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Bathroom Design

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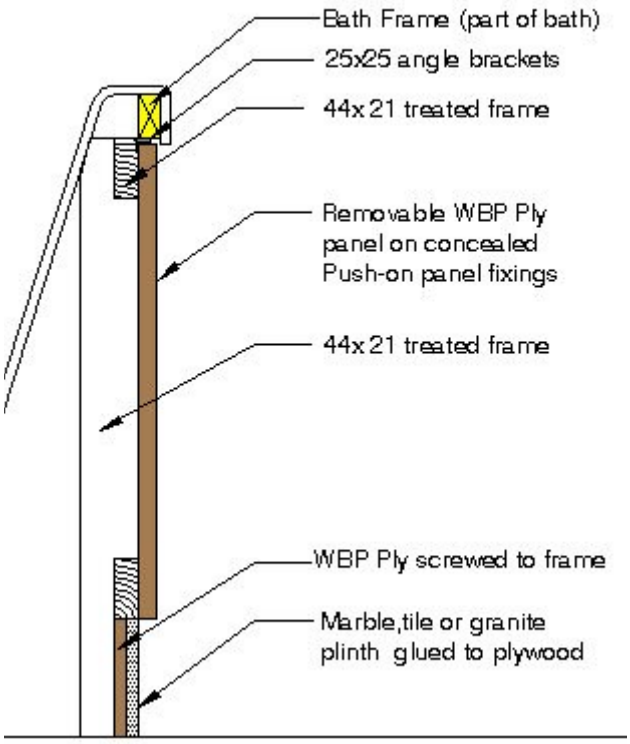
| | I`ve composed this article to help people avoid some of the problems with bathroom design and fitting especially. |
| | In the residential marketplace it seems that there are just so many contractors out there who are limited in their knowledge and experience of bathroom design and installation. My own experience designing commercial property and having designed and installed more bathrooms than I can remember ; from Bathrooms in high quality residential villas and palaces with marble cladding and gold taps to small ensuites on a tight budget, I hope that my tips help people to avoid some of the potential disasters |
| **Design Problem** | **The Design Problem:** Too much emphasis on the look and not enough on the nuts and bolts. Of course the look is important but the design of the bathrooms is often left to plumbers and "bathroom designers" with little knowledge of the practical.<br>**THE BIG ONE**<br>While wastes from showers and wash basins can often be easily concealed, the waste pipe from the toilet pan is a pipe with a diameter of 110 millimetres. (4 .4 inches) The outlet is at 175mm centre above floor level and it should fall at 1 inch per metre meaning that you need to give serious consideration to where the WC is located in the bathroom if you want it to function properly. Most modern pans tend to need to exit from the rear and if you have to accommodate a bend with such pans then it often means that the pan will be pushed out from the wall to accommodate the bend. So 1st step in designing your bathroom , find the location of the existing soil pipe and site your WC pan accordingly otherwise you will need to adjust the complete drainage system.( which you may see as worthwhile of course). Also bear in mind to investigate the feasibility of connections if you have toilets close together( one to ask of an expert) |
| **Design Problem** | **The bath**<br>Since the bath also has a low outlet then you need to consider the bath location in relation to the soil pipe ( the vertical pipe 110mm in diameter) . This is especially important if the bathroom is in a flat because the vertical soil pipe will be shared and it would probably be extremely difficult to make a new connection below the existing connection level. So check out the level of the bath connection to the existing stack before you think about moving the bath further away from the soil stack..Wet rooms in flats can be difficult or impossible for the same reason . With a house situation it may be possible to take the pipework to an external wall and then connect to the soil stack ; then the problems are alleviated and you can locate the bath or shower with greater freedom of choice.<br>If that is not feasible then you might consider a podium for the shower ( a section of raised floor). |
| **Design Problem** | **The Bath Panel.**<br>PLASTIC BATH PANELS: Can usually be purchased to suit the bath and there are usually panels for the long sides and for the 700mm exposed end if required. However there are a few problems to bear in mind with these: Often the space you fit your bath into will be wider or narrower than the bath and in the case of the "wider than the bath" recess you might have some |

Design Problem

sort of waterproof ledge at the end of the bath to infill the recess. This leaves a shortfall in the plastic bath panel and an infill is needed.

If the space is narrower than the bath then the bath panel needs to be cut and the end bit glued back on to give the flimsy bath panel stability . Far from ideal as when this flimsy panel is removed to gain access to wastes, they can come apart .

