GUIDANCE NOTES FOR GARAGE CONVERSIONS

GARAGE CONVERSIONS

Where a garage is to be converted into habitable accommodation, this constitutes building work for Building Regulation purposes.

It is classified as a 'Material change of use' as you are changing a non-habitable space into a habitable space.

What do we need to do and what regulations apply?

a) Firstly the garage must be structurally sound.
b) Secondly it needs to be water and weather proof.
c) Thirdly, it needs to be insulated for comfort and energy conservation.
d) Lastly it needs to be ventilated to assist healthy living.

How does your garage square up to the requirements? There are two basic types of construction for garages.

a) Single thickness wall (100mm) see diagram 1.
b) Double thickness wall i.e. (cavity wall) 250mm see diagram 2.

To upgrade a single wall type garage you can use one of the following:

a) New inner skin added masonry and cavity Insulation. See diagram 3.
b) New inner skin added masonry and thermal laminate Insulation. See diagram 3A.
c) New inner skin of timber/metal frame and timber floor. See diagram 4.
d) Tanked wall with thermal laminate and screeded floor. See diagram 5.

To upgrade a cavity wall type garage you can use one of the following options;

a) Provide cavity wall insulation with dry lining plasterboard, see diagram 6.
b) Provide thermal laminate board and timber floor, see diagram 7.
c) A timber stud with insulation could also be provided with screed floor, see diagram 8.

New door opening.

Where a new door opening is needed to access the room then suitable lintels will need to be installed to support the wall and floor loading above, usually a pre stressed concrete lintel will suffice, your building inspector will advise.

Floor upgrade.

Usually the garage floor is up to 100-150 lower than the house floor, to upgrade is usually a simple matter, and you can provide either of the following;

a) Floorboards on timber make up joists on a suitable damp proof membrane with insulation between the joists. See diagram 4 or 7.
b) Screed on insulation and a suitable damp proof membrane. See Diagram 3, 5, 6 or 8.

Glazing and means of escape.

Windows would need to be double glazed with low Emissivity glass and provision made for openable vents, usual opening aperture of 5% of the floor area it serves.

If the area is accessed from another room then an openable sash must also be provided for escape purposes should there be a fire. The size of the openable sash must be a minimum of 450mm in either direction and cover an openable area of 0.33m2 with a cill height not exceeding 1100mm from the finished floor, the room would also require trickle ventilation of around 8,000 mm2

Garage door area.

Wall construction to replace the door area would comply with the current methods of construction inclusive of new foundations if none were present, see diagram 3.

Roof insulation.

The roof void above may already be insulated, if not, 250-300mm of fibreglass or mineral wool will be required in the roof void, (Care to be taken not block up any roof ventilation).

Flat roofs need special consideration, due to headroom, ventilation and flashing positions, consult the building inspector for advice.

If there is a room above the garage the garage ceiling may already be insulated, if not, provide 140mm of fibreglass or mineral wool between floor joists and re-board.

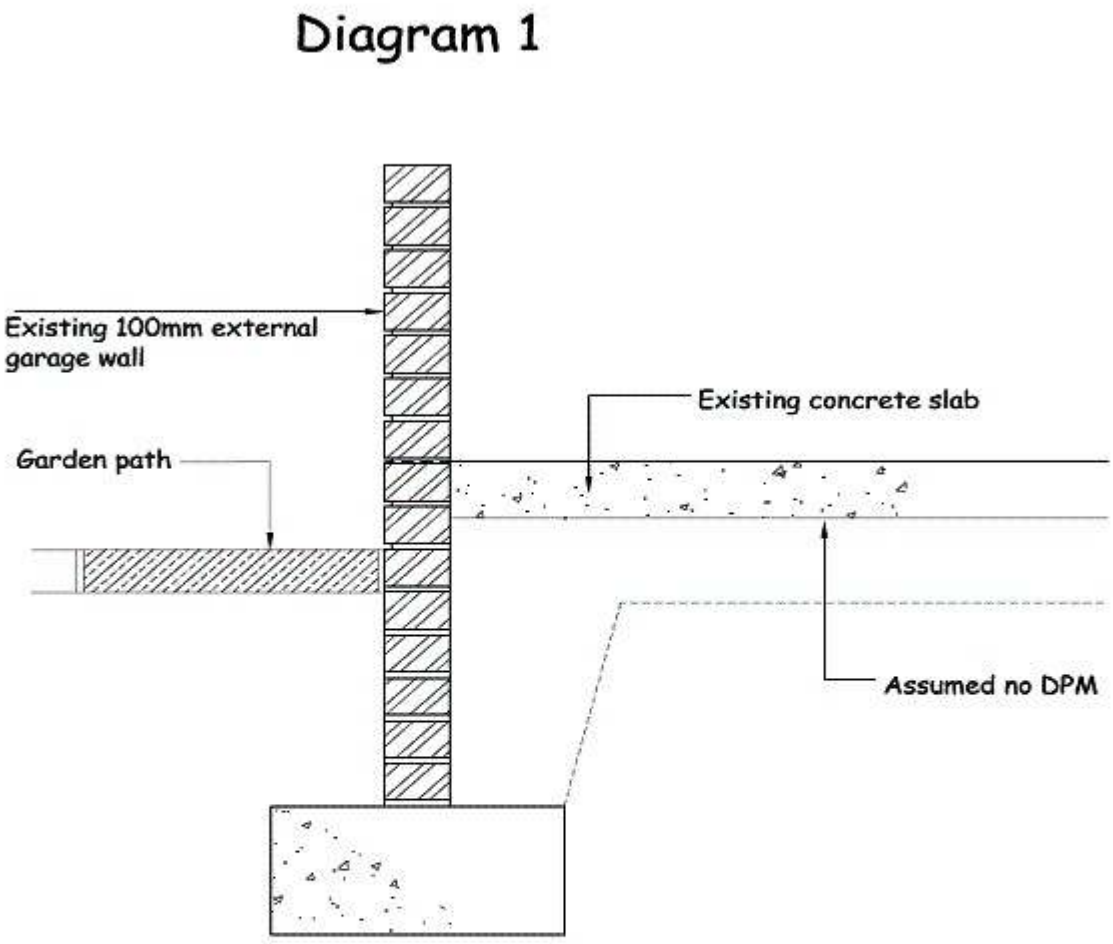
Electrical circuits.

