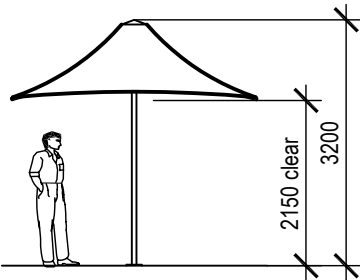


Plan

1:100 at A4



Elevation

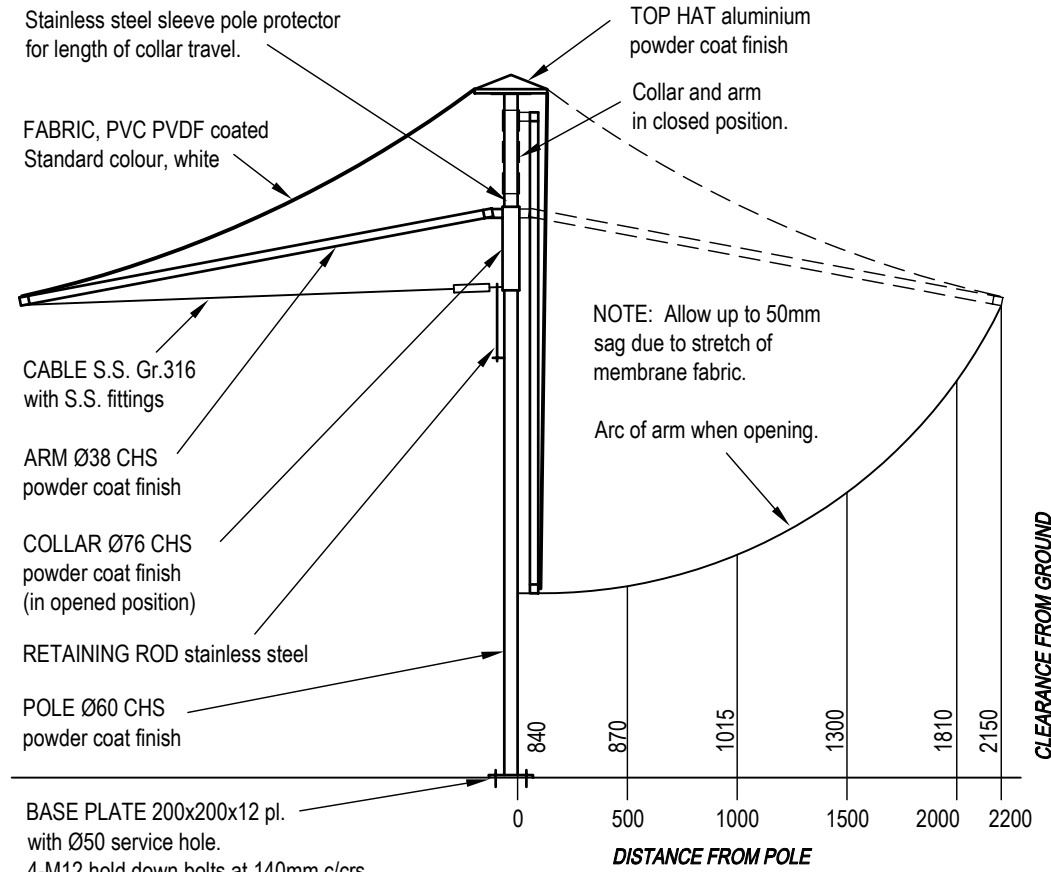
1:100 at A4

CENTRE SUPPORT SQUARE 3.2m -

Wind Rating: 33m/sec (120km/h)
 Rated when umbrella is fully erected.
 Umbrella weight: 56kg

Overall dimensions represent clearance dimensions for the complete umbrella.
 Membrane dimensions differ, depending on variations in tensioning and fabrication.

Dimensions are in millimetres.



