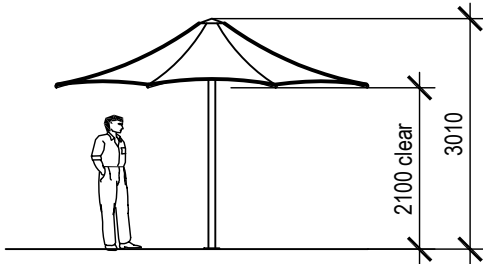


Plan

1:100 at A4



Elevation

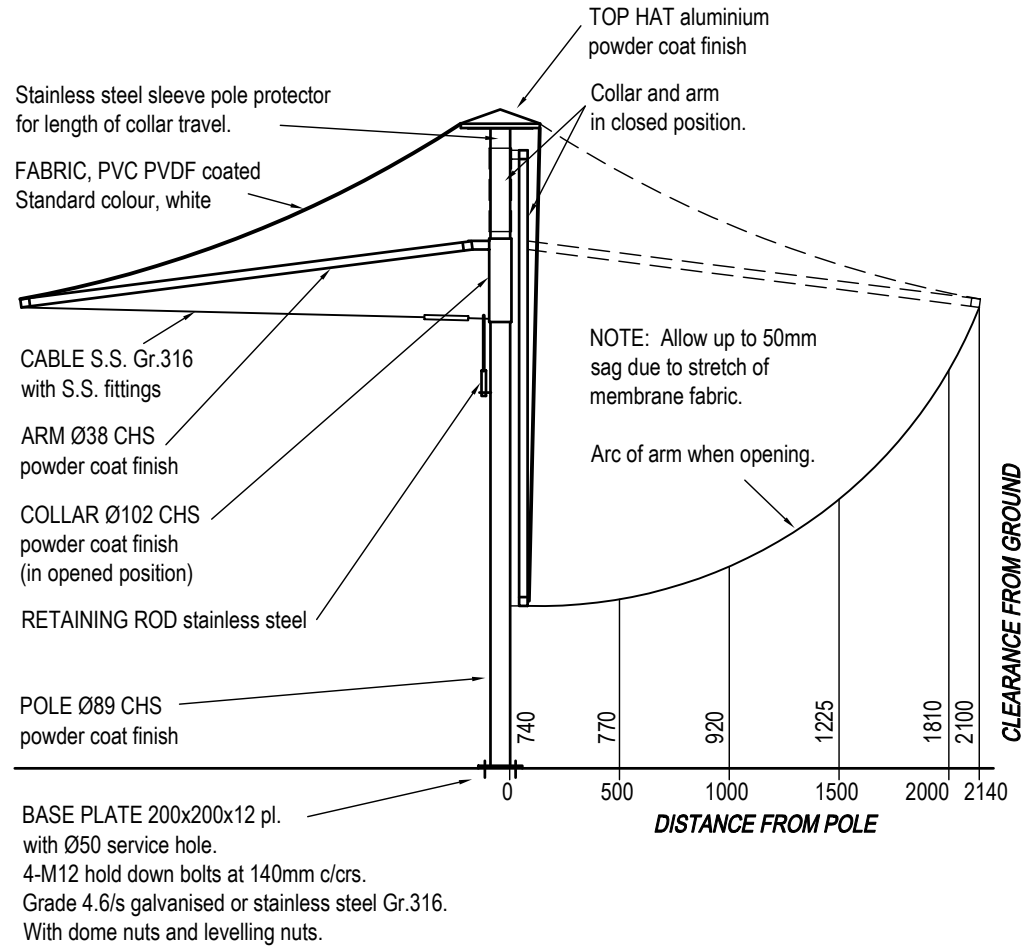
1:100 at A4

OCTAGONAL 4m - SUA-CO40

Wind Rating: 33m/sec (120km/h)
 Rated when umbrella is fully erected.
 Umbrella weight: 80kg

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

Dimensions are in millimeters.



OPENED POSITION

CLOSED POSITION

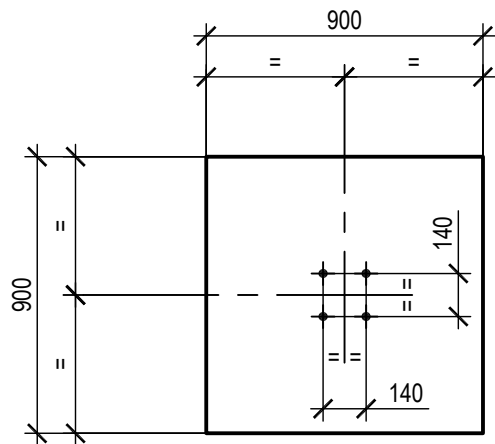
4m Centre Support Octagonal Umbrella Model SUA-CO40



