

SignPost

SOLUTIONS LTD

LATTIX INSTALLATION METHOD STATEMENT

Groundwork

1. Excavate hole/trench either mechanically or by hand to suitable dimensions.
2. The anchor cradles are to be suspended in the correct plane with the use of wooden battens / shuttering. Care should be given at this stage to ensure that the relative centres of the mast/anchor cradles are maintained & that the anchor cradles are level & upright. Care should also be observed when installing the anchor cradle to ensure that the orientation of the cradle is in the correct plane, relative to the front of the signface. This is particularly important on the triangular mast design, as the sign will not fit to the masts if the anchor is installed incorrectly. All anchor cradle assemblies will be labelled 'Front' as an aid to the site installation team.

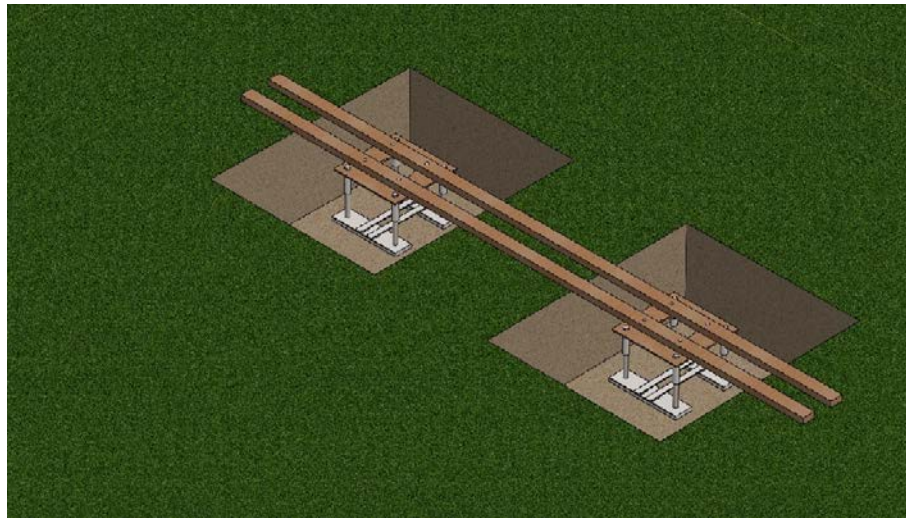


Figure 1 – Installation of Anchor Cradle(s)

Anchor Cradle Assembly Details

The Anchor Cradle Assembly comprises of a pre-fabricated socket type anchor, a wooden 'template' that can be used for shuttering/battening purposes & either 3 or 4, dependent upon mast type, securing bolts. These bolts are used simply as an aid to cast the anchor cradle & as a means of preventing site debris from entering the socket(s). After completion of the ground works, the bolts & wooden template can be disposed of, as they will no longer be required.

