

# Cantaport made in Japan certified to AU standards

## PJR-series Installation Manual

HZ1695-E

Thank you very much for choosing our company's Cantaport products.  
Please be sure to thoroughly read these instructions for assembling the Cantaport product in conjunction with the engineering details. DIY or Authorised Cantaport installations must follow the manufactures assembling manual to avoid warranty cover.  
Please retain the manual for future reference and maintenance inspection.

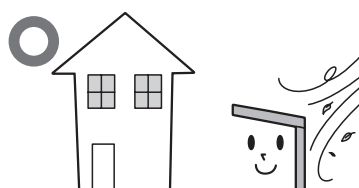
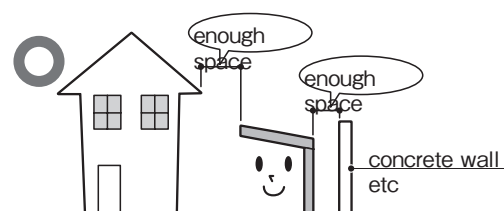


Name of parts	Side frame	Roof retainer	Roof rafter	Roof panel	Front frame
Gutter					
Beam					
Main frame					
Post					

✓	Structural Aluminum Frame
✓	Anodized Surface Finish
✓	Certified to 147KM wind rating
✓	Integrated Built in Gutter & Down Pipe attachment
✓	Resilient, Compact, Weatherproof Corrosion & Termite free, long lasting
✓	D.I.Y Kits, Pre Cut, Pre Drilled, Flat Pack including all fixings
✓	Manufactured in Japan & Certified to AU/NZ and International Standards

### Precautions during installation

- The Cantaport is a simple structure. Do not change or remodel it without gaining certification from Cantaport to avoid warranty or danger to public.
- The snow accumulation strength is 600N/m<sup>2</sup> (61.2kg/m<sup>2</sup>) which corresponds to 20cm of fresh snowfall (specific weight 0.3). Do not install in heavy snow area.
- Do not install it in the place where snow slides down from the building roof directly. There is a possibility that products are damaged by snow falling.
- When installing it besides wall, etc., keep enough clearance between the product and the wall due to avoid damage during strong winds. 100mm-200mm clearance.
- Do not install in locations subject to strong wind directly/constantly underneath the roof.



HEAT REDUCTION POLYCARBONATE	
AO	Blue Smoke
✓	Blocks out 99% UV Rays
✓	Reduces Heat by 83%
✓	250 Times Stronger than glass
✓	Allows 50% Filtered light
✓	Solid Polycarbonate
✓	Guaranteed to not crack* <small>*Installed as per manufactures manual</small>

- When installing, it is recommended to install the front frame facing towards the building to reduce the wind effect.
- When installing with side panel please be sure to install the support post.
- Positioning the posts so that they do not affect underground services (water supply, drain pipes, etc.).
- When moving the posts, please follow the manufactures specifications detailed in this manual.
- Install so that the exhaust of hot-water steam, heating fumes and/or car exhaust do not directly hit the surface of the supports and around the entire frame. This may cause discolouration of the surface structure.





Single Basic



PJR-5033 H23 (SLC)



Wide Beam Triple



PJRT-5072 H23 (BD)

## M-Connection



PJR-50-2424M H23 (KC)



× 2cars

## Y-Connection



PJR-50-2727Y H23 (UC)



× 2cars

## In-Line Connection



PJR-5050-27 H23 (SLC)



× 2cars

## M-Connection



PJR-50-2424M H23 (KC)



× 2cars

## Y-Connection



PJR-50-2727Y H23 (UC)



× 2cars

## In-Line Connection



PJR-5050-27 H23 (SLC)



× 2cars

## In-Line Short Extension



PJR-5014-27 H23 (BD)



× 1 car +

## Mini



PJR-2921 H18 (SLC)



× 2cars

## Wide Beam



PJRW-5054 H23 (SLC)



× 2cars

## ALUMINIUM COLOR

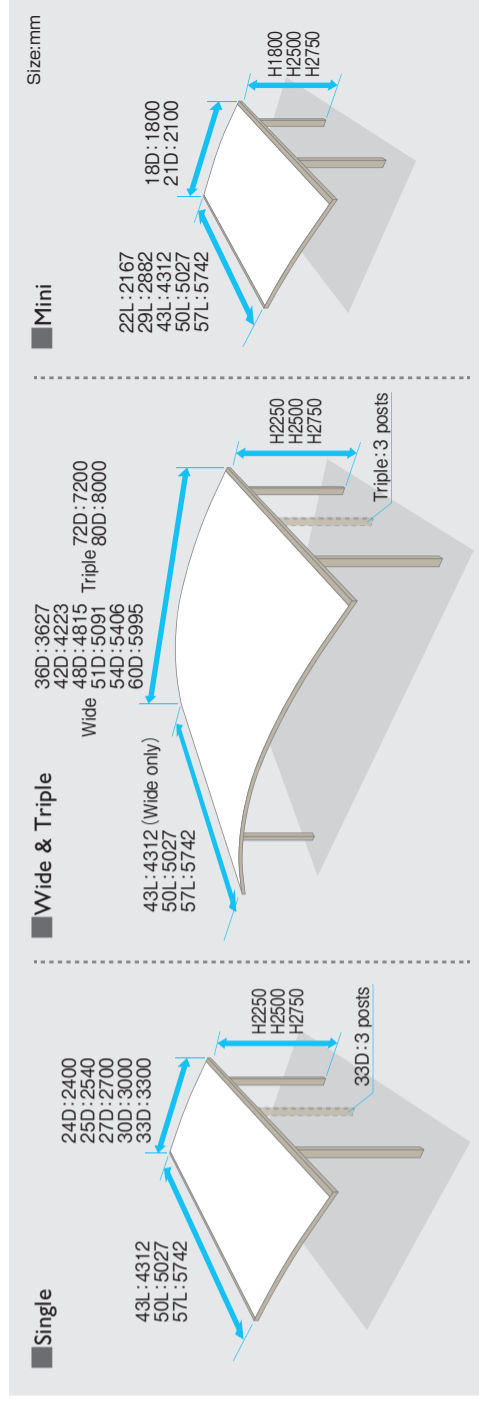
SLC Sun Silver	UC Urban Gray	BD Dark Bronze	KC Black	WH White	BR Bronze	BNC Earth Brown
----------------	---------------	----------------	----------	----------	-----------	-----------------

## ROOF COLOR

BR brown smoke	AO blue smoke	SI clear mat	AO blue smoke	SI clear mat
heat protection	polycarbonate	heat protection	polycarbonate	SI clear mat

## STRENGTH

SNOW 600 N/m <sup>2</sup>	WIND 38 m/s	WIND 42 m/s
Single	Single	Wide & Triple

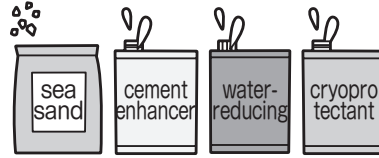




## Precautions during construction

- Follow the instructions and be sure that all the specified screws and bolts for assembly are tightened securely
- Tighten the M8 bolts about 13Nm (130kgfcm) tightening torque.
- Do not use anything other than the specified parts or accessory parts.
- The foundation should comply with the certified engineering specifications page 4 .
- Allow sufficient curing time for the concrete and do not place heavy objects on it or subject it to vibrations during curing.
- Caution note below to prevent aluminum materials corrode.

- (1) Do not use sea sand for the foundation since it contains salt and may cause corrosion. Do not use a cement enhancer, water-reducing agent or cryoprotectant. They may cause the posts to corrode.
- (2) Immediately wipe off any mortar or stains from the surface of the aluminum parts as they may cause corrosion.

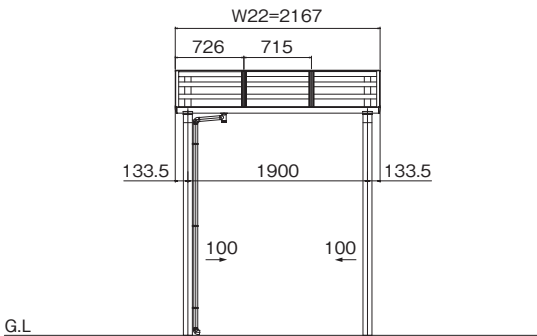


## Dimension, position of posts and base dimension

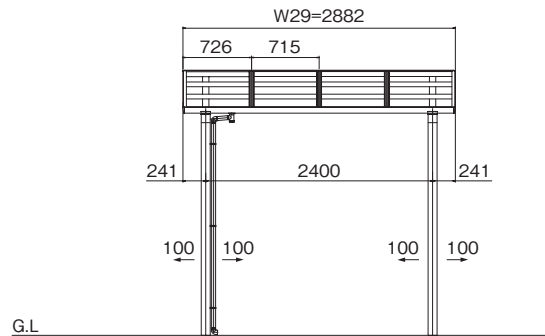
### Dimension, position of post

■ Length dimension(W) and post standard position (Post could be changed as the dimension of ← →.)

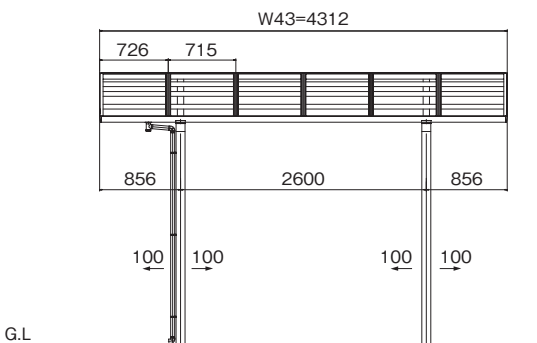
#### ● 20 size



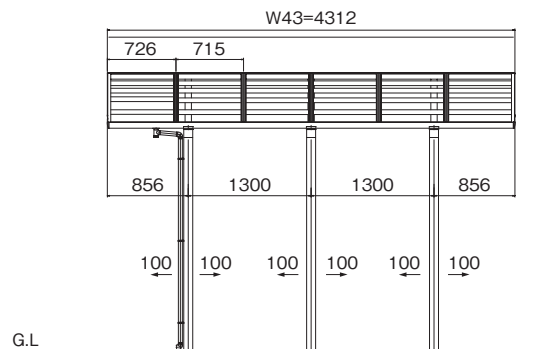
#### ● 29 size



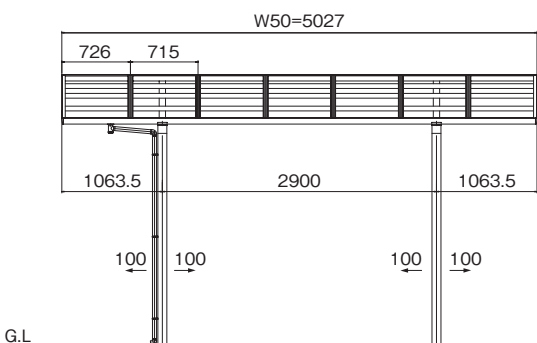
#### ● 43 size



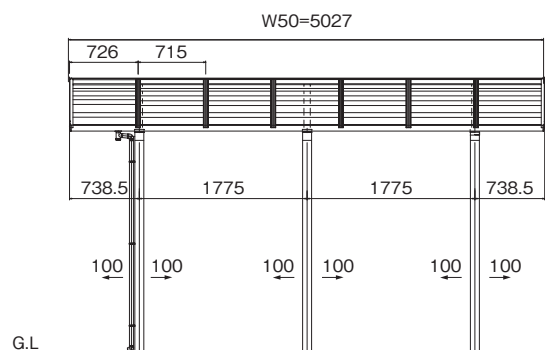
#### For D33 size



#### ● 50 size

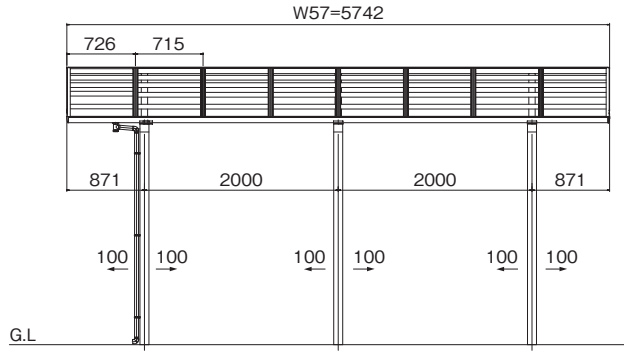
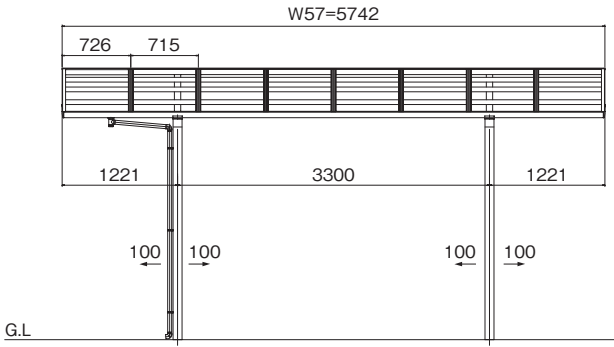


#### For D33 size

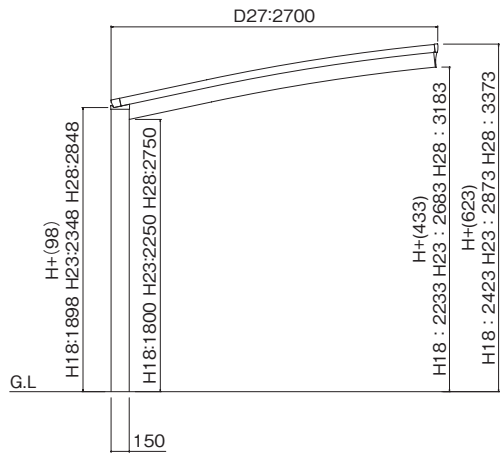
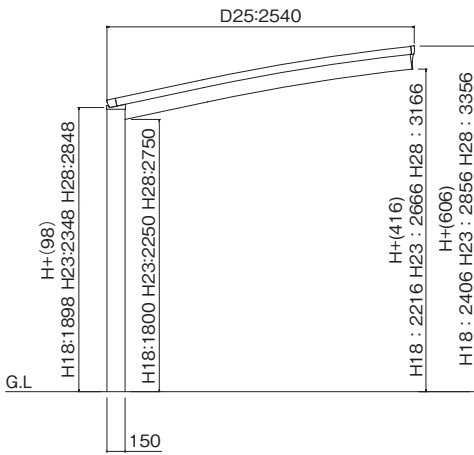
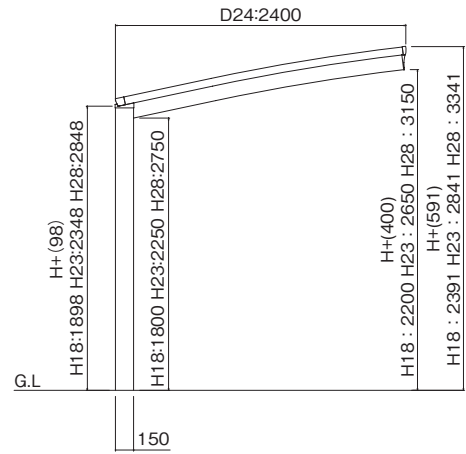
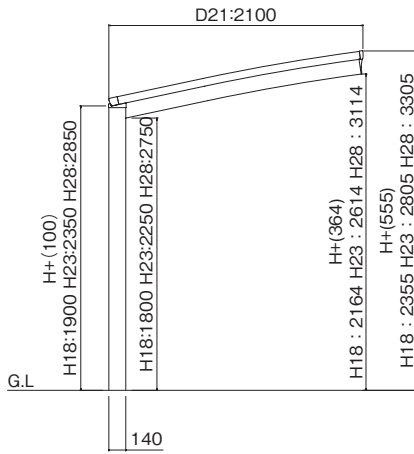
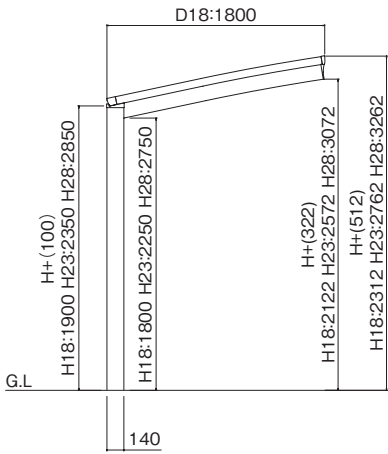


● 57 size

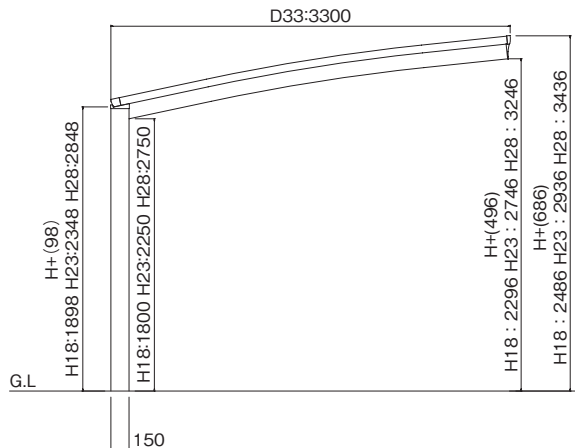
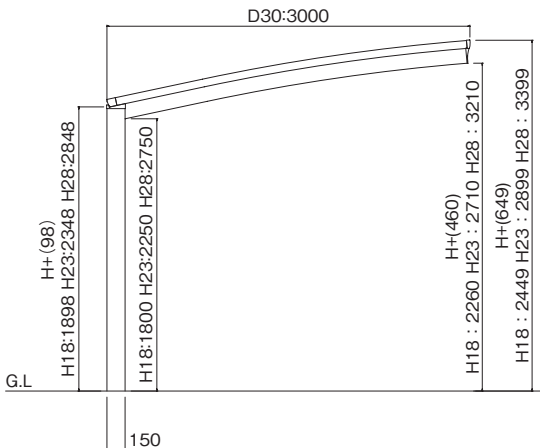
For D33 size



■ Depth dimension(D), height dimension(H)  
[depth 18-21-24-25-27-30-33size]



**NOTE: HEIGHTS CAN BE ADJUSTED USING METAL SLEEVES**







# CANTAPORT AUSTRALIA - PJR/PJF SERIES SHADE STRUCTURE

# GENERIC ENGINEERING

REV	BY	ISSUE / REVISION DESCRIPTION	DATE	TITLE	PROJECT No.	CLIENT
0	RW	NOT FOR CONSTRUCTION	XXXX20	GENERIC DETAILS		CANTAPORT AUSTRALIA
				APPROVED BY	001	PROJECT
				RUSSELL WHITE	A3	
				MIE Aust CP Eng NER RPEQ RBP BPB		
INFORMED ENGINEERING PTY LTD    ABN 72641093656    PO BOX 4055, BALWYN EAST, VIC 3103						

**informed**  
engineering

#### A. GENERAL NOTES:

- THE DETAILING, BUILDABILITY AND PURPOSE OF THESE DRAWINGS SHALL BE CHECKED BY THE CLIENT AND THEIR BUILDER IN ORDER TO VERIFY AND DETERMINE THE PRACTICALITY OF THE DESIGN HEREIN. ANY ITEMS NOT CONFORMING WITH THE PROJECT ARCHITECTURAL PLAN SHALL BE REFERRED BACK TO THIS OFFICE PRIOR TO CONSTRUCTION.
- USE OF THESE DRAWINGS CONFIRMS THAT THE CLIENT UNDERSTANDS THE DETAILS AND HAS THE RESPONSIBILITY TO PERFORM THE EXECUTION OF THE WORKS INVOLVED.
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL PLANS AND OTHER CONSULTANTS WORKS AND/OR SPECIFICATIONS. ANY SUCH OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE DEVELOPMENT OF THE PROJECT, SHALL REFER ALL DISCREPANCIES TO THE RELEVANT CONSULTANT FOR DECISION PRIOR TO PROCEEDING WITH THE WORK.
- DO NOT SCALE DIMENSIONS FROM THE STRUCTURAL DRAWINGS. DIMENSIONS SHOWN ON ALL DRAWINGS SHALL BE CHECKED AND VERIFIED ON SITE BY THE CLIENT.
- ALL REFERENCED STANDARDS TO BE THE CURRENT VERSION AT TIME OF CONSTRUCTION.
- ALL WORKS AND MATERIALS TO CONFORM WITH THE PROVISIONS OF THE NATIONAL CONSTRUCTION CODE AND IN ACCORDANCE WITH RELEVANT BUILDING STATE AUTHORITIES.
- DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A SAFE AND STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING AND WORKS ARE TO BE AS PER BUILDERS DETAIL.
- THE ENGINEER MUST BE NOTIFIED IN WRITING OF ANY CHANGES TO THE PROPOSED CONSTRUCTION OR SITE PREPARATION IN ORDER TO MAKE NECESSARY CHANGES AS WARRANTED IN THE DESIGN. SUFFICIENT TIME SHALL BE AWARDED TO PROCESS ANY CLIENT SUPPLIED INFORMATION FOR VARIATION TO THE CONTRACT.

#### B. FOOTINGS:

- ALL WORKS & MATERIALS SHALL BE IN ACCORDANCE WITH AS 2870 AND CONFORM WITH THE NATIONAL CONSTRUCTION CODE.
- SHOULD SOIL CONDITIONS ENCOUNTERED ON SITE DIFFER SIGNIFICANTLY FROM THAT INDICATED IN THE SOIL TEST, THE ENGINEER MUST BE NOTIFIED BEFORE PROCEEDING AS MODIFICATIONS TO THE DESIGN MAY BE REQUIRED.
- ANY EXCAVATIONS NOT TO UNDERMINE FOOTINGS. IF UNDERMINING IS LIKELY TO OCCUR, CONTACT THE ENGINEER.
- FOOTINGS SHALL BE PLACED CENTRALLY UNDER COLUMNS UNLESS OTHERWISE NOTED.
- DRAINAGE SHALL BE CONSTRUCTED TO AVOID WATER PONDING AGAINST OR NEAR THE FOOTING. ROOF AND SURFACE WATER TO BE TAKEN AWAY FROM FOUNDATION AREA.
- IF ANY FOOTING IS LOCATED SUCH THAT A 45 DEGREE LINE (FOR CLAY AND 30 DEGREES FOR SAND) FROM ITS BASE INTERSECTS ANY UNDERGROUND SERVICE, THEN PIERS ARE REQUIRED TO BE EXTENDED.

#### C. CONCRETE:

- ALL WORKS AND MATERIALS SHALL BE IN ACCORDANCE WITH AS 3600 & AS 2870.
- REFER TO CONCRETE TABLE BELOW FOR TYPICAL VALUES.

LOCATION	CONCRETE	MIN COVER U.N.O (mm)
GROUND SLAB	N25/20/100	30 TYPICAL 40 TOP(EXT)
FOOTINGS	N25/20/100	50 TYPICAL
SUSPENDED SLAB	N32/20/80	30 TYPICAL 20 BTM.
- SAMPLE AND TEST IN ACCORDANCE WITH AS 3600.
- CONSOLIDATE BY VIBRATION.
- THOROUGHLY SCABBLE CONCRETE ON WHICH NEW CONCRETE IS TO BE POURED.
- ALL CONCRETE SHALL BE PLACED AND CURED IN ACCORDANCE WITH AS3600. ALL CONCRETE SHALL BE CURED CONTINUOUSLY BY APPROVED METHODS AFTER PLACING.
- CONSTRUCTION JOINTS IN CONCRETE SHALL ONLY BE MADE WITH THE APPROVAL OF THE ENGINEER.
- U.N.O NO ALLOWANCE HAS BEEN MADE FOR STACKED MATERIALS OR MACHINERY ON THE CONCRETE STRUCTURE. ALL FORMWORK SHALL BE DESIGNED TO WITHSTAND ALL POSSIBLE LOAD COMBINATIONS DURING CONSTRUCTION.
- ALL GALVANIZED ITEMS WHICH ARE CAST INTO CONCRETE SHALL BE PASSIVATED IN ACCORDANCE WITH NCC.
- ALTERNATIVE SPLICES IN REINFORCEMENT OTHER THAN THOSE SHOWN SHALL BE TO THE APPROVAL OF THE ENGINEER, WHERE THE LAP LENGTH IS NOT SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT.
- WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS.

- REINFORCEMENT SYMBOLS:
  - N - DENOTES GRADE D500 HIGH STRENGTH DEFORMED BARS TO AS 4671.
  - R - DENOTES GRADE F250 HOT ROLLED PLAIN BARS TO AS 4671.
  - SL - DENOTES HARD-DRAWN WIRE SQUARE REINFORCING FABRIC TO AS 4671.
  - RL - DENOTES HARD-DRAWN WIRE RECTANGULAR REINFORCING FABRIC TO AS 4671.
  - L - DENOTES HARD-DRAWN WIRE TRENCH MESH TO AS 4671.
  - TM - DENOTES HARD-DRAWN WIRE TRENCH MESH TO AS 4671.THE NUMBER IMMEDIATELY FOLLOWING THESE SYMBOLS IS THE BAR DIAMETER IN MILLIMETRES.
- FABRIC/MESH REINFORCEMENT TO BE LAPPED ONE MESH PLUS 30mm LAPS IN POSITIONS OF MAXIMUM MOMENT ARE NOT PERMITTED. REINFORCEMENT SHALL BE PLACED WITH ACCURATE COVER AS NOTED.
- ALL REINFORCEMENT SHALL BE FIRMLY SUPPORTED ON PLASTIC CHAIRS GENERALLY AT NOT GREATER THAN 800 CENTRES. RODS SHALL BE TIED AT ALTERNATE INTERSECTIONS.

