HOMEOWNERS MAINTENANCE MANUAL

D·R·HORTON®

D.R. HORTON CUSTOM HOMES
CONSTRUCTION OF YOUR HOME

The construction of a new home differs from other manufacturing process in several ways. By keeping these differences in mind, you can enjoy participating in the construction process and assist us in building your new home.

- As a consumer, you rarely have the opportunity to watch as the products you purchase are created. Your new home is created in front of you.
- You have more opportunity for input into the design and finish details of a new home than for most other products. Our success in personalizing your home depends on effective communication.
- Because of the time required for construction, you have many opportunities to view your home as it is built, ask questions, and discuss details.

You have the opportunity to meet with us several points in this process. The first of these is a preconstruction conference, where we review your home plans, selections, and the process and answer your questions.

We understand that you will want to visit your new home between these construction reviews. Whether you are on site for a routine meeting or a casual visit, we ask that you keep the following points in mind.

SAFETY

A new home construction site is exciting, but it can also be dangerous. Your safety is of prime importance to us. Therefore, we must require that you contact D.R. HORTON before visiting your site. We reserve the right to require that you wear a hard hat and that a member of our staff accompany you during your visit. Please observe common-sense safety procedures at all times when visiting:

- Keep older children within view and younger children within reach, or make arrangements to leave them elsewhere when visiting the site.
- Do not walk backward, even one step. Look in the direction you are moving at all times. Watch for boards, cords, tools, nails, or construction materials that might cause tripping, puncture wounds, or other injury.
- Do not enter any level of a home that is not equipped with stairs and rails.
- Stay a minimum of six feet from all excavations.
- Give large, noisy grading equipment or delivery vehicles plenty of room. Assume that the driver can neither see nor hear you.

PLANS AND SPECIFICATIONS

The building department of the city or county agencies adopt new codes or regulations that can effect your home. We construct each home to comply with the plans and specifications for your home approved by the applicable building department. Your specifications become part of our agreements with trade contractors and suppliers. Only written instructions from D.R. Horton can change these contracts.

Regulatory changes

From time to time, city or county agencies adopt new codes or regulations that can effect your home. Such changes are usually adopted in the interest of safety and are legal requirements with which D.R. Horton must comply. The codes and requirements in effect for each area can vary. Therefore, builders may construct the same floor plan slightly differently in two different jurisdictions or at two different times within the same jurisdiction.

Changes in Materials, Products, and Methods

The new-home, building trades, and product manufactures are continually working to improve methods and products. In addition, manufactururers sometimes make model changes that can impact the final product. As a result, we may use methods or materials in your home that differ from those in our other homes. In all instances, any substitutions of method or product will have become necessary due to matters outside our control, we reserve the right to make them without notification.

Natural Variations

Dozens of trade contractors have assembled your home. The same individuals rarely work on every home in the same way and, even if they did, each one would still be unique. The exact placement of switches, outlets, registers, and so on will vary slightly from the model and other homes of the same floor plan.

QUALITY

Our company will build your new home to the quality standards demonstrated in our model homes. Each new home is a hand-crafted product-combining art, science, and raw labor. The efforts of many people with varying degrees of knowledge, experience, and skill come together. We coordinate and supervise these contributions to produce your new home.

From time to time during a process that takes several months and involves dozens of people, an error or omission may occur. We have systems and procedures for inspecting our homes to ensure that the level of quality meets our requirements. We inspect every step of construction and are responsible for quality control. In addition, the county, city, or an engineer conducts a number of inspections at different stages of construction. **YOUR HOME MUST PASS EACH INSPECTION BEFORE CONSTRUCTION CONTINUES.**

We also respect your interest and appreciate your attachment to the new home. Therefore, your input into our system is welcome. However, to avoid duplication of efforts, confusion, misunderstanding, or compounding errors, we ask that you do one of two things:

- Bring your concern up to your sales associate.
- Complete one of the Our Customer Wants to Know Form. Send or fax it to our main office: (407) 857-9228

During the construction process, every home being built experiences some days when it is not at its best. Homes under construction endure wind, rain, foot traffic, and activities that generate noise, dust, and trash. Material scraps are a by-product of the process. Although your new home is cleaned by each trade upon completion of their portion of the work, during your visits you will encounter some messy moments. Keep in mind that the completed homes you toured also once endured these "ugly duckling" stages.

TRADE CONTRACTORS

Your home is built through the combined efforts of specialists in many trades- from excavation and foundation, through framing, mechanical, and insulation, to drywall, trim, and finish work. In order to ensure you the highest possible standard of construction, only authorized suppliers, trade contractors, and D.R. Horton employees are permitted to perform work in your home.

Suppliers and trade contractors have no authority to enter into agreements for D.R. Horton. For your protection and theirs, the terms of our trade contractor agreements prohibit alterations without written authorization from D.R. Horton. Their failure to comply with this procedure can result in termination of their contract. See your builder if there are alterations or changes you wish to initiate.

SCHEDULES

The delivery date for your new home begins as an estimate. Until the roof is on and the structure is enclosed, weather can dramatically affect the delivery date. Even after the home itself is past the potential for weather-related delays, weather can severely impact installation of utility services, final grading, and concrete flatwork, to mention a few examples. Extended periods of wet weather or dangerous storms bring work to a complete stop in the entire region. When favorable conditions return, the tradespeople go back to work, picking up where they left off. Please understand that they are as eager as you are to get caught up and to see progress on your home.

"Nothing's Happening"

Expect several days during construction of your home when it appears that nothing is happening. This can occur for a number of reasons. Each trade is scheduled days or weeks in advance of the actual work. This period is referred to as "lead time." Time is allotted for completion of each trade's work on your home. Sometimes, one trade completes its work a bit ahead of schedule. The next trade already has an assigned time slot, which usually cannot be changed on short notice.

Progress pauses while the home awaits building department inspections. This is also part of the normal sequence of the construction schedule and occurs at several points in every home. If you have any questions about the pace of work, please contact our office (407) 857-9101.

Delivery Date Updates

We will update you on the estimated delivery date when possible. You are also welcome to check with us for most current target date. As completion nears, more factors come under control and we can be more precise about that date. Expect a firm closing date no later than 30 days before delivery.

We suggest that, until you receive this commitment, you avoid finalizing arrangements for your move. Until then, flexibility is the key to comfort, sanity, and convenience. We want you to enjoy this process and avoid unnecessary stress caused by uncertainty that cannot be avoided.

Congratulations on your decision to purchase a new home from D.R. Horton. We share your excitement about your new residence and look forward to having you work with us to have your home built.

The D.R. Horton Homeowner Manual has been designed to assist you during and after the purchase of your home. The information presented here will answer many questions and prepare you for each step of the new home experience, making this exciting time easier. In addition to guiding you through the process of purchasing and building, this manual provides you with maintenance guidelines and a description of our limited warranty program, by component.

Please take time to review this material thoroughly. We suggest that you bring this manual to all meetings. As we progress, you will add items to it. When complete, your manual will provide a useful record of information about your new home.

If you need clarification or additional detail about any topic discussed, please give us a call. We are delighted to welcome you as a part of the D.R. Horton family and are always ready to serve you.

Sincerely,

D.R. Horton Custom Homes

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I HAVE READ THE PREVIOUS PAGES AND UNDERSTAND THE CONSTRUCTION AND SAFETY PROCEDURES SET FORTH BY D.R. HORTON, INC.. I WILL REVIEW THIS HOMEOWNERS MAINTENANCE MANUAL PRIOR TO MY SCHEDULED WALK THRU WITH A D.R. HORTON, INC. REPRESENTATIVE SO THAT ANY QUESTIONS THAT MAY ARISE CAN BE ANSWERED PRIOR TO MY CLOSING.

HOME BUYER NAME	DATE
HOME BUYER NAME	DATE

D·R·HORTON®

OUR CUSTOMER WANTS TO KNOW...

Date _____

Home Buyer _____

Address _____

_____

Phone _____

Comments: _____

_____

_____

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Response: _____

_____

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By _____

Date _____

Welcome To Your New Home!

In order to acquaint you with the maintenance requirements about your new home, we are providing you with this Homeowner's Maintenance Manuel which consists of four chapters:

1. **Homeowner's Maintenance Checklists**
2. **General Information & Safety Tips**
3. **Homeowner's Maintenance Information**
4. **Glossary of Construction Terms**

This book will provide useful information which will assist you in the maintenance and service requirements of your new home.

The **Homeowner's Maintenance Checklists** provide several lists of important preventative maintenance procedures required at periodic intervals. By adhering to these checklists, you can discover and correct minor maintenance problems before they become a major expense.

The **General Information & Safety Tips** section contains valuable information concerning public utilities coming into your home as well as a few safety tips which you should observe when doing routine maintenance.

The **Homeowner's Maintenance Information** section gives you an explanation of the basic components of your home. This section will note the normal repairs that may be required and gives you helpful hints on how to care for your home.

The **Glossary of Construction Terms** defines for the layman descriptions and terms used in the construction industry. A few minutes spent in reviewing this section can result in your having a more comprehensive knowledge of how your home is constructed and can be of great benefit when dealing with construction tradespeople.

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CHAPTER 1

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HOMEOWNER'S MAINTENANCE CHECKLISTS

Homeowner's Maintenance Checklists

The importance of maintaining your new home on a regular basis is comparable to maintaining a new car. If you do not change the oil and have the car tuned up, little problems can become a major expense.

Unfortunately, many homeowners spend less time and money maintaining their homes than their cars! Yet, the car will generally lose value from the date of purchase while a well maintained home will increase in value and be a source of family pride and pleasure for years to come.

Your new home was designed to meet or exceed the requirements of the local building code at the time the building permit for your home was initially applied for. Your home was built to last for generations, but it has numerous components and systems that require periodic maintenance. By implementing the following preventative maintenance suggestions, you can help keep your home functioning properly with minimal problems.

To help you pinpoint when specific maintenance items should be performed, this check list is divided into four time periods:

After Move-In
Every Month
Every Six Months
Annually

Additionally, you may be provided with manufacturers manuals and operating instructions for various appliances and systems in your home. The suggested maintenance procedures in these manuals should be closely adhered to.

1. After Move-In Check List

BATHROOMS & MAIN FLOORS

- ❑ Apply grout sealer to ceramic tile grout if you wish to give the grout additional protection against discoloration from spills and stains.

ELECTRIC

- ❑ Locate the main circuit breaker in the electric panel box and show family members how to turn it off in case of an emergency.

FIRE EXTINGUISHER

- ❑ Purchase a general purpose fire extinguisher for each floor of the home plus one small kitchen extinguisher in case of grease fires. Demonstrate proper usage to family members in case of an emergency.

FIRST AID KIT

- ❑ Keep first aid materials and a book on first aid procedures in an accessible location.

FLOORING

- ❑ Attach furniture protectors underneath furniture legs to protect floor finishes.

HOUSEHOLD TOOLS

- ❑ Acquire basic tools to help you with normal home maintenance chores, including: pliers, adjustable wrench, flat-blade and Phillips-head screwdrivers, claw hammer, hand saw, tape measure, caulk and caulking gun, putty knife, paint roller and brush, power drill and drill bits, assorted nails, brads, screws, nuts, bolts, sandpaper, utility knife, toilet plunger, flashlight and batteries.

LANDSCAPING

- ❑ Review and implement recommendations in the Landscaping and Grading Section of this Manual.

PLUMBING

- ❑ Locate the main water line shut-off valve and all individual plumbing fixture valves and show all family members how to close them in the case of a plumbing emergency.

2. Every Month Checklist

AIR CONDITIONING AND HEATING

- ❑ Check air filters and clean or replace as necessary.
- ❑ Vacuum air supply and air return registers to remove dust and lint.

FIRE EXTINGUISHERS

- ❑ Check fire extinguishers to ensure that they are fully charged.

GARBAGE DISPOSAL

- ❑ Clean disposal blades by grinding up ice cubes. Freshen it with baking soda and by grinding up citrus fruit rinds.

INTERIOR CAULKING

- ❑ Check for cracks or separations in caulking around sinks, bathtubs, toilets, faucets, counter tops, and back splashes, ceramic tile walls, ceramic floors, window sills, and any other areas originally caulked by your builder. To repair these areas, use an appropriate caulking compound and follow the caulking instructions in the relevant sections of this manual.

RANGE HOOD FAN

- ❑ Clean or replace dirty filter.

SMOKE DETECTOR

- ❑ Test smoke detectors.
- ❑ Clean and/or vacuum.

3. Every Six Months Checklist

CABINETS

- ❑ Clean and apply a light coat of wax to wood finish cabinets.

CAULKING

- ❑ Check all areas originally caulked by the builder, especially windows and doors.