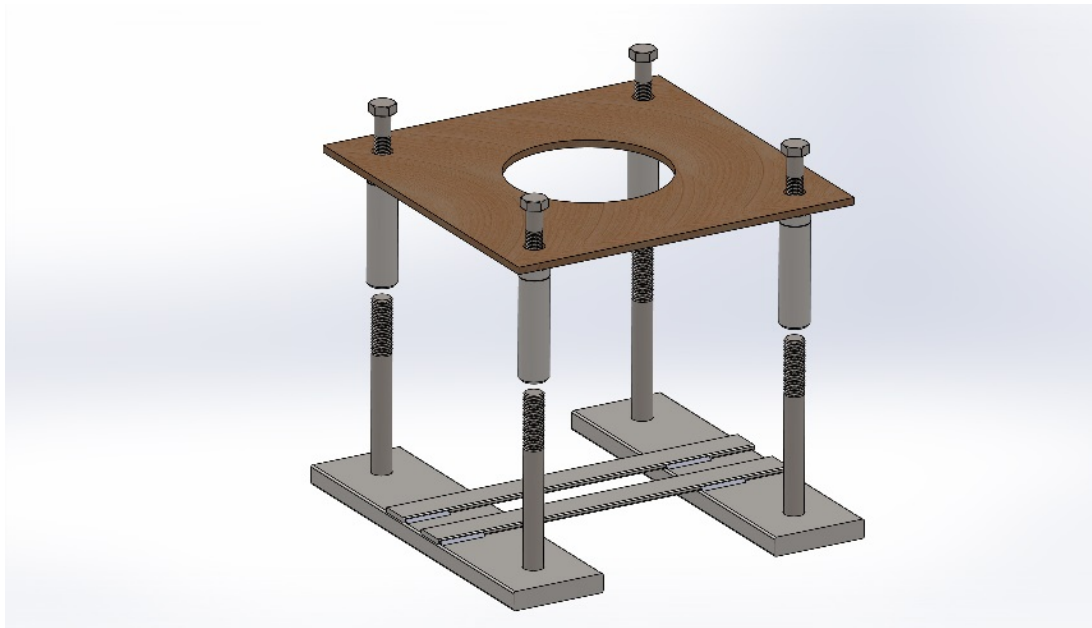


Figure 2

3. Lattix anchor cradles have been designed for use using un-reinforced concrete. However, reinforcement of the foundation **may** be required if a designer determines that the specific size or shape of an individual base requires additional strength.

Concrete Specification

A minimum concrete mix of 25N/mm² (ST5) should be used in all installations. However, a qualified civil engineer should check each individual installation, as a higher strength concrete mix may on occasions be required.

It is recommended that the Lattix baseplate should be installed with the foundation bolts exposed, as this makes removal much easier in the event of replacement. However, if an earth covering of the baseplate is required, the maximum depth of earth coverage should not generally exceed more than 150mm from top of foundation. It is also recommended that when using earth coverage that any exposed threads be protected by Denso Tape or similar to prevent ingress of dirt.

4. Pour concrete until ground level is achieved. **It is vitally important that the concrete is vibrated, or tamped to ensure that all air pockets & voids are removed from the concrete mass.** Failure to undertake this procedure will severely affect the mechanical strength of the foundation & may result in the installation not performing as designed.

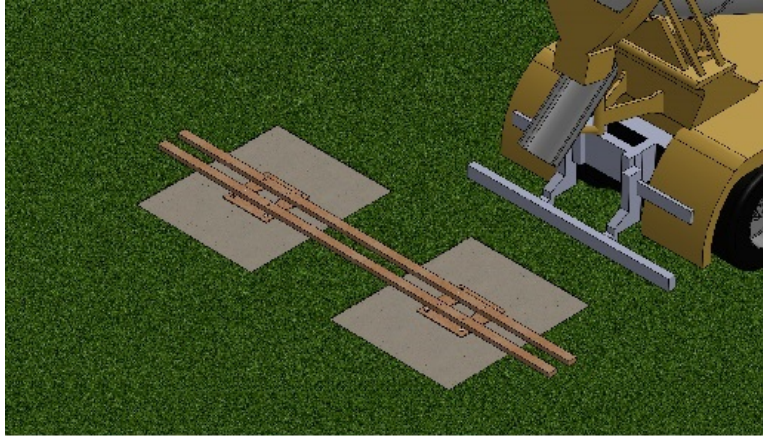


Figure 3 – Pouring of Concrete

5. It is recommended that the concrete is fully cured prior to installation of the Lattix Masts & Signfaces

Lattix Mast Installation

Holding Bolt Torque Setting

The base plate is fitted to the mast prior to shipment by means of holding bolts which have the following factory set torque settings: -

4412 Mast	-	114Nm
3325 Mast	-	114Nm
4420 Mast	-	65Nm
4425 Mast	-	114Nm
4438 Mast	-	120Nm

It is recommended that this torque setting is checked prior to installation by means of a calibrated torque wrench. Any looseness of the holding bolts may result in long-term wear & eventual reinstatement. Should you require further information, please contact our engineering department on 0121-506-4770.