#### D. STRUCTURAL STEELWORK:

- ALL WORKS AND MATERIALS TO CONFORM WITH AS 4100 - STEEL STRUCTURES, AS/NZS 4600 - COLD-FORMED STEEL STRUCTURES, ALL ALUMINIUM WORK TO AS1664. ALL WORK GENERALLY IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE AND ALL RELEVANT BUILDING STANDARDS AND CODES.  
ALL WORK ON THIS PROJECT SHALL BE UNDERTAKEN BY COMPETENT PERSONNEL.  
STEELWORK SHALL BE FABRICATED BY FABRICATORS CERTIFIED UNDER THE ASI 'NATIONAL STRUCTURAL STEELWORK COMPLIANCE SCHEME' (N/SSCS) (see <http://www.steecompliance.com.au/>).
- ALL STEELWORK SHALL BE TEMPORARILY BUT SECURELY BRACED, TO MAINTAIN THE STRUCTURE IN A SAFE AND STABLE CONDITION DURING CONSTRUCTION.
- BASE PLATES SHALL BE GROUDED BEFORE BEING SUBSTANTIALLY LOADED. MINIMUM GROUT STRENGTH (f<sub>g</sub>) SHALL BE 25 MPa AND SHALL BE DRY PACK MORTAR RANMED IN, OR AN APPROVED NON-SHRINK GROUT.
- ALL STRUCTURAL STEEL MATERIAL SHALL CONFORM TO THE FOLLOWING TABLE UNO:

COMPONENT	TO CONFORM TO AUST. STANDARDS	MIN GRADE
HOT ROLLED STEEL SECTIONS	AS/NZS 3679.1 TS102	300
PLATE	AS/NZS 3678 TS102	250
PLATS	AS/NZS 1594 TS102	300
HOLLOW SECTIONS	AS/NZS 1163 TS102	
CIRCULAR CHS		C350L0
SQUARE SHS		C350L0
RECTANGULAR RHS		C350L0
WELDED BEAMS & COLUMNS	AS/NZS 3679.2 TS102	300
SHEAR STUDS	AS/NZS 1554.2	380
QUENCHED/TEMPERED PLATE	AS/NZS 3597	690
PURLINS & GIRTS	AS/NZS 1397	450

- WELDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF AS/NZS 1554.1. WELDING CONSUMABLES SHALL BE GRADE E48XX OR W50X UNO. ALL WELDS SHALL BE 6mm CFW SP CATEGORY UNO.  
INSPECTION IS REQUIRED IN ACCORDANCE WITH AS/NZS 1554.1.  
ALL WELDS SHALL BE 100% VISUALLY SCANNED. SP FILLET WELDS SHALL HAVE 10% VISUAL EXAMINATION.  
SP BUTT WELDS SHALL HAVE 80% VISUAL EXAMINATION UNO. ALL GP WELDS SHALL HAVE 10% VISUAL EXAMINATION.
- MIN BOLTS SIZE SHALL BE M20 DIAMETER UNO. BOLT CATEGORY IS TO BE 8.8/S COMPLYING WITH AS 4100, AS/NZS 1232 & AS/NZS 4291.1. UNO. EVIDENCE OF COMPLIANCE WITH THESE CODES SHALL BE NOTED.  
ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANISED TO AS/NZS 1214. ALL BOLTS, NUTS AND WASHERS, INCLUDING HOLD DOWN BOLTS, CAST-IN FERRULES AND MASONRY ANCHORS ARE TO BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE. ALL GALVANISED COMPONENTS TO BE CAST INTO CONCRETE MUST BE PASSIVATED.  
A MINIMUM OF TWO THREADS SHALL EXTEND PAST THE NUT
- ALL DETAILING WHERE NOT SPECIFICALLY SHOWN SHALL BE IN ACCORDANCE WITH THE AUSTRALIAN STEEL INSTITUTE CURRENT EDITIONS OF THE 'DESIGN CAPACITY TABLES FOR STRUCTURAL STEEL' AND THE ASI STANDARDISED STRUCTURAL CONNECTION DETAILS CONTAINED THEREIN.  
THE ENDS ARE TO BE 12mm THICK CUT FROM STANDARD FLAT BARS UNO.  
PLATES OF HOLLOW SECTION MEMBERS SHALL BE SEALED WITH NOMINAL THICKNESS PLATES AND CONTINUOUS SEAL WELDED UNLESS NOTED OTHERWISE. IF HOLLOW SECTIONS ARE TO BE HOT-DIP GALVANIZED, VENT AND DRAINAGE HOLES SHALL BE PROVIDED CONFORMING TO THE REQUIREMENTS.
- THE STEEL FABRICATOR SHALL PROVIDE THE ENGINEER WITH A COPY OF WORKSHOP DRAWINGS FOR CERTIFICATION AT LEAST 7 DAYS BEFORE FABRICATION IS STARTED. STEELWORK IS NOT TO BE FABRICATED UNTIL WORKSHOP DRAWINGS ARE APPROVED.
- ALL DIMENSIONS ARE MILLIMETRES UNO.  
UNLESS NOTED OTHERWISE, PROTECTIVE COATINGS FOR STEELWORK SHALL BE TREATED IN ACCORDANCE WITH NCC VOL. 2 TABLE 3.4.4.2 'PROTECTIVE COATINGS FOR STEELWORK'.
- ALL STRUCTURAL STEELWORK MEMBERS SHALL BE SUPPLIED IN A SINGLE LENGTH, EXCEPT WHERE OTHERWISE INDICATED WITH SPLICE LOCATIONS SHOWN ON THE STRUCTURAL DRAWING. SPLICES AT OTHER LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO FABRICATION COMMENCING.
- ALL MEMBERS HAVING A NATURAL CAMBER WITHIN THE STRAIGHTNESS TOLERANCE SHALL BE ERCTED WITH THE NATURAL CAMBER UP.
- ALL SITE TESTING OF POST-INSTALLED ANCHORS SHALL BE UNDERTAKEN ACCORDING TO THE REQUIREMENTS OF AEFAC TECHNICAL NOTE - SITE TESTING GUIDELINES VOLUMES 1 TO 4, (available at [www.aefac.org.au/resources](http://www.aefac.org.au/resources)).
- PROPRIETARY ITEMS (E.G. PURLINS, ROOF/WALL SHEETING, FERRULES) SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

- ALL CUTTING, HOLING AND SHAPING OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF AS/NZS 5131. PENETRATIONS OR CUT-OUTS OTHER THAN THOSE SHOWN ON THE DRAWINGS SHALL NOT BE MADE WITHOUT PRIOR APPROVAL.
- ALL STRUCTURAL STEEL SHALL BE SOURCED FROM MILLS WITH A RELEVANT AS ANZ ACCREDITED THIRD PARTY CERTIFICATION SCHEME SUCH AS THE AGRS SCHEME (see <http://agrskertification.com/>). ALTERNATIVE SOURCING OF THIRD PARTY CERTIFIED STRUCTURAL STEEL SHALL BE SUBMITTED FOR REVIEW AND MUST BE APPROVED PRIOR TO THE COMMENCEMENT OF PROCUREMENT.
- SITE TESTING SHALL BE PERFORMED ON MECHANICAL AND CHEMICAL ANCHORS TO VALIDATE CORRECT INSTALLATION (PROF. TESTING). A MINIMUM TEST SAMPLE POPULATION SHALL BE THREE SPECIMENS OR 2.5% OF THE TOTAL RELEVANT POPULATION, WHICHEVER IS GREATER. IF A SINGLE FAILURE IS RECORDED, THE MINIMUM TEST SAMPLE POPULATION SHALL BE INCREASED TO SIX TEST SPECIMENS OR 5% OF THE TOTAL RELEVANT ANCHOR POPULATION, WHICHEVER IS GREATER. IF TWO OR MORE TEST SAMPLES FAIL, ALL ANCHORS IN THE RELEVANT ANCHOR POPULATION SHALL BE TESTED.

#### E. GENERAL DESIGN CRITERIA:

- THE DESIGN SPECIFICATION IS ONLY SUITABLE FOR THE ADDRESS SHOWN IN THE TITLE BLOCK.  
THIS DESIGN SPECIFICATION IS SUITABLE FOR ONE BUILDING ONLY UNO. PLEASE CONFIRM WITH INFORMED ENGINEERING THAT THESE DRAWINGS HAVE BEEN APPROVED. THE NOTES MAY BE LIMITED IN NATURE AND THE STRUCTURES SUITABILITY MUST BE CONFIRMED AS THE LIMITATIONS CAN BE EXCEEDED.  
THIS DESIGN SPECIFICATION IS ADDRESS SPECIFIC AND IS NOT AUTHORISED TO BE USED AT ANY TIME FOR ANY LOCATION OTHER THAN THE STRUCTURE SPECIFIED ON THE CERTIFICATE OF COMPLIANCE. IF THE STRUCTURE IS MOVED OR THE GEOMETRICAL CONFIGURATION IS CHANGED THEN A NEW CERTIFICATION IS TO BE ISSUED.  
IF ANY OF THE SPECIFIED LIMITS ARE EXCEEDED THE ENGINEER IS TO BE CONTACTED BEFORE PROCEEDING.
- DESIGN LOAD ACTIONS (PERMANENT LIVE, WIND) INCLUDED IN THE DESIGN OF THE STRUCTURE ARE DEFINED IN ACCORDANCE WITH THE FOLLOWING:
  - AS1170 PART 0 & 1 DEAD AND LIVE LOADS
  - AS1170 PART 2 WIND LOADS
  - AS1170 PART 4 EARTHQUAKE LOADS
- 50 YEAR STRUCTURE DESIGN WORKING LIFE.  
IMPORTANCE LEVEL 2.  
WIND REGION A TERRAIN CATEGORY 2, Z.S. 3 OR 4.  
U.L.T. LIMIT STATE WIND SPEED OF 43m/s  
SERVICEABILITY LIMIT STATE WIND SPEED OF 37m/s

#### F. SPECIFICATION NOTES:

- CONCRETE TO BE MIN 20/20/80 POURED DIRECTLY INTO FOOTING EXCAVATION AND ALL AROUND POST. HAND TAMP TO REMOVE ANY AIR VOIDS OR NON-LIFORMITIES, WHERE POSTS ARE BASE PLATED TO TOP OF FOOTINGS. CONCRETE TO BE MIN 25/20/80 TYP POURED IN SITU IN ACCORDANCE WITH AS 3600.
- ALL FABRICATION AND ERECTION OF STEELWORK TO BE IN ACCORDANCE WITH AS4100 AND AS1664 FOR ALUMINIUM. REPAIR ALL WELDS WITH COLD GALVANIZING PAINT. ALL COATINGS AND HARDWARE, BOLTS, SCREWS TO SUIT EXPOSURE CLASSIFICATION.  
ALL TIMBER WORKS AND MATERIALS ARE TO COMPLY WITH THE PROVISIONS OF AS1684 AND AS1720. IT IS THE RESPONSIBILITY OF THE CLIENT TO INFORM THE OWNER OF THE IMPORTANCE OF MAINTAINING EXTERNAL STRUCTURAL TIMBERS BY WAY OF PAINTING OR SIMILAR PROTECTION.
- SEAL ALL OPEN ENDS OF HOLLOW SECTIONS WITH 3PL SEAL CAP PLATES OR TO BUILDERS DETAILS. PROVIDE Ø5 DRAIN HOLE IN SEAL PLATES AS REQUIRED. REMOVE ALL SHARP EDGES AND BURRS.
- ALL DISSIMILAR METALS TO BE ISOLATED WITH LOAD-BEARING PLASTIC WASHERS, SPACERS AND SLEEVES TO BUILDERS DETAILS.
- INFORMED ENGINEERING PTY.LTD ACCEPTS NO RESPONSIBILITY FOR THE IN-SERVICE STRUCTURAL PERFORMANCE OF THE DESIGN OF THE STRUCTURE UNTIL WE ARE INVITED TO CARRY OUT A COMPLIANCE INSPECTION OF THE AS-CONSTRUCTED PROJECT. UPON INSPECTION AND SUBSEQUENT CERTIFICATION, A CERTIFICATE OF COMPLIANCE WILL BE ISSUED BY THIS OFFICE DEMONSTRATING THE CONFORMANCE WITH THIS SPECIFICATION.
- ALL SHS/ RHS/ CHS HOLLOW SECTIONS TO BE G350 MIN UNO.
- MAX ROOF PITCH - 75°
- POSTS ARE DESIGNED WITH DEFLECTIONS LIMITED TO HEIGHT/100 UNDER ERECTION PRE-TENSION LOADING. POSTS ARE OTHERWISE DESIGNED FOR STRENGTH ULTIMATE DESIGN LOADING AND MAY BE EXPECTED TO DEFLECT UNDER SERVICEABILITY WIND LOADS.
- VEHICULAR IMPACT LOADS HAVE NOT BEEN CONSIDERED IN THE DESIGN.
- ROOF CLADDING TO BE FIXED TO MANUFACTURER'S SPECIFICATIONS. FLASHINGS AND GUTTERS TO BE FIXED TO BUILDERS DETAILS. IT IS THE BUILDERS RESPONSIBILITY TO NOTIFY THE OWNER THAT THE CANOPY PURLINS (P1) ARE NOT ABLE TO CARRY ANY LIVE POINT LOADS.
- CANOPY MUST NOT BE BLOCKED MORE THAN 2/3 OF THE CANOPY HEIGHT IN THE EVENT OF PEAK WIND LOADING. CANOPY CAN BE BLOCKED (BY WALLS OR HOUSE) ON ONE SIDE MAXIMUM.
- THE MEMBERS SIZES SHOWN ON THIS DESIGN ARE THE MINIMUM SIZES DEEMED NECESSARY TO FULFIL THE INTENT OF THE STRUCTURAL DESIGN. REFER BACK TO THIS OFFICE SHOULD ANY ITEMS BE DEVIATED FROM DURING THE COURSE OF FABRICATION, ERECTION AND INSTALLATION.
- THIS DESIGN SPECIFICATION IS ONLY RELEVANT FOR PROJECTS WHICH MATCH THE ARRANGEMENTS SHOWN. IT IS THE BUILDERS RESPONSIBILITY TO ENSURE THAT ANY MANUFACTURER SPECIFIC REQUIREMENTS ARE MET.
- THE DESIGN IS TO BE ERCTED STRICTLY IN ACCORDANCE WITH THE CERTIFIED SITE PLAN AND STANDARD DRAWINGS SUPPLIED BY THIS OFFICE. CONFORMITY WITH ALL STATUTORY OR LOCAL BUILDING AUTHORITY REGULATIONS IS THE BUILDERS RESPONSIBILITY.
- CONTACT THE STRUCTURAL ENGINEER FOR PROPER ADVICE WHEN SURCHARGING OR UNDERMINING OF EXISTING STRUCTURES/SERVICES OCCURS ON THIS SITE (OR ADJACENT SITES).
- ANY EXISTING STRUCTURE IS TO BE BY OTHERS. ALL EXISTING ELEMENTS ARE TO BE DETERMINED AS STRUCTURALLY ADEQUATE IN ORDER TO CARRY THE IMPOSED LOADING OF THE PROPOSED STRUCTURES. BY A CERTIFIED PRACTICING ENGINEER. THIS DESIGN CERTIFICATION DOES NOT EXTEND TO CERTIFICATION OF EXISTING STRUCTURES.
- ADDITIONAL SHADE STRUCTURE CONFIGURATIONS MAY BE PLACED DIRECTLY ALONG SIDE ALL SINGULAR PROPOSED STRUCTURES. ACCEPTABLE CONFIGURATIONS INCLUDE APEX CONNECTION (M CONNECT), BACK TO BACK COLUMN CONNECTION (Y CONNECT), AND END TO END CONNECTIONS (IN LINE CONNECT).
- C1 COLUMNS, B1 BEAMS AND P1 PURLINS TO BE 6063 T6 ALUMINIUM WITH MINIMUM 180MPa COMPRESSION YIELD STRESS CAPACITY. CORNER BRACKET TO BE STEEL WITH MINIMUM GRADE OF 350MPa.  
IT IS ASSUMED THAT THE MINIMUM ALLOWABLE SOIL BEARING CAPACITY IS 100KPa OR GREATER.
- IF SANDY SOILS ARE ENCOUNTERED, FOUNDATION MATERIAL WITHIN 1m OF ALL FOOTINGS TO BE SUFFICIENTLY COMPACTED TO ACHIEVE MINIMUM TEST RESULTS OF 6 BLOWS / 300mm FOR THE FULL FOOTING DEPTH WHEN TESTED WITH A DYNAMIC CONE PENETROMETER. COMPACTION LEVEL TO BE ACHIEVED PRIOR TO EXCAVATION.
- CERTIFICATION IS ONLY VALID FOR 1x SINGLE P/IR STRUCTURE SUPPLIED BY CANTAPORT. CORRESPONDING WITHIN THE GEOMETRIC LIMITATIONS SHOWN DIAGRAMMETICALLY ON THIS ENGINEERING SPECIFICATION.

REV	BY	ISSUE / REVISION DESCRIPTION	DATE	TITLE
0	RW	NOT FOR CONSTRUCTION	XXXX.20	SPECIFICATION

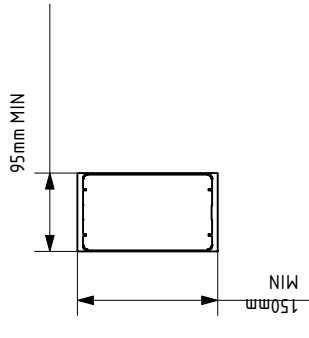
APPROVED BY  
**RUSSELL WHITE**  
MIE Aust CP Eng NER RPEQ RBP BPP

PROJECT No.  
**NTS 101 A3**

CLIENT  
**CANTAPORT AUSTRALIA**

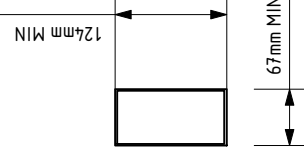
PROJECT





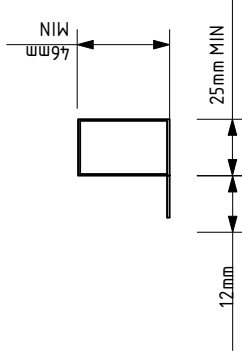
MINIMUM FLANGE THICKNESS 5.6mm  
MINIMUM WEB THICKNESS 1.6mm

**C1 SECTION DETAIL**



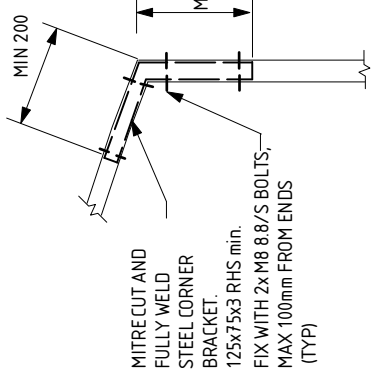
MINIMUM FLANGE THICKNESS 4.9mm  
MINIMUM WEB THICKNESS 2.0mm

**B1 SECTION DETAIL**



MINIMUM FLANGE THICKNESS 1.6mm  
MINIMUM WEB THICKNESS 1.1mm

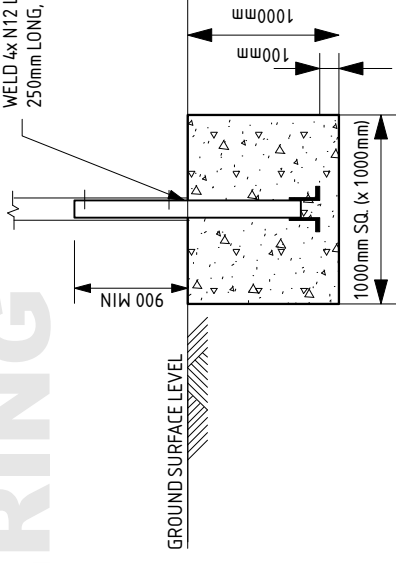
**P1 SECTION DETAIL**



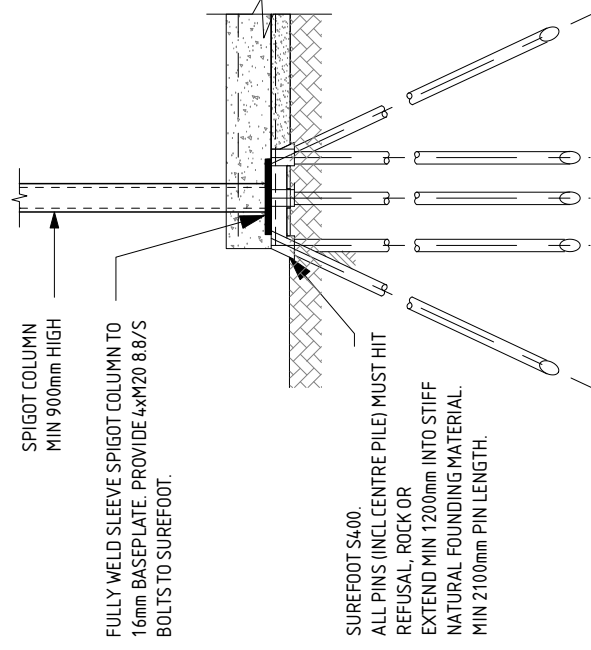
**CORNER BRACKET DETAIL**

**GENERIC ENGINEERING**

STEEL COLUMN SPIGOT EMBEDDED INTO FOOTING (min 2/65x3 SHS WITH Ø16mm WELDED ROD SPACERS OR 125PFC). BOLT TO C1 VIA 2xM16 BOLTS, MAX 100mm FROM ENDS. WELD 4x N12 LUGS TO BASE OF SPIGOT, 250mm LONG, 100mm COG.



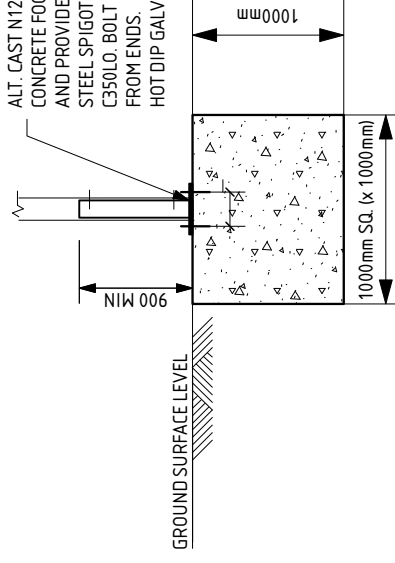
**FOOTING PAD OPTION WITH EMBEDDED SPIGOT SLEEVE**



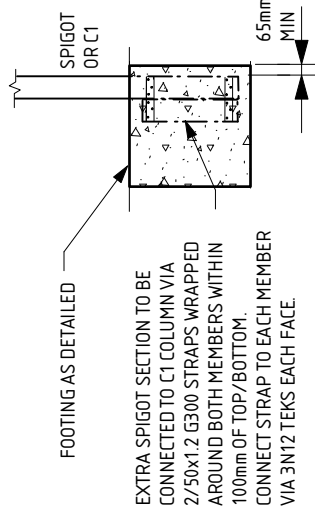
**SUREFOOT OPTION**

NOTES:  
a) HOLES MAY NEED TO BE PREDRILLED WHEN ENCOUNTERING ROCK, REFER TO SUREFOOT RECOMMENDATIONS.  
b) IF FILL ENCOUNTERED, REFER BACK TO THIS OFFICE

STEEL COLUMN SPIGOT FULLY WELDED TO 450SQ. x 16PL BASEPLATE FIX TO CONCRETE FOOTING VIA 4x M12 RAMSET CHEMSET 101 PLUS TYP. 8.8 GRADE THREADED ROD ANCHORS, MIN 300mm EMBEDMENT.  
ALT. CAST N12 J-BAR RODS MIN 350mm INTO CONCRETE FOOTING, 100mm COG, THREAD AT TOP AND PROVIDE NUT TO BASEPLATE OVER.  
STEEL SPIGOT TO BE 125PFC OR 2/65x3.0mm SHS C350L0. BOLT TO C1 VIA 2xM16 BOLTS, MAX 100mm FROM ENDS.  
HOT DIP GALV ASSEMBLY.



