

Bathroom Planning Guidelines

The National Kitchen & Bath Association developed the Bathroom Planning Guidelines to provide designers with good planning practices that consider typical needs of users. A committee of experts in bathroom design reviewed relevant research, lifestyle and design trends, and model building code requirements to assure the updated guidelines promote the health, safety, and welfare of consumers. The guidelines are used for academic and educational programs in bathroom design, evaluation of bathroom plans, and testing the competencies of designers seeking certification.

Bathroom Planning Guideline 1 - Door/Entry

Recommended:

The clear opening of a doorway should be at least 32". This would require a minimum 2'-10" door. If the existing structure precludes changing the opening then a minimum 2'-0" door is allowable.

Bathroom Planning Guideline 2 - Door Interference

Recommended:

No entry or fixture door should interfere with one another and/or the safe use of the fixtures or cabinets.

Bathroom Planning Guideline 3 - Ceiling Height

Code Requirement:

* Bathrooms shall have a minimum floor to ceiling height of 80" over the fixture and at the front clearance area for fixtures. A shower or tub equipped with a shower head shall have a minimum floor to ceiling height of 80" above a minimum area 30" X 30" at the shower head.

(IRC R305.1.4)

Bathroom Planning Guideline 4 - Clear Space

Recommended:

Plan a clear floor space of at least 30" from the front edge of all fixtures (i.e., lavatory, toilet, bidet, tub and shower) to any opposite bath fixture, wall or obstacle.

Code Requirement:

* A minimum space of at least 21" must be planned in front of lavatory, toilet, bidet and tub.

(IRC R 307.1)

* A minimum space of at least 24" must be planned in front of a shower entry.

(IRC P 2705.1.5)

Bathroom Planning Guideline 5 - Single Lavatory Placement

Recommended:

The distance from the centerline of the lavatory to the sidewall/tall obstacle should be at least 20".

Code Requirement:

* The minimum distance from the centerline of the lavatory to a wall is 15".

(IPC 405.3.1)

* The minimum distance between a wall and the edge of a freestanding or wall-hung lavatory is 4". (IRC R 307.2)

Bathroom Planning Guideline 6 - Double Lavatory Placement

Recommended:

The distance between the centerlines of two lavatories should be at least 36".

Code Requirement:

* The minimum distance between the centerlines of two lavatories should be at least 30".

(IPC 405.3.1).

* The minimum distance between the edges of two freestanding or wall-hung lavatories is 4".

IRC R 307.1)

Bathroom Planning Guideline 7 - Lavatory/Vanity Height

Recommended:

The height for a lavatory varies between 32"-43" to fit the user.

Bathroom Planning Guidelines 8 - Countertop Edges

Recommended:

Specify clipped or round corners rather than sharp edges on all counters.

Bathroom Planning Guideline 9 - Shower Size

Recommended:

The interior shower size is at least 36" x 36".

Code Requirement:

* The minimum interior shower size is 30" x 30" or 900 square inches, in which a disc of 30" in diameter must fit.
(IRC P 2708.1, IPC 417.4)

Bathroom Planning Guideline 10 - Tub/Shower Controls

Recommended:

a. The shower controls should be accessible from both inside and outside the shower spray and be located between 38"-48" above the floor depending on user's height.

b. The tub controls should be accessible from both inside and outside the tub and be located between the rim of the bathtub and 33" above the floor.

Bathroom Planning Guideline 11 - Shower/Tub Control Valves

Code Requirement:

Shower and tub/shower control valves must be one of the following:

* pressure balanced

* thermostatic mixing

* combination pressure balance/thermostatic mixing valve types

(IRC P2708.3)

Bathroom Planning Guideline 12 - Shower Seat

Recommended:

Plan a seat within the shower that is 17"-19" above the shower floor and 15" deep.

Code Requirement:

* Shower seat must not infringe on the minimum interior size of the shower (900 square inches).

(IRC P 2708.1)

Bathroom Planning Guideline 13 - Tub/Shower Surround

Recommended:

The wall area above a tub or shower pan should be covered in a waterproof material extending at least 3" above the showerhead rough in.

Code Requirement:

* The wall area above a tub or shower pan must be covered in a waterproof material to a height of not less than 72" above the finished floor.

(IPC 417.4.1, IRC R 307.2)

Bathroom Planning Guideline 14 - Grab Bars

Recommended:

Plan grab bars to facilitate access to and maneuvering within the tub and shower areas.

Tub and shower walls should be prepared (reinforced) at time of construction to allow for installation of grab bars to support a static load of 300 lbs.

Grab bars should be placed at least 33"-36" above the floor.

