"A man builds a fine house; and now he has a master, and a task for life: he is to furnish, watch, show it, and keep it in repair, the rest of his days." ~ Ralph Waldo Emerson

# Tips for Homeowners: **Home Maintenance Guide**

s any experienced homeowner can tell you - buying a home is only the beginning when it comes to responsibilities. Like anything of value in life, keeping a home in great condition can only occur thanks to a lot of planning, effort and hard work.

Much like a living thing a home requires continual care to remain healthy and to give it longevity. But the job of looking after a home doesn't have to be a daunting one, especially if you have some assistance. Toward this end your friends at

Sun Porch Homes have assembled this Home Maintenance Guide, an overview of a typical home's various systems, with some helpful suggestions to keep those systems functioning properly for the long term.

The key to any maintenance program is making an ongoing effort - heading off issues before they happen to ensure lasting comfort, and to prevent costly future system failures.

By doing the work today you'll ensure lasting enjoyment and increasing value in your home for tomorrow.





A BUILDER **YOU CAN TRUST** 



exceptional value



impressive design



quality construction



# **Table of Contents**

# 1.0 MAINTENANCE GUIDELINES

1.0	Maintenance Guidelines	1
1.1	Monthly Maintenance	1
1.2	Twice-A-Year Maintenance	1
1.3	Annual Maintenance	2
1.4	Maintenance Information: Outside	2
1.5	Maintenance Information: Inside	3
1.6	Laminate Flooring	4
1.7	Ceramic Tile	5
1.8	Cabinets	5
1.9	Trim, Doors and Windows	5
1.10	Wall Finishes	6

# 2.0 Driveway, Sidewalks & Patios

2.1	Concrete	7
2.2	Concrete Pavers	7
2.3	Asphalt	7
2.4	Gravel	8
2.5	Site Drainage & Grading	8
2.6	Drain Tile & Sump	8
2.7	Landscaping	8

# **3.0 EXTERIOR HOUSE COMPONENTS**

3.1	Vinyl, Metal & Composite Siding	9
3.2	Wood Siding	9
3.3	Stucco	10
3.4	Masonry	10
3.5	Caulking	11
3.6	Windows	11
3.7	Doors	11
3.8	Weather-stripping	12
3.9	Exterior Hardware	12
3.10	Decking & Handrail	12

# 4.0 ROOF & GUTTERS

4.1	Roof	12
4.2	Gutters & Downspouts	14





# **Table of Contents**

5.0	STR	RUCTURAL COMPONENTS	
	5.1 5.2 5.3	Foundation Basement Floor Slabs & Crawl Spaces Wood Frame	14 14 15
6.0	INT	ERIOR FLOORING	
	6.1 6.2 6.3 6.4	Hardwood Flooring Resilient Flooring Carpet Ceramic Tile	16 16 16 17
7.0	Col	UNTERTOPS & CABINETS	
	7.1 7.2 7.3	Laminate Countertops Granite Countertops Cabinets	17 17 17
8.0	PLU	IMBING	
	8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 8.9	General Plumbing Taps Hot Water Tank Hose Bibs Toilets Faucet Repairs Plugged Toilets & Drains Tub & Shower Floor Drains	18 18 19 19 20 20 20
9.0	ELE	CTRICAL	
	9.1 9.2 9.3	General Electrical GFIC Circuits Smoke & Fire Detectors	21 21 22
10.	0 H	EATING & VENTILATION	
	10.1 10.2 10.3	Heating Range Hood & Exhaust Fans Heat Recovery Ventilators	22 23 23

All rights reserved, including all copyrights and all other intellectual property rights in the contents hereof.

The compositions and contents herein are not to be copied, reproduced, printed, published, posted, displayed, incorporated, stored in or scanned into a retrieval system or database, transmitted, broadcast, bartered or sold, in whole or in part without the prior express written permission of the sole author, who is, unless otherwise denoted, Sun Porch Homes Ltd.

Unauthorized duplication is strictly prohibited.





### 1.0 Maintenance Guidelines

Home maintenance includes regular, seasonal and one-time tasks. The following suggested maintenance schedule identifies some of the more common maintenance tasks that may be performed on a weekly, monthly or on a semi-annual basis. Tailor it to fit your own situation, adding or deleting items as required.

As a homeowner, you have normal maintenance responsibilities for your home. Establishing a maintenance schedule is the best way to manage your maintenance budget.

This suggested maintenance tasks and schedule should not replace the manufacturer's recommendations. We suggest the use of licensed contractors for any tasks you may feel unprepared to complete. Remember, safety first! What seems like a simple plumbing or electrical repair can cost you many times what you think you might save if you don't do it correctly.

#### 1.1 - MONTHLY MAINTENANCE

- \* Smoke detectors: Check operation by pushing test button.
- A Check fire extinguishers for proper charge. Never buy units without pressure gauge. Be sure that you have an adequate number, located in kitchen, garage and basement. Test Ground Fault Circuit Interrupters (GFCI) to insure proper protection.
- Clean or replace dirty filter in range hood.
- Check for evidence of leaks around toilets, under sinks, and around the dishwasher.
- \* Clean and freshen sink drains by flushing with hot water and baking soda.
- ♠ Clean aerators on faucets regularly, depending upon water hardness. You may need to use a rust or scale remover to return them to normal condition or have them replaced. Check water filter and softeners regularly. The life of the filters is dependent upon water usage and water characteristics. Retailers can help with this analysis.
- \* Monitor and maintain floor coverings on an as required basis.
- Regular vacuuming will reduce wear of floor coverings.
- ↑ The water heater should also be drained periodically. In areas with hard water, drain at least 5 gallons of waste from the drain valve every six months to prevent sediment build up.

#### 1.2 - TWICE-A-YEAR MAINTENANCE

- ♠ Inspect the roof for broken or missing shingles, identifying anything that might cause leaks or problems. Inspect and clean gutters and down spouts. Do not walk down the roof as it is dangerous and may cause damage.
- ↑ Inspect outside of home and condition of siding, paint, and wood trim.
- ♠ Inspect doors and windows to verify proper operation, security and weather resistance.
- \* Clean tracks of windows and sliding glass doors before applying silicone lubricant.
- ♠ Maintain wall finishes in this Manual.





- \* Monitor and maintain cabinets and countertops following suggestions in this Manual.
- ♠ Inspect the foundation.
- ↑ Inspect main service panel, circuit breakers, all GFI outlets.
- inspect and replace as needed caulking and grout around tubs, showers and sinks.

#### 1.3 - Annual Maintenance

- ♠ Examine caulking around windows, doors and other areas following instructions in this Manual.
- \* Inspect condition of concrete slabs and patios.
- \* Visually survey wood trim following suggestions in this Manual.
- \* Complete annual CRV (central circulatory ventilator) by a licensed HVAC contractor.
- \* Schedule professional inspection of major appliances especially if natural gas fueled.

#### 1.4 - MAINTENANCE INFORMATION: OUTSIDE

To make sure gutters and down spouts are operating as intended, you should inspect them twice a year.

