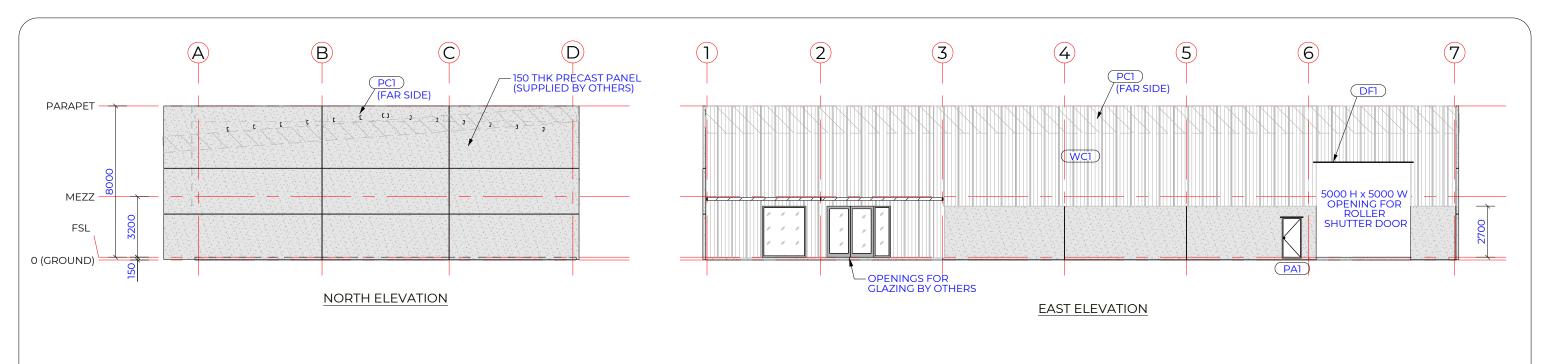
	CLADDING SCHEDULE						
ITEM	NAME	PROFILE	FINISH				
RF1	V-RIDGE		C/BOND TBC				
RV1	500mm WHIRLY BIRD		C/BOND TBC				
RC1	ROOF CLADDING	0.47-TCT-5RIB	C/BOND TBC				
GC1	BOX GUTTER CLADDING	0.47-TCT-CORRY	ZINC				

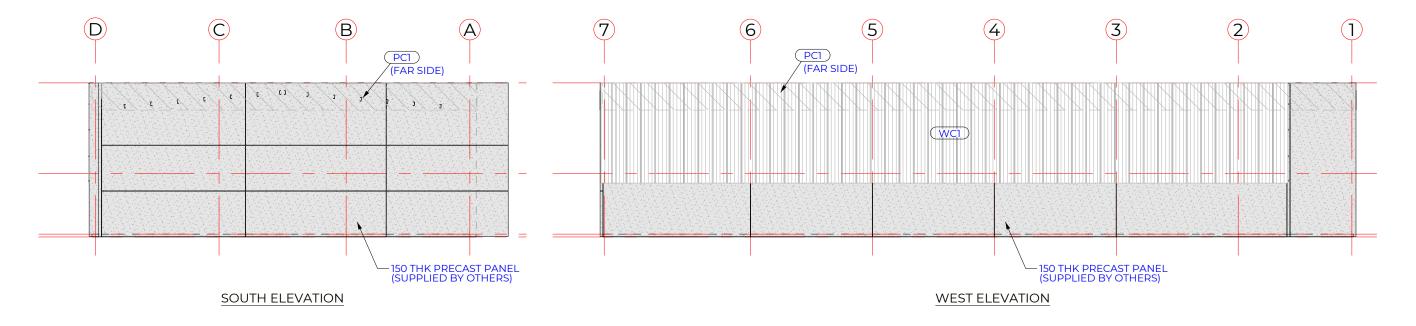
PROPOSED WAREHOUSE 16
FOR GLENN BRAGANZA
43 PLATINUM COURT, THURGOONA NSW 2640

ISSUED FOR CONSTRUCTION

ROOF SHEETING PLAN		JOB 21069	•	SHEET	Γ <b>Α1.02</b>
THESE DRAWINGS ARE TO SHOW THE DESIGN INTENT OF THE BUILD. FOR ALL STRUCTURAL ELEMENTS REFER TO THE ENGINEERING DRAWINGS SUPPLIED BY CSB	REV	DESCRIPTION	DATE	DRAWN	•
SIZE A3 SCALE 1:200 PAGE 3 OF 5	0	CONSTRUCTION	28/05/2025	AK	







NOTE: ALL CORNER AND BARGE FLASHINGS TO BE ORDERED ON SITE

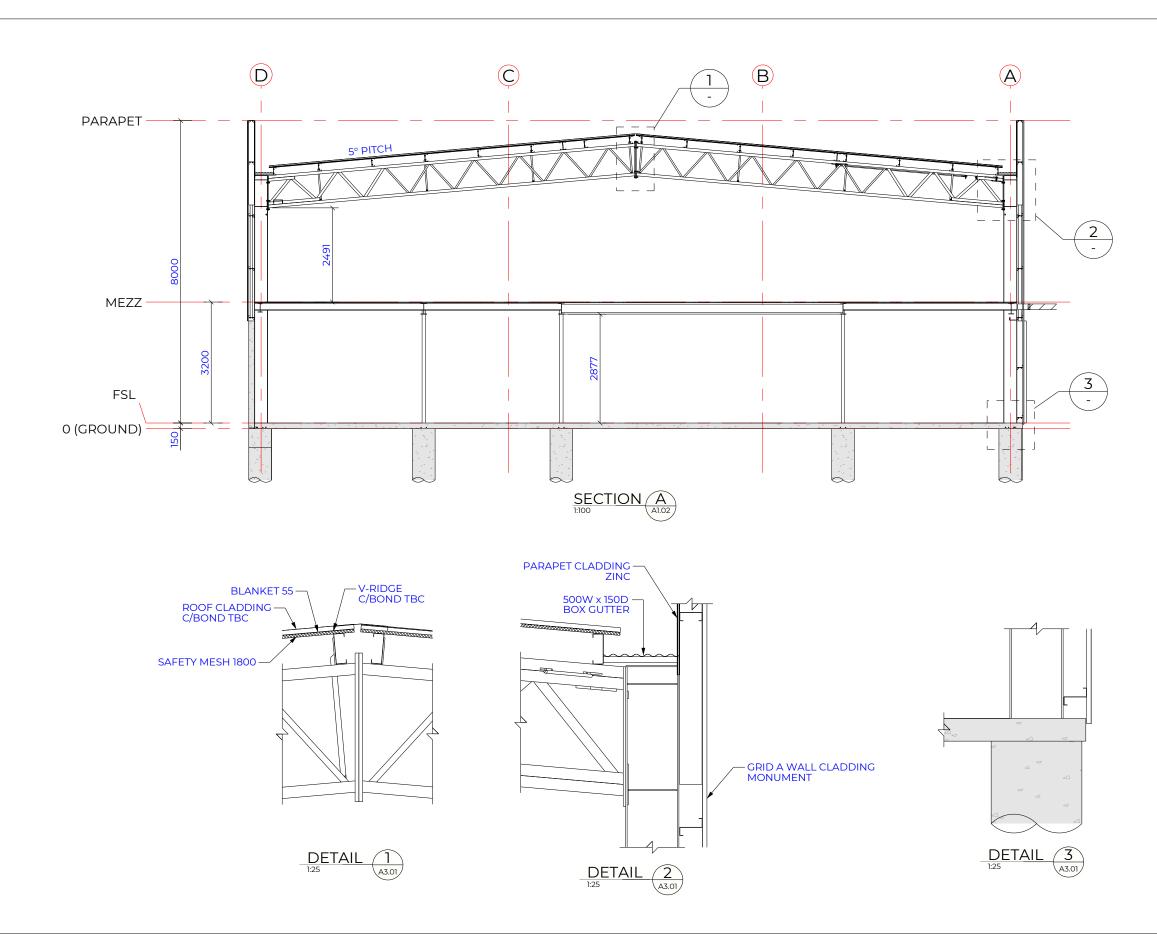
	CLADDING SCHEDULE						
ITEM	NAME	PROFILE	FINISH				
DF1	DRIP FLASHING		MONUMENT				
RV1	500mm WHIRLY BIRD		C/BOND TBC				
PC1	PARAPET CLADDING	0.47-TCT-CORRY	ZINC				
WC1	WALL CLADDING	0.47-TCT-5RIB	MONUMENT				

PROPOSED WAREHOUSE 16
FOR GLENN BRAGANZA
43 PLATINUM COURT, THURGOONA NSW 2640

ISSUED FOR CONSTRUCTION

ELEVATIONS		JOB 21069	•	SHEET	Γ <b>A2.01</b>
THESE DRAWINGS ARE TO SHOW THE DESIGN - INTENT OF THE BUILD. FOR ALL STRUCTURAL ELEMENTS REFER TO THE ENGINEERING DRAWINGS SUPPLIED BY CSB		DESCRIPTION	DATE	DRAWN	
SIZE A3 SCALE 1:200 PAGE 4 OF 5	0	CONSTRUCTION	28/05/2025	AK	

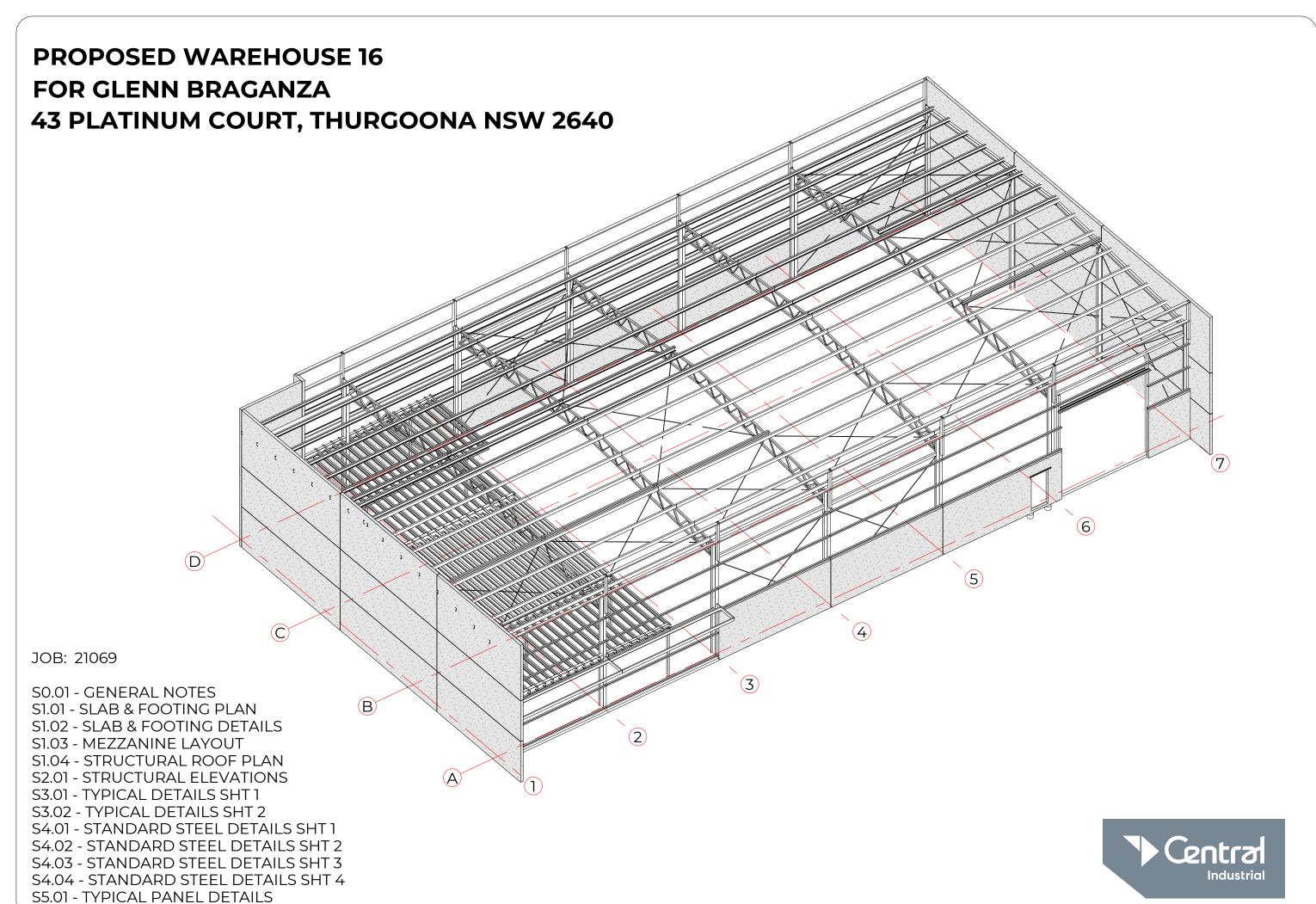




ISSUED FOR CONSTRUCTION

SECTIONS & DETAILS		JOB 21069	•	SHEET	Г АЗ.01
THESE DRAWINGS ARE TO SHOW THE DESIGN- INTENT OF THE BUILD. FOR ALL STRUCTURAL ELEMENTS REFER TO THE ENGINEERING DRAWINGS SUPPLIED BY CSB		DESCRIPTION	DATE	DRAWN	
					`
SIZE A3 SCALE 1:100 PAGE 5 OF 5	0	CONSTRUCTION	28/05/2025	AK	





#### GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS WITH SUCH OTHER WRITTEN INSTRUCTIONS OR SKETCHES AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT, ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT BEFORE PROCEEDING WITH WORK.
- DIMENSIONS AND LEVELS ARE TO BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS AND ARE TO BE VERIFIED ON-SITE PRIOR TO COMMENCEMENT OF WORKS OR FABRICATION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT CURRENT AUSTRALIAN STANDARDS INCLUDING ALL AMENDMENTS CURRENT AT THE TIME OF CONTRACT AWARD, BUILDIN, REGULATIONS, THE NATIONAL CONSTRUCTION CODE AND ANY OTHER RELEVANT STATUTORY AUTHORITIES, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS.
- G4. THESE DRAWINGS MUST NOT BE SCALED.
- G5. 3D AND ISOMETRIC VIEWS IN THESE DOCUMENTS ARE INDICATIVE ONLY AND SHOULD ONLY BE USED AS A VISUAL AID TO ASSIST IN THE INTERPRETATION OF THE ORTHOGRAPHIC DRAWINGS.
- G6. DO NOT COMMENCE CONSTRUCTION USING THESE DRAWINGS UNTIL IT'S "ISSUED FOR CONSTRUCTION".
- G7. THE FOUNDATION MATERIAL MUST HAVE A SAFE BEARING PRESSURE OF NOT LESS THAN 150KPA, FOUNDED ON NATURAL GROUND (UNO.). ALL FOOTINGS MUST BE FOUNDED AT SPECIFIED DEPTH AND MIN. 1100MB/NTO NATURAL GROUND (UND.). 100mm INTO NATURAL GROUND (UNO.)
- G8. UNLESS NOTED OTHERWISE, ALL LEVELS ARE IN METERS AND ALL DIMENSIONS ARE IN MILLIMETERS.
- THE METHOD OF CONSTRUCTION AND THE MAINTENANCE OF SAFETY DURING CONSTRUCTION ARE THE RESPONSIBILITY OF THE PRINCIPAL CONTRACTOR. IF ANY STRUCTURAL ELEMENT PRESENTS DIFFICULTY IN RESPECT OF CONSTRUCTABILITY OR SAFETY, THE MATTER SHALL BE REFERRED TO THE STRUCTURAL ENGINEER FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- G10. DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERLOADED. THE BUILDER SHALL PROVIDE TEMPORY BRACING, SHORING AND PROPPING IN ORDER TO KEEP THE BUILDING WORKS AND EXCAVATIONS STABLE AT ALL TIMES.
- AT ALL TIMES.

  G11. CENTRAL STEEL BUILD'S ENGAGEMENT IS TO PROVIDE DOCUMENTED DESIGN FOR THE PERMANENT CONDITION SUITABLE FOR THE DOCUMENTED TO COUPANCY USE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND ANY ADJACENT STRUCTURES IN A SAFE AND STABLE CONDITION AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS TO DEVELOP A DETAILED SAFE WORK METHOD STATIEMENT OUTLINING THE CONSTRUCTION SEQUENCE AND METHODOLOGY. THE CONTRACTOR IS TO ENGAGE A QUALIFIED AND SUITABLY EXPERIENCED ERECTION ENGINEER TO REVIEW THE CONSTRUCTION METHODOLOGY AND PROVIDE DESIGN OF TEMPORARY WORKS (SUCH AS PROPPING AND TEMPORARY BRACING) TO SUIT THE CONSTRUCTION SEQUENCE AND METHODOLOGY AND METHODOLOGY CHOSEN BY THE PRINCIPAL CONTRACTOR.
- G12. CENTRAL STEEL BUILD HAS NOT BEEN ENGAGED TO UNDERTAKE DESIGN OF LATERAL STABILITY RESTRAINTS FOR NON-STRUCTURAL PARTS AND COMPONENTS IN ACCORDANCE WITH AS 170.4 SECTION 8 (E.G. SERVICES, PLANT & EQUIPMENT, CELILINGS, FIXED AND AND NON-FIXED NON-STRUCTURAL ELEMENTS), SUCH DESIGN SHALL BE COMPLETED BY THE INSTALLATION CONTRACTORS, WHO MUST ENGAGE A SUITABLY QUALIFIED STRUCTURAL ENGINEER TO PROVIDE ALL RELEVANT CALCULATIONS, CERTIFICATION DOCUMENTATION AND AS-CONSTRUCTED DRAWINGS DEMONSTRATING COMPLIANCE TO AS1170.4 SECTION 8 TO THE SATISFACTION OF THE BUILDING CERTIFIER
- G13. IMPORTED/LOCAL FILL SHOULD BE PLACED ONTO A COMPETENT BASE IN MAXIMUM 200mm LIFTS WITH EACH LIFT BEING COMPACTED TO 98% STANDARD COMPACTION DENSITY.
- G14. CLADDING WEIGHT AND PROFILE AS SPECIFIED ON ARCHITECTURAL DRAWINGS. CLADDING IS TO BE INSTALLED TO AS1562(2018).
- G15. PLASTERBOARD LINING ARTICULATION JOINTS ARE TO BE PLACED IN PLASTERBOARD AT ROOF BEAM LOCATIONS FOR CEILINGS AND AT MAIN COLUMN LOCATIONS FOR WALLS, AT MAX 3000mm CENTRES. ADEQUATE APPROVED INSULATION PRODUCT AND EXPANSION/CONTRACTION ROOF/WALL SHEETING SCREWS TO BE ADOPTED BETWEEN ANY METAL ROOF/WALL SHEETING AND SUPPORTING PURLINS/GIRTS.
- G16. WIRE ROPE BRACING TO BE IN ACCORDANCE WITH AS2759(2004).
  3 GRIPS PER END. WIRE ROPE TO BE RE-TENSIONED AT COMPLETION OF CONSTRUCTION.
- OF CONSTRUCTION.

  G17. ROOF PLUMBER TO ENSURE BOX GUTTERS ARE IN COMPLIANCE WITH ASSO0.3(2021) AND TO DESIGN TO SUIT ON SITE DETERMINED DRAINAGE LOCATIONS.

  THE FOLLOWING DESIGN AND INSTALLATION PARAMETERS MUST BE ACHIEVED TO SATISFY THE REQUIREMENTS OF AS3500.3(2021).

  A BOX GUTTER MUST HAVE:

   A MINIMUM SOLE WIDTH OF 200mm FOR DOMESTIC CLASS 1 BUILDINGS AND 300mm FOR OTHER BUILDING CLASSES.

   A MINIMUM DEPTH OF 75mm AT THE HIGH END.

   THE SOLE MUST BE SMOOTH TO PREVENT PERMANENT PONDING WITH THE GRADIENT BETWEEN THE RANGE OF 1:40 TO 1:200.

   DISCHARGE AT THE DOWNSTREAM END WITHOUT CHANGE IN DIRECTION (IE. NOT TO THE SIDE).

   BE STRAIGHT (WITHOUT CHANGE OF DIRECTION).

   THE BOX GUTTER MUST BE SEALED TO THE RAINHEAD OR SUMP.

   THE SOLE WIDTH MUST NOT BE REDUCED TOWARDS THE OUTLET WITHOUT A PROPORTIONAL HICKEASE IN DEPTH.

   WHERE SARKING IS INSTALLED, IT MUST BE A MIN. 25mm INTO THE BOX GUTTER.

   NO PART OF THE OUTLET IS ABOVE THE SOLE OF THE SUMP OR RAINHEAD

   LAP JOINTS TO HAVE 25mm LAPS, SEALED AND FASTENED IN THE DIRECTION OF FALL.

- C1. CONCRETE SIZES DO NOT INCLUDE FINISHES.
- C2. NO HOLES, CHASES OR EMBEDMENTS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT ENGINEER'S APPROVAL

- C3. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS, SLAB AND C3 BEAMS SHALL BE CAST TOGETHER UNLESS OTHERWISE
- C4. CONCRETE SHALL BE KEPTS FREE OF SUPPORTING MASONRY WITH TWO LAYERS OF SUITABLE MEMBRANE (MALTHOID OR EQUIV). VERTICAL FACES SHALL BE SEPARATED BY 12mm BITUMINOUS CANITE.
- C5. CONSTRUCTION JOINTS SHALL BE LOCATED TO THE SATISFACTION OF THE ENGINEER, BUILDER SHALL ALLOW FOR ALL NECESSARY CONSTRUCTION JOINTS.
- C6. CAMBER TO SUSPENDED SLAB AND BEAMS SHALL BE 5 FOR EVERY 2500 OF SPAN UNLESS OTHERWISE NOTED.
- C7. REINFORCEMENT IS SHOWN DIAGRAMMATICALLY AND IS NOT NECESSARILY IN TRUE PROJECTION. SPLICES TO REINFORCEMENT SHALL BE MADE ONLY AT THE LOCATION SHOWN OR AS OTHERWISE APPROVED BY THE ENGINEER.
- C8. THIS TABLE IS TO ONLY BE USED WHERE CONCRETE STRENGTHS AND COVERS ARE NOT NOTED ON STRUCTURAL DRAWINGS.

ELEMENT		R mm ACES CAST IST GROUND	FORMED or FINISHED	MINIMUM GRADE U.N.O.	EXPOSURE CLASSIFICATION U.N.O.
FOOTINGS		75	50	N32	A2
BLINDING		-	-	N15	A2
COLUMNS	INTERNAL	50	40	N32	Al
	EXTERNAL	50	40	S32	A2
WALLS	INTERNAL	50	30	N32	A1
	EXTERNAL	50	40	S32	A2
BEAMS	INTERNAL	50	30	N32	Al
	EXTERNAL	50	40	S32	Al
SLAB/BAND	INTERNAL	50	20	N32	A1
BEAMS	EXTERNAL	50	40	S32	A1

#### NOTES

- i. COVER IS THE CLEAR DISTANCE BETWEEN ANY REINFORCING (INCLUDING FITMENTS) AND THE FACE OF THE STUCTURAL
- (INCLUDING HIMENIS) AND THE FACE OF THE STUCTURAL ELEMENT.

  II. FOR ALL EXTERNAL SURFACES, PROVIDE FULLY PLASTIC BAR CHAIRS, TIE WIRE SHALL NOT BE NAILED TO THE FORMS, REINFORCING BARS SHALL NOT BE USED TO KEEP FORMS APART AND A THROUGH TIE SYSTEM SHALL BE USED TO TIE FORMS.

  III. PROVIDE AN APPROVED VAPOUR BARRIER FOR SLABS, BEAMS AND THICKENING CAST AGAINST THE GROUND.

  IV. THE COVERS SHALL BE MAINTAINED USING APPROVED BAR CHAIRS IN SLABS THE BAR CHAIRS SHALL BE AT 800 X 800mm MAXIMUM CENTERS. BAR CHAIRS SHALL BE PROVIDED ALONG THE EDGES OF ALL CONSTRUCTION JOINTS. STOP ENDS SHALL NOT BE USED TO MAINTAIN THE COVERS.

  V. EXTERNAL BLEMENTS ARE THOSE EXPOSED TO WEATHER, RAIN AND WATER PENETRATION AND ARE CLASSIFIED BI UNLESS NOTED OTHERWISE.