**FOOTING PAD OPTION WITH SPIGOT SLEEVE**



EXTRA SPIGOT SECTION TO BE CONNECTED TO C1 COLUMN VIA 2/50x1.2 G300 STRAPS WRAPPED AROUND BOTH MEMBERS WITHIN 100mm OF TOP/BOTTOM. CONNECT STRAP TO EACH MEMBER VIA 3N12 TEKS EACH FACE

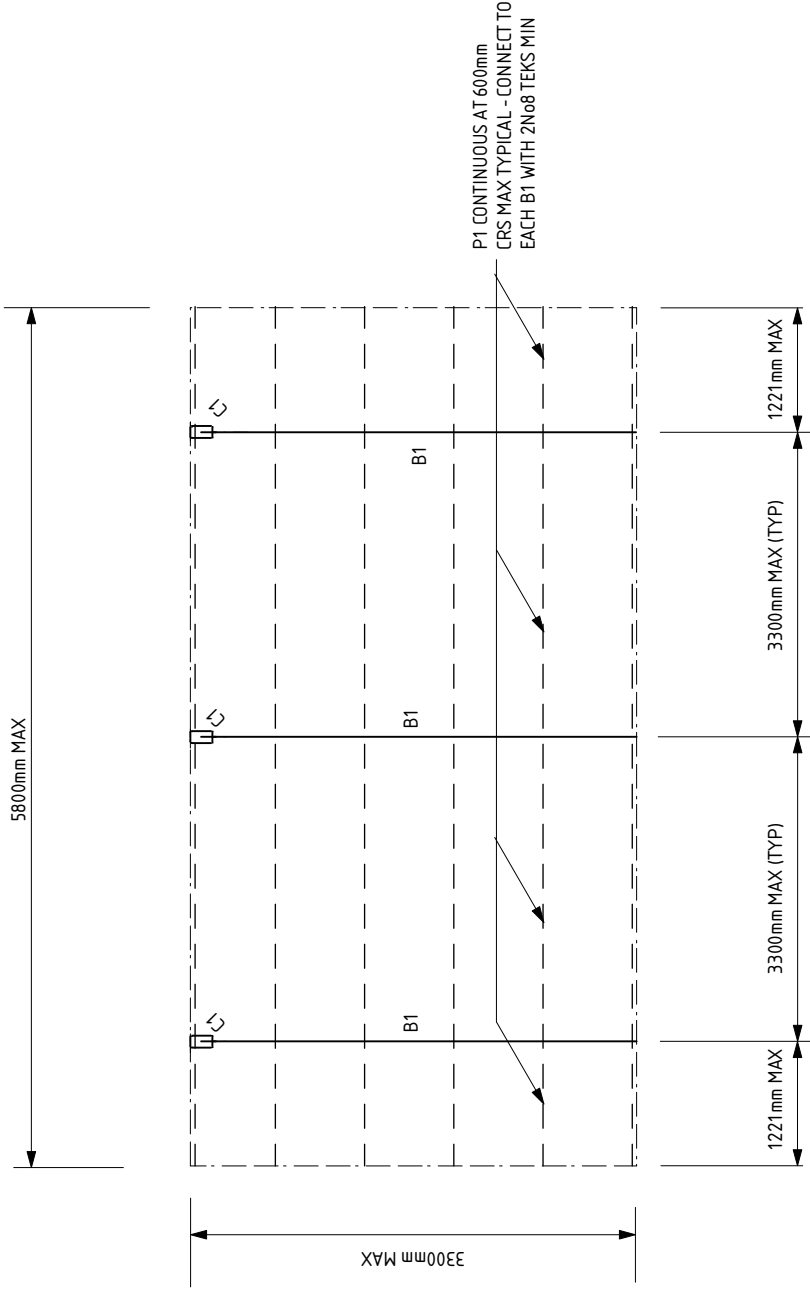
**FOOTING PAD WITH OFFSET COLUMN OPTION**

REV	BY	ISSUE / REVISION DESCRIPTION	DATE	TITLE	PROJECT No.	CLIENT
0	RW	NOT FOR CONSTRUCTION	XXXX.20	DETAILS	NTS 201 A3	CANTAPORT AUSTRALIA
				APPROVED BY		PROJECT
				RUSSELL WHITE		
				MIE Aust CPEng NER RPEQ RBP BPP		



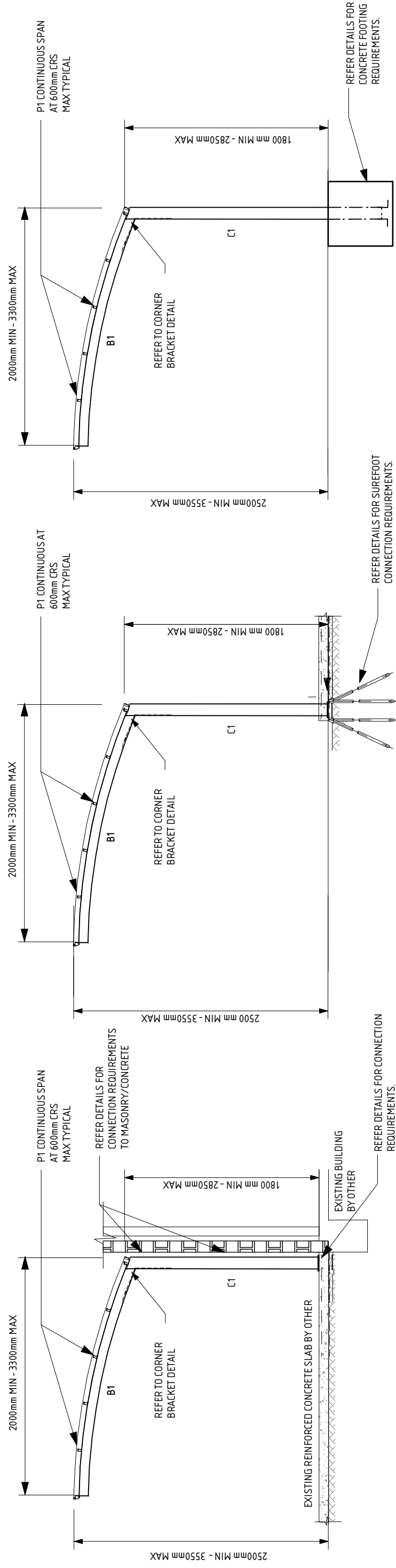


**CANTAPORT SHADING SYSTEMS PJR SERIES**  
**3300mm MAX. CANOPY WIDTH**  
**WITH SUPPORT OPTIONS SHOWN IN SIDE ELEVATION**



**GENERIC ENGINEERING**

**PLAN**



**SIDE ELEVATION**

**SIDE ELEVATION**

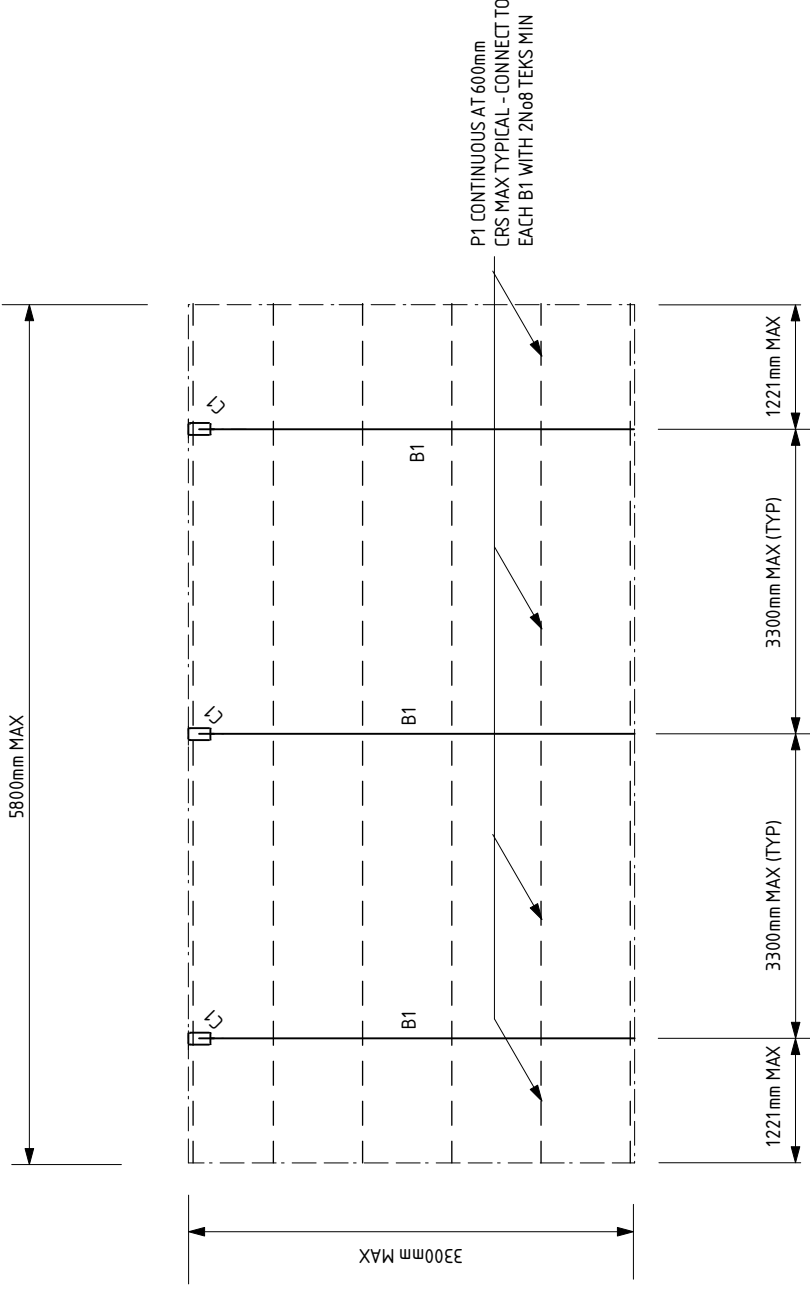
**SIDE ELEVATION**

REV	BY	ISSUE / REVISION DESCRIPTION	DATE	TITLE	PROJECT No.	CLIENT
0	RW	NOT FOR CONSTRUCTION	XXXX20	PLAN AND ELEVATION	NTS 301 A3	CANTAPORT AUSTRALIA
				APPROVED BY		
				RUSSELL WHITE		
				MIE Aust CPEng NER RPEQ RBP BPP		

INFORMED ENGINEERING PTY LTD	ABN 72641093656	PO BOX 4055, BALWYN EAST, VIC 3103
------------------------------	-----------------	------------------------------------

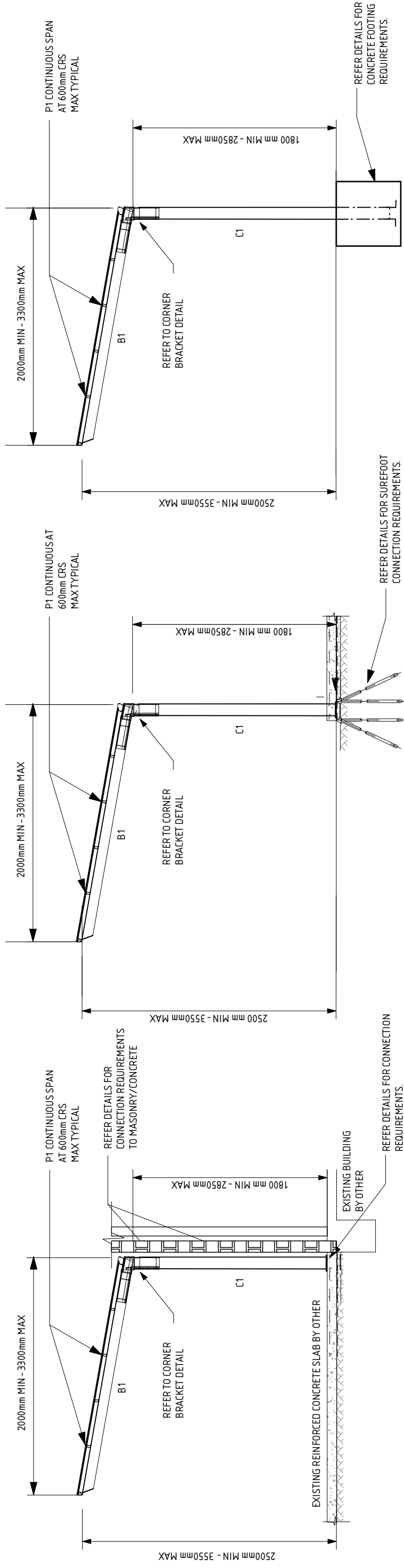


**CANTAPORT SHADING SYSTEMS PJF SERIES -  
3300mm MAX. CANOPY WIDTH  
WITH SUPPORT OPTIONS SHOWN IN SIDE ELEVATION**



**GENERIC ENGINEERING**

**PLAN**



**SIDE ELEVATION**

**SIDE ELEVATION**

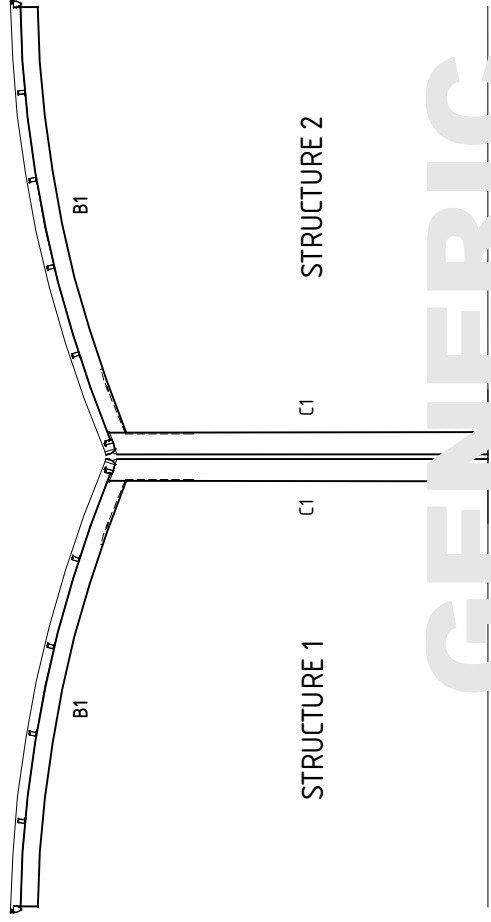
**SIDE ELEVATION**

REV	BY	ISSUE / REVISION DESCRIPTION	DATE	TITLE	PROJECT No.	CLIENT
0	RW	NOT FOR CONSTRUCTION	XXXX.20	PLAN AND ELEVATION	NTS 302 A3	CANTAPORT AUSTRALIA
				APPROVED BY		PROJECT
				RUSSELL WHITE		
				MIE Aust CPEng NER RPEQ RBP BPB		

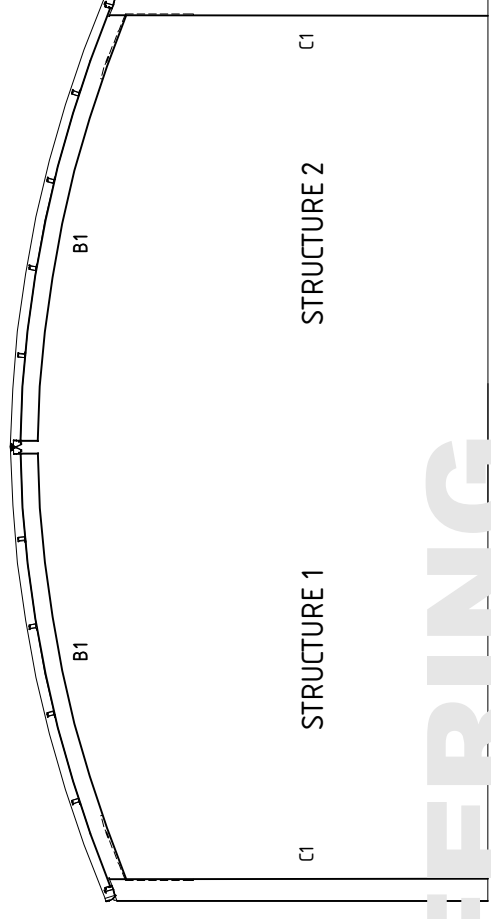


CANTAPORT SHADING SYSTEMS PJR/PJF SERIES  
M-CONNECT/Y-CONNECT/INLINE CONNECT TYPICAL  
CONFIGURATIONS ONLY, FOR MULTIPLE STRUCTURES.  
COMPLEXING DETAILS AS PER MANUFACTURERS  
SPECIFICATIONS.

NOTE: EACH INDIVIDUAL STRUCTURE TO BE  
CERTIFIED, REFER TO CERTIFICATE OF COMPLIANCE  
FOR TOTAL NUMBER OF CERTIFIED STRUCTURES.

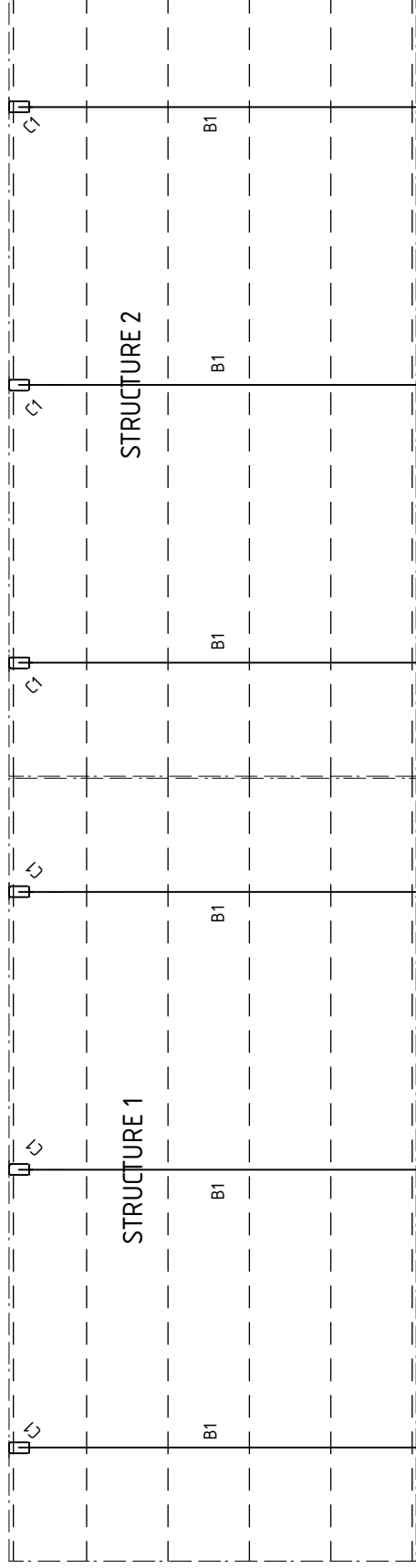


**TYP. Y-CONNECT**



**TYP. M-CONNECT**

GENERIC ENGINEERING



**TYP. INLINE-CONNECT**








REV	BY	ISSUE / REVISION DESCRIPTION	DATE	TITLE	PROJECT No.	CLIENT
0	RW	NOT FOR CONSTRUCTION	XXXX.20	PLAN AND ELEVATION		CANTAPORT AUSTRALIA
				APPROVED BY	NTS	PROJECT
				RUSSELL WHITE	305	
				MIE Aust CP Eng NER RPEQ RBP BPP	A3	






INFORMED ENGINEERING PTY LTD ABN 72641093656 PO BOX 4055, BALWYN EAST, VIC 3103

informed





engineering

## Post·beam·main frame list

Post type	①	②	③	④	⑤	⑥	⑦
Section	 No U shape gutter	 U shape gutter 1 parts	 No U shape gutter	 U shape gutter 1 parts	 U shape gutter 2 parts	 U shape gutter 1 parts	 U shape gutter 2 parts
Parts ID	PJRH-18A PJRH-23A PJRH-18A-1 PJRH-23A-1	PJRH-18B PJRH-23B PJRH-18B-1 PJRH-23B-1	PJRH-18C PJRH-23C PJRH-18C-1 PJRH-23C-1	PJRH-18D PJRH-23D PJRH-18D-1 PJRH-23D-1	PJRH-18E PJRH-23E PJRH-18E-1 PJRH-23E-1	PJRH-28F-1	PJRH-28G-1

Beam type	①	②	③	④	⑤	
Section	 No U shape gutter	 U shape gutter 1 parts	 U shape gutter 2 parts	 U shape gutter 3 parts	 U shape gutter 4 parts	
Parts ID	PJRT-2218A PJRT-2221A PJRT-2918A PJRT-2921A PJRT-4318A PJRT-4321A PJRT-4324A PJRT-4325A	PJRT-5018A PJRT-5021A PJRT-5024A PJRT-5718A	PJRT-4327B PJRT-5721B	PJRT-4333C PJRT-5025C PJRT-5027C PJRT-5724C PJRT-5725C	PJRT-4330D PJRT-5030D PJRT-5033D PJRT-5727D	PJRT-5730E PJRT-5733E



Main frame type	①	②	③	④
Section	 No U shape gutter	 U shape gutter 1 parts	 U shape gutter 2 parts	 U shape gutter 3 parts
Parts ID	PJRY-W22A-2 PJRY-W43A-4 PJRY-W50A-4 PJRY-W57A-4	PJRY-W43B-2 PJRY-W43B-3 PJRY-W43B-4 PJRY-W50B-3 PJRY-W50B-4	PJRY-W50C-2 PJRY-W57C-4	PJRY-W29D-2 PJRY-W57D-2 PJRY-W57D-3



## Parts instruction guide


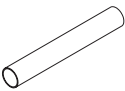


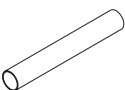

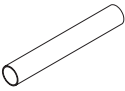


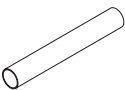

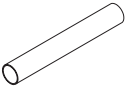

Type		Component parts				
Body size	Depth D	Post			Beam	Main frame
		Standard post	Long post	Extra-long post		
18	22	①	①	⑥	①	①
	29					④
	43					②
	50					③
	57					④
21	22	②	②	⑦	②	①
	29					④
	43					②
	50					③
	57					④
24	43	③	③	⑦	①	②
	50					④
	57					④
25	43	④	④	⑦	③	②
	50					④
	57					④
27	43	④	④	⑦	②	②
	50					③
	57					③
30	43	⑤	⑤	⑦	④	④
	50					②
	57					③
33	43	⑤	⑤	⑦	⑤	③
	50					④
	57					①

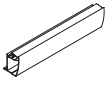
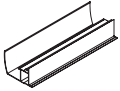
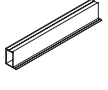


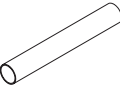
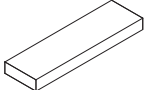


## Parts contents

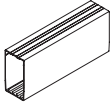





- Please open the captioned carton and check all contents in advance.
- Please check the parts defective or any damage.
- After opening the carton boxes, please store the products so that they are not damaged.
- We packed some extra screw in the parts box. (x) number is necessary Q'ty for installation.

When △mark is P, it's the polycarbonate panel.  
 When △mark is PS, it's polycarbonate panel (SI)  
 When △mark is CP, it's the heat protection polycarbonate panel.  
 When △mark is CH, it's heat protection FRP (SI)



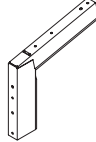
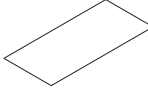
Parts ID	Content		
	Description	Shape	Quantity
Post set (standard) PJRH-18A PJRH-18B PJRH-18C PJRH-18D PJRH-18E	Post		2
	Round gutter GA4923		1
	Instruction manual		1
Post set (1pc) (standard) PJRH-18A-1 PJRH-18B-1 PJRH-18C-1 PJRH-18D-1 PJRH-18E-1	Post		1
	Round gutter GA4923		1
Post set (long post) PJRH-23A PJRH-23B PJRH-23C PJRH-23D PJRH-23E	Post		2
	Round gutter GA4923		1
	Instruction manual		1
Post set (1pc) (long post) PJRH-23A-1 PJRH-23B-1 PJRH-23C-1 PJRH-23D-1 PJRH-23E-1	Post		1
	Round gutter GA4923		1
Post set (extra-long post) PJRH-28F-1 PJRH-28G-1	Post		1
	Round gutter GA4923		1
	Instruction manual		1

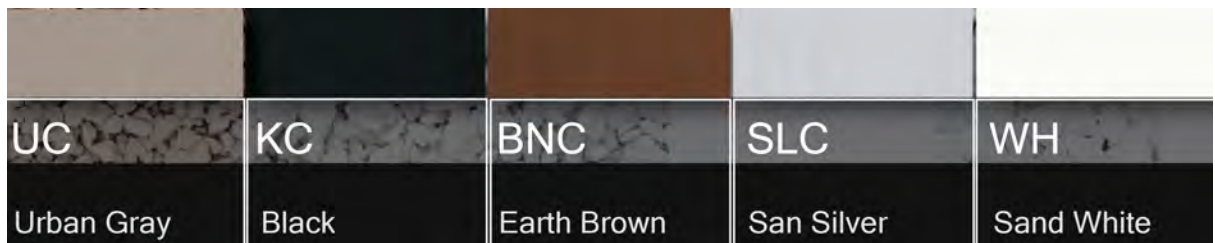
Parts ID	Content			
	Description	Shape	Quantity	
Length set PJRY-W22A-2 PJRY-W29D-2 PJRY-W43A-4 PJRY-W43B-2 PJRY-W43B-3 PJRY-W43B-4 PJRY-W50A-4 PJRY-W50C-2 PJRY-W50B-3 PJRY-W50B-4 PJRY-W57A-4 PJRY-W57D-2 PJRY-W57D-3 PJRY-W57C-4	Front frame		1	
	Gutter		1	
	Main frame		PJRY-W22A-2	2
			PJRY-W29D-2	2
			PJRY-W43A-4	4
			PJRY-W43B-2	2
			PJRY-W43B-3	3
			PJRY-W43B-4	4
			PJRY-W50A-4	2
			PJRY-W50C-2	3
			PJRY-W50B-3	4
			PJRY-W50B-4	2
			PJRY-W57A-4	3
			PJRY-W57D-2	3
			PJRY-W57D-3	4
PJRY-W57C-4			2	
Panel holder (middle) L=645		PJRY-W22A-2	2	
		PJRY-W29D-2	3	
		PJRY-W43A-4	5	
Panel holder (end) L=300		PJRY-W50A-4	6	
		PJRY-W57A-4	7	
Round gutter GA4923		1		
Roof panel cushion GB8274		PJRY-W22A-2	6	
		PJRY-W29D-2	8	
		PJRY-W43A-4	24	
		PJRY-W43B-2	12	
		PJRY-W43B-3	18	
		PJRY-W43B-4	24	
		PJRY-W50A-4	28	
		PJRY-W50C-2	14	
		PJRY-W50B-3	21	
		PJRY-W50B-4	28	
		PJRY-W57A-4	32	
		PJRY-W57D-2	16	
		PJRY-W57D-3	24	
		PJRY-W57C-4	32	



Parts ID	Content				
	Description	Shape	Quantity		
Beam depth set PJRT-2218A PJRT-2221A PJRT-2918A PJRT-2921A PJRT-4318A PJRT-4321A PJRT-4324A PJRT-4325A PJRT-4327B PJRT-4330D PJRT-4333C PJRT-5018A PJRT-5021A PJRT-5024A PJRT-5025C PJRT-5027C PJRT-5030D PJRT-5033D PJRT-5718A PJRT-5721B PJRT-5724C PJRT-5725C PJRT-5727D PJRT-5730E PJRT-5733E	Beam		PJRT-220000	2	
			PJRT-290000		
			PJRT-430000		
			PJRT-500000		
			PJRT-570000		
			PJRT-4333C		3
			PJRT-5033D		
			PJRT-5733E		
	Side frame		2		
			Roof rafter		PJRT-220000
	PJRT-290000	3			
	PJRT-430000	5			
	PJRT-500000	6			
	PJRT-570000	7			
	Roof retainer (middle)				PJRT-220000
			PJRT-290000	3	
			PJRT-430000	5	
			PJRT-500000	6	
			PJRT-570000	7	
	Roof retainer (end)		2		
Small truss screw 5×10×10				PJRT-2218A	48(46)
	PJRT-2221A	53(50)			
	PJRT-2918A	55(52)			
	PJRT-2921A	60(57)			
	PJRT-4318A	67(64)			
	PJRT-4321A	75(71)			
	PJRT-4324A	86(82)			
	PJRT-4325A	93(89)			
	PJRT-4327B	96(91)			
	PJRT-4330D	107(102)			
	PJRT-4333C	155(150)			
	PJRT-5018A	74(70)			
	PJRT-5021A	82(78)			
	PJRT-5024A	95(90)			
	PJRT-5025C	103(98)			
	PJRT-5027C	105(100)			
	PJRT-5030D	118(113)			
	PJRT-5033D	172(167)			
	PJRT-5718A	80(76)			
	PJRT-5721B	89(85)			
PJRT-5724C	103(98)				
PJRT-5725C	112(107)				
PJRT-5727D	114(109)				
PJRT-5730E	128(123)				
PJRT-5733E	189(184)				






