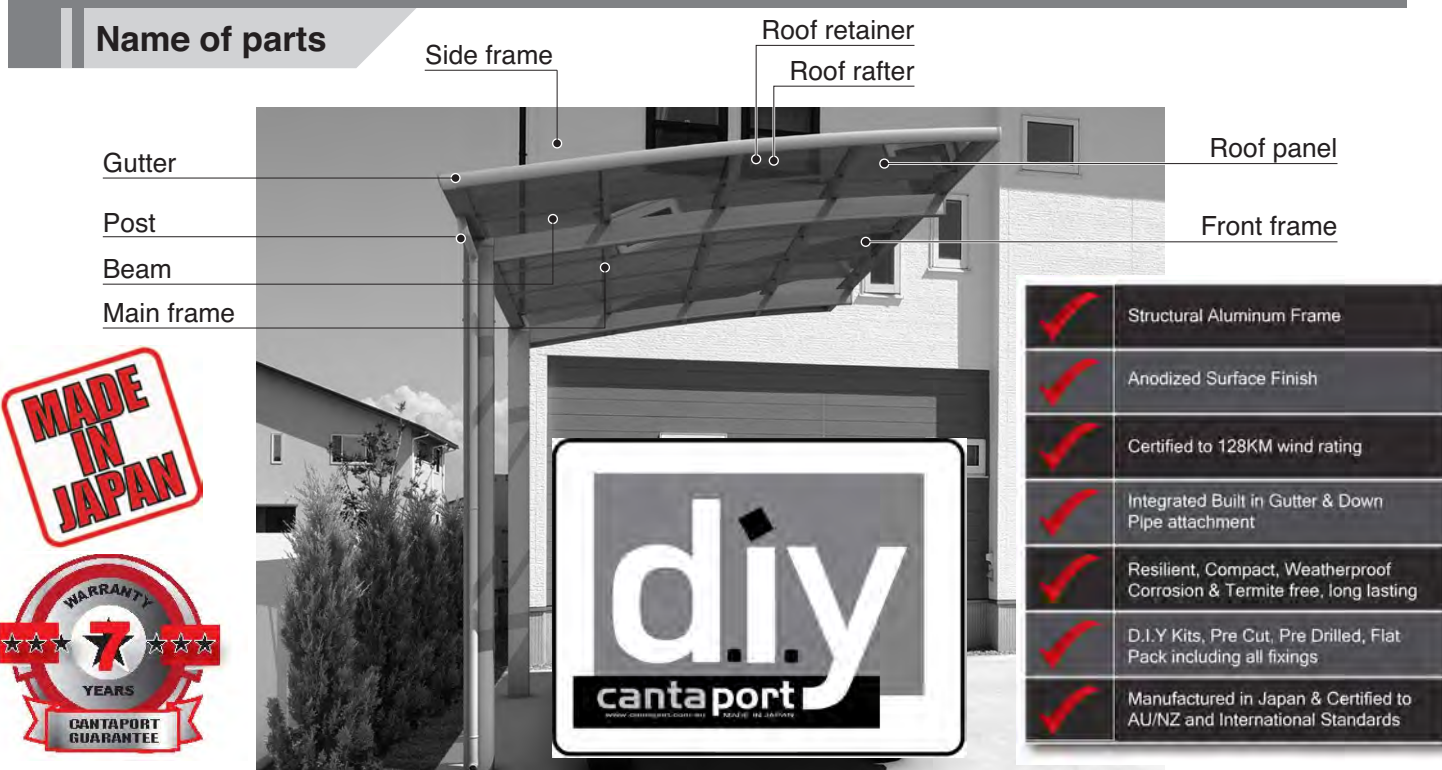
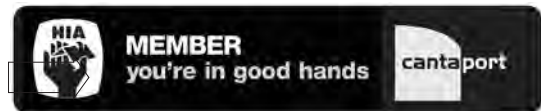


# Cantaport made in Japan certified to AU standards KHGO (KHR)-series HZ1755-E Assembling manual

Thank you very much for choosing our company's Cantaport products.

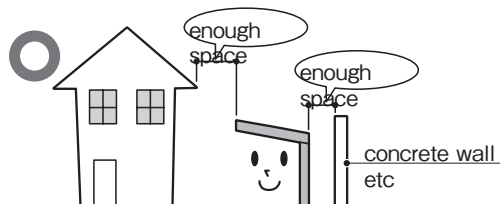
Please be sure to thoroughly read these instructions for assembling the Cantaport product in conjunction with the engineering details. DIY or Authorised Cantaport installations must follow the manufactures assembling manual to avoid warranty cover. Please retain the manual for future reference and maintenance inspection.



|   |   |
|---|---|
| ✓ | Structural Aluminum Frame   |
| ✓ | Anodized Surface Finish   |
| ✓ | Certified to 128KM 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.



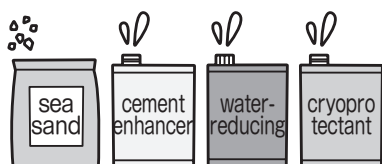
|   |   |
|---|---|
| ✓ | Solid Resin Polycarbonate   |
| ✓ | Reduces the Heat by 83%   |
| ✓ | 250 Times Stronger than glass                                     |
| ✓ | Allows natural light to filter through                            |
| ✓ | Blocks out 99% UV Rays  |
| ✓ | Guaranteed to not crack*<br>*Installed as per manufactures manual |
| ✓ | Fire rated non combustible  |

- 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.

## 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 the curing period.
- 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.

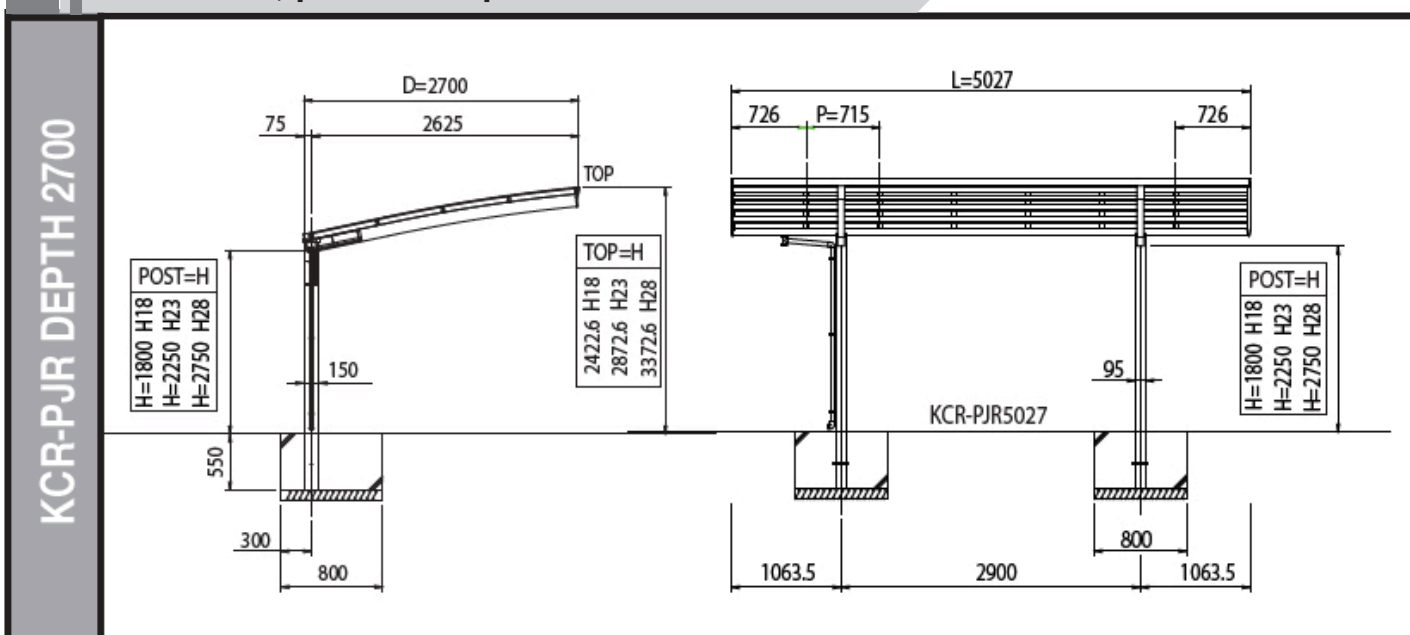


(2) Immediately wipe off any mortar or stains from the surface of the aluminum parts as they may cause corrosion.



- Check all components are not damaged when receiving delivery. Exchanges can only apply 48 hours after delivery. Conditions apply and only refer to manufactures fault. Delivery damage is part of the receivers insurance. Report all damage to sender.
- After installation, check all bolts, screws, nuts, etc. are tightened and not loose and for any dangers that may exist. After installation, be sure to check if the product has no scratches or dents.
- Retain this manual for future reference on product operation procedures, maintenance and inspection methods.

## Dimension, position of posts and base dimension



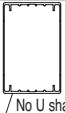
**CAUTION DO NOT CLIMB, HANG OR WALK ON THE ROOF. THE OWNER TO PROVIDE CAUTION LABELS IF SITUATED IN PUBLIC OPEN SPACES OR EASY EXCESS TO THE INSTALLED STRUCTURE.**



Spacing of posts 2900mm centered from each post. Height to be determined from the bottom cutout on the posts (where the beam is inserted see page 7) to Finished ground level. H1800mm below beam is 2422.60mm top of roof. H2250mm below beam is 2872.60mm top of roof. H2750mm below beam is 3372.60mm top of roof. NOTE: Posts higher than 2750 require a metal sleeve insert sold separately. Standard height is H2250mm supplied.

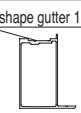
## Necessary tools and materials for installation

- 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

## Post·beam·main frame list

|           |  |
|-----------|--|
| Post type | ①  |
| Section   | <br>No U shape gutter |
| Parts ID  | KHRH-18C-2<br>KHRH-23C-2   |

|           |  |   |
|-----------|--|---|
| Beam type | ①  | ②   |
| Section   | No U shape gutter<br> | U shape gutter 2 parts<br> |
| Parts ID  | KHRM-5024  | KHRM-5027   |

|                 |   |
|-----------------|---|
| Main frame type | ①   |
| Section         | U shape gutter 1 parts<br> |
| Parts ID        | KHRY-W50B-3   |

## Parts instruction guide


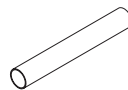


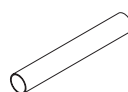

| Type      |          | Component parts |           |      |            |
|-----------|----------|-----------------|-----------|------|------------|
| Body size |          | Post            |           | Beam | Main frame |
| Depth     | Length W | Standard post   | Long post |      |            |
| 24        | 50       | ①               |           | ①    | ①          |
| 27        |          | ①               |           | ②    |            |

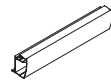
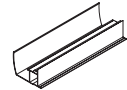
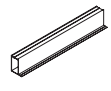
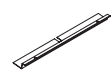

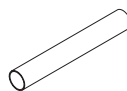
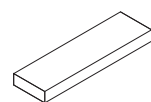


## Parts contents

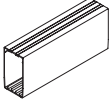


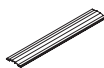
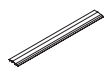


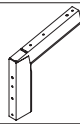
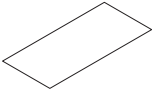





- Please open the captioned carton and check all contents in advance.
- Please check the parts for any damage.
- After opening the carton boxes, please store the products so that they are not damaged.
- Extra screws in the parts box. (x) number is necessary Q'ty for installation.







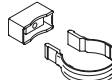





When △mark is P, it's the polycarbonate panel.  
When △mark is CP, it's the polycarbonate mat panel.  
When △mark is MCP, it's the heat protection polycarbonate panel.

| Parts ID                        | Content                   |   |          |
|---------------------------------|---------------------------|---|----------|
|                                 | Description               | Shape   | Quantity |
| Post set (standard) KHRH-18C-2  | Post                      |  | 2        |
|                                 | Round gutter GA4923       |  | 1        |
|                                 | Instruction manual HZ0472 |  | 1        |
| Post set (long post) KHRH-23C-2 | Post                      |  | 2        |
|                                 | Round gutter GA4923       |  | 1        |
|                                 | Instruction manual HZ0472 |  | 1        |

| Parts ID               | Content                     |   |          |
|------------------------|-----------------------------|---|----------|
|                        | Description                 | Shape   | Quantity |
| Length set KHRY-W50B-3 | Front frame                 |  | 1        |
|                        | Gutter                      |  | 1        |
|                        | Main frame                  |  | 3        |
|                        | Panel holder (middle) L=645 |  | 6        |
|                        | Panel holder (end) L=300    |  | 2        |
|                        | Round gutter GA4923         |  | 1        |
|                        | Roof panel cushion GB8274   |  | 21       |

**Genuine & Original**  
BEWARE OF CHEAP IMITATIONS

| Parts ID   | Content   |   |            |          |
|--|---|---|------------|----------|
|  | Description   | Shape   | Quantity   |          |
| Beam·depth set<br>KHRM-5024<br>KHRM-5027                               | Beam  |    | 2          |          |
|  | Side frame  |    | 2          |          |
|  | Roof rafter   |    | 6          |          |
|  | Roof retainer (middle)  |    | 6          |          |
|  | Roof retainer (end)   |    | 2          |          |
|  | Small truss screw<br>5×10×10  |    | KHRM-5024  | 95(90)   |
|  |   |   | KHRM-5027  | 105(100) |
| Drilling screw<br>4×10×8   |    | 59(56)  |            |          |
| Corner parts set<br>KHR-CBB-2  | Corner bracket<br>GB8063  |  | 2          |          |
| Roof panel set<br>KHRY-△24-3<br>KHRY-△27-3<br>KHRY-△24-4<br>KHRY-△27-4 | Roof panel<br>GB4107<br>(Polycarbonate)<br>GB4575<br>(Heat protection polycarbonate)<br>GB6365<br>(Heat absorb polycarbonate) |  | KHRY-△○○-3 | 3        |
|  |   |   | KHRY-△○○-4 | 4        |
| Parts box<br>KHRB-2  | Anchor rod<br>GA0073  |  | 2          |          |
|  | Post cap<br>GB8072  |  | 2          |          |
|  | Beam cap<br>GB8073  |  | 2          |          |
|  | Hole seal<br>φ14<br>GA0150  |  | 24         |          |
|  | Hexagon bolt<br>(with spring washer,<br>washer)<br>M8×25<br>ES0249  |  | 16         |          |

| Parts ID            | Content                     |   |                     |
|---------------------|-----------------------------|---|---------------------|
|                     | Description                 | Shape   | Quantity            |
| Parts box<br>KHRB-2 | Front frame cap<br>GB8074   |    | Right Left each 1pc |
|                     | Gutter cap<br>GB8075        |    | Right Left each 1pc |
|                     | Gutter attachment<br>GA4929 |    | 1                   |
|                     | Gasket<br>GA4930            |    | 1                   |
|                     | Elbow<br>GA4932             |    | 2                   |
|                     | Drain elbow<br>GA6461       |    | 1                   |
|                     | Saddle<br>GB8077            |   | 3                   |
|                     | Drilling screw<br>4×10×8    |  | 6(5)                |
|                     | Glue<br>GA4934              |  | 1                   |
|                     | Caution label<br>GLZ20C     |  | 1                   |
|                     | Snow label<br>HY0177        |  | 1                   |
|                     | Assembling manual<br>HZ1755 |  | 1                   |





# 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<br>40 TOP (EXT) |
| FOOTINGS       | N25/20/100 | 50 TYPICAL                 |
| SUSPENDED SLAB | N32/20/80  | 30 TYPICAL<br>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 SHOWN IT SHALL BE 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 GROUDED STRENGTH (F<sub>d</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       |
| FLATS                     | 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 90% 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 ERECTED 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 MANUFACTURER'S 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  
ULT. 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 MEMBER 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 ERECTED 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 PRACTISING 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

