

# SPECIFICATION-OF-INTENT

ISSUED FOR  
DEVELOPMENT APPROVAL  
COMPRISING OF  
PROVISIONAL DEVELOPMENT PLAN CONSENT  
PROVISIONAL BUILDING RULES CONSENT

**\*MISCION PTY LTD**

**STRUCTURAL DESIGN**

Maitland, South Australia

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## DRAWING INDEX & DOCUMENT STATUS

DRAWING NUMBER	TITLE	REV
1802/G01	GENERAL NOTES (1)	A
1802/G02	GENERAL NOTES (2)	A
1802/S01	DEMOLITION PLAN	A
1802/S02	SITE PLAN	A
1802/S03	FOOTING PLAN	A
1802/S04	CANOPIES 1&2: FRAMING PLAN	A
1802/S05	CANOPIES 1&2: SECTIONS	A
1802/S06	CANOPIES 3&4: FRAMING PLAN	A
1802/S07	CANOPIES 3&4: SECTIONS	A

## Example No - 1802

November 2005

for  
**Proposed Canopies**  
**Campbelltown**

### EXAMPLE

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**GENERAL**

1. The builder shall ensure that the process of construction is supervised by an appropriately qualified person.
2. The Building Code of Australia (BCA) is adopted as the primary reference specification for objective, function and performance.
3. The South Australian Housing Code (SAHC) is adopted as a specification of acceptable product and process unless noted otherwise.
4. The project specific specification-of-intent comprises of the documents listed on the cover sheet.
5. This project specification takes precedence over the BCA and the SAHC unless the BCA imposes higher levels of performance.
6. The scope of the SAHC is extended to the BCA class of the current building project subject to:
  - a) The SAHC shall not be used for the sizing of Structural members
7. All materials and workmanship shall be in accordance with the latest editions of the relevant Australian codes unless noted otherwise (uno).
8. The structural drawings shall be read in conjunction with these Construction Notes and associated drawings, and with such other written instructions as may be issued by the Engineer, during the course of construction.
9. All dimensions in millimetres(mm) unless noted otherwise.
10. The Contractor shall verify setting out dimensions shown on the drawings by measurement on site.
11. The structure has been designed to meet the requirements of the Code or Standard relevant to the facility in its in-service condition. During construction and prior to hand-over the Contractor shall, at all time, ensure that the structure is protected from over-stressing and instability due to any causes whatsoever.
12. Details of component parts of each structure are typical only. Where items are not detailed the contractor or fabricator shall use similar methods to those shown on the drawings.
13. The contractor shall provide all cleats and holes for fixing to steel, timber and other components as required by the engineering and architectural drawings whether or not shown.
14. All beams shall be fabricated and installed with natural camber up.
15. The quality characteristics of all materials and components used shall be verifiable against this specification upon request.

**STRUCTURAL STEELWORK**

1. All shop and field welds shall be classification General-Purpose (GP) uno.
2. Continuous fillet weld (CFW) shall be the lesser of: – 3mm or the thickness of the thinner element joined.
3. Butt welds shall be complete penetration(CPBW) type.
4. Bolt designation: 4.6/S refer to commercial bolts grade 4.6, tightened using a standard wrench to a snug-tight condition.
5. All bolts shall be 4.6/S uno.
6. Bolts in slotted holes shall be "finger tight" and supplied with lock nuts.
7. Seal weld a 3mm plate to the ends of all hollow sections uno.
8. All damage to protective coatings as a result of transport, welding or other building operations shall be repaired in accordance with relevant codes as approved.
9. Welds to cold-formed sections shall be continuous fillet M.I.G. welds of a size equal to the thinnest section of the material joined, wire brushed and coated with zinc silicate paint.
10. Surface treatment and coating:

Element	Surface Treatment	Treatment or Coating
All steel fitments including Hold Down Bolts, Nuts & Washers, Cast-in steel items, external steelwork walkways & Hand-railing	. . Chemical Treatment . . . .	. . Hot Dip Galvanising . . . .
All other steelwork . . . .	Grit blast to near white metal finish . . . .	Inorganic Zinc Silicate with average thickness 85 microns . . . .

**BASIS OF DESIGN**

1. Structure Importance Level : 2 (Normal)
2. Design wind loading as noted on framing plans.
3. Design live loading : Roof = 0.25 kPa
4. A maximum allowable bearing pressure of 100kPa has been assumed.
5. Footings shall be placed centrally under walls and columns uno.
6. All variations from the design specification to be referred to the design engineer for approval before proceeding.

**STRUCTURAL CONCRETE**

1. Concrete quality shall be as tabulated, and verifiable

Concrete Element	Exposure Class'n	Class/Grade	Slump mm	Aggregate Size mm	Cement Type
Footing Piers & Pads	A2	N20	80	20	GP

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Proposed Canopies

--  
Campbelltown  
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STRUCTURAL  
GENERAL NOTES

DRAWN LJS/SCH

DESIGNED --

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SCALE as shown DO NOT SCALE

SIZE	DRAWING NUMBER	REVISION
A4	1802/G01	A

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**STRUCTURAL TIMBER**

1. Items not explicitly described are to be to the requirements of AS1720 and AS1684.2 and the TDA construction guide for Carports, Verandahs & Pergolas.
2. Vertical Nail lamination to increase breadth of members to AS1684.2 clause 2.3
3. Posts and Rafters shall not be spliced.
4. Roof Battens shall be continuous spanned, and spliced to AS1684.2 clause 7.2.20
5. Ridge boards spliced in accordance with AS1684.2 clause 7.2.12.2
6. Fascia beams spliced at post supports.
7. Structural form is a collar-tied roof truss, therefore collar ties required to all rafters, placed at 1/3 of the rise above fascia support.
8. Post anchorage:
  - a) Steel posts cast into concrete pier: embedment the lesser of full depth of pier less 100mm or 450mm embedment.
  - b) Timber posts: two Pryda PSQ600 post supports per post (Free Standing canopy)
  - c) Timber posts: one Pryda PSQ600 post support per post (attached canopy). Refer TDA guide Figure 3 for orientation.
  - d) Timber posts: one stirrup post support per post with knee braces to corners of canopy. Refer TDA guide page 4.