If new circuits are added they will need to go back to the consumer unit and be inspected and tested, you will either need a registered self certifying electrician or supervision via your local authority building inspector.

Wet rooms.

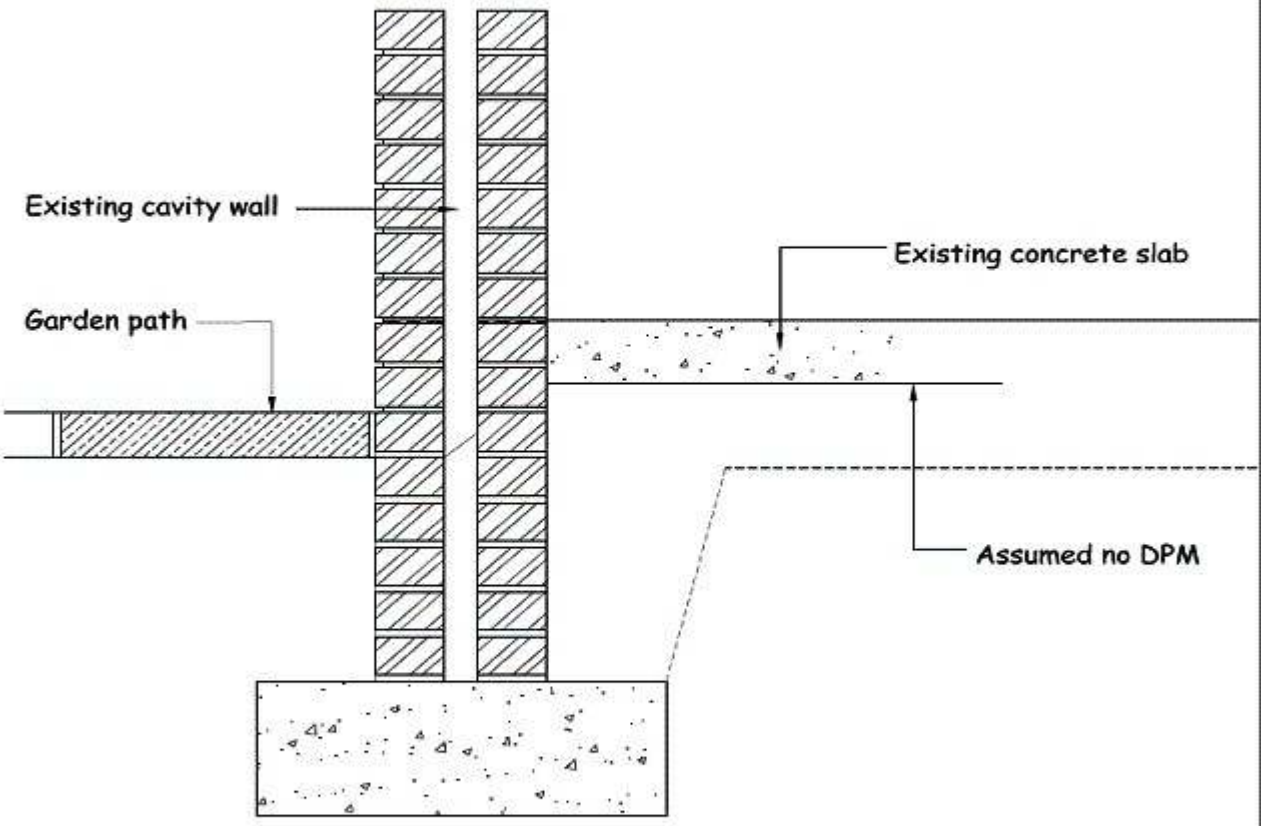
If the garage is to be turned into a wet room, (Shower, Kitchen, Bathroom, WC or Utility room) then other requirements will have to be met. Drainage will have to be provided and usually electrical mechanical fans. Discuss your proposal with your building inspector.

