

“WELCOME”

By this time you have made a commitment to build a new home and have decided to use one of the fastest growing most modern building systems available “modular construction”.

The goal of this guide is to offer suggestions to make the process of ordering, installing and finishing your modular home easier.

No matter what your status (first time modular home builder, experienced modular builder, new homeowner doing all or part of the work.) We believe you can benefit from this guide.

So let's get started.

SECTION I

CONSTRUCTION TIPS

AVOIDING PITFALLS

AND

COST SAVING SUGGESTIONS

Construction Tips

Avoiding Pitfalls and Cost Saving Suggestions

Planning Your Home

Plan for Success: The most costly mistake in buying or building a new home is poor planning or, in most cases, lack of planning. Proper planning can save thousands of dollars and increase the value and quality of your home.

Time: You should realistically begin planning your home at least 6 to 12 months before construction begins. Most modular homes can be completed within two to six months from the time they are set onto the foundation.

Sweat Equity: There are many areas in the construction of a modular home where the homeowners labor may save money. If you don't have the experience, leave it to the professional.

Products: You will be required to make hundreds of choices while building your home. Limit your selections to the products offered by the modular home manufacturer for maximum economy.

Modular Home Selection: Stay within the size limitations offered. Over size units cost more to produce and are cost considerably more to transport.

Choosing Your Land and Location

Removing Fill: Choose a lot that is basically level and does not require removing or adding fill. Disposing of or adding fill can be very expensive.

Grades and Slopes: Excessive grades and slopes may require extensive site work. Incorporate grades and slopes into your design.

Width and Depth: Choosing a well proportioned lot offers greater flexibility in the design of your home.

Ledge and Boulder: Be aware of ledge and boulders. Whenever possible, use these natural features in your design.

Exposure: A lot with favorable sun orientation may reduce heating and cooling costs.

Setbacks: Investigate local setback requirements. Setbacks may require you to alter your design and restrict construction. Setback requirements will let you know how far your home can be set in from the road and how close you can be located to your neighbor's property.

Tree Removal: Plan your tree removal carefully. Incorporate existing trees into your overall landscaping. Trees add beauty and value to your home.

Site Survey: A site survey is a relatively small expense that may save you thousands of dollars. Know the lot and its boundaries, sidelines, setbacks and slopes before you make a purchase.

Well Water: Make sure good potable water is available before you purchase your lot. Ask neighbors about quality, depth and gallons per minute. Have your water tested before construction begins. Get an estimate for a water filtration system, if needed.

Municipal Water: Investigate the costs of municipal water services and the cost to connect into these services. Determine who is responsible for these charges.

Septic Systems: Design a septic system and get a preliminary estimate before you buy. You may avoid costly surprises. Consider future needs in your design. The number of bedrooms dictate how large a system you will need. Don't plan for bedrooms that you do not need.

Soil Survey: For a few hundred dollars you may want to hire a back hoe to investigate soil conditions. Vital information such as ledge, water table, drainage, soil composition, etc..., may eliminate costly charges.

Driveways and Utilities: A home set back from the road may be appealing, but remember that long driveways, utilities, and landscaping may be costly.

Location: The value of your home is determined only by what you can sell it for, and location is a primary consideration.

Restrictive Covenants: Be aware of any restrictive covenants that may apply to your property. You may be required to build a certain style and size of home that is not compatible with your plans or budget.

Neighboring Utilities: Know the locations of existing wells and septic systems on neighboring properties.

Easements and Encroachments: Research easements or encroachments that may restrict the use of your property.

Access to Property: You need to plan on how you will get the modular units to your foundation. Is the access road wide enough, is there any overhead wires or bridges that will prevent access to your property? Is the opening to your property wide enough (24 feet recommended) to accept the units? Is there room to store the units on your property while waiting for them to be set? Is the road to your foundation compacted to insure the units don't sink? Remember each unit usually weighs around 12 tons.

Preparing Your Lot

Top Soil: Save your topsoil when clearing and excavating your lot. Topsoil for landscaping is very expensive.

Boundaries: Stake your boundaries before excavation and site selection to ensure that the location of your home meets all setback requirements.

Driveway: If possible, plan driveways and walkways so they do not cross over utilities, in case future excavation is required.

Utilities: Take pictures of buried utilities for reference in locating them later. Investigate the costs of providing electrical, telephone, and cable service to your property.

Existing Utilities: Check with local utility companies for the location of existing gas lines, cables, water, and wastewater. Damage to existing lines could be very costly.

Temporary Utilities: Determine who will be responsible for providing and paying for temporary utilities such as power and telephone. Having power on site can save on generator costs and having a telephone jack on site will save on cellular telephone costs.

