ROLE OF A SITE ENGINEER: BUILDINGS

As a site engineer, in a construction project of high rise buildings, you carry a lot of responsibility to finish the project in time and with cent percent accuracy. As we know, construction projects are generally a one time activity and are irreversible in nature. Hence, it is on site engineer to inspect the activities/work on construction site and ensure that everything is going as per the schedule, plan & design. In this article, we have tried to cover all the aspects of construction project and the points that a site engineer has to keep in his mind during his inspection of the field. In a way, these points reflect the role and responsibilities of a site engineer in a construction project of high rise buildings.

BRICK WORK

1. During the brickwork, the vertical alignment of bricks has to be constantly checked, while piling brick, with the help of plumb–bob attached to a rope.
2. For 9-inch wall, the rod is not necessary. But for brick–work of 4 ½ inch wall, a single rod has to be placed after each 5 layers of brick.
3. During brick–work, the brick should be wetted in water before using it in brick work of wall.
4. During brickwork there must be kept small gap between bricks and the gap must be filled properly with cement mix prepared.
5. Chipping must be done in the beams and columns before brick work.
CASTING OF SLAB, BEAMS AND COLUMNS

1. The props used for supporting shuttering plies (during casting of slab and beam) must be kept perfectly vertical and the gaping between these props shouldn’t exceed 1m. Props must be properly tightened.
2. During casting of slab, the concrete mix shouldn’t leak from down-side of shuttering plies. If so, it should be checked and hole must be blocked.
3. Spacing of rings and formwork should be checked using the drawing of beams and slabs.
4. Leveling of slabs and beams (shuttering plies) has to be checked using theodolite before casting.
5. Small pieces of concrete block have to be inserted below formwork to maintain the spacing.
6. The plywood used for supporting the slab should be changed after using it for casting slabs 3–4 times.

FINISHING

1. 90 degree has to be maintained in all nooks and corners of room while plastering or finishing.
2. Finishing of Plaster work must be checked.
3. Alignment of walls, ducks should be checked.
4. Dimensions of windows, doors & other elements of room should be checked.

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