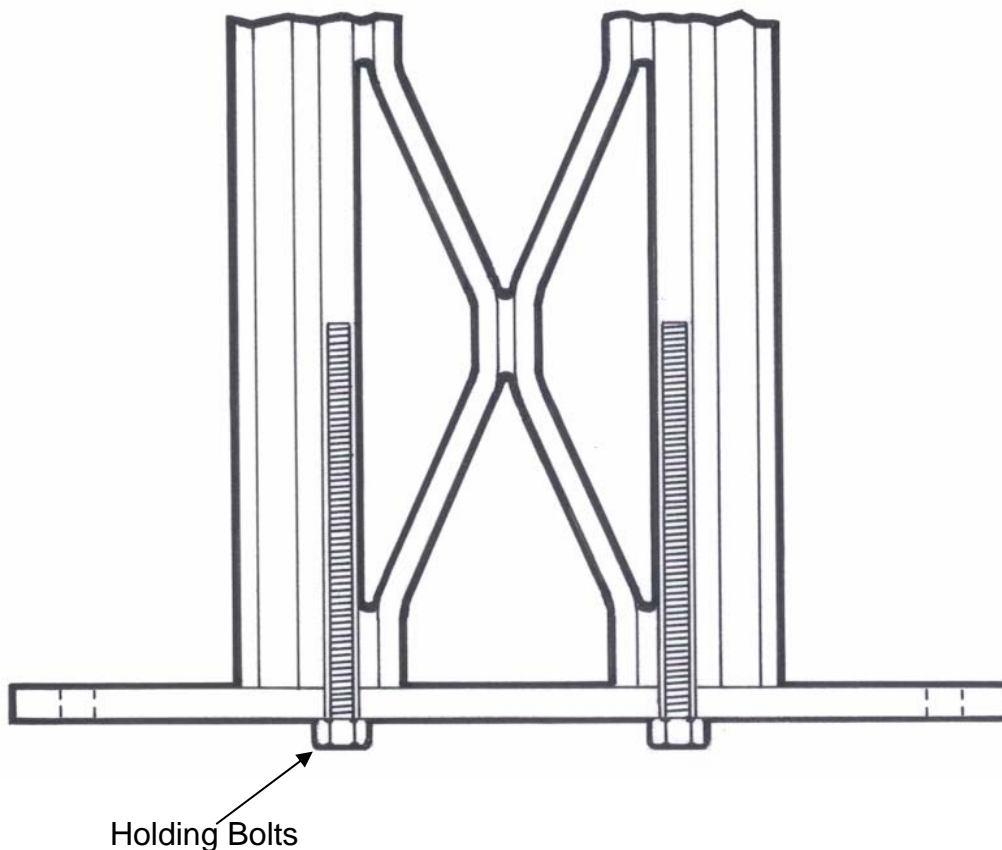


Figure 4 – Holding Bolt Arrangement

Foundation Bolt Detail

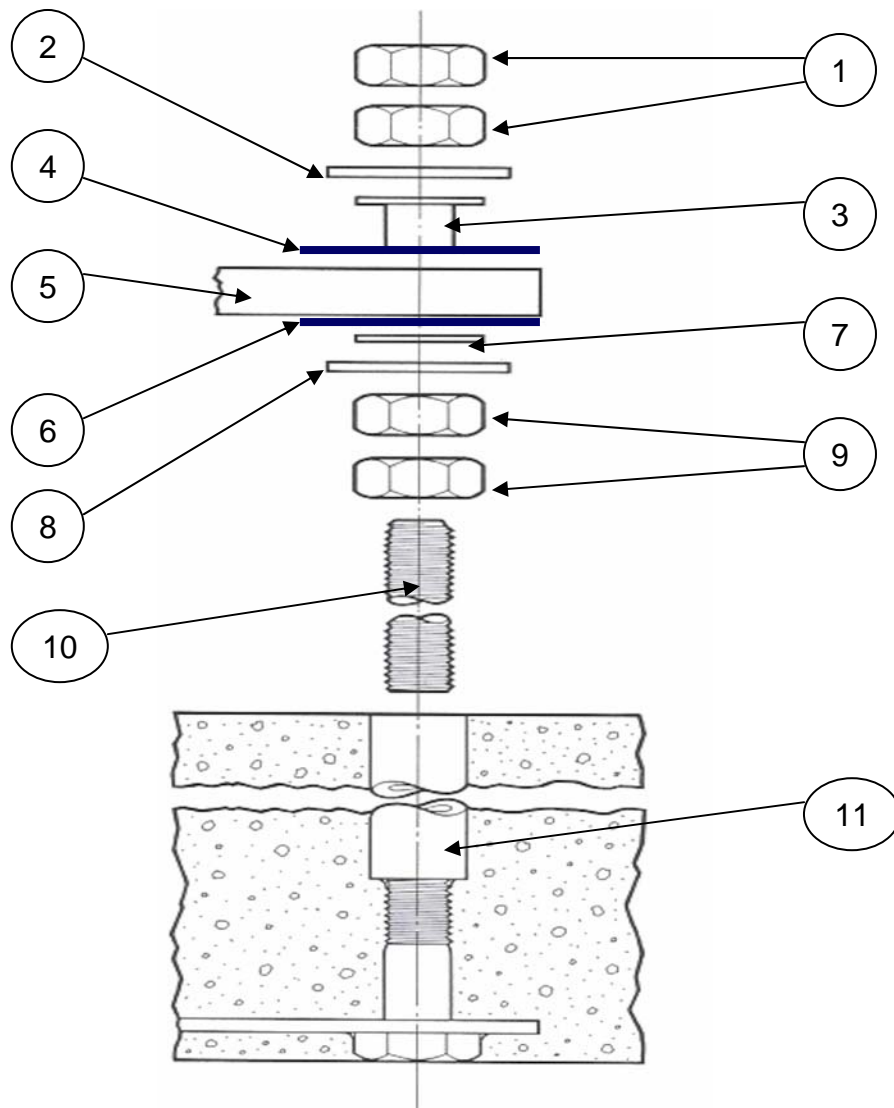


Figure 5 – Foundation Bolt Assembly

KEY

1	Adjustment Nuts
2	Securing Washer(SS)
3	Nylon 'Top-Hat'
4	Galvanised Washer
5	Lattix Base plate (fitted to Mast)
6	Galvanised Washer
7	Nylon Washer
8	Securing Washer(SS)
9	Adjustment Nuts
10	Anchor Stud
11	Anchor Cradle

6. Prior to installation of the mast(s), remove the shuttering, battens, fixing bolts & wooden templates from the foundation. Immediately pack the sockets with a copper based grease to prevent 'cold welding' of the anchor stud. When fitting the anchor stud, it is recommended that the stud is inserted a minimum of 2 x diameter of the stud into the socket ie. M16=32mm Insertion, M20 = 40mm Insertion, M24 = 48mm Insertion, M30 = 60mm Insertion.
7. The base plate is manufactured complete with elongated holes to aid alignment of the mast during installation. It is particularly important to ensure that on multi-mast sign assemblies, the masts are true & plumb, to prevent distortion of the sign panels upon fitment. It is also crucial to follow the Foundation Bolt Assembly as detailed below: -

Prior to erection of the masts, 2 nuts are fitted to the exposed thread. A stainless steel washer is then fitted complete with nylon washer, a larger galvanized washer & then the mast itself. A galvanized washer, a nylon 'top hat' inserted through the washer & base plate, a second stainless steel washer & 2 nuts will then prevent the mast toppling while alignment takes place. The two nuts on either side of the washers are for alignment purposes only, and should be adjusted to ensure that the Lattix Mast(s) are true and upright. The nuts on either side of these aligning nuts are for locking purposes only. Alignment of the masts is easily achieved by utilizing a spirit level, & plumb line. After final tightening, it is advisable that a 'Loctite' Thread Sealant is utilized on the foundation anchorages to prevent any possible loosening of the Locking Nuts.