Excavation and Foundation

Foundation Depth: Do not over-excavate the foundation. An eight-foot foundation does not require an eight-foot hole. A foundation that is set too low is a common error.

Insulation: Reduce heat loss by providing adequate insulation on the exterior of the foundation.

Water Proofing: A little extra money spent on good waterproofing is a wise investment. It is very costly to eliminate basement water problems later.

Drainage: Insure that finish grades divert rain water and runoff away from the foundation or slab and does not adversely affect your neighbor(s). Also determine if drywells are required.

Foundation Details: Before pouring concrete, make sure that your foundation coincides with the measurements on your foundation plan.

Foundation Sills: Insulate sills around the perimeter of the foundation to prevent heat loss. You are required to add a pressure treated sill plate secured to the foundation to accept the modular units. If using bolts the heads need to be level with the sill plate. If you plan to use a double sill plate let your modular representative know so he can adjust siding height. Many builders will use a 2x8 or 2x10 PT sill with sill seal and have the foundation people set the bolts back off center. This prevents the need to cut the bolts flush with the sill saving time, making for a more secure sill.

Basement Windows: Plan your basement window locations carefully. Make sure that they do not conflict with your heating and waste system locations and that they provide for cross ventilation as much as possible.

Slab Preparation: Consider insulating and waterproofing under all concrete slabs in heated or living areas.

Back Filling: To try to avoid foundation cracks allow five to seven days for concrete to cure before backfilling. Backfill foundation before modular is set. Some crews will not set a home unless the foundation is backfilled.

Ventilation: Allow for proper ventilation of basements and crawl spaces.

Soil Compaction: Do not pour concrete on loose or poorly compacted soils.

Radon: Investigate your options for radon prevention.

Slab Reinforcement: Wire mesh installed in concrete slabs reduces future cracking and is a wise investment, especially for garage floors.

Drains: For a minimal cost, you might consider providing drains and drain lines beneath concrete slabs.

Rough Framing and Carpentry

Species and Grades: Avoid specifying species and grades of lumber that are not readily provided by the modular manufacturer.

Lengths and Widths: Using standard sizes of width and lengths will save you money. Long lengths and unusual sizes require special orders.

Moisture Content: Kiln dried framing lumber is usually more expensive, but may actually save you money due to shrinkage, warping, and twisting. Kiln dried framing lumber is used by most modular manufacturers.

Lumber Quality: Low-grade framing materials may be economical in the short term, but may cause future problems.

Engineered Wood Products: Manufactured wood products provide quality and flexibility in many different design applications. They may be the most economical alternative in complex designs.

Future Additions: Frame rough openings for future windows, doors, and skylights. The cost is minimal compared to the expense later on.

Steep Pitches: Complicated roof designs and roof overhangs increase the cost of both material and labor.

Special Requirements: Some areas require hurricane/wind straps or special weight roof shingles. It's your responsibility to get this information to the factory.

Two Story: Building up is usually less expensive than building out.

Trusses: Incorporating trusses into your roof design is usually very cost effective.

Exterior Wall Framing: Thicker walls that accommodate extra insulation may result in lower heating and cooling costs.

Floor Loading: Insure that floors are designed to support your home furnishings. Heavy items such as waterbeds, hot tubs, etc..., must be considered in your structural design.

Interior Walls: Modular homes that are built with 2x4 16"oc interior walls tend to be better built and resist cracking of sheathing caused by shipping and setting process.

Windows, Doors, and Skylights

Availability: Windows, doors, and skylights should be selected from the factory standard list, thereby eliminating the cost of special orders. Special requests can be accomplished but usually cost more and add to the construction time and cost.

Glazing: Double-glazed and high performance windows are cost effective over time and are standard from most modular factories and are required by most states.

Maintenance-Free: Maintenance-free windows are cost effective, saving both time and money in the long term. Most modular factories supply single hung vinyl windows as standard. Double hung or wood windows are available and are more expensive and are considered an upgrade. Single hung windows only allow the bottom sash to go up. The top sash is stationary. Most manufacturers will offer an upgrade window such as an “Andersen”.

Window Treatments: Don’t forget to include interior window treatments in your overall budget. Custom blinds, curtains, etc. can be very expensive.

Window Accessories: Screens, grills, and other accessories will be supplied when your home is delivered. Put these items in a safe place to reduce loss or damage while the house is being finished. Install at the end of the project.

Heat Loss: Eliminate drafts by sufficiently insulating around plumbing and electrical openings made during the completion process.