**ATTACHMENT OF CANOPY TO EXISTING STRUCTURE, AND STRENGTHENING OF EXISTING STRUCTURE**

1. Beams not to overhang connection brackets, unless beams and house structure designed to suit.
2. Canopy Dimension to be a whole number multiple of the rafter spacing.
3. Extenda Brackets: Brackets to be fastened to rafter directly above house wall framing, else rafter stiffening to be provided.
4. Long Pergola brackets: Brackets not to extend beyond house fascia more than 150mm
5. Joist hangers: Fascia to rafter connection to be strengthened using Pryda Fascia support bracket.
6. Fabricated brackets as detailed to achieve full support of canopy at beam ends, and house corners.
7. Posts to be provided at hip corners.
8. Minimum house structure:
  - a) Rafters : 120x35 F5 not notched more than 40mm (Not greater than 600 c/c for tiled roof, not greater than 1200 c/c for sheet roof)
  - b) Fascia : 190 x 19
8. Rafter Stiffener to all rafters supporting connection brackets. Minimum length of stiffener as specified or full length of rafter, which ever is the lesser. Timber stiffeners fixed to rafters with 2/ Ø3.06 x 75 long nails at 150 centres. Rafter Backspan support connection to be strengthened with 1/30x0.8 steel strap AS1684.2-1999 Table 9.22, detail (b) unless bolted connection present.
9. Tie-downs to all rafters supporting connection brackets, exceptions as noted.
10. Type-1 Tie-Down: 1/30x0.8 steelstrap over rafter, 1M10 bolt each end to added steelwork.
11. Type-2 Tie-Down: 1/30x0.8 steel strap looped around Ø10 rod epoxy doweled to brickwork; minimum of 1.2m wide x 12 courses high of brickwork above anchor point. Strap fastened to rafter with 3/Ø2.8 nails each end.
12. Type-3 Tie-Down: Duragal angle 30x30x2.5 CA, 1M10 bolt top to rafter, bottom anchored above 2nd course of brickwork from bottom of wall, minimum of 1.2m wide x fullheight brickwork above anchor point free from openings.
13. Type-4 Tie-Down: M10 threaded steel rod, welded to 40x40x2 SHS C350LO tube at lower end. Tube sealed each end with 5 PL end plates. Bottom anchored above 2nd course of brickwork from bottom of wall, minimum of 1.2m wide x fullheight brickwork above anchor point free from openings. Top bolted through bottom flange of added steel z-lintels, or over batten as required.
14. For openings upto 2.4m wide install Prydabeam PB1.4 z-section. Beam to extend to first stud each side of opening, fasten to manufacturers instructions. Install Type-4 tie-downs to each end of lintel, anchor point to be centre of 1.2m width of brickwork. Ensure 2.4m width of brickwork between adjacent openings.
15. Multiple rafters maybe tied-down by the use of one Type-4 Tie-down to each end of an over batten (35x70 F7). Threaded end of tie-down to pass through batten no more than 50mm from side of rafter support. Each rafter to be strapped to over batten. Tie-downs at no more than 2.4m centres, each anchored into 1.2m width of fullheight brickwork.
16. If inadequate brickwork to install Type-2 tie-downs then Type-4 tie-downs with over battens shall be used. Over batten positioned to achieve required area of brickwork for Type-4 tiedowns.
17. Canopies not to be attached to light weight timber framed construction. Additional posts and piers to be provided adjacent to house.
18. Fascia plates to be bolted to house gable end walls only, using M10 dynabolts at 600 c/c, staggered vertically. Minimum of 2m rise of gable end above fascia at location of ridge, else tie fascia plate to bottom of wall using Ø10 steel rods at 2.4m centres.

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Proposed Canopies

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Campbelltown  
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GENERAL NOTES

DRAWN LJS/SCH

DESIGNED --

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SIZE DRAWING NUMBER REVISION

