

UNIT I - PRINCIPLES OF CONSTRUCTION

Topic - 5: Foundation and Basement

Foundation

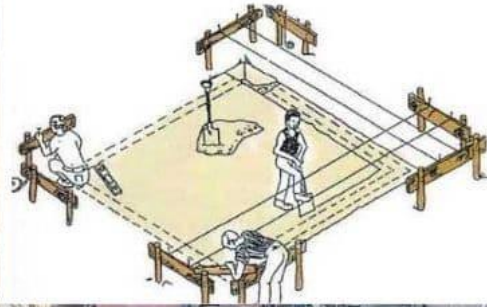
- **Purpose:** The foundation is the structural base of a building that transfers the load from the structure to the ground.
- **Types:**
 - **Shallow Foundation:** Used for small structures or stable soil, includes strip footing, raft foundation, and spread footings.
 - **Deep Foundation:** Used for large structures or unstable soil, includes pile foundation and drilled shafts.
- **Materials:** Commonly constructed using concrete, stone, or brick.

Basement

- **Purpose:** The basement is the lowest floor of a building, partially or entirely below ground level, often used for storage, utilities, or living space.
- **Types:**
 - **Full Basement:** Extends below the entire footprint of the building, often with sufficient height for living space.
 - **Partial Basement:** Only part of the building has a basement, with the rest having a crawl space or slab-on-grade.
 - **Daylight Basement:** A basement that is partially above ground, allowing for windows and natural light.
- **Waterproofing:** Critical for preventing moisture issues, especially in basements located below the water table.

Site Clearance & Earth Work





Building Layout & Foundation Layout