

## HOMEOWNER MAINTENANCE & WARRANTY GUIDE



Your complete guide to home ownership, warranties, and preventive maintenance.

This Homeowner Maintenance Guide has been written exclusively for GHO Homes Corporation, a project of GHO Homes Corporation and is protected by United States copyright laws.

Copyright © 2013 by Compendia®, San Diego, California.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any manner including photocopying, electronic copying, or email transmission, without the express written consent of Compendia<sup>®</sup>. Printed in the United States of America.

**Notice:** This guide is written based on commonly accepted industry standards for building component maintenance, and assumes normal use in average environmental and weather conditions. It is the responsibility of the homeowner to read the manufacturer's documentation and warranty information that came with the products installed in their home. In the event of a conflict between the guidelines in this guide and those provided by the manufacturer of any component in a home, the manufacturer's guidelines prevail. All of the products mentioned in this guide may not be installed in every home; conversely, all products and components in a home may not be addressed in this guide. It is the homeowner's responsibility to become familiar with the actual products and components installed in their home.



www.compendiainc.com

i

## 1. Introduction

		-
	Getting Started	
	Intent and Limitations	
2.	Contact Information	
3.	Homebuilder's Warranty	
	What is Covered3-1	
	One Year Workmanship3-2	
	Two Year Systems Defects Warranty3-2	
	10 Year Structural Defect Warranty3-2	
	How to Request Service3-4	
	Homeowner Request for Service Form (Insert)	
	2-10 Home Buyers Warranty (Insert)	
1.	Interior Maintenance	
1.	Interior Maintenance  Appliances 4-2	3
1.		
1.	Appliances4-2	
1 <u>.</u>	Appliances: General Recommendations	
<u>1.</u>	Appliances	
<u>1.</u>	Appliances	=
<u>1.</u>	Appliances: 4-2 Appliances: General Recommendations 4-2 Cooktop and Vent Hood. 4-3 Dishwasher. 4-5 Garbage Disposal 4-7 Microwave Oven 4-9 Oven 4-11	3
<u>1.</u>	Appliances: 4-2 Appliances: General Recommendations 4-2 Cooktop and Vent Hood 4-3 Dishwasher 4-5 Garbage Disposal 4-7 Microwave Oven 4-9 Oven 4-11 Range and Range Hood 4-13	=
<u>1.</u>	Appliances: General Recommendations 4-2 Cooktop and Vent Hood 4-3 Dishwasher 4-5 Garbage Disposal 4-7 Microwave Oven 4-9 Oven 4-11 Range and Range Hood 4-13 Refrigerator 4-15	=
<u>1.</u>	Appliances.       4-2         Appliances: General Recommendations       4-2         Cooktop and Vent Hood       4-3         Dishwasher.       4-5         Garbage Disposal       4-7         Microwave Oven       4-9         Oven       4-11         Range and Range Hood       4-13         Refrigerator       4-15         Wine Refrigerator       4-17	=
<u>1.</u>	Appliances: General Recommendations	=
<u>1.</u>	Appliances       4-2         Appliances: General Recommendations       4-2         Cooktop and Vent Hood       4-3         Dishwasher       4-5         Garbage Disposal       4-7         Microwave Oven       4-9         Oven       4-11         Range and Range Hood       4-13         Refrigerator       4-15         Wine Refrigerator       4-17         Cabinets       4-18         Caulking       4-21	=
1.	Appliances.       4-2         Appliances: General Recommendations       4-2         Cooktop and Vent Hood       4-3         Dishwasher       4-5         Garbage Disposal       4-7         Microwave Oven       4-9         Oven       4-11         Range and Range Hood       4-13         Refrigerator       4-15         Wine Refrigerator       4-17         Cabinets       4-18         Caulking       4-21         Countertops and Backsplash       4-23	=
1.	Appliances       4-2         Appliances: General Recommendations       4-2         Cooktop and Vent Hood       4-3         Dishwasher       4-5         Garbage Disposal       4-7         Microwave Oven       4-9         Oven       4-11         Range and Range Hood       4-13         Refrigerator       4-15         Wine Refrigerator       4-17         Cabinets       4-18         Caulking       4-21         Countertops and Backsplash       4-23         Countertops and Backsplash: Overview       4-23	=
1.	Appliances.       4-2         Appliances: General Recommendations       4-2         Cooktop and Vent Hood       4-3         Dishwasher       4-5         Garbage Disposal       4-7         Microwave Oven       4-9         Oven       4-11         Range and Range Hood       4-13         Refrigerator       4-15         Wine Refrigerator       4-17         Cabinets       4-18         Caulking       4-21         Countertops and Backsplash       4-23	

Electrical Systems and Safety	4-29
Electrical Systems and Safety: Overview	4-29
Arc Fault Circuit Interrupter (AFCI)	4-29
Circuit Breakers and Panels	4-31
Electrical Outlets and Switches	
Ground Fault Circuit Interrupter (GFCI)	4-35
Lighting	4-37
Flooring	4-39
Flooring: Overview	4-39
Carpeting	4-41
Ceramic Tile Floors	4-43
Engineered Hardwood Flooring	4-44
Laminate Floors	4-46
Natural Stone Floors	4-48
Interior Doors	4-50
Plumbing System	4-53
Showers, Tubs, and Surrounds	4-55
Sinks and Fixtures	4-57
Standard Tank Water Heater	4-60
Tankless Water Heater	4-62
Toilets	4-64
Water Pressure Regulator	4-66
Safety	4-67
CO/Smoke Detector Combo	4-67
Smoke Detectors	4-69
Trim and Finishes	4-71
Mirrors	4-71
Painted Surfaces	4-73
Ventilation and Air Conditioning	4-75
Air Conditioning System	4-75
Air Conditioning Condensate Pipes	4-78
Air Filter	4-79
Bathroom Exhaust Fans	4-80
Ceiling Fans	4-82
Registers	4-83
Thermostat	4-84

#### **5. Exterior Maintenance**

	Exterior Walls	5-2
	Exterior Walls: Overview	5-2
	Stucco	5-3
	Foundations	5-5
	Slab on Grade	5-5
	Lighting	5-7
	Openings	5-9
	Exterior Doors	5-9
	Garage Doors	5-12
	Vents	5-14
	Windows	5-15
	Roof Systems	5-18
	Roofs	5-18
	Gutters and Downspouts	5-21
	Sealants	5-24
	Trim and Accents	5-26
2	Landsoons and Irridation	
Ο,	5. Landscape and Irrigation	
	•	
	Landscape and Irrigation: Overview	6-1
	<u></u>	
	Landscape and Irrigation: Overview	6-3
	Landscape and Irrigation: Overview  Drainage and Irrigation	6-3 6-3
	Landscape and Irrigation: Overview  Drainage and Grading	6-3 6-3 6-4
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System	6-3 6-3 6-4 6-5
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs	6-3 6-3 6-4 6-5 6-6
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs.  Irrigation Pump	6-3 6-4 6-5 6-6
	Landscape and Irrigation: Overview	6-3 6-4 6-5 6-6 6-7
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs  Irrigation Pump  Irrigation System and Controller  Sprinkler Heads	6-3 6-4 6-5 6-6 6-7 6-10
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs.  Irrigation Pump  Irrigation System and Controller  Sprinkler Heads  Valves	6-3 6-4 6-5 6-6 6-7 6-10 6-12
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs.  Irrigation Pump  Irrigation System and Controller  Sprinkler Heads  Valves  Fencing.	6-3 6-4 6-5 6-6 6-7 6-10 6-12 6-13
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs  Irrigation Pump  Irrigation System and Controller  Sprinkler Heads  Valves  Fencing: Overview	6-3 6-4 6-5 6-6 6-7 6-10 6-12 6-13 6-14
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs  Irrigation Pump  Irrigation System and Controller  Sprinkler Heads  Valves  Fencing  Fencing: Overview  Metal Fencing	6-3 6-4 6-5 6-6 6-7 6-10 6-12 6-13 6-14 6-15
	Landscape and Irrigation: Overview	6-3 6-4 6-5 6-6 6-7 6-10 6-12 6-13 6-14 6-15 6-17
	Landscape and Irrigation: Overview  Drainage and Irrigation  Drainage and Grading  Drip System  Hose Bibs  Irrigation Pump  Irrigation System and Controller  Sprinkler Heads  Valves  Fencing:  Fencing: Overview  Metal Fencing  Vinyl Fencing  Hardscape	6-3 6-4 6-5 6-6 6-7 6-10 6-12 6-13 6-14 6-15 6-17 6-19

<b>10.</b> G	ossary
	nnical Advisors
9. Re	erences
8. Ho	me Maintenance Summary
Wat	er Intrusion7-13
	m Water Pollution Prevention7-12
	on
	ecting Your Home While Away7-9
	: Control
	d 7-5
Hur	ricane Preparation7-3
	nidity Management7-1
7. Spe	ecial Considerations
	•
Cvaii	Salt Water Sanitation System 6-38 mming Pool Safety 6-39
	Pool Water and Surfaces
	Pool Timer
	Pool Pump 6-34
	Pool Heater6-33
	Pool Filter 6-32
	Hand Rails 6-31
	Deck
	iAquaLink Web Connect 6-29
Swii	mming Pool 6-29
	Trees
	Shrubs
	Grass 6-22
	P(A) = P(A) +

## Introduction

#### Dear Homeowner:

Welcome to your new home! Buying a home is a major decision and we know that you have had a number of alternatives in choosing yours. We take pride in our homes and will continue to make every effort to demonstrate that you have made a good decision. We are pleased that you have chosen us, and wish you many years of enjoyment and satisfaction.

We want you to know that we stand for quality and for providing you with excellent customer service. We provide this Homeowner Maintenance Guide to assist you in maintaining and caring for your home. It also outlines the process for requesting service, should you need it.

We hope that you find this guide useful as you become acquainted with your home and seek to understand its maintenance requirements. We also hope that this tool will be an asset in helping us establish a positive, ongoing customer service relationship.

Very truly yours,

The GHO Homes Team



## **Getting Started**

This guide has been prepared specifically with you in mind. It is an important tool for understanding the purchasing and construction processes, as well as in establishing a comprehensive preventive maintenance program that ensures your home stays in outstanding condition.



Your Homeowner Maintenance Guide contains descriptions and example photographs of the major components and materials found in and around your home. It also provides preventive maintenance tasks and frequencies necessary for a successful maintenance program.

