

# ENGINEERING SCHEDULE

CERTIFIED STEEL PORTAL FRAME SHED DESIGN FOR "REGION A" TERRAIN CATEGORY 2.0, 2.5 & 3.0 - IMPORTANCE LEVEL 2.

Internal Pressure: 0.7

Design Snow Load: 0.00 KPa, Roof Snow Load: 0.00 KPa

Customer: Steve Day

Site Address: 4 Welton St, Holbrook NSW 2644

Main Building: Span: 9, Length: 10.5, Height: 3, Roof Pitch: 11 degrees

The length being comprised of 3 bays, the largest bay is 3.5m bays.

Left LeanTo: NA

Right LeanTo: NA

Total Kit Weight: 2693.84kg

INTERNAL PORTALS
Column: 2C15024
Rafter: 2C15024
Knee Brace: 2C10010
Knee Brace Length: 1600
Apex Brace: 2C10010
Apex Brace Length: 4000

END PORTALS
Column: C15024
Rafter: C15024
Knee Brace: NA
Knee Brace Length: NA
Apex Brace: NA
Apex Brace Length: NA
Endwall Mullion: C15024

LEFT LEAN TO PORTALS
Internal Column: NA
Internal Rafter: NA
End Column: NA
End Rafter: NA
Knee Brace: NA
Knee Brace Length: NA

RIGHT LEAN TO PORTALS
Internal Column: NA
Internal Rafter: NA
End Column: NA
End Rafter: NA
Knee Brace: NA
Knee Brace Length: NA

NOTE: All unclad intermediate columns are always back to back (refer to drawing: Floor Plan).

PURLINS AND GIRTS
Eave Purlin: C10010
Side Wall Girts: TH64120
Front End Wall Girts: TH64120
Back End Wall Girts: TH64120
Roof Purlins: TH64120
Max Spacing: 1000
Overlap: 10%
Max Spacing: 1000
Overlap: 10%
Max Spacing: 1000
Overlap: 10%
Max Spacing: 900
Overlap: 10%

NOTE: Girt spacing will vary to a maximum 1.0m where window/s are located.

FASTENERS
Sleeve Anchor Bolts: M12x80 Sleeve Anchor Yellow Zinc
Frame Bolts: M12x30 Purlin Assembly Zinc (Mild)
Frame Screws: Frame Screw 14x14x22
Cross Bracing Strap: NA
Open Bay Header Height: NA

COLOUR SCHEDULE
Roof Sheets: Colour
External Wall Sheets: Colour
Roller Doors: Colour
Flashings: Colour
PA Doors: NA
Windows: NA

## DOMESTIC & LIGHT INDUSTRIAL STEEL PORTAL FRAME SHED STRUCTURES

This structure is designed in compliance with AS4600, AS3600 and AS1170 1 to 4 as Importance Level 2 with a Live Load of 0.25kPa as "Air Leaky Structures" providing stability when openings are prevalent.

The structures are clad with corrugated pre-painted finish, 0.42mm walls and 0.42mm roof (compliant with AS1562.1 Metal) over cold formed 450 to 550mPa galvanized steel C sections primary frames.

Primary framing is fastened together with 4.6 Class galvanized bolts adequately tensioned on ground prior to erection.

Secondary framing steel bracing, with purlins and girts lapped, are all tek fastened to primary steel with a minimum of two (2) teks per connection as specified in details.

All rainwater products are compliant with AS2179.1 (Metal).

## ENGINEERING

The undersigning engineer has checked that the design of the structure complies with relevant current Australian Standards as stated above and the following i.e AS4671- 2001 Steel Reinforcing materials, AS3600 - Concrete structures. However, he will not be present during construction, neither will he conduct inspections nor construction supervision.

The class 10a buildings are designed for erection on pad footings or slab based on soil of classification "A"- "P" with minimum bearing capacity 100kPa (i.e. organic soil is to be removed to a suitable material below natural surface).

Where (suitable) fill is required to level the site, it should be placed and compacted in layers of 150mm maximum.

Concrete pad footings and slab supply and placement is to be in compliance with AS2870-2011 Residential Slabs & Footings, AS3600-2009 Concrete Structures for A2 and B2 exposure (i.e. 25mPa strength @ 28 days strength) with recommended slump 75 to 80mm for light pneumatic tyred traffic all trafficable floors.

For sites where these conditions are considered to be inadequate, a customized foundation design for the structure can be supplied to suit a specific purpose.