Damage Control: Protect the exterior of windows and doors with plastic as soon as they are installed at the factory if you are shipping in the winter months. This should prevent damage during shipment from road grit. This is something you have to request because factories will not routinely cover up windows and doors for shipment.

Factory Finishes: Research the cost of a factory finish on windows and doors versus finishing on the job site. Factory finishes offer the greatest savings.

Egress: Windows and doors in all bedrooms must meet egress requirements. Modular factories are responsible for meeting all egress requirements for your state.

Door Swing: Plan exterior door swings carefully. Changing the swing of a door is very expensive after it is installed.

Insulated Doors: Insulated exterior doors are a good investment and usually require less maintenance.

Steel vs. Wood: Steel and fiberglass exterior doors are a maintenance-free alternative to wood doors. Most modular manufacturers offer steel and fiberglass exterior doors. Wood doors usually require ordering and installation on site.

Skylights: A skylight may offer an economical solution to a room where windows are impractical.

Venting Skylights: To reduce air conditioning costs consider installing venting skylights.

Skylight Installation: The most common cause of skylight problems is improper installation. Insure that skylights are installed according to the manufacturer's installation instructions. Most modular home skylights are installed on site after the home is delivered.

Dormer vs. Skylights: A roof window/skylight is an economical alternative to a dormer and will provide your room with more light. However, prefabricated dormers are available from the manufacturer but usually require assembly on site.

Dead Bolts: Dead bolts are much easier and less expensive to install at the factory rather than later.

Garage Doors: The difference in cost between a nine foot garage door and an eight foot garage door is minimal compared to the additional access provided. You need to let the factory know what size door you are planning if ordering a garage.

Garage Door Operator: Prewiring for a garage door operator is a wise investment for future installations. Need to order and install locally. Not supplied by factory.

Roofing, Siding, and Trim

Warranties: If roof shingles are not installed by the manufacturers' recommendations, your roofing warranty may not be honored. All modulars require you to complete some roof shingles on site. Design dictates how much will be required.

Future Reference: It is a good idea to save one complete bundle of shingles with the wrapper for future repairs and warranty information.

Colors: Select the roofing color and style early in your planning to avoid delays. You need to select from factory offerings. Factory can ship the house without roof shingles if requested – not recommended.

Heavy Weight: A heavy weight shingle should be considered in areas with extreme weather conditions.

Quality: In general, the heavier the shingle the better the quality. Architectural shingles are available and recommended on all capes.

Warranty: Warranties on roof shingles should be at least 20 years or more.

Siding Nails: Stainless steel siding nails will eliminate unsightly stains caused by less expensive nails that may rust when installing wood siding, usually done on site.

Primed Wood Siding: Factory primed wood siding reduces moisture and paint problems. Selections are limited.

Moisture: Moisture is the most common cause of all wood siding problems. Proper moisture control will limit most problems.

Bleeding: All wood products contain resins that may eventually bleed. Proper preparation before painting will usually solve excessive bleeding.

Vinyl Siding: Vinyl siding provides the look of wood with little or no maintenance and is usually a less expensive alternative. Factories generally do not supply wood siding or shingles. This is something that is done on site.

Manufactured Trim: There are many man-made trim and molding products on today's market such as Fypon that are both appealing to the eye and your budget.

Moldings: Wood moldings and intricate details on your home's exterior will significantly increase your budget. If you are on a tight budget, keep it simple.

Exterior Lighting: Plan your exterior light fixtures before the siding is installed. The factory supplies a standard exterior package for all their homes. You may want to just delete the fixture (leave wiring and switches) if you have something special in mind.

House Wraps: House wraps are cost-effective and provide exceptional moisture protection. Many states require that you use "Tyvex" or some other similar product on the exterior of your home before siding.

Flashing: Improper flashing of valleys and vertical surfaces is a major cause of roof leaks.

Masonry Work and Fireplaces

Quality: Do not skimp on labor when contracting masonry work. A quality job requires a qualified mason.

Interior vs. Exterior: A fireplace and chimney installed on the interior of the house or garage is considerably less expensive than exterior installations.

Frame Now: If a fireplace is planned for the future, frame for it now.

Hearth: If you are planning a hearth, be sure that supports are properly located. You need to designate a flush or raised hearth.

Draft: Insure that your fireplace works properly before the mason leaves the job.

Mantel and Trim: Make sure your mason is aware of the interior design treatments of your fireplace.

Prefabricated Fireplaces: A prefabricated fireplace is a cost effective alternative for the real thing. Gas fireplaces look real and require little maintenance. Factories can supply gas and wood burning zero clearance fireplaces with your home. They can also supply exterior chases and interior mantles and hearths.

