



Article (2/72): Information Required for the Villas Calculation Memo.

1. Index showing the number of pages and the basic assumptions included in the memorandum for the design, in addition to the concrete and reinforcement steel stress, and number of floors according to which the foundations have been designed, etc.
2. A detailed calculation for columns loads. In the case of irregularity of distances between columns, the reaction method for calculating loads shall be used.
3. Columns loads must include the auto weight of beams, walls, columns, roof fence wall, staircase and water tanks loads. While checking the bases stress, the soil weight over the natural ground level should be taken into account, along with stated the bases loads on the columns drawings.
4. In the event the bases were tied to binding beams, the additional loads resulting from decentralization should be taken into account.
5. Concerning the long columns, the additional forces shall be taken into consideration.
6. The forces curves cut and forces should be enclosed with the calculation of reinforcement steel concerning all beams. The reference of these curves shall be to the main axes shown in drawings.
7. Should there be columns embedded on beams, denture must be checked in addition to the beam from the stress side. Concerning the embedded beams and slabs which length exceeds 6m, the actual denture must be calculated according to the British specifications or any other specifications. Also, the denture impact shall be calculated on the long run.
8. Separate calculations must be submitted for slabs and beams bearing water tank.
9. Concerning the installed bases, the decentralization of loads in respect to the basic center should be taken into account.
10. In the case of using the manual methods in calculating the flat slabs or concrete mat bases, the distances of columns and method of distributing them must follow the British or American specifications. Otherwise, they should be analyzed through the infinite elements.