## CONSTRUCTION

Erection of the structure is to be in compliance with local and state ordinances,

Occupational Health and Safety Regulations and with plans provided.

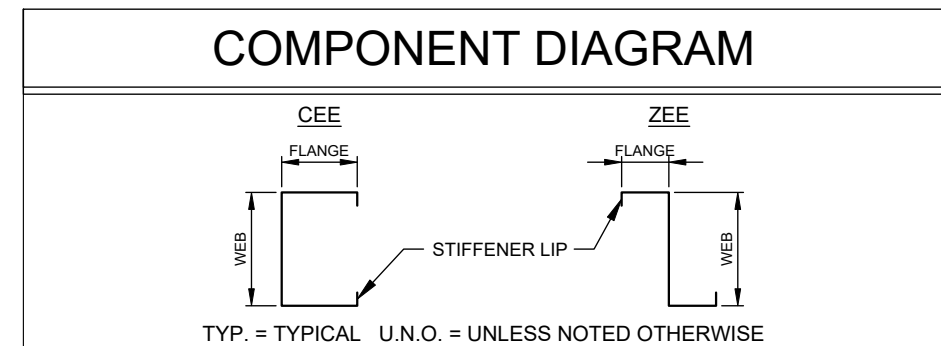
## GENERAL

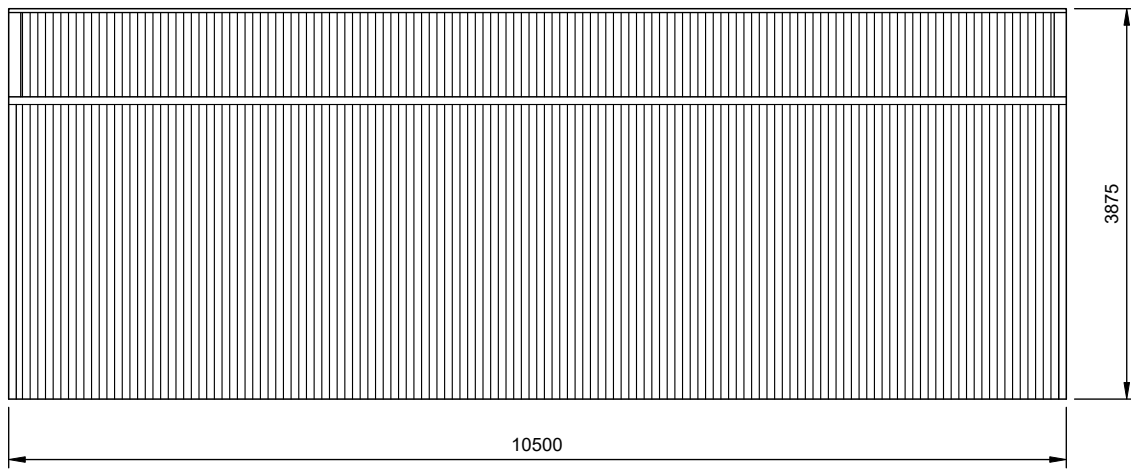
The designs as portrayed on the drawings remain the intellectual property of Best Sheds Pty Ltd and are provided for building approval and construction purposes only and are only valid when blue ink signed and dated by the engineer.

## SNOW LOAD

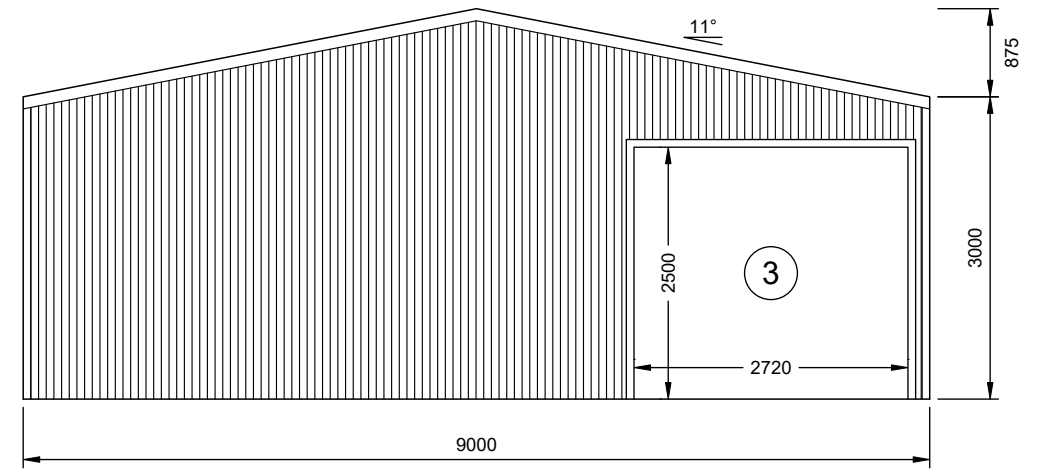
Following conditions only apply to buildings with snow loading:

- No maintenance or roof traffic permitted on the roof while there is snow present.
- No other structure to be erected within 500mm of the gutters of this building.

