



Dogs Trust Property: **Kennel Design**

Paul Wass, June 2021





Dogs Trust Kennel Design

Any dog kennel facility needs to be designed so as to provide the dogs with the five needs.

They are:

- Need for a suitable diet.
- Need to be protected from pain, injury and disease.
- Need for a suitable environment.
- Need to be housed with or apart from other animals.
- Need to express normal behaviour patterns.

The kennel design that Dogs Trust build directly addresses all of these five points, by:

1. Providing kitchen facilities from which we regularly feed the dogs and they have water bowls in the kennels that are always kept topped up.
2. The kennel facilities are designed so that the dogs are kept safe and cannot injure themselves on the fixtures and finishes, by ensuring there are no sharp points or edges, no gaps too big for paws or legs to get stuck in and all electrical and water supplies are kept at a height where the dogs cannot get access to them. All our centres will have either a Vet assessment room or a fully functioning Vet suite where the dogs can be treated if there are any injuries.
3. We provide heated and unheated tiled floors in the sleep areas so that the dogs can choose where they lie. They have access at all times to their run areas via a dog flap in the door between sleep and run, the run floor is unheated and tiled, and is designed so that there is shading from solar gain. The dogs are also provided with suitable bedding and beds for them to lie on. The kennels are ventilated via a simple extraction system and some of the kennels will have additional heating via infra-red lamps. The sleep areas have their own integral drainage channels that are separate from the adjacent kennels so that there is no risk of cross contamination.
4. The kennels are designed to provide the dogs with a 'safe' sleep area. There are doors that canine carers can use to access both the sleep side and the run side of the kennel and there is a human door between the sleep and run areas that houses the dog flap and sliding hatch that is operated via a counterbalance pulley system. Our standard operating procedure (SOP) is that we only use the access door to the sleep side of the kennel in an emergency and that all normal day to day interaction with dogs is via the run side of the kennel. This has shown that the dogs quickly become accustomed to not expecting any interaction from the sleep side and only feel that they have to protect or react to interaction coming from the run side of the kennel. In our rehoming kennels which have a glass front that public can view the dogs through, there is also an emergency only access door, but as this door is rarely used the dogs tend not to react or react less to the public viewing them than in previous designs where we accessed the kennels at all times from both sides. The benefit of this SOP is that the dogs are much less stressed and calmer when in the kennel, treat their sleep area as a safe area where they can go to lie down, to rest and sleep without the need to be on alert as people pass by in front of them. There is also a low height barrier installed in the rehoming kennels, one meter in front of the glazed screen to provide additional distance between the viewing public and the dogs, again this helps to decrease the levels of stress and concern for the dogs.
5. We provide exercise areas where the dogs can be free to run around and interact off lead. There are different surfaces including artificial grass and sand and there are exercise platforms that the dogs can climb on and play around.



Kennel Description and Sizes

The Kennels are made up of two areas, sleep and run. Both areas are approx. 4m² giving a total of 8m² in total. Ceiling heights should be at least 2m high to provide easy access for the canine carers when cleaning or interacting with the dogs.

The sleep area is constructed within the insulated and heated envelope of the building and the run area is unheated and covered with a roof to provide shelter from the wind and rain and should be designed to provide solar shading from the sun.

The sleep and run areas are connected by a human height door that incorporates a side hung dog flap and a top hung sliding hatch that can close over the dog flap. This flap is operated by a counterbalance weight system operated from the run corridor side of the kennel.

Both sleep and run kennels have access corridors running along their length.

The front of the sleep kennel will have either a glass front with emergency access door in the rehoming (viewing) kennels or a half glazed UPVc door in booked or intake kennels. Again, this door is only used for emergency access.

The front to the run side of the kennels will have a stainless-steel barred screen incorporating a run gate. The cage work is set back 300mm into the walls that form the kennel partitions to provide a barrier or recess so that the dogs when being taken out of their kennels cannot turn onto their neighbours.

An acoustic screen is fitted to the outside of the run corridor forming the external envelope of the kennel building. This is constructed from UPVc and is half glazed. There is a door in the screen opposite the door to each kennel run gate to allow dogs to be taken directly out from the building. The screen as described provides acoustic retention within the kennel building and as it forms the outer secure line of the building allows us to give the dogs access to their run areas overnight. Without this screen dogs would have to be locked into their sleep areas. Access to the run overnight allows the dogs to use this area for toileting and also for those dogs that prefer cooler environment another option for where they may want to sleep.

Heating and Ventilation

There is a wet underfloor heating system installed in the floor that heats 2/3 of sleep floor area with 1/3 unheated. There is no heating in the run area or run access corridor.

The heating is designed to operate within the parameters of a minimum temp 10 degrees Celsius and a maximum 18 degrees Celsius in the winter.

There are no max temperature controls within the kennels. There is no air conditioning in the kennels. The building is designed with solar shading and orientation, natural ventilation, and air flow, so that on hot days the temperature within the building although warm for a few hours, will be comfortable and the dogs have access to a cool surface to lie on out of direct sunlight. This design ethos of natural ventilation follows throughout the human areas of the building except in the Vet suite where air conditioning is installed.