NTS 101 A3

PROJECT

CANTAPORT AUSTRALIA

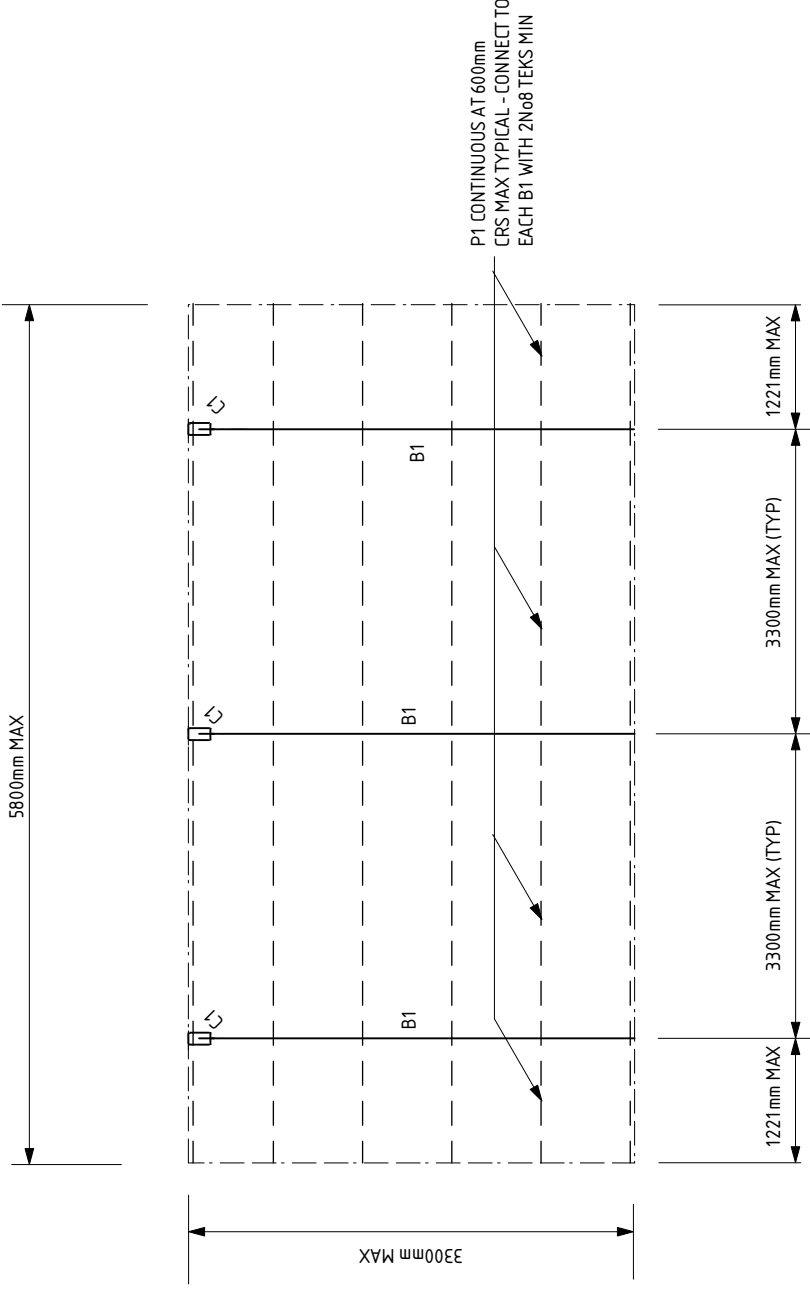
**informed**  
engineering





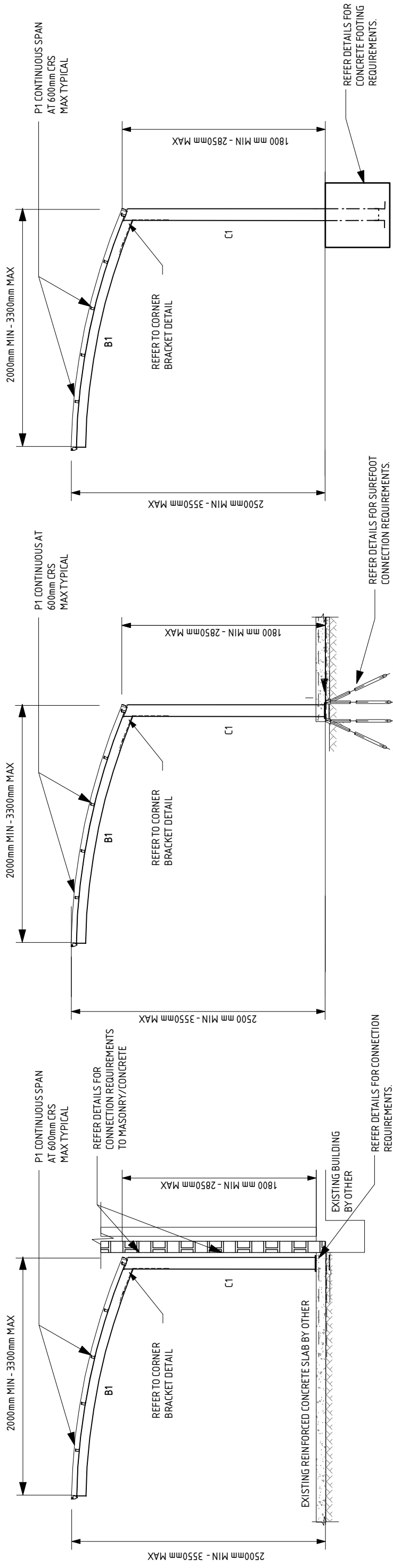


**CANTAPORT SHADING SYSTEMS PJR SERIES**  
**3300mm MAX. CANOPY WIDTH**  
**WITH SUPPORT OPTIONS SHOWN IN SIDE ELEVATION**



**GENERIC ENGINEERING**

**PLAN**



**SIDE ELEVATION**

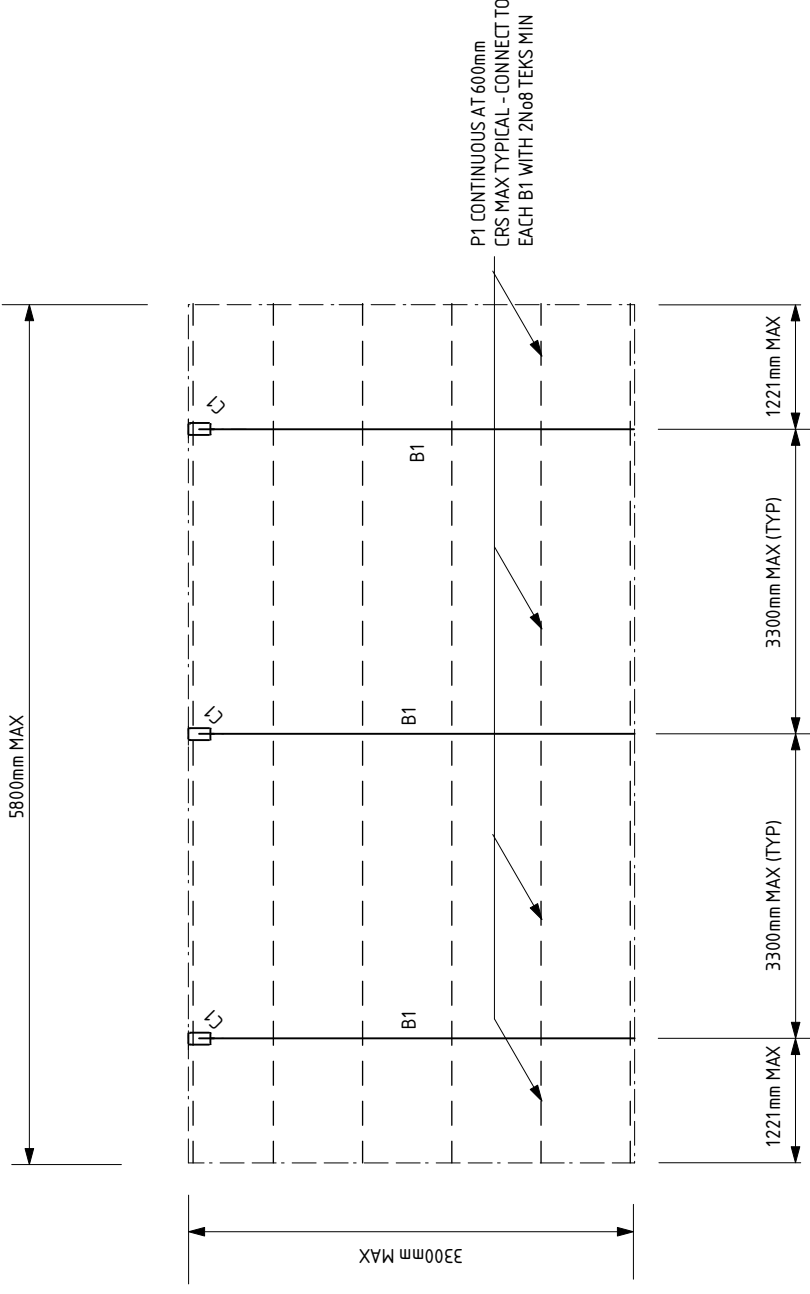
**SIDE ELEVATION**

**SIDE ELEVATION**

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| 0   | RW | NOT FOR CONSTRUCTION         | XXXX20 | PLAN AND ELEVATION              | NTS 301 A3  | CANTAPORT AUSTRALIA |
|     |    |                              |        | APPROVED BY                     |             | PROJECT             |
|     |    |                              |        | RUSSELL WHITE                   |             |                     |
|     |    |                              |        | MIE Aust CPEng NER RPEQ RBP BPP |             |                     |
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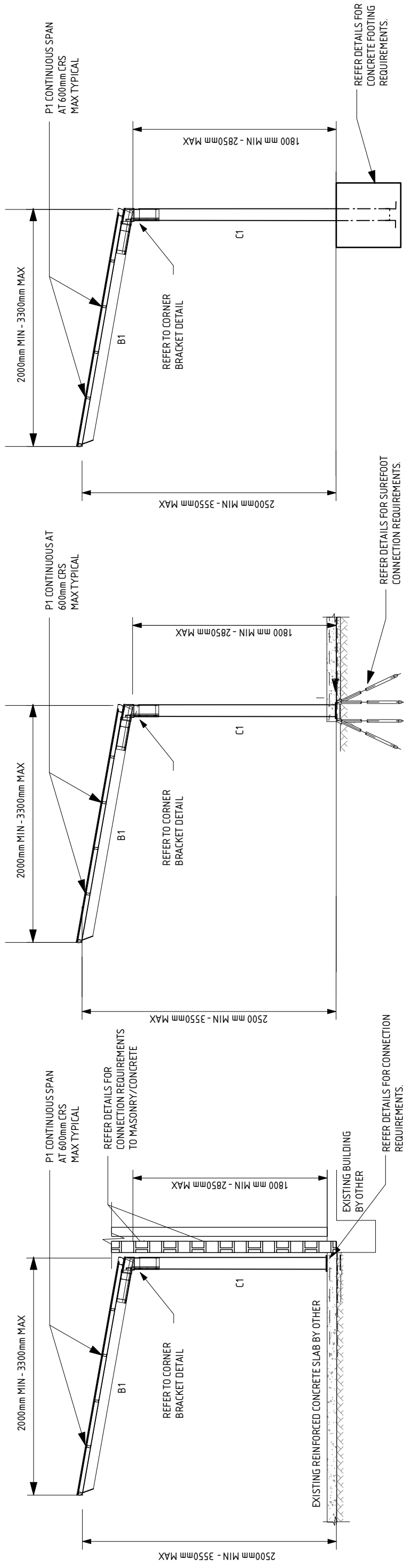
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| INFORMED ENGINEERING PTY LTD | ABN 72641093656 | PO BOX 4055, BALWYN EAST, VIC 3103 |
|------------------------------|-----------------|------------------------------------|

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



**GENERIC ENGINEERING**

**PLAN**



**SIDE ELEVATION**

**SIDE ELEVATION**

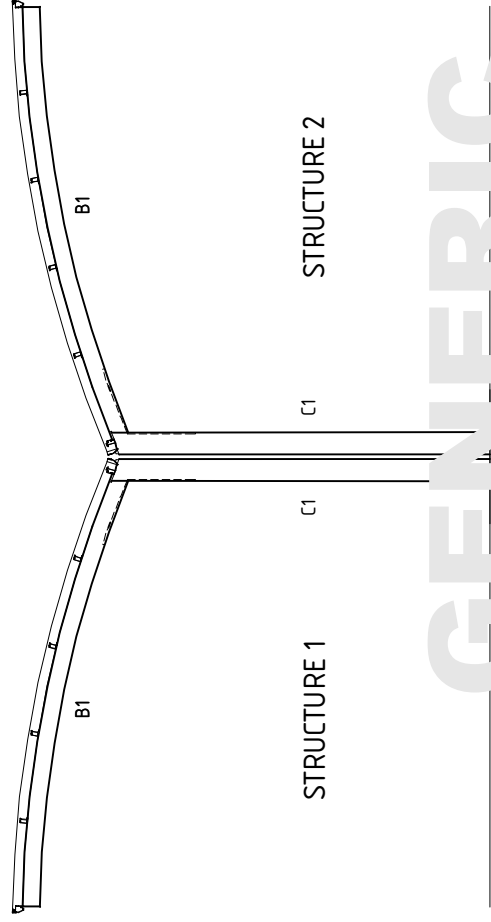
**SIDE ELEVATION**

| REV | BY | ISSUE / REVISION DESCRIPTION | DATE    | TITLE                           | PROJECT No. | CLIENT              |
|-----|----|------------------------------|---------|---------------------------------|-------------|---------------------|
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|     |    |                              |         | APPROVED BY                     |             | PROJECT             |
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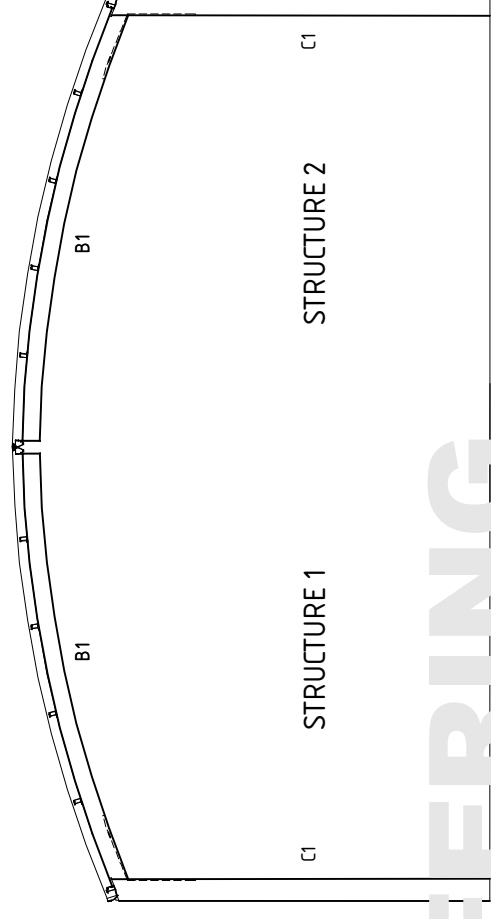
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| INFORMED ENGINEERING PTY LTD | ABN 72641093656 | PO BOX 4055, BALWYN EAST, VIC 3103 |
|------------------------------|-----------------|------------------------------------|

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.