Plumbing and Electrical

Select Heating System: You can get hot water baseboard or electric units installed at factory. Forced hot air and air conditioning are done on site.

Savings: Design your plumbing so that rooms are back-to-back on one story homes and above-and-below on two story homes.

Allowances: Insure that plumbing and electrical allowances are realistic. Your modular home will come prewired and preplumbed, but additional work will still be needed on site to complete. Share your design with your subcontractor before getting a bid.

Basement and Exterior Outlets: Exterior and basement outlets are commonly overlooked during the planning stage. Anticipate where outlets will be needed and identify their locations. Factory usually supplies to exterior GFI outlets. Your local electrician needs to add lights and outlet in your basement and should be included in their bid.

Circuit Labels: Require that all circuits are labeled on your main service panel.

Future Needs: Provide a service panel that will provide adequate future expansion. Modular factories supply 200 amp panels.

Rough In: Rough in all wires and cables that may be required in future years.

Telephone, Speakers, and Cable: Prewiring for telephone and cable is not a large expense in comparison to the convenience provided and can be easily done at the factory. Speaker and security systems are usually done on site.

Noise Control: To significantly reduce noise, insulate waste lines that are in close proximity to living areas. You need to let your modular home manufacturer know where you want this done before the house is built.

Water Use: Installing flow restrictors on major fixtures will significantly reduce water use. This is usually done by homeowner after home is delivered. Factory supplies standard shower heads.

Light Fixtures: Set a realistic budget for interior and exterior light fixtures. Most factories supply basic looking lights that may or may not be acceptable. Recommend that you take standard factory package and replace the units if you choose in the future.

Closet Lighting: Most manufactured homes only install lighting in walk in closets. Many states prohibit lights in closets. Check with local building inspectors before ordering.

Ceiling Fans: Plan ahead for ceiling fans. Installing receptacles after your ceiling is installed costly. Ceiling fans provide practical heat and cooling benefits. Factories will supply switches and outlets but not the light/fan. Need to purchase and install on site.

Temperature Control: Separate zoning allows different rooms to be set at different temperatures making rooms more comfortable while reducing energy bills. Check with your plumber. Remember your plumber will need to add a thermostat.

Outlets: Factory will install outlets per code. Any special requirements need to be added to your plans. Changing outlet locations on site can be expensive.

Underground Lighting: Planning buried electrical lines before excavation will eliminate calling back expensive equipment.

Smoke Detectors: Factory will locate smoke detectors. Check with local building inspectors/fire departments to see if factory locations are acceptable. If locations need to be changed or added it's your responsibility to let factory know. You usually need to check with fire inspector.

Colors: To avoid delays, select kitchen and bath fixture colors well before construction begins. Try and limit your selection to what the factory has to offer. Non standard selections will require you to order and install on site adding to your cost.

Exterior Faucets: Plan the location of all exterior water faucets before construction begins. Let your plumber know the locations and how many are needed. Not supplied by factory.

Fuel Service: Locate fuel lines to provide easy access for fuel deliveries. (oil/propane)

Insulation: It is a good idea to insulate around tub and shower fixtures to reduce noise levels and to keep surfaces warm. Let your modular home manufacturer know if you want this done.

Standard Faucets: Most modular manufacturers use “Delta” or “Moen” quality faucets. Any special request will require purchasing and installing on site which will add to your plumbing cost.

Shutoff Valves: Factories provide shutoff valves on all fixtures for convenient maintenance.

Heating, Ventilation, and Air Conditioning

Zones: Separate heating and cooling zones are cost effective in reducing heating and cooling costs. The factory can supply a pull wire for your electrician to use to install your site installed thermostat. You need to select locations. Pull wires are sometimes damaged when house is being set and cannot be guaranteed by factory.

Efficiency: High efficiency heating and cooling systems translate into lower energy bills. Factory does not supply any heating or cooling systems. Done locally.

Heat Vents: Cover all heating vents and returns to prevent construction debris from entering the system.

Ventilation: Inadequate ventilation of your home may lead to serious moisture problems. Industry standards dictate proper ventilation.

Air Conditioning: Adding a chase for future air conditioning lines is cost effective if you are planning on adding air conditioning at a later time on a two story home. Factories generally do not install ductwork.

Care and Maintenance: Care and maintenance instructions are available from most major heating and cooling system manufacturers. Make sure that you receive yours. This information is available from your installer.

Insulation and Vapor Barriers

Insulation: Providing the recommended insulation R-value for your area is a cost effective and wise investment.

Over-Insulating: Over-insulating your home is not cost effective.