- C9. CONCRETE SHALL BE HANDLED AND PLACED IN ACCORDANCE WITH SECTION 19 OF AS3600. CONCRETE SLUMP SHALL BE BETWEEN 60mm AND 80mm. PUMPED CONCRETE SLUMP MAY INCREASE TO 100mm. AGGREGATE SHALL BE DENSE AGGREGATE TO AS2758 (IUNLESS OTHERWISE INDICATED) FROM AN APPROVED SOURCE. THE MAXIMUM SIZE OF COARSE AGGREGATE SHALL BE 20mm.
- C10. EXTERNAL/EXPOSED CONCRETE ELEMENTS, GRADE S32 MINIMUM, SHALL MEET THE FOLLOWING REQUIREMENTS: MINIMUM PORTLAND CEMENT CONTENT 330 Mg/m² MAXIMUM WATER/CEMENT RATIO 0.5, SHRINKAGE LIMIT 700 MICRO-STRAIN AFTER 56 DAYS, AND CHLORIDE CONTENT RESTRICTED AS PER CLAUSE 4.9 OF AS3600. NO OTHER SALT SHALL BE ADDED.
- C11. CONDUITS AND PIPES WHEN CAST IN SLABS OR WALLS ARE TO BE PLACED BETWEEN THE TWO REINFORCEMENT LAYERS. WHERE THERE IS ONLY ONE LAYER OF REINFORCEMENT, PROVIDE 50mm COVER TO CONDUIT. PROVIDE MINIMUM 3 x DIAMETER CLEARANCE BETWEEN CONDUITS.
- C12. WHERE DISTRIBUTION BARS TO MAIN REINFORCEMENT ARE NOT SHOWN ON DRAWINGS PROVIDE MINIMUM NI6 AT 400 CENTERS, LAPPED 500mm AT SPLICES.
- C13. STRIPPING AND BACKPROPPING OF SOFFITS SHALL NOT OCCUR UNTIL CONCRETE HAS REACHED 75% OF SPECIFIED STRENGTH. NO MASONRY WALLS SHALL BE BUILT ON SUSPENDED ELEMENTS UNTIL REMOVAL OF ALL FORMS AND PROPS.
- C14. ALL PULL-OUT BARS SHALL BE TEMPCORE OR QUENCHED AND TEMPERED PRODUCT. ALL BENDING AND REBENDING OF REINFORCEMENT SHALL BE IN STRICT ACCORDANCE WITH THE
- C15. WHERE DRILL & EPOXY GROUT IS CALLED UP ON THE DRAWINGS USE RAMSET CHEMSET REO 502 INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS OR AN APPROVED EQUIVALENT UNLESS NOTED OTHERWISE.
- C16. REINFORCEMENT AND POST TENSIONING RATES NOTED IN THE REINFORCEMENT AND POST LENSIONING RATES NOTED IN THE DOCUMENTATION ARE AN ESTIMATE OF THE QUANTITIES REQUIRED FOR STUCTURAL ELEMENTS IN THE FINAL CASE ONLY. THE CONTRACTOR SHOULD MAKE APPROPRIATE ALLOWANCES FOR NON-STRUCTURAL ELEMENTS [e.g., TRIMMING OF SERVICES PENETRATIONS, KERBS, PLINTHS, SCREEDS ETC.] ROLLING MARGINS, WASTE AND ADDITIONAL QUANTITIES REQUIRED FOR CONSTRUCTION ACTIVITIES.
- C17. REINFORCEMENT
   ALL REINFORCEMENT TO BE IN ACCORDANCE WITH AS4671.
   ALL REINFORCEMENT BARS AND MESH TO BE DEFORMED AND STRENGTH GRADE 500 (I.E. D500) UNLESS NOTED OTHERWISE.

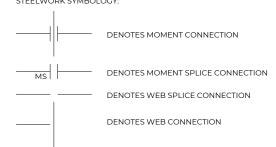
#### STRUCTURAL STEEL SHALL COMPLY TO AS4100 & AS1538

- THE FABRICATOR SHALL BE RESPONSIBLE FOR THE SHOP DRAWINGS WHICH SHALL COMPLY WITH THESE DRAWINGS, ANY VARIATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION.
- WHERE CONNECTION FORCES (IN KILONEWTONS) ARE SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE PROVIDED TO TRANSMIT THESE FORCES. CONNECTIONS SHALL PROVIDE FOR A MINIMUM FORCE OF 40kN.
- UNLESS OTHERWISE NOTED: WELDS TO BE 6mm CONTINUOUS FILLETS LAID DOWN WITH APPROVED WELDING CONSUMABLES. GUSSET PLATES TO BE 10mm THICK. BOLTS TO BE M20-8.8/S IN 22mm DIAMETER HOLES. PROVIDE A MINIMUM OF TWO BOLTS PER CONNECTION.
- S4. FABRICATOR SHALL PROVIDE ALL FIXINGS FOR ARCHITECTURAL LEMENTS ETC. WITHOUT WEAKENING STRUCTURAL MEMBERS IN
- UNLESS OTHERWISE NOTED CAMBER SHALL BE PROVDED TO ALL ROOF BEAMS, TRUSSES, PORTALS, ETC. AT 5 PER 2000 OF SPAN. NO MEMBER SHALL BE ERECTED WITH NEGATIVE CAMBER.
- S6. ALL STEELWORK BELOW GROUND SHALL BE ENCASED BY 75mm OF CONCRETE.
- CONCRETE ENCASED STRUCTURAL STEEL TO BE WRAPPED WITH FGW41 PLACED 25mm CLEAR OF STEEL PROVIDE 50mm MINIMUM
- ALL STRUCTURAL STEELWORK (UB/UC/PFC/EA/UA/SHS/RHS/CHS/PLT) SHALL BE HOT DIP GALVANISED IN ACCORDANCE WITH AS4680, AS1214 & AS2312. MINIMUM COATING THICKNESS OF 85 MICRONS.
- PURLINS TO BE GALVANISED HIGH STRENGTH STEEL STRIP COMPLYING WITH ASI397. MINIMUM STRESS YIELD OF 450MPa. ZINC COATING OF Z350 (350g/m² MINIMUM COATING MASS.) PURLINS TO COMPLY WITH A\$4600(2005) AND MANUFACTURER'S INSTALLATION RECOMMENDATIONS.
- S10. THE BOLTING PROCEDURE IS DESIGNATED AS FOLLOWS:

   14.6/S REFERS TO COMMERCIAL BOLTS OF STRENGTH GRADE 4.6 TO
  ASTINI TIGHTENED USING A STANDARD WRENCH TO
  SNUG-TIGHT CONDITION.

   18.8/S REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8
  TO AS1252 TIGHTENED USING A STANDARD WRENCH TO A
  SNUG-TIGHT CONDITION.

  - FRICTION TYPE JOINT.
    -□8.8/TB REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE
    8.8 TO AS1252 FULLY TENSIONED TO AS4100, DESIGNED AS A
    BEARING TYPE JOINT.
- S11. ALL BOLTS SHALL BE OF SUCH A LENGTH THAT AT LEAST ONE FULL THREAD IS EXPOSED BEYOND THE NUT AFTER THE NUT HAS BEEN TIGHTENED.
- S12. ALL FOOTING BOLTS TO HAVE A MINIMUM THREAD PROTRUSION OF 3 THREADS. FOOTING BOLTS TO HAVE MINIMUM 500 EMBEDMENT ON MAIN COLUMNS, 250 EMBEDMENT ON ALL OTHER FOOTINGS.
- S13. MINIMUM ONE WASHER SHALL BE USED UNDER THE NUT IN ALL SITUATIONS. IF TIGHTENING IS CARRIED OUT AT THE HEAD, AN ADDITIONAL WASHER SHALL BE USED UNDER THE HEAD. FOR SLOTTED HOLES USE HARDENED WASHER UNDER THE NUT AND BOLT HEAD.
- S14. UNLESS NOTED OTHERWISE, ALL MATERIAL TO BE:
  -□GRADE 300 PLUS HOT ROLLED PLATES, FLATS, ANGLES TO
  - -IGRADE 300 FUS UB, UC, PFC AND ANGLES.
    -IGRADE 300 FUS UB, UC, PFC AND ANGLES.
    -IGRADE 300 WB, WC.
    -IGRADE 350L0 SHS, RHS, CHS.
    -IGRADE 350L0 FOR ALL BENT PLATES AND MEMBERS.
- S15. ALL WELDS SHALL BE STRUCTURAL PURPOSE WELDS IN ACCORDANCE WITH AS4100, AS1554.1 AND AS1554.2 SHEAR STUDS SHALL BE WELDED IN ACCORDANCE WITH AS1554.2 ALL WELDS SHALL BE GAS METAL ARC-WELDED USING B-G49 GRADE WELDING CONSUMABLES UNLESS NOTED OTHERWISE.
- S16. BUILDER TO ALLOW FOR TRIMMING PURLINS TO HIPS, VALLEYS, OPENINGS, ETC. NOT SHOWN ON PLANS.
- S17. CFW: DENOTES CONTINUOUS FILLET WELD. FSBW: DENOTES FULL STRENCTH BUTT WELD. FPBW: DENOTES FULL PENETRATION BUTT WELD. PPBW: DENOTES PARTIAL PENETRATION BUTT WELD. STEELWORK SYMBOLOGY:



- S18. REFER TO ARCHITECTURAL SPECIFICATIONS FOR DURABILITY AND PAINT TREATMENT OF ALL EXPOSED STEELWORK.
- S19. STEELWORK FIRE RATING REQUIREMENTS ARE TO MEET THOSE SPECIFIED BY THE BUILDING SURVEYOR.

- S20. THE STRUCTURE HAS BEEN DESIGNED FOR THE FINAL CONDITIONS ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT DURING CONSTRUCTION THE STRUCTURE IS MAINTAINED IN A STABLE CONDITION AND NO PART OF THE STRUCTURE IS OVERSTRESSED.
- S21. SAFETY MESH IS TO BE INSTALLED IN ACCORDANCE WITH AS 4389 SAFETY MESH OVER PURLINS IN ANY AREA WITH RISK OF FALLS FROM HEIGHT BEFORE ANY ROOF ACCESS BY PERSONNEL UNLESS OTHER SUITABLE MEANS OF FALL PROTECTION ARE EMPLOYED AT THE DISCRETION OF THE PRINCIPAL CONTRACTOR.

LAKER GROUP STRUCTURAL CERTIFICATION

CHRISTOPHER AKERS NER (EA ID 5503660)

SIGNED:	tank	DATE: 28-05-202
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## STRUCTURAL DESIGN DATA

CONSTRUCTION CATEGORY IN ACCORDANCE WITH THE REQUIREMENTS OF AS/NZS 5131. THE CONSTRUCTION CATEGORIES FOR THIS PROJECT ARE OUTLINED IN THE TABLE BELOW.