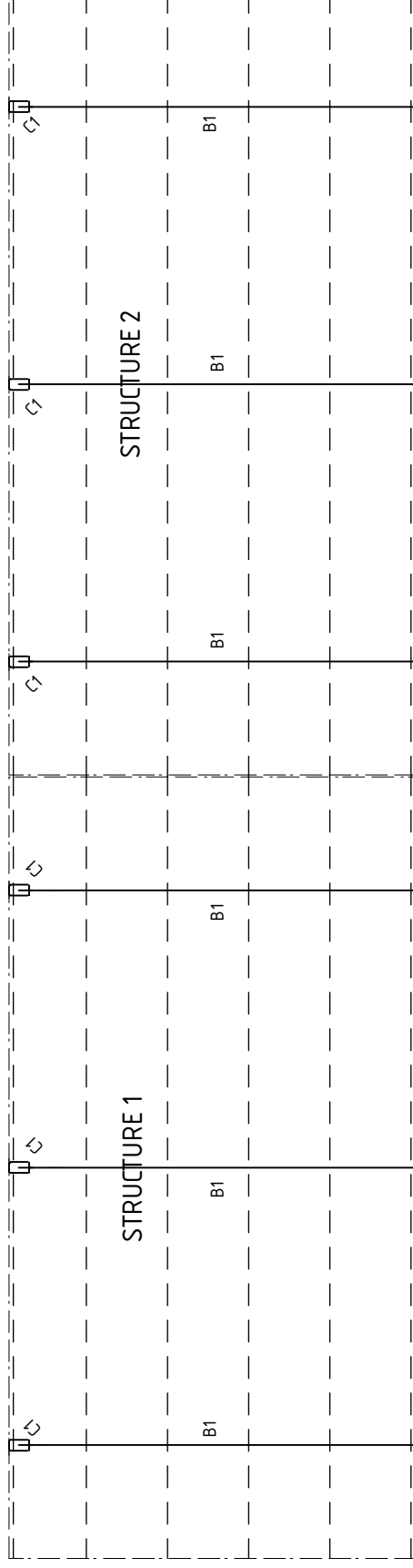


TYP. Y-CONNECT



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               | NTS 305 A3  | CANTAPORT AUSTRALIA |
|     |    |                              |         | APPROVED BY                      |             | PROJECT             |
|     |    |                              |         | RUSSELL WHITE                    |             |                     |
|     |    |                              |         | MIE Aust CP Eng NER RPEQ RBP BPP |             |                     |
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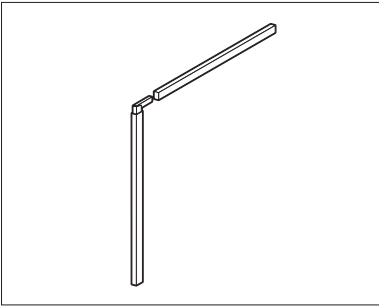
INFORMED ENGINEERING PTY LTD ABN 72641093656 PO BOX 4055, BALWYN EAST, VIC 3103

informed

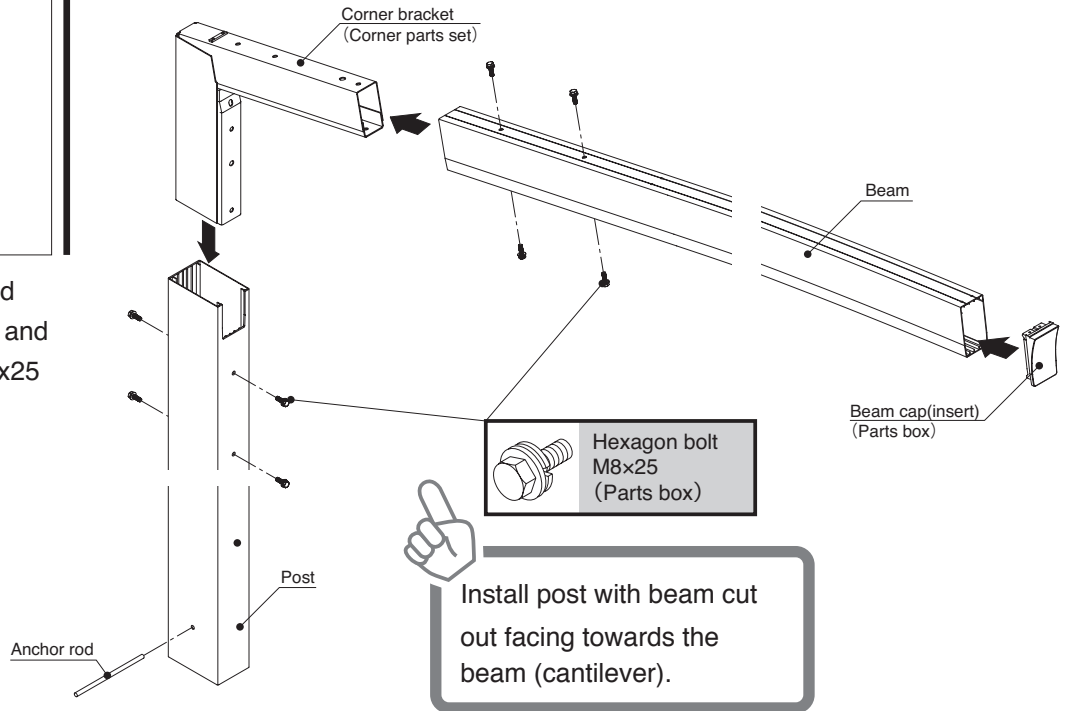
engineering

# Standard type installation procedure

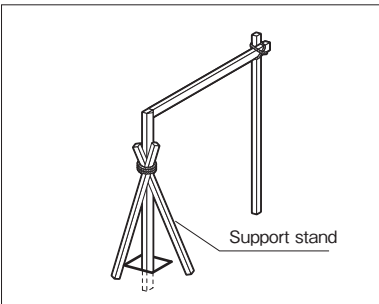
## 1 Installation of posts and beams



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



## 2 Installation to base hole



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

Step 1

### FOUNDATIONS

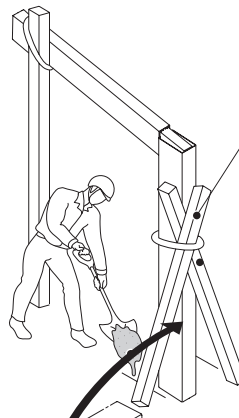
1. All soil testing to be carried out by the engineer soil type and conditions. 2. Remove all topsoil containing vegetation & deleterious fill material from the building site.

### 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

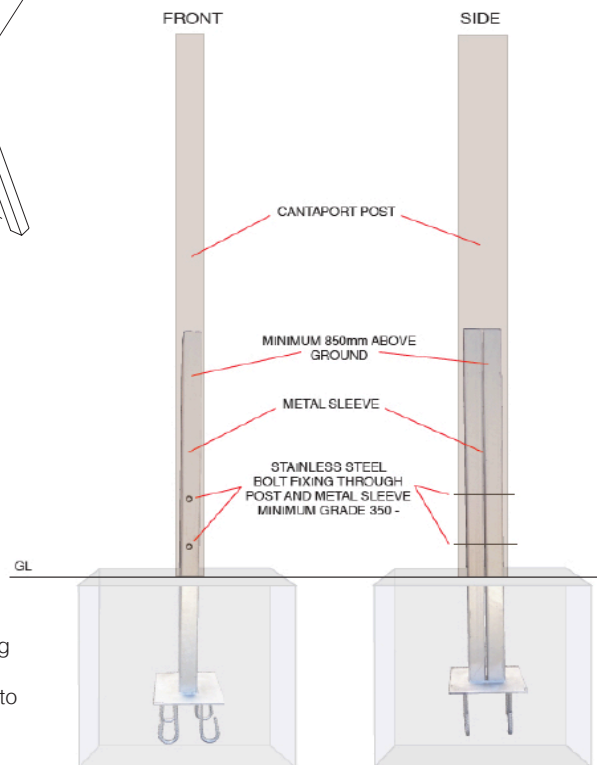
### METAL SLEEVES

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.



FRONT

SIDE

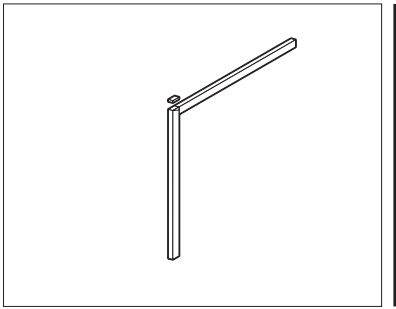


CONCRETE PIT FOOTINGS  
AS PER ENGINEERING DETAILS

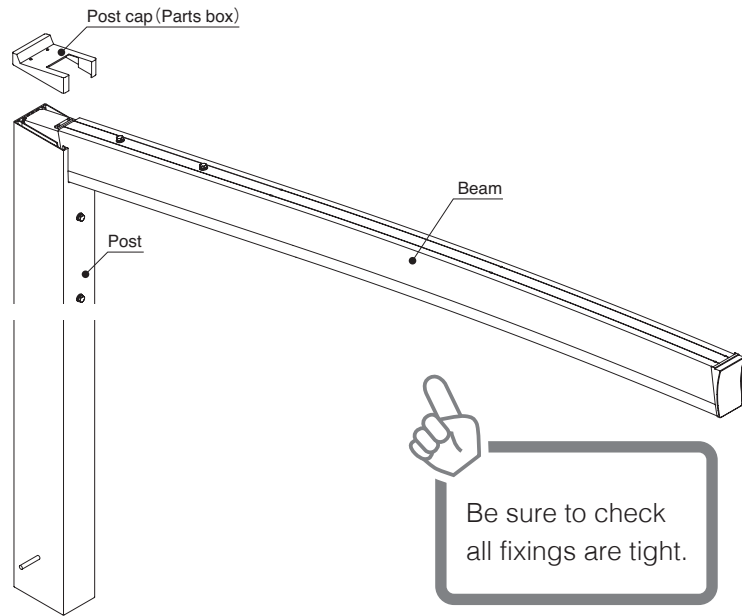
OPTIONS ON BRACING METAL SLEEVES.



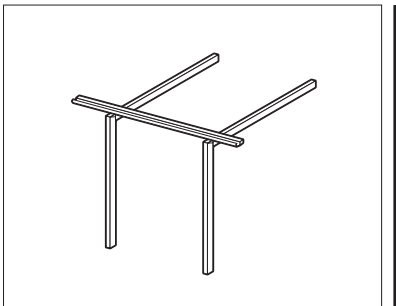
### 3 Attaching the post cap



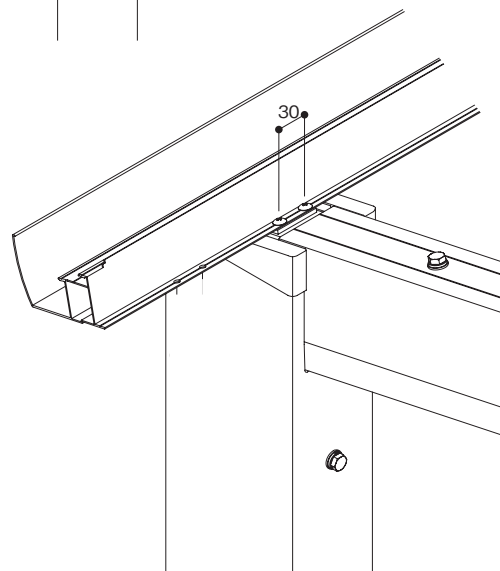
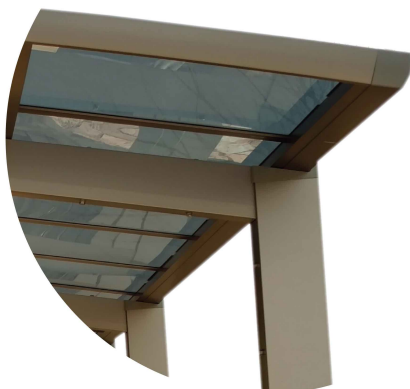
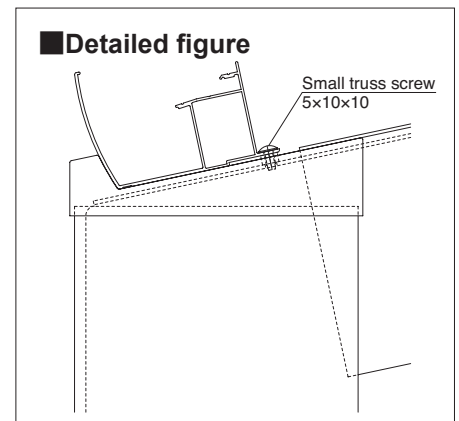
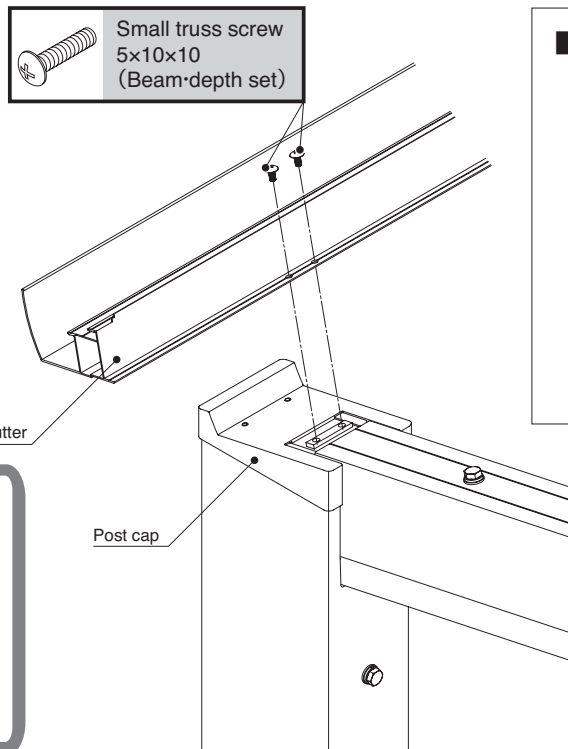
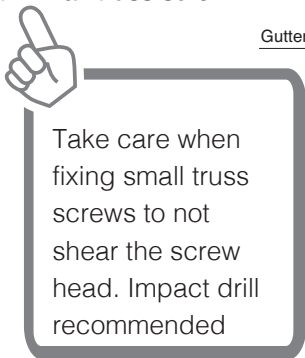
- Attach the post cap onto the post



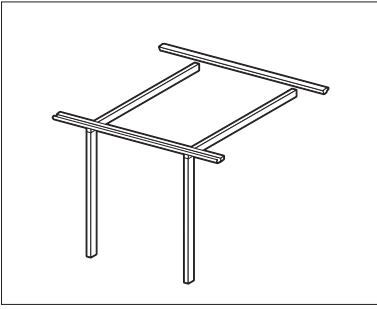
### 4 Installation of gutter



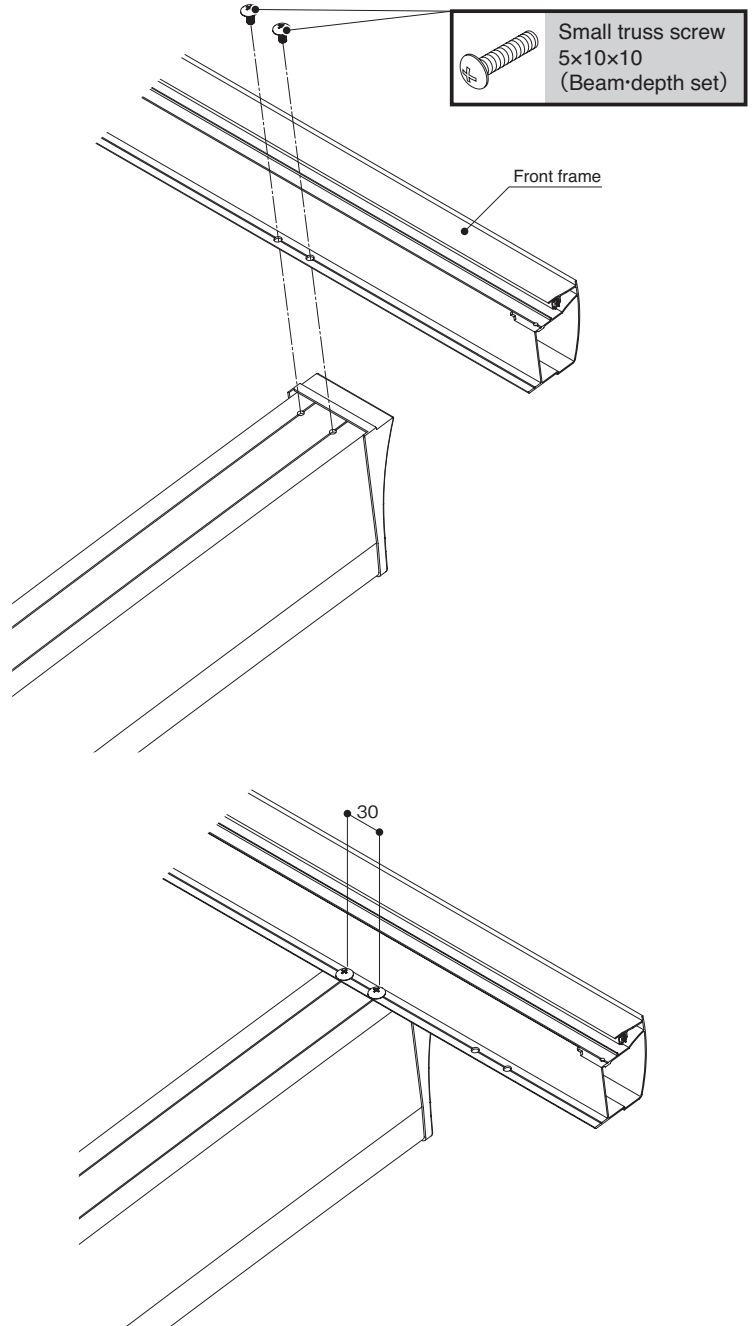
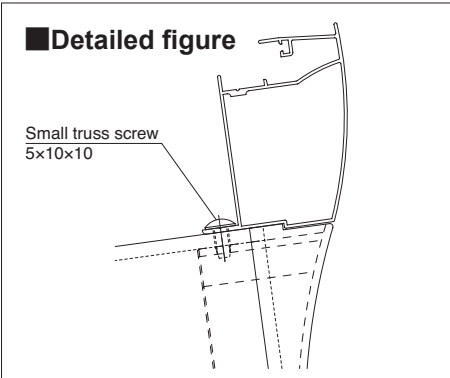
- Install the gutter to the corner bracket with small truss screw 5x10x10.