Insulating Budget: If your budget is tight, put your extra insulating dollars around doors, windows, and the attic area of your home.

Basement Insulation: Insulating your basement ceiling will reduce noise levels as well as heating and cooling expenses. In many states this is required to get a occupancy permit.

Eliminate Drafts: Eliminate drafts around windows, doors, thresholds, duct work, and electrical devices, such as plugs and switches.

Privacy Walls: Insulating selected interior walls increases the privacy of adjacent rooms and must be requested. This will not make the walls sound proof. Special expensive treatment is needed to make a room sound proof and sound proofing is not usually offered by factory.

Hot Water Heater: Insulating your hot water heater is a small expense compared to the savings in heat loss. Many of the new hot water tanks already equipped with extra insulation.

Garage Walls: If you plan to install drywall in the garage, plan to insulate the exterior walls. If garage is attached to modular home you need to fire code the walls where the garage meets the house. Request wall to be fire coded from factory. You will only have minor work on site to finish.

Window Treatments: Window coverings are an attractive and effective way to reduce heating and cooling costs.

Interior Finish: Doors, Trim, and Stairs

Availability: Choose items that are available from the factory and choose them early in the planning stage.

Prime Coated Walls: The walls come with a coat of primer. Walls and trim may need to be painted on site.

Molded Doors: Hollow molded doors provide the look of wood with considerable savings.

Future Changes: Inexpensive interior doors are relatively easy to change in future years if your budget is tight. Solid pine and oak doors are usually available from the manufacturer.

Hardwoods: Hardwoods are available in many species at varying price levels. When selecting stair materials, investigate the various choices. Hardwood floors are usually installed on site after the house is delivered.

Built-Ins: Built-ins, such as a book shelf, are an economical alternative to furniture. Factories are not good at doing this type of work. Plan on building built-ins after house is delivered.

Stair Clearance: Door clearance and traffic flow are commonly overlooked when planning stair landings.

Door Swing: Improper planning of interior door swings may lead to obstructed traffic flow.

Pocket Doors: Pocket doors provide a good alternative to living areas that have limited space to swing doors. Unfortunately they are hard to install so they don't rattle when closed.

Damage Control: Covering and otherwise protecting interior trimwork and countertops is a wise investment during construction. Hotwater baseboard covers should be covered.

Floor/Door Heights: To avoid costly alterations of interior doors, select floor coverings before doors are installed. Factory may be able to adjust height of doors and trim and baseboard to accommodate your floor covering selection. You can request the baseboard be only tacked in the areas where you are installing floors to allow quick removal and replacement.

Closet Shelving: Manufactured closet shelving and accessories provide economical and practical solutions to a wide range of storage requirements.

Door Hardware: The performance of interior doors is directly related to the quality of hardware selected. We recommend that you use three hinges on all doors.

Flooring: Carpet, Tile, and Hardwood

Subfloor: The proper installation and preparation of subfloors, including setting nails and a smooth subfloor surface, is vital to the finished floor quality. You must request extra floor covering under vinyl areas from most factories.

Expansion: Humidity causes hardwood flooring to expand and contract. Allowing for expansion and reducing humidity should eliminate most problems.

Allowances: Flooring allowances are common in most contracts. Make sure they are realistic to prevent costly overruns.

Carpet vs. Hardwood: If your budget is tight, install carpet initially because carpet can be replaced by hardwood or tile in future years.

Sales: Prior planning will allow you to take advantage of the numerous ceramic tile and carpet sales. Close-outs are often an exceptional value.

Carpet Padding: A good carpet pad will protect your carpet and prolong its life.

Carpet Life: Most carpets do not wear out, they “dirty out”. A quality carpet requires periodic cleaning by a quality cleaning company.

Damage Control: When floors are installed and finished, they are covered immediately at the factory, to avoid damage during the remaining construction. Check floors and recover if needed after modular home is delivered. Remove all ship loose items laying on any carpets to prevent “memory” creases.

Painting: Interior and Exterior

Preparation: Poor preparation is a major cause of paint problems. Good preparation is the key to a good paint job.

Moisture: Moisture is the most common cause of most paint problems. If you can eliminate moisture, you will eliminate most of these problems. Don't try and paint before the house heating system is installed and running.

Quality Paint: The cost of paint is minimal in comparison to the labor required to apply. Do not skimp on quality when choosing paint products.

Sweat Equity: Painting is one area where sweat equity might stretch your customers budget.

Brands and Quality: Make sure you specify the brand and quality of paint in your contract.

Textured Ceilings: Textured ceilings save time and money to install but are harder to repair. Most factories give you a choice, textured or smooth. I prefer smooth for the ease of any repairs.