DOORS

- ❑ Check screws on door lock set and hardware and tighten as necessary.
- ❑ Lubricate bi-fold and by-pass doors as necessary.
- ❑ Clean sliding door track and apply silicone spray to tracks as necessary.
  Caution - only use a silicone lubricant; oil will cause the rollers to deteriorate. Take the necessary steps to protect adjacent flooring from the silicone, as it may discolor. Oil moving parts of the garage doors.

ELECTRIC

- ❑ Test and reset all GFCI (Ground Fault Circuit Interrupter) receptacles.
- ❑ Check electrical extension and appliance cords. Replace frayed or split cords.

EXTERIOR FINISHES

- ❑ Check for cracks and voids in exterior caulking and re-caulk as necessary. Follow the maintenance instructions contained in the painting section of this manual.

ROOFING

- ❑ Visually inspect roof from the ground for broken or missing tiles or shingles and gaps in flashing.
- ❑ Contact Roofing Contractor should repairs be required.
- ❑ Check and clean gutters and down spouts, if installed.

AIR CONDITIONING SYSTEM

- ❑ Have HVAC Contractor perform seasonal maintenance check-up.
- ❑ Ensure that air supply registers are not blocked by rugs, draperies and furniture.

PLUMBING

- ❑ Check water supply lines and valves to sinks and toilets. Tighten if loose or leaking.
- ❑ Clean out faucet aerators, spray nozzles and drains.
- ❑ Check pipes and drains for water leakage.

WINDOWS

- ❑ Check sills for caulking cracks or separations and re-caulk as necessary.
- ❑ Check weather stripping around windows and repair or replace as necessary.
- ❑ Check windows for smooth opening and closing operation. Clean tracks and lubricate as necessary, using silicone spray.
- ❑ Inspect window screens and repair or replace as necessary.

SMOKE DETECTORS

- ❑ Test detector and change the battery if needed.

4. Annual Checklist

ATTIC

- ❑ Check attic vents to ensure that soffit vents are not blocked with insulation and move insulation back to its original location if there are voids on the attic floor.
- ❑ Check inside attic for signs of roof leaks. Be extremely careful not to damage or disturb electrical wiring or plumbing pipes that may be in the attic.

CABINETS

- ❑ Check drawers and hinges for proper alignment. Tighten and adjust as needed.

CAULKING

- ❑ Recaulk all areas originally caulked by builder, especially windows and doors.

DOORS

- ❑ Check and repair or replace weather stripping on exterior doors as necessary.
- ❑ Check and tighten door hardware and lubricate as necessary.
- ❑ Tighten all bolts on garage door.

WINDOWS

- ❑ Check all windows for gaps in caulking on the exterior of the house.

AIR CONDITIONING SYSTEM

- ❑ Have HVAC Contractor perform annual maintenance check-up.

FIREPLACE

- ❑ Have chimney professionally cleaned as necessary.
- ❑ Check firebox liner.

PLUMBING

- ❑ Remove water heater residue following instructions in the Plumbing Fixtures Section of this Manual.

PRESSURE CLEANING

- ❑ Clean roof tiles of mildew and dirt as necessary.
- ❑ Clean pool deck and reseal as necessary.
- ❑ Clean pavers, driveways and walks as necessary.

CHAPTER 2

GENERAL INFORMATION AND SAFETY TIPS

GENERAL INFORMATION AND SAFETY TIPS

Introduction

Every aspect of building your home, from laying the foundation to the final coat of paint is an art form and was done by a qualified professional selected by your builder. By following the tips in this Homeowner's Maintenance Manual you can prevent minor problems from developing into major ones. Your home will retain its value and you can experience the pride of ownership for years to come. This manual is not intended to be a "*Do-It-Yourself*" step by step guide, but it does provide useful information about the care and maintenance of your home. Please bear in mind that any repairs made by the homeowner or someone hired by the homeowner may void the manufacturer's or builder's warranty on the item being repaired.

While it is important to know what you are doing before you attempt any repair, it is equally important to know when to stop. If the project is more complex than you originally thought, and exceeds your ability to make the repair ... STOP ... call in someone who knows what they are doing. It is better to admit a lack of knowledge than to compound the problem and create a major expense.

Your local Home Improvement Center or Hardware Store can provide you with a variety of services beyond selling you merchandise. They usually have "Do-It-Yourself" books that provide detailed information about specific areas of the home. Many of them offer classes on a wide range of subjects from carpet and tile installation to selecting the proper tools for any given job. Frequently the person waiting on you can provide useful information that will help you in selecting the right materials for the project.

PERSONAL SAFETY

Accidents happen. They are called accidents because they were never intended to happen. They frequently occur because of the lack of precaution by the injured party. If hindsight was foresight, very few homeowner's would be found in hospital emergency rooms.

A few dollars invested in eye protection, proper shoes and gloves may prevent a serious injury. When working around fiberglass insulation (such as attic crawl spaces) always wear long sleeves and gloves. You should take a shower as soon as possible after finishing the project.

Every home should have one or more ladders. In selecting a ladder make sure that it meets your needs for reach and weight requirements. When working on or around electrical fixtures never use an aluminum ladder. A ladder made of fiberglass is recommended for most applications. Pay close attention to the warning labels affixed to the ladder. They are there for your protection.

It is important to understand the function of any tool that you are using, especially power tools. Read all accompanying instructions carefully before attempting to use the tool.

Keep a first aid kit on hand at all times. Remember, the trauma of a trip to the emergency room may be avoided if you use a little common sense when working in or around your home.

UTILITY LINES, CABLES AND PIPES
INTRODUCTION

Your local utility companies provide a variety of services to your home. In most cases, even though their lines cross your property, you have no ownership or control over them until they pass through a metering device (electricity, water & gas). In the case of telephone lines and coaxial television cables they must pass through an exterior wall. Service or alterations to any utility line should only be done by a competent, licensed professional.

EMERGENCY SHUT OFFS

Your builder will show you where the main shut off valves and switches are located in your home. Every competent person living in your home should know where these switches and valves are located and how to turn them off in an emergency.

ELECTRICITY

Electricity does not discriminate against any gender, age or race. It is an equal opportunity killer. Never attempt any electrical repair unless you ***absolutely*** know what you are doing. For any additional service needs or major repairs you should call a licensed electrical contractor.

Even when attempting a minor repair you **must** have the electricity turned off to the device you are working on. This must be done at the Circuit Breaker Box. Turning off a wall or lamp switch will not always prevent a shock.

Every receptacle, lamp and electrical device is controlled by a circuit breaker in the main circuit breaker box. Every circuit breaker in the box should be labeled and you should know its function if you attempt to turn off the electricity. Never try to defeat the purpose of a circuit breaker. If it frequently "Trips" this is generally a sign of a more severe problem and a competent, licensed electrician should be called. The following simple steps may prevent a severe electrical shock.

A. Open the circuit breaker box and locate the proper circuit breaker. Turn it off.

B. Close the panel door and tape a note across the front of the box, informing others that you have turned off a circuit breaker and not to touch anything. If you can lock the panel, do so.

DO NOT ATTEMPT ANY ELECTRICAL REPAIR UNLESS YOU ARE QUALIFIED AND THOROUGHLY UNDERSTAND WHAT YOU ARE DOING!

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CHAPTER 3

HOMEOWNER'S MAINTENANCE INFORMATION

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SERVICE and MAINTENANCE

AIR CONDITIONING AND HEATING

Introduction

The air conditioning and heating equipment was installed by the HVAC (Heating, Ventilating, and Air Conditioning) Contractor.

The air conditioning and heating system(s) provide(s) year-round climate control and consists of a thermostat to control temperature, an air handler unit to heat or cool the air, a filter to remove particles from the air, plus a fan unit to distribute and circulate air throughout the home via ducts and registers. Air conditioners have an outdoor condensing unit or compressor which must be kept sufficiently free of obstructions (such as shrubbery) to allow air to flow freely.

Note: Window coverings should be installed to maintain consistent room temperatures. Direct sun light entering the house will increase the temperature in the affected area and will also fade furnishings and carpet.

Homeowner's Maintenance Guidelines

Service Contract: Our climate places heavy demand on your HVAC system. We encourage homeowners to take advantage of the extended annual service contract that is available from your air conditioner supplier. This contract typically provides seasonal check-ups of the heating and cooling components, plus periodic cleaning; the advantage being that scheduled service may reduce system failure by preventing problems before they occur.

Before calling for Service:

1. Check to see that the thermostat is properly set.

2. Check the circuit breaker in the panel box. If tripped, reset by switching the breaker to full "Off," then fully back to the "ON" position. If the circuit breaker will not reset, contact the HVAC Contractor. (See Circuit Breakers in the Electrical System Section).

3. Check the electrical disconnect switch, located on or near the air handler, and reset.

4. Check the exterior disconnect switch located outside the home, near the compressor and reset.

B. Air Filter

The air filter, located adjacent to the air handler unit or in the return air grille, helps reduce the flow of dust into the air. As the filter collects dust, it reduces the system's efficiency and must be either cleaned or replaced. Your Builder has installed one air filter in each filter location and will, at the walk-through, demonstrate proper filter installation, cleaning and replacement procedures. After that, the regular cleaning, replacement and maintenance of air filters is the homeowner's responsibility.

Homeowner's Maintenance Guidelines

Monthly filter cleaning or replacement will provide cleaner air, improve air flow, and help reduce utilities costs. To remove, clean or replace filters, turn the air conditioner/furnace and fan off using the thermostat control, then carefully remove the old filter and clean, or insert a new one. Replacement filters are available through hardware stores and are stocked in many supermarkets.

C. Thermostat

The thermostat controls the entire heating and cooling system. The thermostat provides a fan switch to circulate the air when neither heating or cooling is needed.

To maximize energy efficiency and minimize utility bills, set the thermostat to a comfortable level normally between 68° F to 71° F for heating, and between 76° F to 78° F for cooling, and leave it there. Then set the fan switch to either the "ON" or "AUTO" position.

The less you change the thermostat setting, the more comfortable you will be, the lower your utility bills will be, and less wear and tear on the system's compressor will incur. Changing settings frequently will cause the supplemental heater to run more often, and turning the system on or off expends extra energy to bring the temperature back to a comfortable level. Setting air conditioning controls too low does not cool the home faster and the same principle applies to heating.

D. Air Distribution System

Duct Work: Ducts carry and distribute heated or cooled air to each room.

Registers: Two kinds of registers are used: air supply registers, located on the wall or ceiling, that deliver warm or cooled air into the room; and air return registers (located on walls or ceilings, or under the air handler access door) that return air from the room back into the air handler fan to be re-heated or re-cooled.

To regulate temperatures on different floors or rooms during different seasons, adjust the air supply registers by partially opening or closing them, thus restricting or moving additional air into each room.

Vacuum supply and return registers to ensure they remain dust free. Check that registers are not blocked by draperies, furniture or other obstructions that restrict normal air flow.

Interior doors in each room are undercut to allow return air to circulate throughout each room where the doors are closed. Do not close doors to regulate room temperatures.

E. Exterior Compressor/Condensing Unit

Homeowner's Maintenance Guidelines

Keep the condensing unit (compressor) level and keep the area surrounding the unit clear to allow unimpaired air flow. Do not plant bushes too close to the unit and be careful that dirt, leaves, and grass clippings are cleared away. For a thorough cleaning, contact an HVAC Contractor. Do not build a deck around or over the compressor unless there is an 18" clearance on the sides and a 6' foot minimum clearance on top.

F. Condensate Control

Dehumidification is part of the function of your air conditioning system. The moisture removed from the air is condensed into water and is then referred to as "condensate". The condensate forms and is collected on the evaporator coil which is located in the air handling unit (except on one-piece package units). The condensate drain removes the water and carries it to the outside of the house. Regular maintenance by the A/C contractor of the drain pan and line should be performed to control algae build-up and eliminate water leaks.

Homeowner Maintenance Guidelines

Install algae tablets in the condensate drain pan regularly. Flush condensate drain pan regularly. Flush condensate drain lines regularly. Drains should be flushed from the inside of the house towards the outside. Never open the air handling unit without first disconnecting the power. Algae tablets are available through your air-conditioning contractor.

Helpful Hints:

a. Check and replace or clean filters every month. Clogged filters mean higher operating costs.

b. Don't try to maintain different temperatures in different rooms by totally closing duct outlets, you will unbalance the system and reduce its efficiency.

c. Use bath and kitchen exhaust fans sparingly when air conditioning is operating.

d. To reduce the time your air conditioner must be on, do heat-producing chores such as baking and dish washing, during the cooler hours in the morning or evening.

e. Check weather stripping and caulking around doors and windows for leaks.

f. Shade your home with trees wherever possible.

g. Keep all windows and exterior doors shut when air conditioner is on.

h. Do not short cycle your compressor by moving the thermostat up and down too rapidly. Set your temperature slowly and leave it for at least 5 minutes before resetting.