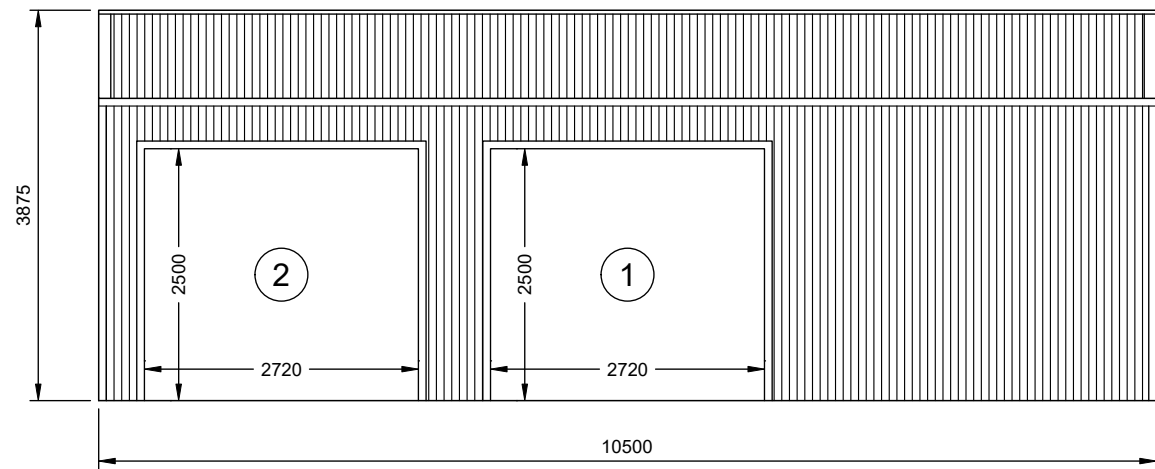




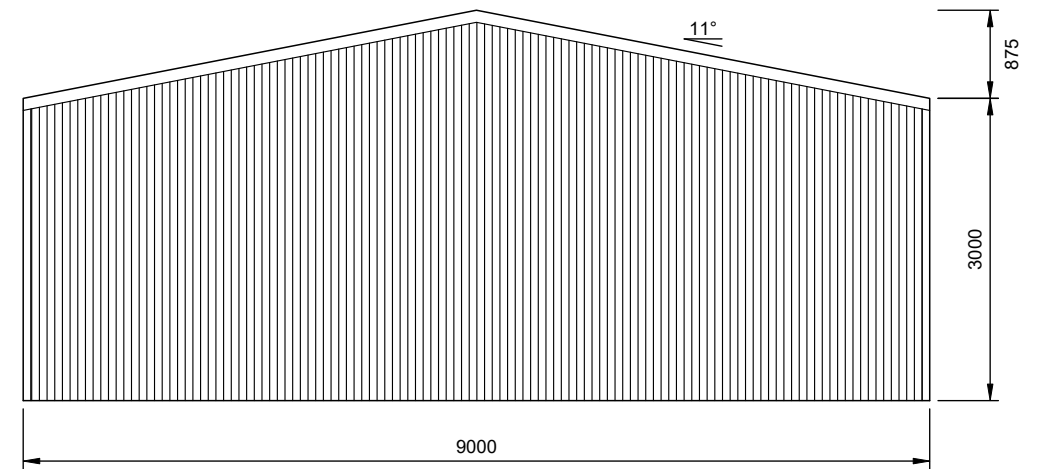
2 LEFT ELEVATION  
2 SCALE: 1:75



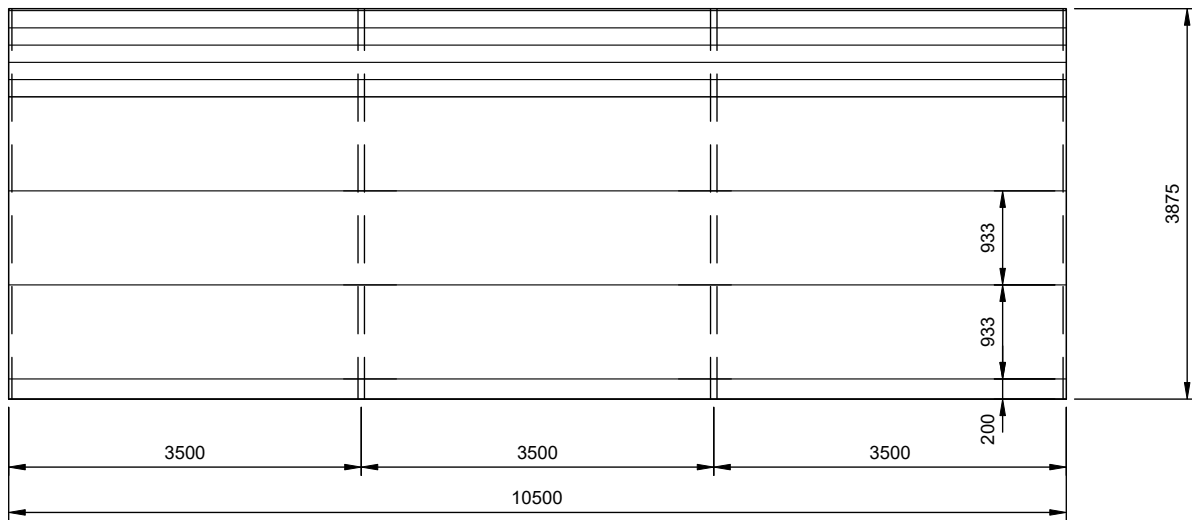
3 REAR ELEVATION  
2 SCALE: 1:75 FRAME #4



