

DESIGN AND CONSTRUCTION OF BUILDINGS ON HILLSIDE

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ABSTRACT

My project is 'Design and Construction of Buildings on Hillside' which consists of the design of a 5-storey building with basement car park and Contiguous Bored Piles Wall which acts as both the retaining wall and the basement wall of the car park. Besides, the rating walk is to protect the existing structure that is the existing road. This explained the use of Contiguous Bored Piles Wall in my project as Contiguous Bored Piles Wall is one of the suitable retaining wall in protecting the existing structure.

Firstly, architectural drawing is done in order to proceed to the steps as the external and internal appearance of the building has to be determined and the location of the contiguous bored piles wall. Then the structural drawing will be out as well to carry on with the design work. To design the superstructure, BS 5950 (Steel Design) is used to design the roof, BS 8110 (Reinforced Concrete Design) is used to design the superstructure, BS 8004 (Foundation Design) is used as reference for the design of foundation and Bored Piles Wall.

The method of construction used for the basement is known as the 'op-Down Construction Method' where the process of construction is from top to bottom of the basement.