Plan and Cross Section Views of Stairs

- Stairs are consist of smooth vertical & horizontal surfaces structural members that provide the transportation and connection between floors or structural parts having different elevation.

- Arrangement the geometrical shape of stair depends on functional usage, number of floor and size of the staircase space.

- To provide the coming down and rising from any surface to another is the common property of stairs. These are differ by aim of usage. Stairs are categorized as following; inner and outer stairs according to construction place, wooden, steel and reinforced concrete stairs due to functions and type of using material.

- Details that are belong to changing situations on the existing floor of stairs are sketched of plan & cross section view with 1/10 and 1/20 scale.
Plan and Cross Section Views of Stairs

**Given Information at Detailed Drawings of Stairs:**
- Dimensions of space and width of stair,
- Number and height of riser with width of step,
- Size and thickness of landing platform,
- Stair well is generated by taking measurement the width of lever handle and landing platform from inner sides of walls,
- Line of barrier (parapet)’s been drawn,
- Riser lines have been drawn according to width of step measurement,
- Exiting route line has been drawn,
- Number of risers have been written,
- Line of shear plane has been drawn,
- Elevations have been given,
- Elevations of landing platform and floor slab have been given.
Stairs may be categorized as generally one armed, two armed and rotating according to areas and coordination shapes.

Fig.1: One armed straight stair

Fig.2: One armed stair with landing platform (straight at middle side)
Type of Stairs due to Solving Shapes in Plan

Fig. 3: Two armed stair with landing platform at the corner

(c)

Fig. 4: Two armed stair with landing platform at the middle side

(d)
Type of Stairs due to Solving Shapes in Plan

Fig. 5: Two armed quarter rotating stair

Fig. 6: Two armed half rotating stair
Type of Stairs due to Solving Shapes in Plan

Fig.7: Three armed stair with landing platform at the corner

Fig.8: Three armed quarter rotating stair

Fig.9: Two armed quarter rotating stair
Type of Stairs due to Solving Shapes in Plan

Fig. 10: Fully rotating stair

Fig. 11: Rotating stair examples
Stair Members

Fig 12. Stair Members
Fig 13. Stair Members (Two armed straight stair with middle landing platform)
Drawing of Stair at Plan
Cross Section View of Structure Stair
Cross Section View of Structure Stair