## 5 Installation of front frame

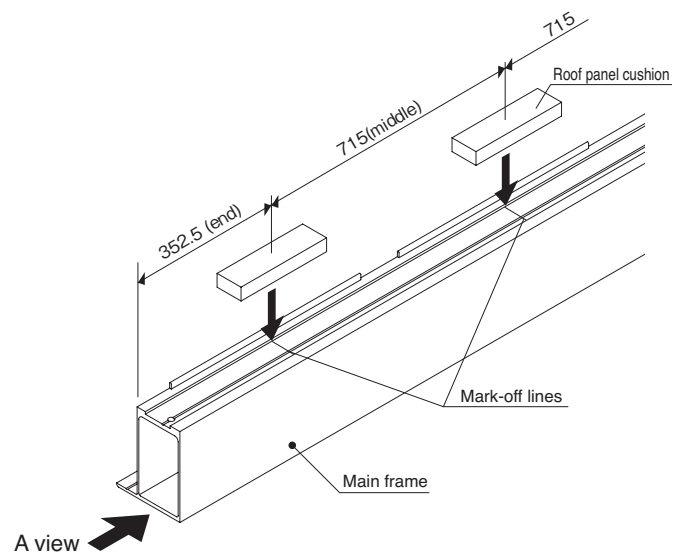
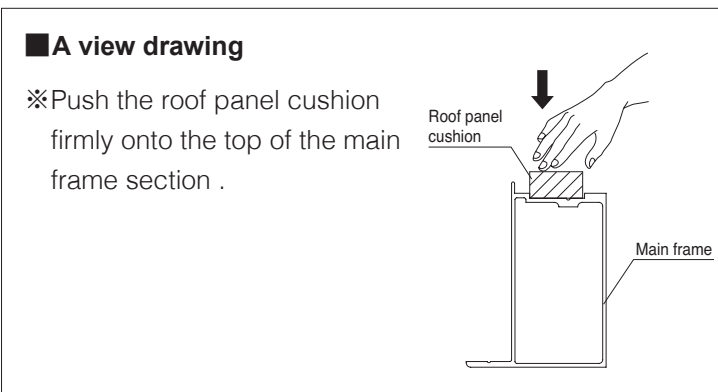


- Install the front frame to the beam with small truss screw 5x10x10.

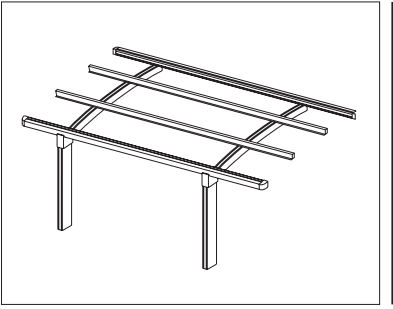


## 6 Attaching the roof panel cushions

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



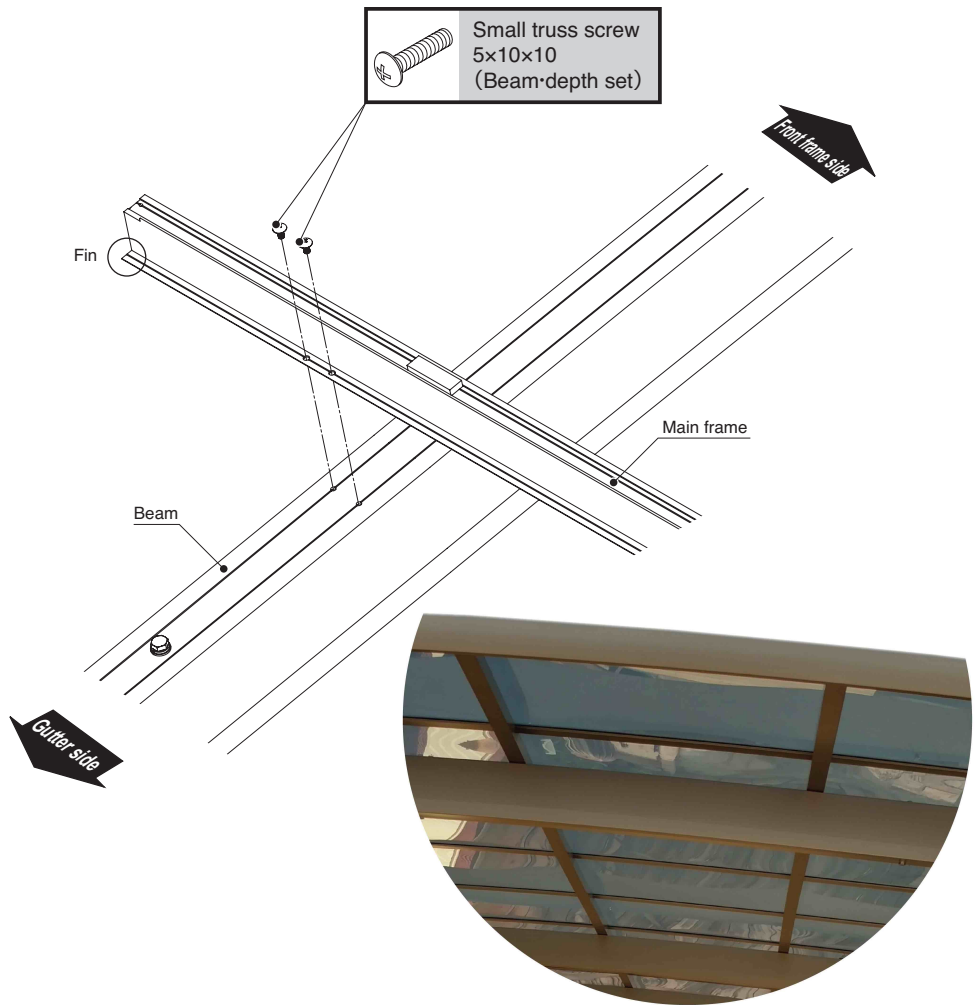
## 7 Installation of main frame



- 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.

**MADE  
IN  
JAPAN**



**Genuine & Original**

BEWARE OF CHEAP IMITATIONS



**cantaport**

7 years warranty

**KHGO  
series**

5100 x 2700

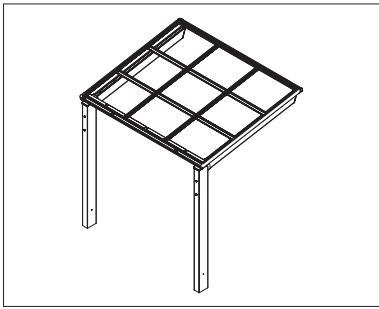
Silver (SLC) standard colour  
Urban Gray (UC) special order

**cantaport**

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



# 8 Installation of side frame



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

Gutter cap (Parts box)

Insert

Gutter

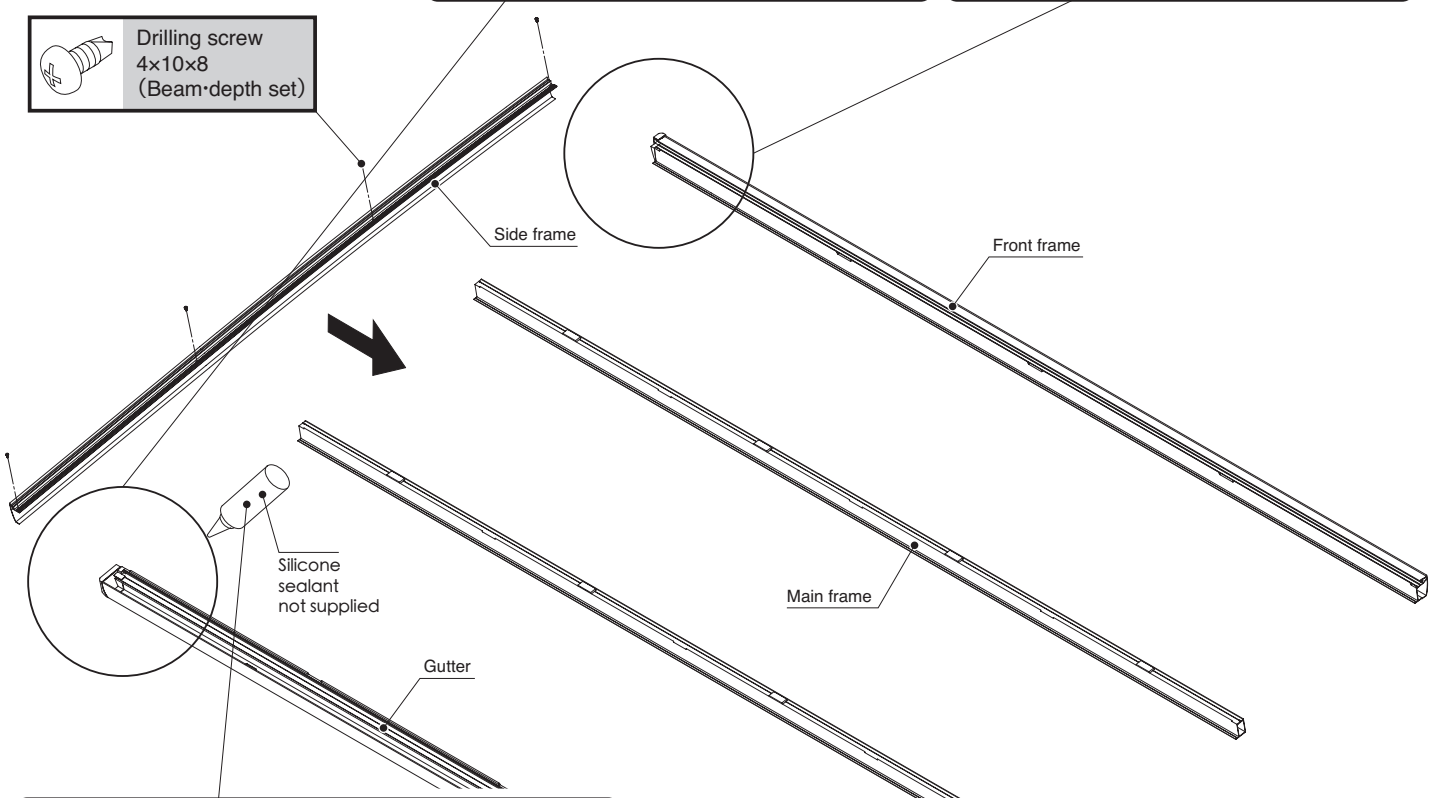
**Step1** Attach the front frame cap into the front frame.

Front frame cap (Parts box)

Insert

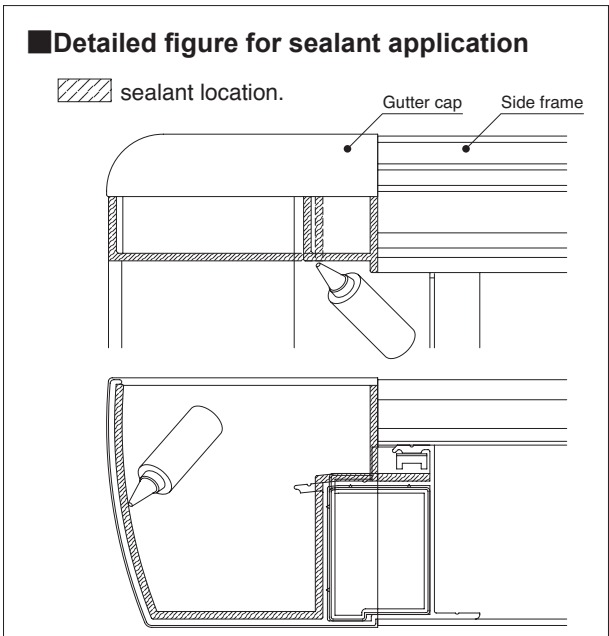
Front frame

Drilling screw  
4x10x8  
(Beam-depth set)



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

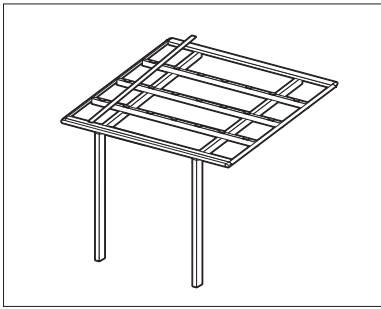
**Step2** Install the side frame to the gutter, main frame and front frame using guide holes with screws 4x10x8.



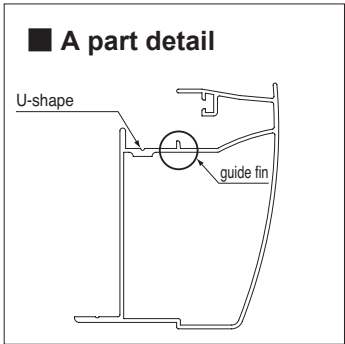
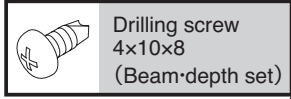
**NOTE:** Common mistake of installing the wrong side frame. The two side frames provided, one is made for the right side and one for the left side. Match the curve to the beam.