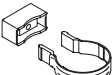



Parts ID	Content			
	Description	Shape	Quantity	
Drilling screw 4×10×8			PJRT-2218A	26(24)
			PJRT-2221A	
			PJRT-2918A	32(30)
			PJRT-2921A	
			PJRT-4318A	44(42)
			PJRT-4321A	
			PJRT-4324A	51(49)
			PJRT-4325A	
			PJRT-4327B	59(56)
			PJRT-4330D	
			PJRT-4333C	50(48)
			PJRT-5018A	
			PJRT-5021A	59(56)
			PJRT-5024A	
			PJRT-5025C	67(64)
			PJRT-5027C	
			PJRT-5030D	57(54)
PJRT-5033D				
PJRT-5718A	66(63)			
PJRT-5721B				
PJRT-5724C	76(72)			
PJRT-5725C				
PJRT-5727D	76(72)			
PJRT-5730E				
PJRT-5733E				
Corner parts set PJR-CBC-1 PJR-CBA PJR-CBB PJR-CBC	Corner bracket GB8062 GB8063 GB8064		PJR-CB0-1	1
			PJR-CB0	2
Roof panel set PJRY-△18-3 PJRY-△21-3 PJRY-△24-3 PJRY-△27-3 PJRY-△30-3 PJRY-△33-3 PJRY-△18-4 PJRY-△21-4 PJRY-△24-4 PJRY-△27-4 PJRY-△30-4 PJRY-△33-4	Roof panel GB4107 (Polycarbonate :AO, BR) GB8224 (Polycarbonate:SI) GB4575 (Heat protection polycarbonate) GB5626 (Heat protection FRP:SI)		PJRY-△00-3	3
			PJRY-△00-4	4



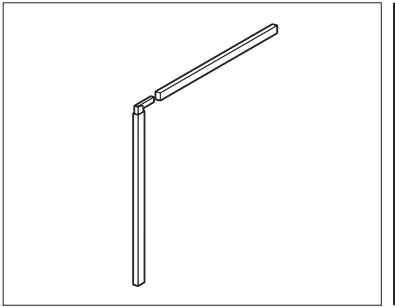
## Necessary tools and materials for installation

- Electric drill, Drill bits
- Ratchet wrench, Adjustable wrench
- Screwdriver
- Measure, Level, Plumb bob
- Foundation materials, concrete as per engineers specifications
- Sealant, silicon gun
- Drop saw for reducing or customising the structure
- Please prepare tools and materials as required

Parts ID	Content			
	Description	Shape	Quantity	
Parts box PJR-B-A PJR-B-B PJR-B-B-1	Anchor rod GA0073		PJR-B-B-1	1
			PJR-B-O	2
	Post cap GB8071 GB8072		PJR-B-B-1	1
			PJR-B-O	2
	Beam cap GB8073		PJR-B-B-1	1
			PJR-B-O	2
	Hole seal φ14 GA0150		PJR-B-B-1	12
			PJR-B-A	16
			PJR-B-B	24
	Hexagon bolt (with spring washer, washer) M8×25 ES0249		PJR-B-B-1	8
			PJR-B-O	16
	Small truss screw 5×10×10		PJR-B-B-1	13(12)
	Front frame cap GB8074		PJR-B-O	Right Left each 1pc
	Gutter cap GB8075		PJR-B-O	Right Left each 1pc
	Gutter attachment GA4929		PJR-B-O	1
	Gasket GA4930		PJR-B-O	1
	Elbow GA4932		PJR-B-O	2
	Drain elbow GA6461		PJR-B-O	1
	Saddle GB8077		PJR-B-O	3
Drilling screw 4×10×8		PJR-B-O	6(5)	
Glue GA4934		PJR-B-O	1	
Caution label GLZ20C		PJR-B-O	1	
Product name label HY0173		PJR-B-O	1	
Snow label HY0177		PJR-B-O	1	
Assembling manual		PJR-B-O	1	

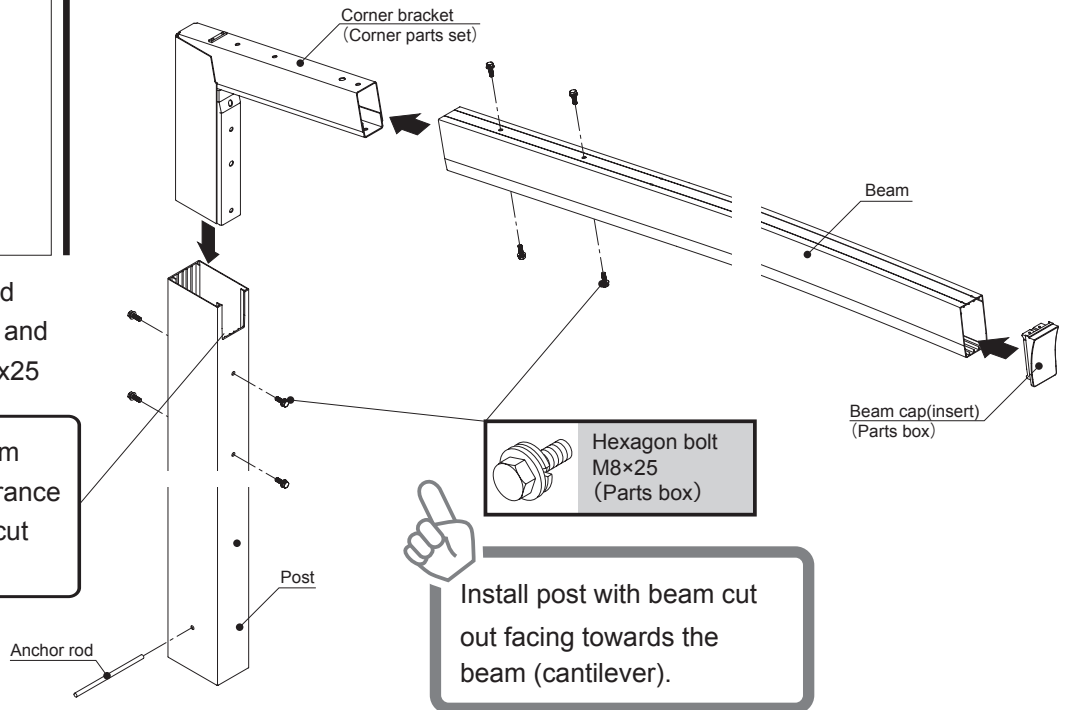


## 1 Installation of posts and beams

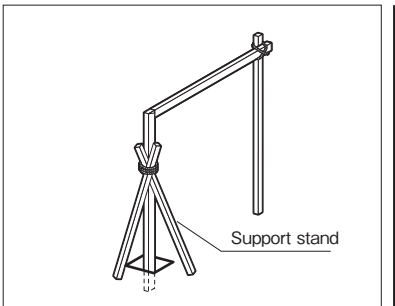


- Connect between post and beam with corner bracket and fix with hexagon bolts M8x25

Take the overall height from ground level to beam clearance from the underside of the cut out. Heights on Page 2



## 2 Installation to base hole



**Step 1**  
Insert the post into the base hole, and fix with support stand.

### FOUNDATIONS

1. All soil testing to be carried out by the engineer soil type and conditions. 2. Remove all topsoil containing vegetation & deleterious fill material from the building site.

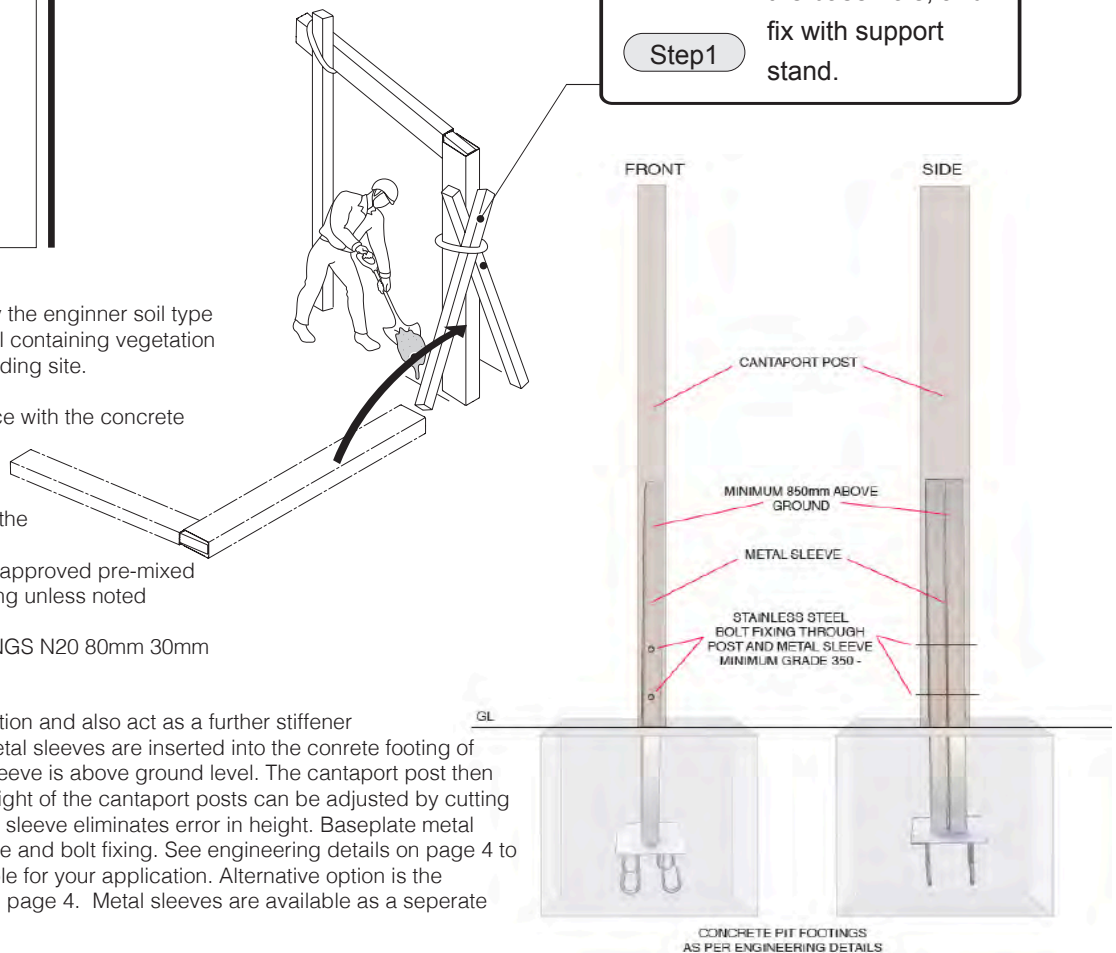
### Concrete Notes :

1. All concrete shall be in accordance with the concrete structure code AS 3600.
2. Blended cement (type GB) shall conform with AS 3972 3. Water must not be added to the mix to increase the slump at any time.
3. Concrete shall be supplied by an approved pre-mixed company and conform to the following unless noted otherwise :

GRADE SLUMP MAX. AGG. FOOTINGS N20 80mm 30mm

### METAL SLEEVES

Metal sleeves assist with the installation and also act as a further stiffener and support to the structure. The metal sleeves are inserted into the concrete footing of 650mm. The balance of the metal sleeve is above ground level. The cantaport post then slides over the metal sleeve. The height of the cantaport posts can be adjusted by cutting from the base of the post. The metal sleeve eliminates error in height. Baseplate metal sleeves can also be ordered for plate and bolt fixing. See engineering details on page 4 to determine if the application is suitable for your application. Alternative option is the SUREFOOT system. More details on page 4. Metal sleeves are available as a separate accessory.



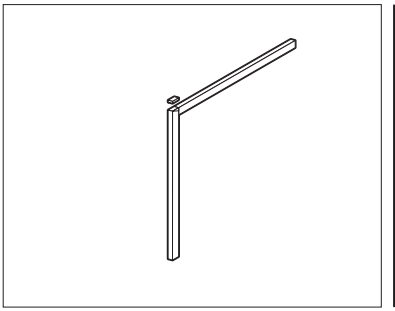


OPTIONS ON BRACING METAL SLEEVES.

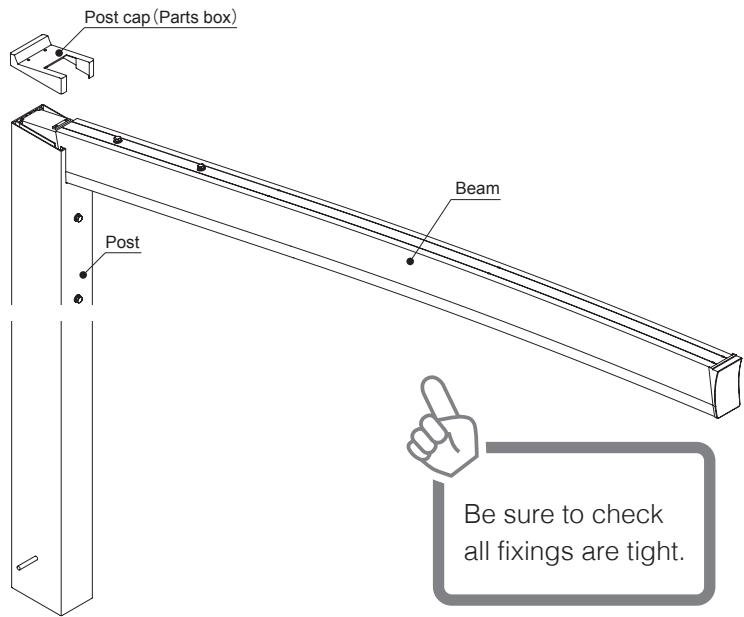




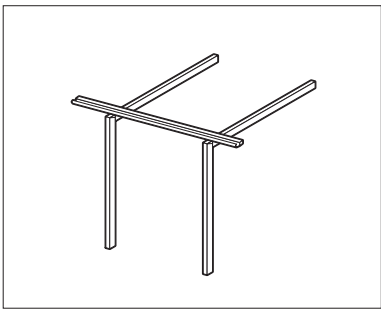
### 3 Attaching the post cap



- Attach the post cap onto the post



### 4 Installation of gutter

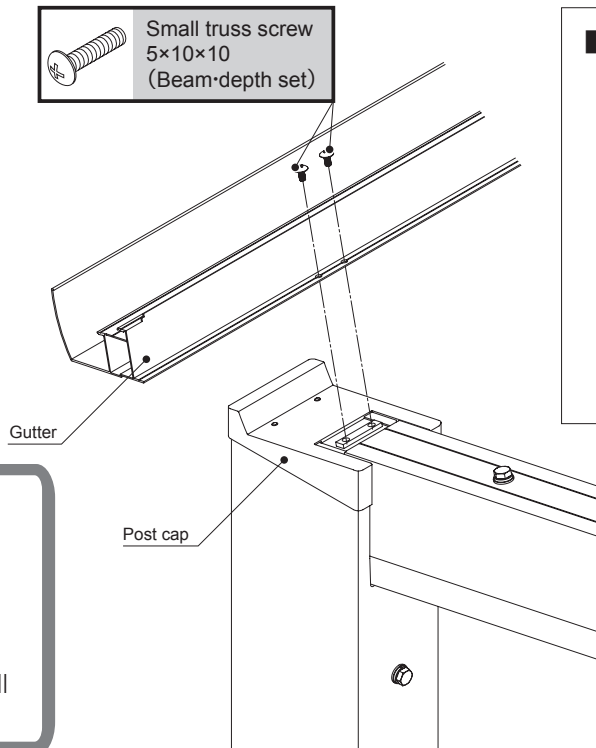


- Install the gutter to the corner bracket with small truss screw 5x10x10.

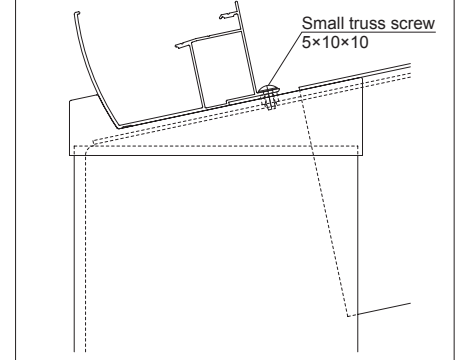


Take care when fixing small truss screws to not shear the screw head. Impact drill recommended

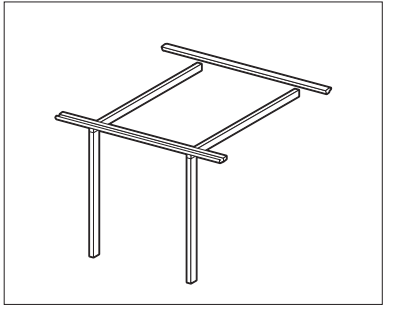
Small truss screw  
5×10×10  
(Beam depth set)



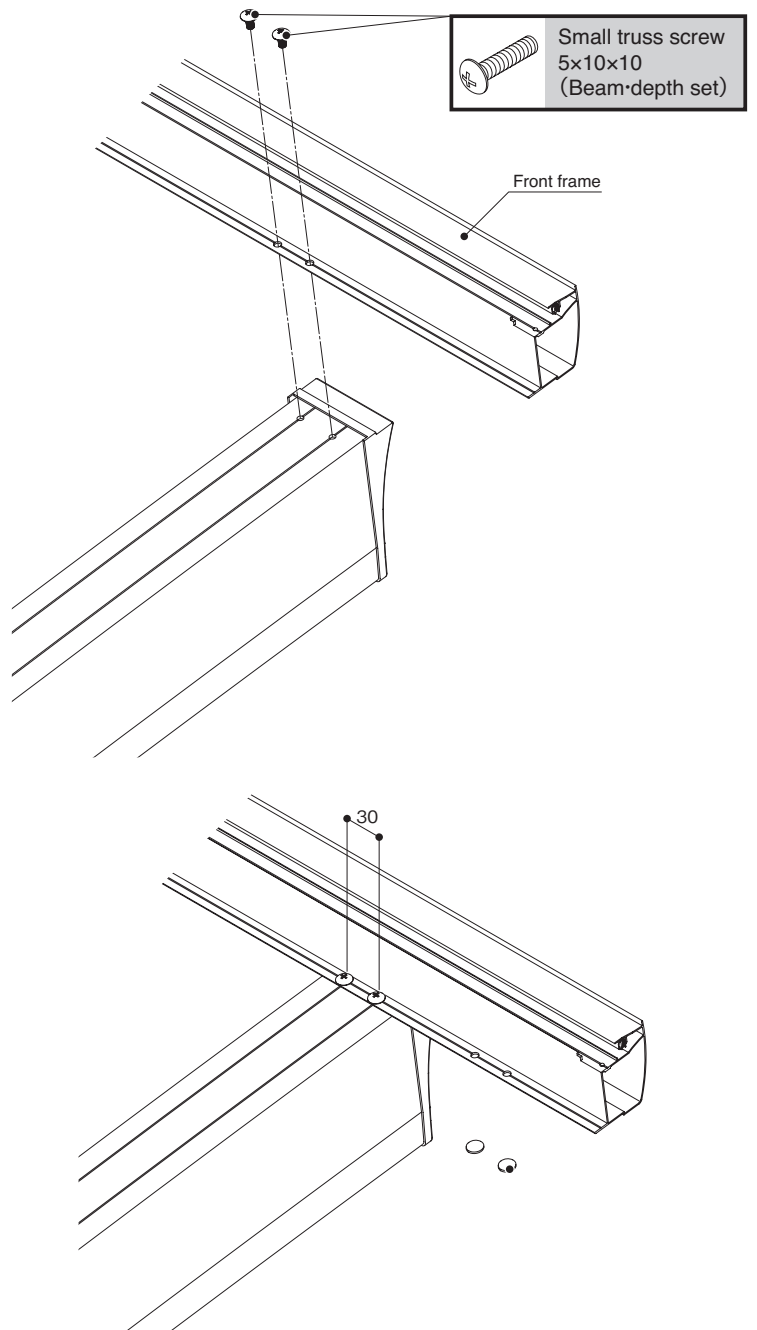
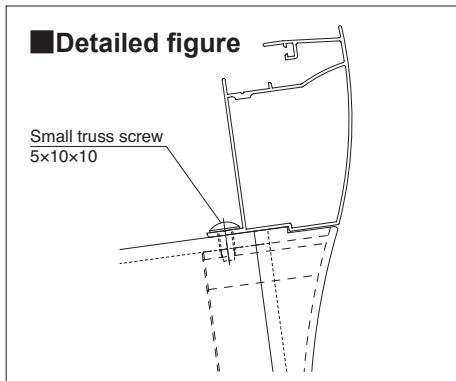
#### ■ Detailed figure



## 5 Installation of front frame

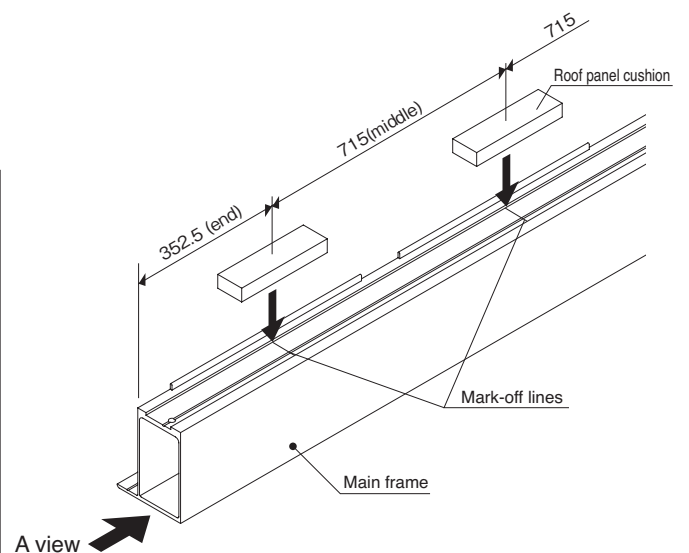
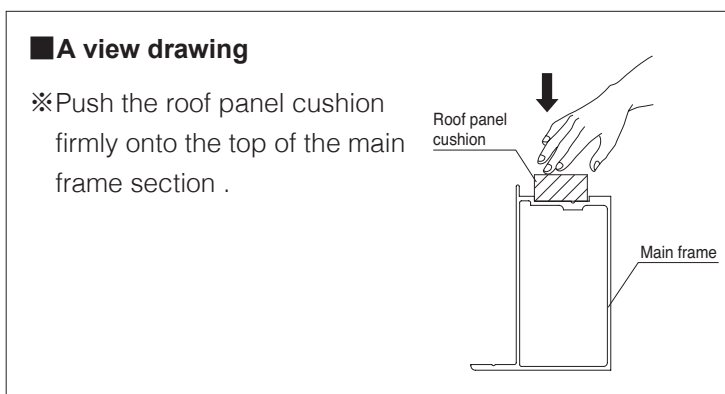


- Install the front frame to the beam with small truss screw 5x10x10.



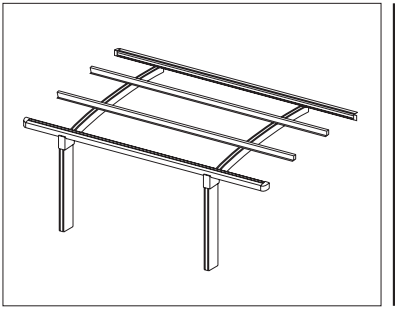
## 6 Attaching the roof panel cushions

- Attach the roof panel cushions on the marked etched lines on top of main frame.



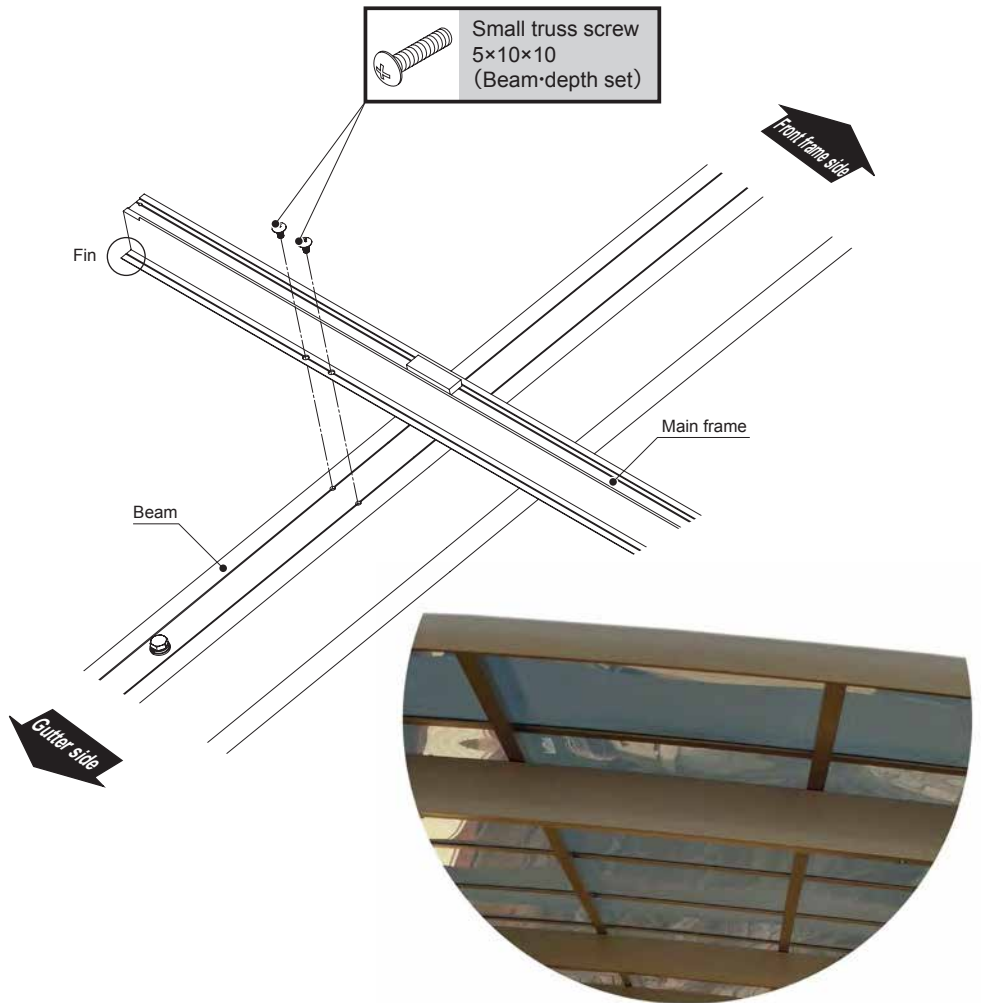


## 7 Installation of main frame



- Install the main frame to the beam adjusting the guide hole with small truss screw 5x10x10.