Grab bars must be 1 & 1/4" to 1 & 1/2" in diameter and extend 1 & 1/2" from the wall.

Bathroom Planning Guideline 15 - Glazing

Code Requirement:

* Glass used in tub or shower enclosures (i.e. tub or shower door) or partitions must be tempered or an approved equal and must be permanently marked as such.

(IRC R 308.1)

* If the tub or shower surround has glass windows or walls, the glazing must be tempered glass or approved equal when the bottom edge of glazing is less than 60" above any standing or walking surface.

(IRC R 308.4.5)

* Any glazing (i.e. windows or doors) whose bottom edge is less than 18" above the floor must be tempered glass or approved equal.

(IRC R 308.4.7.2)

Bathroom Planning Guideline 16 - Tub/Shower Door

Code Requirement:

* Hinged shower doors shall open outward.

(IRC P 2708.1) (2000 edition)

Bathroom Planning Guideline 17 - Steps

Recommended:

Steps should not be placed outside a tub.

If steps are used a grab bar/handrail is mandatory.

Bathroom Planning Guideline 18 - Flooring

Recommended:

Slip-resistant surfaces should be specified for the general bath flooring, shower floors, and tub/shower bottoms.

Bathroom Planning Guideline 19 - Equipment Access

Code Requirement:

* All equipment, including access panels, must be installed as per manufacturers' specifications.

(IRC M 1307.1)

* All manufacturers' instructions must be available for installers and inspectors and left for homeowners.

(IRC P 2720.1)

Bathroom Planning Guideline 20 - Toilet/Bidet Placement

Recommended:

The distance from the centerline of toilet and/or bidet to any bath fixture, wall or other obstacle should be at least 18".

Code Requirement:

* A minimum distance of 15" is required from the centerline of toilet and/or bidet to any bath fixture, wall or other obstacle.

(IRC R 307.2, IRC P 2705.1.5,

IPC 405.3.1)

Bathroom Planning Guideline 21 - Toilet Compartment

Recommended:

The size for a separate toilet compartment should be at least 36" by 66" with a swing-out or pocket door.

Code Requirement:

* The minimum size for a separate toilet compartment is 30" by 60".

(IPC 405.3.1)

Bathroom Planning Guideline 22 - Storage

Recommended:

Provide adequate, accessible storage for toiletries, bath linens, grooming and general bathroom supplies at point of use.

Bathroom Planning Guideline 23 - Accessories

Recommended:

a. Place a mirror above or near the lavatory at a height that takes the user's eye height into consideration.

b. The toilet paper holder should be located 8" - 12" in front of the edge of the toilet bowl, centered at 26" above the floor.

c. Additional accessories, such as towel holders, soap dishes, etc., should be conveniently located near all bath fixtures.

Bathroom Planning Guideline 24 -- Electrical Receptacles

Recommended:

All GFCI receptacles should be located at electrical appliance points of use.

Code Requirement:

* At least one GFCI protected receptacle must be installed within 36" of the outside edge of the lavatory.

(IRC E 3801.6)

* All receptacles must be protected by Ground-fault-circuit-interrupters (GFCI).

(IRC 3802.1)

* A receptacle shall not be installed within a shower or bathtub space.

(IRC E 3902.10)

* Switches shall not be installed within wet locations in tub or shower spaces unless installed as part of the listed tub or shower assembly.

(IRC E 3901.7)

Bathroom Planning Guideline 25 - Lighting

Recommended:

In addition to general lighting, task lighting should be provided for each functional area in the bathroom (i.e. grooming, showering).

Code Requirement:

* At least one wall-switch controlled light must be provided. Switch must be placed at the entrance.

(IRC E 3901.6, IRC E 3803.2)

* All light fixtures installed within tub and shower spaces should be marked "suitable for damp/wet locations".

(IRC E 3903.8)

* Hanging fixtures cannot be located within a zone of 3' feet horizontally and 8' vertically from the top of the bathtub rim.

(IRC E 3903.10)

Bathroom Planning Guideline 26 - Ventilation

Recommended:

Plan a mechanical exhaust system, vented to the outside, for each enclosed area.

Code Requirement:

* Minimum ventilation for the bathroom is to be a window of at least 3 sq. ft. of which 50% is operable, or a mechanical ventilation system of at least 50 cubic feet per minute (cfm) ducted to the outside.

(IRC R 303.3, IRC M 1506.3)

Bathroom Planning Guideline 27 - Heat

Recommended:

A supplemental heat source, i.e., heat lamp, toe kick heater, or floor heat, should be considered.

Code Requirement:

* All bathrooms should have an appropriate heat source to maintain a minimum room temperature of 68 degrees Fahrenheit (30 Celsius).