Touch-Ups: Ask your painter to leave a small amount of each color (including the label) when the job is complete.

Priming: A quality primer is good insurance against future paint problems. The factory will apply two coats of quality primer to all ceilings and walls. A small supply of primer is usually sent with each house. Usually the primer is available locally. Be careful its hard to match primers. Walls treated at different times by different people can take on a different look requiring the entire room to be repainted.

Kitchens and Bathrooms

Cost Per Square Foot: Kitchens and bathrooms are the most expensive areas per square foot in your home. If your budget is tight, be conservative in your design of these areas.

Changes: Changes to the kitchen and bath are the most costly to make. Plan it right the first time.

Investment: As a rule, dollars invested in the kitchen and baths have the greatest return if you sell your home in the future.

Ordering: Most semi-custom and custom kitchens require a lead time of six to eight weeks. Plan ahead and order early to avoid costly delays. Limit your selections to factory selections or you will have to purchase and install on site increasing your cost.

Door and Drawer Clearance: Providing proper hardware clearance for door and drawer operation is frequently overlooked. Check to see if factory supplies hardware. If not you need to purchase and install locally.

Utility Items: Utility cabinets and accessories add substantially to your overall budget. These items could be purchased at a later date but you need to leave space.

Appliances: Planning appliances is essential before you begin designing your kitchen. Sizes must be calculated into kitchen plan layout.

Stove: Need to specify stove width and type (gas or electric) or you will get standard 30" space with an outlet to plug in the unit. You need to add gas connection on site. Outlet for electrical stove will be supplied if requested at an up-charge.

Appliance Costs: Your builder may be your best source for appliance quotes. Factories can supply some appliances but selection is usually limited.

Storage: If you need additional kitchen storage, a pantry cabinet may be more economical than increasing the size of your kitchen or adding 42" upper cabinets may help.

Lighting: Plan for adequate lighting in kitchen work areas. Can lights can be added. Specify black or white trim. Factory usually will only wire for lights under wall cabinets. This is an area that may change, check with factory.

Heights: Wall and base cabinet heights are easily adjusted during construction, but nearly impossible to change later.

Vanity Drawer: A drawer in your bathroom vanity is an item which is commonly overlooked during the planning stage. Usually a good idea if you have the space.

Fiberglass: Fiberglass tubs and shower units provide lasting value at a reasonable cost.

Tub Surround: Laminated tub wall surrounds are economical, easily maintained and can be coordinated with other laminates in the bathroom.

Wall Tile: If your budget is stretched, consider a good paint or wallpaper in lieu of bathroom wall tile.

Countertops: Factories usually offer a choice of one piece "cultured marble" countertops or laminate countertops in bath areas. In kitchen you can get a laminated countertop (try and stay with colors available from factory). Some factories are offering Corian and granite at significant up-charge.

Edge Treatment: A custom edge treatment using wood or beveled laminate is an economical way to add personalized details to countertops.

Toilets: Toilets can vary greatly in price. Research your options carefully. It is recommend that you stay with the factory standard.

Bath Fixtures: Bathroom mirrors, towel bars, paper holders, etc..., are commonly overlooked when planning budgets. Make allowances for these items. Check on what the factory is supplying. It is common to side mount factory supplied medicine cabinet and install a plate mirror with matching overhead light bar to spruce up a bathroom.

Bath Hardware: Be specific when ordering interior door hardware if you plan to coordinate with bath fixtures. Most factories do not supply multiple choice interior door hardware.

Utility Access: The factory should provide easy access to all utilities in kitchen and bath areas. Check your plans for access areas.

Refrigerator Hinging: Consider the direction of refrigerator door hinging when planning the kitchen and before you place any order for a new refrigerator. Remember to order the correct size to fit the space that you allocated in your kitchen design. Need to specify on order what size space you want or you will get the standard opening for 30” refrigerator.

Lawn and Landscaping

Sweat Equity: Builder should suggest the homeowner install their own lawn and landscaping is an option to consider if you have to cut costs.

Sales: Plan ahead to take advantage of spring and fall lawn and landscaping sales.

Value: Plants and shrubs that mature over time add considerable value to your home in comparison to their initial cost.

Loam and Water: Most problems with new lawns can be attributed to an inadequate amount of loam and improper watering. Make sure the homeowner knows they need to water the new lawn on a regular basis.

Hydro Seeding: Hydro seeding (a seed mixture sprayed onto the lawn area) may be an economical alternative to traditional seed or sod.

Lawn Care: New lawns and landscaping require special care to get them off to a good start. Consider contracting lawn care from a reputable company.