#### HOW TO USE THIS GUIDE

The maintenance program provided in this guide will only be as effective as its implementation. Without a clear plan for implementing the maintenance, diligent adherence to that system, and conscientious follow-up to ensure all maintenance items are completed on schedule, proper maintenance of your home and property will not be achieved.

#### To ensure effective implementation of this guide we ask that you:

#### 1. Make maintenance a priority.

The keys to cost-effective maintenance are attending to immediate maintenance needs and implementing a comprehensive preventive maintenance program. Preventive maintenance is important for extending the life of, and maintaining the appearance of, your property. This is essential in maintaining your property value.

#### 2. Use the Home Maintenance Summary.

The Home Maintenance Summary contains maintenance recommendations for your home, organized by frequency (monthly, twice per year, etc.). Refer to this table as a reminder of how often various components in your home need to be maintained.

## 3. Perform regular inspections and update your Homeowner Maintenance Guide accordingly.

Regularly assess the condition of each component on your property and update your Homeowner Guide as your home's needs change. One of the benefits of regularly scheduled maintenance inspections is that a clearer picture of the maintenance needs results over time. As these evolve and become more distinct, update your guide to incorporate your home's changing maintenance requirements.

#### 4. Use professionals.

For maintenance tasks outside your expertise or ability, it is always best to hire licensed professionals. When selecting a vendor to work on your home, keep in mind that hiring vendors without proper licenses, bonding, and insurance is risky.

#### **ICON KEY**

Icons draw attention to especially important information:



**Note:** The *Note* icon indicates important points of interest related to the current subject.



**Caution:** The *Caution* icon brings your attention to conditions and maintenance steps that, if not properly followed, could result in damage to your home.



**Warning:** The *Warning* icon alerts you to conditions that could be hazardous to you, your family, or your guests.

#### INTENT AND LIMITATIONS

The intent of this guide is to identify the major physical components found on your property, to describe the ordinary maintenance recommendations for these components, and to facilitate a long and healthy relationship with our customer service department.

The expert advice, preventive maintenance recommendations, and inspection program included in this guide will assist you in monitoring the condition and needs of your property. They will also allow maintenance practices to be adjusted to obtain the best results that can be reasonably expected, given the conditions which exist at your property.

Maintenance Needs. This guide was written based on normal use in average environmental and weather conditions. The maintenance needs of your property, however, are never fully predictable. Your home and property are subject to all types of unusual weather conditions, normal and abusive use, vandalism, and the unexpected. The time frames within this publication are based on industry standards and the best information currently available, however, adjustments may need to be made to compensate for either adverse or exceptional conditions. Over time, the maintenance requirements of your home will undoubtedly change. Physical components may change as replacements are made. This is another reason to update your maintenance guide.

**Limitations.** Since it is not possible to foresee every potential maintenance need that might arise, this guide is not all encompassing and should not be considered as the sole source of information about maintenance requirements for your home. However, used in conjunction with other industry information and expert advice available, it will provide a good basis for strategic planning.

**Building Standards.** Your home and property were built and developed to meet or exceed prevailing building codes and industry standards for your community and region. Most of your home's primary finishes and its supporting structure are an assembly of naturally occurring materials, selected and assembled to current building standards. Because they are subject to a range of local environmental conditions unique to your site and community, variations in appearance and performance will normally occur.

**Manufacturer Documentation.** Familiarize yourself with the Owner's Manuals that came with the products installed in your home. In the event of a conflict between the guidelines in this guide and those provided by the manufacturer of any component in your home, the manufacturer's guidelines prevail.

**Illustrative Photographs.** The photographs in this guide are for illustrative purposes only and are not intended to specifically represent any actual component or material in your home. The photographs provide general examples of what industry-standard components or materials may look like, and are intended only to aid you in recognizing the components in your home.

**Homeowner's Association.** If your home is located in a Homeowner's Association (HOA), also called a Common Interest Development, become familiar with the restrictions and regulations associated with your CC&Rs and HOA common area. Know who your HOA point of contact is and the Property Manager who has been appointed to care for your community.

#### BENEFITS OF USING THIS GUIDE

There are several great reasons to follow the recommendations found in this guide:

- They collectively serve as an excellent management tool in helping inspect your home and property and schedule maintenance.
- The terms and conditions of your home warranty, and state law, in some cases, require that you properly maintain your home in order to retain your rights to have GHO Homes Corporation correct construction deficiencies during and after the warranty period. Refer to the References chapter of this guide for information regarding relevant state laws.
- Preventive maintenance saves you money, time, and helps prevent potential injury.
- Property values tend to be higher with proper maintenance.

Implementation of the preventive maintenance program in this guide will maximize the beauty of your home and help ensure that the life expectancy of each component in your home is reached. By using these time-tested checks and balances, you will also greatly reduce the inconvenience when an element fails or is no longer aesthetically pleasing.

## **Contact Information**

This section contains contact information that we at GHO Homes Corporation consider important and useful for you.



## **GHO Homes Corporation**

Email: <a href="mailto:service@ghohomes.com">service@ghohomes.com</a>

Phone: (561) 404-0396

Toll Free: (877) 437-9192, ext. 0, 0

Fax: (561) 688-0909

Website: www.ghohomes.com

## Homebuilder's Warranty

#### What is Covered

Your 2-10 Home Buyer's Warranty comes with a One Year Workmanship and Two Year Systems Defect Warranty, as well as a 10 Year Structural Defect Warranty that are separate from the manufacturer. This means that Your Home will be free from Defects in materials and workmanship for one year as defined in the Construction Performance Guidelines in Section X (please refer to your Home Experience account for a copy of the Performance Guidelines); and for two years Your Home will be free from Defects in the electrical, plumbing, and mechanical distribution system as stated in Section X. The Workmanship warranty shall expire one year from the Effective Date of Warranty; and the Systems Warranty will expire two years from the Effective Date of Warranty.



#### ONF YFAR WORKMANSHIP

This is a one year warranty coverage in which builders are responsible for the quality of specific materials and workmanship used to construct your home. Your One Year Workmanship Warranty includes items such as:

- Cabinets
- Flooring
- Countertops
- Paint
- Sinks and toilets
- Interior and exterior walls and trim
- Grassed or landscaped areas

#### TWO YEAR SYSTEMS DEFECTS WARRANTY

The systems warranty covers items such as:

- Electrical wiring
- Supply piping
- Waste piping
- Ductwork

For a complete list of items covered under the one-year and two-year warranties, refer to the Construction Performance Guidelines that are included in pages 11 - 31 of the 2-10 Home Buyers Warranty Document that is provided for you on *Home Experience*.

#### 10 YEAR STRUCTURAL DEFECT WARRANTY

This warranty guarantees your home will be free of structural defects for the term of the agreement. Please refer to your express written warranty to understand the definitions of a construction defect, the builder's obligations and your maintenance obligations. GHO Homes Corporation has a warranty that is separate from the manufacturer.

"Structural Defect" is defined as actual physical damage to the designated loadbearing elements of the Home caused by failure of such load-bearing elements which affects their load-bearing functions to the extent that Your Home becomes unsafe, unsanitary, or otherwise unlivable. This is coverage for catastrophic failure of loadbearing elements of Your Home. The designated load-bearing elements that are covered under the Structural Defect warranty are:

- Footings and Foundation systems
- Beams
- Girders
- Lintels
- Masonry Arches
- Columns
- Load-bearing walls and partitions
- Roof framing systems
- Floor systems

The remaining elements of **Your Home** are not load-bearing elements under this **Structural Defect** warranty. A non-exclusive list of some of the non-load-bearing elements in **Your Home** not covered by this **Structural Defect** warranty are:

- 1. Non-load-bearing partitions and walls
- 2. Wall tile or paper, etc.
- 3. Drywall and plaster
- 4. Flooring and sub-flooring material
- 5. Stucco, brick and stone veneer
- 6. Any type of exterior siding
- 7. Roof shingles, roof tiles, sheathing, and tar paper
- 8. Heating, cooling, ventilating, plumbing, electrical and mechanical systems
- 9. Appliances, fixtures or items of equipment
- 10. Doors, trim, cabinets, hardware, insulation, paint, stains
- 11. Basement and other interior floating, ground-supported concrete slabs

For detailed information on how warranty claims or defects are handled, limits to your warranty, and other warranty specifics, please refer to your 2-10 Home Buyers Warranty that is provided for you on *Home Experience*.

## **How to Request Service**

**1.** Review the warranty section which addresses the item you believe requires service.



- 2. Go to <a href="www.ghohomes.com">www.ghohomes.com</a> and click on Customer Service. Submit a Customer Service Request form. Please include your address and work and home phone numbers. Describe in detail the item, including the location of the item (e.g., kitchen or master bathroom) requiring service.
- **or** EMAIL or FAX the completed form to:

Email: service@ghohomes.com

**Fax:** (561) 688-0909 **Phone:** (561) 404-0396

Toll Free: (877) 437-9192, ext. 0, 0





#### **HOMEOWNER REQUEST FOR SERVICE**

Name:		Address:	
Phone:		Email:	
Location	Description		Complete
	1.		
	2.		
	3.		
	4.		
	5.		
	6.		

#### **Preferred Service Appointments:**

Day / Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00am to 10:00am					
10:30 to Noon					
Noon to 2:30pm					
After 3:00pm					

Please fax to 561.688.0909 or email: service@ghohomes.com













#### **TABLE OF CONTENTS**

SECTION I Your Warranty Booklet and

**Certificate of Warranty Coverage** 

**SECTION II** The Warranties Provided

By Your Builder/Seller

SECTION III The Option To Repair, Replace or Pay

For Defect and/or Structural Defect

**SECTION IV** Reporting a Warranty Claim

**SECTION V** The Effect of this Warranty on

**Your Legal Rights** 

**SECTION VI** Arbitration of Disputes

SECTION VII Your Responsibilities Under This

**Express Limited Warranty** 

**SECTION VIII** Exclusions

SECTION IX Manufacturers and Other

**Similar Warranties** 

**SECTION X** Construction Performance

**Guidelines** 



#### SECTION I. YOUR WARRANTY BOOKLET AND CERTIFICATE OF WARRANTY COVERAGE.

This booklet and the **Certificate of Warranty Coverage** are very important legal documents that fully define the provisions of **Your Builder/Seller's** express limited warranty, **Your** rights and **Your Builder/Seller's** rights and obligations. Therefore, it is important to keep this booklet and the **Certificate of Warranty Coverage** with other legal documents that are important to **You**.