ELEMENT	ALL STRUCTURAL STEELWORK UNO	LIST OF EXCEPTIONS TO CC
IMPORTANCE LEVEL	2	
SERVICE CATEGORY	SC1	
FABRICATION CATEGORY	FC1	
CONSTRUCTION CATEGORY	CC2	
	IMPORTANCE LEVEL SERVICE CATEGORY FABRICATION CATEGORY	IMPORTANCE LEVEL 2 SERVICE CATEGORY SC1 FABRICATION CATEGORY FC1

- L2. THE STRUCTURAL COMPONENTS DETAILED ON THESE STRUCTURAL DRAWINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE RELEVANT STANDARDS AUSTRALIA CODES AND THE BUILDING CODE OF AUSTRALIA FOR THE FOLLOWING LOADINGS, PLEASE REFER TO THE ARCHITECTURAL DRAWINGS PROPOSED FLOOR USAGE (IF ANY).
- L3. SUPERIMPOSED LOADS

FLOOR USAGE	LIVE LOAD (kPa)	SUPERIMPOSED DEAD LOAD (kPa)
ROOF	0.25	SELF WEIGHT +0.15 SOLAR
MEZZ. FLOOR	5.0	0.2 DEAD LOAD ABOVE MEZZ
SLAB	10.0	SELF WEIGHT
CRANE	-	SELF WEIGHT

L4. WIND LOADS IN ACCORDANCE WITH AS1170.2

BASIC WIND SPEED (m/s)	45
REGION	AO
TERRAIN CATEGORY	2
STRUCTURAL IMPORTANCE LEVEL	2

L5. SNOW LOADS IN ACCORDANCE WITH AS1170.3

SNOW REGION	-
GROUND SNOW LOAD Sg (kN/m²)	-

L6. EARTHQUAKE DESIGN PARAMETERS TO AS1170.4

STRUCTURAL IMPORTANCE LEVEL AS DEFINED IN BCA PART B1	2
PROBABILITY FACTOR kp	-
HAZARD FACTOR Z	-
SITE SUB-SOIL CLASS	-
EARTHQUAKE DESIGN CATEGORY	-

REV 0

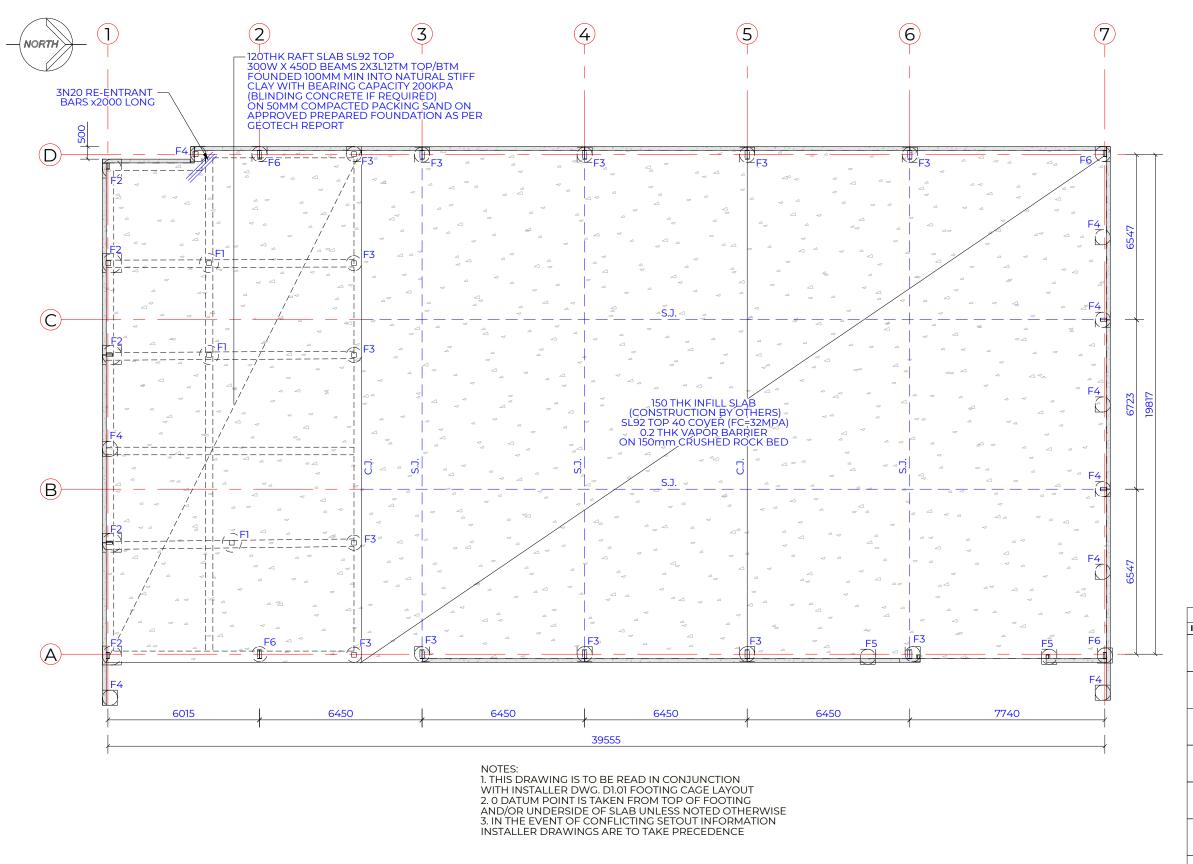
Steel build

**Centra** 

# **PROPOSED WAREHOUSE 16** FOR GLENN BRAGANZA **43 PLATINUM COURT, THURGOONA NSW 2640**

ISSUED FOR CONSTRUCTION

**GENERAL NOTES JOB 21069 SHEET S0.01** DESCRIPTION DATE DRAWN REV THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH STRUCTURAL COMPUTATIONS SUPPLIED BY LAKER GROUP 25-CSB2979 28/05/2025 AK PAGE 2 OF 14 0 CONSTRUCTION SIZE A3 SCALE



**LAKER** G R O U P STRUCTURAL CERTIFICATION

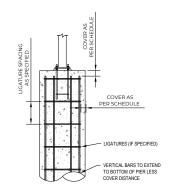
CHRISTOPHER AKERS NER (EA ID 5503660)

SIGNED:

DATE: 28-05-2025

EVENLY AROUND FOOTIN PERIMETER. REFER SCHEDULE FOR DETAILS

BORED PIER REINFORCEMENT - PLAN



BORED PIER REINFORCEMENT - ELEVATION

			FOOTI	NG SCHEDULE
ITEM	SIZE	QTY	VOLUME (m3)	COMMENTS
FI	D750 X 3300 DEEP	3	1.45 EACH	BORED PIER 7N20 VERT BARS 3150 LG R6-300 LIGS 75 COVER FOUNDED 1800 MIN. INTO VERY STIFF CLAY
F2	D750 X 3600 DEEP	5	1.65 EACH	BORED PIER W/ 750SQ x 500D SQUARE TOP 7N20 VERT BARS 3450 LG R6-300 LIGS 75 COVER FOUNDED 2100 MIN. INTO VERY STIFF CLAY
F3	D600 X 3000 DEEP	13	0.88 EACH	BORED PIER W/ 600SQ x 500D SQUARE TOP 7N16 VERT BARS 2850 LG R6-300 LIGS 75 COVER FOUNDED 1500 MIN. INTO VERY STIFF CLAY
F4	D600 X 3000 DEEP	9	0.88 EACH	BORED PIER W/ 600SQ x 500D SQUARE TOP 7N16 VERT BARS 2850 LG R6-300 LIGS 75 COVER FOUNDED 1500 MIN. INTO VERY STIFF CLAY
F5	D600 X 1600 DEEP	2	0.49 EACH	BORED PIER W/ 600SQ x 500D SQUARE TOP 7N16 VERT BARS 1450 LG R6-300 LIGS 75 COVER FOUNDED 100 MIN. INTO VERY STIFF CLAY
F6	D600 X 3300 DEEP	4	0.93 EACH	BORED PIER W/ 600SQ x 500D SQUARE TOP 7N16 VERT BARS 3150 LC R6-300 LIGS 75 COVER FOUNDED 1800 MIN. INTO VERY STIFF CLAY
	TC	TAL	36.70	DESIGNED FOOTING ALLOWANCE

NOTE: SQUARE TOP ONLY REQUIRED WHERE FOOTINGS ARE SUPPORTING PRECAST PANEL

**PROPOSED WAREHOUSE 16 FOR GLENN BRAGANZA 43 PLATINUM COURT, THURGOONA NSW 2640** 

	<b>SLAB &amp; FOOTING PLAN</b>		JOB 210	69	<b>SHEET</b>
	THESE DRAWINGS SHALL BE READ IN	REV	DESCRIPTION	DATE	DRAWN
	CONJUNCTION WITH STRUCTURAL				
	COMPUTATIONS SUPPLIED BY				
	LAKER GROUP				
_	25-CSB2979				
	SIZE A3 SCALE 1:250 PAGE 3 OF 14	0	CONSTRUCTION	28/05/2025	AK

SLAB & FOOTING PLAN		JOB 21069	•	SHEET	S1.01
THESE DRAWINGS SHALL BE READ IN	REV	DESCRIPTION	DATE	DRAWN	
CONJUNCTION WITH STRUCTURAL					
COMPUTATIONS SUPPLIED BY					
LAKER GROUP					
25-CSB2979					
SIZE A3 SCALE 1:250 PAGE 3 OF 14	0	CONSTRUCTION	28/05/2025	AK	



REV 0

### **FOUNDATION NOTES:**

1. FOR ALL SLAB AND FOUNDATION PREPARATION REQUIREMENTS REFER TO GEOTECHNICAL ENGINEERS REPORT REF. 287 BY INLANDGEO DATED 12th MARCH 2025.

2. REFER GEOTECHNICAL REPORT FOR SLAB PREPARATION REQUIREMENTS. ANY EXISTING UNCONTROLLED FILL TO BE REMOVED AND REPLACED WITH ENGINEERED CONTROLLED FILL IN ACCORDANCE WITH AS3798-2007 AND GEOTECHNICAL ENGINEERS SPECIFICATIONS.

### **CONCRETE PAVEMENT / SLAB ON GROUND**

THE FOLLOWING PREPARATION PROCEDURES ARE SUGGESTED FOR A SILTY CLAY SUBGRADE EXPOSED BENEATH TOPSOIL AND STRIPPING OF ANY UNSUITABLE FILL.

- STRIP TOPSOIL, COMPRESSIBLE MATERIAL AND UNCONTROLLED FILLING FROM BENEATH THE PROPOSED SLAB AREAS TO THE
- PROOF ROLL THE SUBGRADE USING A ROLLER HAVING A MINIMUM STATIC DRUM WEIGHT EQUIVALENT TO 6 TONNES PER METRE WIDTH TO OBSERVE THE SUBGRADE DEFLECTION AND DETECT WHETHER ANY SOFT SPOTS EXIST. ANY UNSTABLE ZONES THAT DO NOT IMPROVE AFTER FURTHER COMPACTION OR TREATMENT NEED TO BE EXCAVATED AND REPLACED WITH COMPACTED SUITABLE FILL. THE EXTENT OF TREATMENT IS BEST ASSESSED AT THE TIME OF CONSTRUCTION. PROOF ROLLING SHOULD BE WITNESSED BY A DP ENGINEER AND HOLD POINT PUT ON THE PLACEMENT OF FILL UNTIL THE STRIPPED SURFACE IS ADPROVED WHERDE A POOCK SURGRADE IS EXPOSED A VISUAL APPROVED. WHERE A ROCK SUBGRADE IS EXPOSED A VISUAL ASSESSMENT OF SUBGRADE CONDITION BY A GEOTECHNICAL ENGINEER SHOULD BE SUFFICIENT IN LIEU OF A PROOF ROLL.
- ANY SELECT FILLING SHOULD COMPRISE MATERIAL OF LOW REACTIVITY SUCH AS LOW PLASTICITY CLAY, RIPPED SEDIMENTARY ROCK, SLIGHTLY CLAYEY SAND OR A PROCESSED CRUSHED ROCK WITH A SMOOTH GRADING CURVE. THE MAXIMUM PARTICLE SIZE AFTER COMPACTION SHOULD BE 40mm TO ENABLE ROUTINE COMPACTION CONTROL TESTING.

ENGINEERED FILLING SHOULD BE PLACED IN HORIZONTAL LAYERS NO GREATER THAN 200mm LOOSE THICKNESS AND UNIFORMLY COMPACTED TO THE MINIMUM DRY DENSITY RATIOS OF 98% STANDARD FOR COHESIVE SOILS AND 100% STANDARD FOR GRANULAR MATERIALS.

MATERIALS SHOULD BE COMPACTED AT A PLACEMENT MOISTURE CONTENT OF 80% TO 115% OF STANDARD OPTIMUM MOISTURE CONTENT. CARE SHOULD BE TAKEN NOT TO OVER COMPACT OR PLACE CLAYEY FILLING TOO DRY OF STANDARD OPTIMIUM TO MINIMISE THE EFFECTS OF POST CONSTRUCTION SWELLING.



#### TYPICAL RHS CENTRAL COLUMN ISOLATION JOINT



#### TYPICAL RHS PERIMETER COLUMN ISOLATION JOINT

"CONNOLLY" OR SIMILAR CF JOIN SYSTEM 150



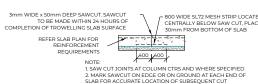
TYPICAL CONSTRUCTION JOINT (C.J.)