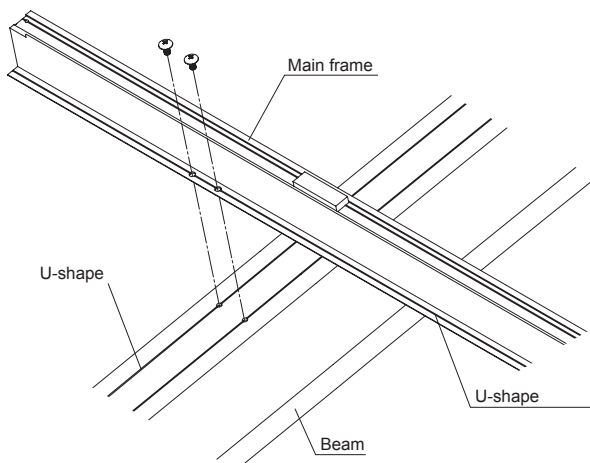
※NOTE: fin of main frame purlin to face towards the gutter end.



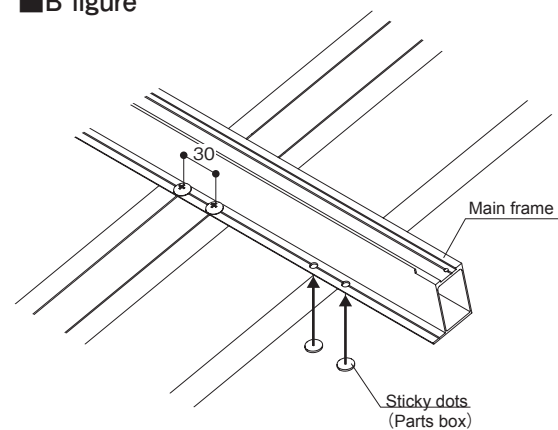
### In case of installing the post other than the post standard position.

- Drill two  $\phi 5.5$  holes on the main frame positioned in the U-shape on the beam and main frame, and screw through. (A. figure)
- Place sticker dots over pre drilled holes to cover the hole. (B. figure)

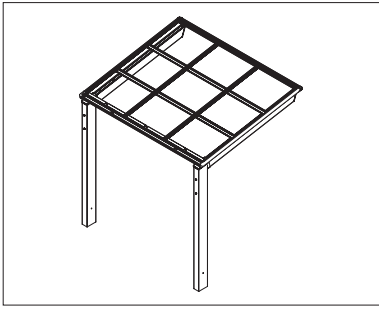
■ A figure



■ B figure



# 8 Installation of side frame



**Step1** Attach the gutter cap into the gutter.

Gutter cap (Parts box)

Insert

Gutter

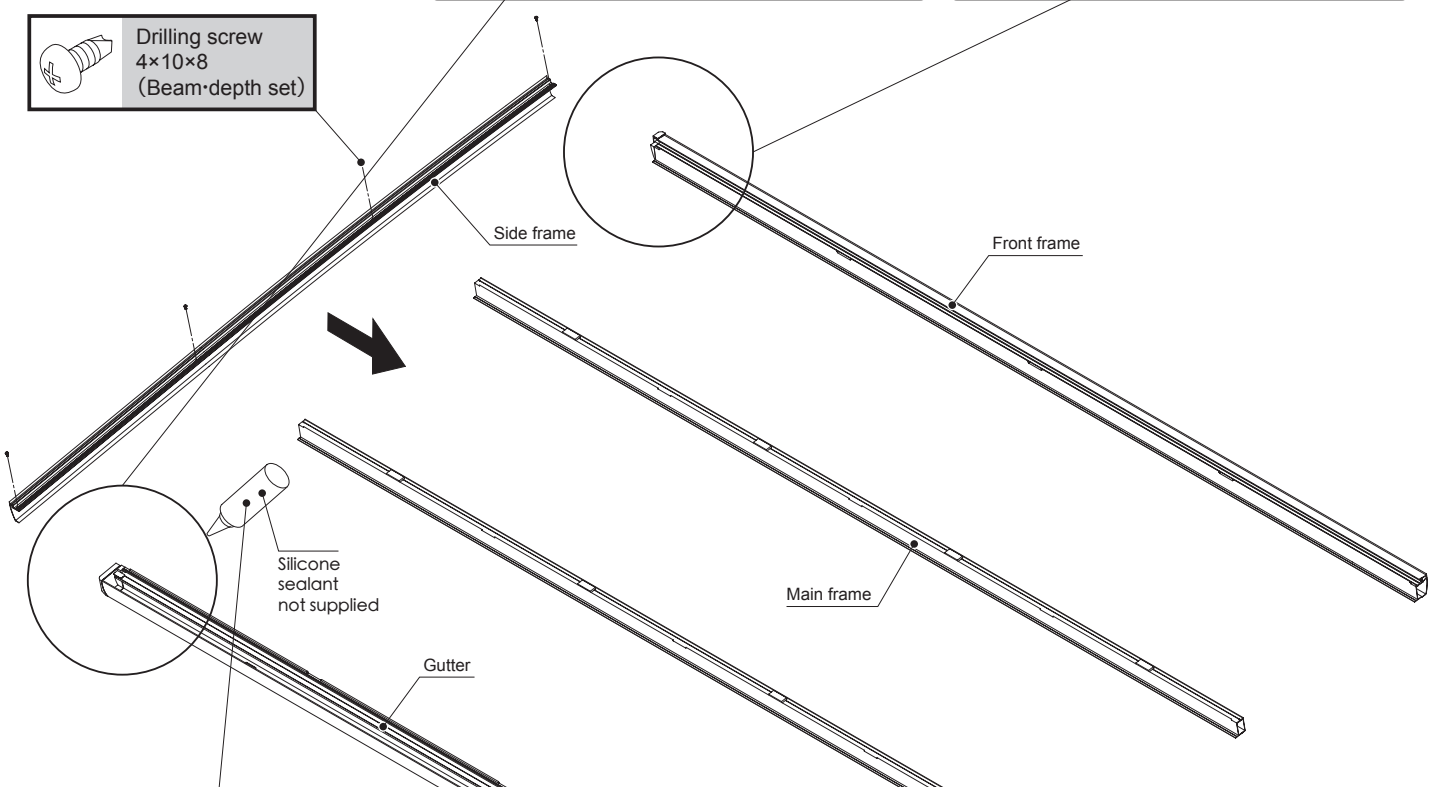
**Step1** Attach the front frame cap into the front frame.

Front frame cap (Parts box)

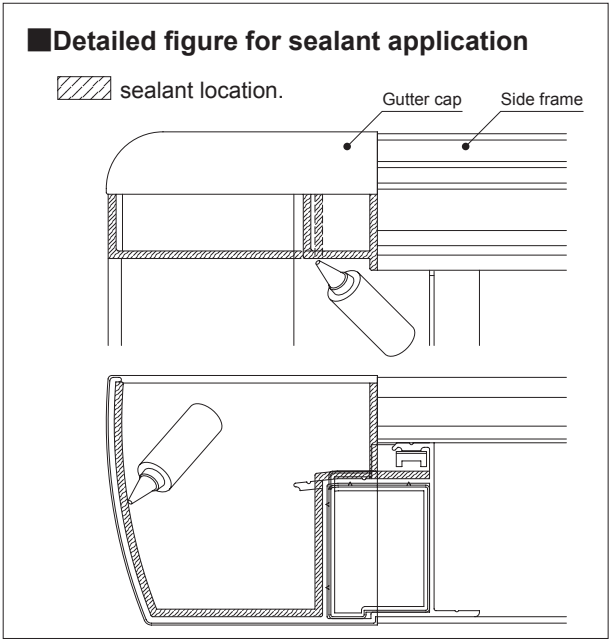
Insert

Front frame

Drilling screw  
4×10×8  
(Beam·depth set)



**Step3** After installing step 2 apply sealant to the gutter ends.

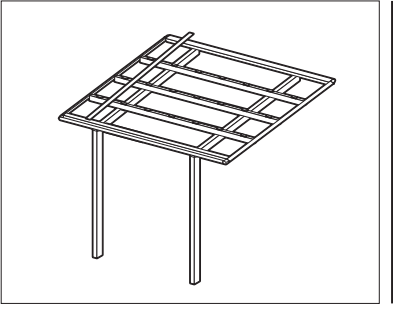


**Step2** Install the side frame to the gutter, main frame and front frame using guide holes with screws 4x10x8.

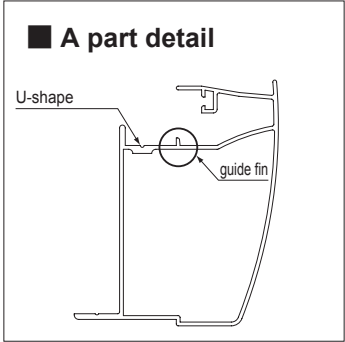
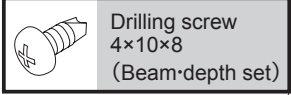
**NOTE:** Common mistake of installing the wrong side frame. The two side frames provided, one is made for the right side and one for the left side. Match the curve to the beam.

Front frame side

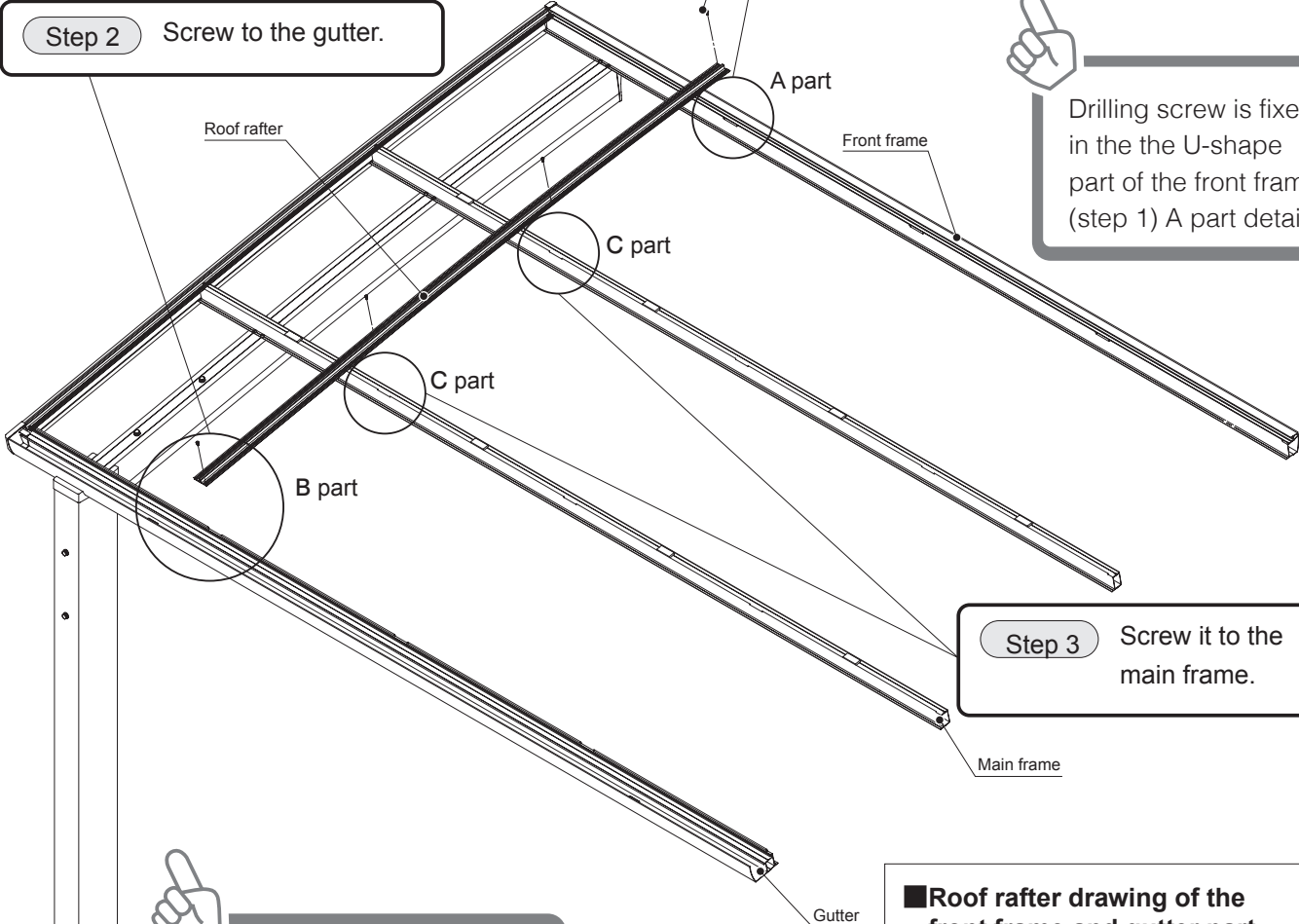
# 9 Installation of roof rafter



**Step 1** Screw the roof rafter first to the front frame. The rafter is placed in front of the guide fin. See A part



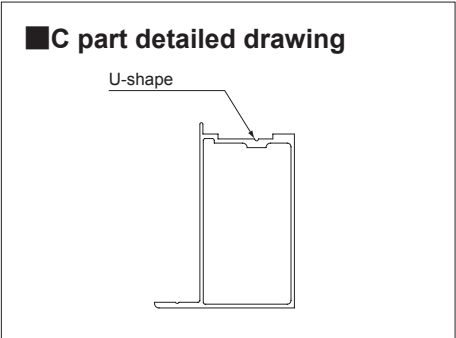
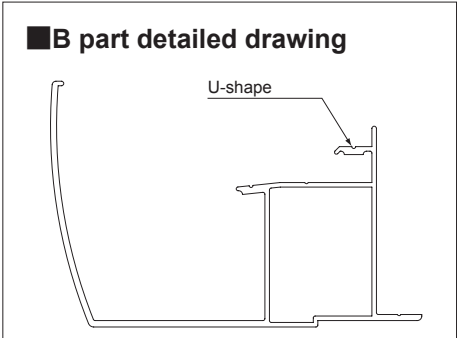
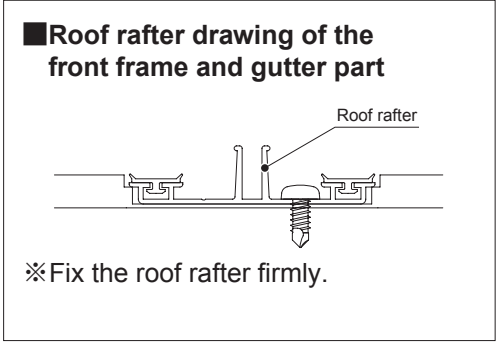
**Step 2** Screw to the gutter.



Drilling screw is fixed in the the U-shape part of the front frame (step 1) A part detail.

**Step 3** Screw it to the main frame.

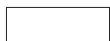
- Drilling screw is fixed in the the U-shape part of the front gutter (step2) B part.
- Drilling screw is fixed in the the U-shape part of the main frame (step3) C part .



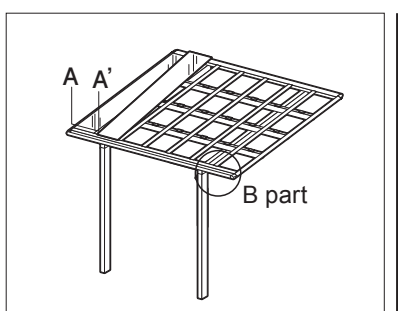
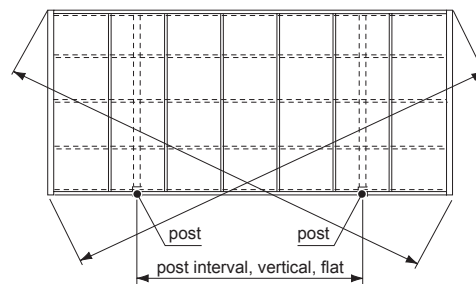
# 10 Installation of roof panels

## Before installing the roof panels

※Check post interval, flat and the diagonal dimension of the roof is equal.

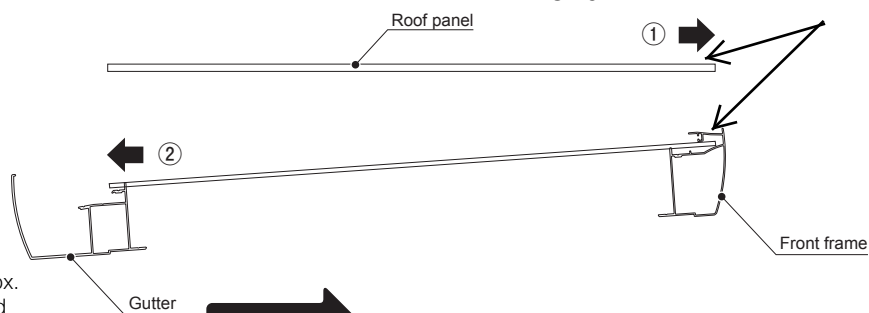


※In case diagonal dimension of the roof is not equal, loosen the screws of the front frame, gutter, main frame and beam and adjust them.



Insert the roof panel into the front frame and then set on the gutter side.

Always push sheet as far as it can go into the front fascia. Always start at fascia end.



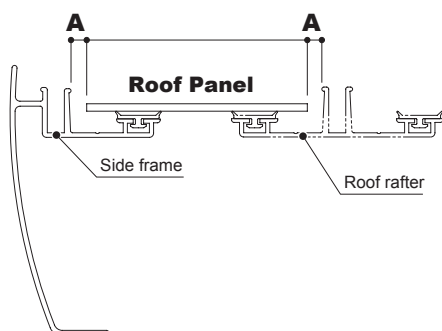
Polycarbonate sheet has impact resistance approx. 250 times higher than glass. It can even withstand being hit with a hammer. The polycarbonate roof can protect you from harsh weather conditions such as hail. In addition, since it does not harden, it is suitable for use in cold climates. The Heat Protection Bluesmoke Polycarbonate sheeting reduces the heat by 83%.

### Note

In case of heat absorb polycarbonate (SI), attach the uneven side down. In case of polycarbonate (AO) and heat protection polycarbonate (AO), there are no two sides because both sides are weatherproof.

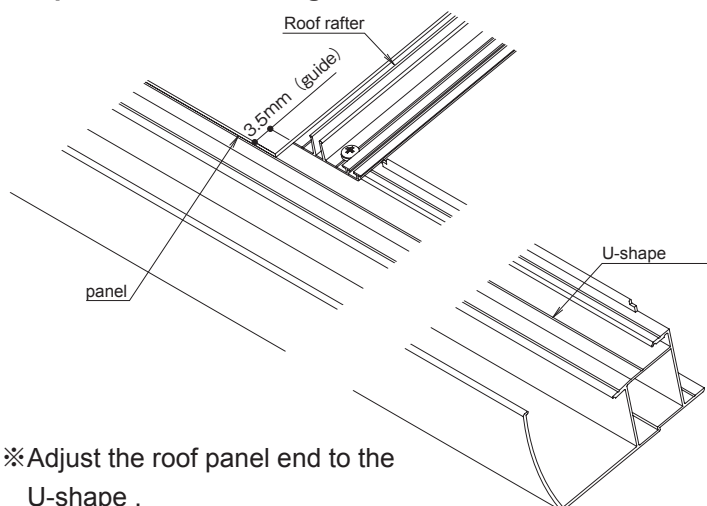
※When installing roof panels, please note below.

#### ■A-A' section drawing



※Sort the panel equally right and left. Otherwise the expansion of panels resulting from temperature changes may causes cracking sounds.

#### ■B part detailed drawing

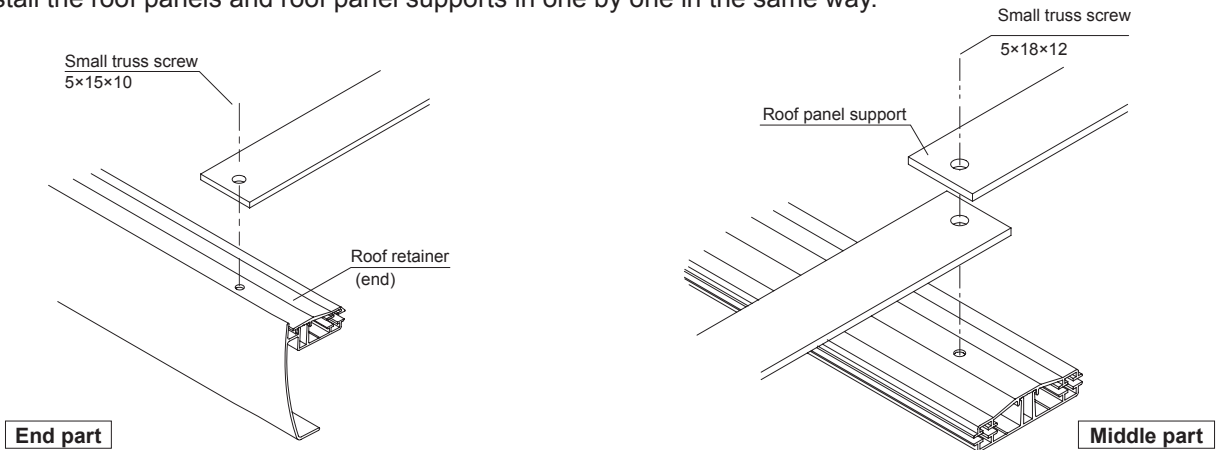


※Adjust the roof panel end to the U-shape .



**Installation of roof panels for D33** Not required for 3.0m wide models

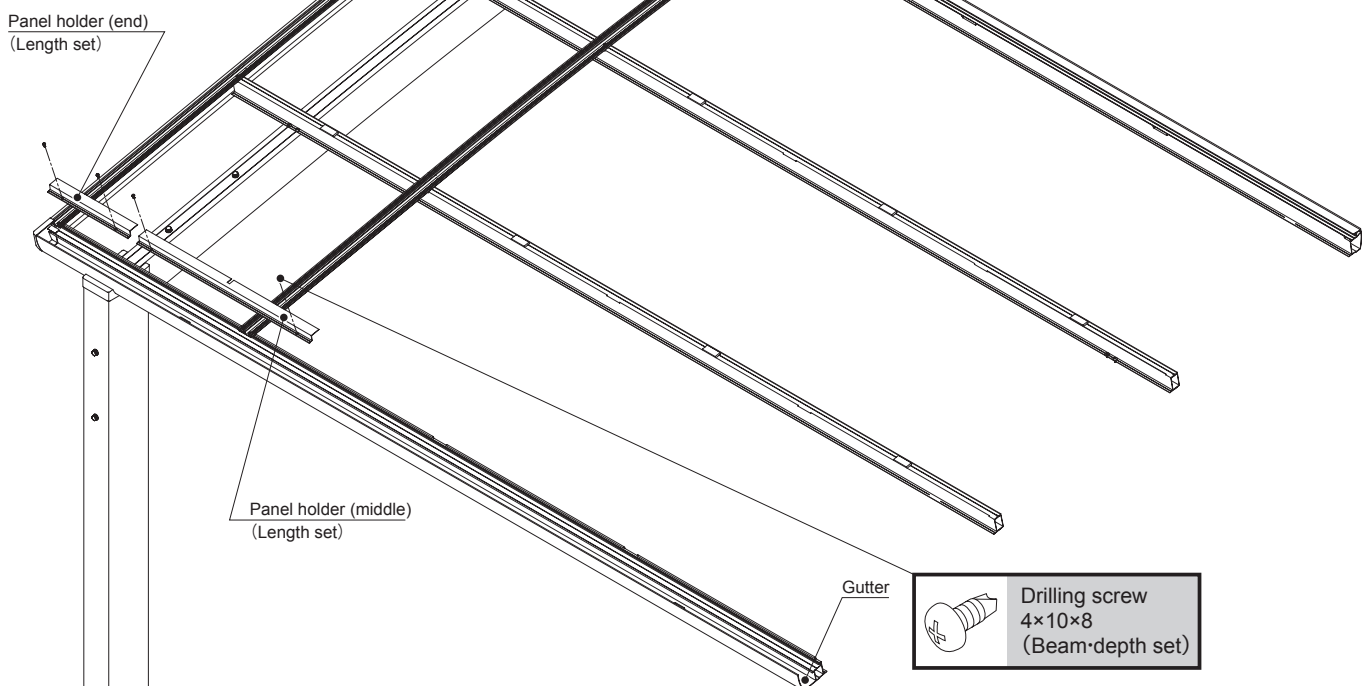
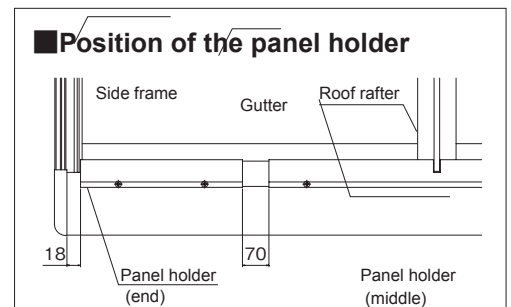
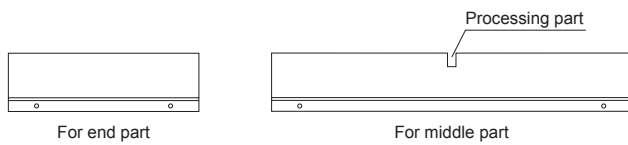
- ① Install 2 sheets of roof panel from the end of the cantaport.
- ② After installing the roof retainer (end) and the next roof retainer (middle), install the roof panel support at the position of 4th screw from the roof retainer from the gutter side.
- ③ Install the roof panels and roof panel supports in one by one in the same way.



※ When installing the roof panel support on roof retainer (end), use the small truss screw 5x15x10 in the roof panel support set instead of small truss screw 5x10x10 in the depth set. Use small truss screw 5x18x12 on the roof retainer (middle) overlapping the roof panel supports.