Diagrams



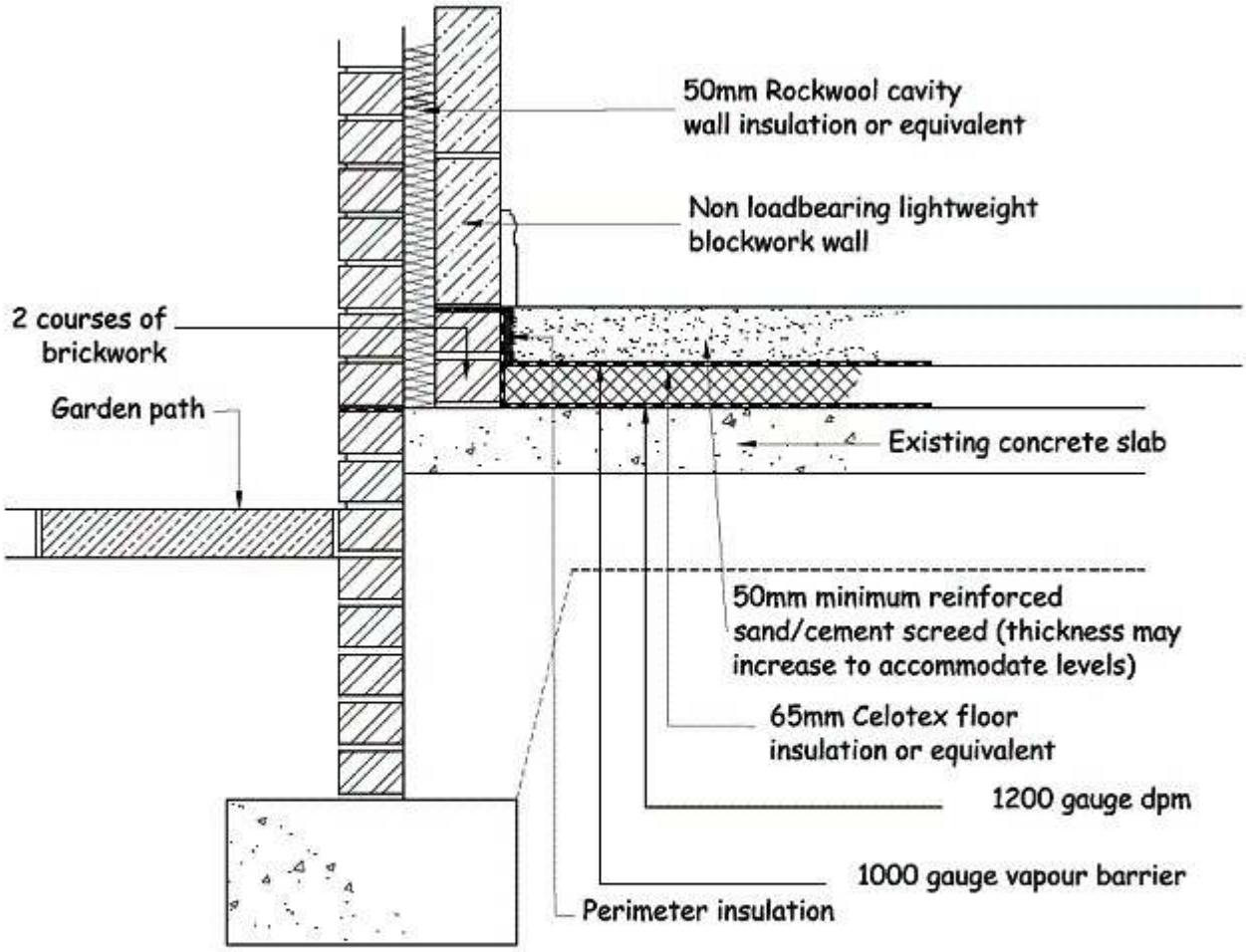
Existing Single Skin Garage Wall
Scale 1:10