#### TYPICAL UB/UC CENTRAL COLUMN ISOLATION JOINT

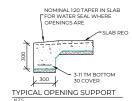


# TYPICAL UB/UC PERIMETER COLUMN ISOLATION JOINT (RECOMENDED TO AVOID CRACKING AROUND COLUMNS)



APPLICABLE WITH HANDSAW

4. SAW CUTS TO BE FILLED WITH SUITABLE SEALANT TYPICAL SAW CUT JOINT (S.J.)



**PROPOSED WAREHOUSE 16** FOR GLENN BRAGANZA **43 PLATINUM COURT, THURGOONA NSW 2640** 

ISSUED FOR CONSTRUCTION

SLAB & FOOTING DETAILS **JOB 21069 DESCRIPTION REV** DATE DRAWN THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH STRUCTURAL COMPUTATIONS SUPPLIED BY LAKER GROUP 25-CSB2979 PAGE 4 OF 14 | 0 | CONSTRUCTION 28/05/2025 AK SIZE A3 SCALE 1:1

**SHEET S1.02** REV 0



STRUCTURAL CERTIFICATION

DATE: 28-05-2025

CHRISTOPHER AKERS

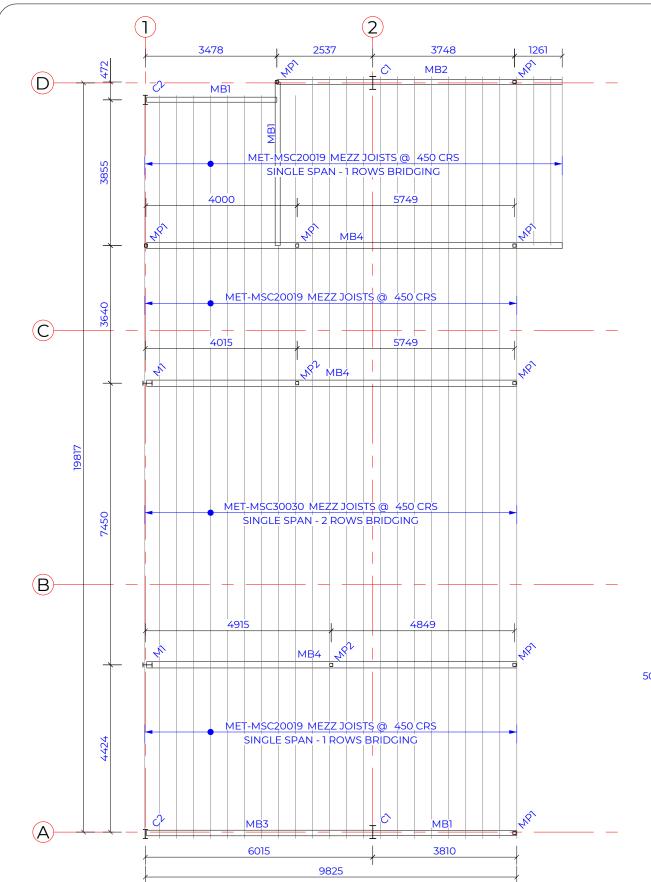
NER (EA ID 5503660)

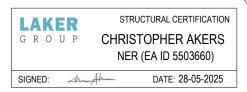
**LAKER** 

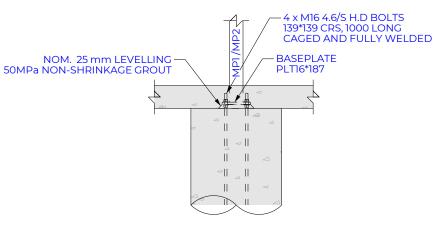
G R O U P

the Ah

SIGNED:







NOTE: MEZZANINE FLOOR RATED AT 5kpa SWL (SIGNAGE BY OTHERS) HANDRAIL AND STAIRWAY (BY OTHERS) TO MEET BCA PART D & AS 1428.1-2009

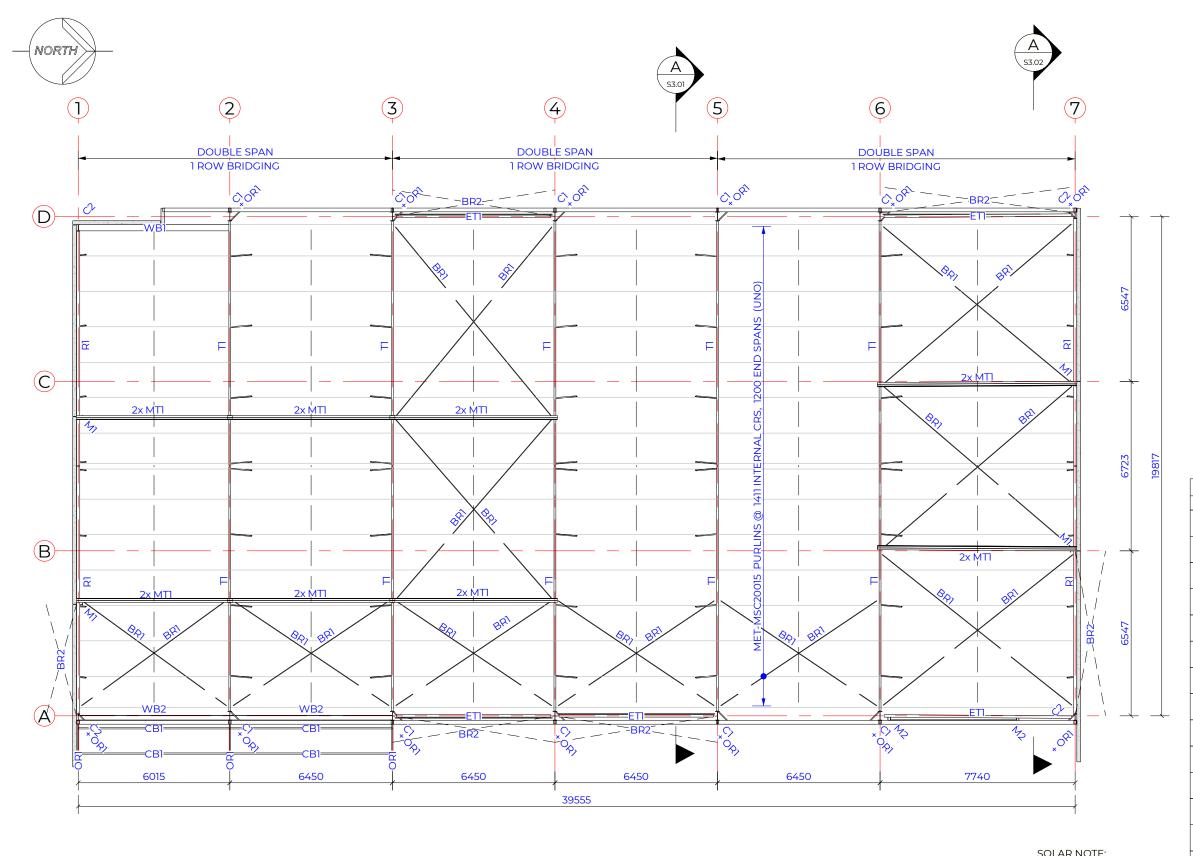
	M	EMBER SCHEDULE
ITEM	SIZE	COMMENTS
C1	UB360*45	COLUMN FLY BRACED
C2	UB250*26	COLUMN
Ml	UB250*26	MULLION FLY BRACED
MB1	UB200*22	MEZZ BEARER
MB2	UB250*26	MEZZ BEARER
МВ3	UB310*32	MEZZ BEARER
MB4	UB310*40	MEZZ BEARER
MP1	SHS89*89*3.5	MEZZ POST
MP2	SHS89*89*5.0	MEZZ POST

PROPOSED WAREHOUSE 16
FOR GLENN BRAGANZA
43 PLATINUM COURT, THURGOONA NSW 2640

|--|

MEZZANINE LAYOUT		JOB 21069	9	SHEET	F S1.03
THESE DRAWINGS SHALL BE READ IN	REV	DESCRIPTION	DATE	DRAWN	
CONJUNCTION WITH STRUCTURAL					
COMPUTATIONS SUPPLIED BY					
LAKER GROUP					
25-CSB2979					
<b>SIZE</b> A3 <b>SCALE</b> 1:100 <b>PAGE</b> 5 OF 14	0	CONSTRUCTION	28/05/2025	AK	





STRUCTURAL CERTIFICATION
CHRISTOPHER AKERS
NER (EA ID 5503660)

SIGNED:
DATE: 28-05-2025

MEMBER SCHEDULE COMMENTS D20 ROD WITH M20 TURNBUCKLE BR1 D24 ROD WITH M22 TURNBUCKLE BR2 D24 COLUMN FLY BRACED UB360\*45 C1 UB250\*26 CB1 RHS150\*50\*3.0 CANOPY BEAM STRUT EΠ RHS150\*100\*4.0 MΊ UB250\*26 DOOR MULLION MET-MSC20015 PURLIN RHS150\*100\*4.0 OUTRIGGER RAFTER FLY BRACED MID SPAN R1 UB250\*26 WB1 PFC250\*90 WB2 PFC200\*75 WALER BEAM WEB TRUSS FOR DETAILS, REFER TO PAGE \$3.01