OPENED POSITION

CLOSED POSITION

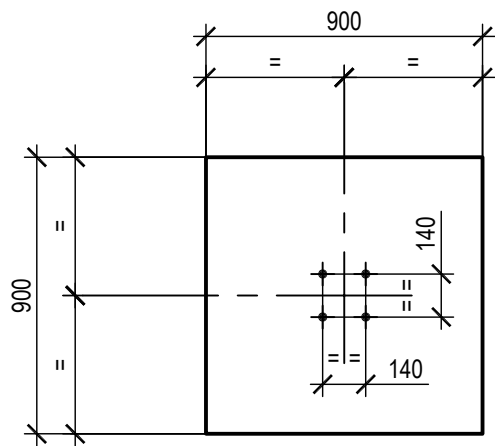
3.2m Centre Support Square Umbrella Centre Support - Model SUA-CS32



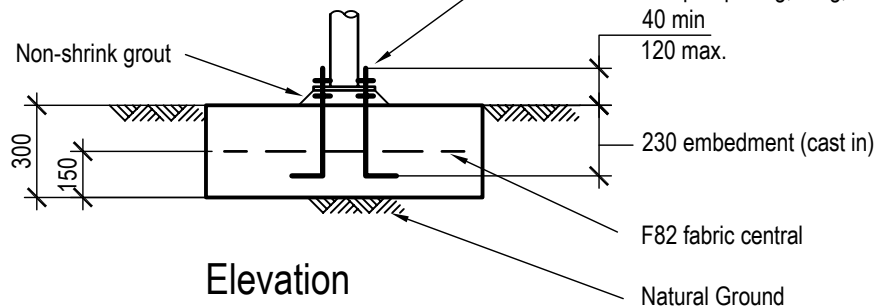
Centre Support Square
 Umbrella Model:SUA-CS32

street
 umbrellas
 Australia

Engineering Framing



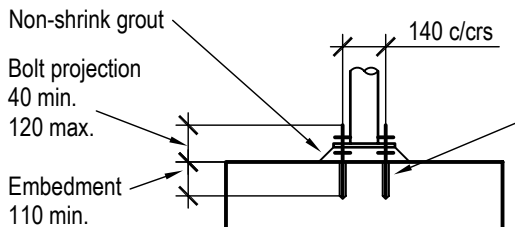
Plan



Elevation

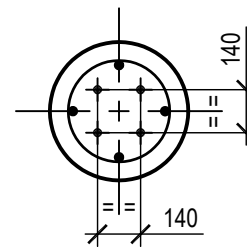
CS32 - Pad Footing

4-M12 Gr.4.6/S galvanised H.D. bolts with nuts and levelling nuts - Cog 100
 Bolt projection to suit level of top of paving, tiling, etc 40 min
 120 max.
 230 embedment (cast in)
 F82 fabric central
 Natural Ground

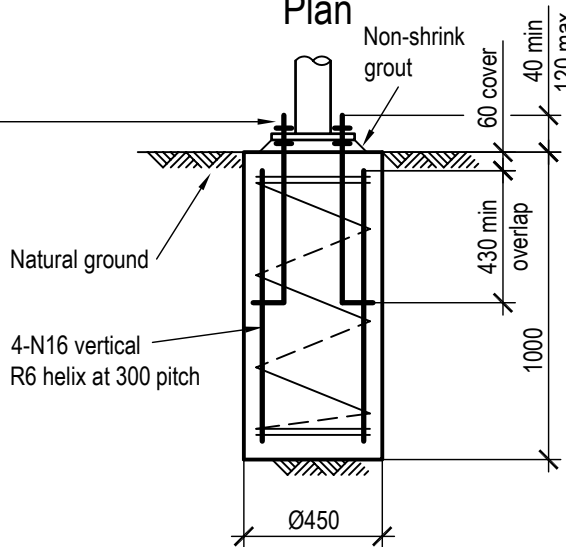


Chemical Anchor Detail

4-M12 H.D. bolts to be threaded rod grade 4.6/s hot dipped galvanised, or stainless steel Gr.316. Supplied with nuts, washers and levelling nuts. Chemical anchors, at 140 x 140 centres to be 'Hilti HVU', or engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions. Hole to be clean and dry at time of installation.



