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# Static Analysis and Design of Retaining Wall using STAAD- Pro

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**Abstract:** *Retaining wall is defined as a structure with a main purpose to prevent lateral movement, retain earth or water and may role to support vertical load. This study presents analysis and design of retaining wall based on water table, analytically and using STAAD.Pro software. Structural software in which retaining wall is prepared using plate element. The loading conditions are acted on retaining wall such as lateral load of soil on stem wall, vertical load on heel slab, vertically acted soil bearing pressure etc. are shown in model. In this work include estimation of primary dimensions of the wall and factor of safety against sliding, overturning and bearing were calculated. The shear resistance for the base, the tension stresses in the stem and the base were checked. Calculation of reinforcement for each part of the wall were done. In conclusion, this paper shows application of STADD.Pro software package in design of retainng wall and obtained result is more accurate than analytical method for design of retainng wall.*

**Keywords:** Design of Retaining Wall

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