**S1.04** 

SOLAR NOTE: ALLOWANCE MADE FOR 15kg PER SQM

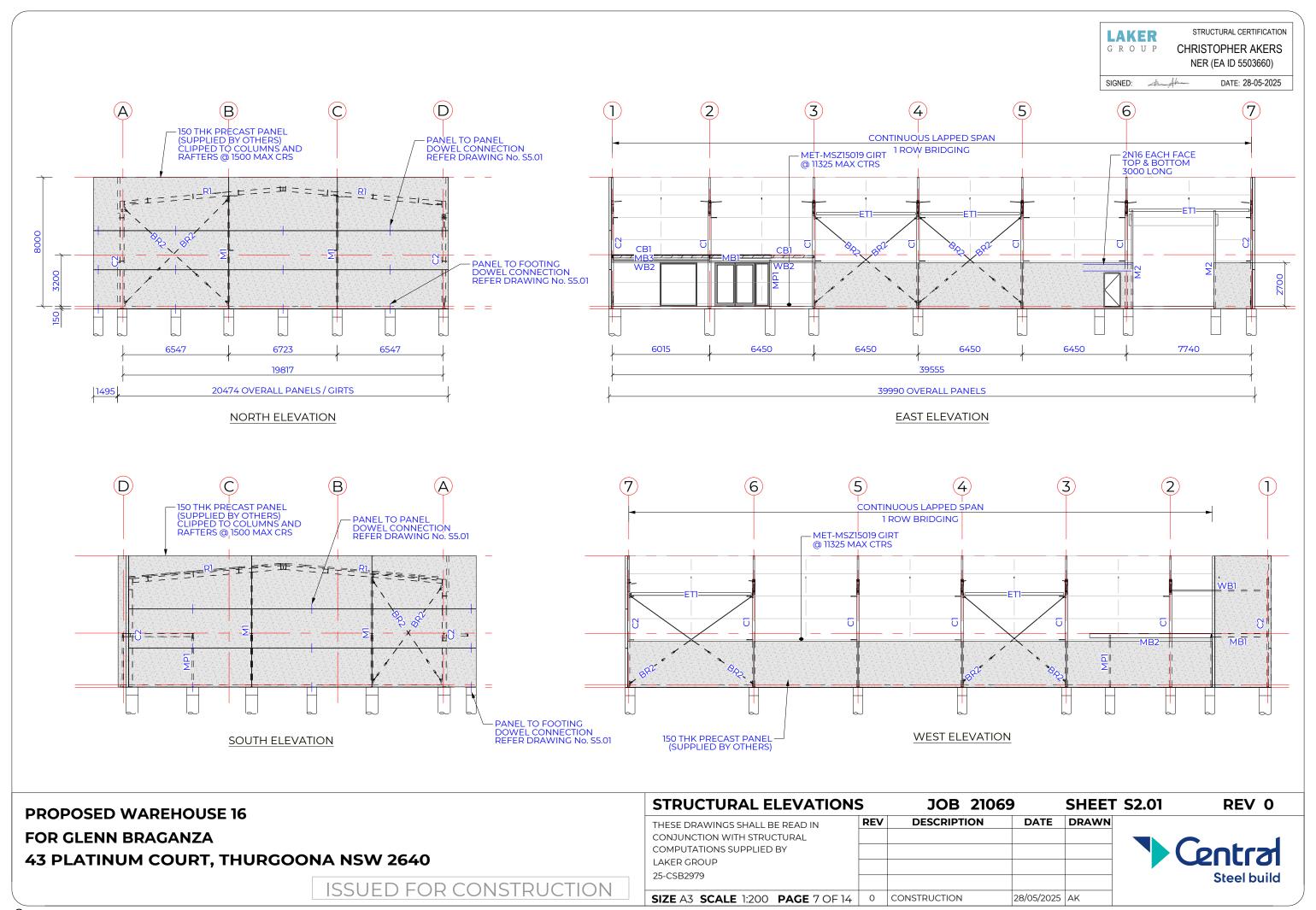
PROPOSED WAREHOUSE 16

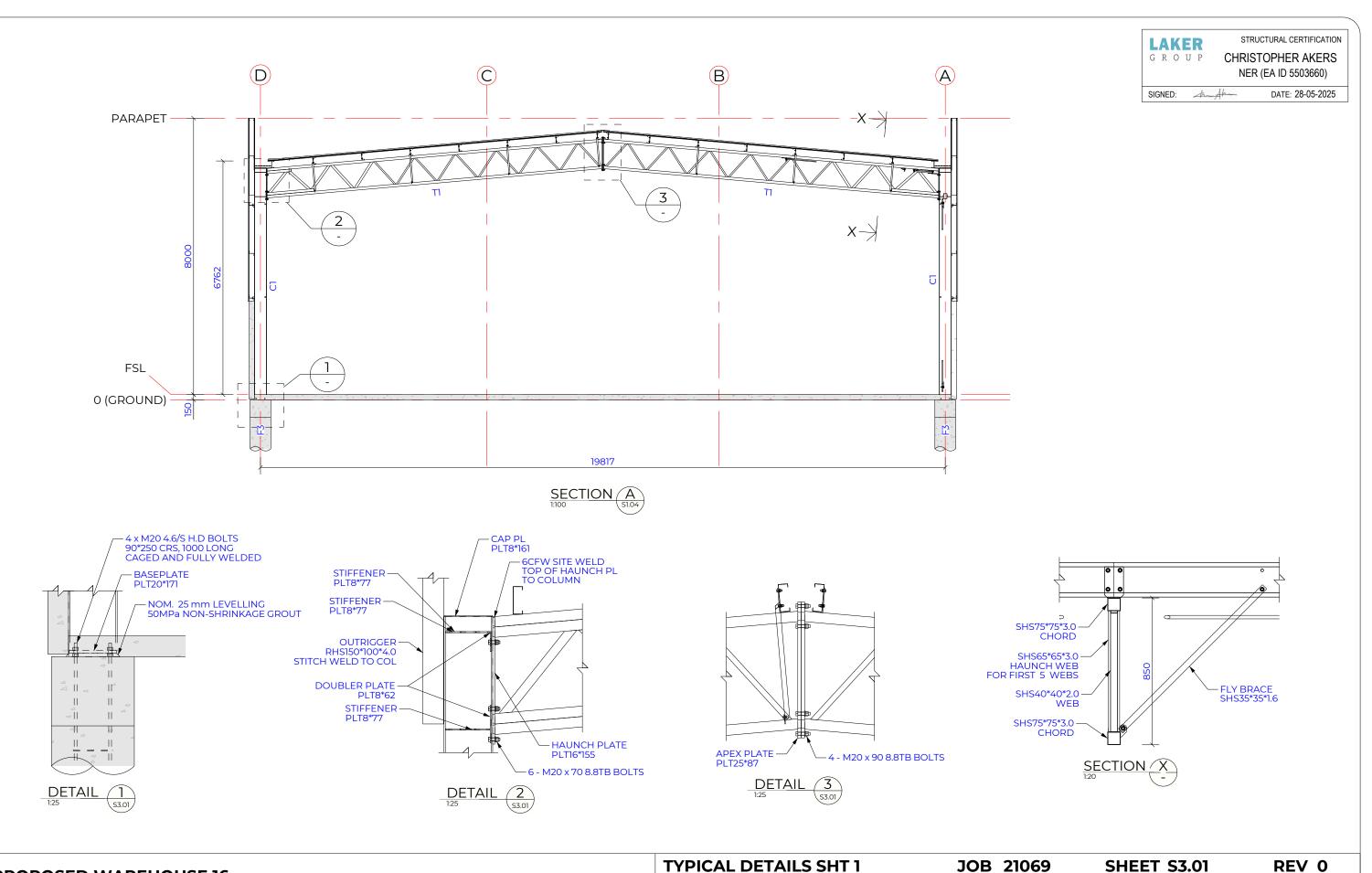
FOR GLENN BRAGANZA
43 PLATINUM COURT, THURGOONA NSW 2640

ISSUED FOR CONSTRUCTION

	STRUCTURAL ROOF PLAN		JOB 21069	)	SHEET	Ī
	THESE DRAWINGS SHALL BE READ IN	REV	DESCRIPTION	DATE	DRAWN	
	CONJUNCTION WITH STRUCTURAL					
	COMPUTATIONS SUPPLIED BY					
	LAKER GROUP					
1	25-CSB2979					
	SIZE A3 SCALE 1:200 PAGE 6 OF 14	0	CONSTRUCTION	28/05/2025	AK	



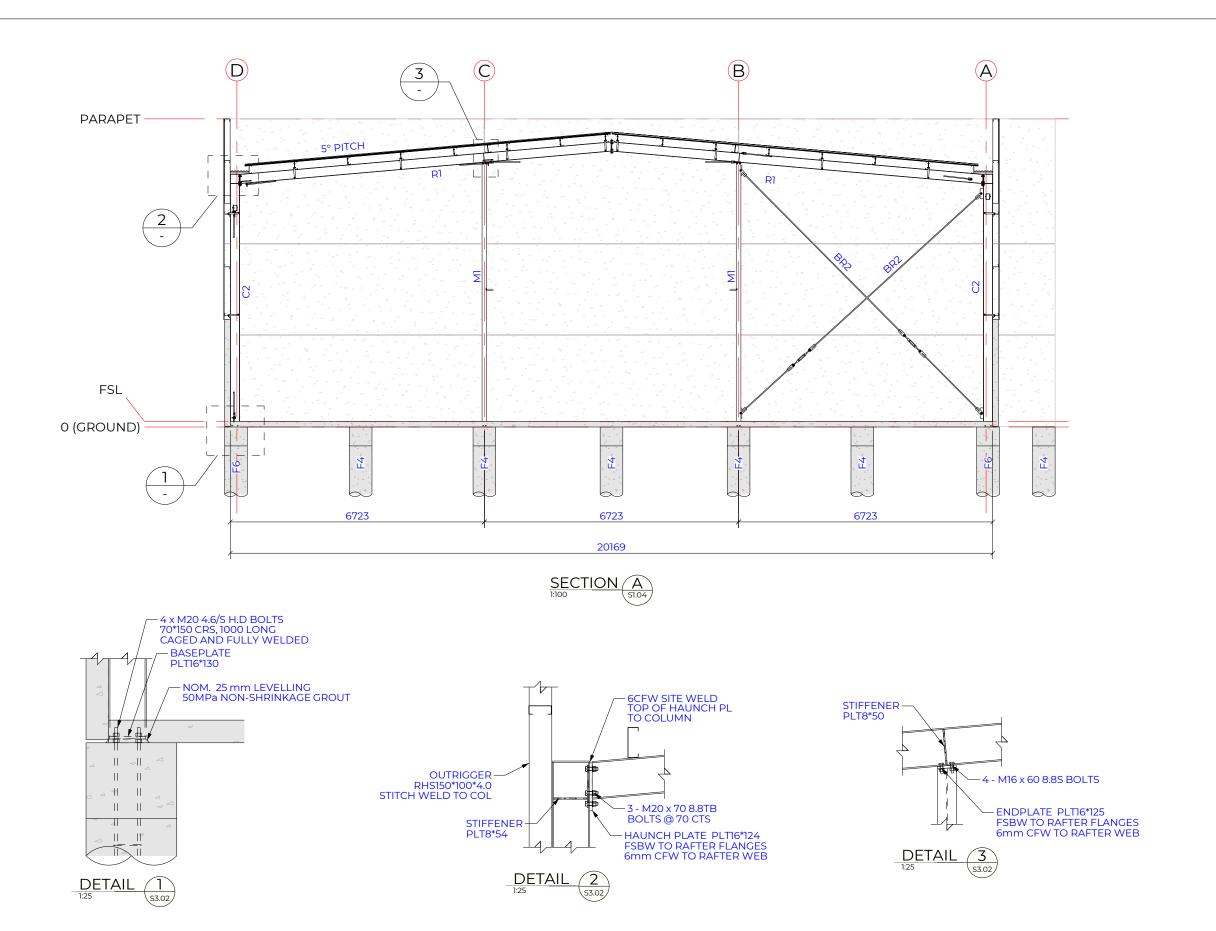




ISSUED FOR CONSTRUCTION	

TYPICAL DETAILS SHT 1		JOB 2106	9	SHEET	S3.01
THESE DRAWINGS SHALL BE READ IN	REV	DESCRIPTION	DATE	DRAWN	
CONJUNCTION WITH STRUCTURAL					
COMPUTATIONS SUPPLIED BY					
LAKER GROUP					
25-CSB2979					
<b>SIZE</b> A3 <b>SCALE</b> 1:100 <b>PAGE</b> 8 OF 14	0	CONSTRUCTION	28/05/2025	AK	





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TYPICAL DETAILS SHT 2		JOB 21069	•	SHEET	Γ <b>S3.02</b>
THESE DRAWINGS SHALL BE READ IN	REV	DESCRIPTION	DATE	DRAWN	
CONJUNCTION WITH STRUCTURAL					
COMPUTATIONS SUPPLIED BY					
LAKER GROUP					
25-CSB2979					
<b>SIZE</b> A3 <b>SCALE</b> 1:100 <b>PAGE</b> 9 OF 14	0	CONSTRUCTION	28/05/2025	AK	



REV 0

STRUCTURAL CERTIFICATION

DATE: 28-05-2025

CHRISTOPHER AKERS

NER (EA ID 5503660)

LAKER G R O U P

SIGNED:

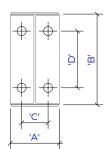
LAKER G R O U P

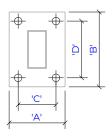
> 'D' BOLT HOLE CENTRES

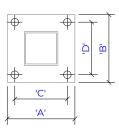
STRUCTURAL CERTIFICATION
CHRISTOPHER AKERS
NER (EA ID 5503660)

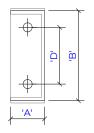
SIGNED: DATE: 28-05-2025

'BS' HOLD DOWN BOLT SIZE









UB/UC BASEPLATE DETAIL

RHS BASEPLATE DETAIL

SHS/CHS BASEPLATE DETAIL

PFC BASEPLATE DETAIL

	BASE PLATE & FOOTING CAGE DETAILS										
	STEEL MEMBER SIZE	'A' BASE PLATE WIDTH	'B' BASE PLATE WIDTH	'T' BASE PLATE THICKNESS	'C' BOLT HOLE CENTRES	'D' BOLT HOLE CENTRES	'BS' HOLD DOWN BOLT SIZE				
	UB150*14	110	138	16	70	70	M16 4.6S				
	UB150*18	110	143	16	70	70	M16 4.6S				
	UB180*16	110	161	16	70	100	M16 4.6S				
	UB180*18	110	163	16	70	100	M16 4.6S				
	UB180*22	110	167	16	70	100	M16 4.6S				
	UB200*18	110	186	16	70	120	M16 4.6S				
	UB200*22	133	190	16	70	120	M16 4.6S				
	UB200*25	133	191	16	70	120	M16 4.6S				
	UB200*30	134	195	16	70	120	M16 4.6S				
	UB250*26	130	240	16	70	150	M20 4.6S				
	UB250*31	146	243	16	70	150	M20 4.6S				
	UB250*37	146	245	16	70	150	M20 4.6S				
	UB310*32	149	286	20	90	200	M20 4.6S				
FILES	UB310*40	165	292	20	90	200	M20 4.6S				
UB PROFILES	UB310*46	166	295	20	90	200	M20 4.6S				
5	UB360*45	171	340	20	90	250	M20 4.6S				
	UB360*51	171	344	20	90	250	M20 4.6S				
	UB360*57	172	347	20	90	250	M20 4.6S				
	UB410*54	178	391	25	90	250	M24 4.6S				
	UB410*60	178	394	25	90	250	M24 4.6S				
	UB460*67	190	442	25	120	300	M24 4.6S				
	UB460*75	190	445	25	120	300	M24 4.6S				
	UB460*82	191	448	25	120	300	M24 4.6S				
	UB530*82	209	516	25	120	350	M30 4.6S				
	UB530*92	209	521	25	120	350	M30 4.6S				
	UB610*101	228	590	25	120	400	M30 4.6S				
	UB610*113	228	595	25	120	400	M30 4.6S				
	UB610*125	229	600	25	120	400	M30 4.6S				
		1. WELDS	TO BASE PLATES TO BE	6mm CFW (UNO)							