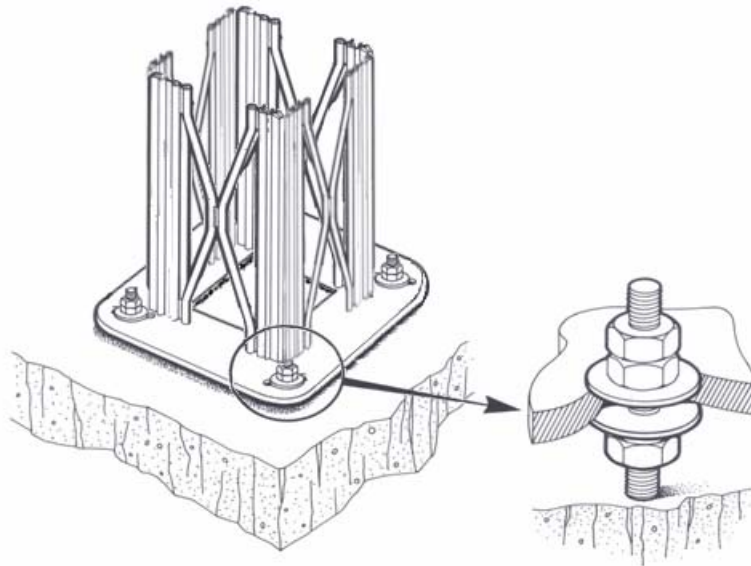


Figure 7 – Foundation Bolt Arrangement

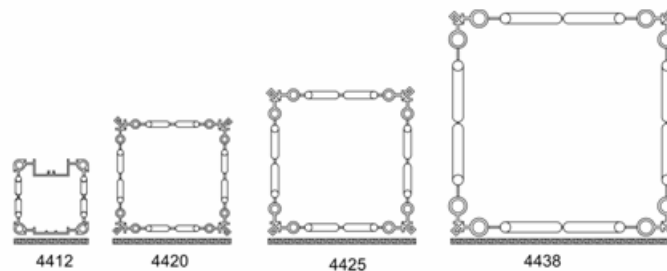


Figure 8 – Lattix Profiles

8. For identification and guidance purposes please note the illustrations above which identify the correct sign face for each mast profile. The new 4412 mast includes a cable access facility and it is important that this is installed at the rear of the sign assembly.

Sign Installation

9. The supplied Lattix clamps, nuts bolts & washers are to be used when erecting the sign. They work on the same principle as the Signfix RSJ Clip, i.e. they are mounted in pairs on either side of the Mast. If 'Interlocking' Channels are used on the rear of the sign assembly, Lattix Clamps are to be used on the "Lower" channel position of any joint. For connection of the "Upper" channel to its mating section, Butting Plates are to be used.

When the sign is mounted in the current position, the supplied bolts are to be tightened to the correct torque settings of 18 Nm. (18Nm refers to Signfix channel – please refer to other manufacturers guidelines if alternative channel is used)

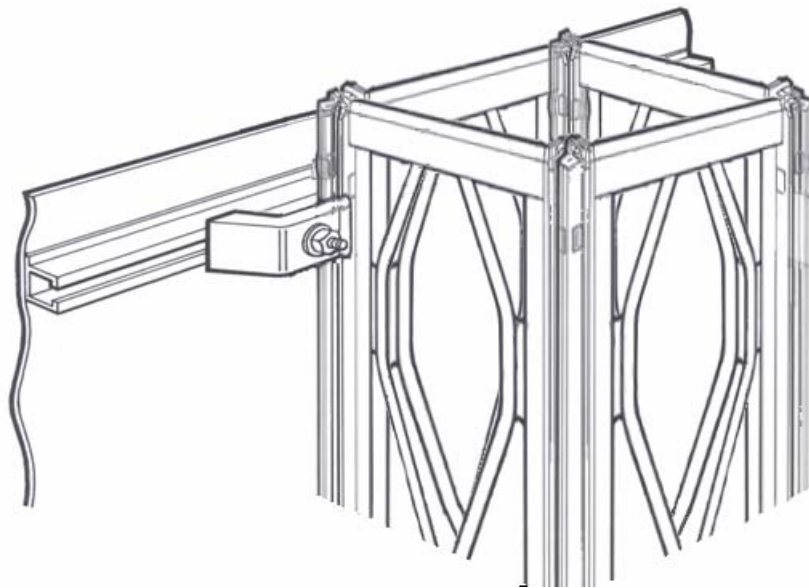


Figure 9, Showing Mast, Clamp & Sign Channel arrangement

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