A4 1802/G02 A

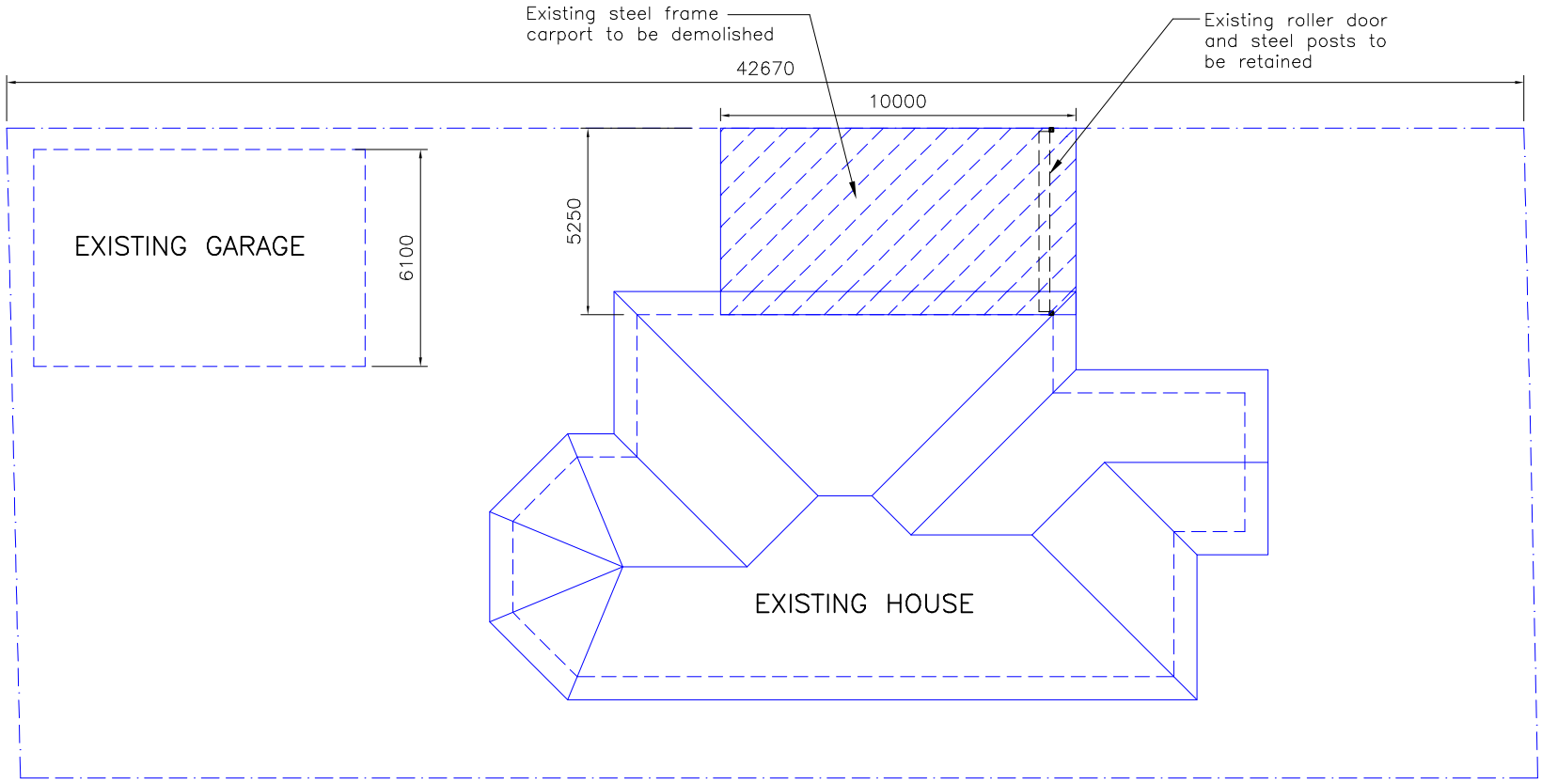
**CONNECTION SCHEDULE**

JOINT	Canopy width less than 4.2m	Canopy width greater than 4.2m but less than 7.2m
Post/Fascia Beam	2 M10-4.6/S Bolts + Ø22.5 washers	2 M12-4.6/S Bolts + Ø22.5 washers
Fascia/Rafter	a) 5/ Ø2.8 Nails each side of rafter b) Joist Hanger to Rafter : 5/ Ø2.8 Nails each side of rafter and Joist Hanger to Fascia: 5/ Ø2.8 Nails each side of rafter	2 No. 14 Type 17 wood screws.
Rafter/Ridge	5/ Ø2.8 Nails each side of rafter and 32x0.8 steel Strap over ridge with 6/Ø2.8 flat head Nails each end.	2 No. 14 Type 17 wood screws. + 90x45 MGP10 Ridge Collar, with 1M10 bolt + Ø22.5 washers each end.
Collar-Tie/Rafter	2M10 bolts + Ø22.5 washers each end for canopy spans less than 3m, increase to 3M10 bolts for canopy spans greater than 3m.	3M10 bolts + Ø22.5 washers each end
Roof Batten/Rafter	1 No. 14 Type 17 Bugle Head Screw, 50mm penetration. (min. length 95mm)	<b>EXAMPLE</b>

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SPECIFICATION-OF-INTENT

NOTES  
1) Site dimensions are approximate only. Fabricator and Builder shall confirm all dimensions before commencing work.

House Construction:  
Walls: Brick Veneer + Timber Frame  
Roof: Timber Frame + Tiles + Metal Fascia  
Eaves: 2860mm to top of gutter, 630mm wide 'D' gutters + 100x45 downpipes

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Proposed Canopies

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DEMOLITION PLAN

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A4	1802/S01	A

DEMOLITION PLAN  
1:200

SPECIFICATION-OF-INTENT

NOTES

1) Site dimensions are approximate only. Fabricator and Builder shall confirm all dimensions before commencing work.

2) Eaves overhang assumed to be 600mm from face of wall to fascia, measured on plan.