PROPOSED WAREHOUSE 16
FOR GLENN BRAGANZA
43 PLATINUM COURT, THURGOONA NSW 2640

ISSUED FOR COI	NSTRUCTION
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	<b></b>	1112111					
	UC150*23	152	140	16	90	90	M16 4.6S
	UC150*30	153	146	16	90	90	M16 4.6S
	UC150*37	154	150	16	90	90	M16 4.6S
	UC200*46	203	191	16	120	120	M16 4.6S
	UC200*52	204	194	16	120	120	M16 4.6S
FILES	UC200*60	205	198	16	120	120	M16 4.6S
UC PROFILES	UC250*73	254	242	16	150	150	M20 4.6S
ă	UC250*90	256	248	16	150	150	M20 4.6S
	UC310*97	305	296	20	180	180	M20 4.6S
	UC310*118	307	303	20	180	180	M20 4.6S
	UC310*137	309	309	20	180	180	M20 4.6S
	UC310*158	311	315	20	180	180	M20 4.6S
	RHS250*150	260	360	20	200	300	M20 4.6S
	RHS200*100	198	298	20	150	250	M20 4.6S
FILES	RHS150*100	198	248	20	150	200	M16 4.6S
RHS PROFILES	RHS150*50	148	248	20	100	200	M16 4.6S
£	RHS125*75	173	223	16	125	175	M16 4.6S
	RHS100*50	148	198	12	100	150	M16 4.6S
	SHS250 OR CHS219	360	360	20	300	300	M20 4.6S
	SHS200 OR CHS165	310	310	20	250	250	M20 4.6S
FILES	SHS150 OR CHS140	248	248	20	200	200	M16 4.6S
SHS/ CHS PROFILES	SHS125 OR CHS114	223	223	16	175	175	M16 4.6S
% G	SHS100 OR CHS100	198	198	12	150	150	M16 4.6S
ž	SHS89 OR CHS89	187	187	12	139	139	M16 4.6S
	SHS75 OR CHS75	173	173	12	125	125	M16 4.6S
	PFC380	100	368	20	-	250	M20 4.6S
	PFC300	90	288	12	_	200	M20 4.6S
ES	PFC250	90	238	12	-	150	M20 4.6S
PFC PROFILES	PFC230	75	218	12	-	150	M20 4.6S
PFCP	PFC200	75	188	12	-	120	M16 4.6S
	PFC180	75	169	12	=	100	M16 4.6S
	PFC150	75	140.5	12	_	70	M16 4.6S

BASE PLATE & FOOTING CAGE DETAILS

'B' BASE PLATE WIDTH

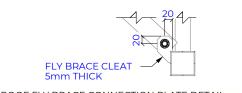
'A' BASE PLATE WIDTH

STEEL MEMBER SIZE T'
BASE PLATE
THICKNESS

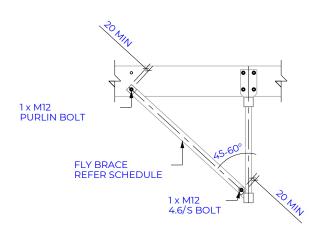
'C' BOLT HOLE CENTRES

STANDARD STEEL DETAIL	S SI	HT 1 JOB 21069	•	SHEET	Γ <b>S4.0</b> 1
THESE DRAWINGS SHALL BE READ IN	REV	DESCRIPTION	DATE	DRAWN	
CONJUNCTION WITH STRUCTURAL					
COMPUTATIONS SUPPLIED BY					
LAKER GROUP					
25-CSB2979					
SIZE A3 SCALE 1:1 PAGE 10 OF 14	0	CONSTRUCTION	28/05/2025	AK	

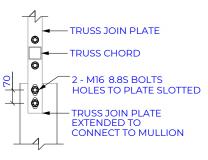




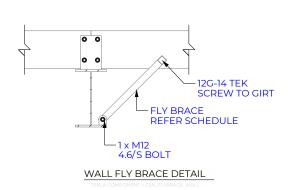


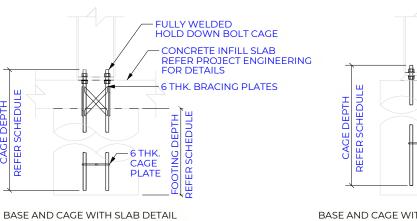


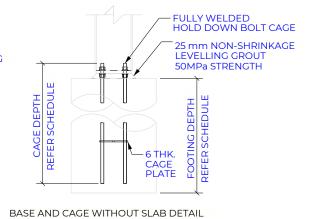
ROOF FLY BRACE DETAIL



UB MULLION TO TRUSS JOIN PLATE







**LAKER** 

GROUP

SIGNED:

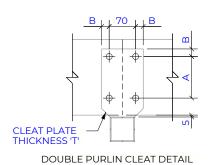
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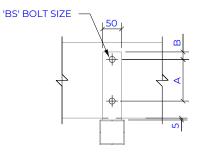
STRUCTURAL CERTIFICATION

CHRISTOPHER AKERS

NER (EA ID 5503660)

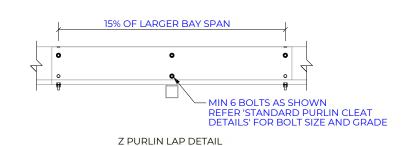
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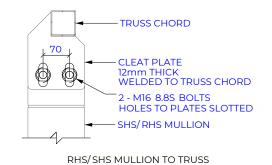


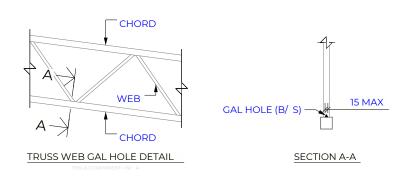


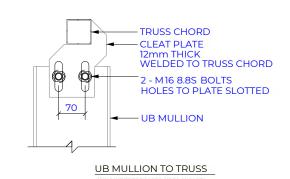
SINGLE PURLIN CLEAT DETAIL

PURLIN DEPTH	'T' PLATE THICKNESS	'A' BOLT HOLE CENTRES	'B' EDGE DIST. MINIMUM	'BS' BOLT SIZE
100	6	40	1.5 x 'BS'	M12
150	6	70	1.5 x 'BS'	M12
200	6	110	1.5 x 'BS'	M12
250	8	160	1.5 x 'BS'	M12
300	8	210	1.5 x 'BS'	M16
350	8	260	1.5 x 'BS'	M16
400	8	310	1.5 x 'BS'	M16





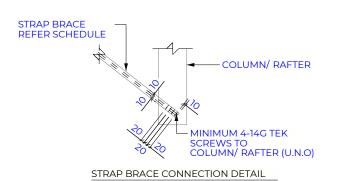


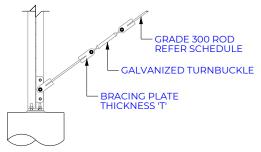


**PROPOSED WAREHOUSE 16 FOR GLENN BRAGANZA 43 PLATINUM COURT, THURGOONA NSW 2640** 

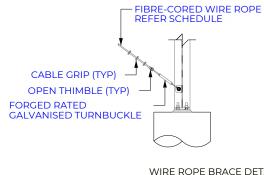
STANDARD STEEL DETAILS SHT 2 JOB 21069 SI							
THESE DRAWINGS SHALL	. BE READ IN	REV	DESCRIPTION	DATE	DRAWN		
CONJUNCTION WITH STR	UCTURAL						
COMPUTATIONS SUPPLIE	COMPUTATIONS SUPPLIED BY						
LAKER GROUP							
25-CSB2979							
SIZE A3 SCALE 1:1	<b>PAGE</b> 11 OF 14	0	CONSTRUCTION	28/05/2025	AK		

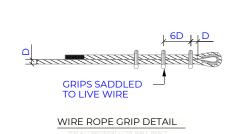
STANDARD STEEL DETAIL	S SI	HT 2 JOB 21069	9	SHEET	S4.02 REV	0
THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH STRUCTURAL COMPUTATIONS SUPPLIED BY LAKER GROUP 25-CSB2979	REV	DESCRIPTION	DATE	DRAWN	Centr	
SIZE A3 SCALE 1:1 PAGE 11 OF 14	0	CONSTRUCTION	28/05/2025	AK		



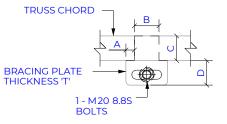


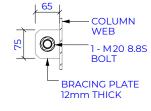
ROD BRACE DETAIL





WIRE ROPE BRACE DETAIL





WIRE ROPE ROOF BRACE CONNECTION PLATE DETAIL

WIRE ROPE WALL BRACE CONNECTION PLATE DETAIL

	WIRE ROPE AND BRACE CLEAT DETAILS										
DODE DIA	TURNBUCKLE MIN NO.		TIGHTENING		CLEAT DIMENSIONS						
ROPE DIA SIZE FORGE-RATED OF GRIPS	OF GRIPS	TORQUE (N.m)	'A'	'B'	'C'	'D'	PLATE THICKNESS				
8	M16	3	6	30	50	50	65	12			
10	M16	3	16	30	50	50	65	12			
12	M16	3	24	30	50	50	65	12			
14	M16	4	35	5	100	75	65	12			
16	M20	4	50	5	100	75	65	12			

- 1. DIMENSION 'C' TO BE A MINIMUM OF CHORD WIDTH OR LISTED VALUE, WHICHEVER IS GREATER 2. DIMENSION 'B' TO BE EQUAL TO OR LARGER THAN DIMENSION 'C'
- 3. 16 DIA ROPE REQUIRES M24 8.8S BOLT CONNECTIONS

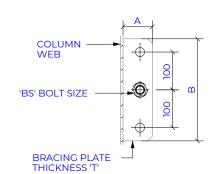
GRADE 300 ROD REFER SCHEDULE GALVANIZED TURNBUCKLE
BRACING PLATE HICKNESS T

BRACING PLATE THICKNESS 'T'

ROD ROOF BRACE CLEAT DETAILS										
	TURNBUCKLE		CLEAT DIM		'T'	'BS'				
ROD DIA	SIZE	'A'	'B'	'C'		PLATE THICKNESS	BOLT SIZE			
16	M16	30	50	50	65	12	M16 8.8S			
20	M20	30	50	50	65	16	M20 8.8S			
24	M22	30	50	50	65	20	M24 8.8S			
30	M28	30	50	50	65	25	M30 8.8S			

ROD ROOF BRACE CONNECTION PLATE DETAIL

1. DIMENSION 'C' TO BE A MINIMUM OF CHORD WIDTH OR LISTED VALUE, WHICHEVER IS GREATER 2. DIMENSION 'B' TO BE EQUAL TO OR LARGER THAN DIMENSION 'C'



### ROD WALL BRACE CONNECTION PLATE DETAIL

ROD WALL BRACE CLEAT DETAILS							
ROD DIA	TURNBUCKLE	CLEAT DIMENSIONS				'T'	'BS'
ROD DIA	SIZE	'A'	'B'	'C'	'D'	PLATE THICKNESS	BOLT SIZE
16	M16	70	260	-	_	12	M16 8.8S
20	M20	82	272	-	-	16	M20 8.8S
24	M22	82	272	-	-	20	M24 8.8S
30	M28	100	290	_	_	25	M30 8.8S

# **PROPOSED WAREHOUSE 16 FOR GLENN BRAGANZA 43 PLATINUM COURT, THURGOONA NSW 2640**

STANDARD STEEL DETAILS SHT 3 JOB 21069 SHEET S							
THESE DRAWINGS SHALL BE READ IN		DESCRIPTION	DATE	DRAWN			
CONJUNCTION WITH STRUCTURAL							
COMPUTATIONS SUPPLIED BY							
LAKER GROUP							
25-CSB2979							
SIZE A3 SCALE 1:1 PAGE 12 OF 14	0	CONSTRUCTION	28/05/2025	AK			



