



Information from www.info.mandtbank.com

under the build a home/ modular home section.

Modular Home Design –

When it comes to designing your dream home, it's easy to be blinded by the excitement of seeing your plans begin to take shape. So always keep a healthy dose of reality in the mix. It will help you avoid potentially damaging situations that could quickly turn your excitement to frustration. Important design considerations include location, foundation, structure type, building codes and home layout.

Foundation. In the interest of beginning at the bottom and working up, selecting the appropriate foundation should be one of the first decisions made. Today's modular homes can be built on many different types of foundations, but the most common are slab, crawl space and full basement. Each have their advantages and disadvantages which should be weighed carefully when selecting a foundation type.

- **Slab** -A slab foundation is constructed of concrete and used predominately in flat, temperate climates where water tables are relatively deep. Slabs are the least expensive of the three main foundation types but provide no storage or utility space as the home actually sits directly on a large slab of concrete.
- **Crawl Space** – A crawl foundation gets its name from the position homeowners will find themselves in when they move through this foundation type. Short foundation walls atop footings elevate the home a few feet off the ground and provide storage and utility space. The crawl is a lower cost alternative to the full basement and better suited for moderate climates.
- **Full Basement** - The basement foundation presents homeowners with the greatest number of options for storage and additional living space and is also the most expensive. Ideal for colder climates where footings below the frost line are required, basements are typically constructed of poured concrete.

Structure Type. As the majority of modular homes built today have some degree of customization, prospective homeowners have a unique opportunity to create a home that is truly one-of-a-kind. However, one should consider the pros and cons of each structure type prior settling on a final design.

- **Single-Floor** - Better known as the ranch home, single floor homes are experiencing unprecedented popularity as baby boomers begin to retire. Additionally, with only one story, these homes are generally less expensive to build than multiple story homes.
- **Story-and-a-Half** – A nice compromise for those torn between two-story and single-floor homes, the story-and-a-half utilizes dormers and available under roof area to create a small second story or loft. Common uses for the second floor are as a guest area, office or sleeping loft.
- **Multiple Story** - Because multiple story homes are typically build up versus out, this home provides maximum living space in the smallest footprint. Combined with a full basement, the multiple story structure is generally preferred by prospective homeowners requiring lots of living space.

Building Codes. Strict adherence to local building codes and industry standards are an absolute requirement for any home construction project.

Home Layout. Perhaps the most challenging task of any home design project is to visualize the home's layout without a tangible model to work from. The following information will assist you in designing a highly functional and livable home layout.

How do your lifestyle requirements impact the design of your home? Think of your home as three or four distinct activity zones: working, sleeping, living, garage and storage. Plan your activity areas for convenience and practicality. For example, the garage should be close to the kitchen so you don't have to trek through the house with the groceries. The living room should be isolated from the bedrooms so a late-night television watcher won't keep everyone else awake, and so on. A poor design could create unnecessary work and extra steps, while a good design will be a joy to live in for a lifetime. Proceed thoughtfully through your home activity zones.

Working Zone. Kitchen, laundry, pantry and home workshop make up the working zones. The kitchen, a home's most important room, should always be planned with your workflow in mind. There are four basic kitchen plans that address the workflow.

U-shaped is the most efficient because it uses the "work triangle" to best advantage. This triangle places the sink, range and refrigerator in a triangular pattern with equal distance on each side, making sure you are never very far from preparation, cooking and storage areas. The ideal distance is about five feet between each of the three workstations. This distance may be increased slightly, but not much since it will require too many steps. If the legs of the triangle are shorter, the kitchen will still be efficient, but it may feel cramped and there will not be enough counter space.

L-shaped is a workable, fairly efficient design, but plan on making more steps along the triangle.

Island kitchens work well because the island usually is the range area with the sink and refrigerator an equal distance from it. This design helps cut down the steps necessary in a large kitchen and can be attractively combined with a breakfast bar.

Pullman or galley is not an efficient plan, but it is workable for one person and best used in small homes.

Kitchen counter space is also important and must be carefully planned. For good counter space, plan for eight to 10 feet. You will need at least 18 inches of space on the latch side of the refrigerator so you have a place to set foods down when you take them from the refrigerator.

At the sink, figure 24 inches of space on one side and 36 inches on the other; plan for 18 inches of space on each side of the range for preparing food; plan for a minimum of 18 square feet of kitchen storage, with additional storage space of six square feet for each member of the household.

The utility and laundry area can accommodate a lot of activity if you take location, workflow and traffic patterns into account. These workrooms can serve as mudrooms, hobby rooms or storage rooms. You can plan extra counter space for multiple uses and extra storage space.

The Living Zones. This area comprises the living room, dining room, den or family room. The living areas of your home reflect your lifestyle, so ask yourself these questions when planning these important areas.