#### **CLEANING**

Leaves and debris will accumulate in the gutters as the seasons change. You can hire a gutter cleaning service or do-it-yourself. If you do it yourself, carefully climb up to the gutter and scoop out leaves and debris with a small hand shovel. Also, remove debris from the down spouts. (You can sometimes clear these with a hose, but you may have to disassemble the downspout.) After cleaning, consider installing a downspout filter device to keep out debris. Make sure gutters are sloped to drain toward down spouts and that water drains a minimum of 5 feet away from the foundation as it discharges from down spouts. When on the ground, inspect gutters from underneath and look for leaks, rust spots or hole. Caulk as necessary.

#### CONCRETE

Driveways and sidewalks are generally made of concrete. Concrete is a strong material that wears well and will perform for many years.

Following installation, concrete will shrink as it cures. This shrinkage causes stress in the concrete, which often results in surface cracks as this stress is released. This cracking can be controlled by the installation of control joints in the concrete. These deliberate joints in the concrete are more susceptible to cracking than the remainder of the slab, thereby preventing cracks from occurring in the slab surface itself. Unfortunately, these control measures are not always effective and surface cracks can appear despite the builder's best efforts. These cracks are generally cosmetic and do not require repair unless they constitute a tripping hazard.

Seasonal variations in temperature may also cause cracks in concrete slabs. Soil movement beneath the concrete due to frost penetration can crack and/ or raise sections of the concrete. This change in height may change the direction of surface drainage causing water to pool against the foundation wall of your home. Should this occur, repairs should be undertaken to prevent water from pooling as it may then seep through the foundation wall and into the home. Both instances above are natural occurrences that are beyond the builder's control.





Another potential cause of damage to concrete surfaces is road salt and other chemical contaminants. Road salt or other de-icing products used for ice control in the winter may adversely affect the surface of the concrete. As a result, road slush, which contains road salt, should not be allowed to melt on the concrete. A good alternative to de-icers, is sand or cat litter for increased traction on icy sections of the driveway or sidewalk.

Common lawn fertilizer, contaminated surface water and run-off from stored materials can cause staining of the concrete surface that cannot be removed. Concrete sealers that are commercially available may reduce damage due to chemical contaminants. Care should be taken in the handling and storage of potential contaminants on or near any concrete surface.

#### 1.5 - MAINTENANCE INFORMATION: INSIDE

In the maintenance of floors, preventive maintenance is the primary goal.

#### **CLEANING**

Sweep daily or as needed. Never wet mop a laminate floor. Excessive water can enter the gaps between boards at joints and can cause the wood to expand and can damage the floor.

#### **DIMPLES**

Placing heavy furniture, dropping heavy or sharp objects, or walking with high heeled shoes on floors can result in dimples or cuts or bruise damage.

#### **FURNITURE LEGS**

Install proper floor protectors (felts or glides) on the legs of any furniture placed on hardwood floors. Protectors will allow chairs and larger furniture to move more easily over the floor without scuffing or scratching. Regularly clean or replace the protectors to remove any grit that may have accumulated which can cause scratching or wear of the surface of the floor finish.

#### **HUMIDITY**

Wood floors may respond noticeably to changes in humidity in your home. During winter months the individual planks or sections can expand and contract as water content changes. Laminate floors are typically "floating floor" assemblies and are not attached to the sub-floor so some movement may be noticed. This is normal unless there is buckling or if squeaks develop at transition strips.

#### **SEPARATION**

Expect some shrinkage which will be noticed at the joints of the wood plank or board sections near heat vents or any heat-producing appliances, or during seasonal weather changes.

#### SHOES

High heel shoes can exert over 8,000 pounds of pressure per square inch on the floor under the heels. Wearing of high heeled shoes on laminate floors is not recommended under any circumstance.

#### SPILLS

Clean up food spills immediately with a dry cloth. Never allow water or any liquid to stand on the laminate floor.





#### **SPLINTERS**

When laminate floors are new, small splinters of wood can appear at the joints. Care is taken to remove these prior to the homeowner taking possession of the home, but the nature of natural wood may mean that a few splinters do appear. To remove them, carefully use a sharp object like a razor knife to cut them — do not pull at a splinter in case it tears along the wood grain and damages the board.

#### **SUN EXPOSURE**

Exposure to direct sunlight can cause irreparable damage, discolouration or fading to hardwood floors. To maintain your hardwood or laminate floors install and use window coverings in these areas.

#### TRAFFIC PATHS

Eventually the foot traffic in traffic paths will wear the finish — this is normal wear and tear.

#### WARPING

Warping will occur if the floor repeatedly becomes wet or is thoroughly soaked. Laminate floors may absorb water and buckle and be destroyed. Unless the water damage is a result of a structural defect or finishing defect, water damage will not be covered.

#### 1.6 - LAMINATE FLOORING

Cleaning laminate flooring is simple — dirt and dust are easily removed with a vacuum or broom. For more difficult-to-remove dirt, use a cloth moistened very lightly with plain water. Then wipe the surface with a clean dry cloth. Under no circumstances should the floor be wet mopped. Heavier stains may be removed with manufacturer recommended laminate flooring cleaner available from most online flooring retailers. Occasionally, things may become "stuck" to your floor, such as gum or candle wax. This situation is best handled by letting the spot harden completely, then scraping it gently off the floor with a plastic scraper.

#### TIPS:

- \* Use entrance mats to protect laminate flooring in high traffic areas and from excessive tracking of outside dirt and soil.
- ★ Wipe up spills immediately.
- ♠ Move heavy appliances and furniture by using a dolly rolled over plywood or pressed board.
- ★ Use furniture leg protector pads under all furniture legs.
- ♠ Don't use any of the following products on your floor: ammonia-based cleaners, acrylic finishes, wax based products, detergents, bleach, polishes and oil soaps, or abrasive cleaning soaps.
- ♠ Don't allow water to stand on your floor for any length of time.







#### 1.7 - CERAMIC TILE

#### **CLEANING**

Ceramic tile is low maintenance. Vacuum or sweep floor tile for normal cleaning. Tile can also be cleaned with a wet mop and warm water. Depending on the finish of the tile surface it is recommended homeowners avoid adding detergent to the water. The ceramic tile installed on walls, countertops, or backsplashes in your home may be cleaned with any approved non-abrasive soap, detergent, or tile cleaner. Some high gloss or unfinished tile may be damaged by abrasive cleaners.

#### **GROUT DISCOLOURATION**

Clean grout that becomes yellowed or stained using a fiber brush, cleanser and water. Products for cleaning grout are available at most home hardware stores.

#### **SEALING GROUT**

Sealing grout is a homeowner decision and responsibility. The industry standard does not require builders to seal grout. Once grout has been sealed, it will require regular re-application of sealant. Ongoing maintenance of the seal is necessary.

#### **SEPARATIONS**

Slight separations between tiles and the grout will occur and is normal. Grouting is intended to finish the tile surface but does not hold the tile in place or affect the performance of the tile. Gaps or cracks in the grouting can be filled using premixed grout available at building supply stores.

#### 1.8 - CABINETS

For cabinets, check out the hardware. Adjust, tighten or lubricate knobs, hinges, latches, rollers and drawer glides. Refresh varnished wood cabinets with a good quality furniture polish once a month. Never use a paraffin-based spray wax. Painted cabinets may be cleaned with a mild non-abrasive detergent on a damp sponge. Scratches can be filled with a matching touch-up crayon available at most hardware stores. Your cabinet doors are made from Maple and should be cleaned and just like fine furniture.