Front frame side

# 9 Installation of roof rafter

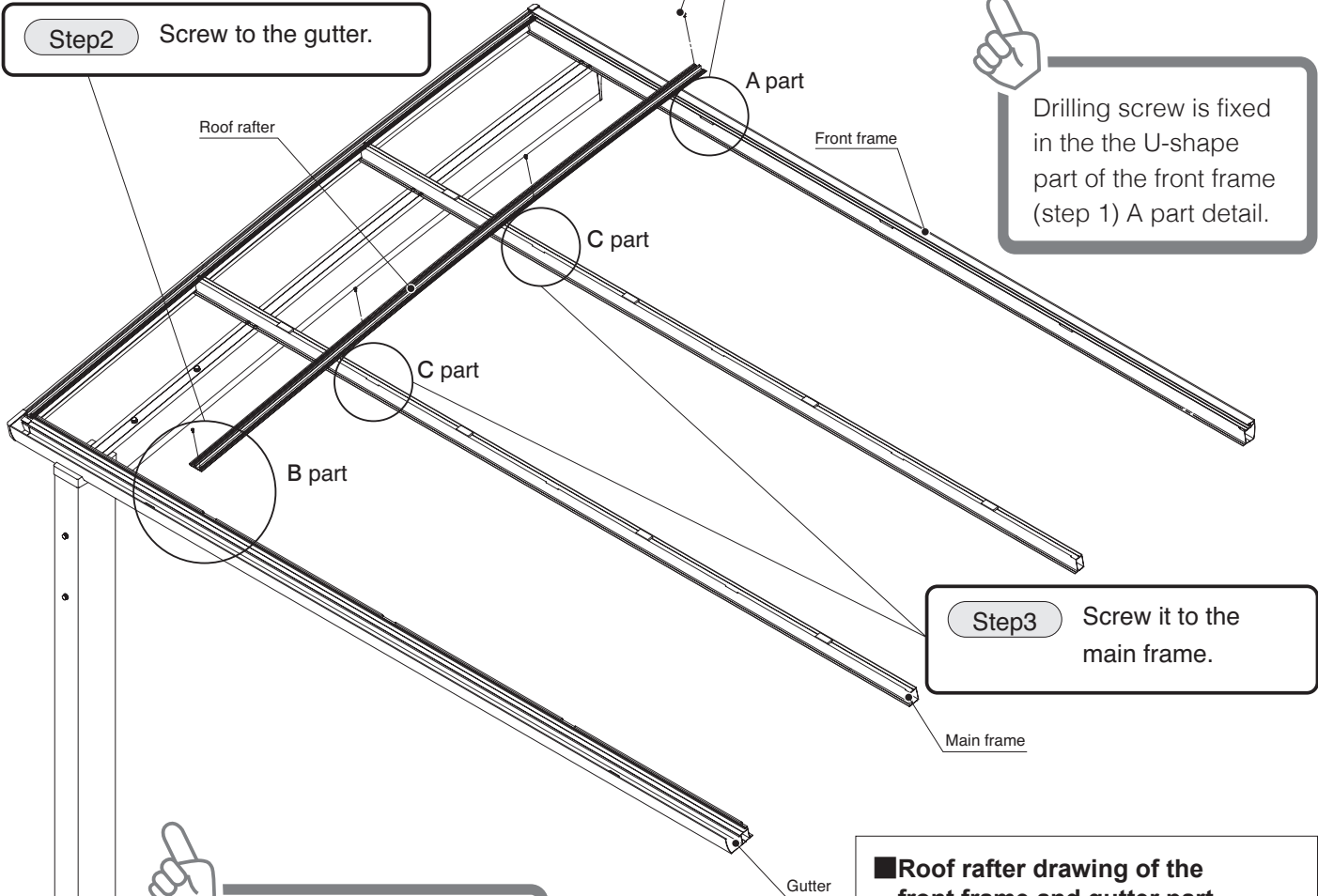


**Step1** Screw the roof rafter first to the front frame. The rafter is placed in front of the guide fin. See A part



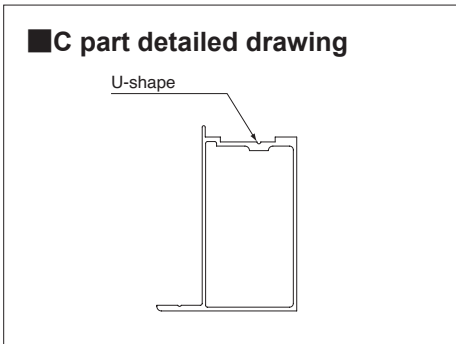
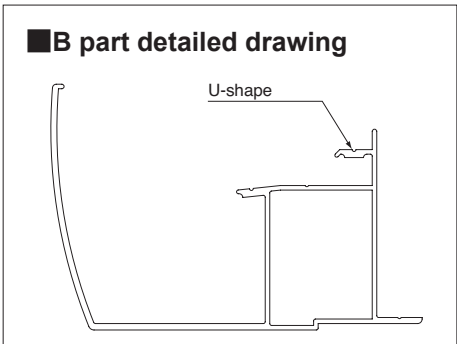
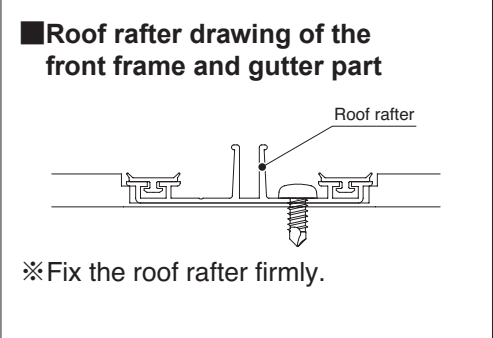
**Step2** Screw to the gutter.

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



**Step3** 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 .**



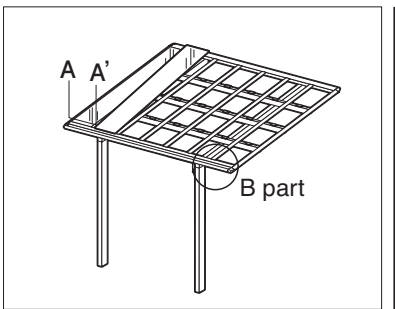
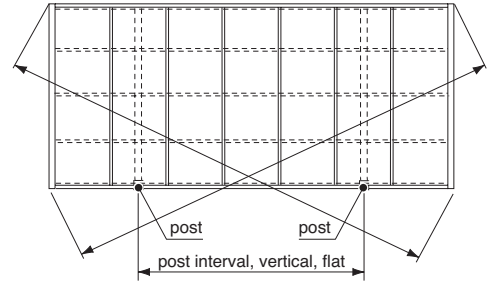
# 10 Installation of roof panels

## Before installing the roof panels

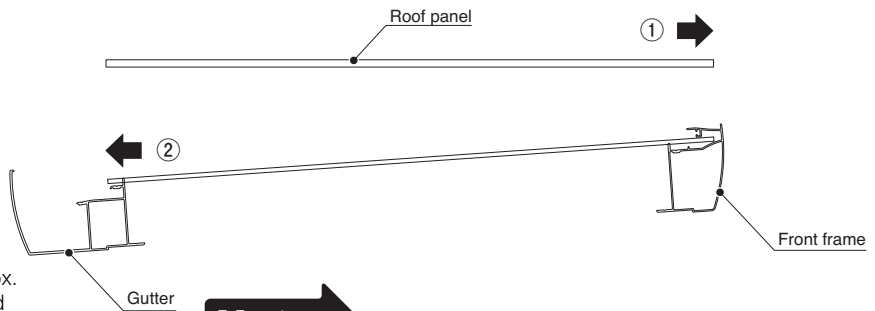
※Check post interval, flat and the diagonal dimension of the roof is equal.



※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.



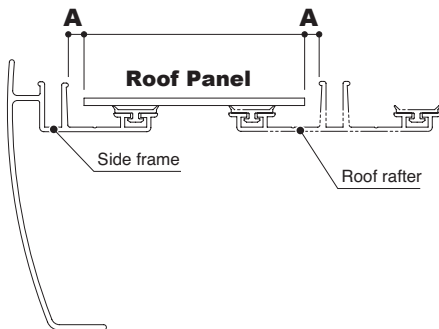
Polycarbonate sheet has impact resistance approx. 250 times higher than glass. It can even withstand being hit with a hammer. The polycarbonate roof can protect you from harsh weather conditions such as hail. In addition, since it does not harden, it is suitable for use in cold climates. The Heat Protection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

### Note

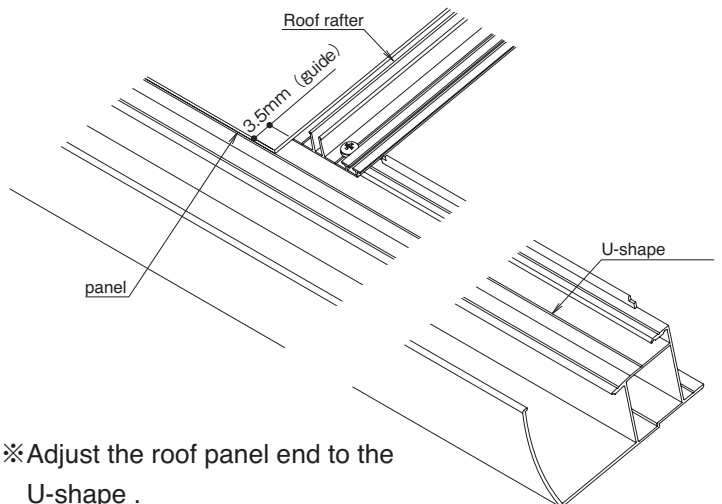
In case of heat absorb polycarbonate (SI), attach the uneven side down. In case of polycarbonate (AO) and heat protection polycarbonate (AO), there are no two sides because both sides are weatherproof.

※When installing roof panels, please note below.

#### ■A-A' section drawing



#### ■B part detailed drawing

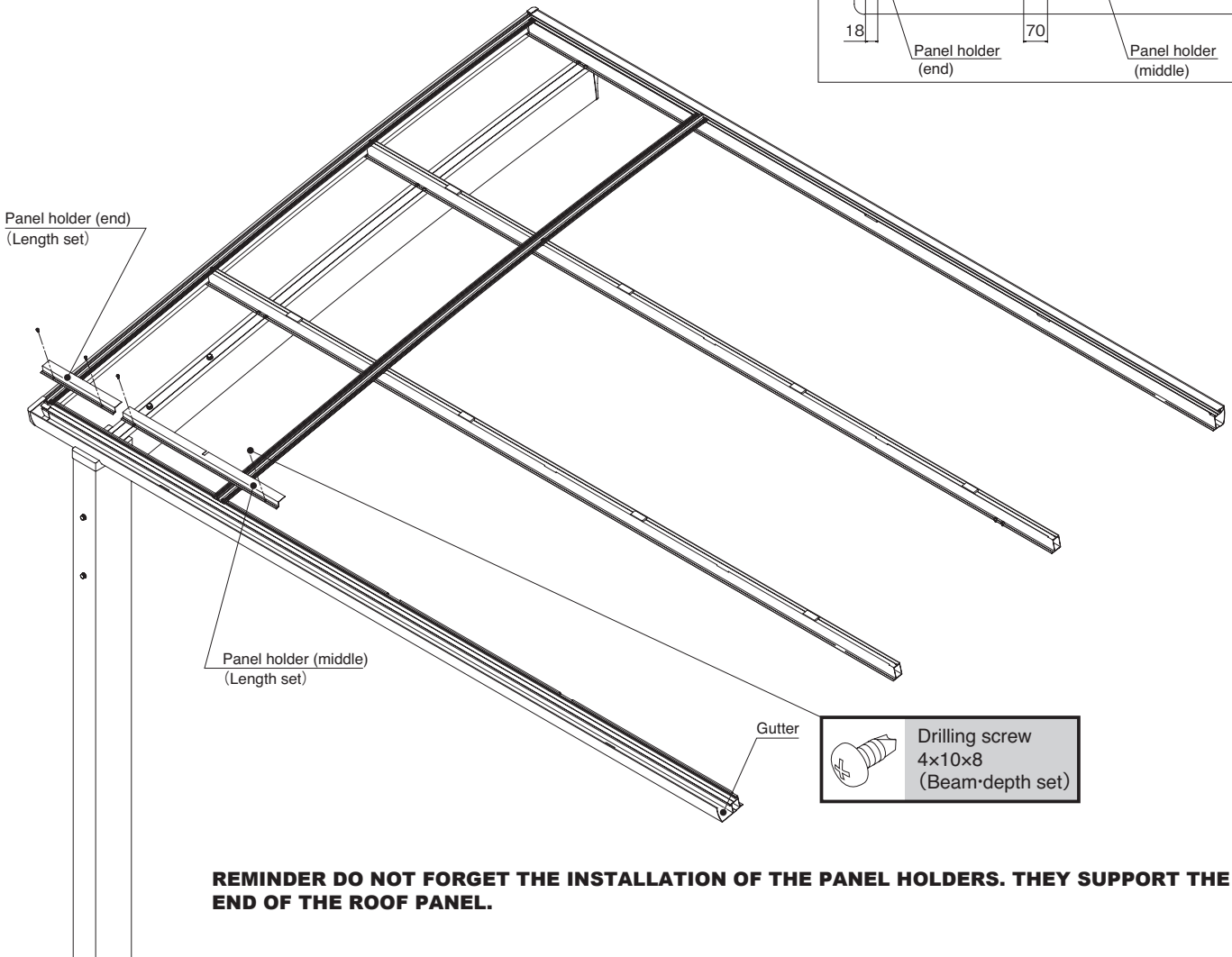
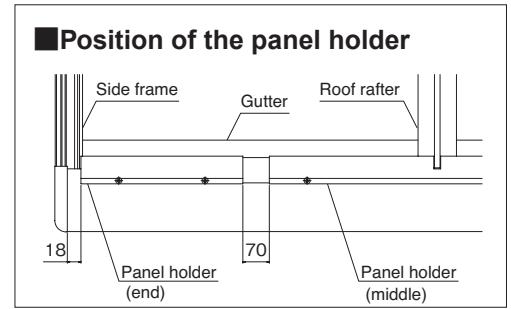
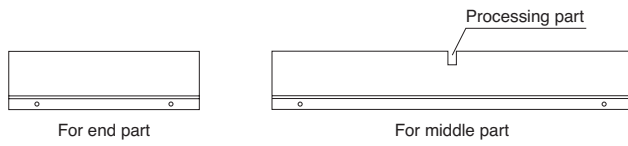


※Sort the panel equally right and left. Otherwise the expansion of panels resulting from temperature changes may causes cracking sounds.

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

# 11 Installation of panel holder

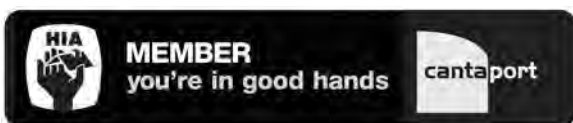
- Install the panel holders adjusting on the U-shape of the gutter frame as a guide, and fix with drilling screw 4x10x8.
- ※ Insert the cutout part of panel holder over the roof rafter (middle section) and install it.



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

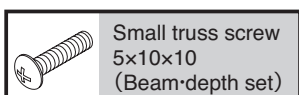
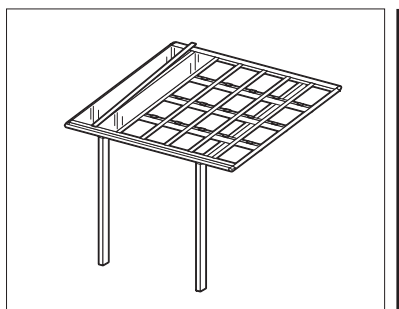
**Genuine & Original**  
BEWARE OF CHEAP IMITATIONS