Diagram 2



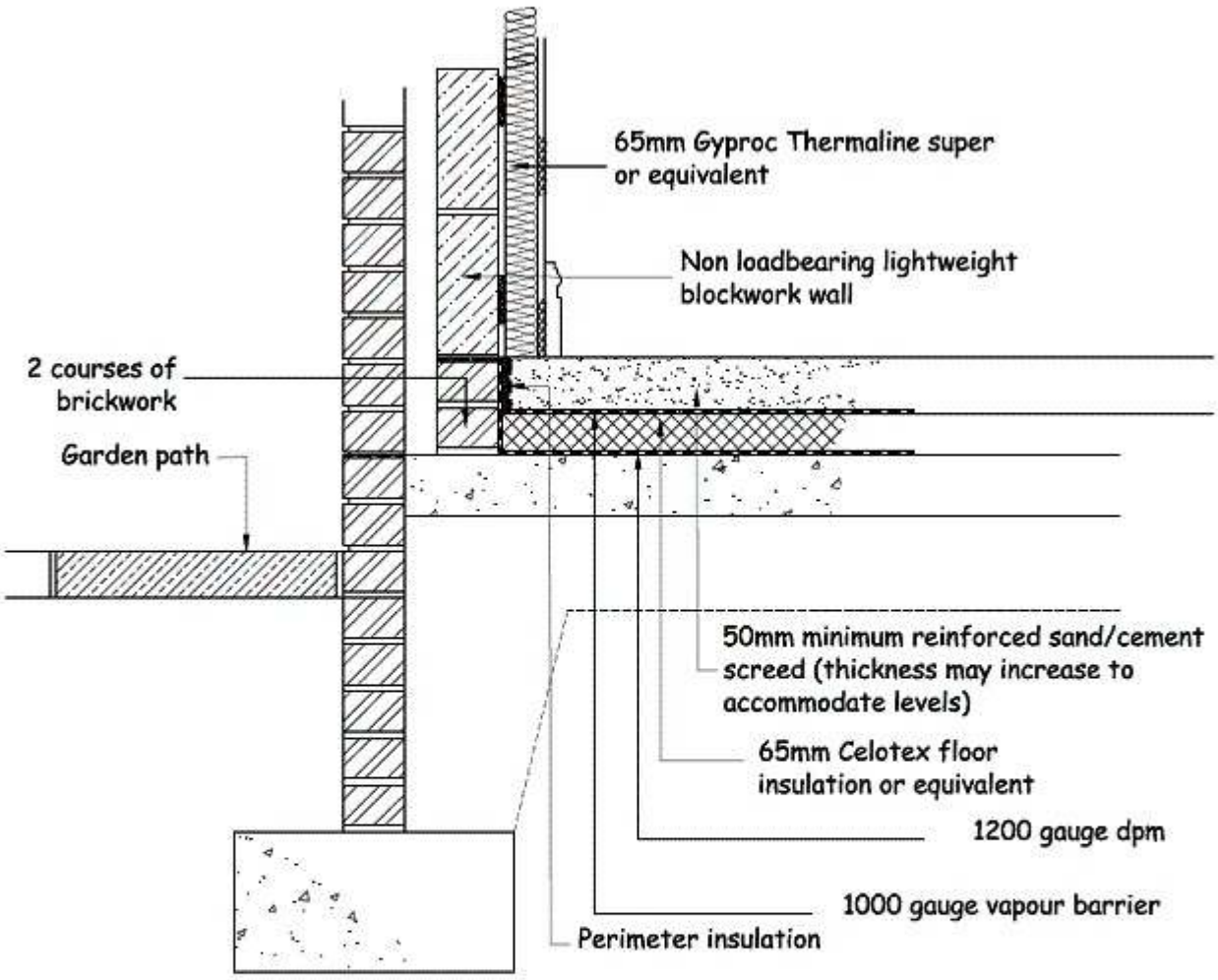
Existing Cavity Wall
Scale 1:10

Diagram 3



