6. The raw milk storage tank and pasteurized milk balance tank may be mounted on a staging in order to save floor space and to provide a gravity head to fillers.

7. It is desired to have a refrigeration compressor room and boiler house in the same building, the floor level of these rooms should be at par with ground level.

8. Laboratory should have easy approach to processing room, reception room and filling room.

9. Boiler should be located near the place where steam is required.

10. Refrigeration machinery room should be near the process room and cold store.

11. Security and watch and ward offices should be located near gate.

Procedure

The steps for designing and preparation of plant layout is as follows:

1. In the first step, capacity of the equipments is determined according to the flow diagram and process schedule.

2. A section is designed on the basis of:

    a. Space required by the equipments

    b. Space is left around the equipment for movement of persons, maintenance, assembling and dismantling of equipments. Generally it is 2.5 time space occupied by the equipments.

    c. Space is provided for future expansion of section or addition of equipments.

    d. Space required by pipes, drainage, control etc.

3. Various sections are arranged together. It gives the total layout of the dairy plant building as shown in the figure 16.1.

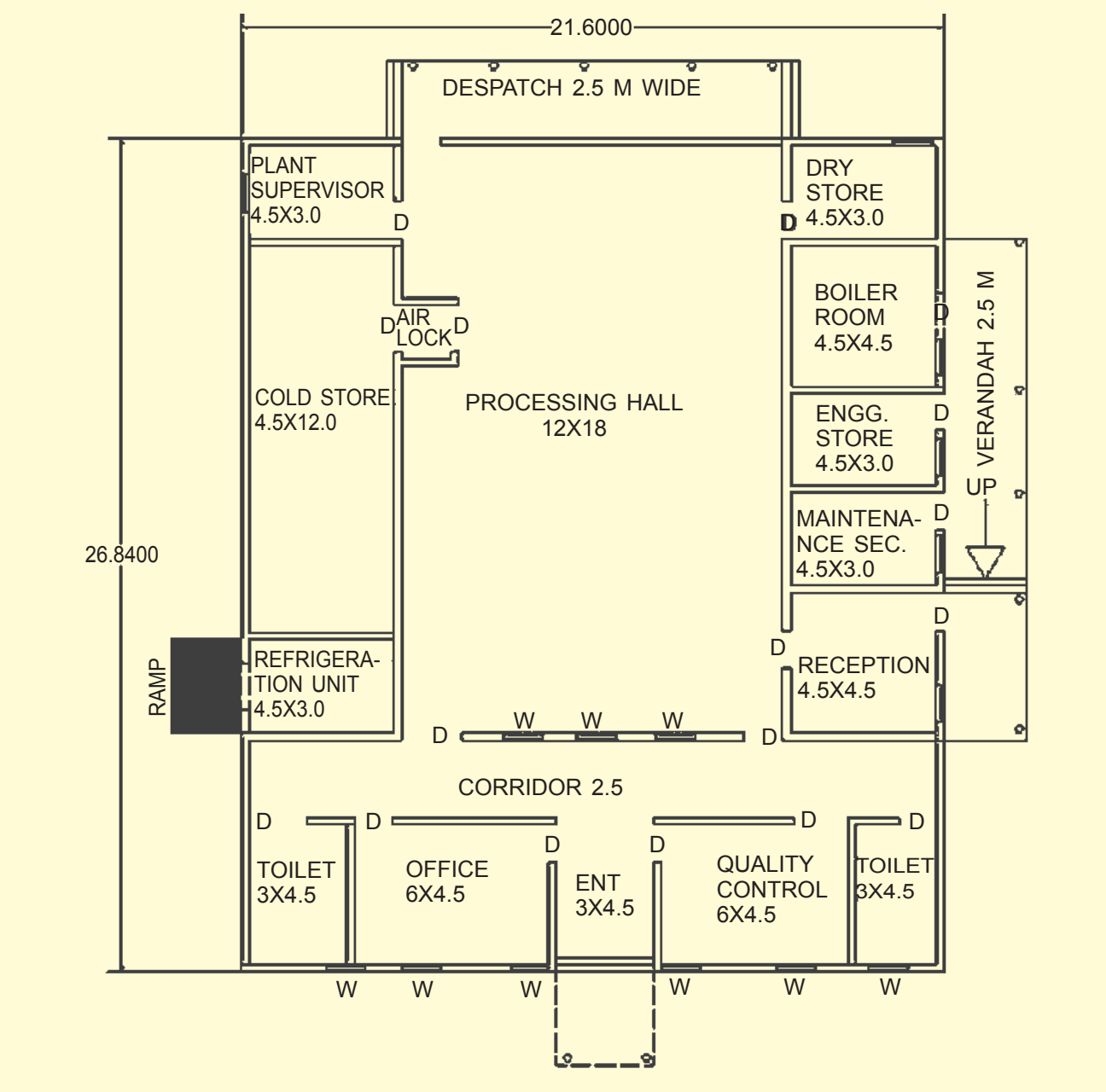

Fig.16.1. Layout of a milk processing plant (Capacity 20,000 to 40,000 litres milk per day)

REVIEW QUESTIONS

1. What are the steps involved in design and preparation of plant layout?
2. What are the advantages of drawing layout of a dairy plant?
3. How will you estimate space requirement for any section?


BUILDING SKILLS•BUILDING FUTURE•

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