

# FOUNDATIONS Garages, Open Barns & Carriage Houses

The foundation details shown on this drawing will suit most locations. In the event of poor ground conditions or the proximity to mature trees, a local structural engineer should be consulted. It is inadvisable to commence work on the foundation in advance of Building Regulations approval.

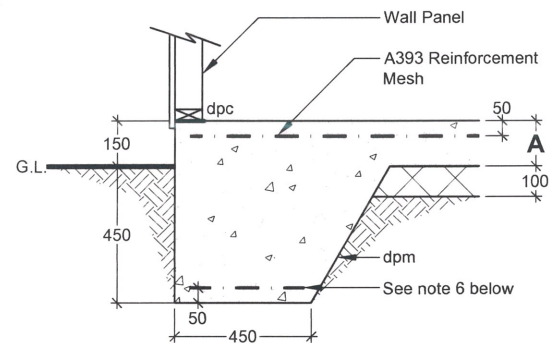
Slab thickness is dependent upon ground conditions.

- Weak:** i.e. easily deformed un-drained clays and silts with high water table **A = 175mm**  
**Normal:** i.e. all clays with satisfactory drainage. Water table below 0.6m **A = 150mm**  
**Very stable:** i.e. sands and gravels to minimum depth of 1m **A = 125mm**

Source: BRE and Cement & Concrete Association design guide

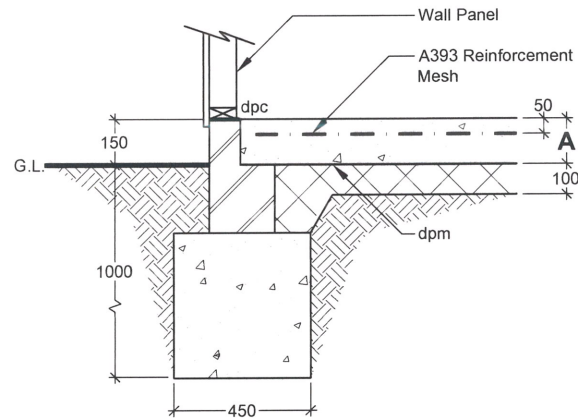
## CONCRETE RAFT FOUNDATION

Not to scale



## CONCRETE TRENCH FOUNDATION

Not to scale



- Excavate topsoil and perimeter trench.
- Lay and consolidate a minimum of 100mm of sand blinded hardcore except in the perimeter trench.
- Set up edge forms accurately to the external dimensions shown such that top of slab will be 150mm above surrounding ground level (except in vicinity of vehicle entrance ramp).
- Lay 1200 gauge Visqueen dpm over hardcore.
- Incorporate 1 layer of A393 reinforcement mesh on proprietary support chairs to give 50mm cover.
- If soft areas of bearing strata are encountered, straddle with 1 layer of A393 reinforcement mesh in bottom of trench with 50mm cover.
- Pour RC30 grade concrete in trenches and over floor area and smooth tamp.
- Allow 7 days for concrete to cure and remove shuttering before delivery of building.

- Excavate perimeter trench.
- Pour Gen 1 grade concrete in the trench.
- Lay perimeter brickwork to the external dimensions shown such that top of brickwork is 150mm above surrounding ground level (except in vicinity of vehicle entrance ramp).
- Lay and consolidate 100mm of sand blinded hardcore inside the brick perimeter.
- Lay 1200 gauge Visqueen dpm over hardcore.
- Incorporate 1 layer of A393 reinforcement mesh on proprietary support chairs to give 50mm cover.
- If you wish to avoid brickwork across garage door thresholds, omit top 2 courses of brickwork and shutter to external face of brickwork.
- Pour RC30 grade concrete level with top of brickwork and smooth tamp.
- Allow 7 days for concrete to cure and remove any shuttering before delivery of building.

## POSITION OF FOUNDATION

To provide access for erectors and for subsequent maintenance, position foundation a minimum of 1m from boundaries and other buildings.

## ENTRANCE RAMP

Set top of ramp minimum 25mm below top of foundation. This will reduce the ingress of wind driven surface water. Ramp should fall from building. Alternatively, incorporate drainage across doorways.