**Your** warranty is not a policy of insurance, a maintenance agreement or a service contract. If **You** have a mortgage on **Your Home**, **Your** lender may insist that **You** have a Homeowners' insurance policy. This warranty is not a Homeowners' insurance policy and it will not satisfy the lender's requirement.

The provisions of this warranty may not be changed by **Your Builder/Seller** or by any other person. If any provision of this warranty is found to be unenforceable, the remaining provisions will remain in full force and effect.

#### A. TRANSFERRING YOUR BUILDER/SELLER'S EXPRESS LIMITED WARRANTY.

If **You** sell **Your Home** during the term of the express limited warranty, this warranty can be transferred to the next owner, and any subsequent owners. This means all of **Your** rights and obligations under this warranty, up to the remaining amount of the **Warranty Limit**, will transfer to each purchaser of **Your Home** or any person who otherwise obtains title to **Your Home**, including any mortgagee in possession, for the remaining term of the warranty.

When You sell Your Home, You agree to give this warranty booklet and the Certificate of Warranty Coverage to Your buyer in order to make it possible for the buyer to understand his or her rights and fulfill his or her obligations under the provisions of this express limited warranty.

If **You** are a successive owner of the **Home**, **You** may benefit from the coverage provided by this express limited warranty, but in return **You** are bound by all of the terms and conditions of this warranty including but not limited to the procedures that must be followed to make a claim and the obligation to participate in arbitration as set out in this warranty. To register the warranty in **Your** name please complete and mail the Successive Owner Transfer and Acceptance Form along with a check for \$20.00 to 2-10 HBW at the address shown on the form.

#### **B. WORDS WITH SPECIAL MEANINGS.**

Generally speaking, the words used in this warranty have their normal everyday meaning. In some cases, however, a word will be used as shorthand to describe specifically one of the key provisions contained in this express limited warranty. In those cases, the words will be capitalized, and the capitalized word will always have the same special meaning.

Most defined terms are described in this section, however, other sections of this warranty booklet may contain other defined terms. The words being given a special meaning in this section are as follows:

"Builder/Seller" means the Home Builder/Seller listed on the Certificate of Warranty Coverage, and is the person or company providing You with this express limited warranty.

"Certificate of Warranty Coverage" is the document issued by 2-10 HBW confirming that Your Builder/Seller took all steps required to make the express limited warranty on Your Home effective.

"Common Element" means any portion of a Multi-Family Building which is defined as a Common Element in either common interest ownership laws or in the declaration establishing such community. Unless excluded in Section VIII, Common Elements may include, without limitation, hallways, roofs, exterior finishes, and electrical, plumbing, and mechanical distribution systems.

"Common Element Date of Warranty" means the earlier of the date a certificate of occupancy is issued for the Multi-Family Building or the date a unit in the building is first occupied.

"Commercial Space" means any unit within a Multi-Family Building that is used primarily for a non-residential purpose, including, without limitation, club houses, retail space, and recreational facilities.

"Defect" means a failure to meet the Construction Performance Guidelines for workmanship and systems set forth in Section X of this warranty booklet.

"Effective Date of Warranty" means the date the express limited warranty goes into effect. That date will be the earliest of: (1) the closing date on which You purchased the Home, (2) the date title to the Home was transferred to You if title was transferred before Your closing date, or (3) the date anyone first began living in the Home if before Your closing date. Homes With FHA/VA Financing

HBW\_307\_071512

<u>Only</u> – If **Your Certificate of Warranty** indicates **Your Home** has FHA/VA financing, the **Effective Date of Warranty** is the date of closing.

"Home" means the dwelling unit and garage (if any) or the Commercial Space (if any) located at the address shown on the Certificate of Warranty Coverage.

"Multi-Family Building" is a building in a common interest community that may consist of dwelling units, shared parking spaces, Commercial Space(s) and/or Common Elements.

"Performance Guidelines" mean the performance standard(s) the Home or element or component must satisfy.

"Structural Defect" is defined in Section IIB of this warranty booklet.

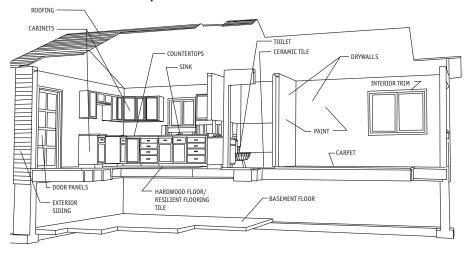
"You", "Your", and similar words means the person or persons who are the legal owners of the **Home** covered by this express limited warranty.

"Warranty Insurer" is the Builder/Seller's Warranty Insurer as stated on Your Certificate of Warranty Coverage.

"Warranty Limit" is the aggregate financial obligation of the Builder/Seller for all claims under this warranty and is the sum stated on the Certificate of Warranty Coverage.

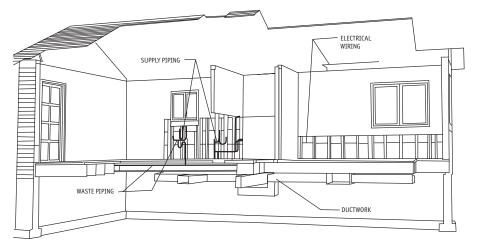
#### SECTION II. THE WARRANTIES PROVIDED BY YOUR BUILDER/SELLER.

**A.** ONE YEAR WORKMANSHIP AND TWO YEAR SYSTEMS DEFECT WARRANTY. Your Builder/Seller is providing a One Year Workmanship and Two Year Systems Defect Warranty for Your Home. This means that Your Home will be free from Defects in materials and workmanship for one year as defined in the Construction Performance Guidelines in Section X; and for two years Your Home will be free from Defects in the electrical, plumbing, and mechanical distribution system as stated in Section X. The Workmanship warranty shall expire one year from the Effective Date of Warranty; and the Systems Warranty will expire two years from the Effective Date of Warranty.



#### WORKMANSHIP

Examples of items typically covered under the one year workmanship warranty.



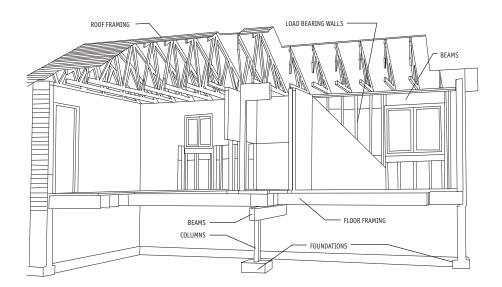
#### **SYSTEMS**

Examples of items typically covered under the two year systems warranty.

**B. STRUCTURAL DEFECT WARRANTY. Your Builder/Seller** is providing a **Structural Defect** warranty. This means that the **Builder/Seller** warrants that **Your Home** will be free from **Structural Defects** from the **Effective Date of Warranty** for ten years.

**Structural Defect** is defined as actual physical damage to the designated load-bearing elements of the **Home** caused by failure of such load-bearing elements which affects their load-bearing functions to the extent that **Your Home** becomes unsafe, unsanitary, or otherwise unlivable. This is coverage for catastrophic failure of load-bearing elements of **Your Home**. The designated load-bearing elements that are covered under the **Structural Defect** warranty are:

- 1. Footings and Foundation systems;
- 2. Beams;
- 3. Girders;
- 4. Lintels;
- 5. Masonry Arches;
- 6. Columns;
- 7. Load-bearing walls and partitions;
- 8. Roof framing systems; and
- 9. Floor systems.



#### **STRUCTURE**

Examples of items typically covered under the ten year structural warranty.

The remaining elements of **Your Home** are not load-bearing elements under this **Structural Defect** warranty. A non-exclusive list of some of the non-load-bearing elements in **Your Home** not covered by this **Structural Defect** warranty are:

- 1. Non-load-bearing partitions and walls;
- 2. Wall tile or paper, etc.;
- 3. Drywall and plaster:
- 4. Flooring and sub-flooring material;
- 5. Stucco, brick and stone veneer;
- 6. Any type of exterior siding;
- 7. Roof shingles, roof tiles, sheathing, and tar paper;
- 8. Heating, cooling, ventilating, plumbing, electrical and mechanical systems;
- 9. Appliances, fixtures or items of equipment;
- 10. Doors, trim, cabinets, hardware, insulation, paint, stains; and
- 11. Basement and other interior floating, ground-supported concrete slabs.

<u>Homes With FHA/VA Financing Only</u> – If **Your Certificate of Warranty** indicates **Your Home** has FHA/VA financing, add the following to the definition of designated load-bearing elements that are covered:

- 12. Roof sheathing only if **Your Home** has original FHA/VA financing still in effect; and
- 13. State of Colorado: Basement slabs for the first four years of the **Structural Defect** warranty period only if **Your Home** has original FHA/VA financing still in effect.

**C. INDIANA RESIDENTS.** If **Your Home** is located in the State of Indiana, **Your Home** will be free from **Defects** in materials and workmanship as defined in the Construction **Performance Guidelines** contained in Section X of this warranty booklet for a period of two years from the **Effective Date of Warranty**, and the roof on **Your Home** will be free from **Defects** in faulty workmanship or defective materials for a period of four years from the **Effective Date of Warranty**. All other provisions of this warranty remain the same.

## SECTION III. THE OPTION TO REPAIR, REPLACE OR PAY FOR DEFECT AND/OR STRUCTURAL DEFECT. A. PROVISIONS APPLICABLE TO DEFECT AND/OR STRUCTURAL DEFECT.

The Builder/Seller shall have the option to repair, replace or pay You the reasonable cost of repair of any Defect. The Warranty Insurer shall have the option to repair, replace or pay You the reasonable cost of repairing any Structural Defect. The design, method and manner of such repair shall be within the sole discretion of the Builder/Seller or Warranty Insurer, as applicable. At the time of repair, replacement or payment for the repair of any Defect or Structural Defect, You must:

- 1. Assign to the **Builder/Seller** or **Warranty Insurer** any rights **You** may have against any other person with respect to the **Defect** or **Structural Defect**. **You** must not do anything to prejudice these rights of subrogation.
- 2. Sign and deliver a full and unconditional release of the **Builder/Seller** or **Warranty Insurer**, in recordable form, of all legal obligations with respect to the warranted items and conditions arising from those items.