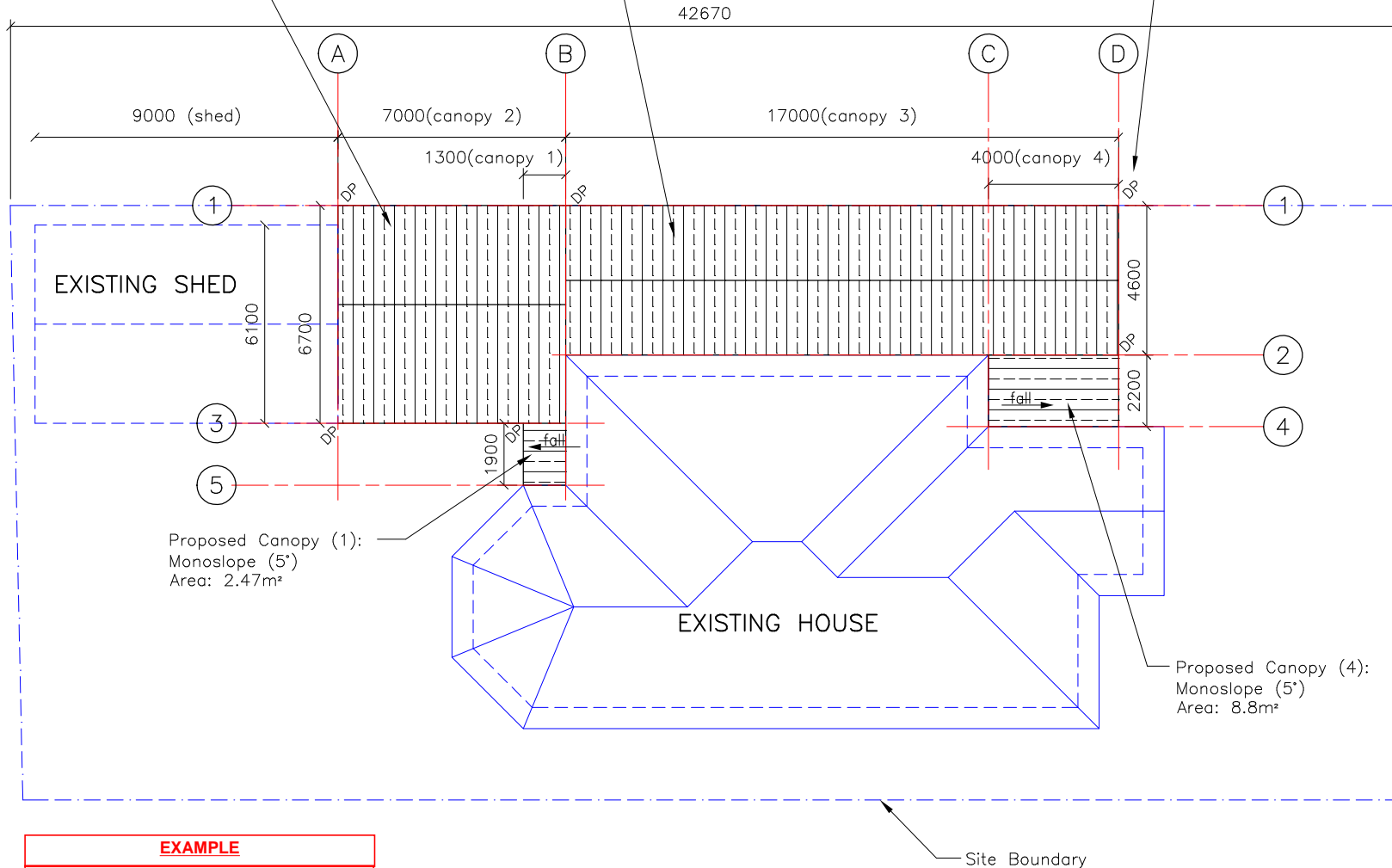
3) Total area of proposed canopies 126m<sup>2</sup>

4) Roof cladding to be colorbond steel sheet

Proposed Canopy (2):  
Doubly pitched (22.5°)  
with gable ends  
Area: 46.9m<sup>2</sup>

Proposed Canopy (3):  
Doubly pitched (22.5°)  
with gable ends  
Area: 68m<sup>2</sup>

Downpipes connected to  
existing property stormwater  
drainage system.



Proposed Canopy (1):  
Monoslope (5°)  
Area: 2.47m<sup>2</sup>

Proposed Canopy (4):  
Monoslope (5°)  
Area: 8.8m<sup>2</sup>

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SITE PLAN  
1:200

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Proposed Canopies

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STRUCTURAL  
SITE PLAN

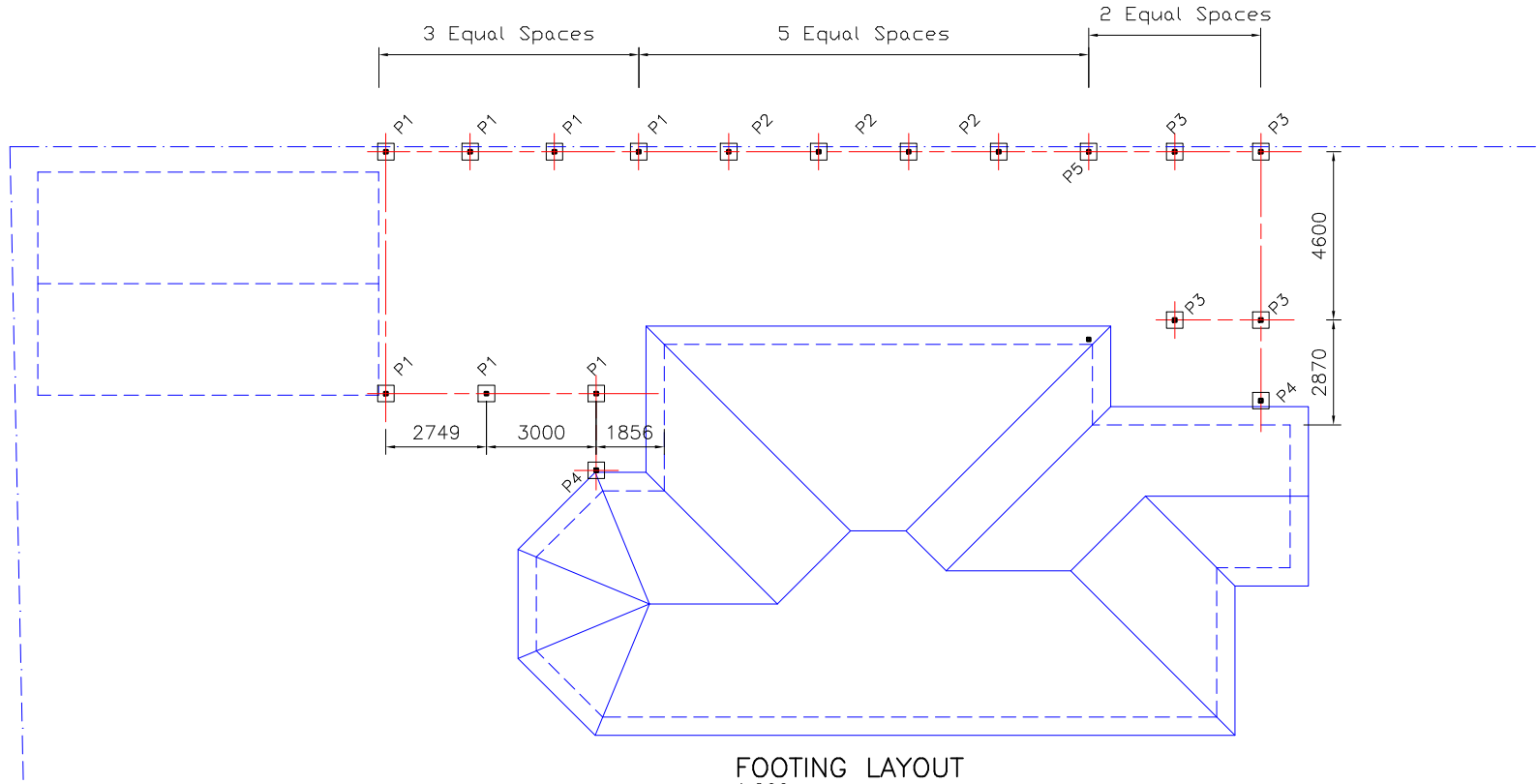
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A4	1802/S02	A