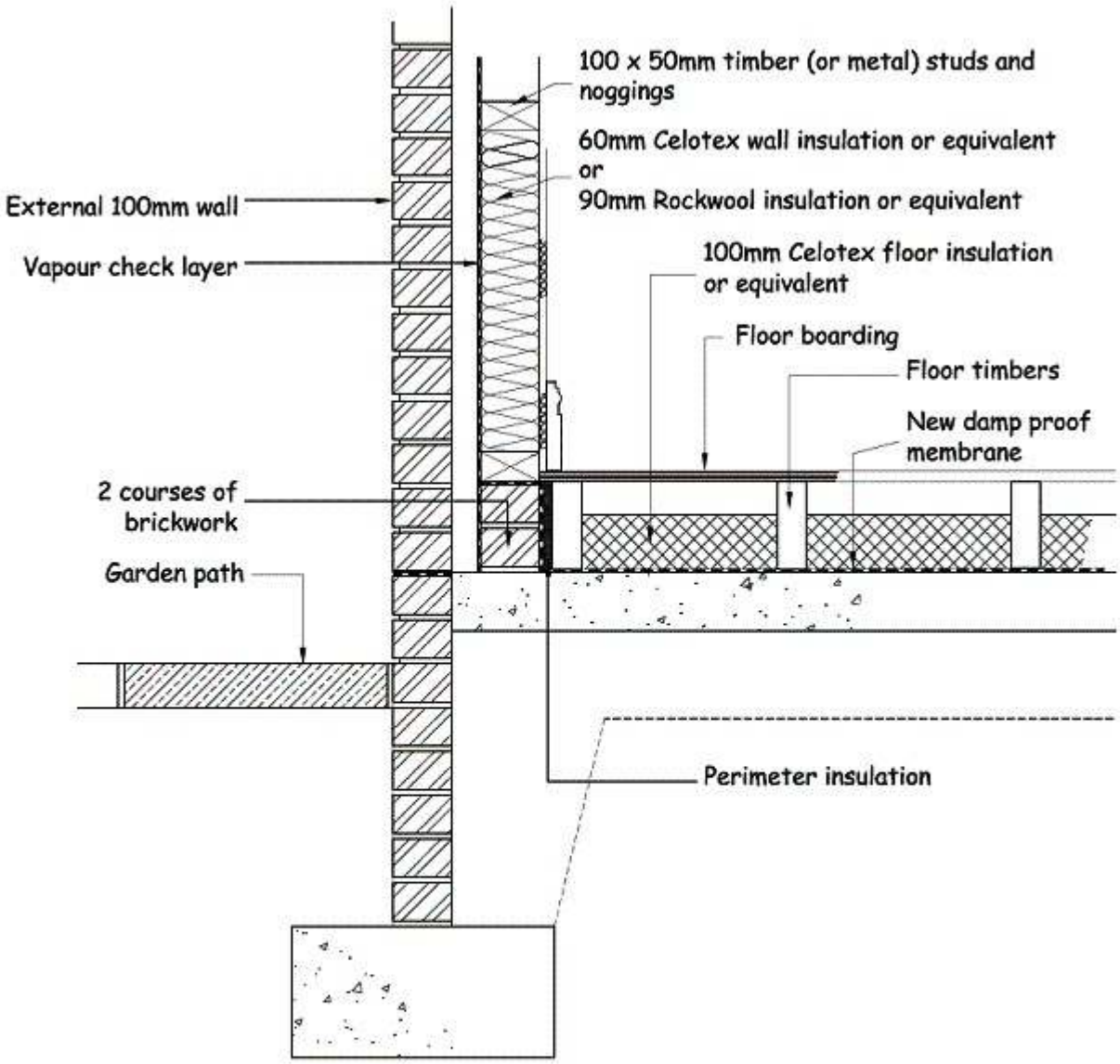
New Inner Wall & Cavity Fill
Scale 1:10
Wall U Value better than 0.35