#### 1.9 - TRIM, DOORS & WINDOWS

#### **WOOD TRIM**

To preserve wood trim, you should examine all baseboards, chair rails, crown molding, door frames and window frames once a year. Changing humidity levels can cause wood to shrink, crack and warp. Look for dust accumulation, cracks, corner separations, or warping. Wipe off dust with a damp sponge. For stained trim, treat with a good quality furniture polish. For cracks or corner separations, fill in gaps with matching wood putty. Treat with furniture polish for stained wood or repaint with a matching color for painted wood. Warped trim boards can be re-secured with finish nails. Set the finished nail heads slightly into the wood with a nail set tool, then cover nail heads with matching wood putty for stained wood or touch-up paint for painted wood.





#### 1.10 - Wall Finishes

#### **DOORS AND WINDOWS**

To ensure proper operation, security, weather resistance check twice a year. Check overall door and window integrity and operation. Windows and doors can be affected by several elements including minor settlement, wear and tear, expansion and contraction, and general weathering. Check weather-stripping at all windows and entrance doors. Make sure a tight air seal is formed when closed. Replace any weather stripped that becomes loose or damaged. Check door and window hardware (hinges, knobs, pins, latches, locks etc.). Make sure door latch bolts and dead bolts engage properly. Adjust, tighten and lubricate where necessary.

Spray graphite into keyholes and onto hinges when lubrication — never use oil. Look for binding or rubbing in the frames, cracked panes, difficult operation, locking problems, cracking or peeling paint or varnish. Adjust, lubricate, clean and re-seal as necessary. Door thresholds can often be adjusted by loosening or tightening the threshold screws. Also, don't forget to lubricate the tracks for wood shrinking or swelling. Don't sand or plane a door until it has been exposed to the various moisture changes of every season.

Tips for cleaning: To clean lightly soiled windows, use a solution of 1 cup vinegar, to 1 galled of warm water. For heavily soiled windows use a solution of 1 tablespoon of household ammonia, 3 tablespoons of denatured alcohol or vinegar to 1 quart of warm water.

To preserve the appearance of your wall finishes, check them twice a year. For drywall, check for cracks at windows, doors, corners, and ceilings. Repair with two to three coats of joint compound, then sand and repaint when convenient. Minor cracks can be filled with a heavy coat of matching paint. Look for any nail pops or protrusions. Reset offending nails deeper into drywall, then repeat drywall repair. Most cracks will occur after a heating or cooling season with the change in humidity. Consult with a drywall contractor to retexture, as necessary.

Look for peeling, cracking, blistering, fading, or scuff marks on your wall finishes. Scrape off paint from any damaged areas. Flat paint can be touched-up with a small brush and matching paint. Semi-gloss and glossy paint can be touched-up or wiped off with a damp sponge to clean. Exterior paints can usually be used for inside areas however, the opposite is not always true. Do not use an acrylic or latex paint over enamel or varnish, since it will not adhere. Use washable paint in the bathroom, kitchen, and utility area.





# 2.0 DRIVEWAY, SIDEWALKS & PATIOS

#### 2.1 - CONCRETE

Driveways and sidewalks are generally made of concrete. Concrete is a strong material that wears well and will perform for many years. Following installation, concrete will shrink as it cures. This shrinkage causes stress in the concrete, which often results in surface cracks as this stress is released. This cracking can be controlled by the installation of control joints in the concrete. These deliberate joints in the concrete are more susceptible to cracking than the remainder of the slab, thereby preventing cracks from occurring in the slab surface itself. Unfortunately, these control measures are not always effective and surface cracks can appear. These cracks are generally cosmetic and do not require repair unless they constitute a tripping hazard.

Seasonal variations in temperature may also cause cracks in concrete slabs. Soil movement beneath the concrete due to frost penetration can crack and/ or raise sections of the concrete. This change in height may change the direction of surface drainage causing water to pool against the foundation wall of your home. Should this occur, repairs should be undertaken to prevent water from pooling as it may then seep through the foundation wall and into the home.

Another potential cause of damage to concrete surfaces is road salt and other chemical contaminants. Road salt or other de-icing products used for ice control in the winter may adversely affect the surface of the concrete. As a result, road slush, which contains road salt, should not be allowed to melt on the concrete. A good alternative to de-icers, is sand or cat litter for increased traction on icy sections of the driveway or sidewalk.

Common lawn fertilizer, contaminated surface water and run-off from stored materials can cause staining of the concrete surface that cannot be removed. Concrete sealers that are commercially available may reduce damage due to chemical contaminants. Care should be taken in the handling and storage of potential contaminants on or near any concrete surface.

#### 2.2 - CONCRETE PAVERS

Manufactured concrete products such as paving stones are also susceptible to surface damage and staining. The precautions pertaining to concrete surfaces listed above also apply to these products. Concrete pavers are installed on a bed of course sand or fine gravel. Some localized settlement may occur due to compaction of these materials. Should some areas settle excessively, lift out the pavers in the low area and add sand to level the area out. Suitable material for this repair can be purchased in bag form from most home supply centers.

#### 2.3 - ASPHALT

Asphalt surfaces are seldom smooth and often have indentations. Tire impressions and checking or cracking at the edges due to expansion and contraction are other common characteristics. Damage to the surface may also occur in hot weather as the surface softens due to the heat. Sharp or pointed objects such as motorcycle kickstands or trailer hitches can penetrate the surface under such conditions.





Gasoline and solvents will dissolve asphalt quickly. Any spills or fluid leakage from automobiles should be removed immediately. Periodic sealing of the asphalt surface (every two to five years) with an acrylic-based sealant is recommended. These products are readily available at most home supply centers.

#### 2.4 - GRAVEL

Gravel driveways require raking periodically to fill in depressions to maintain an even surface. Crowning the driveway to the center or sloping it to one side is a good method of controlling surface water.

#### 2.5 - SITE DRAINAGE & GRADING

The intent of site drainage patterns is to prevent surface water from pooling near or against the perimeter foundation wall of your home. This is accomplished adjacent to the house by sloping the soil away from the residence on all sides.

Window wells are a means of providing a window for a basement below grade. Window wells must be kept free of ice, snow, leaves and other debris which may block the drainage system provided and flood your home. Depressions due to soil compaction following construction may occur adjacent to the foundation walls. These depressions should be filled and graded to direct surface water away from the walls for a distance of at least two meters (6'). At no time should water be allowed to pool against the foundation walls. In addition to the drainage considerations adjacent to your home, overall property drainage systems may include surface depressions, drain tile curtain drains and catch basins. Ice, snow, leaves and other debris can block the flow of drainage and must be seasonally maintained by the owner. Care must be taken not to permanently alter the drainage flow so as to cause an ongoing drainage problem.

#### 2.6 - Drain Tile & Sump

In most jurisdictions, there is a requirement for a perimeter drain tile system to be located below the level of the basement or crawlspace floor. This system is generally comprised of perforated pipes that are covered with gravel to allow water to seep into them. This drain tile carries the water away from the perimeter of the house to prevent it from accumulating against the foundation wall or footing.