APPLIANCES

Introduction

Your home may be equipped with a variety of appliances, such as an electric oven, range hood, dishwasher, refrigerator, microwave oven, garbage disposal, washing machine and dryer.

At move-in time you should test all appliances for proper operation, where applicable, **fill out and mail in warranty cards.** Failure to do so may void the Manufacturer's Warranty. Review the Manufacturer's Service Manuals for operation and maintenance instructions. File your manuals in a convenient location for future reference.

Many manufacturer's offer toll-free customer service to answer questions about appliance problems and operation. Some helpful numbers are:

G.E. Service	800-432-2737
Whirlpool	800-332-3324
Kitchen Aid	800-332-3324
Jenn-Air	800-688-1100
Sub-Zero	800-273-3131
Thermadore	800-273-3131
Maytag	800-688-9900

For appliance repair protection that extends beyond the manufacturer's warranty period, we suggest you consider a service contract available through an appropriate local contractor or the manufacturer.

If you purchase your own appliances, carefully measure existing appliance openings to ensure proper fit. Check that doorway widths leading to the final appliance location are wide enough to move the appliance through.

Homeowner's Maintenance Guidelines

Before calling for service:

If an electrical appliance fails to work, complete the following checklist before calling the appropriate contractor, otherwise, you may be charged for a service call.

1. Check that the appliance is plugged in.

2. If the appliance is plugged into a wall-switched electrical outlet, make sure the switch is "ON." If the appliance is plugged into the GFCI circuit, check and reset the button if necessary.

3. The circuit breaker in the panel box controlling the appliance should be in the "ON" position.

4. Some appliances come with their own separate fuses or circuit breakers. Review the Manufacturer's Service Manual for the exact location, then check for proper setting.

5. Annually check the dryer vent for obstructions. Accumulated lint should be removed by disconnecting and then vacuuming the dryer vent.

Helpful Hints:

Refrigerators/Freezer: Check and clean the gaskets regularly to ensure a tight seal. Refrigerator and freezer temperatures should be set at the temperatures recommended by the manufacturer. DO NOT PLUG a refrigerator or freezer into a "ground/fault" (GFCI) receptacle, because the circuit may trip and not be discovered for some time, allowing the contents of the refrigerator or freezer to spoil.

Dishwasher: Use only when you have a full load. Use the shortest wash cycle.

Cook Tops/ Stoves/ Ovens: Do not allow dirt to accumulate. Clean with a recommended over the counter cleaner. Do not use harsh abrasives unless specified. Clean all filters regularly.

Garbage Disposal: Always use cold water when disposal is working. Corn stalks, bones, celery, or any other food that shreds should not be put into the disposal. If the machine becomes jammed, use the wrench to free the mechanism and try again. The disposal will rust if not used regularly. If you are going to be away for an extended period of time, a teaspoon of oil will help prevent the mechanism from freezing.

Range Hood Fan or Microwaves: The range hood fan filters collect grease and should be cleaned regularly. Soaking the filters or lightly brushing them in hot soapy water is the best cleaning method. Be sure the filters are dry before reinstalling them.

Microwave Oven: Be sure that vent louvers are not blocked.

ATTIC

Introduction

The attic space below the roof is part of the roof truss system. When inspecting the attic, walk on the wood members only. **The drywall ceiling of the room below is not designed to support any weight.**

Homeowner's Maintenance Guidelines

The attic truss system is not engineered to support additional weight and should not be used for any storage purpose. Materials stored can also be a fire hazard. Do not cover any vents with insulation or any other material. Insulation on the attic floor is for the thermal protection of the rooms below. If the insulation is moved, it will leave gaps between the insulation panels and may obstruct the attic vents. Always replace moved insulation back to its original position.

BATHROOM MAINTENANCE

Also see Ceramic Tile Walls and Plumbing Sections

Homeowner's Maintenance Guidelines

Mildew: Moisture and mildew problems will occur in any room where water vapor is present. To reduce mildew, turn on the exhaust fan or slightly open a window when bathing. Wipe off wet tiles when done, then hang up towels and washcloths to dry. To clean mildewed surfaces and reduce mildew odors, apply a liquid mildew agent in a well ventilated room, followed by a disinfectant and thorough rinsing with clear water.

Soap Scum: In some geographic areas, water that is high in mineral content can contribute to soap scum buildup. To clean and remove this residue, wash the affected surfaces with a mild vinegar and water solution or use mildew removers found in most stores.

Rust Stains: The contact of wet metal on sink surfaces, for example, the bottom of a shaving cream can, may produce rust stains. To remove them, apply a powdered rust remover, carefully following the manufacturers instructions.

CABINETS

Introduction

Kitchen, laundry room and bathroom vanity cabinets are all selected for their attractive appearance, durability and ease of care. With proper maintenance, the cabinets will remain serviceable and attractive for many years.

Homeowner's Maintenance Guidelines

Wood Cabinets: Wood cabinet tone, grain and color variations are normal and reflect the natural characteristics of real wood.

Clean wood cabinets with the same gentle care you would give any fine wood furniture. A light coat of wax or lemon oil applied once or twice a year will protect the finish and enhance the appearance.

Cabinet mounted coffee makers are not recommended since the rising steam will damage solid wood and wood veneer, causing fading or delamination. For the same reason, position regular coffee makers out from underneath the upper cabinets and near the front of the counter.

Laminate Cabinets: Clean laminate cabinets with a soapy cloth or sponge, using a nonabrasive liquid household cleanser for more stubborn stains. There are one-step cleaning products available for laminates that clean, reduce streaking, and leave surfaces polished. As with all cleaning products, carefully follow the manufacturer's instructions.

Shelves: Shelves are not designed to hold weight that exceed 20 pounds per square foot. Keep canned goods, flour, sugar and heavier products on the bottom shelf of the base cabinets. If desired, apply contact paper to shelves to protect against scratches and stains.

Drawer and Hinge Care: Check the hinges at least once a year for proper alignment and tightness, using a screwdriver to make necessary adjustments. Check drawers for easy movement and apply a silicone spray to the drawer guides should sticking occur.

Repairing Nicks and Scratches: Hardware stores offer color-matching putty to cover and repair cabinet nicks and scratches.

CABLE T.V. SYSTEM

Introduction

Homeowner's Responsibility: The homeowner is responsible for contacting the local cable company for the initial hook-up. Roof antennas and/or satellite signal receiving dishes are not allowed in some communities and you should check with your Homeowner's Association (if applicable) before proceeding with any installation.

D·R·HORTON®

CERAMIC TILE

Introduction

The ceramic tile walls in your bathrooms are easy to maintain and, if properly maintained, will be impervious to water. The seams, joints and sealers are not waterproof and require proper maintenance to prevent water seepage and damage to materials adjacent to and underneath the tile.

> Cracks in the caulking joints between tile and tub, in the shower stall corners, and at the floor, are normal and are caused by the high degree of moisture present in every bathroom, as well as from the normal shrinkage of caulking material. Separation between the tub and wall tile is caused by the weight of the tub when filled with water.

For other problems concerning bathtubs, sinks, etc, see the Plumbing Fixtures Section.

Homeowner's Maintenance Guidelines

Caulk cracks and separations of seams adjacent to tile with a top quality flexible caulk, taking care to wipe the tile clean once caulking is complete. Do not use clear silicone-based caulk since it yellows with age and stains easily. See Re-Caulking of Tubs and Showers in The Plumbing Fixtures Section.

Glazed Tile Showers: Use all-purpose bathroom cleaner. Let stand for five minutes, rinse and dry. Use a mixture of equal parts water and white vinegar or a commercial tile cleaner. For stubborn stains, use chlorine bleach or scouring powder containing a bleaching agent. Let stand four to six hours, then scrub and rinse thoroughly. To remove mildew, use a commercial tile cleaner or chlorine bleach or ammonia. **Do not mix chlorine bleach and ammonia!**

Unglazed Tile Walls: Sponge with a diluted solution of water and soapless detergent. For deep-cleaning use scouring powder paste. Let stand five minutes, then scour with a brush. Rinse and wipe dry.

1. Never use abrasive cleaners or harsh chemicals or solvents on ceramic tile.
2. Unglazed tiles may need to be sealed on a regular basis.
3. Wipe off spills immediately,
4. Never use harsh cleaning agents such as steel wool pads which can scratch or damage the surface of your tile.
5. Do not use a cleaning agent that contains color on unglazed tile. The pores in the ceramic could absorb the color.
6. Test scouring powders on a small area before using overall on tile.
7. If continuous staining is a problem on grout joints, use a sealer.

CONCRETE

Foundation and Floor Slabs: In monolithic construction, the floor slab, garage slab, foundations and footings are all poured in concrete at the same time. Most builders use heavily reinforced concrete monolithic slab construction. To prepare the soil for the foundation, a termite spray is applied to the ground prior to pouring the concrete slab. After the first year, it is the homeowner's responsibility to maintain a termite contract.

ONE THING TO UNDERSTAND ABOUT CONCRETE IS THAT IT WILL CRACK!

It is important to understand that concrete is a porous material that will expand, contract, and crack as a result of temperature changes, shrinkage, stress and settlement. Hairline cracks that may appear on foundation walls and be visible on garage floors are common and are usually cosmetic, as opposed to structural. Shrinking occurs from the normal curing process of concrete that varies with the time of year and the moisture conditions that exist when the concrete is poured. Slab stress and settlement are caused by soil conditions and loads such as the weight of the walls. These forces can create a variety of stresses which, in combination with seasonal temperature variations, can cause concrete and masonry foundations to develop nonstructural cracks.

Home Slab and Garage Slabs: Due to the large size of concrete home and garage slabs, hairline cracks less than 1/4 inch in width are common, and are caused by slight home settlement, or expansion and contraction. These cracks are normal and it is best to leave them alone, since attempts to fill the cracks will not stop the expansion and contraction. Long "hairline" cracks in slabs, patios, garage floors, sidewalks and driveways are common and require no additional attention. They are cosmetic in nature and do not affect the integrity of the concrete. Any attempt to repair chips or cracks in concrete will result in product and color variation.

Homeowner's Maintenance Guidelines

Clean concrete with a solution of five tablespoons of baking soda to a gallon of water. Before using the cleaning solution, wet the floor with clear water and loosen the dirt with a steel brush or scraping blade.

A concrete sealer may be applied to the floor, following the manufacturer's directions, approximately six months after you move in. This will make it easier to clean and will reduce concrete dusting. NOTE: Use of concrete sealer may make the floor slippery when wet.

B. Stamped Concrete

Introduction

Concrete is placed between forms, color hardener is applied to cover the surface then troweled into the surface, color release is applied then tools are placed to stamp the pattern a minimum of 21 days later, the driveway or patio will be pressure cleaned and sealed.

C. Decorative Concrete Topping (Spray Deck)

Introduction

Spray Deck is a decorative type of material applied to a 4" concrete surface. It is generally used around pools and patios.

In most cases, exterior concrete cracks are due to temperature variations, soil movement and pool settling.

Homeowner's Maintenance Guidelines

Per manufacturer's instructions: To remove dirt, mildew, etc., hose down area with water and sprinkle powdered laundry detergent on tile deck and scrub with a soft nylon brush. Let sit five minutes and hose off immediately. Work in small areas so mixture does not dry onto surface. Do not use any abrasive chemicals or pool water which contains chlorine bleach, acid or household bleach. Do not pressure clean deck unless you intend to reseal and stain, it can scar and remove surface.

CONDENSATION

Introduction

Condensation, or the appearance of moisture that occurs when warm moist air comes into contact with a colder surface, is most prevalent in new homes, especially during the first year. This is caused by the large quantities of water used to build the new home, from the concrete foundations to the paint on the walls. As this water evaporates, and the drying out process occurs, the moisture takes the form of condensation on interior windows.

Another source of indoor humidity is everyday water usage. For example, a family of four doing laundry, bathing and using the dishwasher, puts approximately 2 to 5 gallons of moisture into the air everyday.

Window condensation is produced by conditions beyond your builder's control.

Homeowner's Maintenance Guidelines

Ventilation: Proper ventilation is the safe and steady way to reduce indoor humidity and condensation.

1. Ensure that the clothes dryer is properly vented to the outside and that the vent is clear of obstructions and lint. Do not push the dryer too far back or the vent hose may become kinked and therefore obstructed.

2. Kitchen, bath and utility exhaust fans can be used to carry moist air outside. Use the fans for short time periods since they exhaust cooler air-conditioned air outside the home.

3. Adjust the registers to maintain even temperatures throughout the home. Do not try to speed up the evaporation process by creating extremely high temperatures in the wintertime. This will cause the house to dry out unevenly, creating cracks and other problems.

COUNTER TOPS AND VANITY TOPS

Introduction

Kitchen and bathroom counter tops are covered with laminate material or cultured marble. (Ceramic tile countertops - see section on Ceramic Tile.)

