



Elbow Room

by Patrick J. Galvin

Placing three fixtures in the average 5x7- or 6x8-foot bathroom is simple enough for most builders, who have long experience with the small spaces. But getting the fixtures into the room gives no assurance that household members will have space for elbows and knees and movement around the bathroom.

Providing space to maneuver in, however, needn't be a problem—even in minimal bathrooms—as long as the designer knows what the proper clearances are. A knowledge of clearances is necessary whether the room is large or small, because blank space on a drawing board has no reality. Lines can be squeezed too easily when adding partitions, dressing areas, or other features.

The Minimum Bathroom

Why are so many bathrooms so small? Unfortunately, we got trapped in the 5x7 syndrome in the housing boom of the 1920s when, for the first time, law required that every housing unit have at least one bathroom. It was a design afterthought, and builders of that time allotted just enough space to squeeze in a tub, lav, and toilet.

These days we appreciate more the need for counter space for toiletries, storage space for cleaning apparatus, towels, and other paraphernalia, and space in which to move about.

Interestingly, we can find the needed space even in the minimum 5x7 bath. But, given the choice, we should start with a larger space in new construction. And even in remodeling jobs we should always recommend more than the minimum size, even if it means stealing space from an adjacent closet.

Toilets generally are 18 to 21 inches wide, but a person using one needs 30 inches of lateral space. The

minimum is 18 inches on the right of the toilet centerline for a right-handed person, and 12 inches on the left. But it is desirable to have at least 15 inches on the left. The roll of toilet paper (often inconveniently attached to the wall in back) should be near the front of the toilet, and 26 inches above the floor.

The Lav

Lavs now come in various sizes and shapes, as do people who use them, but the accepted minimum is 15 inches of movement space on either side of the centerline of the lav. This permits hair washing, baby bathing, and whatever other activities might take place at the lav. This coincides with the 30-inch vanity cabinet that has become standard, although this allows for only minimal counter space on either side of the lav.

Vanity cabinets are usually 31 or 32 inches high, including the top into which the lav is recessed. If all family members are 5'10" or taller, however, a lav height of 36 inches is handier. To accomplish this, add 2x4s either between the vanity cabinet and the floor, or between the cabinet and the countertop. At the floor, added 2x4s can be faced with floor-covering material. Under the countertop they can be painted or faced with a decorative laminate to match the top.

A mirrored medicine cabinet generally is sized to fit between the studs, although it usually will be much larger along the outer perimeter. The bottom of the mirror should be 8 inches above the counter. Since the mirror should be centered above the lav, it is usually necessary to reframe the space into which it recesses. Otherwise, its placement will be dictated by the placement of the studs. Larger,

surface-mounted cabinets also are available.

The grab bar must support a 300-pound static load.

Grab Bars

In the tub area, a relatively new feature that belongs in all bathrooms is a grab bar. Although it has been established as necessary for the handicapped, with slippery soaps on the tub floor it is something everyone can appreciate. And needless to say, it is not beyond the realm of possibility that it might be helpful in a product liability suit some day.

The grab bar should be 50 inches above the floor at the higher end, 24 inches at the lower end. It should be 1 1/2 inches from the wall for knuckle clearance. Since it must be capable of supporting a 300-pound static load (HUD MPS), it needs a strong backing material. This can come from 2x4s fastened to studs, or from a sheet of 3/4-inch exterior-grade plywood nailed over the studs.

Two soap dishes make it handy for either a shower or bath, the upper one at 50 inches and the lower at 24 inches. If only one is used, 34 inches is a good compromise. Mounting the shower head at 74 inches puts it above the tub surround, eliminating any need for drilling or tile cutting, and also puts the shower head above the head of the person taking a shower. Some deeper tubs might push the shower entry point as high as 78 inches.

The bidet is a bathroom problem-child in the U.S. It usually is 14 inches wide and 25 inches deep, and it needs at least 30 inches of lateral space. Normally, it's placed next to the toilet.

All of the fixtures need space in front, also. For the toilet and lav the minimum is 21 inches. For tub and shower a 21-inch minimum is needed for going in and out. In a small bathroom, these spaces can overlap.

Bathroom for the Handicapped

For the handicapped, it's a whole different situation. There are many kinds of disability, and each has particular needs that must be planned for.

We'll consider only wheelchair users. First, it's necessary to have a pocket or out-swing door; 32 inches wide is minimum, but 36 inches is desirable. Immediately inside, a full 60-inch-diameter circle is needed for movement. The toilet must have at least 48 inches in front and 18 inches from the centerline on each side.

There must be a minimum clearance of 30 inches from the floor to the bottom of the lav, with all pipes insulated or recessed to prevent burns. And the bottoms of all mirrors and medicine cabinets should be at least 40 inches above the floor.

The recommended height above the floor for both tub and toilet is 19-1/2 inches. If there is a roll-in shower, it must be at least 48x48 inches, but a 60-inch-square shower is desirable. ■

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