**MADE IN JAPAN**

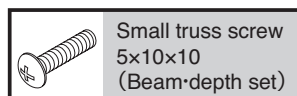
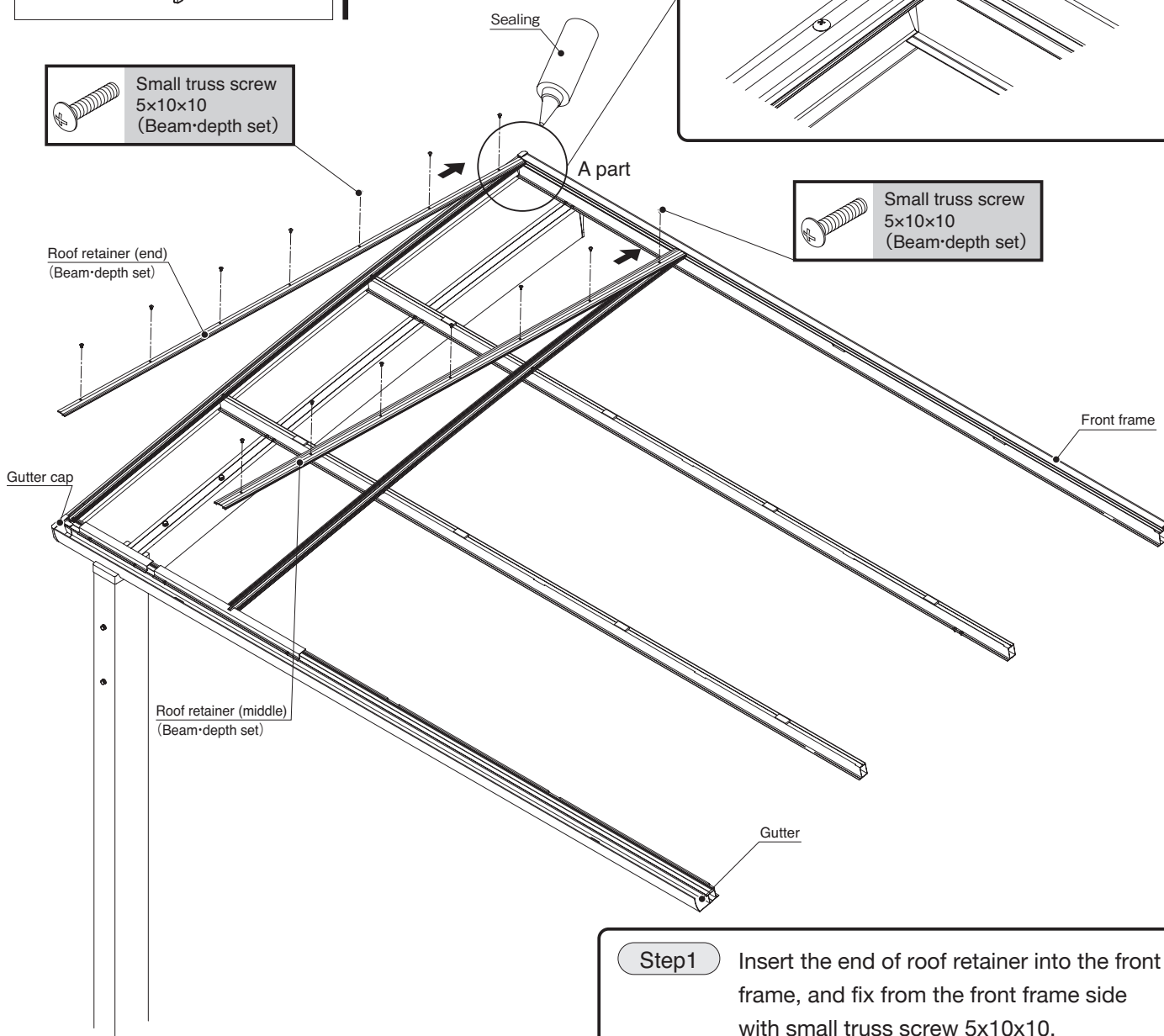
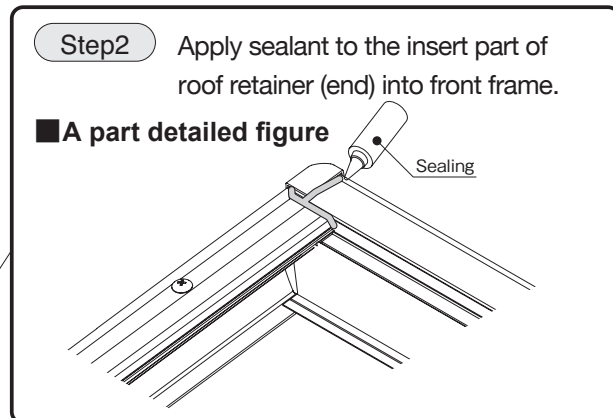


**Cantaport made in Japan certified to AU standards**

## 12 Installation of roof retainer



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

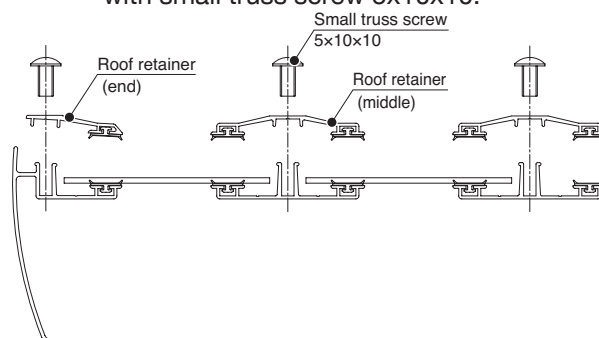


Small truss screw  
5×10×10  
(Beam·depth set)

### Notice

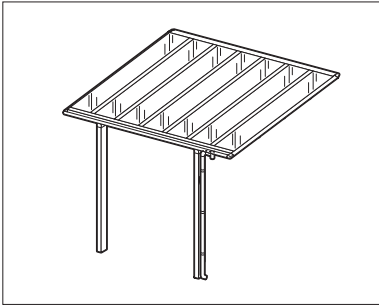
- If the screw installing into the roof retainer is tighten too much, the screw will run idle. Tightening torque is about less than 1.5Nm (15kgfcm).
- If the screw head leans when installing the roof retainer, it will cause water leakage (water will enter from the screw head clearance), so install the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

**Step1** Insert the end of roof retainer into the front frame, and fix from the front frame side with small truss screw 5x10x10.



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

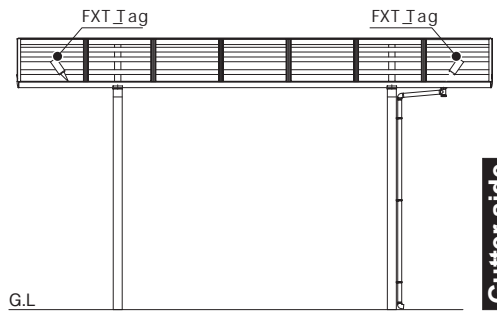
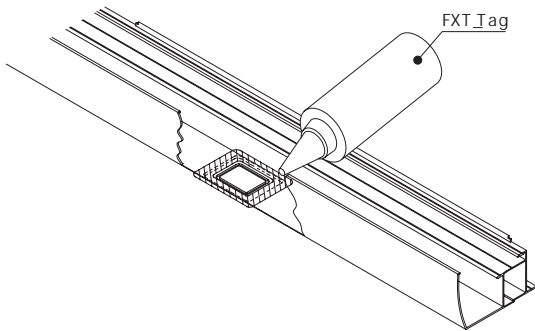
# 13 Attaching the round gutter parts



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

## 7 UddYX side

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



7 UddYX side

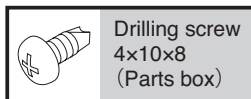
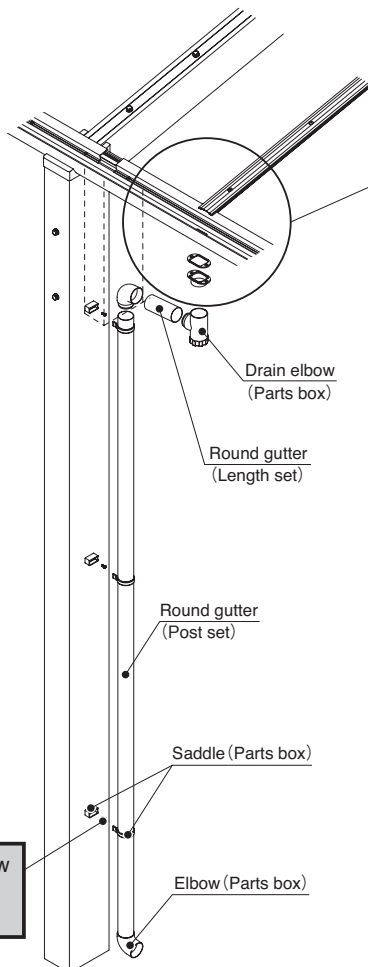
Gutter side

## Gutter side

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

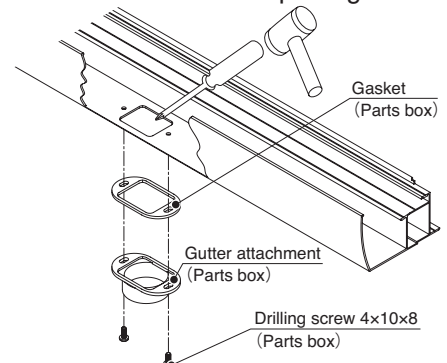


Using drain elbow which can remove dust accumulated in the rain makes its maintenance easier.

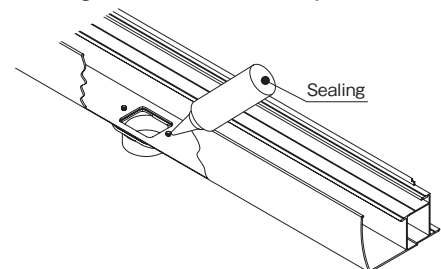


① Hgh'gm l ' ] [ Y h ' l g ' l ' ] [ ' g k ] f ' k a \ ] g ^ l ' ] \ g o f ' h a ] ' f ' l ' ] \_ m l ] j & 9 h h d \ \_ Y k c ] l ' l g ] p h g k ] \ ' g m d ] l &

※ 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.

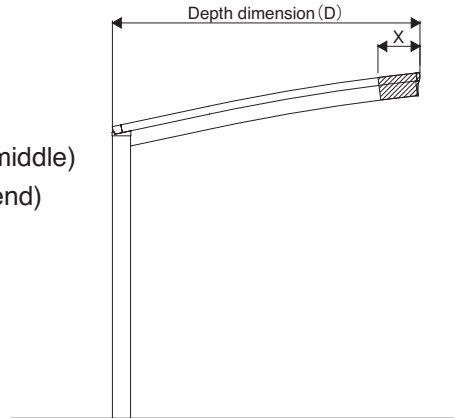


※ Be sure to seal around screws in order to prevent danger when cleaning as well as for water proof.

# 14 Cutting procedure of depth direction

- 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

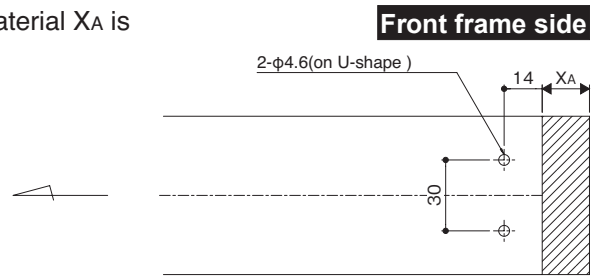
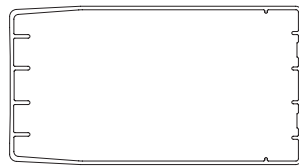
※1  $X_A = X$

※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      |

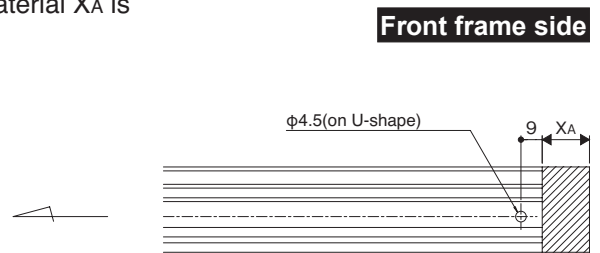


※The roof dimensions determines the length of the beam

## 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                           |                     |

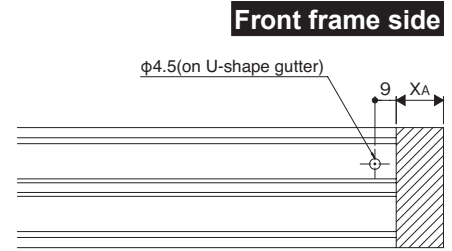


※The roof dimensions determines the length of the frame

### 3. Roof rafter 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)    |
| 24                           | X <sub>A</sub> =101 ※2 |
| 27                           |                        |

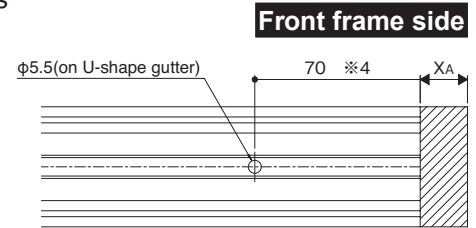


※ The roof dimensions determines the length of the rafter

### 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)    |
| 24                           | X <sub>A</sub> =101 ※2 |
| 27                           |                        |



※3 The roof dimensions determines the length of the retainer middle

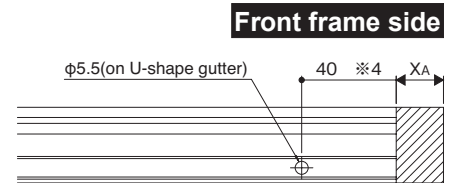
※4 In case the dimension of pre-hole from end is more than 80mm, drill a new hole.

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)    |
| 24                           | X <sub>A</sub> =101 ※2 |
| 27                           |                        |



※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)    |
| 24                           | X <sub>A</sub> =101 ※2 |
| 27                           |                        |



※ The roof dimensions determines the length of the roof panel

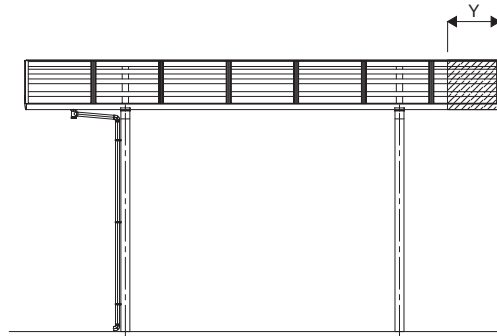
After processing, install the frame of the roof referring to the procedure of this manual 1~13.



# 15 Cutting procedures of length direction

- 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



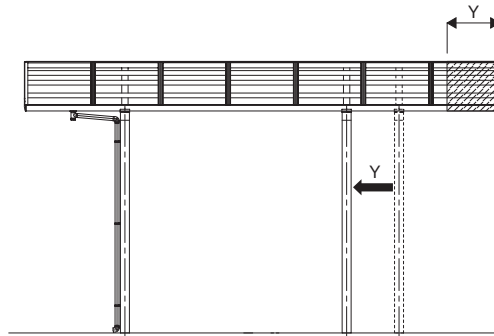
### Cut range

Y=less than 1430mm (less than 2 panel pitch)

※It can't be cut from 465mm to 535mm for installing drain hole.

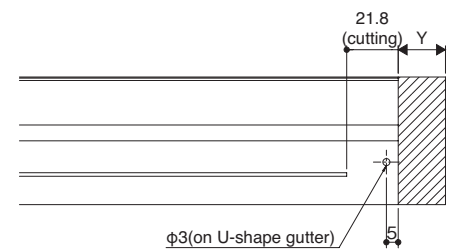
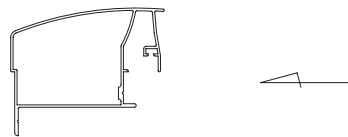
From 651 to 714mm and from 1366 to 1429mm are not available because the side frame overlaps to the roof rafter.

※Move the post the same length as the cutting dimension of the roof.



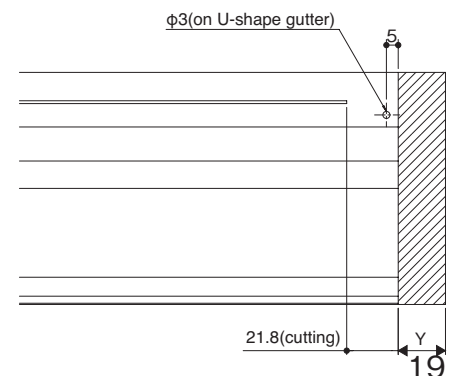
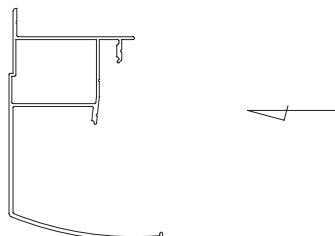
## 1. Front frame processing

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



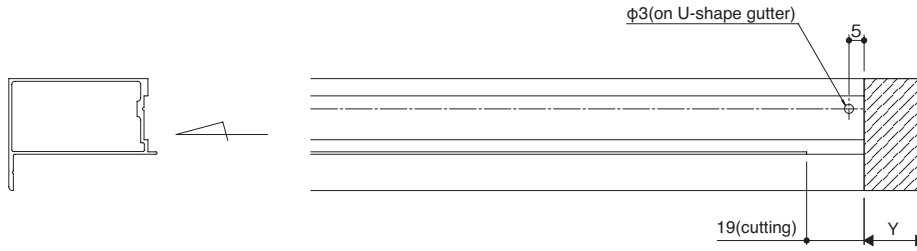
## 2. Gutter processing

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



### 3. Main frame processing

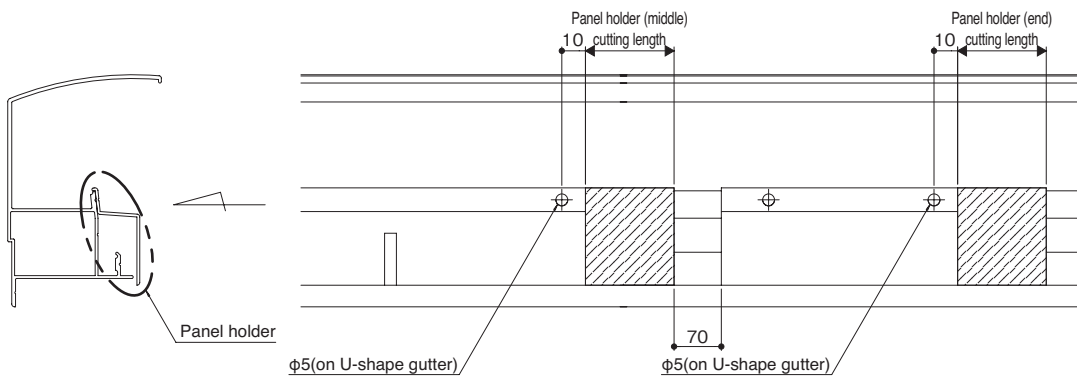
- Cut the materials the same length as the cutting dimension of the roof (Y).