Informal Landscaping: Informal landscaping is easy to maintain, providing an economical temporary solution to a limited budget.

Pest Control: Construction debris is a source for undesirable pests. Consider pest control when construction is completed.

Driveways, Walkways, Decks, and Patios

Base Material: A driveway, walkway, or patio is only as good as the base material on which it is installed. Ensure that the base is in accordance with specifications.

Drainage: Flood your driveway before your contractor leaves. If it is properly shaped, water should drain away from the driveway surface.

Stone Drive: Crushed stone and stone dust may be an economical alternative to a concrete or asphalt driveway.

Driveway Lengths: To reduce costs, minimize the length of your driveway.

Footings: A good footing and steel reinforcement will alleviate most settlement problems in patios, decks, walkways, and stairs.

Stamping Concrete: Concrete stamps may be an economical alternative to brick and stone designs.

Parking and Turning: Plan for adequate parking and turning areas in your overall design.

Decks and Patios: Decks and patios could be eliminated from your construction plan to maintain your budget. A deck or patio can be added easily at a later date.

Plans and Specifications

Planning: The more time you put into the planning and ordering stage, the less money you will spend on your design and construction costs.

Preliminary Budget: Know approximately what you can afford before you select a plan. Buying a plan that you later learn exceeds your budget wastes valuable time and money.

Plan Design: Make sure your home can be built by the factory. Great strides have been made by factories over recent years but they are still restricted to what will work for them and what will fit on the production line.

Storage Space: Lack of adequate storage is often overlooked and is a common design error.

Detailed Plans: A good set of detailed plans will save you money. One of the most costly mistakes you can make is building a home without carefully reviewing the final factory set of plans. The modular manufacturer will supply you with a complete set of plans. The cost is built into the price of the house, saving you up front “out of pocket” cost.

Budget: If you have a limited budget, be cautious with a designer with unlimited ideas. Design your plans with your budget in mind.

Be Specific: Specifications are just what the word implies. Be specific and call out brands, color, model, make, grade, etc..., on every product that is in your home. Try and stick to what the factory supplies. Special orders increase cost. You may be required to purchase and install what you want locally. This too will add to your cost.

Wall Space: Providing adequate wall and floor space to accommodate your furniture is frequently overlooked.

Final Cleaning: Be specific about the final cleaning responsibilities in your contract. Remember to include the interior as well as the exterior area.

Structural Review: It is imperative that your plans be reviewed and certified for structural integrity. The factory is only responsible for the house work that they have done. Your builder needs to have the local building department approve all other work done on site.

Allowances: Be aware of low-ball allowances. Ensure that your allowances are realistic to avoid cost overruns. Remember, even though the modular home comes in approximately 85% complete there is still a lot of work that needs to be done on site to get the house ready for occupancy.

Warranties: Request that all manufacturer warranties are in writing on all specified products. Store the ones supplied by factory in a safe place for future reference if needed.

Quality Plans: The quality of your plans is the single most important factor in providing you with a quality home. Select plans from a quality modular manufacturer. Review, Review, Review before you sign off for the factory to build.

Change Orders, Payments, and Closing

Change Order Form: A simple form with a brief description, date, cost, running total, and initials should provide your customer with an accurate record of all changes. Once a final quote is issued by the factory any changes you make may be subject to a surcharge.

Payments: Make timely payments to your contractor to avoid delays and disputes.

Hold Back: Negotiate the amount of money to be held back during each phase of construction. The contractor has the right to be paid and customer have the right to ensure that the work is performed as specified.

Down Payment: Modular factories usually require a 10% deposit on the house before they will build and ship with the balance due when the house is delivered. Factories prefer to be paid the day the house has been delivered. Factories prefer to be paid the day the house has been delivered unless other arrangements have been made. It's not uncommon to have an assignment of funds agreement in place as the money is wired directly to the factory upon delivery.

Final Payment: Final payments should be made as soon as the home is completed. A reasonable amount should be held back to complete those items on your final punch list. This amount should be negotiated in advance with the customer.

Punch List: There is no such thing as the perfect home. Make one detailed list. When the contractor has completed that list, his job is done and you should pay him.

Insurance Tips

Location: It is generally less expensive to insure a house which is within 5 miles of a fire department or close to a fire hydrant.

Safety: Many insurance companies offer discounts for security systems such as a central fire or burglar alarm or sprinkler systems.

