

# Building Stables for Horses

Series No. 1

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**The design and construction of stabling is vitally important for the health and safety of horses, for accessibility and the future development of the property. It is important to follow correct procedures when designing and constructing stables to ensure a low maintenance requirement for many years.**

The following notes provide an outline of the procedures involved in building stables for horses and the specifications for building under the Department of Agriculture, Fisheries and Food schemes.

## Planning Permission

Under the Planning and Development Act 2000 (Part 3 Exempted Development) stables are listed in class six as being exempt from planning permission provided the following are adhered to:

1. No such structure shall be used for any purpose other than the purpose of agriculture
2. Such structures include provision of roofed structure for housing of cattle, sheep, goats, donkeys, horses, deer or rabbits
3. New structures not within 100m of other such structures does not exceed 200m<sup>2</sup> in gross floor space (whether or not by extension of an existing structure)
4. Gross floor space of such structure together with any other such structures situated within the same farmyard complex or within 100m of that complex shall not exceed 300m<sup>2</sup> gross floor space in aggregate
5. Effluent storage facilities adequate to serve the structure having regard to its size, use and location shall be constructed in line with Department of Agriculture, Fisheries and Food and the Department of the Environment, Heritage and Local Government requirements and shall have regard for the need to avoid water pollution

6. No such structure or effluent from such structure shall be stored within 10m of a public road
7. No such structure or effluent from such structure shall be stored within 100m of any house (other than the house of the person providing the structure) or other residential building or school, hospital, church or building used for public assembly, save with the consent in writing of the owner and, as may be appropriate, the occupier or person in charge thereof
8. No unpainted metal sheeting shall be used for roofing or on the external finish of the structure

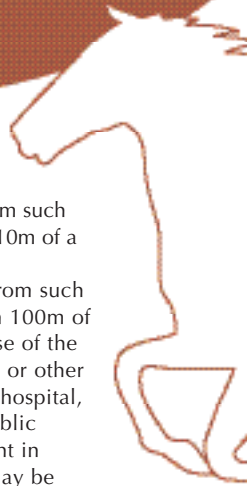
## Site

Consider the following when choosing a suitable site for the stables:

- Choose a well drained site, not subject to flooding
- Use high ground if possible
- Shelter from the south west
- Ensure ease of access for machinery and horse boxes
- Make use of any existing roadways and services (ESB and water)
- Convenient to fodder, waste storage and other facilities
- Clean water from roofs and yards shall be piped away to avoid contamination with soiled surfaces

## Recommended Specifications for New Stables

There are many options when designing housing for horses. They may be housed separately in loose stables or stalls, or paired in loose stables, or loose-housed in groups of three or more. Loose stables or stalls may be built separately; or built together in various arrangements; or grouped together under a single roof (American barn – see Appendix 1)



## Stable Sizes

### Stables

The size of stables will depend on their expected use:

- For ponies/small horses the minimum size should be 8m<sup>2</sup>, with 2.8m the minimum length of the shorter wall
- Stables for larger horses should be in the range 11m<sup>2</sup> -20m<sup>2</sup>, and be as square as is practical
- Stables for foaling should have a minimum size of 20m<sup>2</sup>, with 4m the minimum length of the shorter wall
- Stables for stallions should be at least 15m<sup>2</sup> with 3.5m the minimum length of the shorter wall
- The maximum size for a foaling box or for a stallion stable is 25m<sup>2</sup>, for other stables the maximum size is 20m<sup>2</sup> (under the Schemes)

### Stalls

- Stalls should be at least 1.8m long (including trough space) and 1.5m wide
- The service passage behind the stalls to be at least 2m wide for a single row of stalls, and 3m for a double row
- Feeding passages, where used, to be at least 1m wide
- Stall dividers to be 1.4m high

### Loose Housing

For loose housing (group housing of three or more animals). The following floor areas are suggested, with the lower figure being the minimum.

- Weaned Foal: 2.5m<sup>2</sup> – 4m<sup>2</sup>
- Yearling: 4 m<sup>2</sup> – 6 m<sup>2</sup>
- Adult Horses: 8m<sup>2</sup> – 12m<sup>2</sup>
- Mare and Foal: 12m<sup>2</sup> – 16m<sup>2</sup>

## Construction

### Foundations

- Foundations for walls should be excavated to a depth of 600mm below ground level, or until firm strata is encountered

- Concrete footings at least 225mm deep and as wide as the wall to be carried plus 225mm on each side are desirable

### Walls

- 225mm block with continuous wall plate to support the roof or 450mm x 450mm blockwork piers as roof supports
- Infill walls between stanchions or piers at 4.8m centres (or less) of 150mm solid blockwork firmly secured to stanchions/piers
- Internal walls of 150mm solid blockwork
- Damp-proof course fitted not less than 100mm above floor or yard level
- Walls not less than 2.4m high
- Minimum eaves height of 3m
- Walls may also be of 200mm mass concrete with pillars at 6.4m, or 150mm where built between stanchions at 4.8m centres
- Horizontal cast-rail 1.3 -1.5m from the floor is recommended (groove 12mm deep at the top and sloping down 50mm to meet flush with the plastered wall)