FOOTING LAYOUT  
1:200

CONCRETE FOOTING SCHEDULE	
P1	: 450SQ x 700 DEEP
P2	: 450SQ x 600 DEEP
P3	: 450SQ x 700 DEEP
P4	: 450SQ x 450 DEEP
P5	: existing pier

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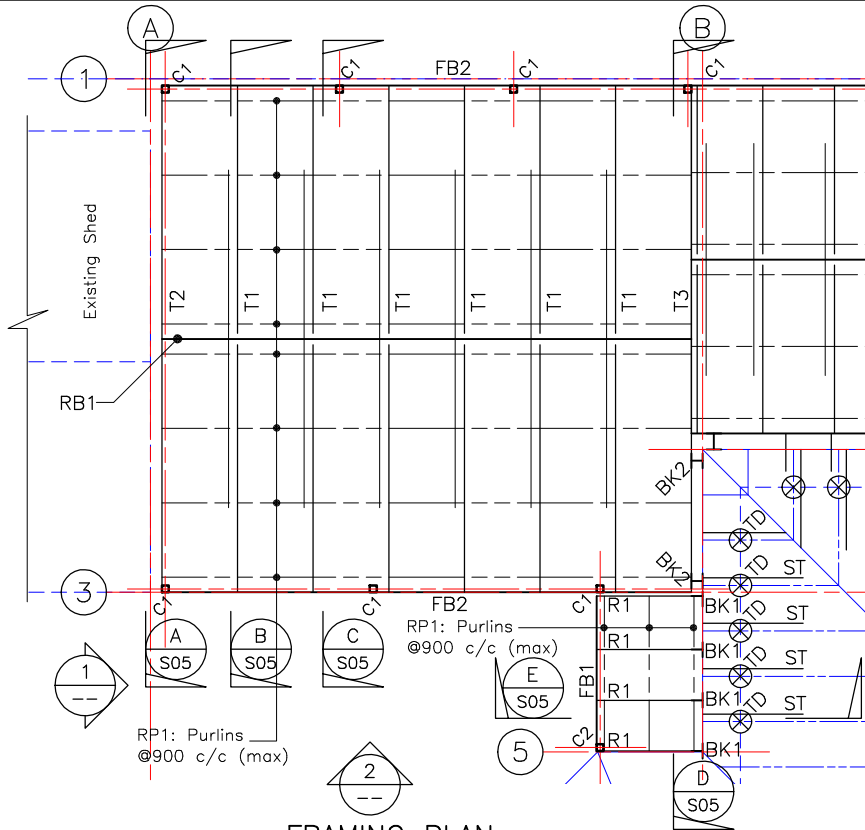
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 FOOTING PLAN

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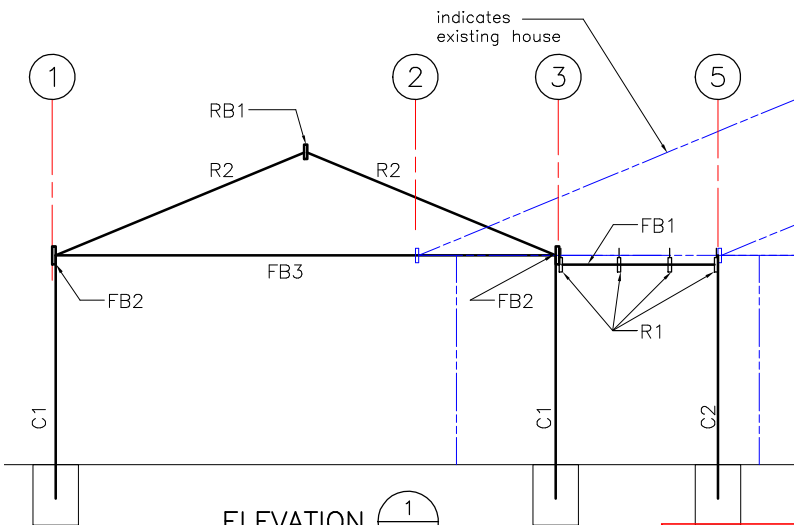
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SCHEDULE OF MATERIALS