The drain tile then carries the water to a sump or catch basin. The sump allows any sediment in the water to settle to the bottom of the sump. The clear water is then drained off by another pipe to the municipal storm sewer, ditch or a rock pit located in the yard. Access pipes or cleanouts are installed to allow the perimeter drain tile to be inspected and cleaned. The location of these cleanouts should be identified for future reference. Sumps and catch basins should be cleaned every two years, as a minimum, to remove any excessive sediment, leaves or other debris. Exterior stairwells are often equipped with a drain and sump at the bottom of the stairwell to prevent flooding of the basement. These drains must be kept clear of debris. Deep-rooted plants or trees should be avoided next to the foundation walls as deep roots can clog a drain tile system.

#### 2.7 - LANDSCAPING

Frequent watering of the grass is essential during the first few weeks after an area has been sodded or seeded. Once the grass is established, weekly watering is adequate. This will promote a deep root system that will result in a healthier, more drought resistant lawn.





Frequent watering of the grass is essential during the first few weeks after an area has been sodded or seeded. Once the grass is established, weekly watering is adequate. This will promote a deep root system that will result in a healthier, more drought resistant lawn. Frequent light watering results in a shallow root system that causes the lawn to dry out and die in drought conditions. For the same reason, grass should not be cut shorter than two inches in height. Fertilizing twice a year and controlling weeds will promote a healthy lawn. Consult your local home garden centre for suitable products. During the spring thaw, do not allow snow or ice to accumulate in shaded areas as this will damage the grass. Any accumulations of snow should be distributed evenly over a large area so that it melts evenly. Some minor settlement will occur over some areas of new lawns or landscaping. These areas should be filled and reseeded to maintain a level surface.

When installing flowerbeds, be careful not to interfere with the drainage system. Ensure that flowerbeds are graded away from the foundation wall and that a minimum clearance of eight inches is maintained between the ground level and the bottom of the exterior wall cladding. Never allow soil or gravel to come in contact with untreated wood materials or your exterior finish.

Trees and shrubs should be kept clear of the house. Deep rooted plants or trees could interfere with the performance of the perimeter drainage system of the house. Newly planted trees or shrubs require a shallow depression around their base. The depression should be worked periodically to loosen the soil to allow air and water to penetrate to the root system. Once the plant is established (approximately two years), the depression can be filled in; however, never raise the soil above the level of the base of the trunk as this will kill the tree.

# 3.0 EXTERIOR HOUSE COMPONENTS

#### 3.1 - VINYL, METAL & COMPOSITE SIDING

Generally, vinyl, metal or composite siding materials will not require refinishing. Metal and composite siding materials can be re-painted, vinyl siding cannot. Due to their smooth surface, these materials can be kept clean by washing with a garden hose and mild detergent and some light scrubbing. Never use a pressure washer to clean the exterior cladding. Excessive water pressure can cause damage to the surface of the cladding and/or force water into the wall cavity. Vinyl and metal siding materials are installed loosely to allow for expansion and contraction due to the variations in the outside temperature. Damaged or very loose siding should be replaced/refastened to prevent further damage to the siding and to prevent the entry of water into the wall cavity.

#### 3.2 - Wood Siding

Wood siding and shingles can be cleaned with a mild detergent and a garden hose. Do not use a pressure washer to clean wood siding as this will damage the surface and force water into the pores of the wood. Painted wood siding or shingles will generally require re-painting or staining within five years. This will vary depending on the type and quality of the product used, the initial coverage, and the exposure to the elements. The siding will require re-painting or staining whenever the surface begins to fade, discolor or peel. Moisture in wood siding causes most exterior paint failures. This moisture may be from garden sprinklers, damp shrubbery close to the wall, small cracks in the siding or around door and window details.





Spot repair of affected areas can sometimes extend the life of the remaining surfaces. Please note that if spot touch ups of the painted/stained surfaces are undertaken, the new paint/ stain colour will likely not match that of the existing surface due to fading and weathering. This cannot be avoided.

Siding installed on the south and west elevations, especially dark and bright colours which fade more rapidly, may require more frequent repainting or staining to maintain their original appearance and to provide adequate protection for the siding. For best results, follow the manufacturer's recommendations for surface preparation.

Decks, handrails and windowsills may require cleaning and "touching up" more frequently than other components of the house due to their horizontal orientation.

#### **3.3 - S**TUCCO

Stucco consists of a mixture of sand, lime, water and Portland cement. Conventional stucco applications, including those with an acrylic top finish coat, are not waterproof. The protection from water penetration comes from the building paper and flashing installed prior to the application of the first coat of stucco. The stucco does help in shedding water but will become saturated after a prolonged period of rain. Control joints are installed at each floor to compensate for the movement of the building frame caused by the wood components which shrink in size as they dry. Hairline cracks may appear in the finish coat after the drying and shrinking process is complete. These cracks should be expected and it is suggested that they be left until near the end of the first year, or until all shrinkage has taken place and then, if desired, they can be repaired. Please note that the repair of the crack is often more unsightly than the original crack. Cracks less than 3mm (1/8") in width do not require repair. Larger cracks should be sealed to prevent the entry of bulk amounts of water into the wall assembly. Most surface dirt on stucco can be cleaned with a garden hose. A pressure washer should never be used to clean stucco surfaces as considerable damage and excessive water penetration can occur. Over time, mildew and moss can grow on any shaded surface on any type of cladding. A mild solution of bleach and water may remove this growth.

#### 3.4 - MASONRY

Neither the mortar joints in the brickwork nor the bricks themselves are entirely waterproof. Periodically, the mortar joints should be checked for cracks. Hairline cracks are not problematic; however, if these cracks are excessive, they should be repointed to reduce the potential for moisture related problems. Repointing involves cleaning out loose mortar to a depth of at least ½" and filling the space with new mortar which is available at your local building supply store. The bottom course of brick contains intentional openings (weep holes) which allow for the drainage of moisture from the cavity located behind the brick. These openings must remain unobstructed and must be a consideration when landscaping. White dust or staining on the masonry surface is referred to as efflorescence. It is the result of salts within the masonry or mortar that migrate to the surface of thebrick with time. It can usually be controlled with water and a light scrubbing. More persistent occurrences can be washed off with muriatic acid or baking soda. Should efflorescence continually reoccur in a localized area, it may be due to a specific water source such as a leaking gutter. If so, the problem should be identified and corrected.





#### 3.5 - CAULKING

Flexible sealing compounds are generally referred to as caulking. Numerous varieties exist and have many specialized uses. Caulking is generally used to seal gaps between dissimilar materials on the exterior of the building and to seal gaps or joints in exterior finishes. As the building moves due to the shrinkage of the building framing members and/or the finishing materials themselves, considerable stress is placed on the caulking materials. While a caulking joint should never be the only means of preventing water from entering a building, it is one of the initial means of keeping water out. Therefore, caulking requires examination annually before the wet weather arrives. Any cracked or damaged caulking should be removed and replaced. When caulking, use a high-quality material formulated for your specific purpose. Some caulkings are for interior use or cannot be painted. Consult your local home supply centre for an appropriate product.

#### 3.6 - WINDOWS

Window glazing is typically made of glass with the exception of some skylights that may use an acrylic glazing. Current building standards require the use of double-glazed sealed units mounted in thermally broken frames. There is a wide assortment of frame types and the material used can vary widely. Windows may open in different fashions: they may slide horizontally or vertically, open outwards like a door or tilt open in the fashion of an awning. Typical windows require minimal maintenance. Window hardware should be cleaned and lubricated annually. Any accumulated grime or debris should be removed from between the window and the frame. Most window designs incorporate a drainage track at the bottom of the window to collect any condensation that runs off from the glazing. These tracks will have weep holes to the outside to drain this moisture. These holes must be kept clean and can be maintained with a short piece of wire or a cotton swab.