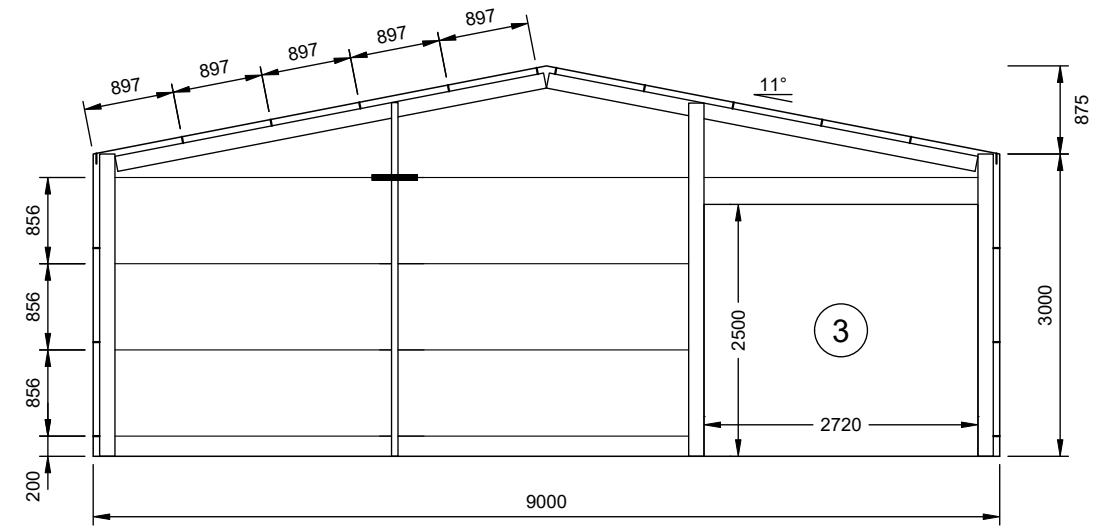
1 RIGHT ELEVATION  
2 SCALE: 1:75



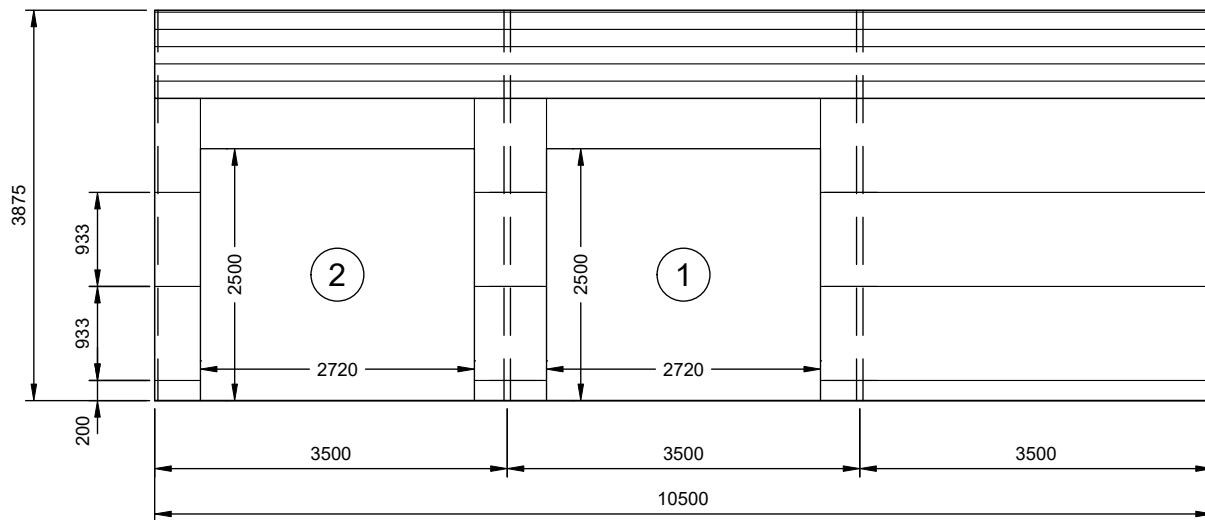
4 FRONT ELEVATION  
2 SCALE: 1:75 FRAME #1