Homeowner's Maintenance Guidelines

Laminate Counter Tops: Clean laminate counter tops with a soapy cloth or sponge, or use a nonabrasive liquid household cleanser for more stubborn stains. There are one-step cleaning products available for laminates that clean, reduce streaking, and leave surfaces polished. As with all cleaning products, carefully follow the manufacturer's instructions.

Caution: Keep standing water away from the backsplash, side splashes, seams and seal around the sink. These areas are prone to water damage, since excessive moisture will eventually break down the seal and cause swelling or delamination of the counter top, check seams periodically and re-caulk as necessary.

Cultured Marble Vanity Tops: Clean cultured marble with a damp cloth and a non-abrasive detergent. When re-caulking, use a flexible caulk. Use of a gel-gloss or aerosol spray may be used for polishing.

Counter Top Precautions:

1. Keep counter top dry at all times.
2. Excessive heat can cause charring, burning, lifting or blistering. Do not place hot pans, coffee pots, baking dishes, hot iron, or burning cigarettes directly on counter top surfaces. Use protective hot pads or trivets under counter top electrical appliances.
3. Always use a cutting board since knives will cut the surface.
4. Steam from an open dishwasher may cause swelling and delamination. Allow time for the dishwasher to cool before opening the door. To further reduce moisture damage, apply a silicone spray to the underside of counter tops, directly over the dishwasher and two feet left and right of the dishwasher.

DOORS

Introduction

Your home comes with a variety of doors, which may include interior doors, French doors, louver doors, bi-pass and bi-fold doors, sliding glass doors, exterior doors, and garage doors.

A. Interior Doors

Interior doors expand and contract in reaction to temperature and moisture changes, and will be wider in humid summer periods and narrower during dryer winter months.

Homeowner's Maintenance Guidelines

Sticking Doors: Home settlement or damp weather may cause swelling that puts the doors out of alignment. In some cases, this may only be temporary due to seasonal variations, and the sticking will tend to correct itself without any adjustment.

If door adjustment is required:

1. Check hinge screws for tightness.
2. Fold sandpaper around a wooden block and sand the edge that sticks. A small plane can also be used, but be careful not to remove too much material from the door. Also the use of a bar of soap on the door top and frame may help.
3. Always paint or varnish sanded or planed areas to protect the wood from future moisture penetration and sticking.

Door Precautions:

Interior doors are usually hollow core and are not designed to support attachments and hanging accessories. Hanging heavy items on door knobs, or at the top of a door, can damage hardware and hinges. These doors are also undercut to allow air movement.

B. Bi-Fold and Bi-Pass Doors

Keep the door tracks free of paint and dirt, and apply a small amount of silicone spray to the guide edges of the tracks.

C. Sliding Glass Doors and French Doors

Keep sprinklers away from sliding glass doors and French doors when watering the lawn. Sliding glass doors have been sealed against water, but occasionally, high winds and driving rains can create a vibration that causes some leakage. Neither this, nor the water that accumulates in the tracks can be prevented. This is also true for French doors.

Clean glass with a spray glass cleaner and wipe frames with sudsy water and a soft cloth. Periodically clean the bottom of the door track, and check to ensure that drain holes are clear of obstructions. To keep the doors moving freely, apply a silicone spray to the tracks. Do not use oil, which may cause premature deterioration of the rollers.

In some cases, the glass is tinted to help block the rays of the sun. If you feel you need solar protection film on your glass, it is important to note that ALL SOLAR FILM MUST BE APPLIED TO THE INSIDE PANE OF GLASS. Otherwise, heat build-up between the layers of glass will cause the glass to crack.

D. Exterior Doors

An exterior door that is properly aligned, fitted, weather-stripped and maintained, will help control energy costs. Exterior doors are often steel clad or fiberglass to prevent warpage and to maximize insulation. An exterior door will warp to some degree, due to temperature differences between the inside and the outside surfaces.

Wood exterior doors should be checked every six months for signs of weathering and repainted as necessary.

Painting: Steel clad or fiberglass doors are maintenance-free and require little attention except for painting and upkeep from dents and scratches.

Weather stripping: Weather stripping on exterior doors helps maintain the home's energy efficiency, preventing the loss of conditioned air, and reducing the infiltration of outside air. Weather stripping must remain in place to operate effectively.

1. Replace weather stripping that becomes loose or damaged.

2. Prolong the life of vinyl and rubber weather stripping by applying a silicone spray.

3. The sweep weather stripping at the bottom of the door may require replacement from time to time. To replace, remove the sweep and match with a replacement available at any hardware store.

4. To raise or lower the threshold, adjust the screws on the wood or metal portion of the threshold. Keep threshold caulked at all times.

5. Keep sprinklers away from doors.

DOOR HARDWARE/LOCKS

Homeowner's Maintenance Guidelines

The brass door locks, door handles, hinges and stoppers used throughout the home are exposed to both inside and outside elements, pollution, extreme elements, and common everyday use. This may cause them to discolor or become pitted. The manufacturer does not guarantee the finish of any product. Clean these with a damp cloth and do not use abrasive cleansers or solvents. Periodic polishing, following manufacturer's recommendations, will help maintain the original luster and appearance. Do not use brass polish on lacquered brass parts or fixtures.

DRIVEWAYS, SIDEWALKS & PATIOS

Introduction

In most cases, exterior concrete cracks are due to temperature variations, soil movement and slight home settlement. Driveways are not designed to handle the extreme weight of dual axle and dual wheel vehicles.

Homeowner's Maintenance Guidelines

Lawn fertilizer left on the driveway or sidewalk will stain the concrete and cause rust spots. This can be prevented by immediately hosing the driveway and sidewalk off after applying fertilizer.

Water used to irrigate lawns may also cause driveway and sidewalk staining and mildew, and continuous contact should be avoided. Keep excessive weight, such as sand, lumber and moving vans, off the driveway to prevent cracking. Rust and grease stains are a homeowner's responsibility.

PAVERS

Introduction

Pavers are a concrete product. Minor cracks and chips due to production, transportation, handling and installation will be present. Color variations between pavers may also be present initially, but will diminish as they cure. Efflorescence is a whitish haze that may occur during the first six months. It is a salt deposit brought to the surface by evaporating water. This haze will eventually wear off or it may be removed by using a special cleaner.

Homeowner's Maintenance Guidelines

Pavers can be pressure cleaned/washed periodically. Weed killer should be applied to the joints to inhibit weed growth.

Note: During pressure washing ***do not apply*** pressure directly to the joints as this will remove the sand and possibly dislodge your pavers and cause sinking. Pavers can be sealed eight weeks after installation, they should be pressure washed and allowed to dry several days without rain or sprinklers hitting them prior to sealing.

Note: Do not seal if efflorescence is present. Do not seal if pavers are damp or moist.

Porches, Steps and Stoops, Driveways, Patios and Sidewalks: in most cases, exterior concrete cracks are due to temperature variations, soil movement and slight home settlement. Driveways are not designed to handle the extreme weight of dual axle and dual wheel vehicles.

Homeowner's Maintenance Guidelines

Lawn fertilizer left on the driveway or sidewalk will stain the concrete and may cause rust spots. This can be prevented by immediately hosing the driveway and sidewalk off after applying fertilizer.

Water used to irrigate lawns may also cause driveway and sidewalk staining and mildew, and continuous contact should be avoided. Keep excessive weight, such as sand, lumber and moving vans, off the driveway to prevent cracking. Rust and grease stains are a homeowner's responsibility.

ELECTRICAL SYSTEM

Introduction

The electrical system in your home is designed for safe, trouble-free service and meets both local and national electric code requirements. Any additional alteration, or modification to the original electrical system installation will void all applicable warranties.

Homeowner's Maintenance Guidelines

Electrical Safety Cautions: Do-it-yourself electrical wiring is dangerous. Improper electrical wiring is dangerous. Improper electrical repairs can endanger the lives of your family and jeopardize your homeowner's insurance in the event of fire or electrical injury. Always use a licensed electrician to make electrical repairs, adjustments, and additions.

Electrical Storm Caution: it is recommended that you unplug television sets, computers, and telephones during electrical storms.

Power Failure: If the electrical power goes out, check first to determine if neighbors are also without power, and if so, contact the utility company. Before attempting to reset the circuit breakers, check that power has been restored to the area. If neighbors have power, check the main circuit breaker in the panel box. See Homeowner's Maintenance Guidelines under Circuit Breakers, this section.

Be aware that not every electrical power problem is due to problems within the home's electrical system. Utility companies experience a variety of situations that effect power supplies, including power surges and interruptions, peak overload periods, and even total shutdowns.

Electric Meter: The utility company installed an electric meter to measure your electric usage for billing purposes. Their invoice is based on kilowatt-hours used over a given time period, with a kilowatt-hour being the energy expended by 1000 watts for one hour. Should you have any questions about the meter functions, please contact The Customer Service Department at the utility company.

Circuit Breakers: Electrical wiring and appliances are protected by circuit breakers to stop circuit overloading. The main circuit breaker is located in the electrical panel box, and if tripped for any reason, entirely cuts off all electricity to the house. The smaller circuit breakers within the panel box control appliances, wall switches, lighting, and the HVAC system, and each switch should be clearly marked as to what it controls.

Do not tamper with the electrical service entrance cable that provides power to the service panel.

Circuit Tripping Causes and Remedies: Thunderstorms, lightening and power failures can cause circuit breakers to trip. If only your home is affected, try to reset by switching the breaker to full "OFF" then back to full "ON" position. If this does not reset the breaker, or if the breaker continues to trip, do not continue resetting the breaker as this can damage the panel box, wiring, or the appliance that it controls. Call a licensed electrical contractor for a service inspection.

Overloaded circuits can also cause tripping. This occurs when too many appliances are used on one circuit. To reduce the load, remove plugs of appliances that may cause the overloading, then reset the breaker as described above. If you install a microwave oven or other appliances that require large electrical loads, you may need a licensed Electrical Contractor to add additional wiring to accommodate the load.

Outlets and Wall Switches: If an electrical outlet does not work, check first to make sure that the outlet is not controlled by a wall switch. If the outlet still does not operate contact an electrical contractor.

Ground Fault Circuit Interrupters: GFI electric outlets help to prevent electrical shock, and are installed in kitchens, bathrooms, garages, and exterior areas where water may be present. GFI receptacles are sensitive to power surges and interrupt power under certain conditions to prevent injury. Do not plug refrigerators or freezers into GFI outlets.

GFI outlets are often wired in a series. For example, the garage GFI outlet controls the bathroom, and may possibly control other outlets throughout the home. Taking this example further, if the electrical outlet in the bathroom is not functioning, check the GFI in the garage. Also be aware that some homes have multiple GFI's, so be certain to inspect and reset the affected outlet.

If a GFI's receptacle is not functioning, press the " RESET" button on the wall plate to restore proper operation. If that does not work, check and reset the circuit breaker in the panel box first, then press the GFI Reset button. If the outlet still fails, it may indicate a short in the appliance. If other appliances will not operate, an electrician should be contacted and the GFI replaced.

To test GFI's, press the "TEST" button on the receptacle. The outlet should not perform. To reset, press the RESET button.

Prewired for Telephones: Most homes are prewired for telephones. If you experience problems with the telephone system you should contact your local phone company.

If the telephone company states that there is trouble in the house wiring, please call your builder's customer relations department.

Light Fixtures:

Homeowner's Maintenance Guidelines

Interior and exterior lighting fixtures require periodic homeowner maintenance to preserve the finish. Carefully review and follow the instructions if provided for these fixtures. Interior and exterior fixtures will tarnish and the manufacturer does not warrant the finish.

Always turn the power off at a wall switch or circuit breaker before cleaning any electrical device. The danger of a severe shock will still exist if the device is turned off with a built-in switch.

Do not use indoor bulbs in outdoor lighting fixtures if the bulb is to be exposed to the weather. Do not use light bulbs with a higher wattage than the maximum wattage stated on the light fixture.

Smoke Detectors: The smoke detectors in your home are pre-wired, per electrical code requirements, into the main electrical system. In case of electric failure, the smoke detector is backed up with a 9-volt battery.

Homeowner's Maintenance Guidelines

Test the detectors and clean and vacuum the openings of the smoke detector once a month. Visually inspect the clear button on the test switch to see that the indicator light is glowing. To test the alarm, press the Test-button for about ten seconds, or until the horn sounds lightly. Do not use an open flame to test the detector.

The unit will emit a low-frequency beeping noise if a malfunction or power failure occurs or if the battery is low. Change the 9 volt battery every 6 months to ensure proper operation.

Security System and Intercom: Some homes are equipped with security systems and/or intercoms, and their operating instructions and warranty information are contained in their respective manuals and product literature.

EXTERIOR WALL FINISHES

Introduction

Exterior finishes are applied once the exterior framing and/or concrete block is complete. The exterior of your home may be finished with stucco and wood trim.