If high relative humidity levels occur inside your home during periods of very cold weather, condensation and frost on the inside face of the windows will occur. This is a ventilation issue and is not a fault with the window. Condensation can result in the growth of mold on the window frame that can be controlled with a mild solution of bleach and water.

Condensation between the layers of glass within the window frame indicates that the sealed unit has failed. The glazing unit will require replacement as there is no method of repairing sealed units. Acrylic skylight glazing does allow the migration of moisture through it, therefore, condensation between the double-glazing can be expected. This form of skylight usually has a vent that can be opened to allow for additional airflow between the acrylic glazing units.

#### 3.7 - **Doors**

Exterior swing doors are generally made of solid wood, metal, wood over a foam core or fibreglass. Sliding patio doors are usually constructed with metal or vinyl. Interior doors are usually a wood veneer over a hollow core. The man door between the garage and the house should have an automatic door closer and seal (weather-stripping) to ensure that the door automatically closes to prevent the entry of exhaust gases from the garage into your home.





Exterior doors are exposed to detrimental weather conditions and extreme temperature variations from the inside to the outside which can harm the surface of the door. Variations in the relative humidity from the interior to the exterior can also affect the door. Collectively or separately, these conditions can cause doors to warp or change in dimension. Seasonal variations can occur up to 1/4" in any direction. It is prudent to refrain from trimming a binding exterior door as the problem may rectify itself with a change in climatic conditions.

Some exterior doors have restrictions imposed by the manufacturer as to the colour the door may be painted. The heat absorbed by darker colours can cause failure of the sealing compounds in the glazing and/or cause excessive warping of the door. The wrong paint colour may void the manufacturer's warranty; therefore, any such restrictions should be reviewed prior to the door being painted. Interior doors are generally sized to allow a gap up to 18mm (3/4") at the bottom of the door between the door and the floor covering. This gap is provided to allow for the circulation of air beneath the door.

#### 3.8 - WEATHER-STRIPPING

Weather-stripping is installed around doors and windows to reduce air infiltration. Check the weather-stripping annually to ensure that the seal is adequate. Some weather-stripping is adjustable and the door should be slightly difficult to latch or lock. Petroleum jelly can be used to lubricate rubber or vinyl products to maintain their flexibility.

#### 3.9 - EXTERIOR HARDWARE

The factory finish on exterior locks and door handles will wear with normal use. This is especially evident with brass finishes in marine environments. To restore this finish, remove the factory lacquer finish with a scouring powder, then polish the hardware. Once a uniform appearance is obtained, the surface can be sealed with a coat of clear lacquer.

Interior door hardware can be wiped clean with a damp cloth and polished with a soft dry cloth. It should be noted that natural body oils and many hand lotions are detrimental to brass finishes and will cause tarnishing. Door hardware and locks can be lubricated with powdered graphite or light oil.

#### 3.10 - DECKING & HANDRAILS

Sundecks, balconies and handrails are exposed to rain, snow and sun. Cracking, warping and splitting of wooden deck materials is normal and cannot be prevented. Painted surfaces will chip and peel and should be touched up annually before the onset of poor wet weather. Open seams in wood trim should be sealed with a suitable caulking to prevent the entry of water.

# 4.0 Roof & Gutters

#### 4.1 - Roof

If the roof of your home is sloped, it will typically be surfaced with asphalt or fiberglass shingles, cedar shingles or shakes (which may or may not be treated with a preservative), clay or concrete tile, metal or a





composite manufactured product. Flat or slightly sloped roofs may be surfaced in either built-up tar and gravel or torched on rolled sheet goods. The typical life expectancy of these various roof materials ranges from 10 - 25 years.

The life expectancy of the roof will depend on the product used and the care and maintenance provided. Loose, broken or missing shingles following heavy windstorms should be repaired or replaced. It should be noted that most manufacturer's warranties for shingles do not cover wind damage in conditions exceeding 80 kph (50 mph) unless otherwise specified. Storm related should be made as soon as possible after such occurrences to prevent leakage. Leakage can cause serious damage to the interior of your home or further damage to the remainder of the roof.

Asphalt shingles and some roll roofing have granules on the surface to protect the product from damage due to ultra-violet radiation from sunlight. If bare areas of the underlying roof material are present, they should be protected with additional granules. This material is available at most roofing material supply stores. In addition, these types of roofs will become soft in hot weather and the top surface can become damaged from people walking over it. Deflection of the roof sheathing or the lifting of the shingles due to expansion can cause variations in the roof surface.

Cedar roofing should be washed annually with a garden hose and any accumulated debris such as needles or moss should be removed from between the shingles or shakes. The shingles should not be pressure washed as the high-pressure water causes irreparable damage to the composition of the shingle. Wood roofs become very slippery when wet and extreme caution must be undertaken

when working on a wet roof. Wood shingles will crack and split with time. This weathering is generally not a concern unless it causes a roof leak. If such a leak occurs, it should be repaired immediately by installing a piece of sheet metal beneath the cracked shingle. Older wooden roofs are very brittle and traffic on the roof can cause extensive damage to the shingles.

Flat roofs should be inspected by a professional every two years and all recommended maintenance should be carried out.

All forms of roofing are intended to shed water and prevent its entry into the residence. Obstructions that prevent the free flow of water off the roof surface or to a drain can cause leakage and/or premature failure of the roofing material. The roof and ancillary flashings must be kept free of debris. While cleaning the roof is recommended annually, the roof surface should also be checked for excess debris after every heavy windstorm. This is especially true if trees surround the home. Please note that coniferous trees will also deposit debris in sufficient quantities to impede the free flow of water.

Regardless of the type of roof material used, the area beneath the roof surface will be vented to the outdoors. Sloped roofs generally have an attic which is vented at the perimeter (eaves), gables or at the ridge of the roof. Flat roofs are also vented. This unobstructed ventilation is crucial to the longevity of the roof and roofing material. At no time should you allow this venting to become blocked.





All penetrations through the roof, such as skylights, pluming stacks, vents etc., need to be checked annually and re-sealed as necessary.

#### 4.2 - GUTTERS & DOWNSPOUTS

Although gutters are not required by building regulations, they are often installed at the perimeter of the roof to control the runoff of rainwater from the roof. They also serve to prevent the rainwater from being deposited alongside the foundation wall where it could eventually seep into the basement or splash water and mud up onto the surface of the wall. If the gutters or the down pipes become clogged with debris or ice, water damage can occur.

Keep gutters, roof drains and down spouts free of obstructions such as leaves, tree needles and moss. Washed down by rain, particles from asphalt shingles can settle in the gutters and reduce their efficiency. As with the roof, the gutters should be checked for obstructions at least twice a year, and after every heavy windstorm or after prolonged periods of freezing and thawing. When cleaning out the gutters, do not allow the leaves and debris to clog the down pipes of your home.

### **5.0 STRUCTURAL COMPONENTS**

#### 5.1 - FOUNDATION

The most common material used in foundation construction is poured in place concrete. Alternative methods of construction include masonry block walls and wood walls constructed of pressure treated preserved wood.