### 4. Panel holder processing

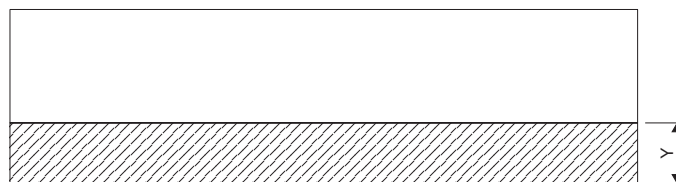
- Cut the panel holder(end) and panel holder (middle) at the cutting length Y referring to the table. In case the hole overlaps the pre-hole, a new hole is not required .

| 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).



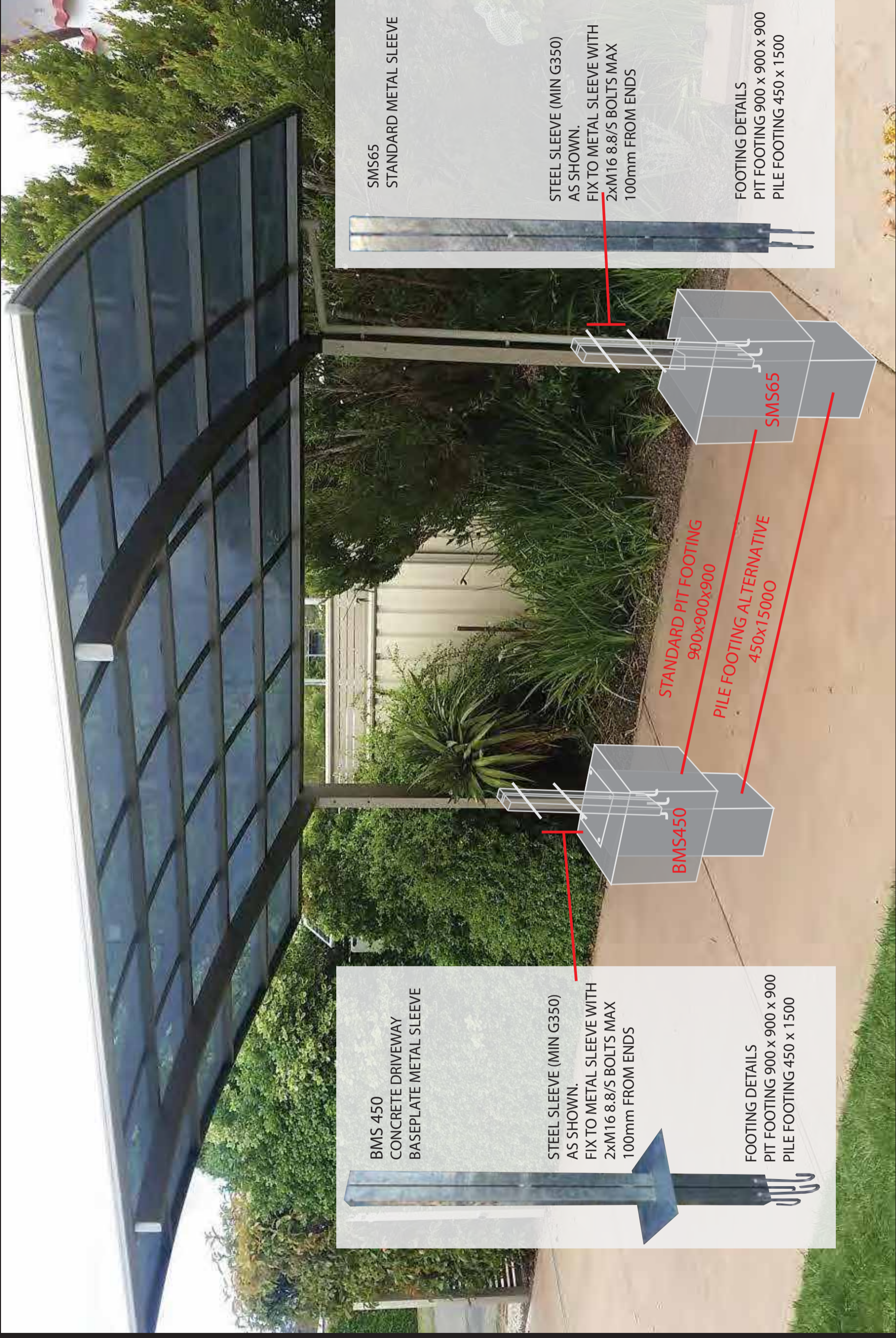
After cutting, install the frame as per the instruction to this manual

1~13.

cantaport

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# 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

**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

STANDARD PIT FOOTING  
900x900x900

PILE FOOTING ALTERNATIVE  
450x15000

**BMS450**

**SMS65**

**MADE IN JAPAN**

**cantaport**

**MADE IN JAPAN**

**diy**  
cantaport

**7 YEARS**  
WARRANTY  
CONFIDENCE

**Genuine & Original**  
BEWARE OF CHEAP IMITATIONS

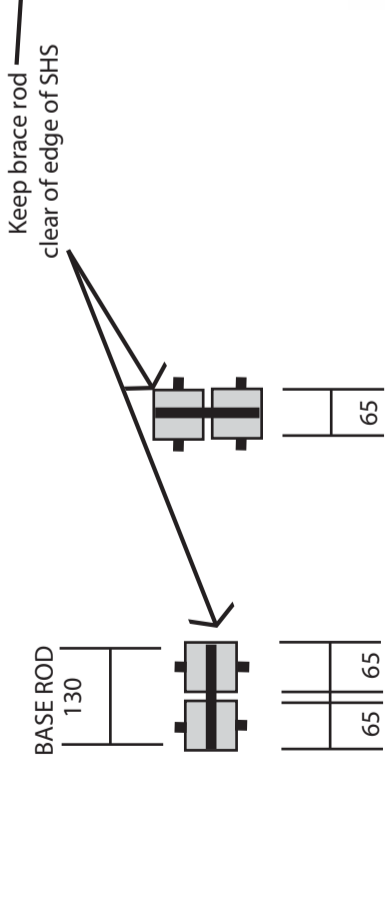
CERTIFIED TO AUSTRALIAN & INTERNATIONAL STANDARDS  
**GUARANTEED & TESTED**

Like us on **Facebook**

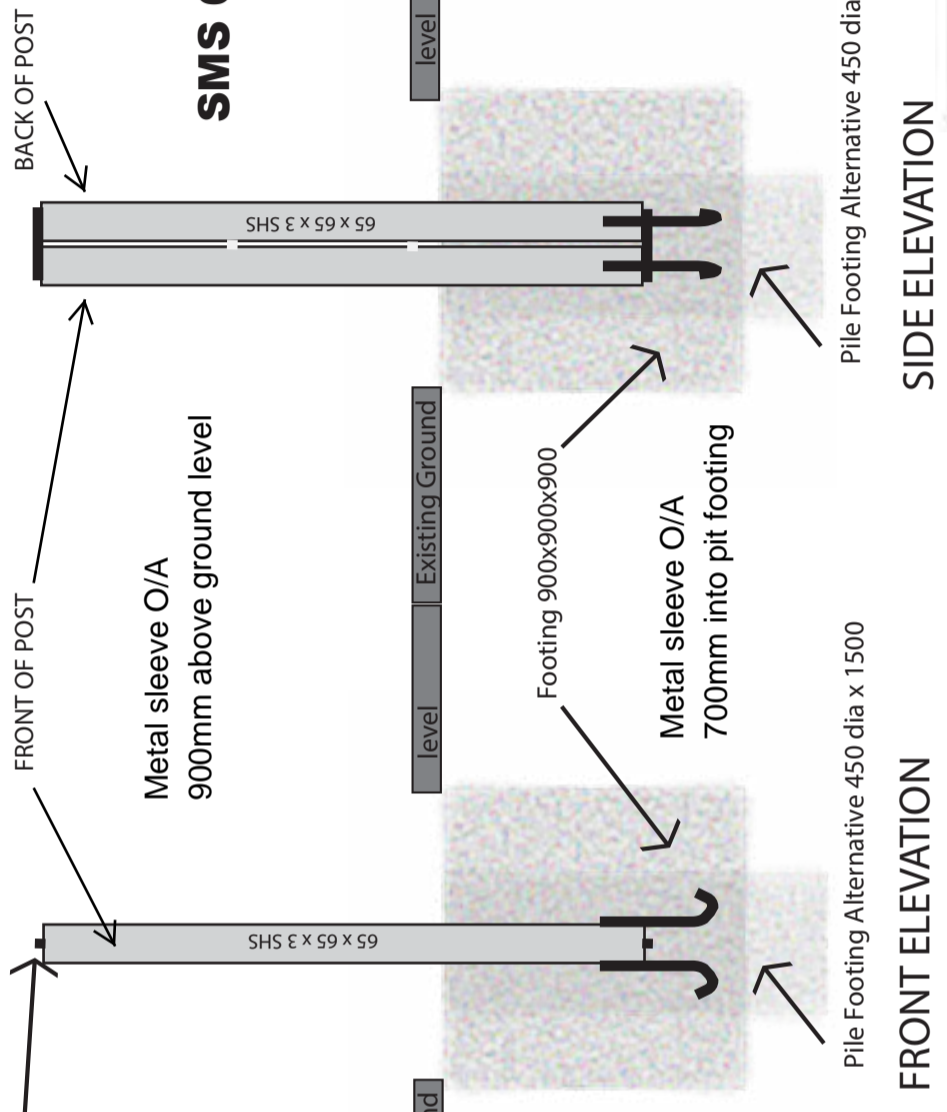
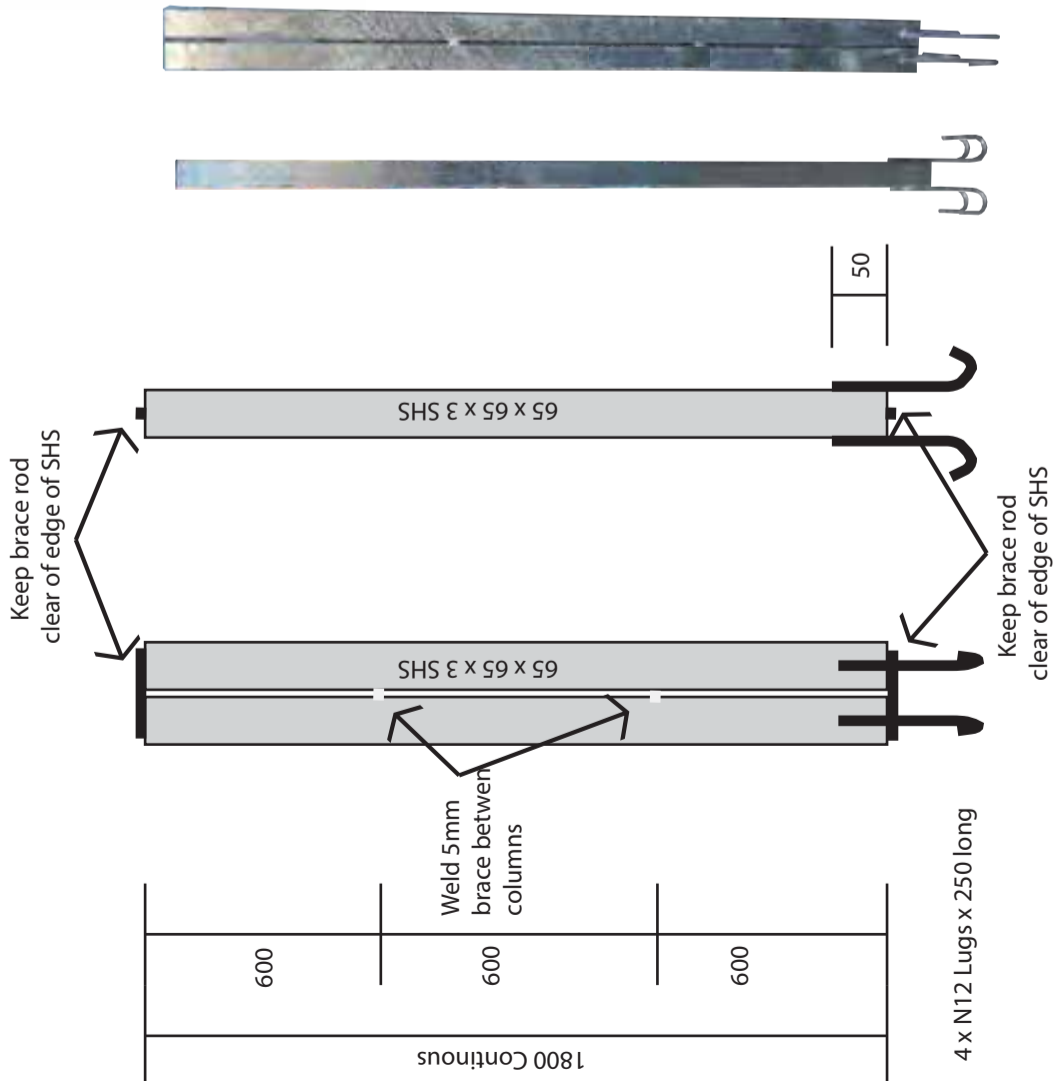
**7 YEARS**  
guarantee