### Floor

- 100mm concrete on 150mm well compacted hardcore
- Slope in stables or stalls or loose houses at least one in 60
- Floored central passage in American barn houses at least 4m wide
- Grooved or otherwise slip-resistant floor finish is recommended



## Roof Structure

For individual grouped loose stables:

- Timber purlins 150mm x 75mm for metal sheets and spaced at 1.8m centres
- Timber purlins 175mm x 75mm for fibre-cement sheets and spaced at 1.4m centres
- Wall plates 100mm x 75mm secured to the wall at 2m centres
- Timber fully treated, of good quality and free from serious defects
- Roofs under tiles or slates of traditional construction with batten spacing in accordance with manufacturer's instructions
- Gutters and down pipes fitted to all roofs and arranged so as not to discharge onto soiled yards

## Permanent Open Ventilation

- Opening windows or opening half-doors is not included in the required inlet or outlet areas given below
- Air inlets should be at least 2m above floor level and air outlets at least 1m above the inlet
- Inlet area of 0.3m<sup>2</sup> per adult animal
- Outlet area of 0.15m<sup>2</sup> per adult animal is required though 0.3m<sup>2</sup> per adult animal is strongly recommended
- Inlet area is defined as the aggregate area of all unobstructed air inlets. For example if Yorkshire boarding, or other system is used to reduce wind speed, the area of the timber or plastic is not part of the inlet areas
- American barns should have a ridge opening at least 300mm wide. If a ridge cap is fitted, there should be a clear space of at least 175mm on both sides between the cap supports and the roof

## Lighting

- Translucent roof sheets can be installed in American barns and loose houses to provide sufficient even natural light
- Roof lights or windows or permanent open grids can be installed in loose stables or stalls to provide sufficient natural light
- Windows should be at least 2m from floor level, and protected on the inside

- Artificial lighting, normally fluorescent tubes, must be in damp-proof fittings and should be installed with one fitting per loose stable, or equivalent.
- All electrical work must conform to the 'National Rules for Electrical Installation'
- Switches must not be fitted inside stables, and all conduit and sockets must be out of reach of animals

## Doors

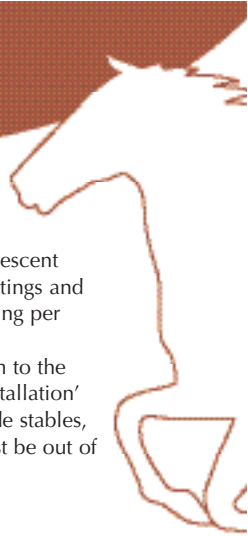
- 2.4m high and 1.2m wide.
- In barns sliding doors should be fitted to all stables
- Doors to external stables may be hinged or sliding
- Hinged doors should have fittings to allow secured fixing back to the wall
- Sliding external doors 3m high fitted to American barns and loose houses

## Water Bowls and Manger Fittings

- Each box should be fitted with a water bowl and manger at 0.9- 1.1m from floor level
- Where water bowls are not fitted there should be a tapped water supply closely adjacent to the stable(s)
- A tying ring 1.5 –1.7m from floor level should be fitted
- Loose houses should be fitted with water bowls and tying rings
- Stalls should be fitted with water bowls, troughs and tying rings

## Apron

- A working apron, minimum 2m wide should be provided along the front of loose boxes and loose houses
- 125mm concrete on 150mm well compacted hardcore
- Extended roof or canopy 1m – 1.5m wide provided over the apron
- No part of the canopy should be less than 2.4m from floor level



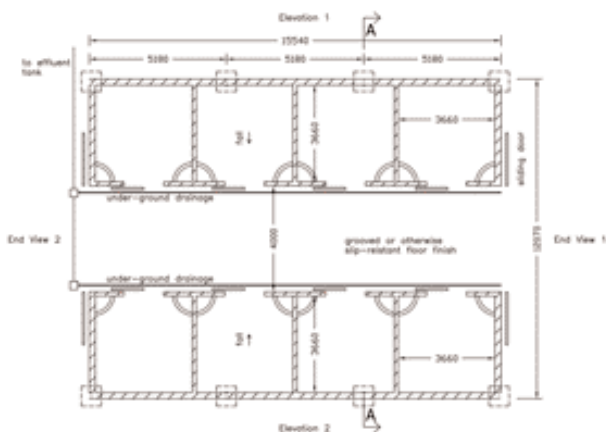
## Waste Disposal

- A shallow channel 30mm deep to collect wash water should be provided outside each stable or behind each stall, connected to a soiled water tank
- If the tank is separate it should have a minimum size of 0.3m<sup>3</sup> to accommodate six horses, with an additional 0.05m<sup>3</sup> for each extra horse
- The channel may, however, also be connected to any suitable larger tank in the yard
- A manure pit should also be provided. Depending on straw usage per animal, the pit should be sized to accommodate 0.59m<sup>3</sup> of FYM per animal per week. The number of weeks manure must be stored for is dependent on the nitrates zone attributed to the farm.
- If the manure pit is not roofed, then the run-off must be drained to a suitable tank also for the given nitrates zone period.