If constructed of concrete, it is important to understand that concrete shrinks as it cures. As with concrete flat work, such as driveways, the concrete of the vertical wall may crack as the stresses caused in the concrete due to shrinkage are released. Minor shrinkage cracking cannot be avoided in conventional concrete foundations and floors. These cracks have little effect on the structural integrity of the building.

The exterior of foundation walls is generally coated with a bituminous damp proofing material below grade. This material is often exposed for several inches above grade as well. Damp-proofing is installed to prevent moisture from seeping into the concrete. It is not waterproof; therefore, excessive amounts of ground water must be controlled by other means such as site grading or drainage.

Hairline cracks in the foundation wall may allow the entry of water. These can be repaired from the outside with an asphalt-based sealant. If exterior access is not possible, numerous concrete patching compounds are available commercially, which can be installed to the inside surface of the concrete wall.

#### **5.2 - BASEMENT FLOOR SLABS & CRAWL SPACES**

The floors of basement style homes will be cast-in-place concrete. This surface may not be perfectly smooth and is generally not intended as a finished floor surface. As concrete shrinks while curing, stress cracks are common. Cracks will generally form at corners and across doorways and at the





perimeter of the floor where it abuts the foundation walls. As the floor is not a structural component, there is generally no reason to repair cracks in a concrete floor unless they are larger than 3mm 1/8" in width. These can usually be filled with concrete grout.

Concrete floor slabs can be painted. The product used should be alkali resistant and allow continued curing of the concrete. Painted concrete floors often flake or peel and require continual touch-up.

Efflorescence may appear on areas of the concrete floors and walls. Efflorescence is a white powder on the surface of the concrete which is caused by salts in the concrete mix that are brought to the surface by the water in the concrete mix. It is cosmetic only and can be removed with a brush. Once the concrete has cured, it will likely stop appearing although an alternative water source could cause efflorescence to continue indefinitely. If this is the case, the alternate source of water should be identified and remedied.

A polyethylene vapor barrier is generally installed beneath the concrete floor to stop the migration of ground water through the concrete. Despite this vapor barrier, some moisture may still transmit through the concrete. Storage items should be raised up from the floor and kept away from the walls. This allows for the flow of air around the stored items and helps to prevent the growth of mold or mildew.

Crawl space floors are required to be sealed with a vapor retarder as well. This can be a polyethylene barrier weighted down with rocks or gravel or a concrete skim coat. Although it is common for both to be used together, either method is acceptable. If a concrete skim coat is used, it will generally be a lower strength concrete and will measure approximately 50mm (2") thick. It may be very roughly finished and is not intended as a finished floor. It will likely crack extensively due to its weak strength and the way it was installed. This is normal and no repair is necessary unless the cracks exceed 10mm (3/8") in width.

#### 5.3 - WOOD FRAME

The most common means of building the structure of a home is a method called western platform framing. This method incorporates a vertical frame of 2"x4" or 2"x6" studs with continuous plates of the same width at the top and bottom of the wall. The wall studs are generally on a 16" spacing. Plywood, lumber or oriented strand board (OSB) sheathing is used on the exterior of the frame. The floor "platforms" are constructed using 2"x8", 2"x10", 2"x12" floor joists of solid lumber or manufactured floor joists with plywood or OSB sheathing screwed or nailed to the top surface. To help eliminate squeaks and to provide additional structural rigidity, glue is often applied to the top of the floor joist prior to the installation of the floor sheathing. The interior and exterior walls of the structure and/or the perimeter foundation wall generally support the floor joists. For space considerations, beams constructed of several joists nailed together, or engineered wood products, may be used to support the joists in lieu of a wall. For larger loads or longer spans, a specialized manufactured beam may be used for added strength. Posts at intermediate locations may support these beams.

Most roofs are constructed using prefabricated wood roof trusses spaced 600mm (24") apart. Detailed roof structures may be framed by hand using roof rafters and ceiling joists. Trusses can span large distances while carrying considerable weight; therefore, it is likely that the interior walls on the top floor of your home carry no roof loads and the load is supported by the exterior walls only. As the design and installation of the truss is engineered, this can be confirmed by your builder or by the supplier of the trusses.





Following installation, the wood used to construct your home will shrink as it dries out. This shrinkage will cause minor changes in the size and the shape of the wood members. These changes do not effect the structural integrity of the wood frame but may cause changes in the finishes used throughout your home. The most common changes are cracks or nail pops in the finished surfaces of the drywall on the walls and ceilings. The movement that results from the shrinkage of the structure may also affect other finishes such as flooring and wood trims. Minor floor squeaks may appear and doors may begin to bind.

# **6.0 Interior Flooring**

#### 6.1 - HARDWOOD FLOORING

Kiln dried material is used for the construction of hardwood floors. However, these materials are susceptible to movement caused by variations in humidity levels in the living space. Low humidity levels will cause the wood to separate slightly at the seams of the flooring. High humidity levels will cause the wood to expand. If excessive, this expansion may lead to cupping or swelling in the center of the board. These movements vary seasonally and can be somewhat controlled by monitoring the indoor moisture levels. The movement of the flooring may also create noises as it expands and contracts. The appearance of hardwood flooring is easy to maintain and a damp mop is all that is required for cleaning. The need for wax on hardwood floors is rare and many types of flooring are now factory finished and have specific maintenance requirements. Refer to your builder or flooring supplier for specific instructions.

#### 6.2 - RESILIENT FLOORING

Whether it is a tile or sheet product, resilient flooring is susceptible to damage from indentations or scratches, particularly those caused by furniture. The floor should be protected from such damage by using furniture pads beneath heavy furniture legs. Resilient flooring should be cleaned with lukewarm water and vinegar. Harsh cleaners can cause fading or affect the composition of the flooring material making it hard and brittle. Consult with the supplier of the specific flooring product for their recommendations, as specialty products are available for different floorings to both clean and restore the sheen. Detergents often cause adjoining carpeted areas to mat down as the soaps are carried onto the carpet from the resilient floor areas.

#### 6.3 - CARPET

Carpeting care basically consists of avoiding spills, cleaning high traffic areas regularly to remove surface dirt and vacuuming the entire carpeted area weekly to remove dirt. Carpets and rugs should be professionally cleaned every year or two depending on the use and appearance. Less expensive carpeting is more susceptible to matting. This is primarily noticeable in high traffic areas and cannot be prevented other than using carpet runners.





#### 6.4 - CERAMIC TILE

Ceramic tile is very durable. For routine cleaning use a mild detergent; do not use waxes or sealers. As the grout is porous and will absorb water which will lead to staining, annual sealing of the grout joints with a clear liquid silicone sealer should be carried out.

# 7.0 COUNTERTOPS & CABINETS

#### 7.1 - LAMINATE COUNTERTOPS

Laminated countertops will burn or de-laminate if hot pots or pans are placed directly on the surface. Protective potholders should be used if the hot items are to be placed on the countertop. Electrical appliances may also require protection when in use. The damage caused by hot items is generally not repairable so it is best to err on the side of caution. Abrasive cleaners or steel wool should not be used, as the surface of the laminate will scratch. The ability to withstand scratching does vary with the laminate material used. If allowed to remain on the surface, household bleach or solvents can stain or discolor the laminate. Water must not be allowed to remain on joints in the countertop as this will result in the substrate of the countertop swelling due to the excess moisture. This damage is irreversible. Clean the surface of plastic laminates with a damp, soapy cloth or sponge. For stubborn stains, use a mild household cleaner and rinse thoroughly with clear water. Be aware that some liquid cleaners contain abrasives and/or solidify at the mouth of the container. These hard-solid pieces can scratch the surface if they inadvertently get on the cleaning cloth or sponge used to clean the laminate surface.