Plan



Elevation

SUA-CS32 - Pier Footing

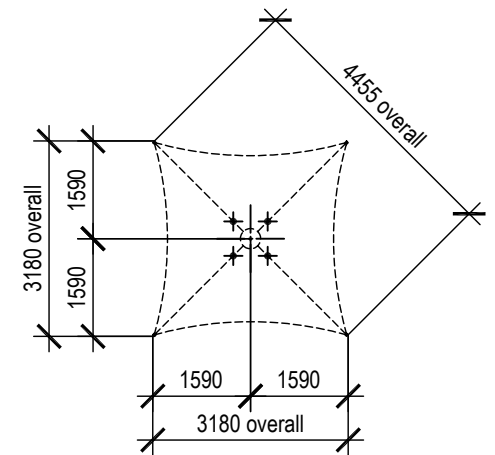
Notes:
 Design wind speed 33m/sec (W33)

Assumed soil conditions:
 Pad - bearing capacity 100kPa
 Pier - cu=50kPa (stiff clay)

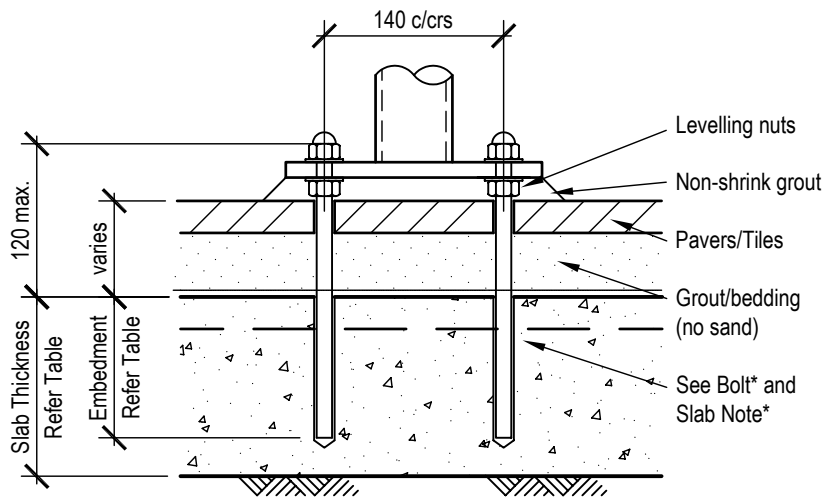
Minimum 60mm cover to all reinforcement
 Concrete grade to be N25
 20mm aggregate size
 Slump 65mm

Anchor bolt location tolerances per Australian Standard AS 4100-1990

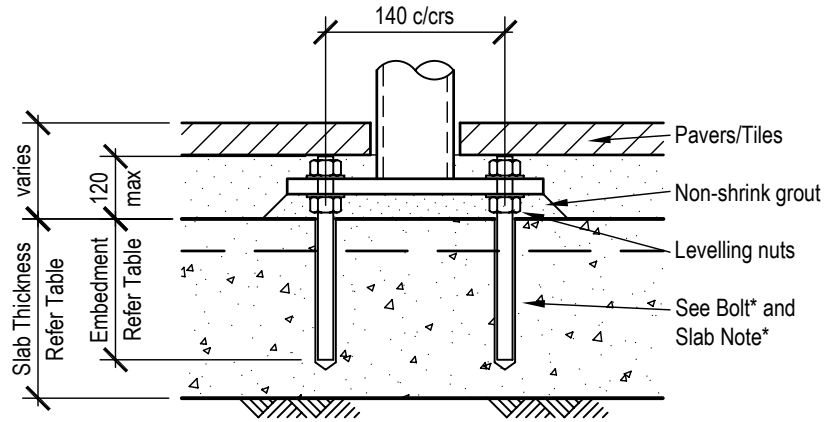
- 3mm for anchor bolt centres within an anchor bolt group.
- 6mm for adjacent anchor bolt group centres.
- Maximum accumulation of 6mm per 30m not to exceed a total of 25mm.
- 6mm from anchor bolt group centre to column line centre.



