

# Types of foundation and their uses in building construction

[Engineering](#)



**ASSIGN  
BUSTER**

The paper "Types of Foundation and their Uses in Building Construction" is a perfect example of an assignment on engineering and construction. The foundation of any construction is a structure that transfers loads to the earth or to the soil in the most efficient way possible. There are generally two categories of foundations namely:

- Shallow foundations
- deep foundations

For a design process for any given base to be efficient, ensuring that the load-bearing capacity of the soil is not extended is very vital. For this reason, soil investigation should be carried out on the building ground before designing a foundation for any structure. Strip foundation In designing a strip foundation it is the best to aim at a condition that will cause the center of gravity of the loads and that of the base to coincide. (Barry R. Vol. 4) Trench Fill The Trench fill foundations are best used and recommended where there is a high water table. Likewise, it can also be used where there are trees being grown in the neighborhood of the building area, and if the soil in the area is loose. On observing that there is ground heave, then the builder will advise that the sides of the trench should be lined with a compressible material and mesh reinforcement. (Mary Cotswold) Raft Foundation Raft foundations are often used on soft soils/loose soils with low bearing capacity; this is because they can spread the loads over a larger area. As in the design of other types of base, it is desirable, when designing a raft foundation, to have the center of gravity coinciding with the centroids of the base. For a rectangular raft, if the resultant load is eccentric, the extreme pressures are realized at the corners. This foundation may be stiffened by supports or

<https://assignbuster.com/types-of-foundation-and-their-uses-in-building-construction/>

beams being incorporated into the foundation. Deep Strip Foundation  
Floor Screed Concrete Blinding Hardcore  
Annotated drawing of the external envelope (from ground floor to roof level) for the traditional form of construction  
Coping D. P. C Throat Roof Lintel Window cill Cement sand floor Concrete bed D. P. M Throat Blinding layer Hardcore Mass concrete strip foundation  
English Bond The English bond is constructed by building alternating courses of the long bricks (stretchers) and the short bricks (headers). When done in this, it produces a strong wall that is of the length of a full brick. This type of bond is opted because of its simplicity in building and for it is the strongest bond when building a one-brick-thick wall.  
Stretcher Header Flemish bond It is considered the most decorative bond hence used mostly for dwellings up to the adoption of the cavity wall; the Flemish bond is also known as Dutch bond. Flemish bond is created by laying alternately headers and stretchers through a single course. The next course is laid so that a header lies in the middle of the stretcher in the course below.  
Stretcher Header Garden wall bond One thing to be noted about this bond is the increased height of each course, compared with Flemish or English bond, achieved by laying the bricks on their edges. These types of bonds use stretchers of high proportion and therefore require few of the facing bricks than the rest of the bonds do. They are therefore less complex and they are cheaper to lay. Garden wall gaps are commonly used for garden- and other non-load-bearing walls