MEMBER	MARK	SIZE	MATL
COLUMNS	C1	90 x 90 x 2 SHS	C450LO
	C2	90 x 90	MGP10
FASCIAS	FB1	120 x 45	MGP10
	FB2	240 x 45	MGP10
	FB3	240 x 45	MGP10
RIDGES	RB1	240 x 45	MGP10
RAFTERS	R1	70 x 45	MGP10
	R2	190 x 45	MGP10
COLLAR TIES	CT1	2/ 120 x 45	MGP10
PURLINS	RP1	45 x 70	MGP10
TRUSSES	T1-T3	refer to sections	
BRACKETS	BK1	Joist Hangers (Requires Pryda fascia support + timber ledger plate to stiffen metal fascia)	
	BK2	Fabricated Bracket (Ex. 50x50x2 SHS C450LO + 5PL end plates)	
TIE DOWNS	TD	Type-3 (Refer Dwg G02)	
STIFFENERS	ST	2/ 90 x 45 (1800 long)	MGP10

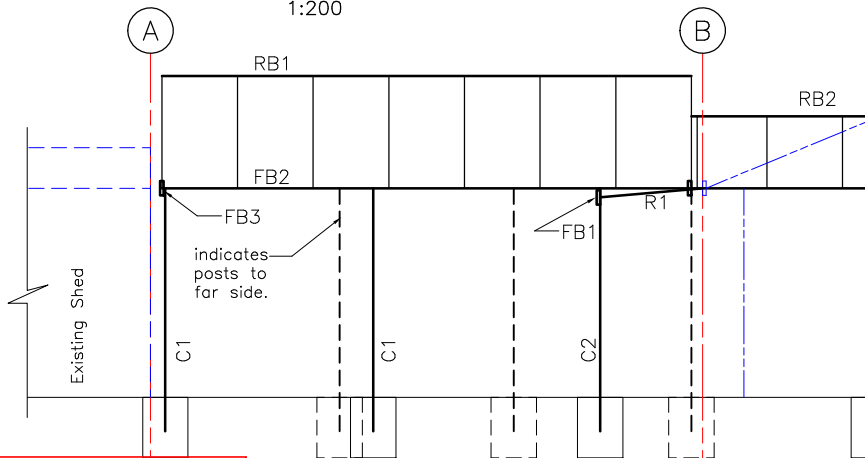


FRAMING PLAN  
1:200



ELEVATION 1  
1:100

(shed in foreground and new canopy in background not shown)



ELEVATION 2  
1:100

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Proposed Canopies

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Campbelltown  
STRUCTURAL  
CANOPIES 12  
FRAMING PLAN

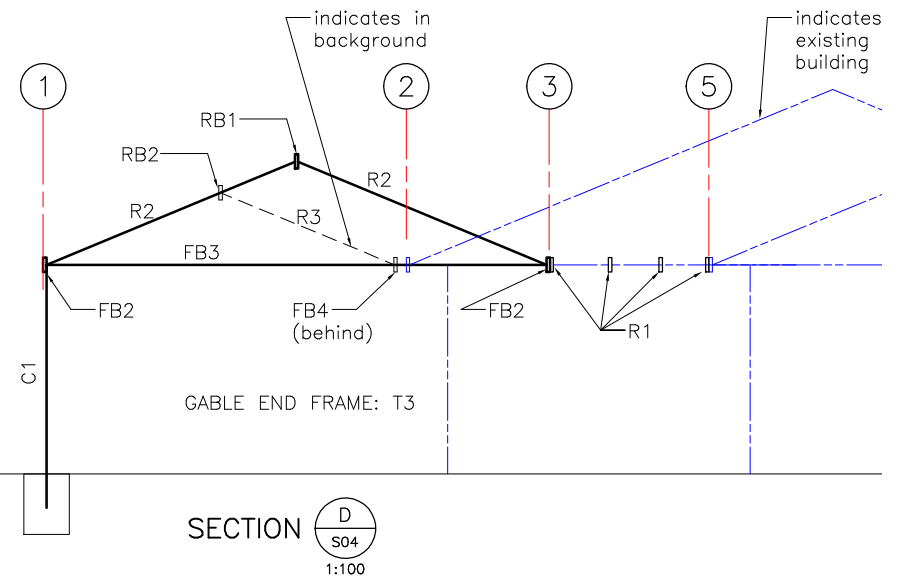
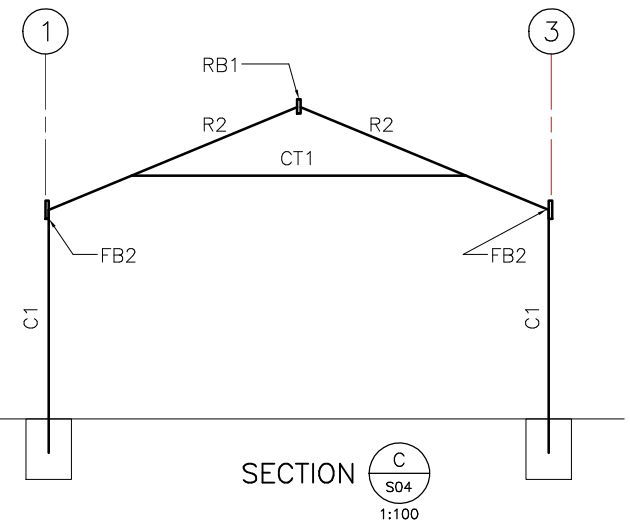
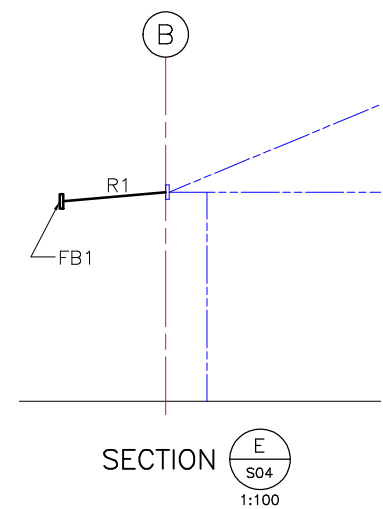
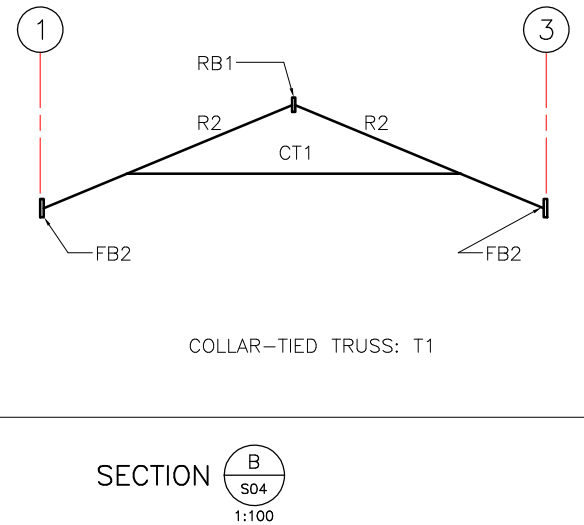
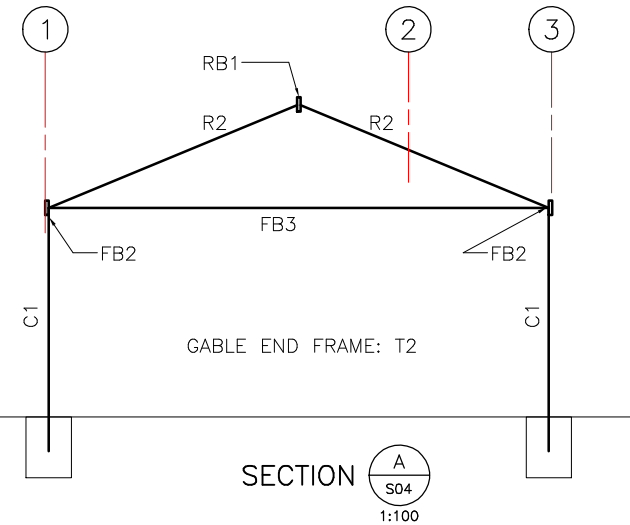
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Proposed Canopies