Stucco: There are two types of stucco application. One is applied over concrete block construction, while the second is applied over wood framed walls with wire lath attached. Stucco requires very little maintenance other than painting and caulking.

Homeowner's Maintenance Guidelines

Painting: When painting the exterior of the home, use an acrylic masonry house paint. Before painting, fill the hairline cracks with flexible caulk.

Efflorescence: A white powdery substance that may appear on the exterior masonry walls is called efflorescence. It is normal and is composed of water soluble salts, originally present in masonry materials, that are brought to and deposited on the surface when water evaporates. Most efflorescence can be removed with a stiff scrub brush and water.

Soffit and Fascia: The aluminum soffit and fascia (where applicable) have a baked enamel finish that does not require painting. Wood and stucco fascia do require painting and caulking. The soffit vents are located under the roof overhang. The fascia is used behind gutters and to cover gable trim boards.

SOLUTIONS TO COMMON EXTERIOR FINISH PROBLEMS

PROBLEM	LIKELY CAUSE	SOLUTION
Mildew on stucco, mildew on roof tiles, pink color algae on porch frame.	Normal problems in tropical weather conditions.	Use mildew household bleach solution and water to rinse.
Cracking/peeling of painted surfaces.	Normal aging and weathering.	Clean and sand surface. Then prime and repaint.
Gaps at joints in wood.	Wood drying out.	Sand, prime and paint.
Efflorescence on masonry finishes.	Crystalized soluble salts.	Scrub with water and stiff brush.
Cracks on stairstep, cracks in masonry finish.	Normal home settlement due to expansion and contraction.	Seal cracks with a flexible masonry caulk and paint.

FIREPLACE

Introduction

In most cases, builders use a pre-fabricated fireplace that is delivered to the homesite and then installed with a screen and glass doors. Do not burn pressure treated wood, scrap lumber, Christmas trees, trash, cardboard, plastic or any flammable material such as gasoline. Burning these materials may cause brick and flu liners to crack.

Homeowner's Maintenance Guidelines

Fireplace Equipment: A set of fireplace tools, available from a local fireplace equipment shop will help you handle logs, stoke the flames, and shovel out cold ashes.

Fireplace Inspections: A clean, unobstructed fireplace and chimney are important for safe fireplace operation. Have a fireplace chimney company inspect the fireplace and chimney annually for soot build-up and appropriate cleaning. Inspect the hearth and liner for loose or cracked firebrick.

Starting a fire: Follow this checklist for safe fireplace use.

1. Open the flu damper and outside air vent fully and visually check that the flu is not obstructed.
2. Clear obstructions and ashes.
3. Use a steel or cast iron grate, to elevate the wood above the fireplace brick. Do not build fires on the fireplace floor.
4. Place crumpled, non-colored newspaper under the grate.
5. Add kindling (small wood chips and twigs) on the grate over the newspaper.
6. Place three small logs in a pyramid arrangement at the back of the firebox; providing air spaces between logs.
7. Preheat the flue by lighting a piece of newspaper onto the logs, making sure that the smoke is being carried up the chimney.
8. Ignite the newspaper under the kindling.
9. Use seasoned hardwood for a long burning, smoke free fire. Store firewood outside as it may harbor insects.
10. Do not build large fires.
11. Keep damper open and screen or glass doors closed throughout the life of the fire.
12. Close damper the following day when the fire is completely out. Periodically remove ashes from previous fires and place them outdoors in a metal container.

FLOORING

Introduction

Your home may be finished with a variety of flooring materials, including carpet, vinyl, hardwood floors and ceramic tiles.

A. Carpeting

The carpet is durable and requires minimal care. Color variations and shading may be noticeable, and depend upon the surface texture and pile fiber of the carpet.

Homeowner's Maintenance Guidelines

Frequent vacuuming and immediate stain removal are primary carpet care steps. When using carpet cleaners, carefully follow manufacturer's instructions.

While normal vacuuming will only remove loose fibers from carpet yarns, an occasional tuft may be lifted above the service. Do not pull out the tuft: just snip it off to the length of the other tufts using scissors. Color fading and spots caused by sunlight are normal and can be minimized by using the draperies during the day, or by using shear draperies to reduce incoming sunlight. Some colors may fade faster than others.

Change filters in your heating and air conditioning systems on a regular basis or when dirty. Dust, pollen and smoke will settle on your carpets and increase staining and soiling.

When a spill occurs, immediately blot it firmly with dry, white paper towels or rags. Do not rub the spot as it will damage your carpet's tufts and may permanently alter your carpets appearance. If stain remains, spray with cold water and blot again. Repeat if necessary.

Cleaning Stains: First, scoop-up or blot as much of the spill as possible from the carpet. With a white cloth rag, blot from the edges toward the center of the stain until dry.

For **asphalt, butter, chocolate, cooking oil, furniture polish, grease, food, lipstick, mascara, oil, shoe polish, tar,** apply a small amount of dry cleaning fluid (non-oil type commonly used for spot removal from garments) to a dry white cloth towel and blot. Repeat and blot with paper towels until the spot is dry.

For **ice cream, latex paint, excrement, mayonnaise, milk, vomit, and white wine** apply a small amount of detergent or a recommended cleaner or solvent to a dry white cloth towel and blot. Repeat and blot with paper towels until the spot is dry.

For **fruit drinks, berries, blood, coffee, fruit juice, ketchup, mustard, soft drinks, tea and red wine** mix 1/2 cup household hydrogen peroxide with 1 tsp. clear ammonia and dampen the spot with a small amount of the mixture. Let stand for 2 to 3 hours under a weighted sheet of plastic wrap. Apply with damp towel. Blot with paper towels until dry. Apply a little undiluted white vinegar only after stain is removed.

NEVER APPLY DETERGENTS OR STAIN REMOVER DIRECTLY TO CARPET!

This could cause permanent discoloration. For recommended cleaners and solvents, call the fiber producer.

When a stain reappears after cleaning, it means all the stain and cleaners were not removed completely. Recleaning is necessary. Always rinse your carpet thoroughly to remove any detergent residue.

B. Ceramic Tile Floors

Ceramic tile is easy to maintain and impervious to water. The grout joints are not waterproof and require special attention to prevent water seepage.

Homeowner's Maintenance Guidelines

Glazed and unglazed tile floors - Vacuum regularly to remove gritty particles. Damp mop using a solution of water and soapless detergent. If stained, use scouring powder paste. Let stand five minutes, brush and scrub. Rinse and dry.

1. Never use abrasive cleaners or harsh chemicals or solvents on ceramic tile.
2. Unglazed tiles may need to be sealed on a regular basis.
3. Wipe off spills immediately.

Never use harsh cleaning agents such as steel wool pads which can scratch or damage the surface of your tile.

GROUT STAIN REMOVAL GUIDE

Stain	Removal Agent
Grease and fats	Soda and water or commercial spot-lifter
Inks and dyes	Household bleach
Mercurochrome	Ammonia
Blood	Hydrogen Peroxide or household bleach
Coffee, tea, food, fruit juices, lipstick	Neutral cleaner in hot water, followed by hydrogen peroxide or household bleach.

C. Hardwood Floors

Most hardwood floors are pre-finished at the factory with a baked on wax coating or a urethane coating. Wood floor tone, grain and color variations are normal, and reflect the natural characteristics of real hardwood.

Some squeaking or separating of hardwood floors is normal and is caused by seasonal weather and humidity changes.

It is normal to expect surface nailing to occur around the perimeter area of pre-finished hardwood floors, and around any repair areas, as well.

Homeowner's Maintenance Guidelines

Prior to cleaning your hardwood floors, carefully read and follow the manufacturer's instructions and recommendations.

Use entrance rugs or mats to protect wood flooring from dirt and water spots. Do not use rubber backed mats as they will remove the finish. Mop up water spills immediately. Do not set potted plants directly on a hardwood floor as moisture can leak through and cause permanent staining and warpage.

Attach furniture protectors to the bottom of furniture legs to protect the hardwood flooring from scuffing and surface damage. High heel shoes and constant moving of chairs can damage hardwood floors.

Extra care is required to keep hardwood floors dry and to promptly mitigate any unusual water intrusion that could occur.

D. Resilient Floor Coverings

Resilient floor coverings come in 6-foot or 12-foot wide rolls and are usually installed in kitchens, bathrooms and laundry areas. Before cleaning a resilient floor, read and follow the manufacturer's cleaning and care recommendations. Do not wax a "no-wax" floor.

Homeowner's Maintenance Guidelines

Mop up bathroom water spills from showers and baths immediately. Water seeping into the mastic through the seams and under the baseboard trim can cause mildew, seam separation and lifting. A flexible caulk, available at hardware stores, is recommended for use at tub and floor joints to minimize this problem.

Attach furniture protectors to the bottom of furniture legs to protect the resilient flooring from scuffing and surface damage. High heel shoes and constant moving of chairs may show and may damage resilient floor coverings.

FRAMING AND CARPENTRY

Wall Framing: Wood and /or metal studs are set vertically on 16 or 24 inch centers. Steel studs are primarily used in non-load bearing walls.

Roof Framing: Roof framing uses a pre-engineered truss system that supports the weight of the roof and can be used in combination with conventional ceiling and roof framing. The trusses are delivered to the building site by truck, and then placed and secured into position on the home using a crane.

Roof Sheathing: Roof sheathing covers and serves as base for the roofing materials.

As the wood in your home dries, normal shrinkage will occur that causes settlement. While every home has certain degrees of settlement, not all settlement is severe enough to require repair. Natural shrinkage and swelling will cause small cracks, chips and splits. These are acceptable under industry standards. No action will be taken by the builder.

Insulation: Insulation is placed wherever there is likely to be a difference between interior and exterior temperature or humidity in the floors, ceilings, exterior walls, and the attic. Flexible insulation, in the form of fiberglass blankets, is commonly used in walls, floors, ceilings and around air ducts. Blown insulation of loose fiberglass can be used in ceiling areas. Plastic foam may be used for spot insulation around windows and doors, pipe openings and other air leakage points.

R-Value: This is an insulation measurement. The higher a material's "R value" number, the more effective it is as an insulator. Different parts of the home have different insulation standards.

GARAGE DOORS

Caution: The installation of a garage door opener, unless installed as an available option, may void your Garage Door Warranty. Garage doors are warranted for proper mechanical operation as installed. The installation of a garage door opener (by others) alters the operation of the door and the builder cannot be responsible for altered mechanical operation.

Homeowner's Maintenance Guidelines

Garage doors with remote openers can be operated manually by pulling the release cord at the top of the garage door, near the track, and then lifting the garage door open. If minor garage door adjustments are required, contact an authorized repairman.

Please Note: Photo cells are not designed to be waterproof, and care must be taken when pressure cleaning or hosing out the garage. If the photo cells get wet they may not allow the door to close. We will not warrant the photo cells if this is deemed the cause of failure.

INTERIOR WALLS AND CEILINGS

Introduction

Your home has two types of walls; load bearing and non-load bearing.

1. Any alteration of load bearing walls may reduce the strength of the structure by altering its unit load capacity, its load bearing or its support capacity.

2. Interior wall construction begins with the placement of studs set vertically at 24 inch intervals. Then the drywall is screwed to the studs.

Drywall: Drywall is screwed to the studs of the ceiling and wall surfaces. The seams where sheets of drywall come together are taped, spackled with a joint compound, allowed to dry, and then sanded to prepare them for finishing.

The generally acceptable building standards are that slight "imperfections" such as nail pops, seam lines, and cracks not exceeding 1/8" are common in gypsum wall board installations. However, obvious defects or poor workmanship resulting in excess compound in joints, trowel marks and cracked corner beads are not acceptable and must be noted on the pre-settlement inspection. Both nail pops and small drywall cracks are simple to repair.

Drywall Nail Pops and Crack Repair Instructions:

1. Reset the protruding nail slightly into the gypsum board surface or remove it entirely. Place another drywall nail two inches above or below the popped nail, and gently hammer it slightly below the paper surface. Then cover the area with spackling compound, allow to dry, sand smooth, and then refinish the surface.

2. For drywall joint cracks, press a small "V" shaped indentation using the back of a putty knife along the length of the crack, about 1/8 of an inch deep and 1/8 of an inch wide. Spackle, sand and refinish as with nail pops.

3. To prevent cracks wider than a 1/4" from reopening, first apply the spackling compound over the crack with a strip of drywall tape, add another top layer of spackling, feathering the edges well, sand to a smooth finish, then refinish.

4. Deep scrapes and indentations on drywall surfaces can be filled with two or three applications of spackling compound. Allow it to dry thoroughly, and sanding between each application.

Interior Trim and Moldings: Homes are built with various moldings including but not limited to floor moldings, door casings and other wood trims. Some separations of wood trims and moldings is normal and is caused by home settlement, plus shrinkage or expansion due to extremes of dryness or humidity.