Diagram 3A



New Inner Wall & Thermal Laminate
Scale 1:10
Wall U Value better than 0.25

Diagram 4



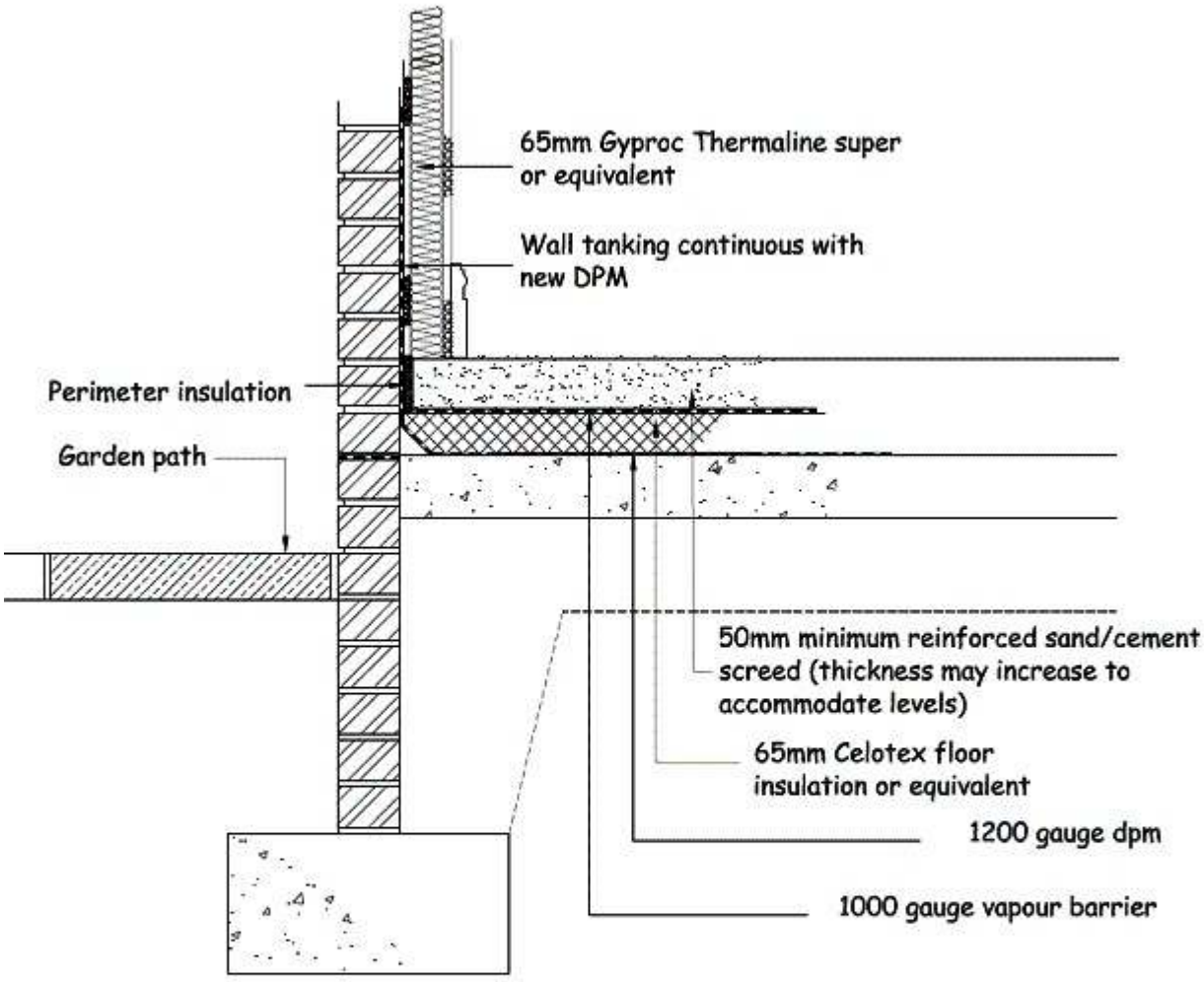
New Timber/Metal Frame Stud Wall & Timber Floor