#### 7.2 - GRANITE COUNTERTOPS

Care must be taken to maintain kitchen countertops made of natural granite. Ensure that all spills are blotted up immediately with a damp soft cloth. These stone surfaces are naturally porous and staining can occur. Be advised that these surfaces are stain resistant, not stain proof. Extra care is required with spills that occur with acidic juices, alcohol, coffee and cooking oils. Generally, these tops can be cared for in a manner similar to plastic laminates and abrasive cleansers should not be used. These surfaces are also heat sensitive and can crack under intense heat (i.e. hot cooking pots and pans). The manufacturer also recommends that the owner apply a surface sealer to the countertop every year to help protect the surface.

#### 7.3 - CABINETS

Vinyl surfaced cabinets are very susceptible to heat damage. If the kitchen is equipped with a self-cleaning oven, the cabinet drawers and cabinet doors adjoining the range should be kept open when the range is in self-clean mode to allow excess heat to dissipate. If heat is allowed to build up, the surface may delaminate. This precaution should also be taken when the oven is used for a prolonged period at a high temperature. Most cabinet surfaces can be cleaned using a damp cloth and a mild detergent. Abrasive cleaners should not be used. Grease splattered on the surfaces should be removed immediately as it becomes more difficult to remove as it solidifies.





### 8.0 PLUMBING

#### 8.1 - GENERAL PLUMBING

The plumbing in your home will likely consist of plastic or copper piping for the supply of potable water throughout the home and PVC plastic piping for the waste disposal. Other products are available but are less common. Most homes have a main water supply shut off. This can be used in the event of an emergency and should be located upon occupancy for future reference. Additional shutoffs may also have been provided to the sink supply lines and toilets to allow for routine maintenance.

The waste lines usually have clean-out access. These may be located within cabinets, inside closets or clearly visible on a wall surface. These clean outs must remain accessible as they are the means of access to the piping should a blockage occur.

P-traps are present at the outflow of all waste piping. These traps are designed to provide a barrier of water which prevents the entry of sewer gases into the home. Sinks or drains which are used infrequently may lose this water barrier due to evaporation. If sewer gases are detected, running water down the waste pipe will reprime the trap and likely stop the odor.

Any waste materials, including grease, fat and petroleum products, should not be disposed of down the plumbing system. These materials will accumulate in the piping, especially in the P-traps, and can significantly reduce the flow of water through the waste system. These substances are also very detrimental to the municipal sewage treatment systems and private septic systems.

#### 8.2 - TAPS

The surfaces of the plumbing fixtures are susceptible to damage from abrasive cleaners. Use of abrasive-products and steel wool pads should be avoided as these products will cause the finish of the fixture to become dull and porous. Refer to the manufacturer's recommended maintenance procedures for specific information relating to your products. Plumbing fixtures are intended for normal household use only. Caustic products should not be disposed of in the household fixtures.

#### 8.3 - HOT WATER TANK

The water temperature of the hot water tank can be adjusted on the thermostat located on the tank. This may require the use of a screwdriver. An average setting for the water temperature is 140°F which is adequate for dishwashers. This temperature is hot enough for most uses but will not cause scalding or burns. If hotter water is needed for a special purpose, the thermostat on the tank can be set to a higher temperature; however, the thermostat must be reset to a normal setting when finished. If the house is to remain unoccupied for a substantial period of time, the water temperature should be turned down or switched off at the tank or breaker panel. Some hot water tanks have a "vacation" setting on the thermostat for this purpose.





Hot water tanks are equipped with a pressure relief valve at the top of the tank. This is a safety feature that will open and relieve water pressure if the tank exceeds its rated working pressure. If water or water stains are evident at the discharge pipe leading from the relief valve, contact a plumber as this is an indication that the normal operating pressure of the tank has been exceeded. A typical hot water tank has a life expectancy of 8 to 12 years. Periodic draining of the tank will remove sediment from the base of the tank and prolong its life. The sediment has an insulating effect, especially with immersion type elements, which causes the heating elements to operate longer than necessary with a consequent increase in cost and energy consumption.

Prior to draining water from the tank, the power supply or fuel source must be turned off. Do not restore power to the tank until it has been refilled as it may explode due to excessive pressure caused by the heating of air instead of water. The tank can be drained by attaching a garden hose to the outflow drain at the base of the tank and routing the hose to a nearby floor drain. Draining can only be accomplished by gravity feed; therefore, the outflow of the drain used must be lower than the base of the tank. Alternatively, the hose can be run outside as long as the outflow is lower than the tank.

#### 8.4 - Hose Bibs

Hose bibs (garden hose connections) often have a valve inside the house that can be shut off to allow the hose connection to be drained from the inside before winter to prevent freezing and possible bursting of the exterior section of the piping. These shut-off valves should be identified and shut-off in the winter months. Once the water supply has been shut off, the exterior valve should be opened to allow the exterior portion of the piping to drain.

This process is reversed in the spring once the threat of freezing is gone. Some hose bibs are "frost free" which means that the valve is connected to a long stem that allows the water to be shut off inside the wall in the warm environment. The outer portion of the piping then drains freely.

Garden hoses should not be left connected to the hose bib during freezing weather as neither can drain. Ice forming in the hose due to undrained water can break the hose, or the hose bib and cause the supply pipe to freeze.

#### 8.5 - TOILETS

Toilets generally refill as follows: a flush causes water in the tank to rise, which in turn lifts a ball float to a preset water level. Once the ball float reaches this level, the water flow valve is shut off. If set too high, the water level will rise in the tank and run down the overflow pipe into the toilet bowl without shutting off the water. To rectify this, simply adjust the height of the ball float so that the water is shut off before it reaches the height of the overflow outlet. If water continuously runs into the toilet bowl from the tank, there may be a poor seal at the flapper valve at the base of the tank. This seal can be cleaned with a stiff brush or steel wool. A worn flapper valve would require replacement. Water dripping from the base of the toilet tank is likely due to condensation on the tank versus a leak of any connections. High interior humidity levels will result in condensation on the cold surface of the toilet tank as the tank is refilled with cold water. Some toilets and some basins are made of glazed and kiln-fired vitreous china, while some basins and bathtubs are made of enamelled steel. Both are very durable and attractive. To clean these fixtures, use mild powdered or liquid cleaners. Avoid abrasive cleansers or pads as they will damage the finish.





#### 8.6 - FAUCET REPAIRS

Noisy or leaking faucets are frequently due to loose or damaged washers. Turning the fixture off with too much force can damage washers. Faucet handles should be turned no further than the point at which they stop the flow of water. Faucets can generally be easily repaired by either replacing the damaged washer or the faucet cartridge itself. Basic home repair books describe how to repair typical faucets; however, due to variations in the methods of manufacture, specific instructions may be required. Prior to beginning the repair, the water supply must be shut off at the shut off valves provided. If such valves are not present, the entire water supply system will need to be shut off at the main shut off valve. Contact a plumber if you are uncomfortable attempting this repair.