Homeowner's Maintenance Guidelines

Should the baseboard trim come loose; simply re-nail the baseboard back into the proper position. For moldings, it is better to wait for several months to see if settlement will bring the pieces back together naturally. If not, a separation at corners or seams can be patched with a wood filler and then refinished to match the existing molding.

LANDSCAPING, GRADING AND SPRINKLERS

Introduction

Landscaping plans are generally designed by a landscape architect, and approved by local officials. The home may be part of the entire communities' landscape master plan and therefore cannot be individually modified. Check with your builder before doing any extensive landscaping changes.

A. Grading

The drainage plan for your community was designed by engineers and approved by the various authorities having jurisdiction. Storm water management is a critical part of the community design. The yard is carefully graded to direct storm water away from the house into areas where it can soak away or eventually flow into the community storm water drainage system. After heavy rain, it is normal to see significant areas of standing water. This is a deliberate part of the approved drainage design; it allows water to enter the drainage system slowly and also helps to limit the entry of nutrients, fertilizers, etc. into the interconnected fresh water system. After normal heavy rain, water should not be standing on paved areas after 48 hours. **Swales and drainage areas may be permanently wet, particularly in times of heavy rain or melting snow.**

Homeowner's Maintenance Guidelines

Over time, the grade around the house can settle. If this occurs, spread additional soil or sand in the depressions to raise and re-establish the grade.

To prevent erosion and ponding of water:

1. Do not alter the soil grade.

2. Keep water ditches or swales open and free of leaves and debris. Do not build sheds, hot tubs, decks, fences, pools, or gardens in the swales, otherwise, water may not flow properly through the swale.

3. Direct water run-off away from the home to prevent washouts. Reposition splash blocks if they are moved.

4. Do not allow sprinklers to wet the house or form puddles near or against the foundation.

B. Lawn

In new homes, the yard is graded and the landscape contractor removes debris and rakes the ground surface prior to installing sod.

Homeowner's Maintenance Guidelines

The future beauty of your yard depends on the care and attention you provide. The builder can not be responsible for homeowner neglect or improper landscape maintenance. The following suggestions should make the job easier:

Watering: Sod requires constant moisture until the second mowing. If allowed to dry out, the sod will shrink and gaps will appear between the sections. If this occurs, the homeowner will need to repair these areas. For the first 6 weeks water the lawn for 30 minutes once each day in the morning. Watering may be reduced after the second mowing to every other day for the next 8 weeks. When using the sprinkler system, check to see if you are leaving footprints, if so, the area has been over watered. **Remember, too much water is just as bad as not enough.**

Fertilizing: Fertilizer should be applied a minimum of three times a year for turf. In the winter months 2 applications are necessary and one should be a weed and feed. In the summer months one application should be applied. Spray insecticide every other month. Do not spray immature grass with chemicals to kill weeds. The best approach is to use pre-emergent weed control when grass is stronger and more mature.

Be aware that sod, when initially laid, will occasionally go into shock and turn brown. The sod is not dead and you should continue to water it.

Extremely hot or cold weather or above average rainfall will affect these instructions.

Mowing: Mow new grass when it attains a height of 4 to 6 inches. Do not mow if the ground is soggy. Set the mower height at approximately 3 inches. Be sure the mower blades are sharp to avoid tearing the grass.

C. New Shrub and Tree Care

The landscaping around your home has been planned by a professional landscape designer. All trees and shrubs are nursery grown, and a landscape contractor handled the initial planting. The homeowner is responsible for maintaining the new plantings. The type of tree or shrub will dictate the specific care needed. Palms should be fertilized with a "Palm Special" brand of fertilizer a minimum of three (3) times per year.

Caution: Do not remove or transplant trees and shrubs from their original locations.

Homeowner's Maintenance Guidelines

Watering: It is extremely important that new plants and trees be watered once a day for the first month, for one to three minutes on shrubs, and 15-20 minutes on trees.

Fertilizing: Plants should be fertilized on a regular basis. Contact a lawn care specialist for proper maintenance guidelines.

Trimming: Hedges and plants should be trimmed on a monthly basis to encourage growth and conformity to the intended design.

D. Sprinkler Irrigation System

Many homes have an automatic sprinkler system installed, and this is by far the most efficient method for watering your lawn. There are two systems in use: a) an individual irrigation system for each home controlled by an individual time clock for each home, or b) a community irrigation system. This system is regulated by community time clocks generally controlled and maintained by a Homeowner's Association. It draws water from a lake or well within the community.

NOTE: If your irrigation system fails to operate after rain, your home may have a rain sensor installed. The sensor turns off the system for a period of time, depending on the rainfall.

Homeowner's Maintenance Guidelines

The sprinkler system is controlled by an automatic time clock. Refer to the instructions on setting the time clock and watering times on the inside cover of the timer. Keep grass and shrubs trimmed around the sprinkler heads. Occasionally, the sprinkler heads will clog with sediment build-up and will need to be removed and cleaned, this is a homeowner responsibility.

Depending on soil conditions, type of grass and time of year, your sprinkler system can be adjusted to run every day, every other day or certain days of the week. Also be aware that local water restrictions can prevent you from watering on certain days or times of the day. A good time to water your lawn with a sprinkler system is between 2:00 am and 9:00 am.

Once a month, turn the sprinkler on manually. Each zone should be checked for proper coverage and for properly operating sprinkler heads. If something is leaking, call a sprinkler contractor immediately.

Caution:	Whether you have an individual or community system, do not allow sprinkler heads to spray water directly on the home. This will cause moisture problems and damage to your home. Sometimes water drawn from underground wells has a high rust content. The builder can not be responsible for any rust discoloration caused by the sprinklers. Hoses attached to hose bibs should not be left under pressure. They will leak and the pressure can cause a "blow-out."

MIRRORS AND SHOWER ENCLOSURES

A. Mirrors

Homeowner's Maintenance Guidelines

Clean bathroom mirrors and shower enclosures with an ammonia-free spray glass cleaner and a soft cloth, wiping several times to remove all glass cleaner residue. Most mirror failures are at the edges where "spillover" solutions attack the backing. By applying cleaner to the cloth rather than the mirror, this can be prevented. Do not use abrasive cleaners which will permanently scratch and mar mirror or glass surfaces. Do not expose mirror products to salt air for extended periods of time. Humidity, heat and dampness can cause permanent damage, therefore, provide adequate ventilation in rooms with mirrors.

B. Shower Enclosures

Homeowner Maintenance Guidelines

Shower enclosures create extreme amounts of moisture, therefore frequent checking of joint areas is recommended. Check caulking periodically to ensure against leaking. The homeowner is responsible for recaulking as needed. The use of clear silicone is recommended.

D·R·HORTON®

PAINTING & CAULKING

Introduction

The interior walls of new homes are generally painted with a latex paint. We strongly recommend that touch-up paint be used instead of washing the walls. The exterior walls of your home have been painted with a quality exterior paint.

A. Interior and Exterior Paint

Painting Note: The builder cannot guarantee that painting repairs requiring new material will match the color of the existing material. Paint repairs may show slight variations in color as a result of weathering, aging or pigment variations in different paint manufacturing runs. Color variations are normal. Fading is also normal and the degree is dependent on climate conditions.

B. Caulking

Caulking is a building joint sealant used where two dissimilar materials are joined. In time, caulking hardens and cracks and should be renewed prior to any repainting.

Homeowner's Note: Caulking is a homeowner's responsibility. Caulking around windows and doors should be checked and recaulked at least once a year.

Cleaning Exterior Painted Surfaces: Lack of or little sunlight, moisture and damp weather conditions may cause the formation of mildew or fungus on the exterior. Mildew or fungus can be removed by carefully washing the affected area with a water-diluted household bleach. The builder is not responsible for mildew or fungus build-up. See Exterior Wall Finishes for further information.

PLUMBING SYSTEM

Introduction

A licensed Plumbing Contractor installed all plumbing pipes and systems in your new home. These have been tested and inspected.

In most cases, minimum homeowner maintenance is all that the plumbing system requires. Attending to small problems as they occur keeps them from becoming larger, more costly problems later on.

A. Water Lines

Your home is served by a well or a city water supply. The pipes that carry water into the home are designed to resist rust and corrosion.

Homeowners Maintenance Guidelines

Noisy Pipes: Noisy water pipes should be corrected immediately since the resulting vibrations can damage plumbing line fittings and cause them to leak. There is one exception: Exterior hose faucets often produce a high pitched noise caused by an attached vacuum breaker or back-flow preventer. This noise is normal and not a cause for concern.

Noisy pipe problems can be identified and corrected as follows:

1. The water heater temperature may be set too high, producing steam in the pipes. To resolve, gradually reduce the water heater temperature setting until the steam is reduced.

2. Abruptly turning off a faucet in areas with high water pressure can-produce a pounding or knocking sound. To resolve, slightly close the main shut-off valve.

3. Air can get into the pipes; to resolve, open all interior and exterior faucets and run for a few minutes, allowing all air to pass through the system.

B. Main Shut-off Valve

This is the center of the plumbing system, the point at which the main water line comes into the home. If a major plumbing problem occurs, turn off the main shut-off valve to prevent flooding. It is a good idea to show every family member where the shut-off valve is, explain how to close it in case of an emergency, and to mark it with an easy-to-locate identification tag.

C. Water Intake Valves

Most plumbing fixtures in the home have a water intake valve to individually shut off the water to that fixture for minor repairs and emergencies. Show family members how to operate them and where to locate them and where they are located on sinks, bathtubs, showers, toilets, water heater, washing machine and laundry tub. Toilet valves are behind the toilet and sink valves are under the sink.

D. Drain Traps

Every plumbing fixture in the home is equipped with a drain trap, an S-shaped pipe that holds water and acts as a barrier to keep airborne bacteria and sewer gas odors from coming back into the home. If a sink or bathtub fixture is not used frequently, turn it on periodically to replace evaporating water and to keep the water trap barrier intact.

Homeowner's Maintenance Guidelines

Drain traps can be cleaned by putting 3 tablespoons of ordinary washing soap (not baking soda) into the drain. Add a little hot water, let stand for 15 minutes, then flush with hot water. Use a rubber plunger to unclog a blocked toilet.

Caution: Do not pour grease into drains or toilets, or use caustic cleansers to open plugged drains. Do not use a plunger with any drain cleaning chemical. When using a chemical drain cleaner, carefully follow the manufacturers safety precautions and product directions.

E. Sanitary Sewer Lines

In the final stages of preparing your home for move in, the plumber tested and flushed the sewer lines to ensure they were clear and working properly.

Homeowner's Maintenance Guidelines

Do not put hair, grease, lint, garbage, heavy tissue, disposable diapers or sanitary materials into the sewer system.

When operating the garbage disposal, always use a generous amount of cold water to keep the sink drain clear and the disposal motor cool.

SOLUTIONS TO COMMON PLUMBING SYSTEM PROBLEMS

PROBLEM	LIKELY CAUSE	SOLUTION
No hot water from electric water heater	tripped circuit breaker	Check and reset circuit breaker.
No hot water from electric water heater.	Temperature setting too low.	Adjust temperature setting.
Hot water recovery is slow.	Burned out heating element.	Replace heating element.
Toilet runs constantly.	Water level in tank is too high.	Adjust float arm stem in toilet water tank downward.
Toilet makes loud noise when flushed.	Ball cock in water tank is not working properly.	Replace ball cock in toilet water tank.
Toilet makes dripping or gurgling noise.	Warped or worn out flapper valve.	Replace flapper valve.
Toilet backing up/or overflowing.	Obstruction in line.	Turn toilet intake valve off & plunge toilet.
Hose sprayer in kitchen sink drips.	Dirty or defective.	Clean or replace.
Slow draining sink or bathtub.	Blockage such as hair in drain.	Remove hair or blockage.
Water flow from faucet is reduced.	Aerator at tip of faucet is clogged.	Unscrew aerator screen and rinse.
Water splatters out of faucet.	Air in water supply line.	Open all faucets in home for 5 minutes.
Water leaking from under sink.	Loose plumbing fitting.	Hand tighten couplings on drain pipes.
Water dripping from shutoff valves.	Loose packing unit.	Open valve all the way, then gently tighten nut.
Garbage disposal clogged.	Obstruction in line.	Use disposal wrench in bottom of disposal.
Garbage disposal will not operate.	Tripped reset button.	Check reset button on bottom of disposal.

PLUMBING FIXTURES

Introduction

The plumbing fixtures in most homes include the water heater, bathtubs, showers, toilets, and sinks.
Note: As equipment technology changes frequently, the Manufacturer's Service Manuals will supersede all recommendations and procedures contained in this manual.