Scale 1:10

Wall U Value better than 0.35

Floor U Value better than 0.25

Diagram 5



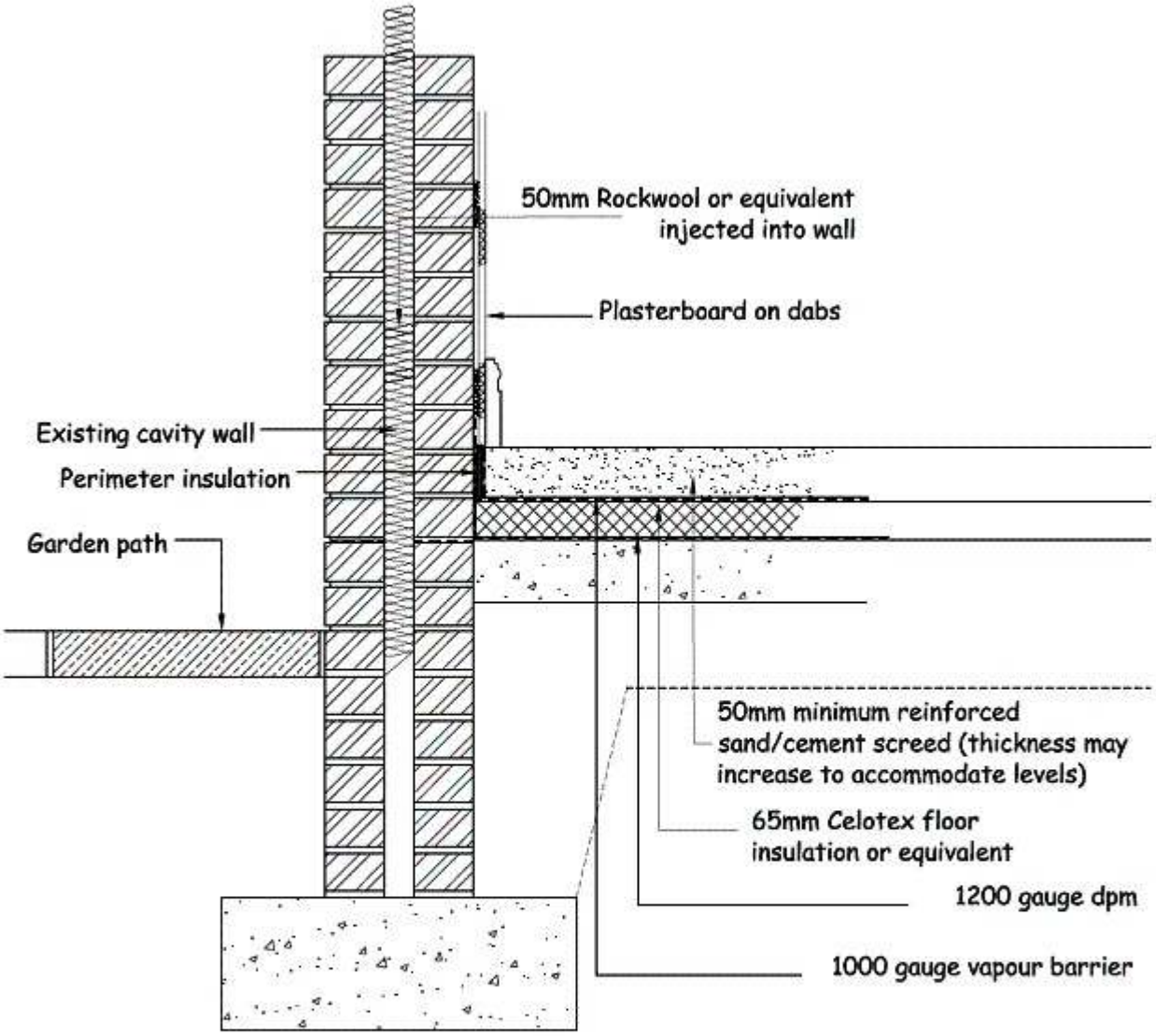
Improving Existing 100mm Wall

Scale 1:10

Wall U Value better than 0.35

Floor U Value better than 0.25

Diagram 6



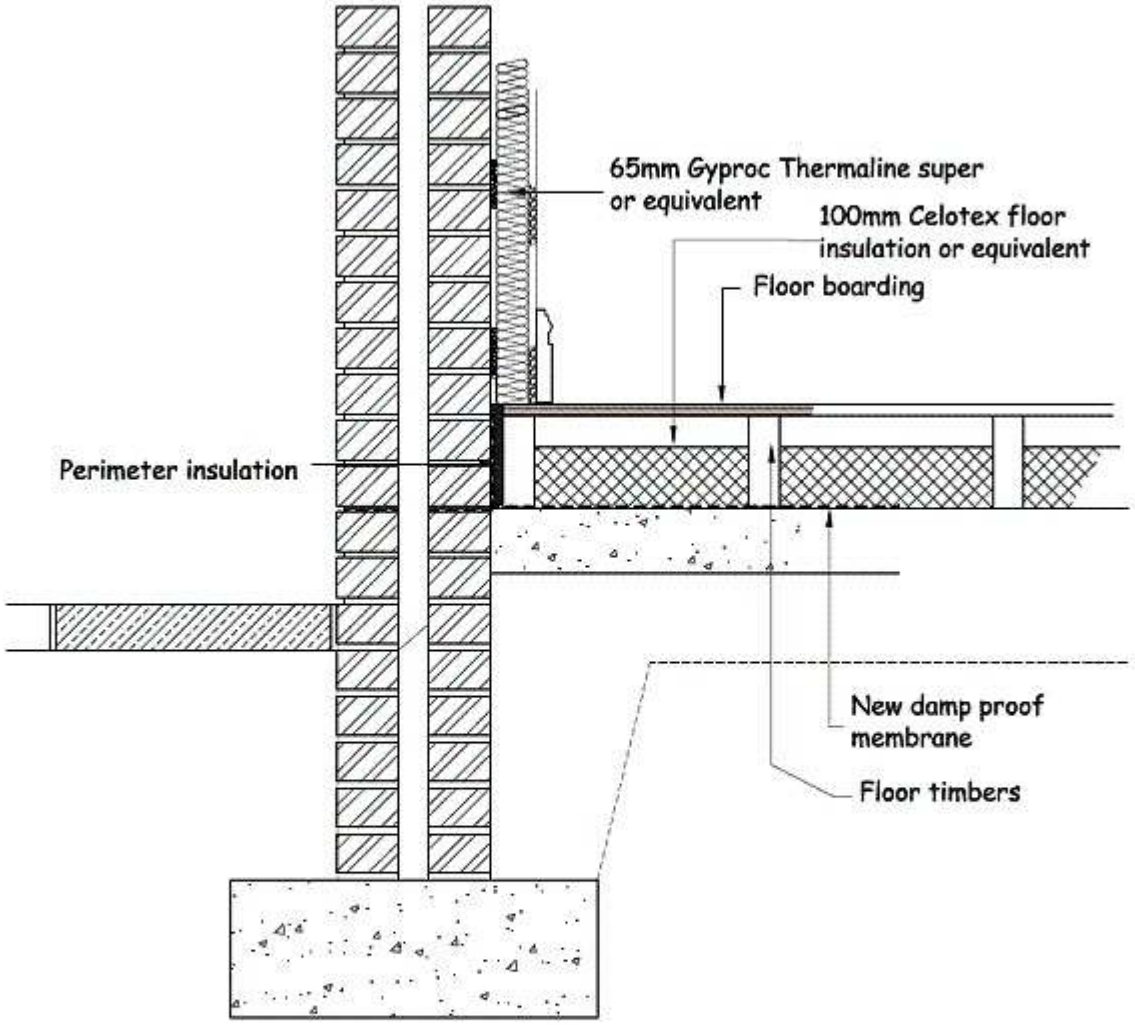
Improving an Existing Cavity Wall

Scale 1:10