If an improvement, fixture or property not constructed by the **Builder/Seller** is damaged or requires removal during the repair, it is **Your** sole responsibility, and not the responsibility of the **Builder/Seller** or **Warranty Insurer**, to pay for the cost of repair or removal of such improvement, fixture or property. No repair shall extend the term of this express limited warranty as to any **Defect** or **Structural Defect**, including without limitation, the **Defect** or **Structural Defect** that was the subject of the repair.

<u>Homes With FHA/VA Financing Only</u> – In the case of cash payments regarding **Homes** with original FHA/VA financing still in effect, the **Warranty Insurer** is required to make payment to **You** and **Your** mortgagee. **You** must provide the name and address of **Your** mortgagee, the FHA/VA case number and the loan number (**Your** HUD settlement statement will have this information) when **You** file a claim with respect to a **Home** with a FHA/VA financed mortgage, in order for these obligations to be performed.

#### B. ADDITIONAL PROVISIONS APPLICABLE TO THE REPAIR OF STRUCTURAL DEFECT.

The repair of a **Structural Defect** is limited to:

- 1. The repair of damage to designated load-bearing portions of the **Home** which is necessary to restore their load-bearing ability;
- 2. The repair of designated non-load-bearing portions, items or systems of the **Home**, damaged by the **Structural Defect**, which make the **Home** unsafe, unsanitary, or otherwise unlivable (such as the repair of inoperable windows, doors and the restoration of functionality of damaged electrical, plumbing, heating, cooling, and ventilating systems); and
- 3. The repair and cosmetic correction of only those surfaces, finishes and coverings, original with the **Home**, damaged by the **Structural Defect**, or which require removal and replacement attendant to repair of the structural damage, or to repair other damage directly attributable to the **Structural Defect**.

Repairs of the **Structural Defect** are intended to restore the **Home** to approximately the condition just prior to the **Structural Defect**, but not necessarily to a like-new condition.

#### C. ACCESS TO YOUR HOME FOR INSPECTING AND MAKING REPAIRS.

In order to carry out the warranty responsibilities, the **Builder/Seller** or **Warranty Insurer** will require access to **Your Home**. If **Your Home** is in a **Multi-Family Building**, **You** agree (after reasonable notice) to allow access to, or within **Your Home** during normal business hours so repairs may be made to any adjacent unit or **Common Element**. If emergency repairs are necessary and **You** cannot be reached within a reasonable time period, **You** waive such notice. If **You** do not provide access to **Your Home** during normal business hours to inspect, repair, or conduct tests on **Your Home** as may be required to evaluate or repair a **Defect** or **Structural Defect**, **You** are relieving the **Builder/Seller** and **Warranty Insurer** of all responsibility to make repairs, replace or pay for any **Defect** or **Structural Defect** under this warranty.

In addition to the right to inspect **Your Home**, the **Builder/Seller** or **Warranty Insurer** shall have the right, in advance of any arbitration concerning **Your Home**, to re-inspect **Your Home** if the request for arbitration is made more than sixty (60) days after the last claim decision concerning the claim that is the subject of the arbitration.

#### D. THE LIMITS OF YOUR WARRANTY.

Every time Your Builder/Seller or Warranty Insurer pays a claim under this warranty, the amount of that payment is deducted from the Warranty Limit. When the Warranty Limit is exhausted, there is no longer warranty coverage for Your Home. A claim payment includes the cost to the Builder/Seller or Warranty Insurer of repairing a Defect or Structural Defect in Your Home covered under this warranty. However, a claim payment does not include the cost of investigating the claim.

The Warranty Limit for Common Elements in a Multi-Family Building is equal to the sum of the unexpired Warranty Limits for all Homes in the building which are enrolled in the 2-10 HBW Program. In the event that all Homes in the Multi-Family Building were not enrolled, the Warranty Limit for Common Elements Defects or Common Elements Structural Defect coverage shall be reduced pro-rata based upon the ratio of the original sale price of the non-enrolled Homes compared to the total original sales price of all Homes in the Multi-Family Building. If the claim payment is for a Common Elements Defect or Common Elements Structural Defect, the Warranty Limit on each Home in the Multi-Family Building still covered by an unexpired warranty shall be reduced pro-rata in the proportion which the Common Elements claim payment bears to the total original sales price of all enrolled Homes. Any coverage

for **Your Builder/Seller's** express limited warranty shall be excess of any other valid and collectible insurance available to **You** or **Your Builder/Seller**, whether primary, pro-rata or excess, and whether or not collected.

#### **E. EMERGENCY REPAIRS.**

An emergency means a substantial risk of serious physical damage to the **Home** or a substantial risk of serious bodily injury to its occupants if a **Defect** or **Structural Defect** is not immediately repaired. If **You** have an emergency involving a **Defect** or a **Structural Defect**, **You** must contact **Your Builder/Seller** immediately, who is responsible for making emergency repairs or authorizing **You** to make emergency repairs. If **You** are unable to contact **Your Builder/Seller**, **You** must then (1) make minimal repairs necessary to avoid the emergency until authorization for more extensive repairs have been approved by **Your Builder/Seller**, (2) take any action reasonably necessary to limit additional damage, and (3) report the emergency to the **Builder/Seller** and 2-10 HBW on the next business day.

Except for authorized emergency repairs, do not repair or attempt to repair a claimed **Defect** or **Structural Defect** before the **Builder/Seller** has an opportunity to inspect the **Defect** or **Structural Defect**. Any attempt to repair a claimed **Defect** or **Structural Defect**, other than an authorized emergency repair, will make it impossible to assess whether the **Defect** or **Structural Defect** was covered by this warranty, whether the repair was correct, cost-effective, necessary, and effective, or whether the problem could be resolved in another way. Unless an emergency **Defect** or **Structural Defect** repair is authorized, the **Builder/Seller** and/or the 2-10 HBW **Warranty Insurer** will have no responsibility to reimburse any costs due to repair, replacement, and expenses, including engineering and attorney's fees.

#### SECTION IV. REPORTING A WARRANTY CLAIM.

#### A. WORKMANSHIP AND SYSTEMS DEFECTS.

If **You** believe **Your Home** has a **Defect** that is covered under **Your Builder/Seller's** Workmanship or Systems Warranty that occurred during the applicable term of the warranties, **You** must take the steps described in this Section IV.

#### **B. STRUCTURAL DEFECTS.**

If You believe Your Home has a Structural Defect that is covered under Your Builder/Seller's Structural Warranty, You must take the steps described in Section IV.D.2. Notice of Structural Defect must be made by the Homeowner, except for Multi-Family Buildings, notice for each affected building must be made by the Homeowners' association or its designated representative, along with a copy of the Certificate of Warranty Coverage for each Home in the building.

#### C. NOTICE TO YOUR BUILDER/SELLER.

Workmanship and Systems Defect(s) must be reported to the Builder/Seller as soon as possible but no later than 15 days after the expiration of the applicable term of the warranty. Send written notification to Your Builder/Seller listing completely the specific Defect(s) and the date the Defect(s) occurred. The Defect will not be covered under this warranty if the Notice is received more than 15 days after the expiration of the warranty term. These time limits are a material condition of this warranty. It is recommended (but not required) that Your letter be sent by certified mail, return receipt requested so You have a record of when Your letter was sent and received.

#### D. NOTICE TO 2-10 HBW.

1. WORKMANSHIP AND SYSTEMS DEFECTS MUST BE REPORTED TO 2-10 HBW AS SOON AS POSSIBLE BUT NO LATER THAN 15 DAYS AFTER THE EXPIRATION OF THE APPLICABLE TERM OF THE WARRANTY.

If covered repairs for the Workmanship or Systems **Defects** are not completed by **Your Builder/Seller** within sixty (60) days of the date **You** sent **Your** letter or before the expiration of the warranty term (whichever date comes earlier), **You** must complete the following three steps:

- a. Complete the appropriate Notice of Complaint Form ("Notice"), which is found at the back of this warranty booklet.
- b. Send one copy of the Notice to Your Builder/Seller.
- c. Send one copy of the Notice to 2-10 HBW, and include:
  - 1. A copy of Your Certificate of Warranty Coverage; and
  - 2. A copy of all correspondence with Your Builder/Seller regarding the Defect(s) in question to:

2-10 Home Buyers Warranty Warranty Administration Department 10375 East Harvard Avenue, Suite 100 Denver, CO 80231

Phone: 855.429.2109

We recommended (but do not require) that **You** send this notice by certified mail, return receipt requested, so **You** have a record of when the notice was sent and received. Include copies of **Your Certificate of Warranty Coverage** and all correspondence with **Your Builder/Seller** about the **Defect**(s) in question.

HBW\_307\_071512

WHAT 2-10 HBW WILL DO. Once 2-10 HBW has received Your Notice of Defect, it will again notify Your Builder/Seller of Your Defect(s). If You and Your Builder/Seller still cannot resolve Your differences even with 2-10 HBW's conciliation help, then You and Your Builder/Seller must arbitrate Your dispute under the arbitration agreement set forth in this booklet. 2-10 HBW will provide a form for You to request arbitration after You have completed the procedure described above. If 2-10 HBW determines that Your Builder/Seller cannot or will not participate in arbitration, or Your Builder/Seller refused to pay or perform an arbitration award in Your favor, 2-10 HBW will notify You of that fact. You must then forward to 2-10 HBW at the address above, a one time \$250 claim deductible (check payable to the Builder/Seller's Warranty Insurer stated on Your Certificate of Warranty Coverage). Upon receipt, 2-10 HBW will forward the check and Your file to the Builder/Seller's Warranty Insurer, and the Warranty Insurer will adjust the claim.

<u>Homes With FHA/VA Financing Only</u> – If **You** are the original owner and **Your Home** has original FHA/VA financing still in effect, the \$250 deductible is collected after the claim is accepted and the amount of the loss is determined.