Safety Tips:

- *When planning your kitchen, don't place your stove near a window with curtains.
- *Your fireplace should have a good screen to reduce the chance of burning embers escaping and damaging your new floors or carpet.
- *When landscaping, keep bushes low and away from windows and foundation, so burglars have nowhere to hide. Remove large trees which could fall on your home.
- *If painting concrete/wood steps, use non-slip paint or add sand to your paint to reduce slippage.
- *Take an inventory of all belongings with a video camera. Be sure to include serial numbers and brands, if applicable. Store in a safe location such as a safety deposit box. If a loss occurs, this will help you to recover all your possessions.

OUTLINE OF CONTRACT SCOPE

The following is a list of common items that must be considered during the contract or budget phase of most residential projects. Most of the following must be completed satisfactorily to receive a certificate of occupancy and to receive final approval and draw from most financial institutions. Responsibility for all applicable items listed must be assigned prior to entering into a final contract to construct.

As evidence that this review has been completed and agreed upon, each party should initial (B) for Buyer or (S) for Seller. The initial indicates that the responsibility for completion of the listed item will be by and at the expense of that party. All parties should sign and witness on the last page and the document, properly executed should become an addendum to the final contract documents.

- 1) Land purchase. _____
- 2) Supply to seller updated survey of property. _____
- 3) Supply to seller 40 year abstract of title. _____
- 4) Supply to seller 10 year tax search of property. _____
- 5) Provide seller satisfactory evidence of financial capabilities. _____
- 6) Shooting grades for foundation. _____
- 7) Survey to stake building location. _____
- 8) Foundation plan-seller built. _____
- 9) Foundation plan-buyer built. Must be approved by builder
prior to contract. _____
- 10) Excavation initial including access roads. _____
- 11) Excavation for foundation. _____
- 12) Backfill of foundation. _____
- 13) Construction of footers. _____
- 14) Construction of foundation. _____
- 15) Installation of footer drains. _____
- 16) Installation of sump pump system. _____
- 17) Installation of foundation bolts, plates and sill sealer _____
- 18) Supply of foundation windows. _____
- 19) Installation of foundation windows. _____
- 20) Supply of cellar jack posts. _____

- 21) Basement concrete flooring. _____
- 22) Home design. _____
- 23) Stamped plans and specifications for home. _____
- 24) Cost and obtaining of permits. _____
- 25) Delivery of module units to job site. _____
- 26) Cost of equipment to move units within job site. _____
- 27) Cost of crane if required. _____
- 28) Erection and installation cost. (set crew) _____
- 29) Completion of modular units after erection. i.e. interior
and exterior trim out. _____
- 30) Public water supply thru foundation wall. _____
- 31) Private well installation. _____
- 32) Well water yield test and certification. _____
- 33) Well water purity test and certification. _____
- 34) Well water supply thru foundation wall. _____
- 35) Public sewer supply thru foundation wall. _____
- 36) Perk test and private sewer system design. _____
- 37) Private septic system permit and fees. _____
- 38) Private septic system installation. _____
- 39) Private septic system supply line thru foundation wall. _____
- 40) Plumbing permits, fees, and inspections. _____
- 41) Installation of interior plumbing and testing of entire
plumbing system. _____
- 42) Installation of exterior plumbing. _____
- 43) Electrical permits, fees, and inspections. _____
- 44) Electrical installation. _____
- 45) Basement cellar stairs. _____
- 46) Exterior stairs, stoops, decks, and walkways. _____
- 47) Supply of exterior basement wall insulation. _____
- 48) Installation of basement wall insulation. _____
- 49) Supply of interior basement wall insulation. _____
- 50) Installation of interior basement wall insulation. _____
- 51) Supply of basement ceiling insulation. _____
- 52) Installation of basement ceiling insulation. _____
- 53) Installation, fire code, and finish of basement garage
including installation and furnish of overhead garage doors. _____
- 54) Interior painting and cosmetic finish. _____
- 55) Obtaining of driveway permits and fees. _____
- 56) Installation of driveway culvert. _____
- 57) Installation of finish driveway. _____
- 58) Installation of exterior walkways. _____
- 59) Rough grade of lawn area, or machine grade only, no
removal of stone or other debris. _____

- 60) Finish grade of lawn area, yolk rake, or machine only to remove large stone and debris to designated spot on property. _____
- 61) Hand finish of lawn area, including mulch, grass seeding, fertilizer, and first watering. _____
- 62) Landscaping and foundation planting. _____
- 63) Heating system if other than baseboard electric. _____
- 64) Air conditioning. _____
- 65) Attached or detached garage per plans and specs. _____
- 66) Real estate fees and/or commissions. _____
- 67) Closing costs. _____
- 68) "As built survey", required for most financial institutions and building inspectors. _____
- 69) Certificate of occupancy including all necessary inspections from whatever source. _____