Wall U Value better than 0.55

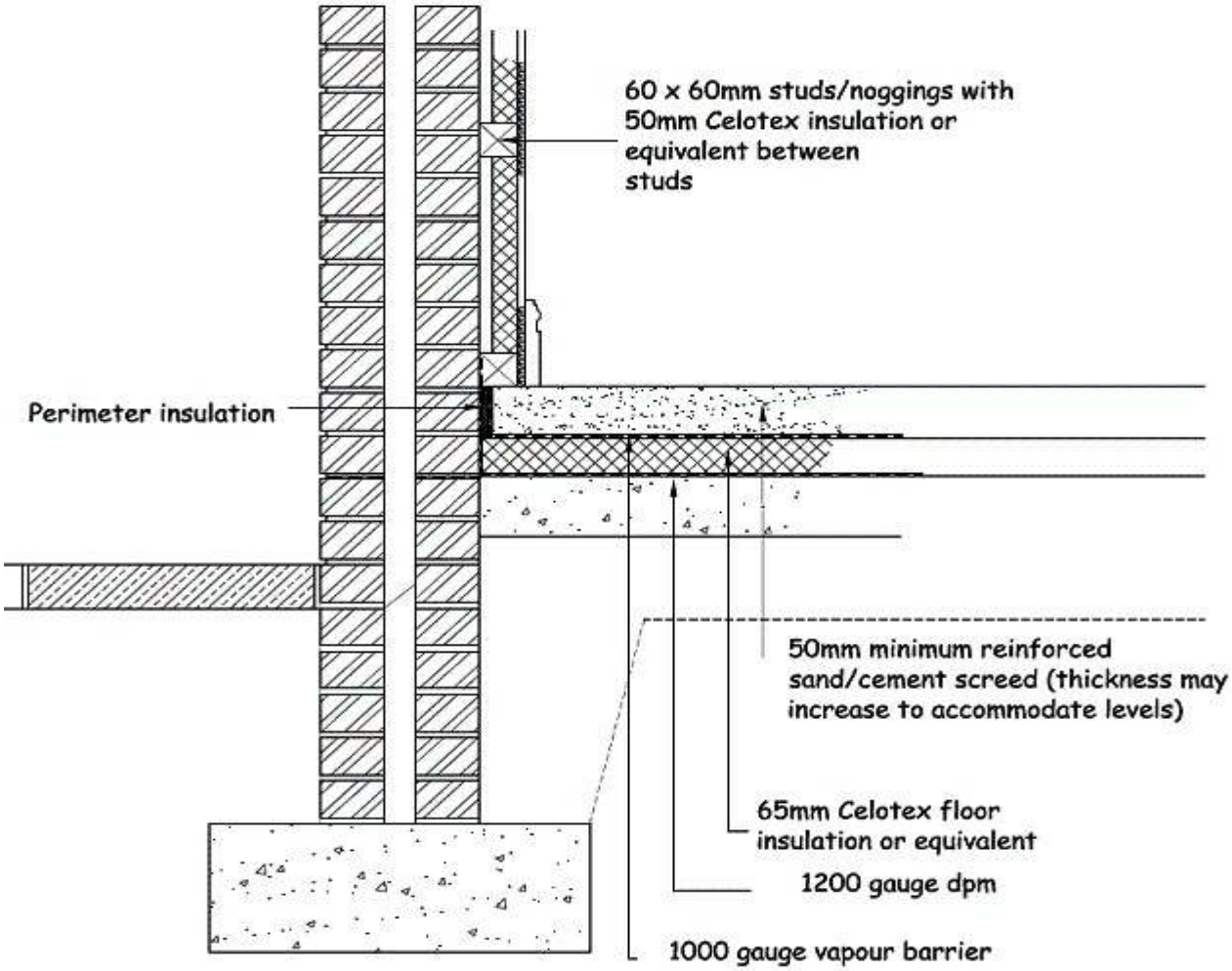
Floor U Value better than 0.25

Diagram 7



Cavity Wall with Thermal Laminate
Scale 1:10
Wall U Value better than 0.35
Floor U Value better than 0.25

Diagram 8



Improving an Existing Cavity Wall

Scale 1:10

Wall U Value better than 0.35

Floor U Value better than 0.25