General specification (construction):

1. The building foundation design is for bearing capacity of 1.5 kg/cm2. Before laying the foundation, the soil should be tested for bearing capacity. If the bearing capacity differs than assumed 1.0 kg/cm2, then the foundation should be adjusted to the actual bearing capacity.

2. PCC under the foundation should be M 100 (compressive strength 100 Kg/cm2) or blinding material/soil.

3. Stone used for the foundation will be mountain hard crashed stone (not river rounded stone). If hard crushed stone is not available, the round river stone should be broken down.

4. Soil will be well compacted under the stone filling inside the rooms and corridors. The maximum layer of each compaction will not be more that 20 cm.

5. Steel bar should be deformed with yield strength of 3000 kg/cm2.

6. RCC Mark should not be less than 200 kg/cm2.

7. Mortar should be as follows:

PCC M : 120	1: 6 (cement: sand
Stone masonry…….	1: 5 (cement: sand)
Brick work …….	1: 5 (cement: sand)
Plaster of exterior walls	1: 5(cement: sand)
Plaster of interior walls	1: 5 (cement: sand)
Pointing of stone masonry ….	1:3 (cement: sand)

8. Crushing strength of burnt brick will not be less than 70 kg/cm2.

9. Burnt brick should be soaked in water at least for one hour before use with cement mortar.

10. All the masonries and concrete works should be cured wet at least for two weeks.

11. Aggregate should be clean. Maximum size of aggregate should not be more than 2 cm.

12. Cover to reinforcement bars should not be as follows:

Footing …… 7.5 cm.

Column…… 4.0 cm
Beams……. 2.5-3.0 cm
Slabs…… 1.5-2.0 cm
..

13. Responsible site engineer should advice on construction of joints.

14. Shuttering should be checked before placing concrete.

15. Electrical wire, switch, socket…. Of Iranian or Garman made will be used for the building.

16. Buildings on sloping terrain, the complete foundation has to stand on natural soil, never build foundation partly on natural soil and partly on filled soil/filling.

17. Old cement should not be used (maximum 3 months) specifically for RCC purposes.

18. If Afghanistan Ghory cement is produced with the same quality as before it will be used particularly for RCC purposes, otherwise Charat Pakistani produced cement or similar will be used.

19. All small concrete elements use concrete mixer if possible, for reservoirs concrete mixer mandatory. If mixer is not available, a proper place should be prepared for mixing concrete, it will help to not lose the water to run outside.

20. If available aggregate (crushed) will be used for RCC, other wise well sorted and well washed sandy gravel will be accurately selected (material finer than 75 micron, shale, coal, clay lump < 5 %).

21. Mixed mortar must be used within one hour.

22. Vibrator will be used for placing RCC.

23. Clean drinking water will be used for concrete mixing.

24. Plane iron sheet gauge 22 will be used for roofing.

25. Wooden pole for truss will be used locally produced (Afghanistan).

25. The best quality plastic sheet available in the market will be used for insulation.

26. Well washed (clean) sand will be used for plastering.

27. Two layers plastic painting (50 %) will be used for inside the rooms and corridor.

28. Plane painting will be used for outside the building.

29. Timber for doors and windows will be best quality available in the region main market.

30. The size of door and window frame will not be less than10 x 6 cm and for plates 7 x 4 cm.

31. Hinge and locks for door and windows will be the best quality, China, Germany made.

32. Three layers oil painting for the doors and windows.

33. At least 4 mm glasses will be used for windows.

34. Putty should be used around the glasses.