Is your lifestyle formal or informal? Formal lifestyles dictate a separate living room or dining room where meals and visiting can be carried on in a formal setting. Everyday family activities occur in a family room and perhaps an eat-in kitchen. Informal styles combine living room, family room and eating areas into a single space called a great room, with no areas set aside for formal entertaining.

Does your family prefer open spaces or compartments? Compartments are rooms closed off from other rooms by doorways. You can divide open living areas with furniture or large archways.

Do you want togetherness or separation for adults and children? Use a model furniture cutout kit to test furniture arrangements. Even in an informal open space layout, areas can be created to isolate activities from each other. For example, the television can be set off in one section leaving the remainder of a great room free for other activities.

What type of traffic pattern do you prefer? Do you want the living room situated so all traffic from the main entrance goes through it or would you rather have a hallway to shuttle the flow directly to the family room or kitchen? Would you prefer the most-often used entrance to allow traffic directly into the kitchen or utility area, or some other space? How will you locate the bedrooms in relation to the living areas? Will the hall or stairs from the bedrooms lead directly into the living room, dining room or some other arrangement? Where will windows, doors and furniture be? Use furniture cutouts to plan arrangements and make certain that windows and doors are spaced to allow for ventilation, building codes and light, while leaving enough wall space for furniture. Knowing approximate furniture locations ahead of time can help in locating electrical and service outlets for today's increasingly high-tech homes. Cable television, computers, alarm systems and telephone jacks all require special wiring. To avoid unsightly wire stringing, plan for the location of these things in advance and have the wiring run inside the walls.

The Sleeping Zone. The number of bedrooms and bathrooms depends, of course, on the size of your family and the ages of your children. You may not want to plan large bedrooms for children who will soon go away to college unless they will visit often or live with you while they attend a nearby college. Other considerations in planning bedrooms include bedroom locations. If you have small children, you will want to locate the master bedroom near the children's rooms. If your children are older, you may be able to put them in a separate area, upstairs for example, while keeping the master bedroom downstairs for increased privacy. Also remember that closets can be used as sound barriers between bedrooms. And guest bedrooms can be used as home offices, eliminating the need to plan a separate room for working at home. Children's bedrooms require flexibility for growth. If your kids are pre-schoolers now, they will need more room for clothes, storage, electronic equipment and furniture later on.

Planning Bathrooms.

The number of bathrooms and their fixtures will be determined by your needs and budget. Modern emphasis is on convenience and luxury in the bath. Whirlpool tubs, separate showers, large mirrors, double sinks, upscale tiles and fixtures, saunas, steam rooms and dressing areas are all found in today's bathrooms. These features may have been considered a luxury a few years ago, but today they are almost a necessity to ensure the resale value of your home in some areas.

Location. Do you want a private bath attached to the master bedroom? Will there be a separate bath for each child, or will there be one bath for children and guests in a central location?

- **Multi-use Arrangements.** Clever arrangements isolate toilet, shower and sink so that more than one person can use the room in relative privacy.
- **Linen Closets.** Be sure to have linen closets, dirty clothes hampers and plenty of hooks for hanging things out to dry.
- **Minimum Sizes.** Minimum bathroom sizes are 5 by 7 feet for a full bath and 4 by 5 feet for a half bath or a bath with a 3-by-3-foot shower. These minimums may not be advisable unless you are building a small home or vacation cottage. Modern bathrooms are considerably bigger than these minimums.

Garage and Storage.

The final zone comprises the garage, closets and storage areas. These areas have a basic set of space rules:

Clothes Closets. Each member of the family should have six feet of clothes-hanging space. Good floor plans have plenty of closets in convenient locations. It adds very little expense to provide thoughtfully located closets.

Equipment Storage. Take inventory of all your possessions and plan to have enough space for them. Don't forget to include small appliances, sports and recreation equipment, hobby equipment, lawn and garden tools, workshop equipment and exercise equipment.

Garage and Driveway. The layout of your lot will include driveway, parking and maneuvering space for cars. Be sure to leave space for boats, campers, ATVs or any other vehicles you have. Make sure you check local housing codes for possible restrictions on the outdoor storage of vehicles. Do you want the garage attached to the house or standing alone? Do you need a garage, or is a carport sufficient? Will there be a breezeway connecting the garage to the house? Garage space can be multi-use space. The washer-dryer, workshop, water heater, furnace, freezer and much of your other equipment can be located in the garage.

Decks and Porches. Porches should be an integral part of the house and will be constructed on site after your modular home is set and finished. Decks and greenhouses can be added later as your budget allows. You can make this easier by planning ahead with doors that open onto a proposed deck. Decks can extend your indoor living space to the outdoors.