A. Water Heater

The electric water heater is equipped with an automatic temperature and pressure relief valve, a safety feature that opens and releases excessive pressure or heat build-up. Should this occur, water will flow from the tank until both temperature and pressure are reduced to safe levels.

Homeowner's Maintenance Guidelines

Hot Water Temperature: Water temperature is set at 120° by the Manufacturer. While low temperature settings reduce utility costs, bear in mind that dishwashers do not operate properly with settings below 120° F.

Do not store combustible items, oily rags, clothing, brooms or dust mops near the water heater, since this obstructs air flow and presents a potential fire hazard.

Scale: Small amounts of scale deposits will collect and settle to the bottom of the water tank. Remove this residue annually by draining the tank. Shut off the power first, using the appropriate circuit breaker in the electrical panel box. Attach a garden hose to the valve and run it outside. Then open the valve at the bottom of the water heater, allowing the residue to drain out or until the water runs clear. If you live in a hard water region, a water softener will reduce the need for more frequent draining.

Do not completely drain an electric water tank without first shutting off the water heater circuit breaker. Otherwise, the heating element will quickly burn up.

B. Fixtures

Kitchen and bathroom sinks, toilets and bathtubs are made with cultured marble, plastic, stainless steel, or steel finished with porcelain.

Homeowner's Maintenance Guidelines

To clean, use a non-abrasive spray cleanser and sponge. Dropping heavy objects onto porcelain can chip or crack the surface and may produce permanent staining. Do not leave steel wool pads on sink surfaces, as they will rust and stain the surface.

Be aware that continuous action toilet bowl cleansers, placed in the toilet water tank, will prematurely wear out the rubber tank flapper and may discolor the bowl.

C. Stainless Steel Kitchen Sink and Cast Iron

Homeowner's Maintenance Guidelines

For routine cleaning, use a non-abrasive household cleanser with warm water and a sponge. Do not scrape the surface with utensils, pots or pans. Do not leave leftovers in sink or strainer, particularly tea bags and coffee grounds, which contain harmful acids. Regular washing soap, not baking soda, should be added to the drain to keep it grease and soap free.

Do not clean stainless steel sinks with steel wool or metal brushes, and do not leave rubber mats in the sink since they trap water and produce surface discoloration. To restore luster to stainless steel, apply a small amount of mineral oil with a soft cloth then wipe dry.

The following products are among those recommended by the manufacturers to clean your cast iron sink: Dow Bathroom, Top Job, Get Gloss, Bon Ami & Fantastic.

D. Garbage Disposal

Homeowners Maintenance Guidelines

Always use cold water when disposal is working. Corn stalks, bones, celery or any other food that shreds should not be put into the disposal. If the machine becomes jammed, use the wrench to free the mechanism and try again. The disposal will rust if not used regularly. If you are going to be away for an extended period of time, a teaspoon of oil will help prevent the mechanism from freezing.

E. Bathroom Sinks

Homeowners Maintenance Guidelines

Sink surfaces can be easily chipped and stained, so treat them accordingly. Prevent hair accumulation clogs by periodically removing the stopper for cleaning or purchase a rubber hair collector. Avoid setting lit cigarettes on the edge of the sink, as they will burn and permanently damage the surface.

F. Bathtubs, Showers and Tub-Shower Combinations

Homeowners Maintenance Guidelines

Cleaning: Clean porcelain-on-steel bathtubs, cultured marble tubs and sinks, fiberglass showers and tub-shower combinations, and shower stall floors with warm water and a nonabrasive cleanser. Clean glass shower doors with a commercial glass cleaner. Check bathtub stoppers and shower floor drain grates for hair accumulation. Do not use ammonia-based cleaners. Gel-Gloss is recommended for polishing cultured marble.

Do not step into a bathtub or tub-shower with shoes on. Gritty particles adhere to your shoe soles and will scratch the finish.

Re-Caulking of the Tubs and Showers: Over time, cracks and separations between tub or shower stall and wall surfaces or bathroom floors will appear. Maintaining these areas is critical since excessive moisture can severely damage underlying materials.

It will be necessary to re-apply a tub and tile caulk when the previous caulking has dried out or eroded. To re-caulk the area, use a tub and tile caulk available in local hardware stores. Do not use a clear silicone caulk. Begin by removing the old caulk and cleaning the area. Once the area is dry, apply fresh caulking to fill the vacant space, then smooth out the finish with a wet finger.

G. Whirlpool Tub

Caution: Never run the pump motor without at least 2 inches of water above the jets. Running the pump with improper water levels will damage it. Always turn the pump off during draining. Do not add bath oils, bubble soap or any other liquid to the water.

Homeowner's Maintenance Guidelines

1. Check for leaks periodically by looking around the base of the tub.

2. Every two to three months, fill the tub with hot water and add a small amount of liquid dishwasher non-foaming detergent. Run the pump for 10 minutes. This will clean the pipes and the pump's internal parts.

H. Interior Faucets

Interior faucets are either single-lever faucets or washer faucets.

Homeowner's Maintenance Guidelines

Single-Lever Faucets: The single-lever kitchen and bath faucet are low maintenance, washer less faucets. Should the cartridge ever need to be replaced, turn off the water supply under the sink, remove the handle assembly, and pull the cartridge out. Take the cartridge to a local plumbing supplier and match accordingly, being sure to follow installation instructions.

Polished Brass Fixtures: Polished brass in humid regions is sure to pit and tarnish. Besides the climate, there may be other catalysts that cause this reaction to occur. Cleaning agents, standing water, shampoos, toothpastes & personal hygiene products are among items that may heighten the tarnishing and pitting process. Any cleaning agent that contains harsh chemicals will most certainly wear through the protective coating applied to brass. The manufacturers of polished brass recommend the use of plain water & polishing with a soft cloth.

Chrome Faucets: Chrome Faucets should be cleaned with a soft damp cloth and a commercially accepted cleaner. Dry the faucet with a soft cloth. Never use an abrasive or ammonia- based cleaner.

Washer Faucets: A washer faucet has a shut-off feature that requires light closing pressure to stop the flow of water. Do not apply too much pressure since washers can be damaged.

Faucet Aerators: Screened aerators screw into the spout of a faucet to add air to the flowing water which reduces splashing. Aerators are easy to remove for periodic cleaning. This should be done every 3-4 months.

Washer Replacement: Dripping faucets can dramatically increase water bills and represent the loss of a valuable natural resource. Over time, all washers will wear out and must be replaced. Neglecting to change washers may cause damage to the valve seat or to the entire faucet. Many homeowners prefer to do this simple replacement procedure themselves.

1. Turn off the water supply intake valve located under the sink.

2. Using a wide-jaw wrench, remove the hexagonal cap from the top of the faucet assembly. This may take a turn or two.

3. Remove the inside part, turn it upside down, and you will see a fiber washer held by a screw through it's center. This is the source of the leak. The screw will remove easily, but the washer itself may take a little prying to remove.

4. Match the new washer to the worn-out washer and replace it. Re-use the same screw if it is in good condition. Then reassemble the faucet.

1. Exterior Hosebibs

Exterior faucets are called hosebibs. To replace washers on standard exterior faucets, follow the same procedure for washer replacement, as stated above.

Check for leaks and replace washers as required since a leaking exterior faucet can cause water damage. See washer replacement under Interior Faucets, this section.

Water back-flow prevention: Most new homes have a vacuum breaker installed on the exterior hose faucet. This device prevents backflow, and stops potentially contaminated water from flowing back into the home water supply system via the garden hose. These devices are a plumbing code requirement and may not be removed.

With a vacuum breaker installed, it is normal to hear a humming or vibrating noise throughout the home when the exterior faucet is in use. This is caused by the washers built into the backflow preventer, and is not reason for concern.

ROOFING, GUTTERS AND DOWNSPOUTS

Introduction

The roof of most homes is constructed with a two-ply roof system which consists of roofing felt, and plywood. Tile or shingles are installed following manufacturer's guidelines and product specifications.

A. Tile Roofs

Tile comes in many different forms, including "color through" tile, painted tile, glazing tile, flat and S shaped tile. These tiles are for decorative covering only.

Caution: Do not walk on your roof, as this can cause the tiles to crack and break, and possibly to move. The builder is not responsible for replacing broken tiles or loss of tiles due to high winds. Use caution when placing holiday decorations on or near the roof tile.

B. Shingle Roofs

Shingle roofs come in many different colors and styles. Shingle roofs provide water protection to the roof underlayment. As above, the builder is not responsible for damage to shingles caused by the homeowner.

C. Flashing

Roof flashings are sheet metal trims used around roof openings, on vent stacks, roof vents and valleys. Their purpose is to channel water away from the house.

C. Gutters and Downspouts (if installed)

Gutters channel water run-off from the roof to downspouts that guide the water to ground level drainage areas.

Homeowners Maintenance Guidelines

Gutters and downspouts should be inspected and cleaned annually. Clear the gutter of accumulated debris such as leaves, twigs, branches, balls and other objects.

Gutters need to slope slightly downward to channel water to the downspout. Splash blocks can be properly positioned at the bottom of the downspout to direct water away from the foundation. Finally, the soil grade must slope away from the home. The best advice is to keep the gutters free of debris. Gutters and downspouts should not leak but may overflow during heavy rain.

SCREEN ENCLOSURE

Introduction

The screen enclosure (where applicable) that you have selected for your home probably is an aluminum, rust-free structure, with the architecturally controlled colored nylon screen attached.

Aluminum Roof Caution: Do not walk on the roof. It is not designed to hold your weight without some kind of horizontal bridging.

Homeowner's Maintenance Guidelines

Periodic pressure washing by a professional is recommended. The use of diluted vinegar and water will retard mildew growth on the frame.

Caution: Do not use chlorine or acid on the aluminum as a chemical reaction will occur.

SHELVING

Introduction

Unless wood shelves are installed, shelves are fabricated of heavy gauge welded steel rod covered with a protective plastic coating. The shelving will support a static load of 75 pounds per 3 linear feet, evenly distributed.

SHUTTERS (HURRICANE)

Introduction

If your home is equipped with removable panel hurricane shutters, it is a good idea to practice installing the panels once a year to ensure that you and your family are familiar with the procedure. The builder estimates that shutter installation should take two people approximately 4 hours for a one-story home and eight hours for a two story home. You should clearly mark the panels and store them carefully in your garage. The panels may be made of galvalum (steel with a galvanized aluminum surface), which should not rust unless the panels are damaged and exposed to moisture. Do not lay flat on the garage floor, as the moisture from the concrete will rust the panels.

Caution: Use work gloves when handling the panels and only use ladders that meet OSHA standards. Safety shoes should be worn. If the homeowner wishes to purchase shutters, consult a licensed shutter company for proper permitting, etc.

HURRICANE STORM PANEL (Instruction Guide)

1) Your home should have a numbered drawing of each opening.

2) Each storm panel should be numbered to match each opening.

3) For easy installation, all storm panels should first be set outside each opening with matching numbers.

4) Always wear a pair of work gloves to protect hands and fingers.

5) Vertically installed storm panels should start from left to right.

6) Horizontally installed storm panels should start from the bottom up.

7) A hardware package containing nuts and bolts necessary to secure the storm panels to your home, along with a screwdriver, should be stored in a handy and safe place along with numbered openings of your home.

8) We suggest storing a ladder with the storm panels in order to safely reach higher openings.

9) After your storm panels are installed and secured to your residence (just a reminder):
   A. Check your canned food supply.
   B. Check your water supply.
   C. Check your batteries and flash lights.
   D. Check your evacuation route, if necessary.
   E. Stay tuned to local news station for updated information.

10) Taking down and restoring: Do not lay flat on the garage floor, as the moisture from the concrete may rust the panels.

STUCCO

Introduction

Homes with stucco siding are inspected in compliance with the requirements of the building code using steel - reinforced masonry.

Concrete blocks are used to construct the majority of the exterior walls. The concrete blocks are set in place with mortar, and then reinforced with steel and additional concrete. The stucco finish on concrete block construction requires occasional painting and caulking. Stucco vertical or horizontal cracks, caused by temperature changes and home settlement, are usually cosmetic and very unlikely to be structural defects.

Homeowner's Maintenance Guidelines

Expansion and contraction cracks occur in masonry construction and should be filled with a flexible masonry caulk. They should then be painted with a good acrylic or elastic acrylic paint.

Efflorescence: A white powdery substance that may appear on the exterior of the concrete block and stucco walls is called efflorescence. It is composed of water soluble salts, originally present in masonry materials, that are brought to and deposited on the surface when water evaporates. Efflorescence can be removed with a stiff scrub bush and water.

SWIMMING POOL D·R·HORTON®

Introduction

Swimming pools are sold as options by most builders. The pool requires regular maintenance. Read the following guidelines and follow the instructions your pool contractor gives you to avoid costly repairs. Hairline cracks in the pool decking are common due to weather conditions and settlement. Hairline cracks are considered normal and require no repair.