- 2. Structural Defect(s) must be reported to 2-10 HBW as soon as possible but no later than thirty (30) days after the expiration of the applicable term of the Warranty. Notice means that You must complete the following two steps:
  - a. Complete the appropriate Notice of Claim Form ("Notice"), which is found at the back of this warranty booklet.
  - b. Send one copy of the Notice to 2-10 HBW, and include:
    - 1. A copy of **Your Certificate of Warranty Coverage**; pay a \$250 claim investigation fee payable to the **Warranty Insurer** stated on the **Certificate of Warranty Coverage**; and
    - 2. A copy of all correspondence with Your Builder/Seller regarding the Structural Defect(s) in question to:

2-10 Home Buyers Warranty Warranty Administration Department 10375 East Harvard Avenue, Suite 100 Denver, CO 80231

Phone: 855.429.2109

We recommended (but do not require) that **You** send this notice by certified mail, return receipt requested, so **You** have a record of when the notice was sent and received.

<u>Homes With FHA/VA Financing Only</u> – If **You** are the original owner and **Your Home** has original FHA/VA financing still in effect, **You** do not have to send the \$250 claim fee investigation fee with **Your** Notice of Claim Form. The \$250 fee will be collected after the claim is accepted and the amount of the loss is determined.

**WHAT 2-10 HBW WILL DO.** Upon receipt of the items identified in D.2 above, 2-10 HBW will forward the check and **Your** file to the **Warranty Insurer**, and the **Warranty Insurer** will adjust the claim.

#### SECTION V. THE EFFECT OF THIS WARRANTY ON YOUR LEGAL RIGHTS.

You have accepted this express limited warranty provided in this warranty booklet. All other express or implied warranties, including oral or written statements or representations made by Your Builder/Seller or any implied warranty of habitability, merchantability or fitness, are disclaimed by Your Builder/Seller and waived by You to the extent possible under the laws of Your state. You may have other remedies as provided under the law of the state where the Home is located.

- \*California: The protection provided under this Warranty is not in limitation of, but is in addition to any other rights provided to You under California law.
- \*Kansas: You have not waived the implied warranties and the Warranty is not Your exclusive remedy. You may have other remedies as provided to You under Kansas law.
- \*Florida: Units located in Multi-Family Buildings may have additional statutory protection under Florida law.
- \*Oregon: Units located in Multi-Family Buildings may have additional statutory protection under Oregon law.

#### **SECTION VI. ARBITRATION OF DISPUTES.\***

To expedite the resolution of any and all claims, disputes and controversies by or between the Homeowner, the Builder/Seller, 2-10 HBW, as administrator, the Warranty Insurer or any combination of the foregoing, arising from or related to this Warranty, the Warranty Insurance Policy or the 2-10 HBW Program, shall be settled by binding arbitration. Agreeing to arbitration means You are waiving Your right to a jury trial, class action or consolidation.

Any party shall be entitled to recover reasonable attorney's fees and costs incurred in enforcing this arbitration agreement. The decision of the arbitrator shall be final and binding and may be entered as a judgment in any State or

Federal court of competent jurisdiction.

#### A. SELECTING AN ARBITRATION SERVICE.

The arbitration shall be conducted by DeMars & Associates, Ltd. or by Construction Dispute Resolution Services, LLC, or by any mutually agreeable arbitration services, pursuant to the applicable rules in effect at the time of the arbitration. The choice of the arbitration service shall be that of the Homeowner, or if the Homeowner is not involved, the party who initiates the arbitration shall choose the arbitration service. No arbitration proceeding shall involve more than one single-family detached dwelling or more than one Multi-Family Building. The arbitrator shall render an award in accordance with the substantive law in the state in which the Home is located. The decision of the arbitrator shall be final and binding and may be entered as a judgment in any State or Federal court of competent jurisdiction.

#### B. DISPUTES CONCERNING THE APPLICATION OF THIS ARBITRATION AGREEMENT.

The parties expressly agree that this arbitration agreement involves and concerns interstate commerce and interpretation of this arbitration agreement shall be governed by the Federal Arbitration Act (9 U.S.C. § 1, et seq.) ("FAA"), to the exclusion of any different or inconsistent state or local law, ordinance or judicial rule. This arbitration agreement is a self-executing arbitration agreement. Any disputes concerning the interpretation or enforceability of this arbitration agreement, including without limitation, its revocability or voidability for any cause, the scope of arbitrable issues, and any defense based upon waiver, estoppel or laches, shall be decided by the arbitrator.

#### C. COST OF ARBITRATION.

All administrative fees of the arbitration service and fees of the arbitrator shall be allocated to the parties as provided in the rules of the arbitration service, subject to the discretion of the arbitrator to reallocate such fees in the interests of justice.

D. FOR WARRANTIES ISSUED IN CALIFORNIA: For 2-10 HBW warranties issued on Homes located within the State of California, the arbitration provisions are amended as follows. The FAA shall govern the enforceability of this arbitration agreement, to the exclusion of any state law (statutory or judicial). Arbitration shall not be to stayed or denied enforcement pursuant to California Code of Civil Procedure § 1281.2(c). An arbitration service or arbitrator conducting an arbitration must satisfy the disclosure requirements mandated under the California Arbitration Act. The arbitrator shall not have the power to commit errors of law or legal reasoning. California procedural and substantive laws and the California Arbitration Act relating to the process of modifying, confirming, or vacating an arbitration award shall be the governing law with respect to the finality of any resulting arbitration award. Any award pursuant to this arbitration agreement will be subject to judicial vacatur if the award manifests legal errors. The arbitrator shall prepare in writing and provide to the parties an award including factual findings and the reasons on which his decision is based. A party may apply to such court for an order confirming, modifying or vacating the award, and upon the court's review of (a) whether the findings of fact rendered by the arbitrator are supported by substantial evidence and (b) whether, as a matter of law based on such findings of fact, a judgment shall be entered in favor of either party consistent with such review.

\*Homes With FHA/VA Financing Only – If You are the original owner and Your Home has original FHA/VA financing still in effect, in lieu of any right to have a claim resolved in a judicial proceeding, You may, at Your election, submit to arbitration all claims, disputes and controversies by or between You, the Builder/Seller, the Warranty Insurer and/or 2-10 HBW, arising from or related to the warranty. In addition, 2-10 HBW and/or the Warranty Insurer will offer pre-arbitration conciliation at no cost to You.

#### SECTION VII. YOUR RESPONSIBILITIES UNDER THIS EXPRESS LIMITED WARRANTY.

You are responsible for proper maintenance of Your Home including maintaining Builder/Seller-set grades around the Home, planting trees and shrubs at the proper distance from the Home, and conforming to generally accepted landscape practices for Your region. Your Builder/Seller is not responsible for problems that arise if You do not meet these responsibilities. Also, all new Homes go through a period of settlement and movement, and Your Home may experience some minor material shrinkage, cracking and other events which are normal and customary. Examples include small cracks in drywall and paint; and separation where dissimilar materials meet each other — for example, where moldings meet sheetrock, or where tile grout meets a sink. In most cases, paint and caulking is all that is necessary to conceal these types of blemishes that result from the natural expansion and contraction of construction material. Because these events are normal and customary, they are not a Defect or Structural Defect that are covered by this express limited warranty.

#### SECTION VIII. EXCLUSIONS.

This Warranty does not provide coverage for any of the following items which are specifically excluded.

- 1. Damage to land and other real property that was not part of **Your Home**, or any property that was not included in the purchase price stated on the **Certificate of Warranty Coverage**;
- 2. Damage to or **Defects** in swimming pools, tennis courts and other exterior recreational facilities; driveways; boundary walls, retaining walls and bulkheads (except where boundary walls, retaining walls and bulkheads are necessary for the structural stability of the **Home**); fences; landscaping (including sod, seeding, shrubs, trees, and plantings); sprinkler systems, patios, decks, and porches, outbuildings, detached carports, or any other appurtenant structure or attachment to the dwelling; or other additions or improvements not a part of **Your Home**;
- 3. Loss or damage which arises while Your Home is being used primarily for nonresidential purposes;
- 4. Changes in the level of underground water table which were not reasonably foreseeable at the time of construction of **Your Home**;
- Failure of Your Builder/Seller to complete construction or construction which is noncompliant with plans and specifications; violations of local or national building codes, ordinances or standards;
- 6. Any condition which has not resulted in actual physical damage to Your Home;
- 7. Any loss or damage that is caused or made worse by any of the following causes, whether acting alone or in sequence or concurrence with any other cause or causes whatsoever, including without limitation:
  - a. Negligence, improper maintenance, defective material or work supplied by, or improper operation by, anyone other than **Your Builder/Seller** or its employees, agents or subcontractors, including failure to comply with the warranty requirements of manufacturers of appliances, equipment or fixtures;
  - b. Your failure to give prompt and proper notice to 2-10 HBW and Your Builder/Seller of any Defect or Structural Defect;
  - Change of the grading of the ground that does not comply with accepted grading practices, or failure to maintain the original grade;
  - d. Riot or civil commotion, war, vandalism, hurricane, tornado or other windstorm, fire, explosion, blasting, smoke, water escape, tidal wave, flood, hail, snow, ice storm, lightning, falling trees or other objects, aircraft, vehicles, mudslide, landslide, avalanche, earthquake, volcanic eruption or sinkholes or geographical phenomena involving subsurface slope instability;
  - e. Abuse or use of Your Home, or any part thereof, beyond the reasonable capacity of such part for such use;
  - f. Microorganisms, fungus, decay, wet rot, dry rot, soft rot, rotting of any kind, mold, mildew, vermin, termites, insects, rodents, birds, wild or domestic animals, plants, corrosion, rust, radon, radiation, formaldehyde, asbestos, any solid, liquid or gaseous pollutant, contaminant, toxin, irritant or carcinogenic substance, whether organic or inorganic, and electromagnetic field or emission, including any claim of health risk or uninhabitability based on any of the foregoing; <a href="Homes With FHA/VA Financing Only">Homes With FHA/VA Financing Only</a> If You are the original owner and Your Home has original FHA/VA financing still in effect, termite damage shall be covered for one year from the Effective Date of Warranty;
  - g. Your failure to minimize or mitigate any defect, condition, loss or damage as soon as practicable;
- 8. Any loss or damage caused by buried debris, underground springs, sinkholes, mineshafts or other anomalies which were not reasonably foreseeable in a building site **You** provided;
- 9. Loss caused, in whole or in part, by any peril or occurrence for which compensation is provided by state legislation or public funds:
- 10. Costs of shelter, transportation, food, moving, storage, or other incidental expenses related to relocation during repair, or any other costs due to loss of use, inconvenience, or annoyance;
- 11. Diminished market value of **Your Home\***;
- 12. Any and all consequential loss or damage, including without limitation, any damage to property not covered by this warranty, any damage to personal property, any damage to property which **You** do not own, any bodily injury or personal injury of any kind, including physical or mental pain and suffering and emotional distress, and any medical or hospital expenses, or lost profits;
- 13. Any and all exclusions set forth in Section X (Construction Performance Guidelines);
- 14. Any **Defect** or **Structural Defect** first occurring after the applicable term of the Warranty expires.
- 15. **Defects** or **Structural Defects** that first occur or **You** knew about prior to the **Effective Date of Warranty** such as "walk-through" or "punch list" items.

