

# *Toilet Superstructures*

## *Spiral or with door or step by step?*



*Peter Morgan 23.10.2010*



# *Toilet*

## *Superstructures*

*Most VIP toilets built in Zimbabwe do not use doors. Doors can create problems with maintenance. The hinges may break or the door may just fall off if poorly made and used carelessly.*

*But if the door is made well and fitted with strong hinges, it can last for years.*



# ***Doors!***

*Doors are particularly vulnerable in the school environment, where they may be carelessly used.*

*So care is required in choosing the most appropriate technology to use in the school.*

*The doored structure will last for longer in the home environment*





# *Doors and fly control*

*Where the VIP is used,  
flies will only be  
controlled if a screened  
vent pipe is fitted and  
the interior of the toilet  
is semi - dark,  
If the door is open and  
there is no cover over  
the squat hole, there will  
be no fly control.  
So self closing hinges are  
required*



# ***Doors and hinges***

*The best self closing hinges may be made from stout rubber, the type cut from car tyres.*

*These can be very durable if well mounted and secured to the toilet frame.*

*These strong rubber self closing hinges have been used for over 9 years in a family setting.*





# **Advantages and disadvantages**

*\*Superstructures made with doors like the ones shown here, take less bricks to build and are easier to build in brick, than larger spiral shaped structures.*

*\*They also use far less bricks.*

*\*The roof area to cover a doored structure is also smaller*

*\*They are also far easier to dismantle and reconstruct than spiral structures*

***So the structure with a door has advantages***



*But the structure with a door is open to  
rough treatment*

*The best toilet structures for schools should  
ideally be made without doors.*





*However if doors and hinges are made strong and there is capacity for maintenance then the doored structure is far easier to make for the pupils.*





## ***Making smaller spiral structures***

*Experience shows that pupils can make spiral structures if the structures are not built too large. Smaller spiral shaped structures can be built by the pupils.*





*A special manual and power point describes how it is done.*





*The secret of the ease of construction of the doored (horseshoe shaped) superstructure, is the use of guides, (treated wooden poles) placed at each end of the brick wall. This method can also be used on the spiral structure*



**On the right a spiral configuration using treated wooden poles as guides for constructing the brickwork**



*A preferred method is to use a wooden template which acts as a guide for the brickwork. The extension to the slab (foundation) is constructed outside the slab area first, Then the template is placed on top of the slab and extension.*



*Photos showing the concept of the wooden template, which can be used as a guide to building the spiral superstructure.*



*The slab extension is made first using bricks beneath the extension to support the future brick walls. A strong concrete floor is laid down outside the slab area. The special wooden templates are then placed on the slab and held in place.*



*Photos showing the slab and extension and the two wooden templates in position.*



*Once the templates have been secured in place and made vertically upright with spirit level, the brickwork can be laid using a 20:1 mix of pit sand and Portland cement or traditional mortar.*



*The wooden templates have been mounted and made upright. Bricklaying then begins using the templates as guides.*



# *Other views of the technique*



***Using this technique it is relatively easy to build a spiral door-less superstructure.***



*The best way forward is to try a range of methods at the school. With practice the pupils can make several designs and choose which is best. Start with the simpler and then advance to the more difficult. Practicing the brickwork helps!*