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STRUCTURAL  
CANOPIES 1,3  
ELEVATIONS

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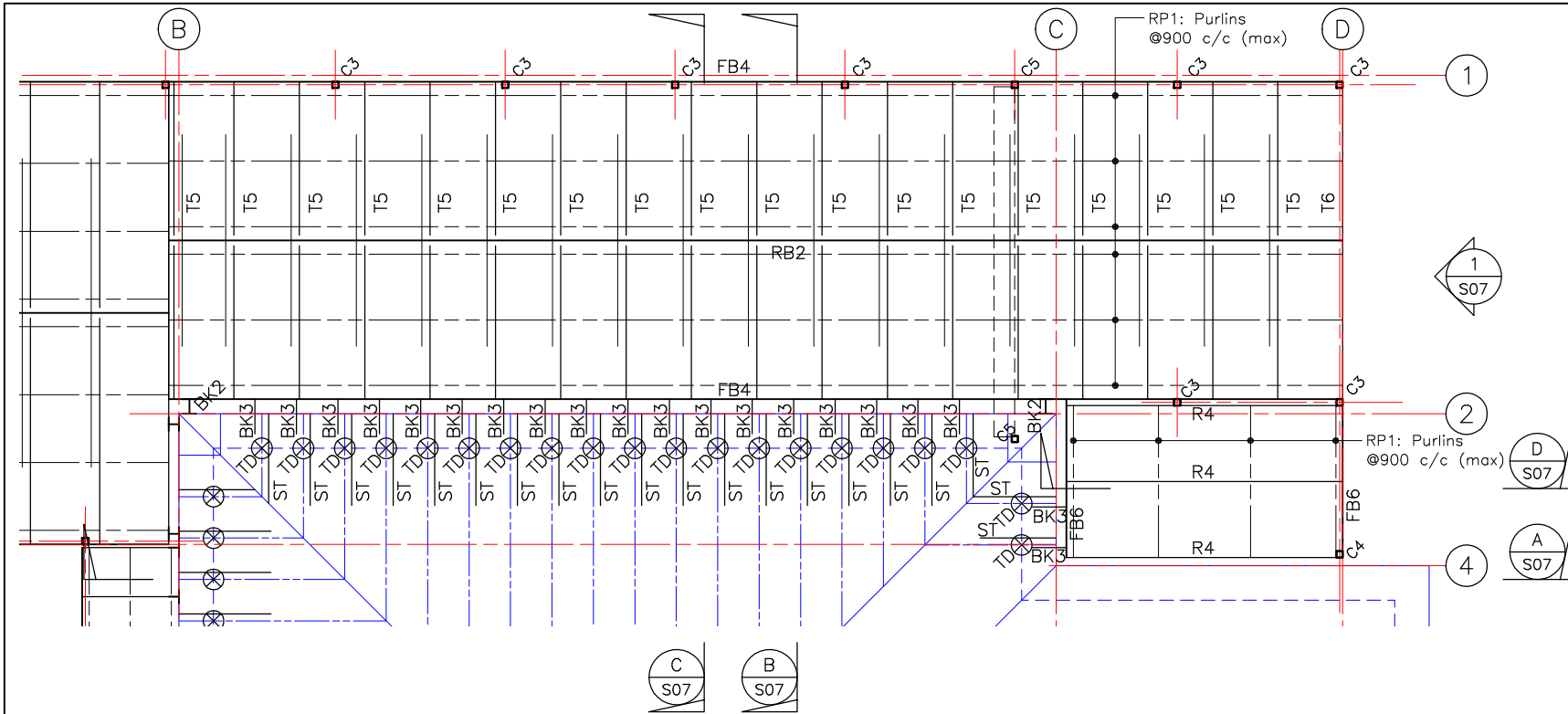
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SPECIFICATION—OF—INTENT