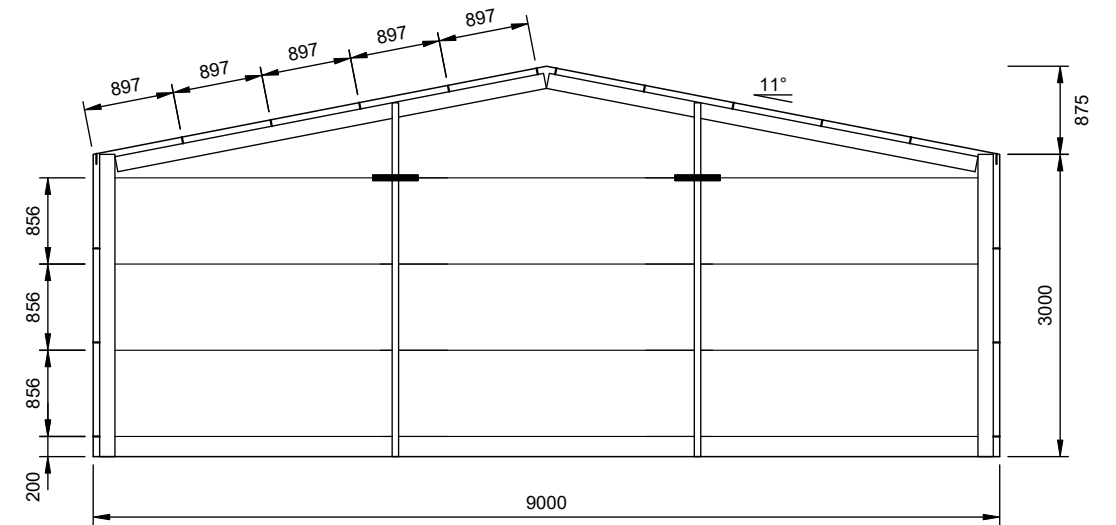
2 LEFT ELEVATION  
3 SCALE: 1:75



