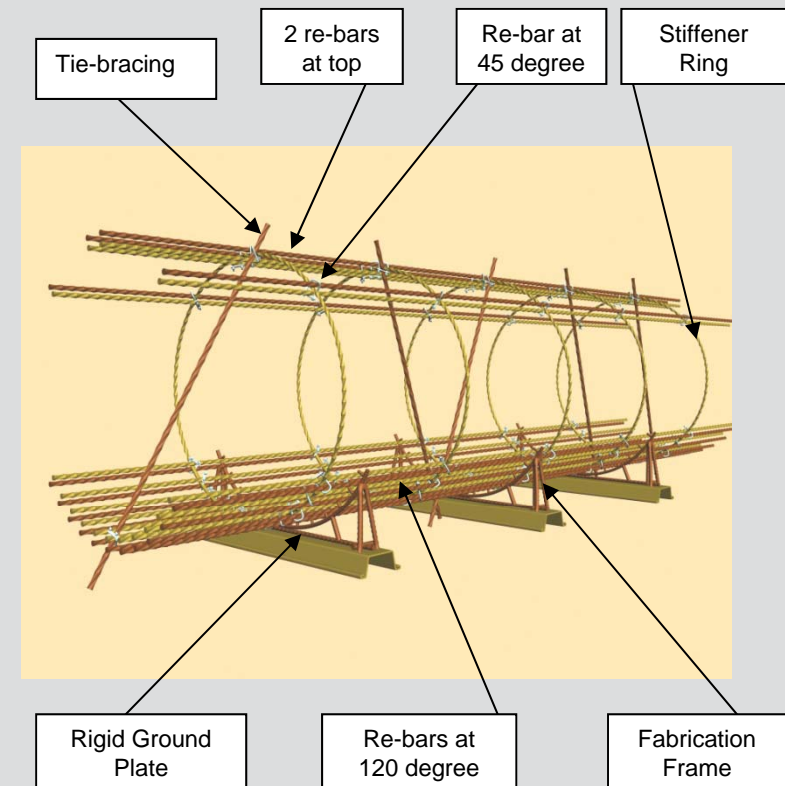




Safety Alert No. 001/11 Fabrication of Reinforcement Cages of Bored Piles

Fabrication of reinforcement cage is a common work process when carrying out bored pile foundation work. During the operation, relevant safety measures should be taken so as to prevent the occurrence of accidents. Practitioners are alerted to the following safety measures:

1. Prior to the commencement of fabrication, site foremen, engineers and relevant parties should jointly carry out a risk assessment of the reinforcement cage fabrication process and implement the safety measures determined as a result of the assessment.
2. A method statement for the fabrication of reinforcement cages should then be drawn up, including the relevant risk assessment, working drawings, safety working procedures, etc.
3. For the fabrication work, suitable equipment including arc-shaped fabrication frames, ground plates, working platform, etc, should be used.
4. The arc-shape fabrication frames and ground plates should be placed on rigid and flat ground. Barriers and warning signs should be provided to guard against possible damage by other equipment and vehicles.
5. The arc-shaped fabrication frames for supporting the reinforcement cage must be fabricated (as shown on the sketch) ahead of other bar fixing process. It is important that:
 - (i) Upon re-bars are fixed with tie-wires on the lower portions of the stiffener rings (a span of 120°), all these re-bars (both inside and outside the cage) are immediately fastened by U-bolts; and
 - (ii) At least 2 tie-bracings are fixed by U-bolts at the top positions of the stiffener rings at both ends of the cage. Sufficient tie-bracings would also be fixed by U-bolts on the other stiffener rings.
6. The bar fixing foremen should closely supervise this work process to ensure full compliance with the approved method statement.
7. The bar fixing foremen should have the relevant experience in the fabrication of similar reinforcement cages.



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