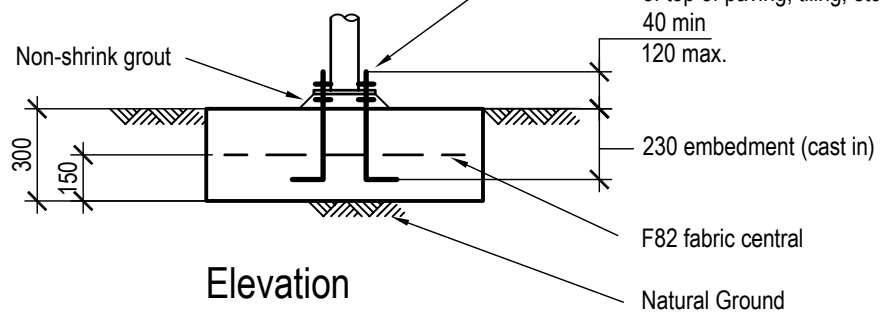
Centre Support Octagonal Umbrella
 Model:SUA-CO40

street
 umbrellas
 Australia

Engineering Framing

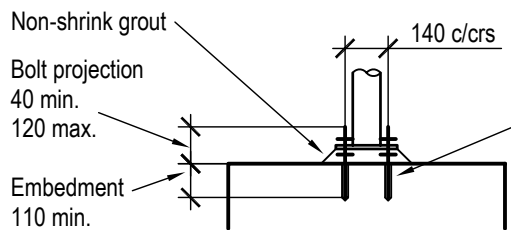


Plan



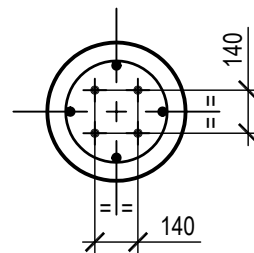
Elevation

SUA-CO40 Pad Footing

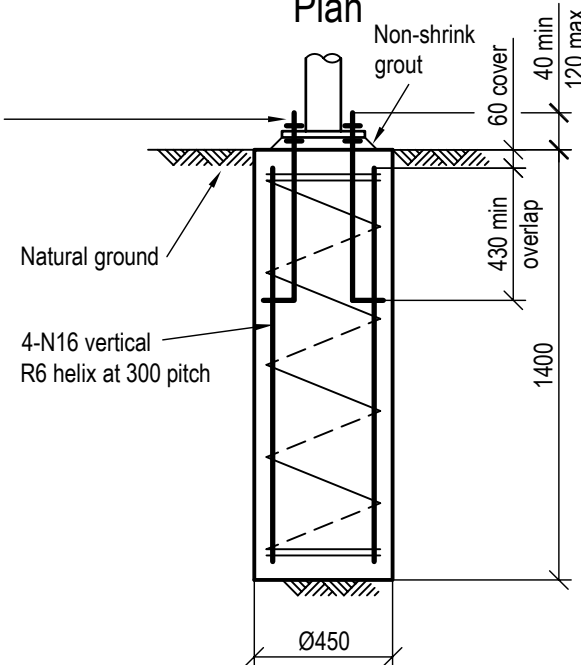


Chemical Anchor Detail

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-CO40 Pier Footing

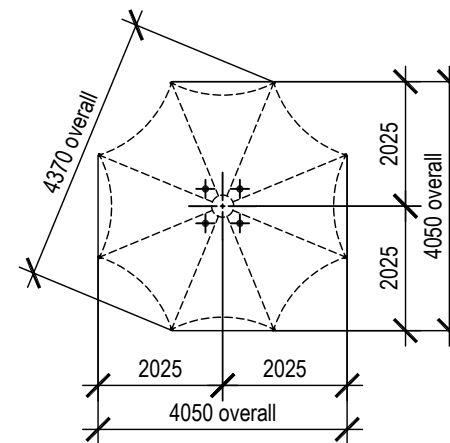
Notes:
Design wind speed 33m/sec (W33)