H.D. Bolt Layout Plan
 Not to scale

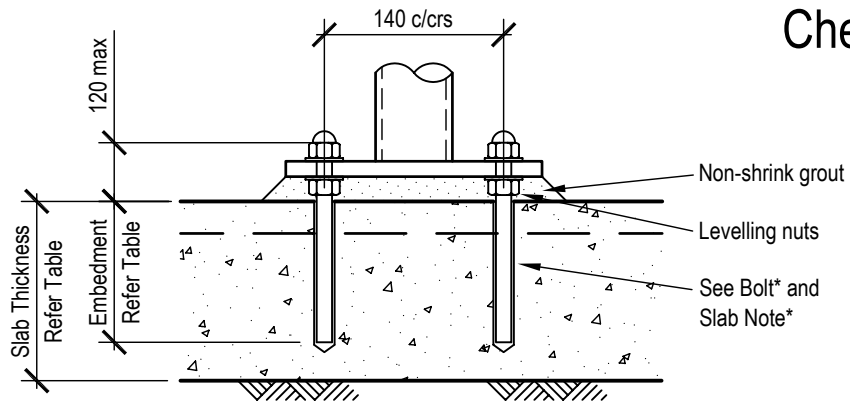


Over Pavers



Under Pavers

Chemical Anchor Fixing to Slab on Ground



On Slab

Slab Thickness	Chemical Anchor	Min. Embedment	H.D. Bolts*	Min. Slab Edge Distance*
100	Ramset Reo 502 (or Hilti HIT-RE 500)	80	4-M12 at 140 c/crs	400
110	Ramset Reo 502 (or Hilti HIT-RE 500)	90	4-M12 at 140 c/crs	400
120	Ramset Reo 502 (or Hilti HIT-RE 500)	100	4-M12 at 140 c/crs	400
130	Hilti HVU	110	4-M12 at 140 c/crs	400
140 plus	Hilti HVU	110	4-M12 at 140 c/crs	400

Chemical anchor to be as above or Engineer approved equivalent,
and to be installed in accordance with the manufacturer's instructions.

Installation Detail - Model SUA-CS32

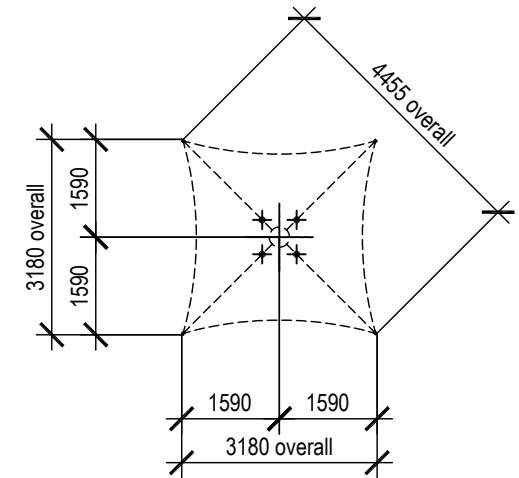
* H.D. BOLT NOTE

Structure pole has 200 x 200 x 12 base plate.
4-M12 H.D. bolts to be threaded rod grade 4.6/s
hot dipped galvanised, or stainless steel Gr.316.
at 140 x 140 centres.

* SLAB ON GROUND NOTE

The existing reinforced concrete slab on
ground is to be approved for adequacy by
a Structural Engineer before installation.
Concrete strength - f_c 25MPa.
Installation requires **1 sq m** of continuous
reinforced slab with the pole centre 400mm
minimum from a slab edge or control joint.

Contact SUA Dealer if the slab does not meet
any of the requirements.



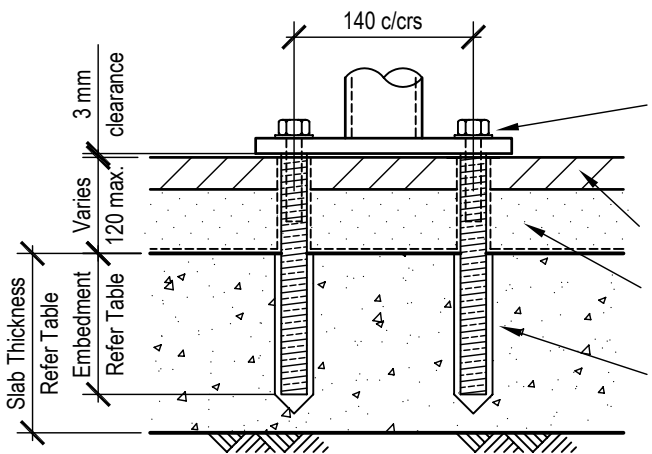
H.D. Bolt Layout Plan

Not to scale

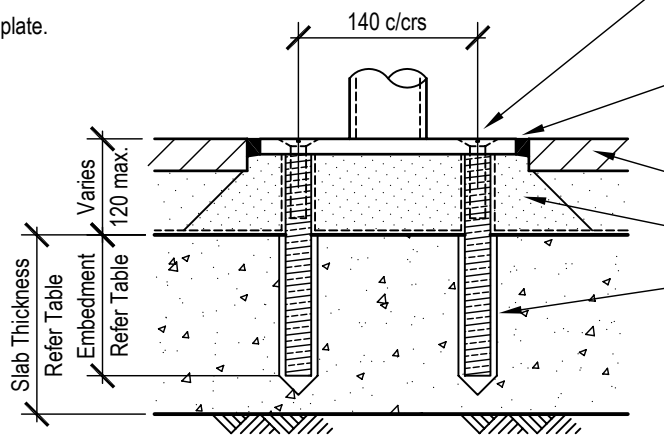
Centre Support Sqaure
Umbrella Model: SUA-CS32