Please refer to [www.agriculture.gov.ie](http://www.agriculture.gov.ie) for a more detailed version of all specifications relevant to stabling and manure pits under the Farm Buildings section of the site. The relevant specifications include *S101, S102, S108, S156 and S157.*

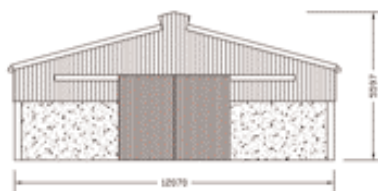
## American Barn



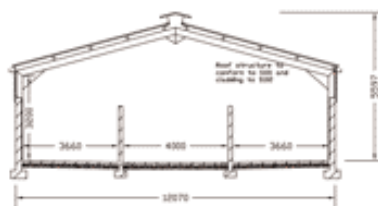
Note: All buildings to be constructed to current relevant Department of Agriculture Specifications. All dimensions are in millimetres. All dimensions to be checked on site.

Plan View

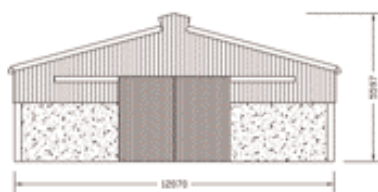
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Client	Department of Agriculture
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Drawn by	...
Checked by	...
Approved by	...



End View 1



Section A/A

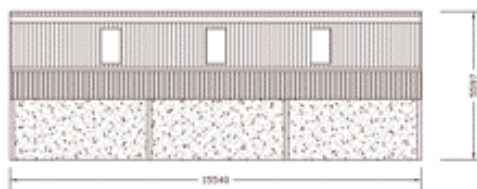


End View 2

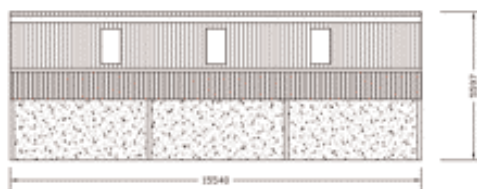
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## End Views and Section A/A

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1:1	1:1	1:1	1:1
1:1	1:1	1:1	1:1



Elevation 1



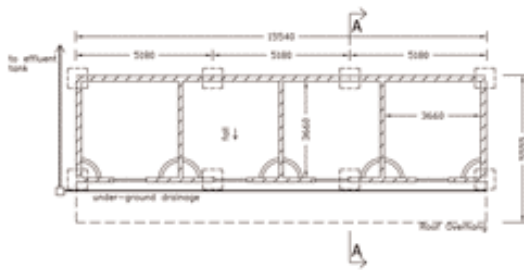
Elevation 2

Note: All buildings to be constructed to current relevant Department of Agriculture Specifications.  
 All Dimensions are in millimetres.  
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## Elevations

Drawn	Checked	Scale	Project No.
1:1	1:1	1:1	1:1
1:1	1:1	1:1	1:1
1:1	1:1	1:1	1:1

# Linear Stable



Plan View

Note: All buildings to be constructed to current relevant Department of Agriculture Specifications.  
 All Dimensions are in millimeters.  
 All Dimensions to be checked on site.

Project No.	13/01/2014
Client	Mr. J. J. J. J.
Site No.	13/01/2014
Scale	1:50
Author	J. J. J. J.
Check	J. J. J. J.
Date	13/01/2014

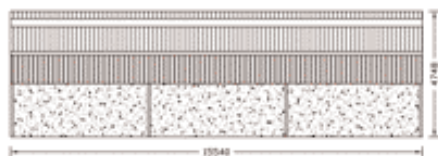


Section A/A

End Views

Note: All buildings to be constructed to current relevant Department of Agriculture Specifications.  
 All Dimensions are in millimeters.  
 All Dimensions to be checked on site.

Project No.	13/01/2014
Client	Mr. J. J. J. J.
Site No.	13/01/2014
Scale	1:50
Author	J. J. J. J.
Check	J. J. J. J.
Date	13/01/2014



Elevation 2



Elevation 1

## Elevations

Note: All buildings to be constructed to current relevant South Coast of Agriculture Specifications.  
 All dimensions are in millimeters.  
 All dimensions to be checked on site.

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Rev.	2	Revised	2014/01/14
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