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

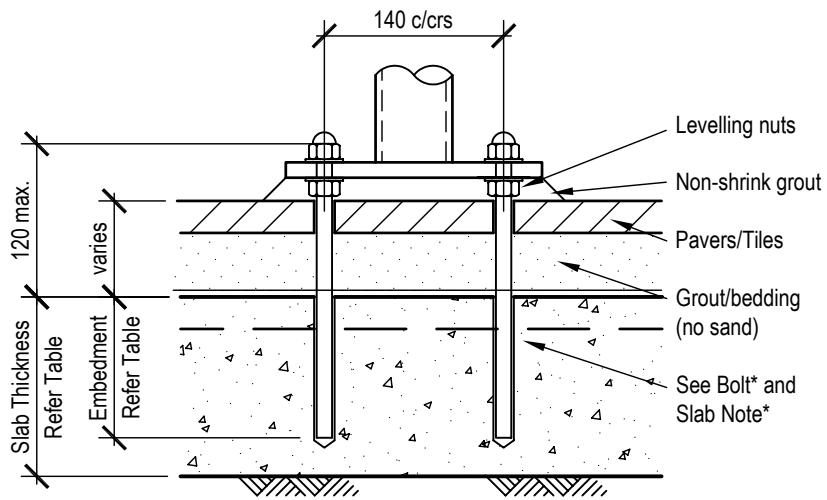
Anchor bolt location tolerances per Australian Standard AS 4100-1990

- 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.

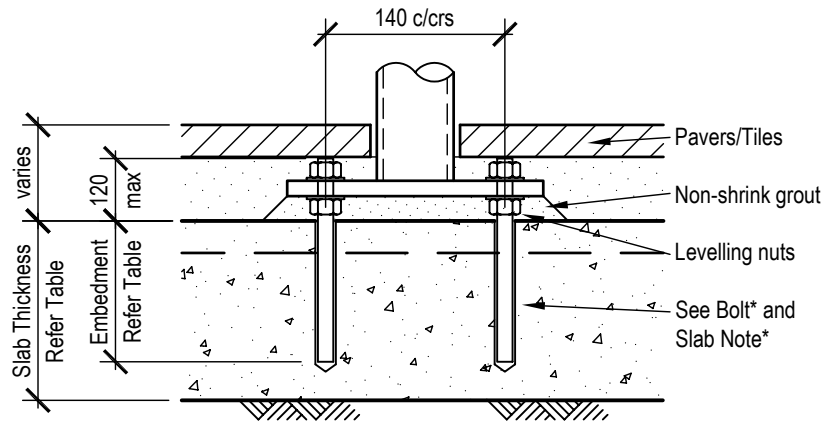


H.D. Bolt Layout Plan

Not to scale



Over Pavers



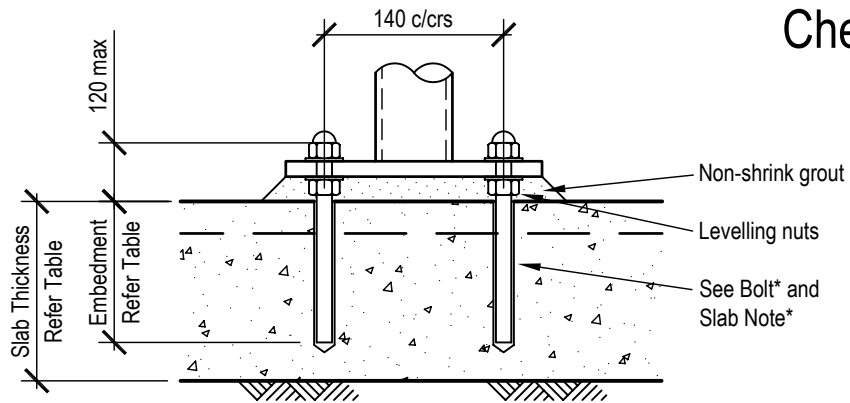
Under Pavers

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

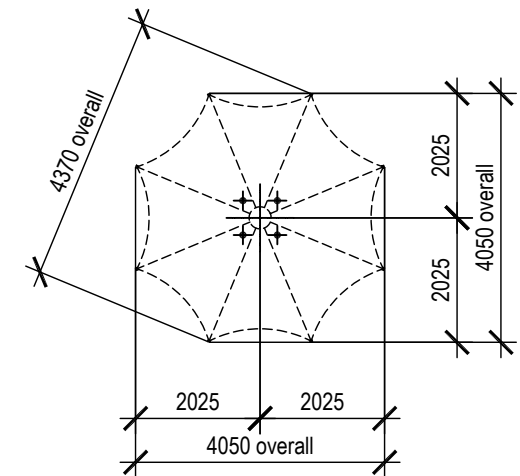
Chemical Anchor Fixing to Slab on Ground



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.