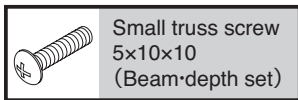
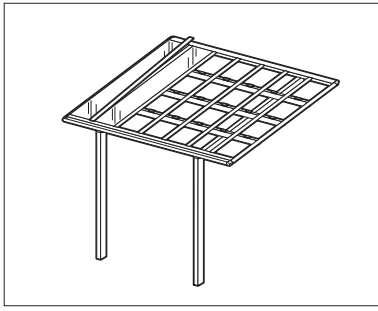
## 11 Installation of panel holder

- Install the panel holders adjusting on the U-shape of the gutter frame as a guide, and fix with drilling screw 4x10x8.
- ※ Insert the cutout part of panel holder over the roof rafter (middle section) and install it.

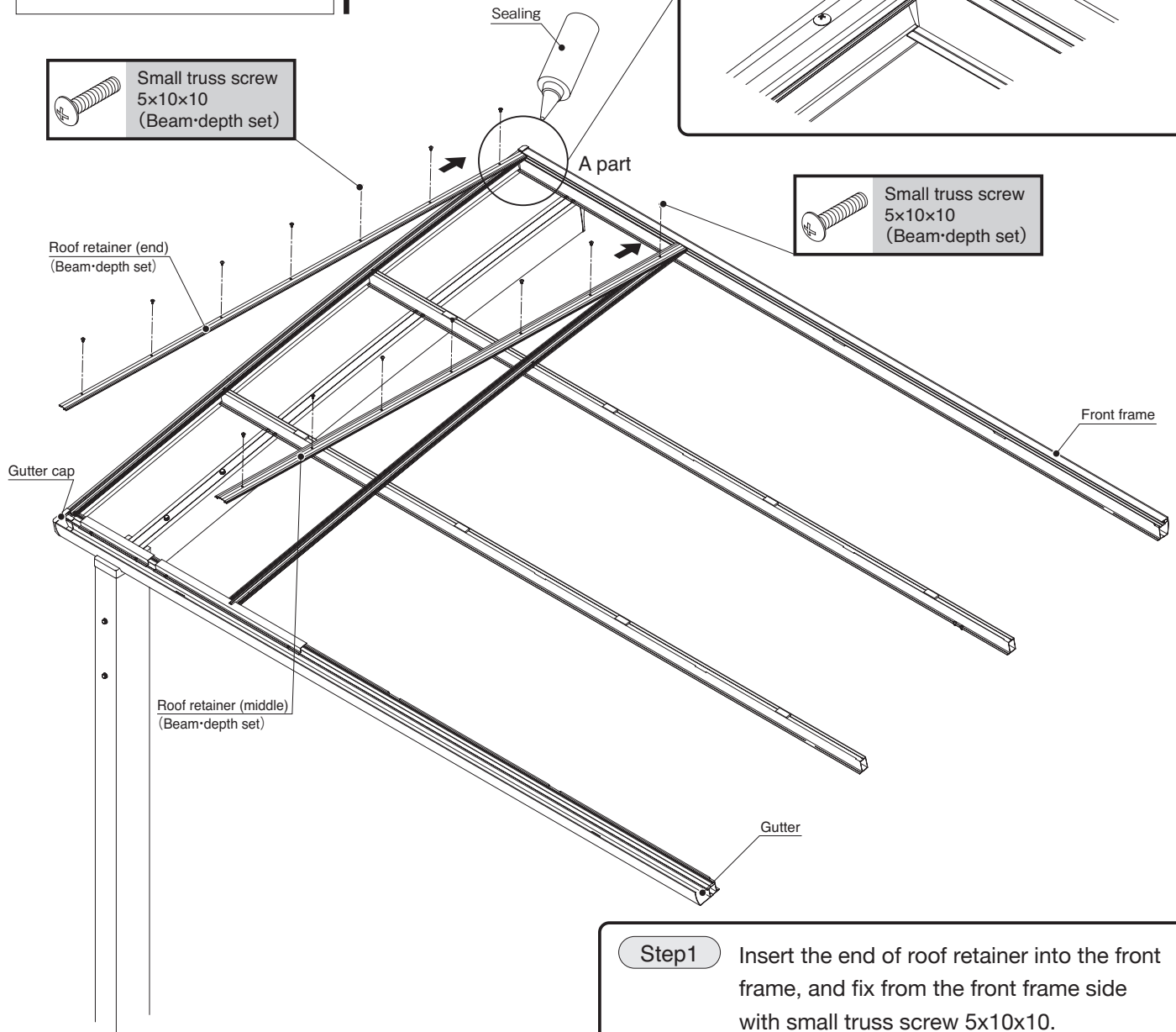


**REMINDER DO NOT FORGET THE INSTALLATION OF THE PANEL HOLDERS. THEY SUPPORT THE END OF THE ROOF PANEL.**

## 12 Installation of roof retainer

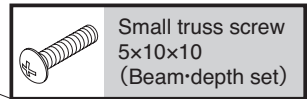
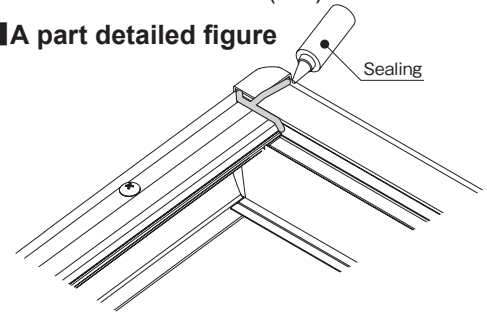


Small truss screw  
5×10×10  
(Beam·depth set)



**Step2** Apply sealant to the insert part of roof retainer (end) into front frame.

### ■ A part detailed figure

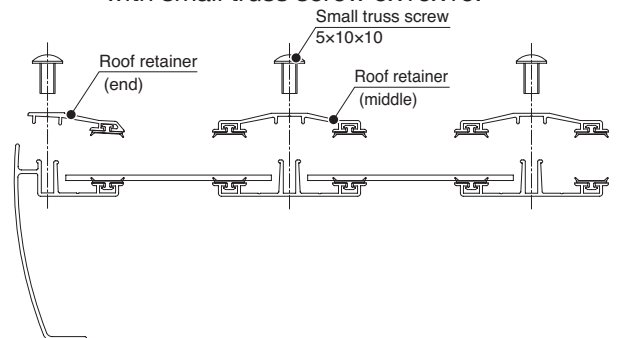


Small truss screw  
5×10×10  
(Beam·depth set)

### Notice

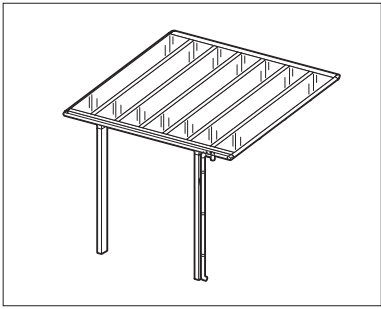
- If the screw installing into the roof retainer is tighten too much, the screw will run idle. Tightening torque is about less than 1.5Nm (15kgfcm).
- If the screw head leans when installing the roof retainer, it will cause water leakage (water will enter from the screw head clearance), so install the screw straight.

**Step1** Insert the end of roof retainer into the front frame, and fix from the front frame side with small truss screw 5×10×10.



※ When fixing the roof retainer (end), insert the end part of roof retainer into the gutter cap before fixing the second screw from the post side.

# 13 Attaching the round gutter parts

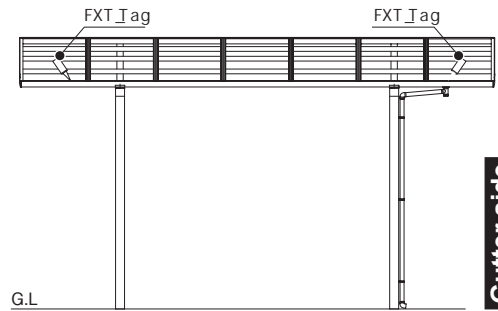
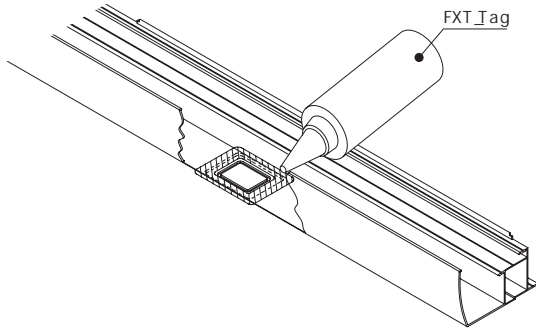


• L ] ' d f \_ l ' g ^ j g m f \ \ \_ m l ] j \ a ^ ] j k \ \ ] h ] f \ a f \_ g f ' l ' ] h g k l ' h g k a a g f ' Y f \ \ ] a \_ l & ; m l ' ] \_ m l ] j ' d f \_ l ' g f % k a ] l g k m a &



## 7 UddYX side

• K ] Y d Y j g m f \ \ [ Y h h \ \ ] f \ g ^ \_ m l ] j &



7 UddYX side

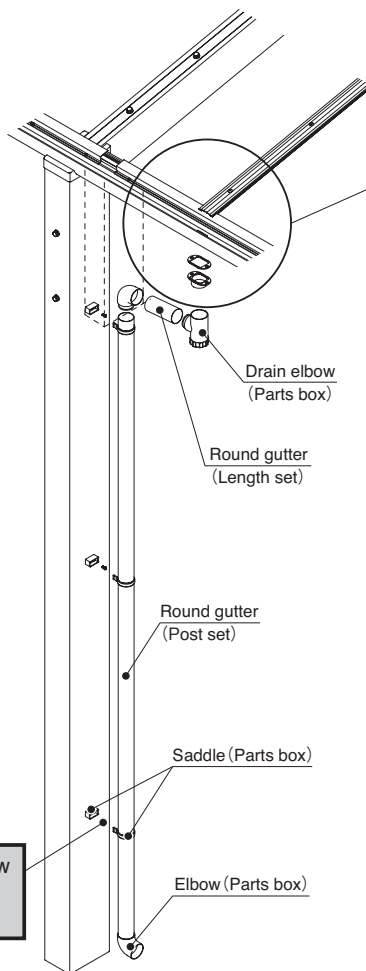
Gutter side

## Gutter side

③ Use glue in the parts box for rain gutter parts.

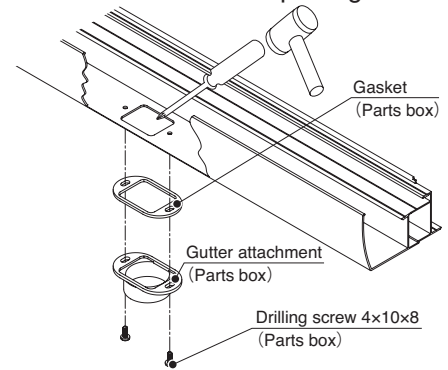


Using drain elbow which can remove dust accumulated in the rain makes its maintenance easier.

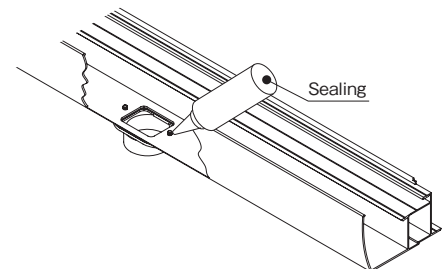


① Hgh ' g m l ' ] [ Y h ' l g ' l ' ] [ ' g k ] f ' k a ] ' g ^ l ' ] \ g o f ' h a h ] ' a f ' l ' ] \_ m l ] j & 9 h h a d \_ Y k c ] l ' l g ] p h g k ] \ g m d l &

※ In case that it could not crush, use electric drill and hit the part again



② Screw the gutter attachment and do sealing work at the screw part.

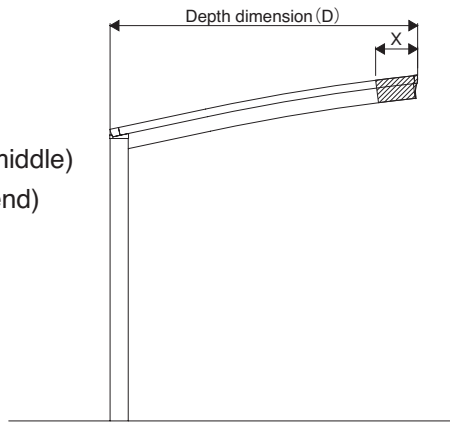


※ Be sure to seal around screws in order to prevent danger when cleaning as well as for water proof.



- In case of cutting depth, be sure to cut from the front frame side.  
Subject to the cutting length of the roof, cut and process each part and roof panels. Please be careful of the direction of each part.

1. Cutting the beams
2. Cutting the side frame
3. Cutting the roof rafters
4. Cutting the roof retainers (middle)
5. Cutting the roof retainers (end)
6. Cutting the roof panels



**Cut range**

X=less than 300mm

The cutting length of each materials are

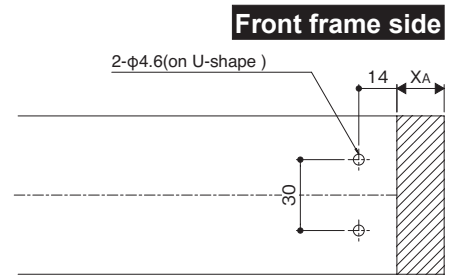
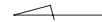
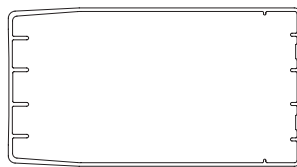
※1  $X_A = X$

※2  $X_A = \frac{X}{100} \times 101$

## 1. Beam processing

- When the roof cutting dimension is 100mm, the cutting length of material  $X_A$  is

Roof cutting dimension 100mm	
Depth	Cutting length (mm)
24	$X_A = 101$ ※2
27	$X_A = 100$ ※1

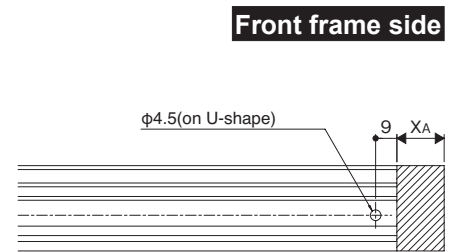
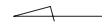
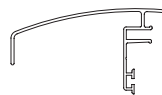


※ The roof dimensions determines the length of the beam

## 2. Side frame processing

- When the roof cutting dimension is 100mm, the cutting length of material  $X_A$  is

Roof cutting dimension 100mm	
Depth	Cutting length (mm)
24	$X_A = 101$ ※2
27	



※ The roof dimensions determines the length of the frame



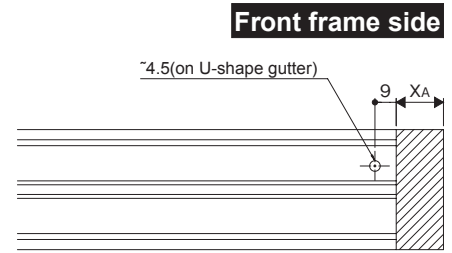
**Cantaport made in Japan certified to AU standards**

### 3. Roof rafter processing

**ONLY REQUIRED IF MODIFYING THE UNIT**

- When the roof cutting dimension is 100mm, the cutting length of material X<sub>A</sub> is

Roof cutting dimension 100mm	
Depth	Cutting length (mm)
18	X <sub>A</sub> =101 ※2
21	
24	
25	
27	
30	
33	

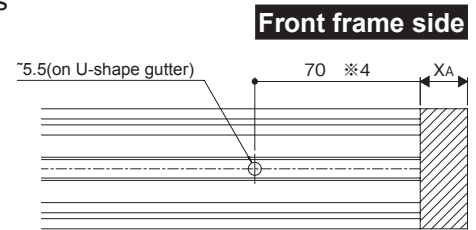


- ※ The roof dimensions determines the length of the rafter

### 4. Roof retainer (middle) processing

- When the roof cutting dimension is 100mm, the cutting length of material X<sub>A</sub> is

Roof cutting dimension 100mm	
Depth	Cutting length (mm)
18	X <sub>A</sub> =101 ※2
21	
24	
25	
27	
30	
33	

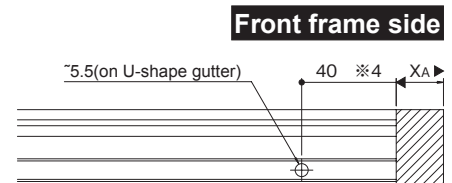
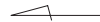


- ※3 The roof dimensions determines the length of the retainer middle
- ※4 In case the dimension of pre-hole from end is more than 80mm, drill a new hole.  
In case the dimension of pre-hole from end is less than 80mm, a new hole is not required.

### 5. Roof retainer (end) processing

- When the roof cutting dimension is 100mm, the cutting length of material X<sub>A</sub> is

Roof cutting dimension 100mm	
Depth	Cutting length (mm)
18	X <sub>A</sub> =101 ※2
21	
24	
25	
27	
30	
33	

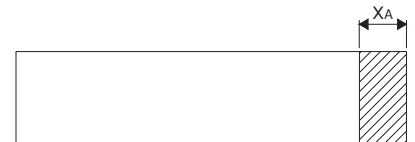


- ※3 The roof dimensions determines the length of the retainer end.
- ※4 In case the dimension of pre-hole from end is more than 50mm, drill a new hole.  
※ In case the dimension of pre-hole from end is less than 50mm, a new hole is not required.

### 6. Roof panel cutting

- When the roof cutting dimension is 100mm, the cutting length of material X<sub>A</sub> is

Roof cutting dimension 100mm	
Depth	Cutting length (mm)
18	X <sub>A</sub> =101 ※2
21	
24	
25	
27	
30	
33	



- ※ The roof dimensions determines the length of the rafter

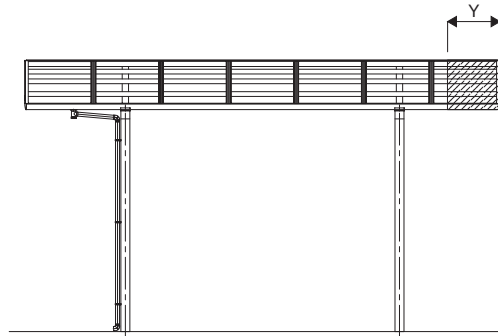
After processing, install the frame of the roof referring to the procedure of this manual **1~13.**

# 15 Cutting procedures of length direction

**ONLY REQUIRED IF MODIFYING THE UNIT**

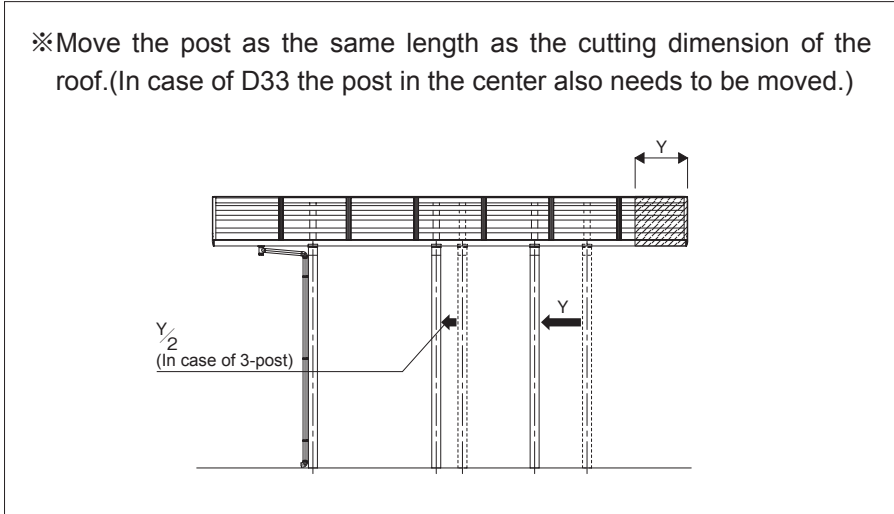
- The panel span is 715mm. In the case of cutting the length direction, the cutting dimension of the roof Y is recommended to be in the multiples of 715mm wide. Cut the materials from opposite side of round gutter installation.

1. Cutting the front frame
2. Cutting the gutter
3. Cutting the main frame
4. Cutting the panel holder
5. Cutting roof panel



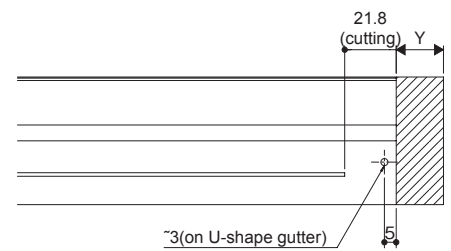
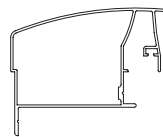
**Cut range**

Y=less than 1430mm (less than 2 panel pitch)  
 ※It can't be cut from 465mm to 535mm for installing drain hole.  
 From 651 to 714mm and from 1366 to 1429mm are not available because the side frame overlaps to the roof rafter.



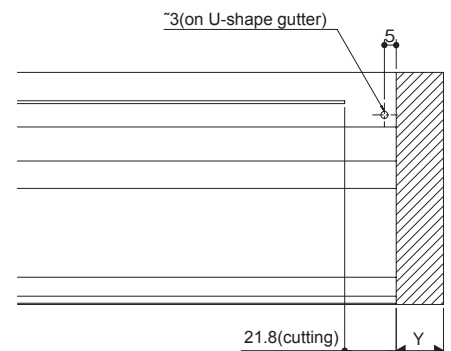
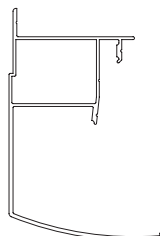
## 1. Front frame processing

- Cut the materials the same length as the cutting dimension of the roof (Y).



## 2. Gutter processing

- Cut the materials the same length as the cutting dimension of the roof (Y).

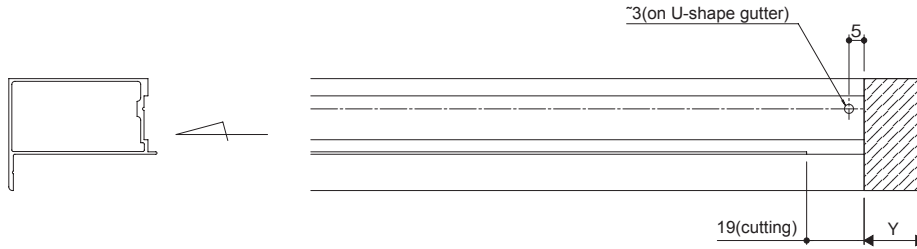




### 3. Main frame processing

**ONLY REQUIRED IF MODIFYING THE UNIT**

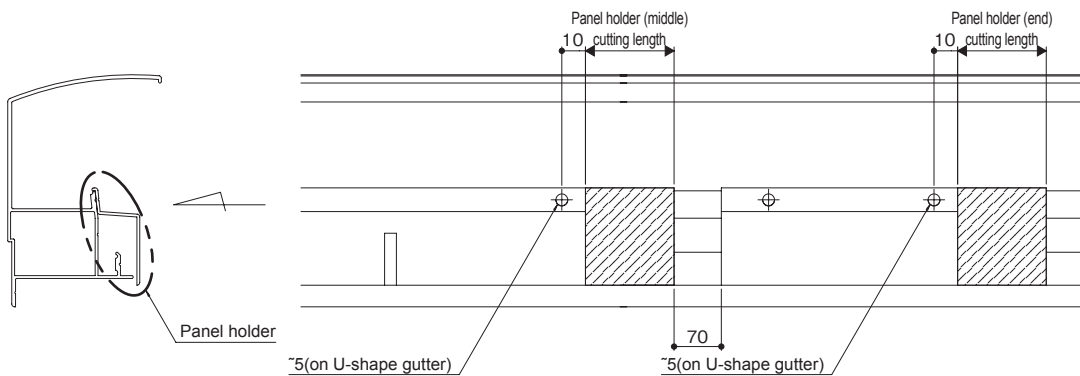
- Cut the materials the same length as the cutting dimension of the roof (Y).



### 4. Panel holder processing

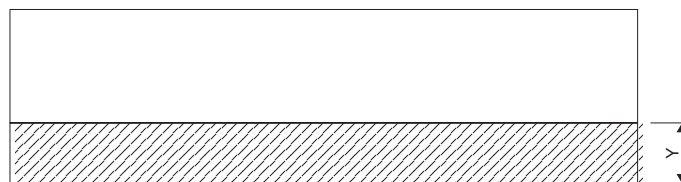
- Cut the panel holder(end) and panel holder (middle) at the cutting length Y referring to the right table. In case the hole overlaps the pre-drilled hole, a new hole is not required.

Cutting length Y	Panel holder (end) cutting length	Panel holder (middle) cutting length
$0 < Y \leq 200$	Y	No processing
$200 < Y \leq 400$	$Y/2$	$Y/2$
$400 < Y \leq 650$	No installation	$Y-370$
$715 < Y \leq 915$	Y	No processing
$915 < Y \leq 1115$	$Y/2$	$Y/2$
$1115 < Y \leq 1365$	No installation	$Y-370$



### 5. Roof panel cutting

- Cut the materials the same length as the cutting dimension of the roof (Y).