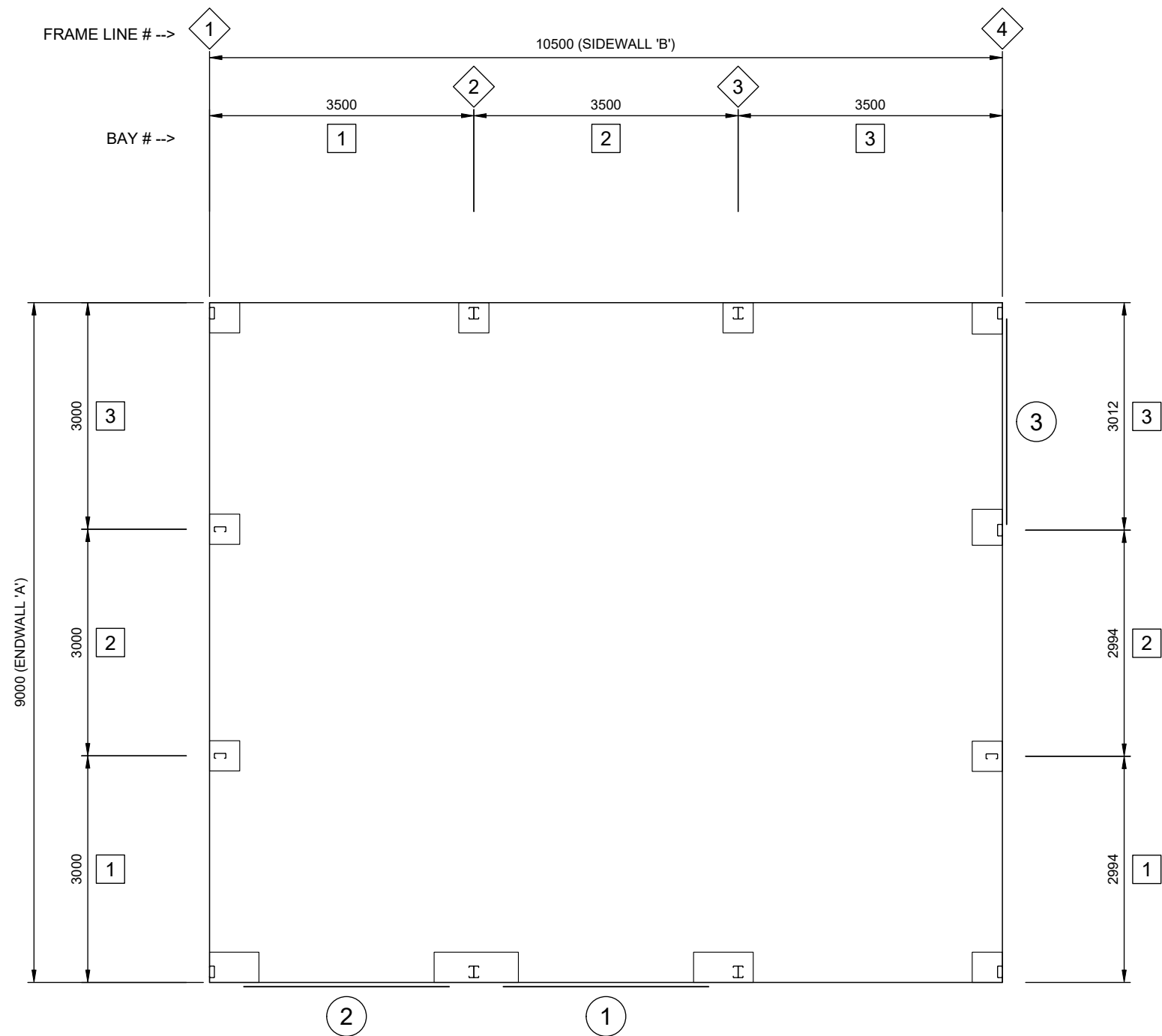
3 REAR ELEVATION  
3 SCALE: 1:75 FRAME #4