\*Homes With FHA/VA Financing Only – If You are the original owner and Your Home has original FHA/VA financing still in effect, "Diminished market value of the Your Home" is deleted.

#### SECTION IX. MANUFACTURERS AND OTHER SIMILAR WARRANTIES.

Your warranty does not apply to any manufactured item such as appliances, fixtures, equipment (except as specifically defined in the Construction **Performance Guidelines**) or any other item which is covered by a manufacturer's warranty, nor does it cover **Defect** in any systems that are caused by failure of any such manufactured item.

Appliances and items of equipment not covered by this Limited Warranty include but are not limited to; air conditioning units, attic fans, boilers, burglar alarms, carbon monoxide detectors, ceiling fans, central vacuum systems, chimes, dishwashers, dryers, electric

meters, electronic air cleaners, exhaust fans, fire alarms, freezers, furnaces, garage door openers, garbage disposals, gas meters, gas or electric grills, heat exchangers, heat pumps, humidifiers, intercoms, outside lights or motion lights not attached to the **Home**, range hoods, ranges, refrigerators, sewage pumps, smoke detectors, solar panels, space heaters, sump pumps, thermostats, trash compactors, washers, water pumps, water softeners, water heaters, whirlpool baths, and whole-house fans. This warranty does not affect or limit in any way any manufacturer's warranty.

#### SECTION X. CONSTRUCTION PERFORMANCE GUIDELINES.

The following Construction **Performance Guidelines** apply only to the One Year Workmanship and Two Year Systems Warranty. The Construction **Performance Guidelines** are standards that **Your Builder/Seller's** construction should meet. Noncompliance with these construction guidelines calls for corrective action by **Your Builder/Seller**. **Builder/Seller** will try to its best ability to match and replace with **Your** original choice of colors and materials, except where **You** custom-ordered the items. **Builder/Seller** cannot be responsible for discontinued items, changes in dye lots, colors or patterns, or items ordered outside of the original construction, or normal wear and deterioration.

It is virtually impossible to develop Construction **Performance Guidelines** for each possible deficiency. Therefore, the construction industry and 2-10 HBW have attempted to identify the most common actual physical damage deficiencies that occur and also who has responsibility for the guideline, **Your Builder/Seller**, or **You**. Where a specific Construction **Performance Guideline** has not been specified, the guidelines found in the publication Residential Construction **Performance Guidelines** 3rd Edition-Contractor Reference, National Association of Home Builders (NAHB), will apply. Copies of this publication may be special ordered through most book retailers, or purchased directly from the NAHB Bookstore by calling 1-800-223-2665. The NAHB Bookstore may also be reached online at <a href="https://www.BuilderBooks.com">www.BuilderBooks.com</a>. If an item is not covered in that publication, locally accepted trade practices of the construction industry will be used.

HBW\_307\_071512

# INDEX CONSTRUCTION PERFORMANCE GUIDELINES

#### 1 YEAR WORKMANSHIP

- 1. Site Work Page 13
- 1.1 Grading Page 13
- 1.2 Drainage Page 13
  Soil Erosion Page 13

Grassed or Landscaped Areas - Page 13

- 2. Foundation and Concrete Page 14
- 2.1 Cast-In Place Concrete Page 14

Basement Floor - Page 14

Attached Garage Floor Slab - Page 14

Attached Patio Slab and Sidewalks - Page 14

Concrete Slab on Grade Floors - Page 14

Uneven Concrete Floor Slabs - Page 14

Interior Concrete, Pitting Scaling or Spalling - Page 14

Basement Floor, Efflorenscence - Page 15

Brick or Masonry Edging - Page 15

Stoops and Steps - Page 15

- 2.2 Construction and Control Joints Page 15
- 3. Masonry Page 15
- 3.1 Unit Masonry (Brick, Block and Stone) Page 15
   Concrete Block Basement Walls, Cracks Page 15
   Concrete Block Basement Walls, Bowed Page 15
- 3.2 Stucco and Cement Plaster Page 15 Exterior Stucco Wall - Page 16
- 4. Carpentry Page 16
- 4.1 Plywood and Joists Page 16

Wood Framed Floors, Uneven - Page 16

Walls or Ceilings, Bowed - Page 16

Wood Frame Walls, Plumb - Page 16

Wood Beam/Post, Split - Page 16

Exterior Sheathing and Sub-flooring - Page 16

Wood Floor, Square - Page 17

4.2 Finish Carpentry - Page 17

Exterior Trim - Page 17

Interior Trim - Page 17

Interior Trim, Split - Page 17

Interior Trim, Hammer Marks - Page 17

Exposed Nail Heads, Woodwork - Page 17

- 5. Thermal and Moisture Protection Page 17
- 5.1 Waterproofing Page 17

Basement, Foundation, Crawl-space, Leaks - Page 17

5.2 Insulation - Page 18

Insufficient Insulation - Page 18

Sound Transmission - Page 18

5.3 Ventilation and Noise Control - Page 18

Crawl-Spaces, Inadequate Ventilation, Moisture Control - Page 18 Attics/Roofs, Inadequate Ventilation, Moisture Control - Page 18 Attic Vents/Louvers, Leak - Page 18

Exhaust Fans, Bath/Kitchen, Vented Into Attic - Page 19

- 5.4 Sealants Page 19
- 5.5 Exterior Siding Page 19

Siding, Delamination, Splitting, Deterioration - Page 19

Siding, Loose or Fallen - Page 19

Siding, Bowed - Page 19

Siding, Nails Stains - Page 19

5.6 Roofing - Page 19

Roof or Flashing Leaks - Page 19

Roof Shingles, Blown Off - Page 20

Shingles, Defective - Page 20

Standing Water, Built-Up Roofs - Page 20

5.7 Sheet Metal - Page 20

Gutters and Downspouts, Leak - Page 20

Gutter, Water Remains - Page 20

- 6. Doors and Windows Page 20
- 6.1 Doors, Interior/Exterior Page 20

Doors, Interior/Exterior, Warpage - Page 20

Doors, Binding, Does not lock - Page 20

Door Panels, Shrink - Page 20

Door Panels, Split - Page 21

Doors, Drag on carpet - Page 21

Doors, Interior, Excessive Opening - Page 21

6.2 Garage Doors (Attached Garage) - Page 21

Garage Door, Operation and Fit - Page 21

6.3 Wood, Plastic and Metal Windows - Page 21

Window, Operation - Page 21

Windows, Double Hung, Do Not Stay Open - Page 21

Windows, Condensation/Frost - Page 21

6.4 Hardware - Page 22

Hardware, Operation - Page 22

6.5 Storm Doors, Windows and Screens - Page 22

Storm Doors, Windows and Screens, Operation, Fit - Page 22

6.6 Weather-stripping and Seals - Page 22

Doors and Windows, Drafts - Page 22

6.7 Glass and Glazing - Page 22

Insulated Glass, Clouding and Condensation - Page 22  $\,$ 

- 7. Finishes Page 22
- 7.1 Lath and Plaster Page 22

Plaster Walls and Ceiling, Cracks - Page 22

7.2 Drywall - Page 22

Drywall, Nail pops, Blisters, Blemishes - Page 22

Drywall, Corner bead, Joint Compound, Trowel Marks,

Blisters - Page 23

7.3 Hard Surfaces - Page 23

Flooring, Broken, Loose - Page 23

Grouting, Cracks - Page 23

7.4 Resilient Flooring - Page 23

Resilient Flooring, Nail Pops - Page 23

Resilient Flooring, Depressions or Ridges - Page 23

Resilient Flooring, Adhesion - Page 23

Resilient Flooring, Seams, Shrinkage - Page 23

7.5 Finished Wood Flooring - Page 24

Wood Flooring, Cupping, Joints, Separation - Page 24

7.6 Painting - Page 24

Paint, Knot and Wood Stains - Page 24

Exterior Paint, Stain, Peels or Deteriorates - Page 24

Painting, Repair Work - Page 24

Painted Surfaces, Mildew or Fungus - Page 24

Lacquer, Varnish, Deterioration - Page 25

Paint, Interior Coverage - Page 25

Paint, Splatter, Smears - Page 25

7.7 Wall Covering - Page 25

Wall Covering, Peeling - Page 25

Wall Covering, Pattern Mismatched - Page 25

Wall Covering, Homeowner Installed, Lumps and Ridges - Page 25

7.8 Carpeting - Page 25

Carpet, Seams do not meet - Paint 25

Carpet, Color Variations - Page 25

Carpet, Stretch, Loosen - Page 26

#### 8. Specialities - Page 26

8.1 Fireplaces - Page 26

Fireplace, Chimney, Operation - Page 26

Chimney, Separation - Page 26

Hearth, Cracks - Page 26

#### 9. Cabinets and Vanities - Page 26

9.1 Kitchen Cabinets and Vanities - Page 26

Cabinet Doors, Drawers, Bind - Page 26

Cabinet Doors, Drawers Warping - Page 26

Cabinets, Gaps - Page 27

9.2 Countertops - Page 27

Countertops, Surface Cracks, De-lamination - Page 27

#### 10. Mechanical - Page 27

10.1 Plumbing - Page 27

Faucet, Valve, Leak - Page 27

Plumbing Fixtures, Fittings, Appliances Defective - Page 27

10.2 Water Supply - Page 27

Plumbing, Fixtures, Staining - Page 27

Water Pipes, Noisy - Page 27

10.3 Heating and Air Conditioning- Page 27

Heat Inadequate - Page 27

Cooling Inadequate - Page 28

Ductwork, Heating Piping, Insulation - Page 28

Condensation Lines, Clog - Page 28

Evaporative Cooling, Operation - Page 28

Ductwork, Noise - Page 28

Ductwork, Oil Canning - Page 28

#### 11. Electrical Components - Page 28

11.1 Switches and Receptacles - Page 28

Electrical Outlets, Drafts - Page 28

Electrical outlets, Switches, Fixtures Malfunction - Page 29

Light Fixture, Tarnish - Page 29

11.2 Service and Distribution - Page 29

Ground Fault Interrupter (GFCI) Trips - Page 29

#### **2 YEAR SYSTEMS**

#### 12. Mechanical - Page 29

12.1 Septic Tank Systems - Page 29

Septic Tank, Operation - Page 29

12.2 Plumbing - Page 30

Plumbing Pipes, Freeze - Page 30

Plumbing Pipes, Leak - Page 30

Sanitary Sewers, Waster, Drain Lines Clog - Page 30

12.3 Water Supply - Page 30

Water Supply, Fails - Page 30

12.4 Heating and Air Conditioning - Page 30

Refrigerant Lines, Leak - Page 30

Ductwork, Separates - Page 30

#### 13. Electrical System - Page 31

13.1 Electrical Conductors - Page 31

Wiring, Designed Load, Failure - Page 31

#### ITEMS COVERED UNDER THE 1-YEAR WORKMANSHIP COVERAGE

#### **DEFICIENCY**

## CONSTRUCTION PERFORMANCE GUIDELINES

#### BUILDER/SELLER/ WARRANTOR RESPONSIBILITY

#### **EXCLUSION**

.....