SCHEDULE OF MATERIALS			
MEMBER	MARK	SIZE	MATL
COLUMNS	C3	90 x 90	MGP10
	C4	90 x 90	MGP10
	C5	existing steel post	--
FASCIAS	FB4	190 x 45	MGP10
	FB5	190 x 45	MGP10
	FB6	140 x 45	MGP10
RIDGES	RB2	190 x 45	MGP10
RAFTERS	R3	120 x 45	MGP10
	R4	140 x 45	MGP10
COLLAR TIES	CT2	2/ 90 x 45	MGP10
PURLINS	RP1	45 x 70	MGP10
TRUSSES	T5-T6	REFER SECTIONS	

SCHEDULE OF MATERIALS			
MEMBER	MARK	SIZE	MATL
BRACKETS	BK1	Joist Hangers (Requires Pryda fascia support + timber ledger plate to stiffen metal fascia)	
	BK2	Fabricated Bracket (Ex. 50x50x2 SHS C450L0 + 5PL end plates)	
	BK3	Long Pergola Bracket (Ex. 50 x 5 FL min.)	
TIE DOWNS	TD	Type-3 (Refer Dwg G02)	
STIFFENERS	ST	2/ 90 x 45 (1800 long)	MGP10

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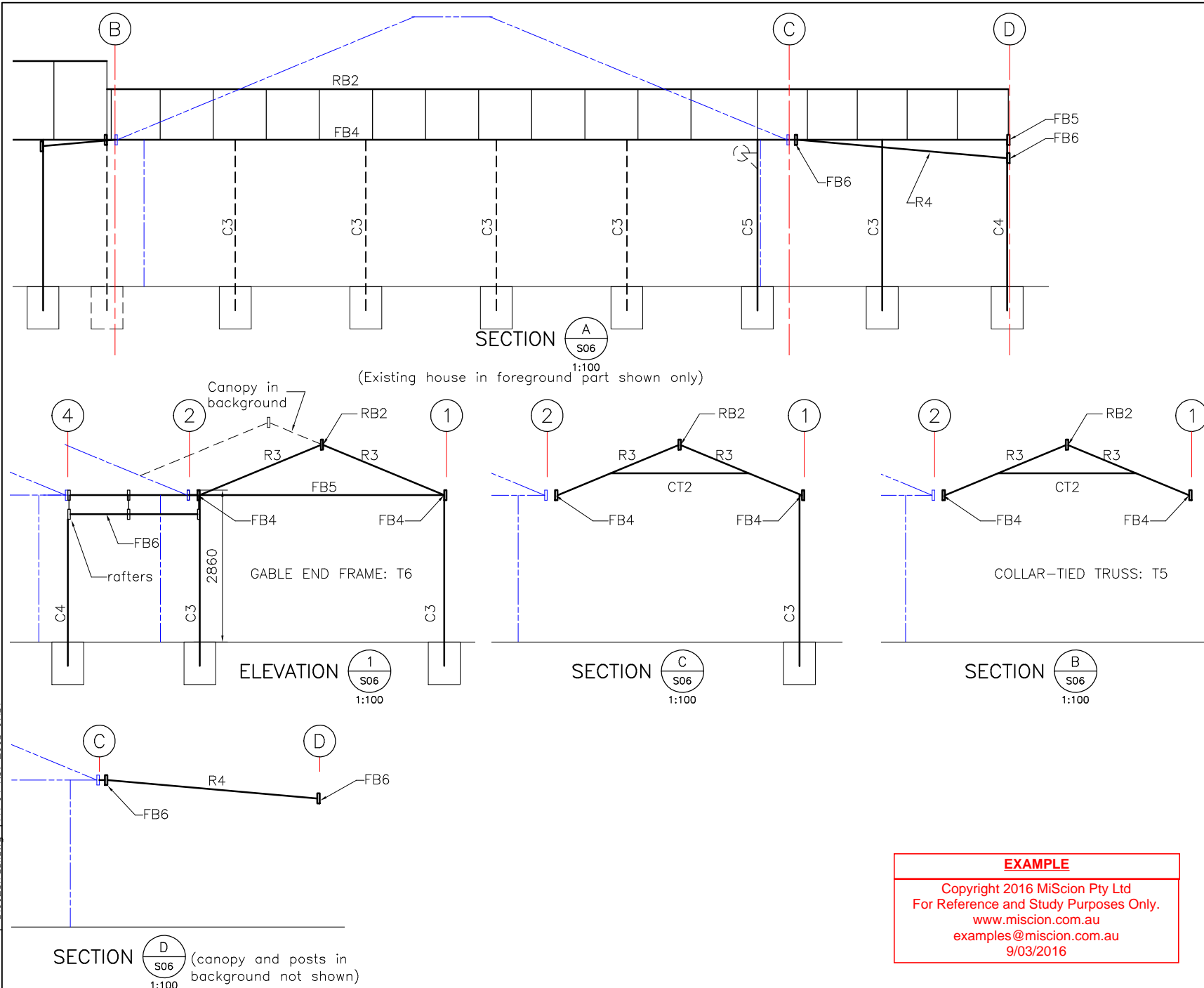
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Proposed Canopies  
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**Campbelltown  
 STRUCTURAL  
 CANOPIES 3,4  
 FRAMING PLAN**

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 STRUCTURAL  
 CANOPIES 3,4  
 ELEVATIONS

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