1 RIGHT ELEVATION  
3 SCALE: 1:75

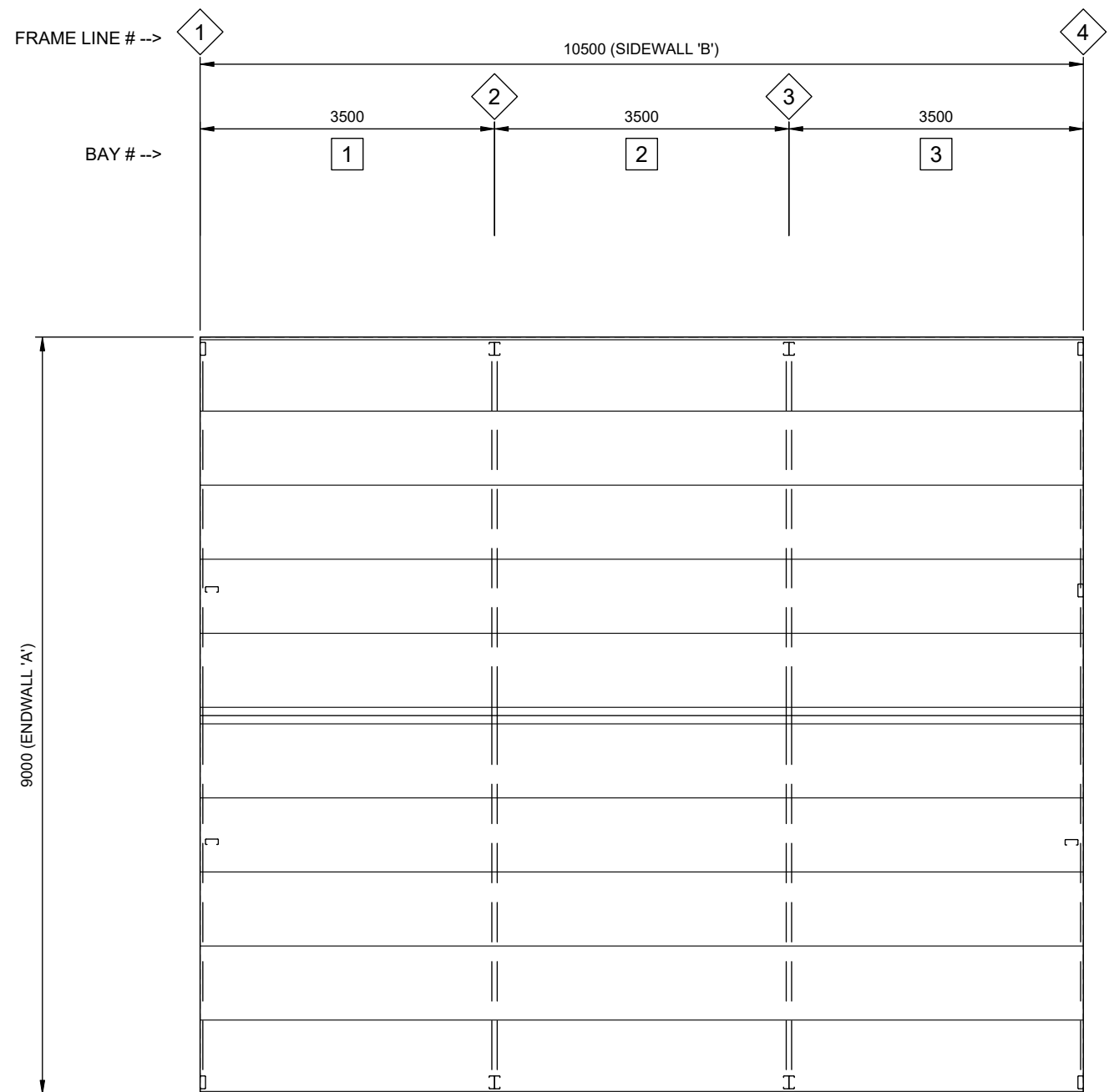


4 FRONT ELEVATION  
3 SCALE: 1:75 FRAME #1



1 FLOOR PLAN

4 SCALE: 1:75



2 ROOF FRAMING PLAN

4 SCALE: 1:75

SLAB FOUNDATIONS DOMESTIC / LIGHT INDUSTRIAL  
(100mm MINIMUM CONCRETE SLAB INCLUDED)

SOIL CLASSIFICATION (COMPACTED)	REINFORCING IN SLAB	EDGE BEAM	PIER	EDGE BEAM (slab thickness not included)	
	MESH REINFORCING	TRENCH MESH	Ø x DEPTH	DEPTH	WIDTH
A, S, & M	SL72	---	450 x 400	---	---
M - D	SL82	L11TM3	---	300	300
H TO H - D	SL82	L11TM3	---	400	300
E TO E - D	SL82	L11TM4	---	400	400
P (DROP EDGE BEAM OR STANDARD EDGE BEAM WITH PIERS UNDER COLUMNS 300 INTO FIRM GROUND)	SL82	L11TM4	450Ø	400	400

THICKNESS: 100MM WITH MINIMUM 30MM COVER. REFER TO SLAB FOUNDATION TABLE FOR REINFORCING SPECIFICATION

STRENGTH: 25mPa

2 x M12 BOLTS

2 X 12MM DIA SLEEVE ANCHORS, 10MM DIA INTERNAL ROD-MIN 75MM LONG

REFER TO SLAB TABLE FOR MESH TYPE - 30MM COVER

POLYTHENE WATERPROOF MEMBRANE ON CONSOLIDATED SUB-BASE SHOWN DASHED

DEPTH

WIDTH

100

2C15024 COLUMN

NOTE: ENSURE EARTH/SOIL IS KEPT CLEAR OF WALL CLADDING AT ALL TIMES.