## RE-USE OF EXISTING FOUNDATIONS

Existing foundations are unlikely to be the correct size. If a building is erected onto oversized concrete, rainwater may pass underneath the timber soleplate. Assuming the existing foundation is sound and with the approval of Building Control, create a raised plinth by laying two courses of brickwork to the external dimensions shown and infill with concrete. Refer to CONCRETE TRENCH FOUNDATION points 5 to 9 above.

## RAINWATER DISPOSAL

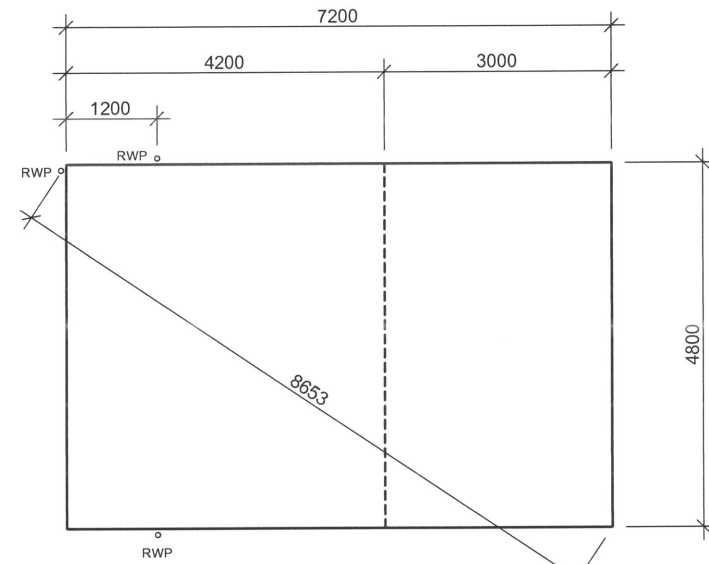
Gutters and down pipes are an optional item from Passmores. Recommended down pipe positions are shown. The groundworks contractor should provide 100mm upvc gullies, positioned 25mm away from edge of foundation, and pipes bedded and surrounded in minimum 150 pea shingle to soakaway (size and type to be determined by site conditions) minimum 5m from building.

## GARAGE DOORS

Garage door apertures have no threshold and rainwater leakage can occur, particularly on elevations facing the prevailing weather. In the event of leakage consider installing one of the proprietary garage door threshold seals such as Weather Stop Ltd. Surface water is less likely to be blown under a garage door if the approach ramp is kept a minimum of 25mm below top of foundation.

## PLAN VIEW

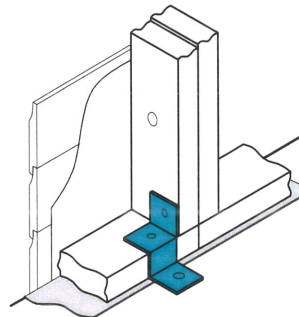
External dimensions of foundations shown.  
Allow for roof overhang when setting out.



Dotted line indicates position of partition.  
This makes logical break point when casting slab in bays.

## GROUND ANCHORING

Passmores will drill the foundation. Anchor brackets are secured with M10 x 70 concrete screws and M6 x 40 coachscrews.



## DOUBLE CHECK MEASUREMENTS AND LEVELS BEFORE DELIVERY

We require:

**Dimensions:** not to be exceeded nor to be more than 25mm undersize (i.e. +0 -25mm)

**Levels:** not to differ by more than 12mm

**Squareness:** diagonal measurements not to differ by more than 12mm

All dimensions are in millimetres.

Use a steel tape.

Measure direct in metric; conversion to Imperial tends to error.

Please ensure that the site is clear of obstructions, trenches and other hazards prior to delivery of the building

## IMPORTANT

- Do not lay an oversize base. Weathering is dependent upon wall cladding overhanging edge of base.
- Please do not assume that an alternative design of foundation will suit. Before deviating from this drawing contact Passmores.
- Carry out an independent check of finished base dimensions.

# PASSMORES

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Customer

Mr. R. Cole.  
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Stoke-By-Clare,  
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Description

7.2m x 4.8m  
Carriage House & Cart Lodge

Rev	Description	Date
A	Building reconfigured.	20.10.2023

Date	Scale	Drawn	Checked
11.10.2023	1:100 @ A3	J.M.D	

Drawing No	Rev
GF-75405	A

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