#### 1. Site Work

#### 1.1 Grading

Settling of ground around foundation, utility trenches or other areas on the property where excavation and backfill have taken place that affect drainage away from Home.

Settling of ground around foundation walls, utility trenches or other filled areas that exceeds a maximum of six inches from finished grade established by Builder/Seller.

If Builder/Seller has provided final grading, Builder/Seller shall fill settled areas affecting proper drainage, one time only, during the first year Warranty Term. You are responsible for removal and replacement of shrubs and other landscaping affected by placement of the fill.

#### 1.2 Drainage

Improper surface drainage.

Necessary grades and swales shall be established to provide proper drainage away from the Home. Site drainage, under the Limited Warranty, is limited to grades within 10-feet and swales within 20-feet of the foundation of the Home. Standing or ponding water shall not remain in these areas for a period longer than 24-hours after a rain. except in swales that drain from adjoining properties or where a sump pump discharges. In these areas an extended period of 48-hours is to be allowed for water to dissipate. The possibility of standing water after an unusually heavy rainfall should be anticipated and is not to be considered a deficiency. No grading determination is to be made while there is frost or snow or when the ground is saturated.

Builder/Seller is only responsible for initially establishing the proper grades, swales and drainage away from Home. You are responsible for maintaining such grades and swales once constructed by the Builder/Seller. Builder/Seller is not responsible for drainage deficiencies attributable to grading requirements imposed by state, county, or local governing agencies.

Standing or ponding water outside of defined swales and beyond 10-feet from the foundation of the Home, or that is within 10-feet but is caused by unusual grade conditions, or retention of tree areas, is not considered a deficiency. Standing or ponding water caused by changes in the grade or placement of sod, fencing, or any other obstructions by You are excluded from Limited Warranty coverage.

Soil Erosion

NONE. NO COVERAGE.

NONE. Builder/Seller is not responsible for soil erosion due to acts of God or other conditions beyond the Builder/Seller's control.

Soil erosion and runoff caused by failure of You to maintain the properly established grades, drainage structures and swales; stabilized soil, sodded, seeded and landscaped areas; are excluded from Limited Warranty coverage.

Grassed or landscaped areas, which are disturbed or damaged due to work performed by Builder/Seller on the property in correcting a deficiency.

Landscaped areas that are disturbed during repair work are deficiencies.

Restore grades, seed and landscape to meet original condition.

Builder/Seller is not responsible for grassed or landscaped areas which are damaged by others, including any work performed by public or private utility companies. Replacement of trees and large bushes that existed at the time Home was constructed or those added by You after occupancy or those that subsequently die are excluded from Limited Warranty coverage.

HBW\_307\_071512

#### ITEMS COVERED UNDER THE 1-YEAR WORKMANSHIP COVERAGE

## DEFICIENCY

## CONSTRUCTION PERFORMANCE GUIDELINES

#### BUILDER/SELLER/ WARRANTOR RESPONSIBILITY

#### **EXCLUSION**

#### 2. Foundation and Concrete

#### 2.1 Cast-In Place Concrete

Basement or foundation wall cracks, other than expansion or control joints.

Concrete cracks greater than 1/4-inch in width, or which allow exterior water to leak into basement, are deficiencies.

Repair non-structural cracks by surface patching. These repairs should be made toward the end of the first year of Limited Warranty coverage to permit normal stabilizing of the Home by settling.

Shrinkage cracks are not unusual and are inherent in the concrete curing process.

Cracking of basement floor.

Minor cracks in concrete basement floors are common. Cracks exceeding 1/4-inch in width or 3/16-inch in vertical displacement are deficiencies. Repair cracks exceeding maximum tolerance by surface patching or other methods, as required.

Cracking of attached garage floor slab.

Cracks in concrete garage floor greater than 3/16-inch in width or 3/16-inch in vertical displacement are deficiencies. Builder/Seller shall repair excessive cracks in the slab by filling, chipping out and surface patching, or other suitable method to meet the Construction Performance Guideline. Repaired area may not match the existing floor in color and texture. Builder/Seller is not responsible for cracking or deterioration caused by the storage of unusually heavy equipment or placement of excessive loads that exceed the weight of a typical automobile or light truck, or by other factors beyond the Builder/Seller's control. Movement and the resulting cracking may be minimized by good drainage, proper installation of landscaping and suitable maintenance.

Cracks in attached patio slab and sidewalks.

NONE. NO COVERAGE.

NONE.

NO COVERAGE is provided for this element under the Limited Warranty.

Cracks in concrete slab-on-grade floors, with finish flooring.

Cracks that rupture or significantly impair the appearance or performance of the finish flooring material are deficiencies.

Repair cracks as required so as not to be apparent when the finish flooring material is in place. Repair or replace finish flooring.

Uneven concrete floor slabs.

Except for basement floors or where a floor or a portion of floor has been designed for specific drainage purposes, concrete floors in rooms finished for habitability by Builder/Seller shall not have pits, depressions or area or unevenness exceeding 3/8-

Construction Performance Guidelines. Where applicable, surface patching is an accepted method of repair. Reinstall or replace any finish flooring material as necessary.

Repair/replace to meet the

Interior concrete work is pitting, scaling, or spalling.

Interior concrete surfaces that disintegrate to the extent that aggregate is exposed and loosened under normal conditions of use are deficiencies.

inch in 32-inches.

Builder/Seller shall take whatever corrective action is necessary to repair or replace defective concrete surfaces.

Builder/Seller is not responsible for deterioration caused by salt, chemicals, mechanical implements, or other factors beyond the Builder/Seller's control.

		ı	
DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
Efflorescence is present on surface of basement floor.	NONE. NO COVERAGE.	NONE. This is a normal condition.	
Separation of brick or masonry edging from concrete slab or step.	It is common for the joint to crack between concrete and masonry due to the dissimilarity of the materials. Cracks in excess of 1/4-inch are a deficiency.	Grout crack fully and reset loose masonry where required. Replacement of masonry material, if required, shall match the existing as closely as possible.	
Cracking, settling or heaving of stoops and steps.	Stoops and steps that have settled, heaved, or separated in excess of 1-inch from Home are a deficiency.	Builder/Seller will make a reasonable and cost effective effort to meet the Construction Performance Guideline.	
2.2 Construction			
and Control Joints Separation or movement of concrete slabs within the structure at construction and control joints.	NONE. NO COVERAGE.	NONE.	Concrete slabs within the structure are designed to move at construction and control join and are not deficiencies. You ar responsible for maintenance of joint material.
3. Masonry			
3.1 Unit Masonry (Brick, Block and Stone) Cracks in masonry, brick, or stone veneer.	Small hairline cracks resulting from shrinkage are common in mortar joints of masonry construction. Cracks greater than 1/4-inch in width or are visible from a distance in excess of 20-feet are deficiencies.	Builder/Seller will repair cracks that exceed 1/4-inch by tuck pointing and patching. These repairs should be made toward the end of the first year of Limited Warranty coverage to permit Home to stabilize and normal settlement to occur. Builder/Seller is not responsible for color variations between existing and new mortar.	
Cracks in concrete block basement walls.	Small shrinkage cracks that do not affect the structural ability of masonry foundation walls are not unusual. Cracks 1/4-inch or greater in width are deficiencies.	Builder/Seller shall investigate to determine cause. Builder/Seller shall take the necessary steps to remove the cause and make repairs by pointing and patching, reinforcement or replacement of the defective courses.	
Concrete block basement wall is bowed.	Block concrete walls shall not bow in excess of 1-inch in 8 feet when measured from the base to the top of the wall.	Builder/Seller shall repair basement walls that are bowed in excess of 1-inch in 8 feet.	
<b>3.2 Stucco &amp; Cement Plaster</b> Cracking or spalling of stucco and cement plaster.	Hairline cracks in stucco or cement plaster are common especially if applied directly to masonry back-up. Cracks greater than 1/8 inch in width or spalling of the finish surfaces are deficiencies.	Scrape out cracks and spalled areas, one time only during the first year warranty term. Fill with cement plaster or stucco to match finish and color as close as possible.	Builder/Seller is not responsibl for failure to match color or texture, due to nature of material.