Plastic bath panels are aligned with the bath lipping and water spilling off the top of the bath dribbles down the panel staining it instead of the water dripping on to the floor which is regularly mopped . Thus the bath panel causes more work since it needs to be cleaned more regularly. I cannot understand why manufacturers make bath panels from MDF; a material which distends when wet and does not revert to its original shape and thickness. This negative attribute is exacerbated when the panel needs to be cut down thereby exposing the unpainted MDF .The aesthetic of the plastic bath panel is not under discussion .




## CUSTOM-MADE BATH PANEL

THE TILED BATH PANEL: This is often done to make the bath panel fit with the rest of the décor. However I would make a few suggestions with these:

Since there is no means of accessing the plumbing once tiled , keep back some tiles and if access is needed, cut a hole in the bath panel along the tile joint line and re-fix possibly using silicone to facilitate subsequent removal. Some installers make a panel which is a module of the tiles and instead of grouting in place use silicone to facilitate access all at the outset of installation. Again if the tiled bath panel is close to the bath`s top edge then water will dribble down the panel causing staining.

THE CUSTOM BATH PANEL:I have designed a bath panel which avoids some of the problems mentioned above . The panel

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| | can be made to match the bath, or some other feature such as a vanity cabinet. The panel is removable and it can even be used as access to storage below the bath. |
| **Design Problem** | **The Building Regulations**<br>In altering or installing a bathroom some building regulations will no doubt apply and these are predominantly, but not exclusively, in regard to :Ventilation, Lighting and drainage. In some instances such as in a flat for example there may be Building regulation criteria in relation to fire regulations relating to wall and ceiling materials to comply with. |
| **Design Problem** | **Floor Finish**<br>Almost everyone loves the luxurious look of a nice granite, marble or porcealin floor tile. Be careful here. The floor below needs to be secure and with no movement otherwise water will enter via joints, rot the sub-floor and that will be the end of the expensive, luxury flooring.<br>If your bathroom has a “floating floor” which is very common in flats, then I would NOT risk a “hard “ flooring such as tiles or marble because movement is possible. If the floor is timber then it should be replaced with WBP Plywood 18mm thick sealed with a suitable waterproofer and screwed to the joists at 150 mm centres.<br>If you have a floating floor and if you want a safe, non-slip floor when wet, then consider some of the commercial non-slip vinyls sourced from a competent supplier/installer. Some of these materials can be coved up the wall as plinth type skirting and have any joints welded so that a completely watertight floor up to skirting level is achieved. A wet-room floor in effect and if a drain is installed in such a floor then it becomes a wet-room.These floor are also quite warm underfoot when compared to marble,granite or tiles.<br>While I`m on about Marble; marble is affected by acid , so damage can occur over time around the WC pan if there is spillage |
| **Woorkmanship problem** | **The walls and behind**<br>A lot of bathroom fitters install wall hung fittings relying upon the tiles to hold these fittings in place.<br>Here are several reasons why this is wrong:<br>1] The wall plug and screw exert pressure on to the tile and there is a strong tendency for the tile to crack when the screw is tightened as a result<br>2] Modern tile adhesives can be as much as 50mm thick as they are often used to bring wonky walls back to “plumb”. The adhesive is often placed in dabs so that there are hollows behind the tile, meaning that the wall plug and the fitting it is supporting is not anchored into tile cement but only to the thin ceramic tile surface resulting in cracking of the tile<br>**The solution**<br>By designing your walls on paper as part of the design process, the location of fittings such as cabinets, shower doors, shower bars, rails,shelves, towel radiators etc are pre-determined and primary fixings whether as timber noggings or as plywood pattress plates can be incorporated into the wall structure before they are re-sheeted in plasterboard or other wall board.<br>When holes are drilled into the tiles, these can be made larger than the screw so that the fitment is fixed to the framing behind and does not touch the wall tiles so avoiding damage to the tiles.<br>While I`m on about wall tiles; a point to note : When you get to architraves , have your carpenter order slightly thicker architraves and have him router a rebate out of the back of the architrave so that the architrave covers the tile as opposed to the tile abutting it; that way you can have a gap of about 5mm between the tile and any part of the door framework. Can you guess what the benefit of that is ? |
| | **The wall board**<br>When you remove the old wall tiles form your bathroom you will most likely find that, if the walls were framed and plasterboarded, then the plasterboard will most likely need to be removed also. There are a few options for re-boarding.<br>Plasterboard in a green finish is available as a moisture resistant board . There are various cementitious boards available too.<br>The cementitious boards are difficult to cut and several saw blades are needed however. There are other boards such as “Jacko” board which is about 50mm thick and can be used to form partitions, enclosures, raised floors etc. |

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Brian Pert