

60 Ninesprings Way, Hitchin.

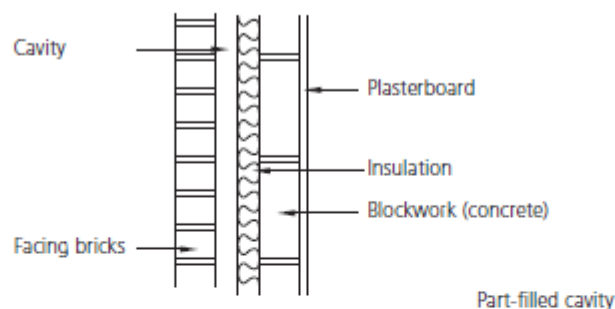
Flood Resilience Strategy:

The following flood resilience measures are to be incorporated into the extension works. New floor to be set level with existing floor.

Walls:

- All masonry below DPC level to be engineering brickwork.
- All insulation within walls to be closed cell.
- Ensure mortar joints are thoroughly filled to reduce the risk of water penetration. If frogged bricks are used, they should be laid frog up so that filling becomes easier and coverage more certain. Bricks manufactured with perforations should not be used for flood resilient design.
- Walls to be finished internally with sand cement render and skim finish.
- Stainless steel wall ties are to be used.

Figure 6.10 Cavity External Walls – Part-filled cavity with sacrificial plasterboard

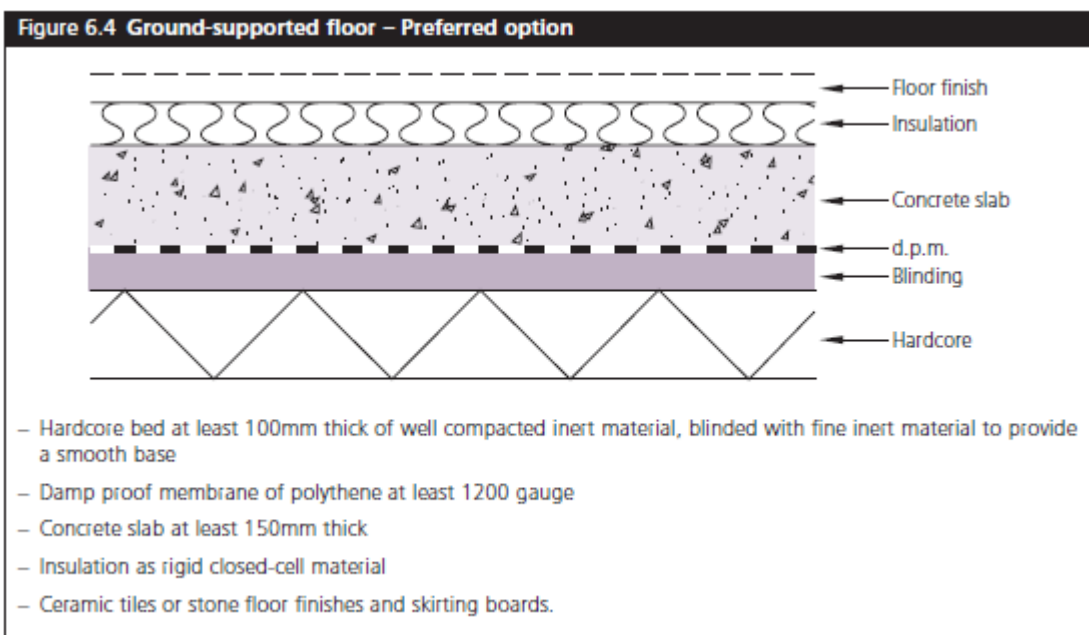


Part-filled cavity

- External face consisting of engineering bricks up to required level for flood protection (up to d.p.c.). Other external facing materials can be used above this level, but ensure transition is watertight.
- Rigid insulation
- Internal cement based render, preferably with lime content. Composition depends on masonry; the following mix is effective:
1 cement : 6 sand : 1 lime on concrete blocks.
- Stainless steel wall ties should be used to minimise corrosion and consequent staining.
- Sacrificial plasterboard can be used, but it needs to be removed between ground floor to flood level. The board should be laid horizontally to make removal easier.

Ground Floor:

- Ground floor to be 150mm thick ground bearing concrete.
- Floor insulation and finishes to be installed over slab - floating sand cement screed.
- Floor insulation to be closed cell.
- 12 Gauge polythene DPM to be installed below concrete slab, joints in membrane to be lapped by minimum 300mm or 50mm if mastic sealed.
- Floor finish and skirting to be ceramic tiling on water resistant adhesive / grout OR Sacrificial timber / carpet.



Doors & Windows:

- External doors to incorporate good quality rubber seals to minimise water ingress.

Services:

- All services to be routed at high level, no ferrous materials to be utilised.
- Any pipework at ground floor level to be encased in closed cell insulation.
- Where relevant gas & electrical meters to be installed above predicted flood level.
- Electrical sockets should be installed above flood level for ground floors.
- Electric ring mains should be installed at first floor level with drops to ground floor sockets and switches.