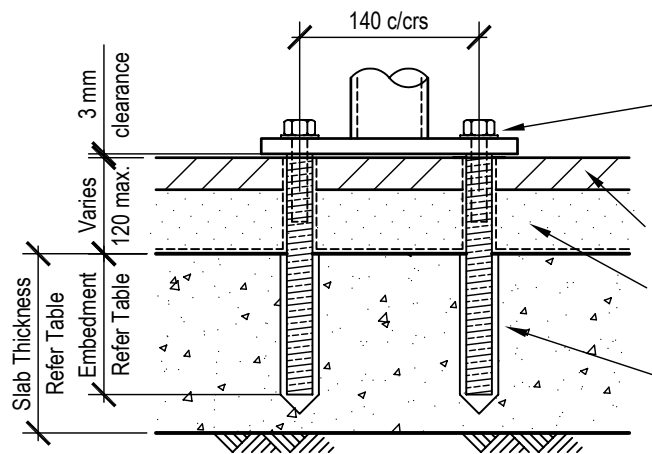
H.D. Bolt Layout Plan
 Not to scale

Installation Detail Model SUA-CO40

Centre Support Octagonal Umbrella
 Model:SUA-CO40

Installation Detail

street
 umbrellas
 Australia



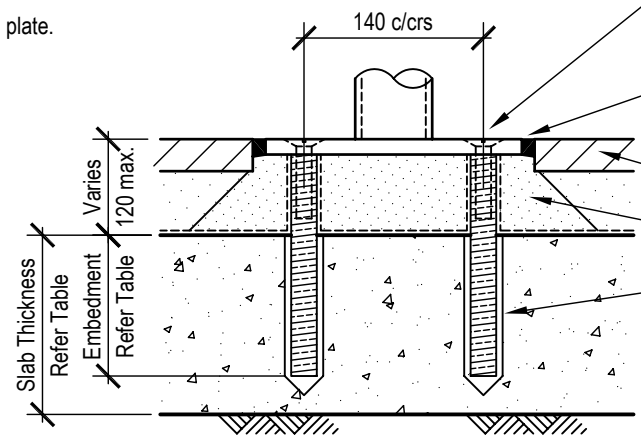
Over Pavers

Structure pole with 200 x 200 x 12 base plate. 4-M12 S.S. Gr.316 set screws.

Pavers/Tiles

Grout/bedding (no sand)

See Ferrule* and Slab Note*



At Pavers

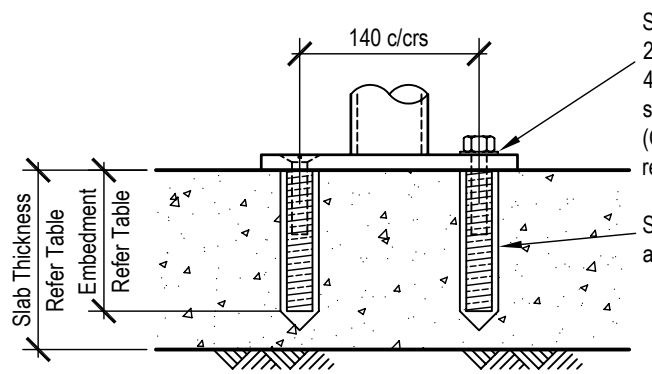
Structure pole with 200 x 200 x 12 base plate. 4-M12 S.S. Gr.316 counter-sunk set screws.

Flexible sealant (Mastic or similar)

Pavers/Tiles

Non-shrink grout

See Ferrule* and Slab Note*

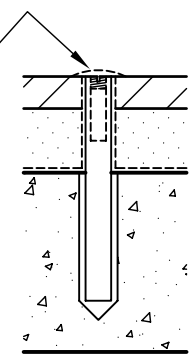


On Slab

Structure pole with 200 x 200 x 12 base plate. 4-M12 S.S. Gr.316 set screws. (Counter-sunk option if required)

See Ferrule* and Slab Note*

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

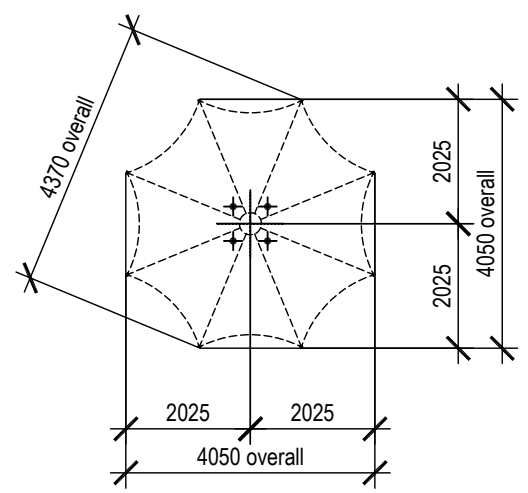


Ferrule Fixing with Umbrella Removed

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-CO40

*** 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.