Existing Slab on Ground

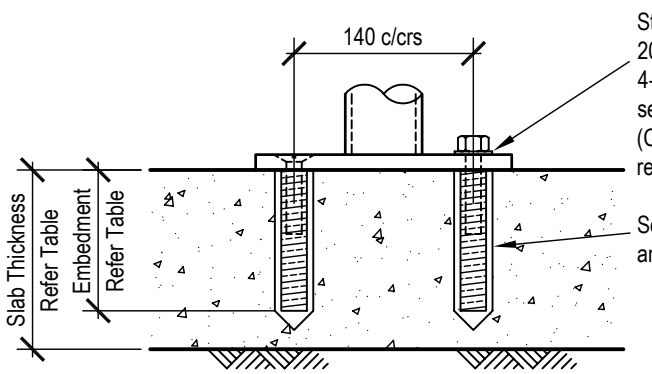
street
umbrellas
Australia



Over Pavers

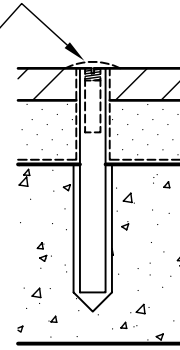


At Pavers



On Slab

Rubber grommets, stainless steel grub screws with hex socket or brass flat dome head screws, screw into ferrule flush with paving to keep ferrule thread clean.



Ferrule Fixing with Umbrella Removed

*** FERRULE NOTE**
Ferrules at 140 x 140 centres are M20 stainless steel Gr.316 threaded rods tapped for M12.

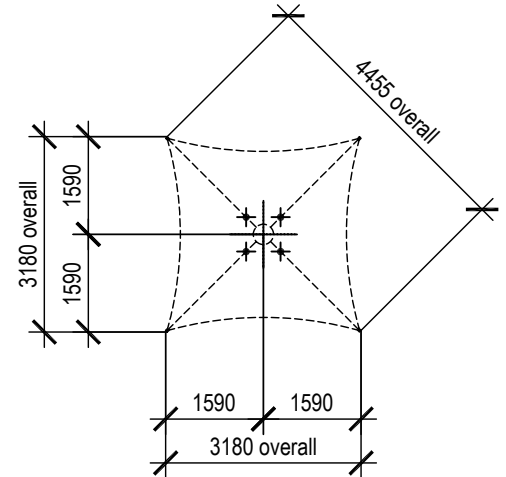
*** SLAB ON GROUND NOTE**
The existing reinforced concrete slab on ground is to be approved for adequacy by a Structural Engineer before installation. Concrete strength - f_c 25MPa. Installation requires **1 sq m** of continuous reinforced slab with the pole centre 400mm minimum from a slab edge or control joint.

Contact SUA Dealer if the slab does not meet any of the requirements.

Chemical Anchor Fixing to Slab on Ground

Slab Thickness	Chemical Anchor	Min. Embedment	Ferrules*	Min. Slab Edge Distance*
100	Ramset Reo 502 (or Hilti HIT-RE 500)	80	4-M12 at 140 c/crs	400
110	Ramset Reo 502 (or Hilti HIT-RE 500)	90	4-M12 at 140 c/crs	400
120	Ramset Reo 502 (or Hilti HIT-RE 500)	100	4-M12 at 140 c/crs	400
130	Hilti HVU	110	4-M12 at 140 c/crs	400
140 plus	Hilti HVU	110	4-M12 at 140 c/crs	400

Chemical anchor to be as above or Engineer approved equivalent, and to be installed in accordance with the manufacturer's instructions.



H.D. Bolt Layout Plan
Not to scale

Ferrule Detail - Model SUA-CS32

Centre Support Square Umbrella
Model: SUA-CS32



Ferrule Fixing