REV 0

STRUCTURAL CERTIFICATION

DATE: 28-05-2025

CHRISTOPHER AKERS

NER (EA ID 5503660)

**LAKER** GROUP

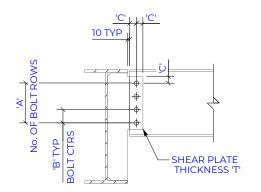
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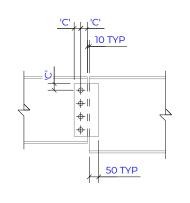
TRUSS CHORD

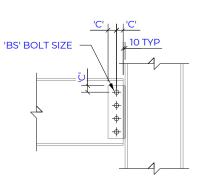


STRUCTURAL CERTIFICATION CHRISTOPHER AKERS NER (EA ID 5503660)

the Ah DATE: 28-05-2025 SIGNED:





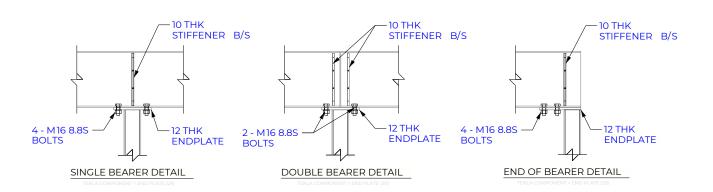


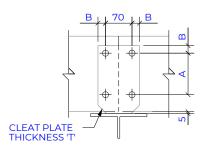
BEAM TO BEAM DETAIL - TYPE 1

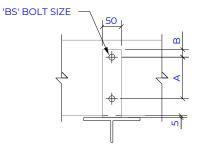
BEAM TO BEAM DETAIL - TYPE 2

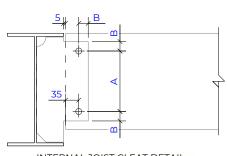
BEAM TO COLUMN DETAIL

STANDARD SHEAR PLATE CONNECTION DETAILS - UB & PFC BEAMS								
MEMBER SIZE		'A' # OF BOLT	'B' BOLT HOLE	'C' EDGE DIST.	'BS'	'T' PLATE	'W' WELD	
UB	PFC	ROWS	CENTRES	MINIMUM	BOLT SIZE	THICKNESS	SIZE	
150UB	150PFC	2	50	1.5 x 'BS'	M12 8.8S	10	6 CFW	
180UB	180 PFC	2	70	1.5 x 'BS'	M16 8.8S	12	6 CFW	
200UB	200PFC 230PFC	2	70	1.5 x 'BS'	M16 8.8S	12	6 CFW	
250UB	250PFC	3	70	1.5 x 'BS'	M16 8.8S	12	6 CFW	
310UB	300PFC	3	70	1.5 x 'BS'	M20 8.8S	12	6 CFW	
360UB	380PFC	4	70	1.5 x 'BS'	M20 8.8S	16	6 CFW	
410UB	-	4	70	1.5 x 'BS'	M20 8.8S	16	6 CFW	
460UB	-	5	70	1.5 x 'BS'	M20 8.8S	16	6 CFW	
530UB	-	6	70	1.5 x 'BS'	M20 8.8S	16	6 CFW	
610UB	-	7	70	1.5 x 'BS'	M20 8.8S	16	6 CFW	









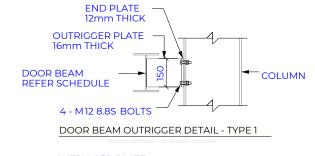
DOUBLE JOIST CLEAT DETAIL

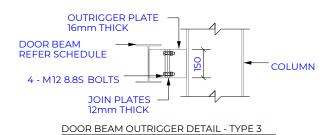
SINGLE JOIST CLEAT DETAIL

INTERNAL JOIST CLEAT DETAIL

STANDARD JOIST CLEAT DETAILS							
JOIST DEPTH	'T' PLATE THICKNESS	'A' BOLT HOLE CENTRES	'B' EDGE DIST. MINIMUM	'BS' BOLT SIZE			
100	6	40	1.5 x 'BS'	M12 8.8S			
150	6	70	1.5 x 'BS'	M12 8.8S			
200	6	110	1.5 x 'BS'	M12 8.8S			
250	8	160	1.5 x 'BS'	M12 8.8S			
300	8	210	1.5 x 'BS'	M16 8.8S			
350	8	260	1.5 x 'BS'	M16 8.8S			
400	8	310	1.5 x 'BS'	M16 8.8S			

1. SINGLE CLEAT TO BE A MINIMUM OF 8mm THICK FOR ALL PURLIN SIZES





OUTRIGGER PLATE 16mm THICK DOOR BEAM REFER SCHEDULE COLUMN 4 - M12 8.8S BOLTS

DOOR BEAM OUTRIGGER DETAIL - TYPE 2

STANDARD STEEL DETAILS SHT 4 JOB 21069

**SHEET S4.04** 

REV 0

THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH STRUCTURAL COMPUTATIONS SUPPLIED BY LAKER GROUP 25-CSB2979

SIZE A3 SCALE 1:1

**DESCRIPTION** DATE DRAWN **REV** 28/05/2025 AK PAGE 13 OF 14 0 CONSTRUCTION



**PROPOSED WAREHOUSE 16 FOR GLENN BRAGANZA 43 PLATINUM COURT, THURGOONA NSW 2640** 

#### **CONCRETE PANEL NOTES**

ALL PANELS ARE TO BE 150mm THICK UNLESS NOTED OTHERWISE. REINFORCEMENT OF PANELS AS SHOWN ON TYPICAL PANEL ELEVATIONS.
PANELS MUST NOT BE LIFTED UNTIL A CONCRETE STRENGTH OF 32MPa HAS BEEN
ACHIEVED. (CONCRETE STRENGTH USED 40 MPa, SLUMP 60mm). THE CASTING BED IS TO BE COATED WITH AN APPROVED BOND BREAKER TO LIMIT

ANY SUCTION WHEN LIFTED.
THE CRANE USED FOR LIFTING PANELS IS TO HAVE A MINIMUM CAPACITY OF 3 TIMES THE WEIGHT OF PANEL BEING LIFTED.

ALL PANELS TO BE POSITIONED ON "KOROLATH" SHIMPAKS (OR SIMILAR APPROVED)

AT EACH END OF PANELS. ON SITE THE CRANE IS TO HOLD THE PANELS UNTIL SHIMPAKS AND ALL FIXINGS ARE IN POSITION, INCLUDING TEMPORARY PROPS.

FOR FILLING AND OR FIRE RATING OF ALL GAPS AND FIRE RATING OF PANEL FIXINGS (NOT CONC. ENCASED) REFER DETAILS.

THE PANEL MANUFACTURER IS TO ALLOW FOR SHRINKAGE OF PANELS TO ACHIEVE

DIMENSIONS REQUIRED BY ARCHITECT.

ALL PANEL FIXINGS ARE TO BE HOT DIPPED GALVANISED EXCEPT WHERE WELDING IS REQUIRED. THESE FIXINGS ARE TO BE COATED WITH AN APPROVED PAINT ON SITE. THE PANEL MANUFACTURER IS TO PROVIDE THE ENGINEER WITH THE TYPE OF ALL WELLIAM OF THE PANEL MANUFACTURER IS TO PROVIDE THE ENGINEER WITH THE TYPE OF ALL

THE PANEL MANUFACTURER IS TO PROVIDE THE ENGINEER WITH THE TYPE OF ALL LIFTING AND FIXING EQUIPMENT FOR APPROVAL.

BOTH THE STEEL AND PANEL DETAILERS ARE TO WORK IN CONJUNCTION WITH EACH OTHER TO DETERMINE BLOCKOUT SITES ETC.

WINDOW AND PA DOOR OPENINGS ARE TO BE CHAMFERED NO MORE THAN 10mm. THE BUILDER IS TO SYNCHRONIZE THE ERECTION OF BOTH THE PANELS AND STEELWORK ON BOUNDARIES OR WHERE CRANE ACCESS IS LIMITED AND INFORM THE ENGINEER OF PROPOSED ERECTION SEQUENCE.

PRECAST MANUFACTURER TO PROVIDE TWO SETS OF FULLY DETAILED SHOP DRAWINGS OF ALL PANELS, INSERTS, FIXINGS, ANCHORS, BOLTS, FERRULES, PENETRATIONS, LIFTING DEVICES ETC. TO ENGINEER FOR APPROVAL.

STRUCTURAL DESIGN: THE CONSULTING ENGINEER HAS DESIGNED THE PRECAST

UNITS FOR IN-SERVICE CONDITIONS ONLY. (IE LOADS THE PRECAST PANELS ARE SUBJECTED TO AFTER ERECTION ON SITE). THE PRECAST MANUFACTURER IS TO PROVIDE COMPUTATIONS FOR APPROVAL FOR STRESSES DUE TO REMOVAL FROM MOULD, HANDLING, LIFTING, TRANSPORTATION

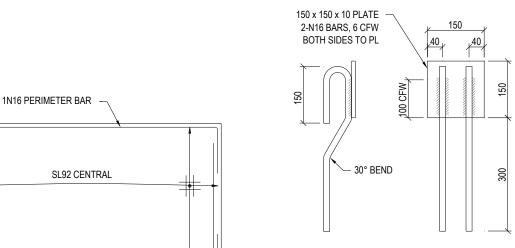
CSB TAKES NO RESPONSIBILITY FOR THE FOLLOWING
- OVERALL SIZE / DIMENSIONS OF PRECAST PANELS
- PENETRATION LOCATIONS

- FERRULE LOCATIONS
- CAST IN PLATE LOCATIONS LIFTING DEVICES

- ANY OTHER FIXINGS / INSERTS PRECAST PANELS SHOWN ON THIS SET OF DRAWINGS ARE INDICATIVE ONLY. IT IS THE PANEL MANUFACTURER'S RESPONSIBILTY TO ENSURE

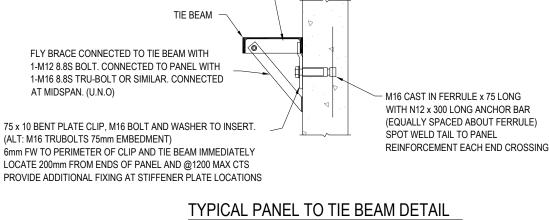
PANELS CONFORM TO BOTH STRUCTURAL AND ARCHITECTURAL

DESIGN REQUIREMENTS.



TYPICAL 150 THK PANEL

TYPICAL CAST IN PLATE DETAIL



STIFFENER PLATE

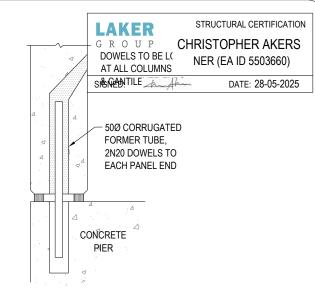
N.T.S

100 x 10 EA x 150 LG.

FILL RECESS WITH NON-SHRINK

GROUT AFTER WELDING

6 CFW TO CAST IN PLATE



TYPICAL PANEL TO FOOTING DETAIL

12 x 12 CHAMFER POLYETHYLENE POLYETHYLENE SEALANT **BACKING RODS** 

TYPICAL PANEL JOINT DETAIL

100 x 12 BENT PLATE M20 FERRULE WITH 800 LONG TAIL (EQUALLY SPACED ABOUT FERRULE) SPOT WELD TAIL TO PANEL REINFORCEMENT EACH END CROSSING

M20 BOLT AND WASHER TO INSERT. 50mm MIN LAP TO COLUMN FLANGE. 6mm FW TO PERIMETER OF CLIP AND COLUMN FLANGE IMMEDIATELY AFTER ERECTION. MIN 3 PER PANEL END @ 1500 MAX SPACING

TYPICAL PANEL TO PANEL DETAIL

TYPICAL PANEL TO COLUMN DETAIL

**PROPOSED WAREHOUSE 16** FOR GLENN BRAGANZA **43 PLATINUM COURT, THURGOONA NSW 2640** 

	TYPICAL PANEL DETAILS	JOB 21069			SHEET	
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