The first step in the design process is to determine the loadings and stresses that will be experienced by the retaining wall. This involves understanding the forces that act on the wall, such as gravity, hydrostatic pressure, and lateral earth pressure. These forces can be calculated using various methods, such as the Rankine or Coulomb theory. The selection of the appropriate method will depend on the specific conditions of the site.

Once the loadings are determined, the next step is to calculate the forces that will be resisted by the wall. This is done using the design equations for the type of retaining wall being considered. For example, the design of a gravity wall would involve calculating the forces that act on the wall and then selecting a height that will resist these forces.

The final step in the design process is to check the four different types of retaining walls. This involves comparing the calculated forces to the allowable stresses and ensuring that the wall will be able to resist the loads. If the design fails any of the checks, it will need to be modified until it meets all the requirements.

In summary, the design of a retaining wall involves a careful analysis of the forces acting on the wall, the selection of the appropriate design method, and the calculation of the forces that will be resisted by the wall. This process ensures that the wall will be able to safely and effectively support the structures that it is intended to support.