Homeowner's Maintenance Guidelines

1. The pool finish takes from four to six weeks to cure. During this period, it is important to brush the walls and floors at least three times per week to eliminate permanent stains caused by settling dirt or minerals.

2. Water should be kept about half way up on the skimmer opening. Evaporation loss will vary from 1/2 inch to 1 1/2 inches per week depending on weather conditions.

3. Test the pool water weekly, preferably at the same time of the day, and after the pump has been running at least five hours. Samples should be taken from below elbow depth (18 inches). Consult with the contractor for proper chemical balance.

4. When brushing the pool, open the main drain and close the skimmer, then brush walls, steps and swimouts first. When brushing the floor, work from the shallow end toward the deep end and the drain.

5. Pool filters should be cleaned once a week. Remove the cartridge filter, hose it down then clean the hair/lint trap basket. The pool pump must be in the "off" position. The pool pump has been installed with a timer that should be set to run 8 to 10 hours per day in the summer and 6 hours in the winter.

Caution: Fertilizer will cause permanent rust stains on the pool marcite.

WINDOWS

Introduction

Typically the windows in your new home are single-pane glass and are framed in aluminum. The manufacturer has sealed all the glass to the frame and the frame has been "attached to your home and caulked.

Note: It is the homeowner's responsibility to check and recaulk all exterior frames.

Homeowner's Maintenance Guidelines

Cleaning Window Glass: Clean windows with a commercial glass cleaner or a cup of vinegar mixed with a gallon of warm water. Apply with a sponge or lint-free cloth, then dry and polish with paper towels. A rubber squeegee passed over glass surfaces will speed the drying and eliminate streaking.

Aluminum Windows: Abrupt changes in weather may cause aluminum windows to bind or stick. Should this occur, apply silicone spray to the window sash tracks. Aluminum window frames have a baked enamel finish and may be cleaned with a mild detergent solution. Be aware that aluminum window frames will weather due to exposure to the outside elements.

Window Condensation: The appearance of moisture that occurs when warm moist air comes in contact with a colder surface is called condensation. While moisture may appear on windows, this does not indicate a window problem. The most common cause is humid air outside the home hitting the cold surface of the window glass. Wipe up condensation as quickly as possible in order to avoid staining the drywall, window sill or caulking.

Window Screens: Window screens are provided with every new home, and their sole purpose is to help prevent insects from coming inside when the windows are open. Window screens may be washed and rinsed using a mild household detergent.

CAUTION: Window screens will not prevent children from falling through open windows to the ground below. The screen is not a barrier, and the fastening system for the screen will not support any weight beyond the screen itself. Never allow children near an opened screened window, or place any weight on or push against a window screen. Do not place furniture near windows so that children have easy access.

SOLUTIONS TO COMMON WINDOW PROBLEMS

PROBLEM	LIKELY CAUSE	SOLUTION
Aluminum window binds or is difficult to open.	Broken window balance.	Replace balancer.
Aluminum window binds or is difficult to open.	Paint or dirt on jambs.	Clean jamb and spray with silicone.
Aluminum window will not stay open.	Weak window balancer.	Replace balancer or adjust tension rod.
Aluminum window will not slide up or down.	Tension rod jammed.	Adjust balancer or tension rod.
Aluminum window sash comes out when fully opened.	Tension rod clips on side jambs left in open position.	Position clips in closed position before opening.
Aluminum window will not lock properly.	Debris in track or window not aligned properly.	Clean track or check alignment at middle when closing.
Condensation on inside surface of window.	High humidity inside home.	Reduce humidity with exhaust fans & dehumidifier.
Cracked glass.	Normal settlement.	Replace cracked glass.

CHAPTER 4

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GLOSSARY OF CONSTRUCTION TERMS

Home Buyers Glossary of Construction Terms

Aerator - A small, removable extension at the tip of a sink faucet that mixes streaming water with air to reduce splashing and conserve water.

Air hammer - A banging noise in plumbing pipes caused by air infiltration.

Airway - The space between roof insulation and roof boards which allows for movement of air.

Alkali - A soluble mineral salt or mixture of salts capable of neutralizing acids.

Anchor bolts - Bolts that secure a wooden sill plate to a concrete or masonry floor or wall.

Asphalt - A residue from evaporated petroleum, insoluble in water but soluble in gasoline. Melts when heated.

Attic ventilators - Screened openings provided to ventilate an attic space.

Ball cock - A device in a flush toilet consisting of a valve connected by a lever to a floating ball. The valve closes when the ball is raised and opens when it is lowered.

Baseboard - A decorative and protective wood molding positioned where the wall meets the floor.

Base molding - Molding used to trim the upper edge of interior baseboards.

Beam - A structural member transversely supporting a load.

Bearing wall - A wall that supports any vertical load in addition to its own weight.

Brace - An inclined piece of framing lumber applied to wall or floor to stiffen the structure. Often used on walls as temporary bracing until framing has been completed.

Brick veneer - A facing of brick laid against and fastened to sheathing of a frame or tile wall.

Casing - Molding of various widths and thicknesses used to trim door and window openings at the jambs.

Circuit breaker - A switching device, located in the main electrical panel, that opens and closes electrical circuits and automatically shuts off electricity to a circuit should it become overloaded. Once the electrical load is reduced, the breaker switch can be turned back on to resume normal service.

Concrete dusting - A fine dust that accumulates on finished concrete surfaces.

Condenser - An exterior unit that is part of the air conditioning system which expels heat into the outside air.

Conduit, electrical - A pipe, usually metal, in which insulated electrical wire is installed.

Corner bead - An angled metal edging used to protect and form an edge where drywall panels meet at outside edges.

Damper - A device in a fireplace that controls the air draft allowed into the fire.

Delamination - The separation of the top piles or laminate from the base to which they are attached. In vanity and kitchen countertops, the warping or detachment of laminate material from the wood substrate.

Dethatching - The loosening and/or removal of matted grass an leaves from existing lawns, which allows the grass to breathe and therefore promotes healthy growth.

Drywall - Also known as Gypsum board or sheetrock, these large sheets are attached to the wall studs and ceiling framing to construct the walls and ceiling of the home.

Downspout - A pipe, usually of metal, for carrying water from roof gutters.

Dry wall - Interior covering material, such as gypsum board or plywood, which is applied in large sheets.

Eaves - The margin or lower part of a roof projection over a wall.

Efflorescence - A white powdery substance that can form on new block, brick, or stucco finishes. It is composed of water soluble salts that are present in masonry materials and that rise to the surface via water evaporation.

Face frame - The front of kitchen and bathroom cabinets, to which the hinged doors attach.

Face nailing - Nailing through a finished, exposed surface so that the flat top of the nail head is still visible after nailing.

Facia or Fascia - The exterior horizontal trim around rafters. Also positioned directly behind gutters and over gable trim boards.

Filler board - Cabinet grade wood used to fill gaps that occur between cabinets and wall openings.

Fillers - A wood putty used in preparation for painting to fill holes or cracks in wood.

Flashing - Sheet metal or other material used in roof and wa construction to protect a building from rain water penetrating the house structure.

Flue - A vertical duct, constructed of sheet metal or clay, that channels smoke from a fireplace out of the home.

Footing - A masonry section, usually concrete, in a rectangular form wider than the bottom of the foundation wall or pier it supports.

Foundation - The supporting portion of a structure below the first-floor construction, or below grade, including the footings.

Frame construction - A type of construction in which the structural parts are wood or depend upon a wood frame for support.

Gable - The portion of the roof above the eave line of a double-sloped roof.

Gabled louvers - A vent with louvers located at the peak of gable ends.

Graphite lubricant - A finely powdered graphite used as a lubricant.

Ground fault circuit interrupter (GFCI) - A specialized electrical device that will interrupt electrical power where a weak electrical loss of ground occurs. Normally installed in areas where water may be present.

Grout - A white or colored plaster-like mortar compound used to fill spaces between ceramic tiles.

Header - A heavy timber and/or concrete beam that spans open spaces in walls, over doors and windows, and provides support to structural members above it.

Hip roof - A roof that rises by inclined planes from all four sides of a building.

Honeycomb - In concrete, an o en cell like surface texture that occurs while pouring the concrete.

Hose bib - An exterior faucet connection for lawn and garden hoses.

Insulation - Any material high in resistance to heat transmission that, when placed in the walls, ceilings, or floors of a structure, will reduce the rate of heat flow.

Jamb - The side and head-lining of a doorway, window or other opening.

Joint compound - A plaster-like compound, used with drywall tape, to join sheets of drywall into a smooth, continuous panel.

Joists - The horizontal support members used in constructing a floor.

Keeper plate - The metal plate that keeps a door lock latch firmly in place.

Lockset - A door lock.

Louver - An opening with a series of horizontal slats so arranged as to permit ventilation but to exclude rain, sunlight or vision.

Masonry - Stone, brick, concrete, hollow-tile, concrete block, gypsum block or other similar building units or materials or a combination of the same, bonded together with mortar to form a wall, pier, buttress or similar mass.

Mastic - A construction adhesive that is thick and waterproof. Used on roofs.

Moldings - Shaped strips of ornamental wood used around doors and windows. Also used for base moldings tile molding, as chair rails and for exterior area molding in - Moldings finish the junction of different materials or shapes.

Nail pops - Nails that come loose from a stud and push joint compound up. Caused by normal wood shrinkage and home settlement.

Pointing - The filling and finishing of broken mortar and stone cement masonry joints.

Ponding - The collection of water on driveways, in walkways, or lawns. Ponding for excessive periods of time is indicative of grading problems.

Rafter - One of a series of structural members of a roof designed to support roof loads. The rafters of a flat roof are sometimes called roof joists.

Resilient flooring - Vinyl flooring used in areas such as kitchens, halls, bathrooms and laundry rooms. It is capable of withstanding shock without permanent deformation.

Ridge vent - An open vent system located along roof peaks, which in conjunction with soffit vents, creates ventilation through the passage of natural air.

Roof sheathing - Boards or sheet material fastened to roof rafters on which the shingles or other roof covering is laid.

Scaling - In concrete, the breaking away of the top surface of the concrete, caused by a freeze/thaw cycle. in painting, the flaking or peeling away of paint.

Sheathing - The structural covering, usually wood boards or plywood, used over studs or rafters of a structure. Structural building board is normally used only as wall sheathing.

Shingles - Roof covering of asphalt, asbestos, wood, tile, slate or other material cut to stock lengths, widths and thicknesses.

Siding - The finish covering the outside walls of a frame, building, whether made of horizontal weatherboards, vertical boards with battens, shingles or other material.

Sill - The lowest member of the frame of a structure, resting on the foundation and supporting the floor joists or the uprights of a wall. The member forming the lower side of an opening, as a door-sill or window-sill.

Sill plates - A support member laid on the top of the foundation wall that serves as a base for the wall framing.

Silicone - A synthetic lubricating compound with high resistance to temperature change and water. When added to caulking, it extends elasticity properties and increases the life of the caulking.

Soffit - Usually the underside of an overhanging cornice or roof.

Soffit vent - A vent located under the ceiling of a roof overhang.

Spackle - See joint compound.

Spalling - Flaking or chipping of stone or other masonry material. Similar to scaling, but the chips and flakes are larger.

Stud - One of a series of slender wood or metal vertical structural members placed as supporting elements in walls and partitions.

Sub-flooring - A wood sheet flooring directly over the joists that supports the underlayment or floor covering.

Swale - The soil contour on a building lot deliberately shaped to channel rain water away from the home.

Tack strips - A wood strip with exposed tack points that is attached to the sub-flooring and holds stretched wall-to-wall carpeting in position.

Tread - The horizontal board in a stairway on which the foot is placed.

Trim - The finish materials in a building, such as moldings, applied around openings or at the floor and ceilings of rooms.

Trusses - Engineered wood structural members used to construct floors and roofs.

Turnaround - An additional section of driveway where cars can be turned around.

Underlayment - A flooring layer over the base subflooring, over which tile or resilient floor covering is laid.

Valley - The internal angle formed by the junction of two sloping sides of a roof.

Vacuum breaker - Also called a back-flow preventer' this device is placed on exterior faucets to allow water to only flow out of the home.

Valve seat - An interior part of the faucet valve assembly where the valve rests.

Wall ties - The metal pieces that tie masonry veneer to the frame of the home, or, when pouring concrete, the metal pieces that hold concrete foundation wall forms in place until the concrete cures.

Washers - Round, rigid rubber or plastic discs used as a sealing device in water faucet valves.

Weather stripping - A weather insulating strip of material placed around doors and windows to reduce water entry into the home. Also reduces air infiltration into the home or the escape of conditioned air out of the home.

Washouts - An area where water has produced soil erosion.

Window balance - A counter balance device in window housings that assists with the opening and closing of a window, and then keeps the window in position.

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