900

450

10G X 16MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

2 x 14G TEK SCREWS

C10010 SHEETING

12G X 35MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

C15024 COLUMN

12g x14 x 35mm LONG ROOF SCREWS

RIDGE PURLIN

INTERMEDIATE PURLIN

EAVE PURLIN

0.42 BMT CORRUGATED ROOF SHEETING

Z

ALTERNATE PIER DETAIL

TOPHAT 64 ROOF PURLIN WITH 10% MINIMUM OVERLAP

12G X 35MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

C15024 RAFTER

4 X 14G TEK SCREW

H

EAVE CONNECTION

10G X 16MM SHEETING SCREW, REFER TO SCREW SPACING DIAGRAM FOR FREQUENCY

TOPHAT 64 WALL GIRT WITH 10%MM MINIMUM OVERLAP

2 X 14G TEK SCREWS

C15024 COLUMN

I

ROOF SHEETING

2 x 14G TEK SCREWS ABOVE & BELOW IN SIDE OF PURLIN - UNDERSIDE SCREW NOT VISIBLE IN DETAIL

2 x 14G TEK SCREWS PER COLUMN - UNDERSIDE SCREW NOT VISIBLE IN DETAIL

Y

SLAB DETAIL

INDICATES 12 mmØ GRADE 4.6 BOLT

2C15024 FRAME RAFTER

2C15024 FRAME COLUMN

DBL. 1.9mm 11" HAUNCH BRACKET (SAME DEPTH AS MEMBERS)

2339 mm TO TOP OF CONCRETE FOUNDATION

2C10010 KNEE BRACE, 1600 mm LONG (OMIT AT ENDWALLS)

2 X 14G TEK SCREWS

(2) 12 mmØ GRADE 4.6 BOLTS AT EACH END OF KNEE BRACE

NOTE: ALL DOUBLE COMPONENTS SHALL BE SINGLE AT ENDWALLS.

E

PURLIN CONNECTION

2C15024 FRAME RAFTER

DBL. 1.9mm 11" APEX BRACKET, WITH (8) 12 mmØ GRADE 4.6 BOLTS PER BRACKET

4 X 14G TEK SCREWS

1950 mm

(2) 12 mmØ GRADE 4.6 BOLTS AT EACH END OF APEX BRACE

2C10010 APEX BRACE (OMIT AT ENDWALLS), 4000 mm LONG

NOTE: ALL DOUBLE COMPONENTS SHALL BE SINGLE AT ENDWALLS.

F

GIRT CONNECTION

C15024 ENDWALL RAFTER

NOTE: SEE DETAIL M/6 FOR BASE CONNECTION OF ENDWALL MULLION.

ATTACH WEB OF ENDWALL RAFTER TO OUTSIDE FLANGE OF ENDWALL MULLION WITH 6 X 14G TEK SCREWS

C15024 (OPEN SIDE OF CEE MAY FACE EITHER DIRECTION, U.N.O.)

G

TOP HAT CONNECTION

RAFTER/EAVE PURLIN

COLUMN

6 x 14G TEK SCREWS

COLUMN ADJACENT TO ROLLER DOOR AFTER NOTCHED OUT

A

HAUNCH CONNECTION

B

APEX CONNECTION

C

ENDWALL MULLION TO RAFTER

D

ENDWALL MULLION ROTATED

bestsheds

Value & Quality Direct to You

151 Smeaton Grange Road,  
Smeaton Grange, NSW, 2567  
Phone: 02 4648 7777  
Fax: 02 4648 7700  
Email: sales@bestsheds.com.au

EMERALD

DESIGN & CONSTRUCTION

CIVIL & STRUCTURAL ENGINEERS

COMMERCIAL - INDUSTRIAL - RESIDENTIAL - FORENSIC - STEEL DETAILING

CAMILO PINEDA MORENO

Bend MIEAust RPEng  
RPEQ 15562 TBP PE003976 (VIC)

Signature:

Date: 19.11.2021

Customer Name: Steve Day

Site Address: 4 Welton St  
Holbrook,  
NSW, 2644

DATE 19-11-2021

JOB NO. 0516216018

SHEET 5 of 7

<b>R</b>	<b>FLYBRACE</b>		
<b>N</b>	<b>ROTATED ENDWALL MULLION BASE</b>	<b>O</b>	<b>ENDWALL GIRT BRACKET</b>
<b>J</b>	<b>WALL SHEETING</b>	<b>K</b>	<b>CORNER COLUMN BASE</b>
<b>L</b>	<b>INTERNAL COLUMN BASE</b>	<b>M</b>	<b>ENDWALL MULLION BASE</b>