Fresh air supply into the sleep area is made up naturally from around the gaps in the dog flap and extracted through a grill in the sleep ceiling. The grills are connected to a duct



system that has fan that pulls the air through. The extract rates in the kennels are set at a domestic rate and can be adjusted from one to four air changes per hour. Heat recovery system that captures the heat in the winter and provide tempered air are normally installed in the human areas only.

Lighting

All areas of the kennels and the building as a whole should have as much natural lighting as possible, but this needs to be carefully designed to stop overheating. Electrical that should be provided in both the sleep, run and access corridors. Lighting should be LED and controlled via timers and timed switches so that lights cannot be left on unnecessarily and to provide a lit rehoming kennel sleep area during public opening hours.

Materials

The walls are constructed from either blockwork or metal studwork finished with a cementitious board and coated with fibreglass to give an impervious homogenous waterproof finish. The fibreglass is applied as wallpaper in layers and finished with a coloured gel coat that provides the fully sealed finish. The fibreglass is installed prior to the final floor screed and tiling so that when the tiles are installed, they butt up to the fibreglass wall finish and with the addition of a polysulphide mastic joint a watertight seal is achieved in both the sleep and run areas.

External corners to the walls around the internal door are protected with stainless steel covers to stop the dogs biting these areas.

The external walls that form the heated envelope of the building have high levels of insulation that provide heat retention in the winter months and keep the building cooler in the summer months.

Floors to the sleep, run and run access corridors have a 300mm x 300mm tiled surface. The tiles are fully vitrified and installed using a waterproof adhesive and a two-part easy clean epoxy grout.

Metal chequer plate thresholds are fitted to the human door between sleep and run.

Ceilings to all areas of the kennels and access corridors have sound absorbing ceiling tiles and are insulated above the ceiling line for heat retention in the sleep area.

Drains

Drains are installed in both sides of the kennel. The sleep areas have an individual stainless-steel drain that is connected under the floor to a linear type of drain that runs the length of the run corridor that is just outside of the sleep area. This ensures that no contamination in the urine can pass from one kennel to another. Both types of drains have removable covers and hair traps.



Water

Water is supplied into the sleep kennels and run corridors for hose down and providing drinking water for the dogs. A mixture of recyclable water for hose down and potable water for drinking are a standard DT specification.

Options

Ceiling mounted speakers can be installed to provide ambient background music.

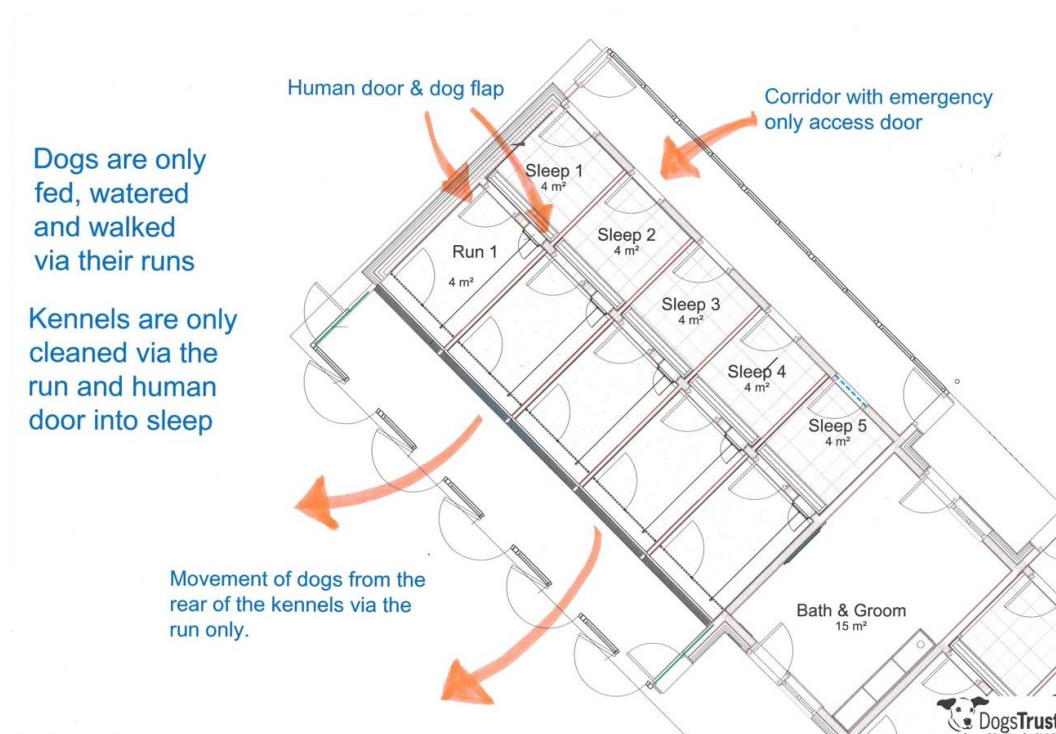
Connection points at ceiling height for CCTV cameras for behaviour monitoring.

Additional high level power sockets for use with heat lamps etc.



Diagrams

Kennel Movement



Kennel Diagram