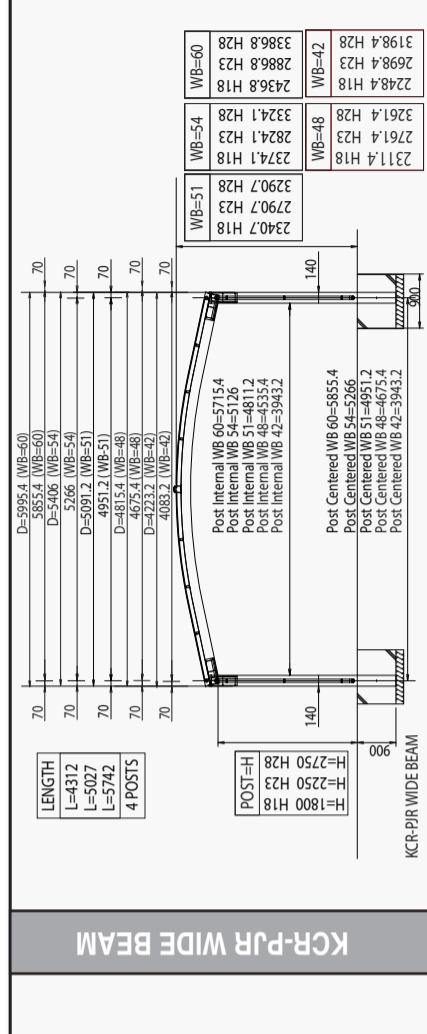
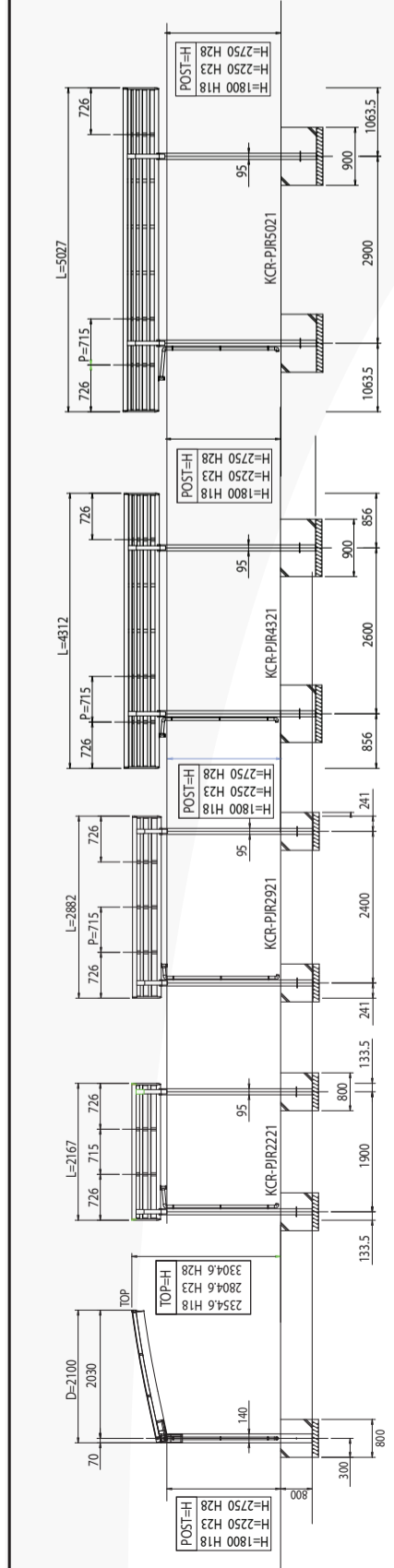


After processing, install the frame of the roof referring to the procedure of this manual 11 ~ 13.



**Cantaport made in Japan certified to AU standards**

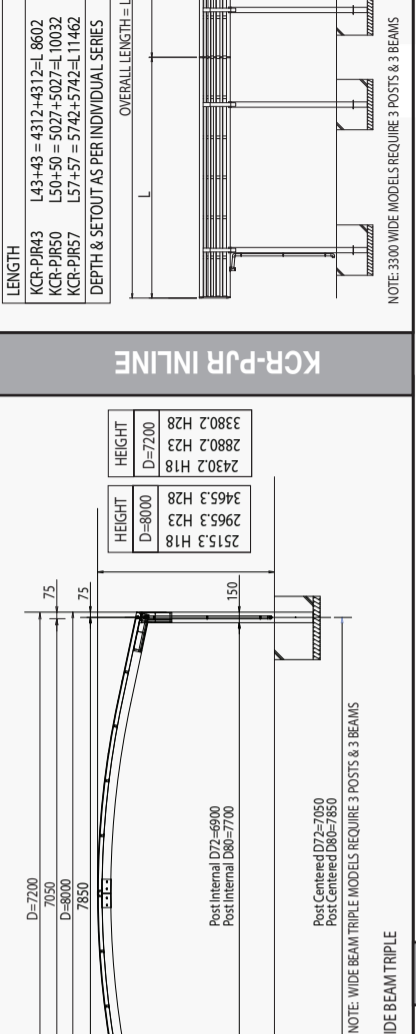
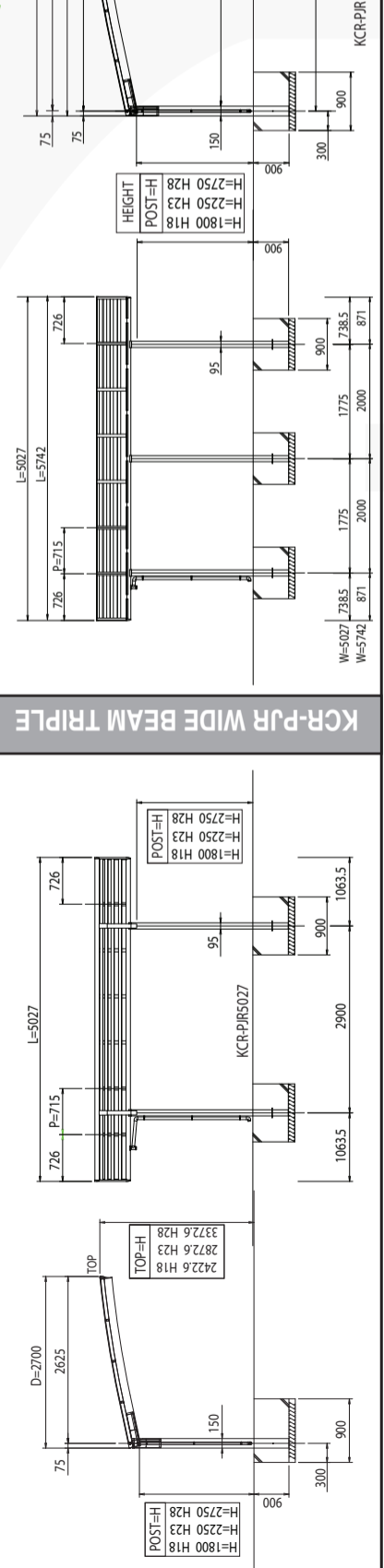
**KCR-PJR DEPTH 2100**



**General Notes :**

1. Engineering drawings to be read in conjunction with all architectural and other specification drawings.
2. Any discrepancies shall be referred to the engineer for confirmation prior to commencing construction.
3. For setting out dimensions refer to architectural drawings. No dimensions to be obtained by scaling drawings.
4. All dimensions and levels to be checked on site prior to commencing any work.
5. All work to comply with the latest Australian Standards and Building Codes of Australia
6. Installation to be installed in accordance with manufacturer's printed assembling manual.

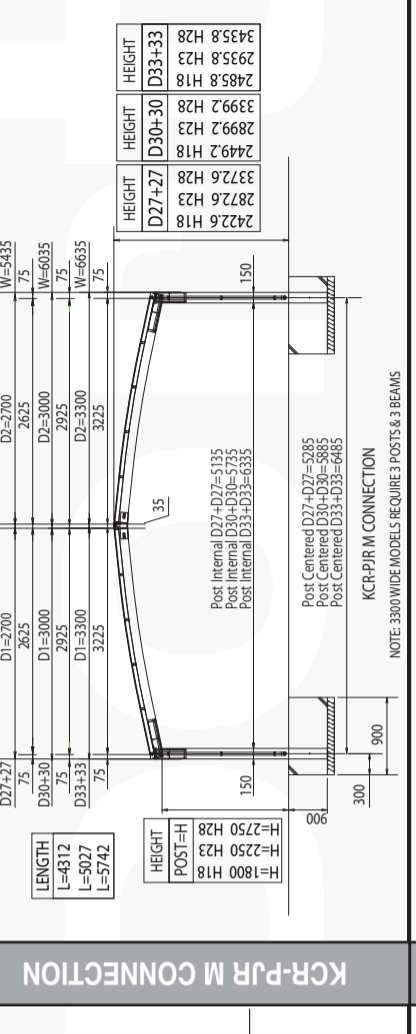
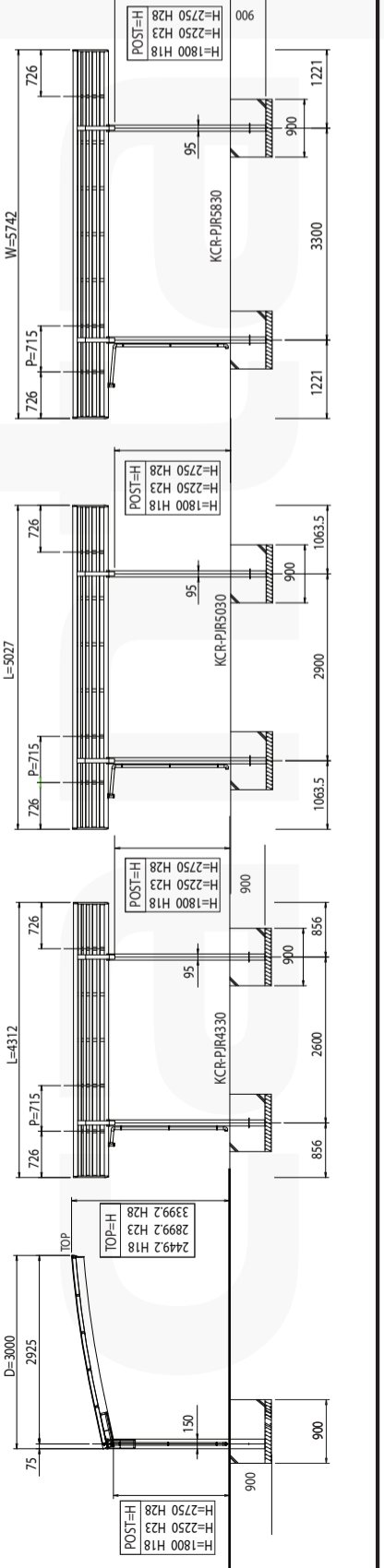
**KCR-PJR DEPTH 2700**



**General Notes :**

1. Engineering drawings to be read in conjunction with all architectural and other specification drawings.
2. Any discrepancies shall be referred to the engineer for confirmation prior to commencing construction.
3. For setting out dimensions refer to architectural drawings. No dimensions to be obtained by scaling drawings.
4. All dimensions and levels to be checked on site prior to commencing any work.
5. All work to comply with the latest Australian Standards and Building Codes of Australia
6. Installation to be installed in accordance with manufacturer's printed assembling manual.

**KCR-PJR DEPTH 3000**



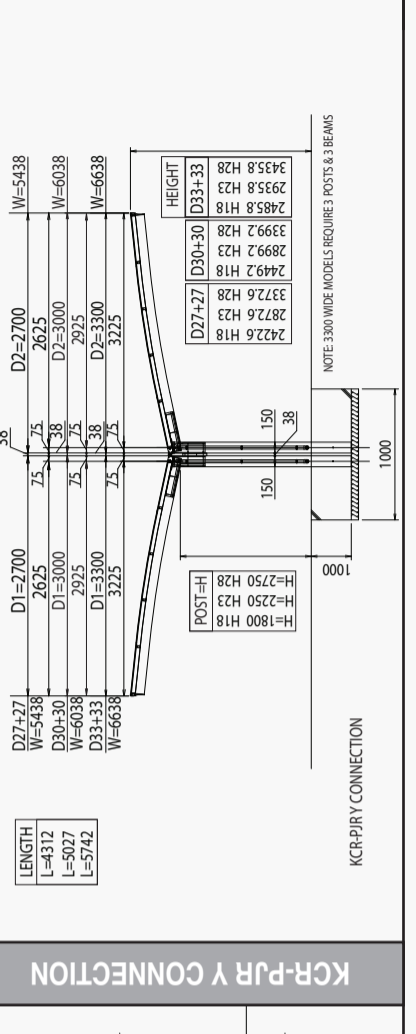
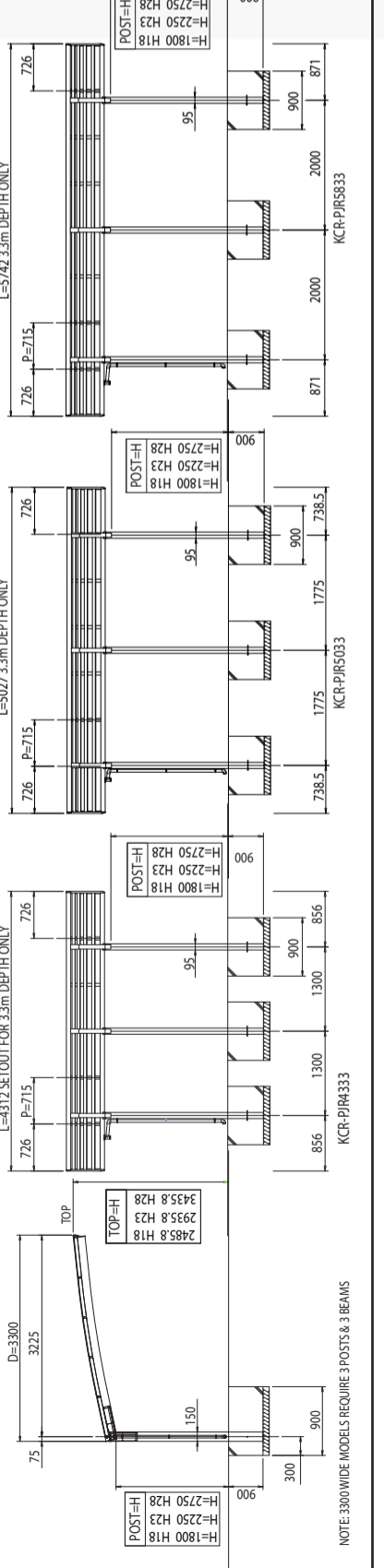
**Foundations**

1. All soil testing to be carried out by the engineer soil type and conditions.
2. Remove all topsoil containing vegetation & deleterious fill material from the building site.

**Concrete Notes :**

1. All concrete shall be in accordance with the concrete structure code AS 3600.
2. Blended cement (type GB) shall conform with AS 3972.3. Water must not be added to the mix to increase the slump at any time.
3. Concrete shall be supplied by an approved pre-mixed company and conform to the following unless noted otherwise :  
GRADE SLUMP MAX. AGG.  
FOOTINGS N20 80mm 30mm

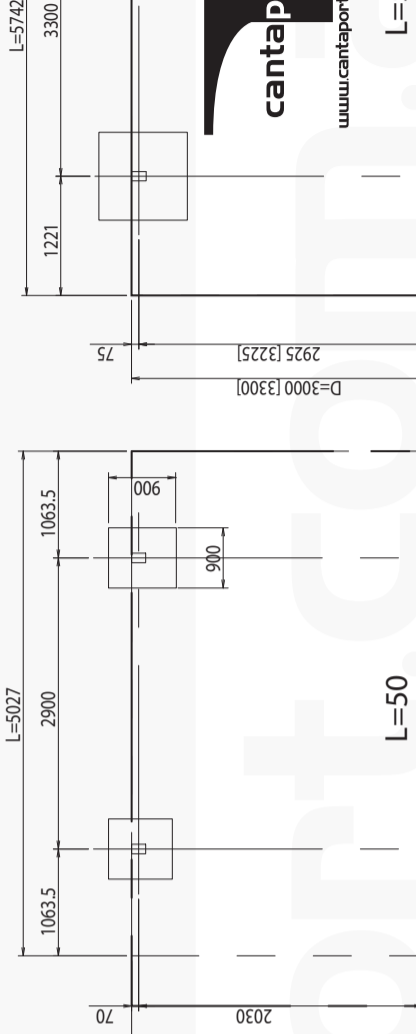
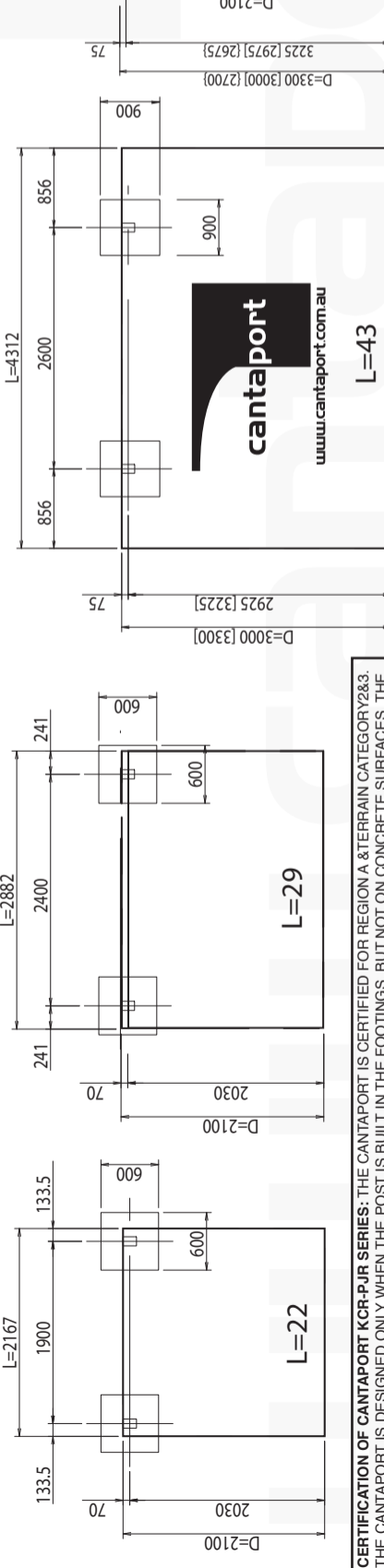
**KCR-PJR DEPTH 3300**



**General Notes :**

1. All workmanship and materials shall be in accordance with  
- AS/NZS 1866:1977-Aluminium and Aluminium Alloys  
- AS 1400-1998 Steel Structures  
- AS/NZS 1665:2004 Welding Of Aluminium Structures  
- AS 1554.1 PT1 - Welding Of Steel Structures
2. All hollow sections to be fully sealed with 2mm plates, minimum, U.N.O
3. Erection of metal work shall be commenced with braced bay and erector shall provide all temporary bracing required for the safe completion of the work.
4. All bolts/screws/washers types and their treatment of, is to comply with all relevant Australian standards

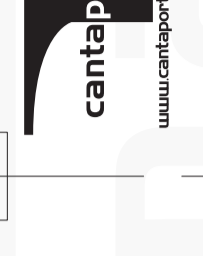
**KCR-PJR PLAN LAYOUT**



**General Notes :**

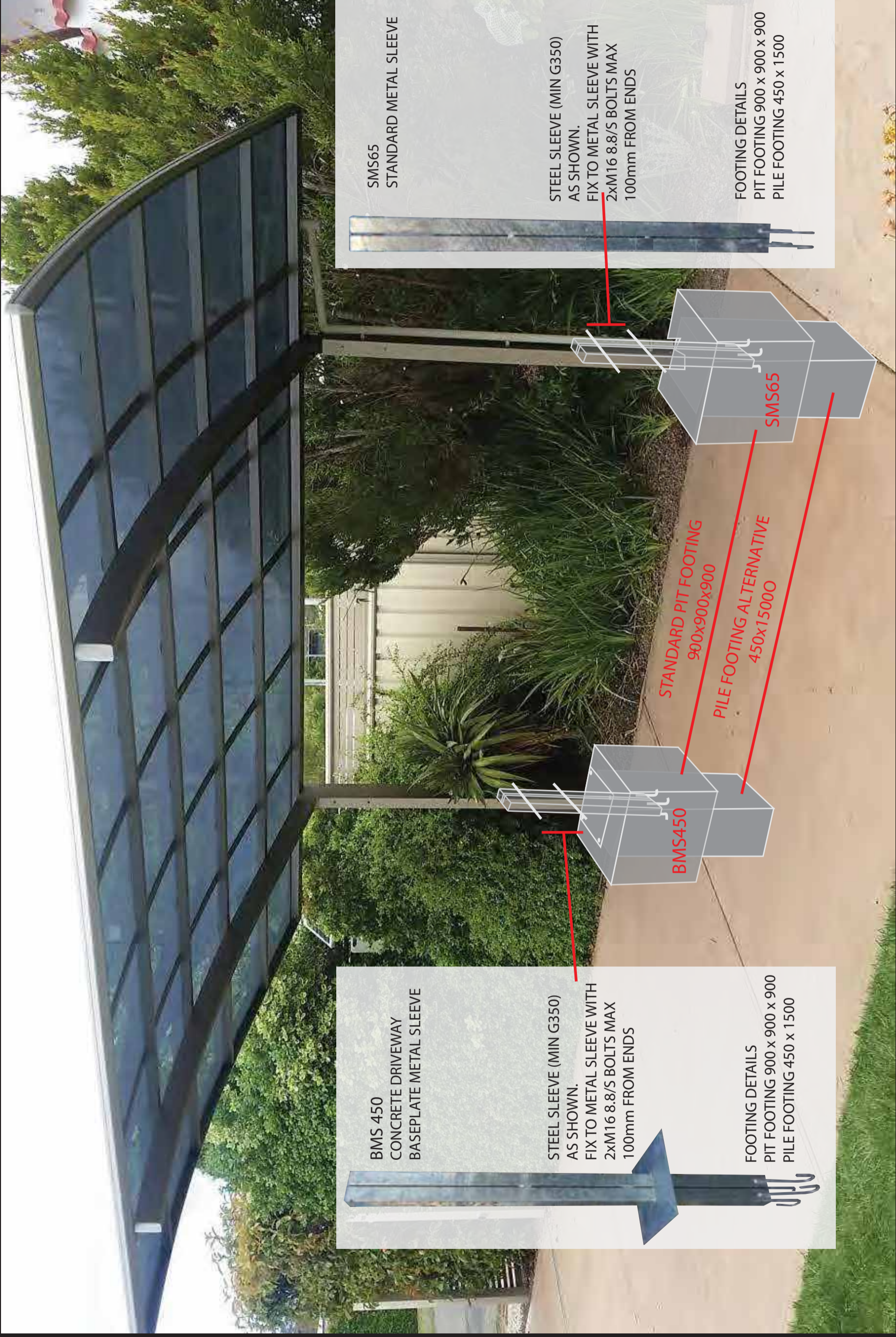
1. All workmanship and materials shall be in accordance with  
- AS/NZS 1866:1977-Aluminium and Aluminium Alloys  
- AS 1400-1998 Steel Structures  
- AS/NZS 1665:2004 Welding Of Aluminium Structures  
- AS 1554.1 PT1 - Welding Of Steel Structures
2. All hollow sections to be fully sealed with 2mm plates, minimum, U.N.O
3. Erection of metal work shall be commenced with braced bay and erector shall provide all temporary bracing required for the safe completion of the work.
4. All bolts/screws/washers types and their treatment of, is to comply with all relevant Australian standards

**CERTIFICATION OF CANTAPORT KCR-PJR SERIES:** THE CANTAPORT IS CERTIFIED FOR REGION A & TERRAIN CATEGORY 2&3. THE CANTAPORT IS DESIGNED ONLY WHEN THE POST IS BUILT IN THE FOOTINGS, BUT NOT ON CONCRETE SURFACES. THE CANTAPORT STRUCTURE IS STRUCTURALLY CAPABLE OF SUPPORTING THE DESIGN LOADS IN ACCORDANCE WITH ALL RELEVANT AUSTRALIAN STANDARDS.