**why** cantaport

**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

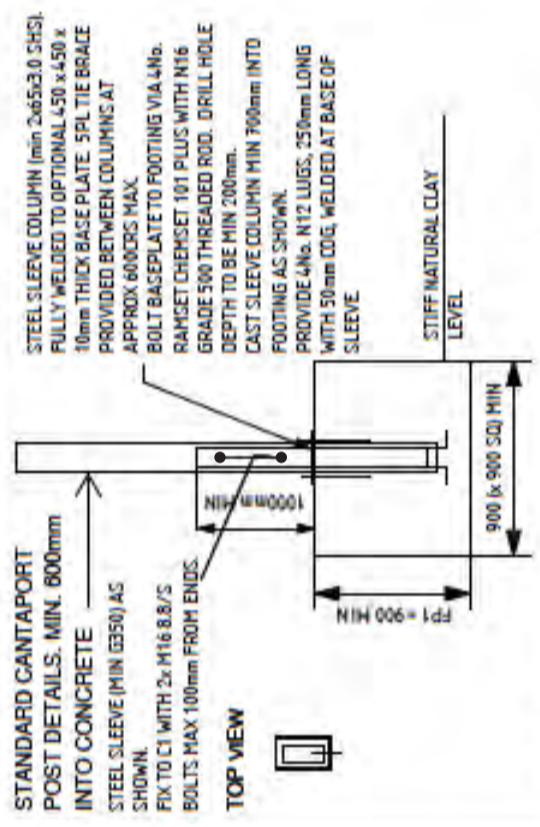


**SMS 65 METAL SLEEVE DETAILS**

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



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

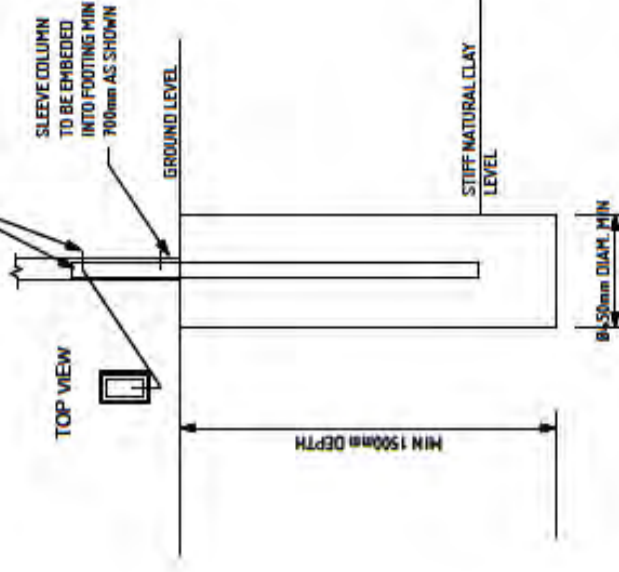


**SLEEVE COLUMN AND STAND ALONE FOOTING**

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

**FOOTING DETAIL**



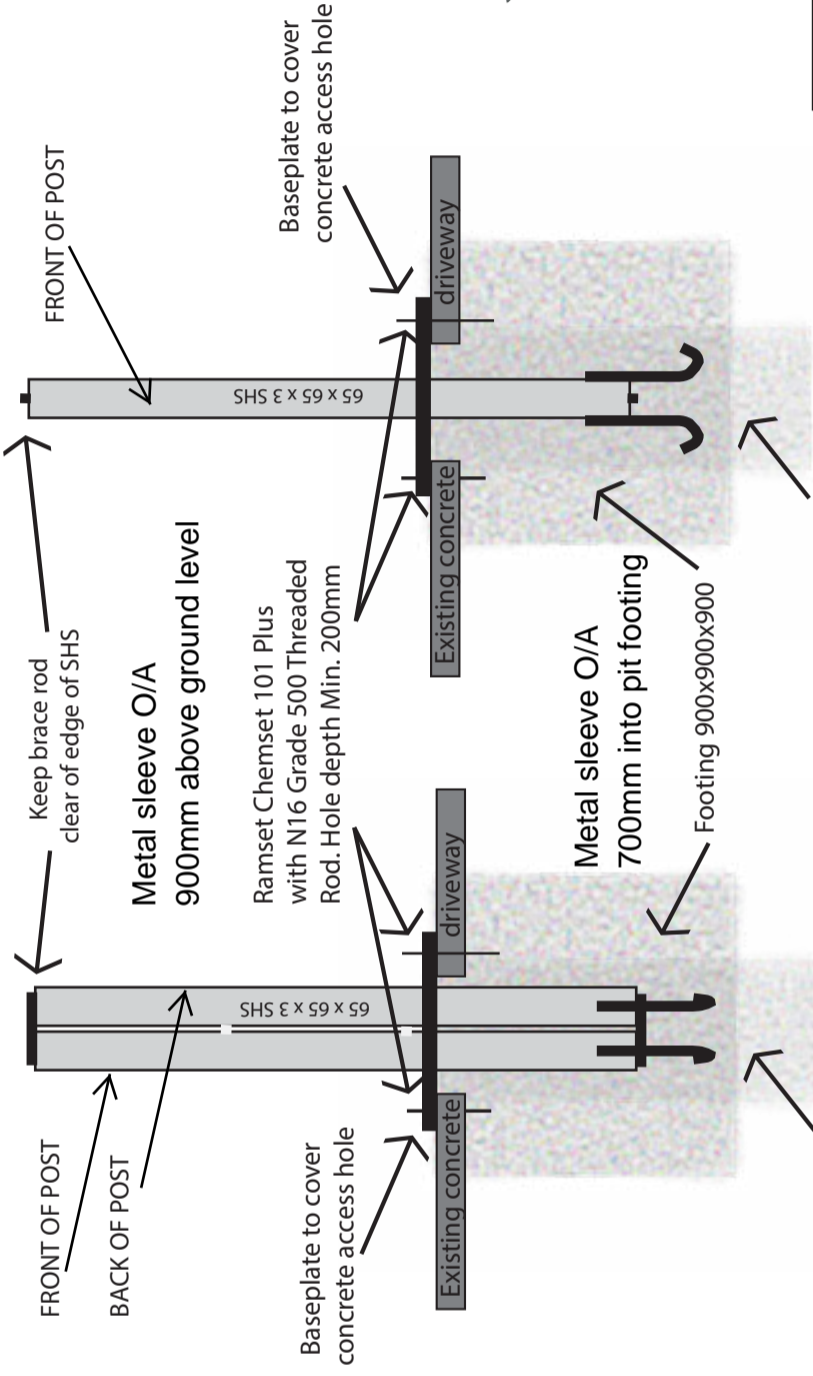
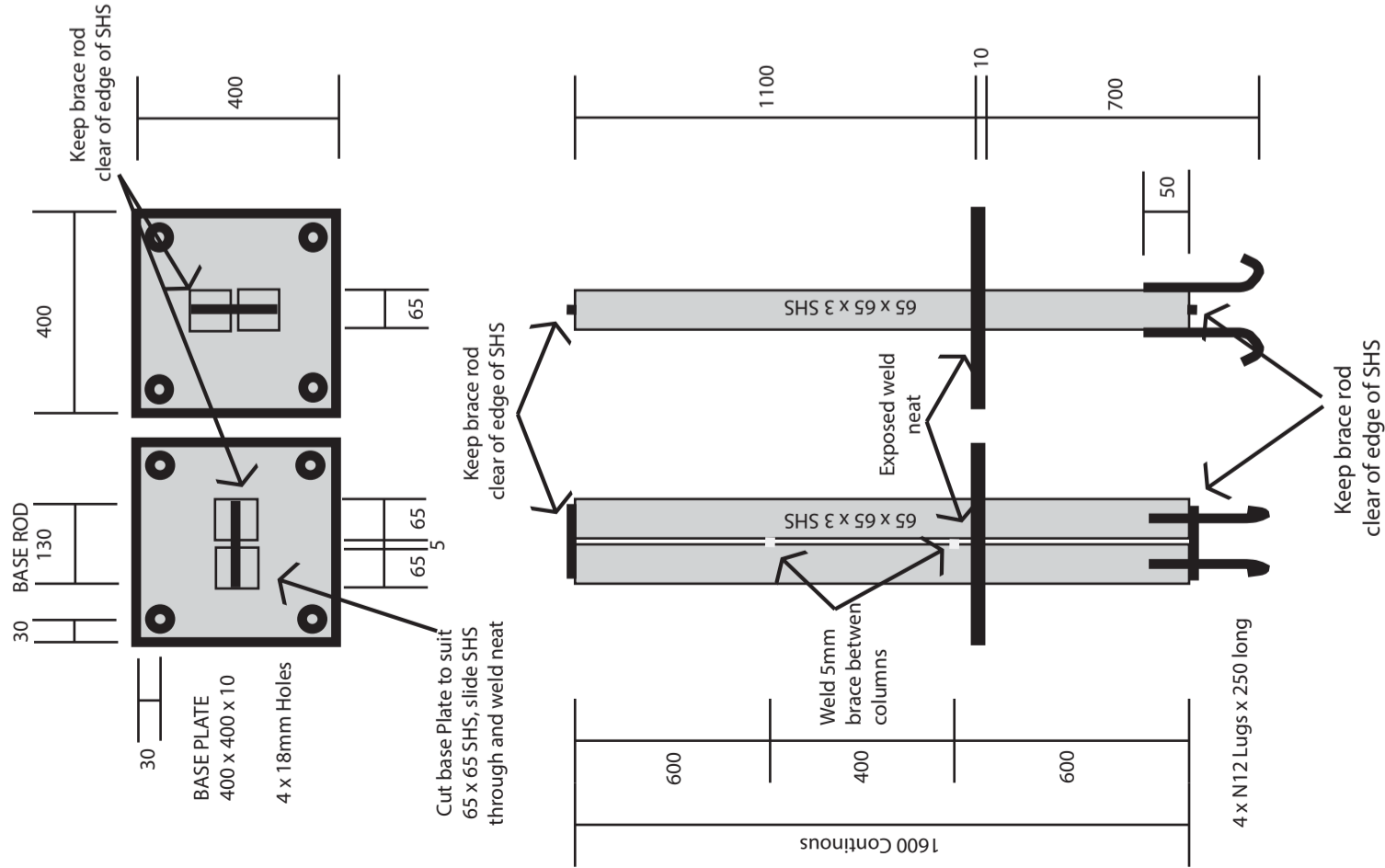
NOTE: CONCRETE FOOTING TO BE FOUNDED INTO MIN 600mm OF NATURAL UNDISTURBED CLAY MATERIAL, TO BE CONFIRMED BY THE BUILDER

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

**PILE FOOTING DETAILS**

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

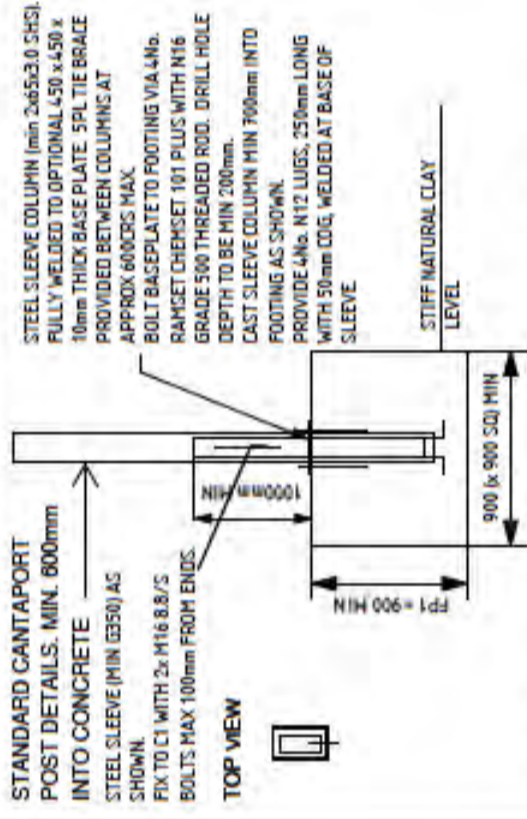
### BMS 450 METAL SLEEVE DETAILS



Pile Footing Alternative 450 dia x 1500  
FRONT ELEVATION

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

### STANDARD FOOTING & SLEEVE COLUMN PLATE COVER DETAILS

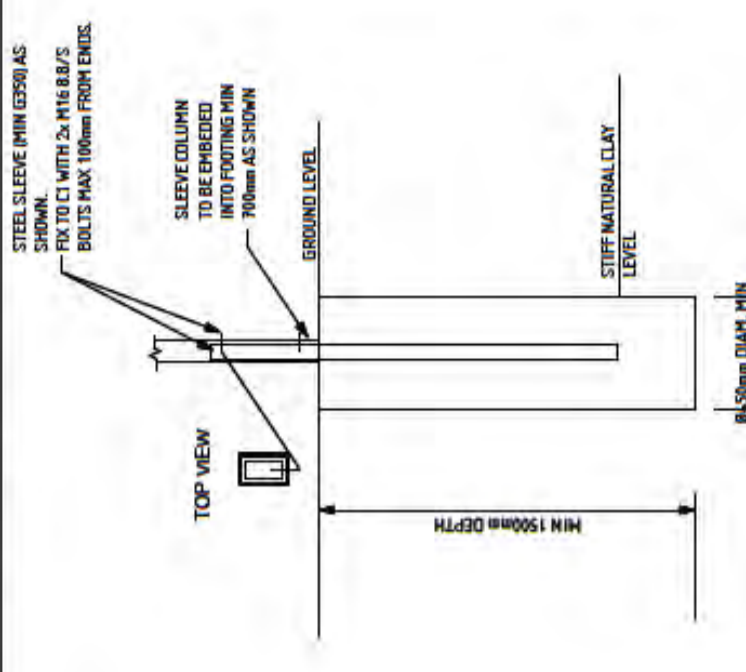


### SLEEVE COLUMN AND STAND ALONE FOOTING

NOTE: CONCRETE FOOTING TO BE FOUND 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



NOTE: CONCRETE FOOTING TO BE FOUND 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.

## 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

width pallet 3100mm x 800mm x 600mm

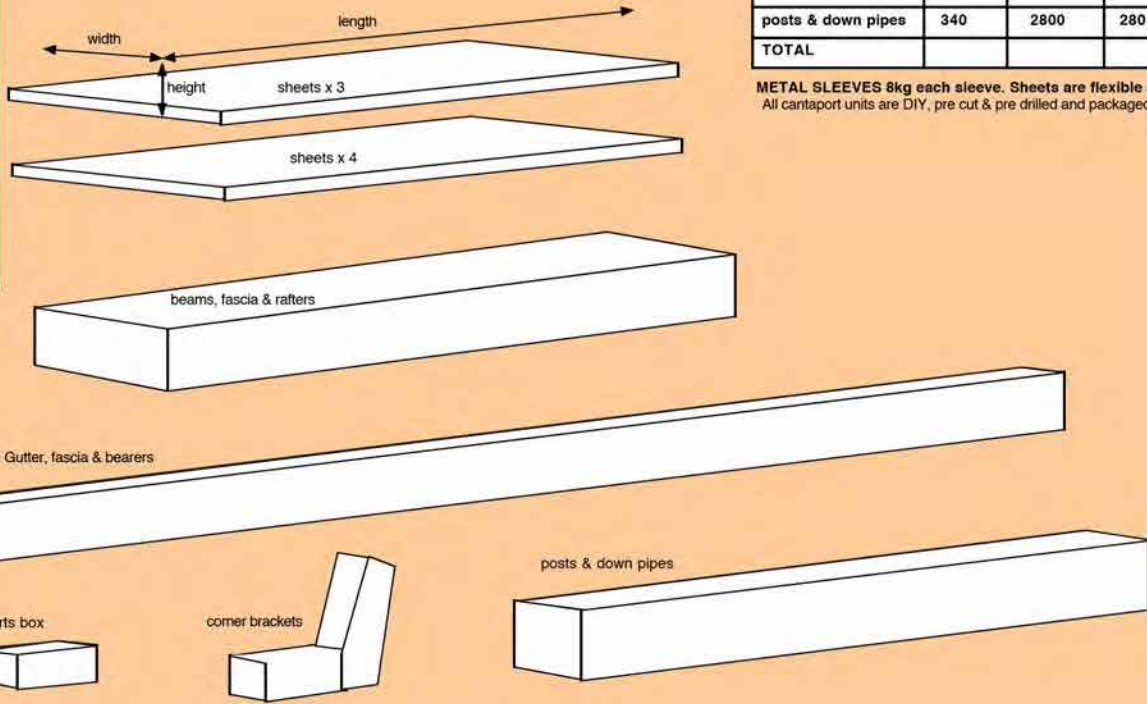
standard long box 1 5200mm x 250mm x 240mm

standard long box 2 5900mm x 250mm x 240mm





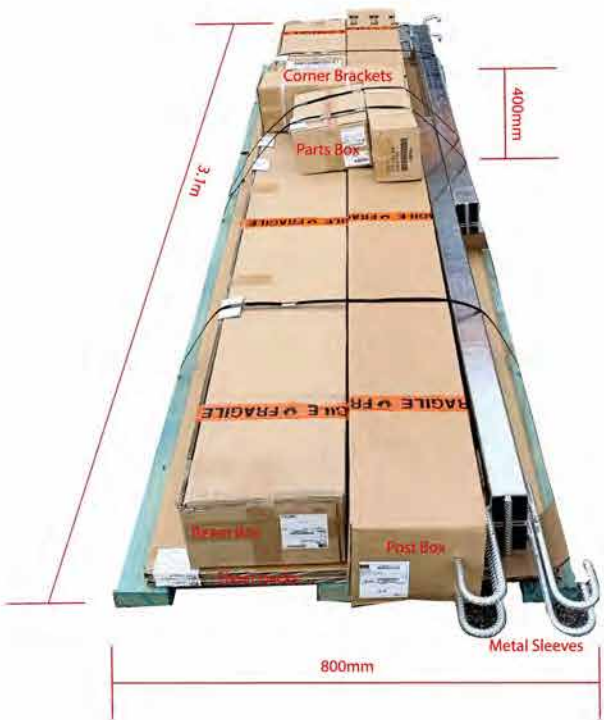
flat pack



| 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         |
| <b>TOTAL</b>            |       |        |        | <b>120</b> |

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 1: 120kg - 140kg



Pallet 2: 18kg - 25kg