#### 8.7 - Plugged Toilet & Drains

Toilets are very susceptible to blockage. New toilet designs use very little water per flush. This results in a lower volume of water carrying away the waste. Repeated flushing may be required in some instances to remove solid waste. Dense tissue paper and some thick toilet papers are unsuitable for these toilets. Never dispose of hair, grease, lint, diapers, sanitary products, "Q-tips" or plastic in the toilet. Hair, grease, large food particles or other solid forms of waste can plug drains. Should they become plugged, try removing the debris from the trap beneath the fixture. Alternatively, a plunger can be used. Once partially cleared, very hot water may complete the job. A more severe blockage may require a plumber. As commercial drain cleaners are very corrosive, they are not recommended.

#### 8.8 - TUB & SHOWER

A shower curtain will prevent water from running onto the bathroom floor while the shower is in use. To prevent damage to the flooring or walls, any spills or puddles of water should be cleaned up immediately.

Caulking is used to seal seams and prevent water from entering behind the enclosure. If a separation occurs around your bathtub between the tub and the wall tiles or between the wall and the enclosure itself, it should be filled immediately with a tub sealer or caulking compound available at any home supply centre. Leaving the gap unsealed may cause serious water damage to adjacent materials. You should apply a clear liquid silicone sealer to the grout joints of tub or shower enclosures that are finished with ceramic tile. This should be done every six months. This sealer is used to prevent the porous grout from allowing water to seep through to the substrate material behind the tile.

This sealing cannot be done until the grout has cured for approximately six to eight weeks. Please note, this is a liquid product and should not be confused with silicon-based caulking. Follow the manufacturer's recommendations for application.

Some tub enclosures have specific cleaning requirements. Generally, abrasive cleaners are not recommended and harsh chemical cleaners should be avoided entirely. Follow the manufacturer's recommendations for maintenance. Also, you should never step into a bathtub with shoes on as trapped grit and dirt can damage the tub surface.





#### 8.9 - FLOOR DRAIN

Many municipalities require a floor drain primer which automatically provides water for the P-trap located below the floor surface. This P-trap is similar to those used under sinks and when full of water, it will form a seal against gases entering from the sewer system. As this water will evaporate with time, the seal must be maintained by pouring a litre of water down the drain every two to three months if an automatic primer is not present.

### 9.0 ELECTRICAL

#### 9.1 - GENERAL ELECTRICAL

The power supply to your home is fed by either an underground or overhead cable. With underground service cables, piping, gas lines, etc., care should be taken when digging on your property. For information on these underground services, contact your hydro or gas provider, Telus, your cable supplier or your local building department.

The small glass enclosed metre mounted on the side of your home is your hydrometer. This is the property of your utility provider and it measures your household electrical consumption. The voltage at the point of entry is generally 120/240 volts and 60 cycles per second. Circuit protection will be via circuit breakers located in the electrical panel(s). The main power shut-off will be located inside the electrical panel or immediately adjacent to it. Should the circuit breaker "trip", it is likely due to overloading of a specific circuit or a short circuit in an appliance cord. The start-up load of electric motors can also temporarily overload a circuit. To correct tripped breakers, isolate the cause of the overload or short and disconnect it. The circuit breaker can then be reset by turning it to the "off" position and then to the "on" position. If the breaker continually trips, contact an electrician.

#### 9.2 - GFCI CIRCUITS

A ground fault circuit interrupter (G.F.C.I.) is an additional electrical safety device installed in the electrical system. This device is a breaker that can be in the main electrical panel or within specialty outlet receptacles and is designed to provide protection from ground faults. The GFCI is extremely sensitive and will trip if grounding of the electrical current is detected. Ground faults usually occur in older appliances and electrical equipment or inexpensive extension cords. A poorly insulated extension cord lying on wet ground will often cause a ground fault. Because water and electricity are a poor combination, protection is installed to the outlets in the bathroom and outdoors. If this breaker trips, unplug the source of the ground fault and reset the breaker either at the panel or at the outlet itself. GFCI outlets should be tested monthly to ensure their proper operation.





#### 9.3 - Smoke & Fire Detectors

Smoke detectors should be tested monthly to ensure their proper operation and should be cleaned twice a year with a vacuum. Please note, in newer homes, these devices are connected directly to the electrical system of the home and do not require batteries. However, they will not operate in a power outage unless the unit has a backup battery.

### 10.0 HEATING & VENTILATION

#### 10.1 - HEATING

Regardless of type, the heating system of a home is designed to maintain a minimum interior temperature of 21°C. The indoor temperature is measured in the center of the room. This calculation is a health and safety issue defined by the Building Code/Bylaw and is not directly related to comfort. Temperature variations from room to room can be expected.

There are numerous types of thermostatic controls for any given heating system. The accuracy of these controls can vary due to internal heat gains caused by a continued demand for heat. At times, it may be necessary to ignore the numerical temperature settings and set the thermostat for a temperature that is comfortable. Adjusting a thermostat to a setting higher than the temperature desired will not speed the rise in temperature. The various heating systems available all have specific requirements for maintenance in order to operate at maximum efficiency. Heating systems can be noisy at times due to the expansion and

contraction of the pipes and other metal components of the distribution system. These noises are particularly noticeable when starting up or cooling down, or at night (when it is quieter) and do not affect the performance of the system.

Systems that rely on burning fuel to generate heat require makeup air for combustion. This air supply must not be blocked as dangerous back drafting conditions can occur. Heating systems will not operate unless the thermostat setting is higher than the room temperature. Solar heat gains can warm a room or area to the extent that the thermostat is warm enough not to be calling for more heat. The heating system will then remain turned off and other rooms not positively affected by the heat of the sun can become cool.

With forced air systems, the heat outlets and cold air returns must be kept free of any furniture or floor coverings which could block the free flow of air. In addition, the filters must be cleaned or replaced at least twice a year to allow the unobstructed flow of air through the furnace. The quality of the replacement filter used dramatically affects the air quality within the home.





#### 10.2 - Range Hoods & Exhaust Fans

Range hoods and exhaust fans reduce or eliminate cooking odors and excess moisture. Not all range hoods vent directly outdoors. For efficient operation and to reduce potential fire hazards created by grease accumulation, filters should be washed in mild detergent. They can also be run through a dishwasher.

#### **10.3 - HEAT RECOVERY VENTILATORS**

Some homes will be equipped with a heat recovery ventilator (HRV) for ventilation purposes. This mechanical unit continually exhausts stale warm air from within the rooms of a home (usually, the kitchen, bathroom and laundry areas), and supplies fresh air to the remaining main living areas. The heat recovery aspect of this unit consists of a heat exchanger inside the unit that warms the fresh outside supply air with the latent heat of the stale warm air that is being exhausted. This is done via a series of plastic baffles which allows the heat transfer without mixing the two air sources. HRVs run continuously and are a superior means of controlling humidity and air quality within the home.

\*\*\*\*\*\*

While not intended to be a comprehensive 'How To' guide, our *Home Maintenance Guide* 

has been created to examine the most common issues, and the most immediate remedies to the problems homeowners will typically encounter.

If you have additional questions please do not hesitate to give us a call at any time. **Sun Porch Homes** has been part of the Nanaimo construction scene for decades and would like to be there to help you envision your own personal dream home.

Check out our website at: www.SunPorchHomes.com