# METAL SLEEVES DETAILS



**BMS 450**  
CONCRETE DRIVEWAY  
BASEPLATE METAL SLEEVE

STEEL SLEEVE (MIN G350)  
AS SHOWN.  
FIX TO METAL SLEEVE WITH  
2xM16 8.8/S BOLTS MAX  
100mm FROM ENDS

FOOTING DETAILS  
PIT FOOTING 900 x 900 x 900  
PILE FOOTING 450 x 1500

STANDARD PIT FOOTING  
900x900x900

PILE FOOTING ALTERNATIVE  
450x15000

**BMS450**

**SMS65**

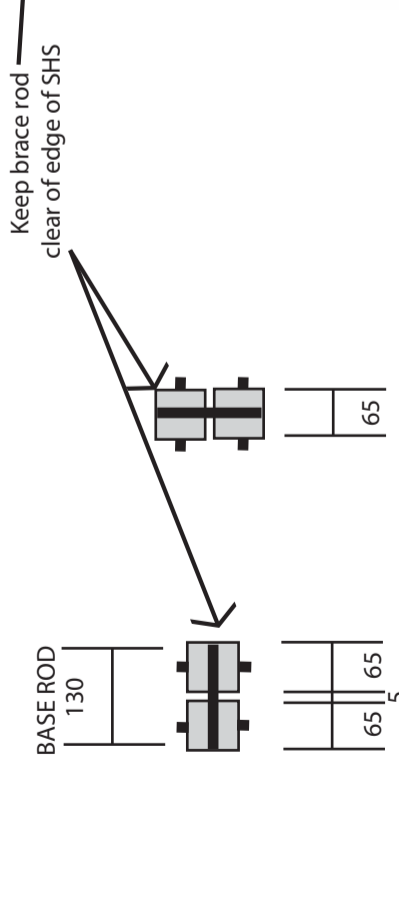
**SMS65**  
STANDARD METAL SLEEVE

STEEL SLEEVE (MIN G350)  
AS SHOWN.  
FIX TO METAL SLEEVE WITH  
2xM16 8.8/S BOLTS MAX  
100mm FROM ENDS

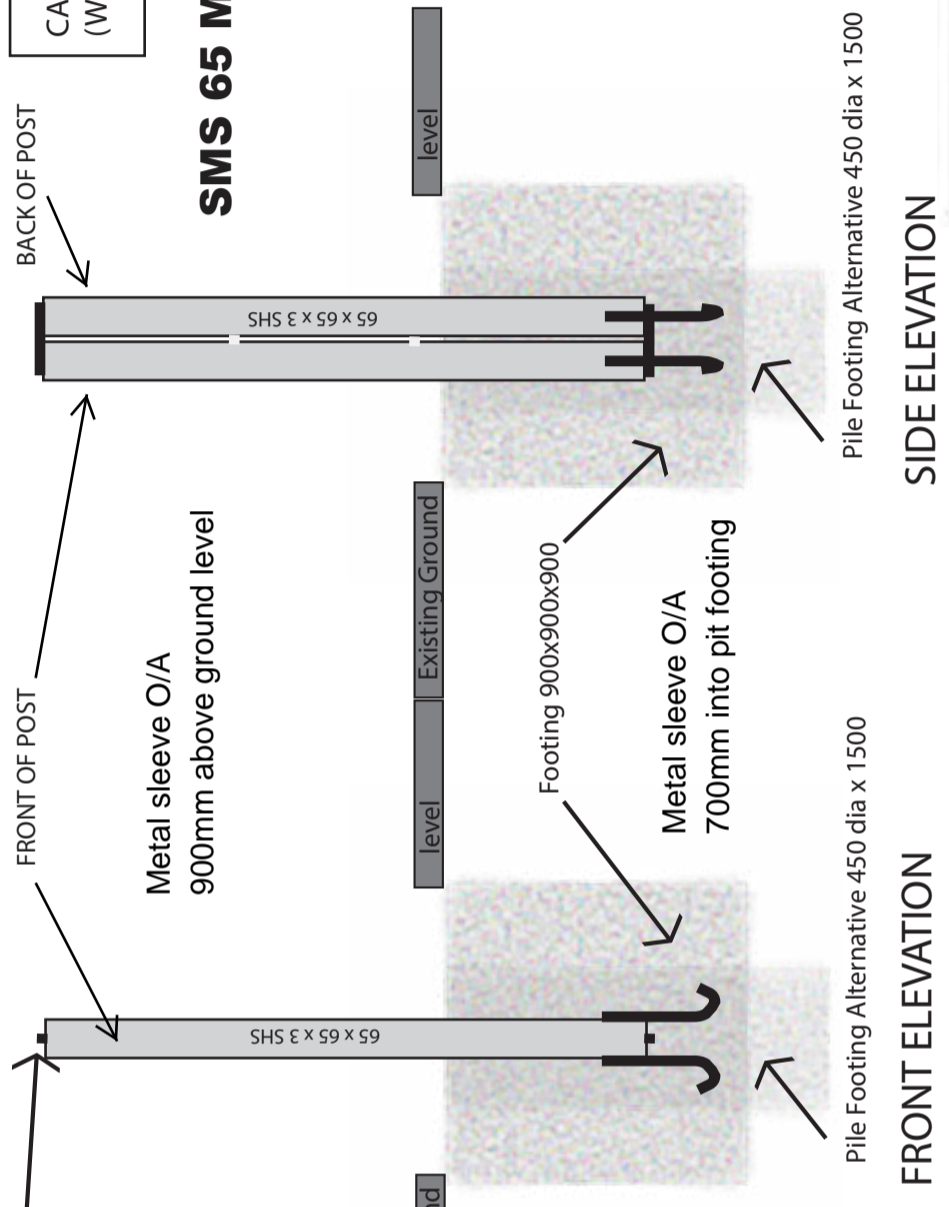
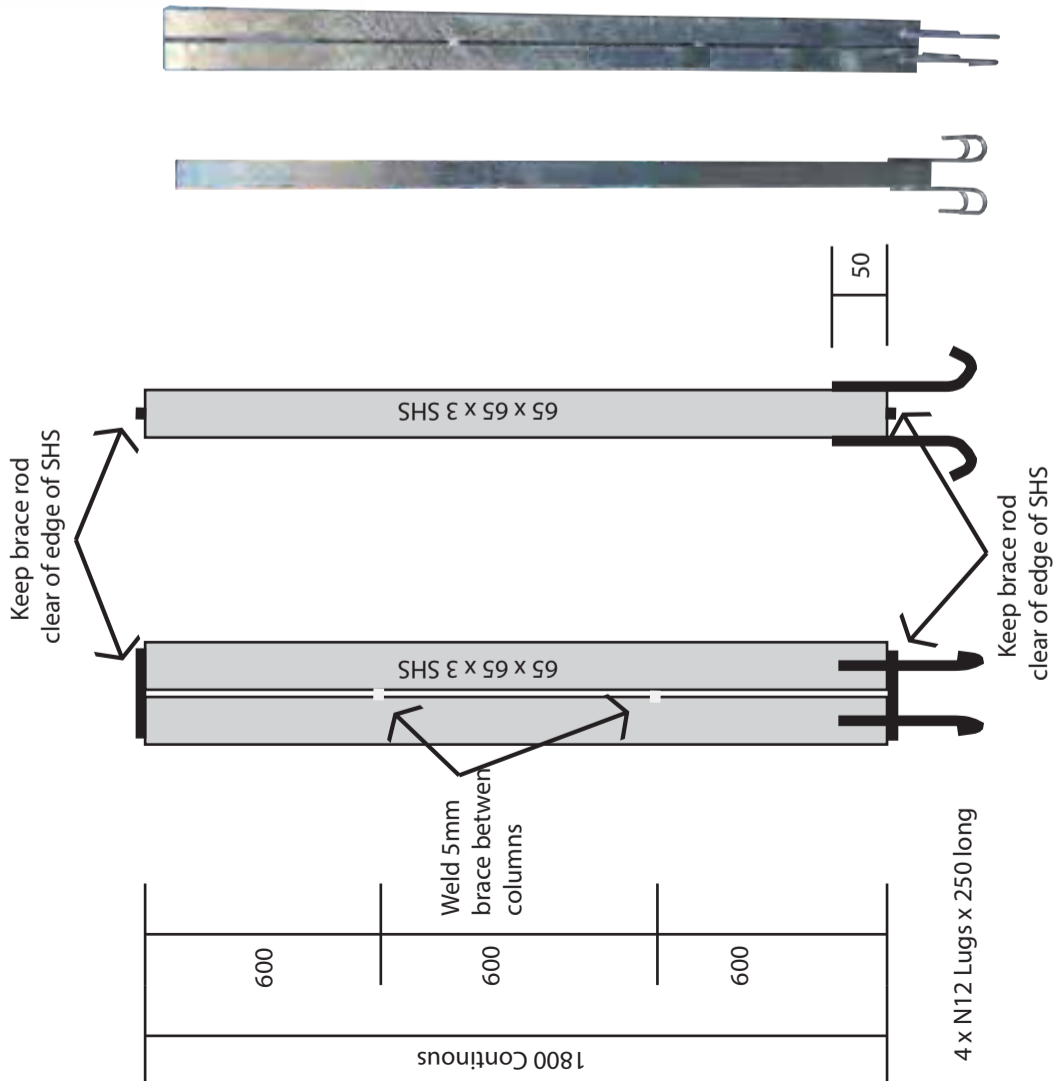
FOOTING DETAILS  
PIT FOOTING 900 x 900 x 900  
PILE FOOTING 450 x 1500

**METAL SLEEVE ADVANTAGE:** 1. Eliminates error in height. The metal sleeves are inserted into the concrete footing and extend above ground level. The cantaport posts then slide over the metal sleeves. The height of the posts can then be adjusted by cutting from the base of the post. Once the height is determined, the post is fixed using two bolts on the front and or rear of the post. 2. Assists with unlevel sites, extra height extension, 3. Provides further support to the structure and 4. The cantaport can be relocated, removed if required. A non permanent structure.





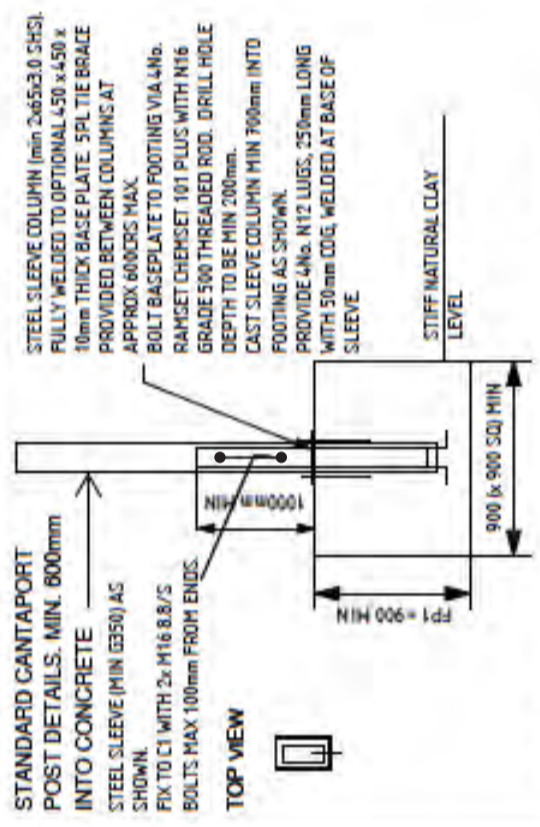
**FRONT ELEVATION SIDE ELEVATION**



**SMS 65 METAL SLEEVE DETAILS**

CANTAPORT SHADING SYSTEMS PJR SERIES  
(Wind Region A, Terrain Category 2,3 & 4)

**STANDARD FOOTING & SLEEVE COLUMN PLATE COVER DETAILS**

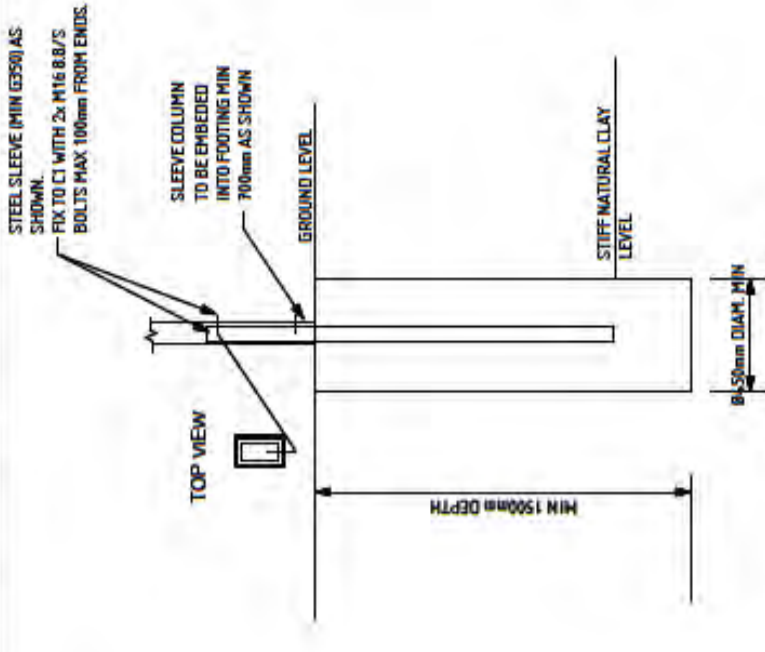


**SLEEVE COLUMN AND STAND ALONE FOOTING**

NOTE: CONCRETE FOOTING TO BE FOUNDED INTO MIN 300mm OF NATURAL UNDISTURBED CLAY MATERIAL, TO BE CONFIRMED BY THE BUILDER

METAL SLEEVE PLATE COVER COLUMN CAN ALSO BE USED AS A PILE DETAIL. PLATE IS TO COVER OPENING OF EXCAVATION TO AN EXISTING SURFACE

**PILE FOOTING DETAILS**



**FOOTING DETAIL**

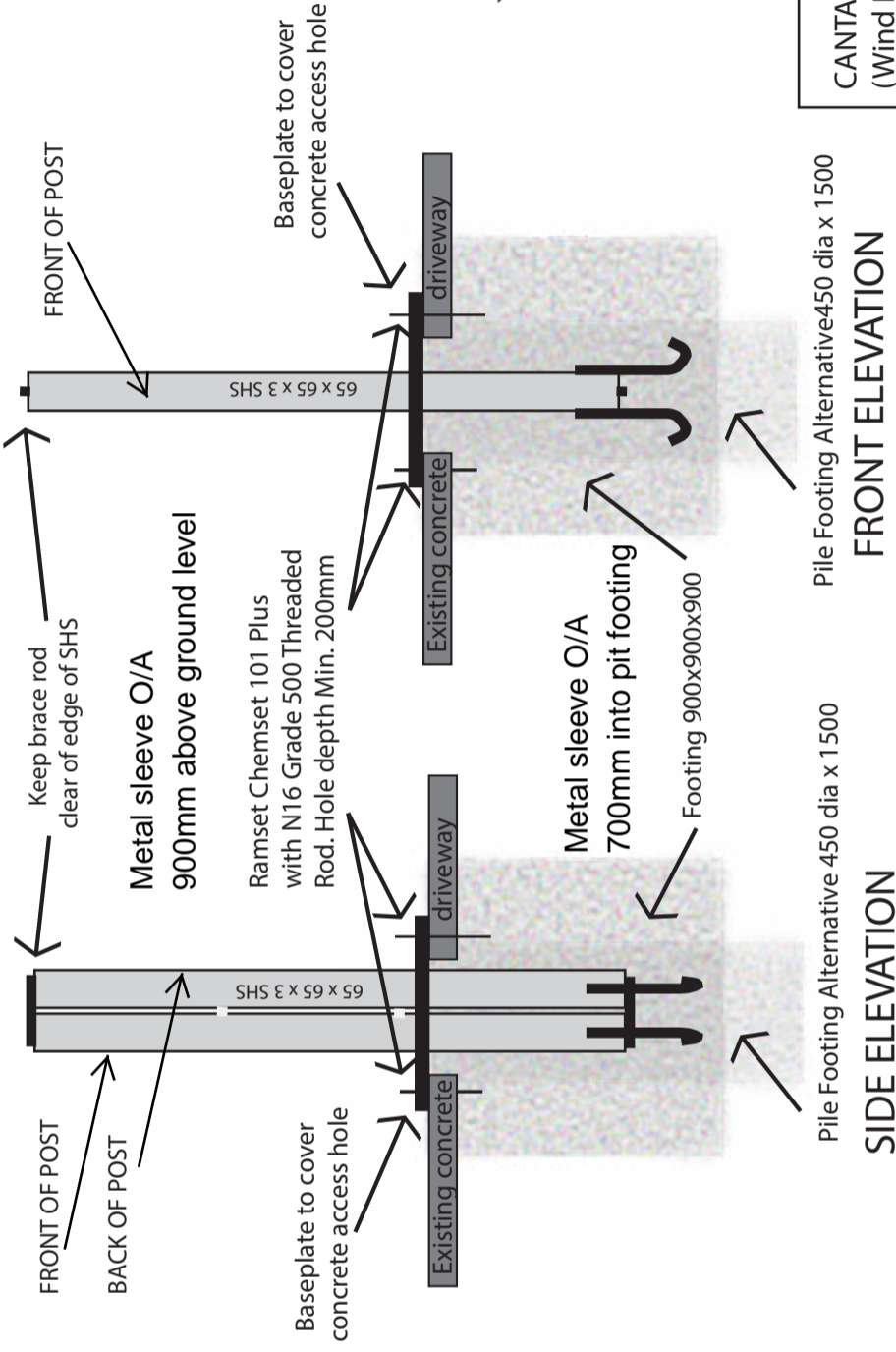
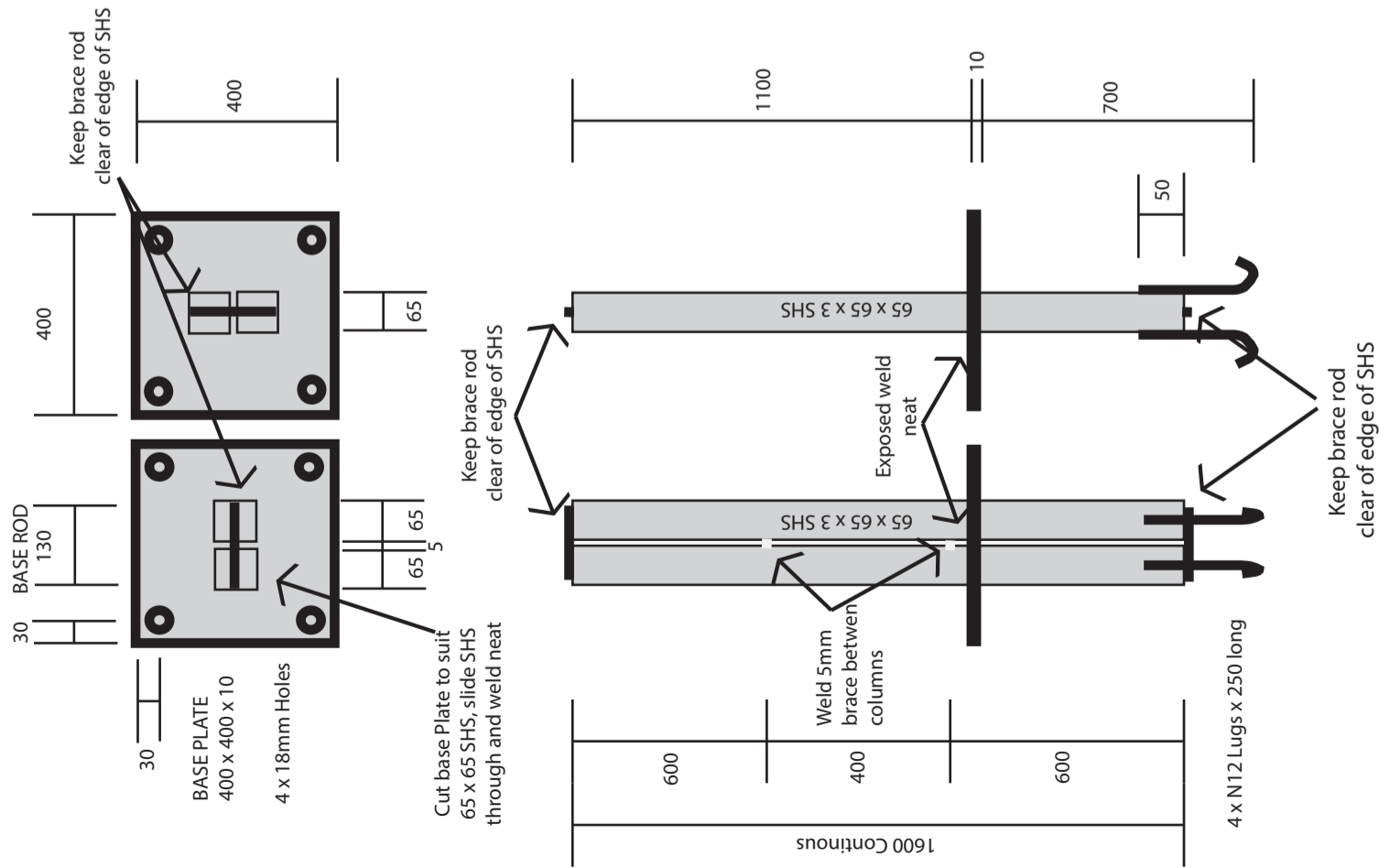
NOTE: CONCRETE FOOTING TO BE FOUNDED INTO MIN 600mm OF NATURAL UNDISTURBED CLAY MATERIAL, TO BE CONFIRMED BY THE BUILDER

ALTERNATIVE FOOTINGS DETAILS WITH LIMITED AREA TO EXCAVATE A STANDARD FOOTING.

**STANDARD METAL SLEEVE SHOP DRAWINGS  
METAL SLEEVE 65X65X3 HOT DIP GALVANISED**

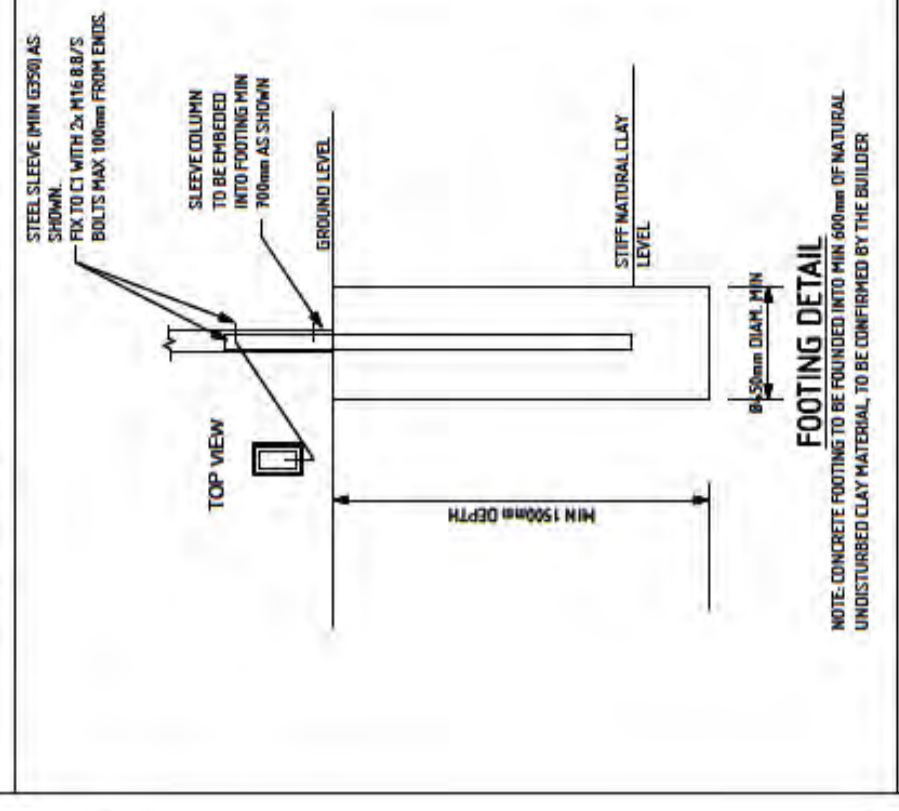


### BMS 450 METAL SLEEVE DETAILS



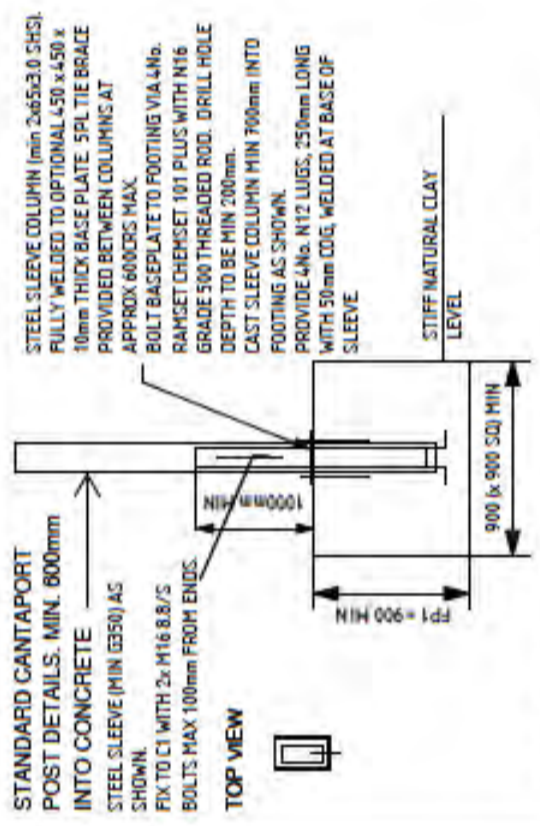
CANTAPORT SHADING SYSTEMS PJR SERIES (Wind Region A, Terrain Category 2,3 & 4)

### PILE FOOTING DETAILS



ALTERNATIVE FOOTINGS DETAILS WITH LIMITED AREA TO EXCAVATE A STANDARD FOOTING.

### STANDARD FOOTING & SLEEVE COLUMN PLATE COVER DETAILS



### SLEEVE COLUMN AND STAND ALONE FOOTING

NOTE: CONCRETE FOOTING TO BE FOUNDED INTO MIN 300mm OF NATURAL UNDISTURBED CLAY MATERIAL, TO BE CONFIRMED BY THE BUILDER

METAL SLEEVE PLATE COVER COLUMN CAN ALSO BE USED AS A PILE DETAIL. PLATE IS TO COVER OPENING OF EXCAVATION TO AN EXISTING SURFACE



CONCRETE DRIVEWAY BASEPLATE SHOP DRAWINGS  
METAL SLEEVE 65X65X3 HOT DIP GALVANISED



## Single cantaport unit either 5130 or 5830

standard long box 1 5200mm x 200mm x 240mm  
standard long box 2 5900mm x 200mm x 240mm

width pallet 3100mm x 800mm x 350mm



## 2 Single cantaport units either 5130 or 5830

standard long box 1 5200mm x 250mm x 240mm  
standard long box 1 5900mm x 250mm x 240mm

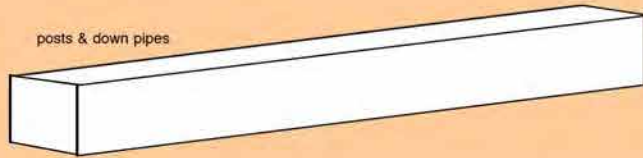
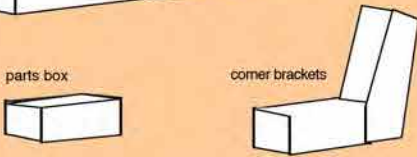
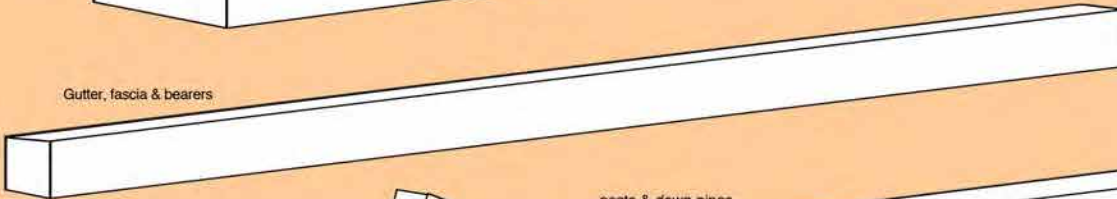
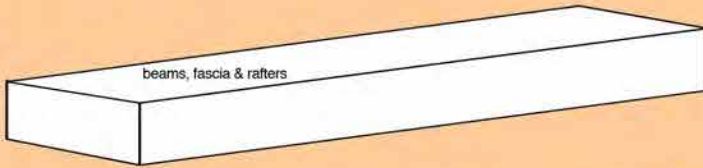
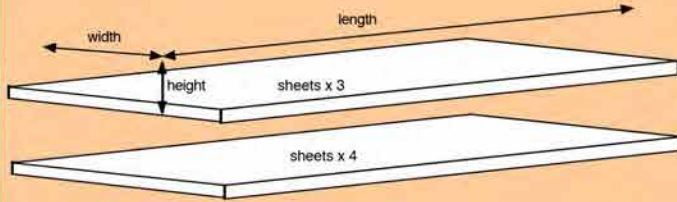
width pallet 3100mm x 800mm x 600mm







flat pack



PART	WIDTH	LENGTH	HEIGHT	kg
Sheets x 3	789	3000	50	20
Sheets x 4	789	3000	52	23
Beams, fascia, rafters	450	3070	250	25
Gutter, fascia, bearers	250	5100	250	15
Parts box	150	350	120	1
Corner brackets	250	450	450	10
posts & down pipes	340	2800	280	15
TOTAL				120

METAL SLEEVES 8kg each sleeve. Sheets are flexible and can be  
All cantaport units are DIY, pre cut & pre drilled and packaged flat pack.

Pallet 2: 18kg - 25kg

Pallet 1: 120kg - 140kg