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
Separation of coating from base on exterior stucco wall.	The coating shall not separate from the base on an exterior stucco wall.	Builder/Seller shall repair areas where the coating has separated from the base.	Builder/Seller is not responsible for failure to match color or texture due to the nature of the material.
4. Carpentry and Framing			
4.1 Plywood and Joists	Loud and objectionable squeaks caused by improper installation or loose subfloor are deficiencies, but a totally squeakproof floor cannot be guaranteed.	Builder/Seller will refasten any loose subfloor or take other corrective action to reduce squeaking to the extent possible within reasonable repair capability without removing floor and ceiling finishes.	Floor squeaks may occur when a subfloor that has come loose from the joists is deflected by the weight of a person and rubs against the nails that hold it in place. Squeaks may also occur when one joist is deflected while the other members remain stationary. Because the Construction Performance Guidelines requires the Builder, Seller to make a reasonable attempt to eliminate squeaks without requiring removal of floor and ceiling finishes, nailing loose subflooring with casing nails into the carpet surface and countersinking the head is an acceptable practice.
Uneven wood framed floors.	Wood floors shall not have more than a 1/4-inch ridge or depression within any 32-inch measurement.	Correct or repair to meet the Construction Performance Guidelines.	
Bowed stud walls or ceilings.	All interior and exterior frame walls or ceilings have slight variations on the finish surfaces. Walls or ceilings that are bowed more than 1/2-inch within a 32-inch horizontal measurement; or 1/2-inch within any 8-foot vertical measurement, are deficiencies.	Exterior and interior frame walls or ceilings bowed in excess of the allowable standard shall be corrected to meet the allowances of the Construction Performance Guidelines.	
Wood frame walls out of plumb.	Wood frame walls that are more than 3/8-inch out of plumb for any 32-inch vertical measurement are a deficiency.	Make necessary repairs to meet the Construction Performance Guidelines.	
Wood beam or post is split.	Beams or posts, especially those 2 1/2-inches or greater in thickness, will sometimes split as they dry subsequent to construction. Unfilled splits exceeding 1/4-inch in width and all splits exceeding 3/8-inch in width and more than 4 inches in length are deficiencies.	Builder/Seller shall repair or replace as required. Filling splits is acceptable for widths up to 3/8-inch.	Some characteristics of drying wood are beyond the control of the builder and cannot be prevented.
Exterior sheathing and subflooring which delaminates or swells.	Sheathing and subflooring delaminating or swelling on the side that the finish material has been applied is a deficiency.	Builder/Seller shall repair or replace subflooring or sheathing as required. Replacement of the finish materials, when necessary, shall be done to match the existing finish as closely as possible.	

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
Wood floor is out of square.	The diagonal of a triangle with sides of 12-feet and 16-feet along the edges of the floor shall be 20-feet plus or minus 1/2-inch.	Builder/Seller shall make necessary modifications to any floor not complying with the Construction Performance Guidelines.	
<b>4.2 Finish Carpentry</b> Unsatisfactory quality of finished exterior trim and workmanship.	Joints between exterior trim elements and siding or masonry, which are in excess of 1/4-inch, are deficiencies. In all cases, the exterior trim abutting masonry siding shall be capable of performing its function to exclude the elements.	Repair open joints and touch up finish coating where required to match existing as closely as possible. Caulk open joints between dissimilar materials.	
Unsatisfactory quality of finished interior trim and workmanship.	Joints between moldings and adjacent surfaces that exceed 1/8-inch in width are deficiencies.	Repair defective joints and touch up finish coating where required to match as closely as possible. Caulking is acceptable.	
Interior trim is split.	NONE. NO COVERAGE.	NONE.	Splits, cracks, and checking are inherent characteristics of all wood products, and are not considered deficiencies.
Hammer marks visible on interior trim.	Hammer marks on interior trim shall not be readily visible from a distance of 6 feet under normal lighting conditions.	Builder/Seller shall fill hammer marks and refinish or replace affected trim to meet the Construction Performance Guidelines. Refinished or replaced areas may not match surrounding areas exactly.	
Exposed nail heads in woodwork.	Setting nails and filling nail holes are considered part of painting and finishing. After painting or finishing, nails and nail holes shall not be readily visible from a distance of 6 feet under normal lighting conditions.	Fill nail holes where required and if necessary, touch up paint, stain, or varnish to match as closely as possible.	Nail holes do not have to be filled where the surface finish is not conducive or so designed to have nail holes filled because o the product. Nail holes in base and trim in unfinished rooms o closets do not have to be filled.
5. Thermal and Moisture Pr	otection		
<b>5.1 Waterproofing</b> Leaks in basement or in foundation/crawl space.	Leaks resulting in actual trickling of water through the walls or seeping through the floor are deficiencies.	Take such action as is necessary to correct basement and crawl space leaks, except where the cause is determined to be the result of Your negligence. Where a sump pit has been installed by Builder/Seller in the affected area but the sump pump was not contracted for or installed by Builder/Seller, no action is required until a properly sized pump is installed by You in an attempt to correct the condition. Should the condition continue	Leaks caused by landscaping improperly installed by You or failure by You to maintain proper grades are excluded from Limited Warranty coverage. Dampness in basement and foundation walls or in concrete basement and crawl space floors is often common to new construction and is not a deficiency.

HBW\_307\_071512 17

to exist, then Builder/Seller shall take necessary action to correct the problem.

ITEMS COVERED UNDER TH	E 1-YEAR WORKMANSHIP CO	OVERAGE	
DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
<b>5.2 Insulation</b> Insufficient insulation.	Insulation that is not installed around all habitable areas in accordance with established local industry standards is a deficiency.	Builder/Seller shall install insulation of sufficient thickness and characteristics to meet the local industry standards. In the case of dispute, cost for investigating the sufficiency of insulation and restoring areas to prior condition is to be borne by You if it is found that the standard has been met by Builder/Seller.	
Sound transmission between rooms,floor levels, adjoining condominium units in a building, or from the street into Home.	NONE. NO COVERAGE.	NONE. NO COVERAGE.	NO COVERAGE is provided for soundproofing.
5.3 Ventiliation and Moisture Control Inadequate ventilation or moisture control in crawl spaces.	Crawl spaces shall have adequate ventilation to remove moisture or other approved method of moisture control. Ventilation or other moisture control methods shall be considered inadequate if there is damage to supporting members or insulation due to moisture accumulation.	Builder/Seller shall investigate to determine cause, and make necessary repairs. Corrective action may include the installation of properly sized louvers, vents, vapor barrier, or other locally approved method of moisture control.	Temporary conditions may cause condensation in crawl spaces that can not be eliminated by ventilation and/or vapor barrier. Night air may cool foundation walls and provide a cool surface on which moisture may condense. In Homes that are left unheated in the winter, the underside of floors may provide a cold surface on which warmer crawl space air may condense. These and other similar conditions are beyond the Builder/ Seller's control. Maintaining adequate heat and seasonal adjustment of vents is Your responsibility.
Inadequate ventilation or moisture control in attics or roofs.	Attics or roofs shall have adequate ventilation to remove moisture, or other approved method of moisture control. Ventilation or other moisture control methods shall be considered inadequate if there is damage to supporting members or insulation due to moisture accumulation.	Builder/Seller shall investigate to determine cause, and make necessary repairs. Corrective action may include the installation of properly sized louvers, vents, vapor retarder, or other locally approved method of moisture control.	You are responsible for keeping existing vents unobstructed.  Locally approved and properly constructed "hot roof" or other alternative roof designs may not require ventilation, and where there is no evidence of moisture damage to supporting members or insulation, are not deficiencies.
Attic vents or louvers leak.	Attic vents and louvers shall not leak.	Builder/Seller shall repair or replace the roof vents as necessary to meet the Construction Performance Guidelines.	Infiltration of wind-driven rain and snow are not considered leaks and are beyond the control of the Builder/Seller.

DEFICIENCY	CONSTRUCTION	BUILDER/SELLER/	EXCLUSION
	PERFORMANCE GUIDELINES	WARRANTOR RESPONSIBILITY	
Bath or kitchen exhaust fans improperly vented into attic.	Bath or kitchen exhaust fans that are vented into attics causing moisture to accumulate resulting in damage to supporting members or insulation, are deficiencies.	Builder/Seller shall vent exhaust fans to the outside to correct deficiencies.	
<b>5.4 Sealants</b> Water or air leaks in exterior walls due to inadequate caulking.	Joints and cracks in exterior wall surfaces and around openings that are not properly caulked to exclude the entry of water or excessive drafts are a deficiency.	Repair and/or caulk joints in exterior wall surfaces as required to correct deficiency one time only during the first year of Limited Warranty coverage.	You must maintain caulking once the condition is corrected.
<b>5.5 Exterior Siding</b> Delamination, splitting or deterioration of exterior siding.	Exterior siding that delaminates, splits or deteriorates is a deficiency.	Repair/replace only the damaged siding. Siding to match the original as closely as possible, however, You should be aware that the new finish may not exactly match the original surface texture or color.	Delaminated siding due to Your actions or neglect, such as delamination caused by sprinkler system repeatedly wetting siding, is not a deficiency.
Loose or fallen siding.	All siding that is not installed properly, which causes same to come loose or fall off, is a deficiency.	Reinstall or replace siding and make it secure.	Loose or fallen siding due to Your actions or neglect, such as leaning heavy objects against siding, impact, or sprinkler systems repeatedly wetting siding, is not a deficiency.
Siding is bowed.	Bows exceeding 1/2-inch in 32-inches are deficiencies.	Builder/Seller will repair bowed siding to meet standard. If replacement of siding is required, Builder/ Seller will match original material as closely as possible. You should be aware that the new finish may not exactly match the original surface texture or color.	Bowed siding due to Your actions or neglect, such as bowing caused by sprinkler system repeatedly wetting siding, is not a deficiency.
Nails have stained siding.	Nail stains exceeding 1/2-inch in length and visible from a distance of 20-feet are deficiencies.	Builder/Seller shall correct by either removing stains, painting, or staining the affected area. Builder/Seller shall match color and finish as closely as possible. Where paint or stain touch up affects the majority of the wall surface, the whole area shall be refinished.	"Natural weathering" or semitransparent stains are excluded from coverage.
<b>5.6 Roofing</b> Roof or flashing leaks.	Roof or flashing leaks that occur under normal weather conditions are deficiencies.	Correct any roof or flashing leaks that are verified to have occurred under normal weather conditions.	Where cause of leaks is determined to result from severe weather conditions such as ice and snow build-up, high winds and driven rains, such leaks are not deficiencies.

ITEMS COVERED UNDER TH	ITEMS COVERED UNDER THE 1-YEAR WORKMANSHIP COVERAGE			
DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION	
Roof shingles have blown off.	Shingles shall not blow off in winds less than the manufacturer's standards or specifications.	Builder/Seller will replace shingles that blow off in winds less than the manufacturer's standards or specifications only if improper installation is shown to be the cause.	Shingles that blow off in winds less than the manufacturer's standards or specifications due to a manufacturing defect in the shingles are the manufacturer's responsibility. Shingles that blow off in hurricanes, tornadoes, hailstorms, or winds, including gusts greater than 60 miles per hour, are not deficiencies. You should consult shingle manufacturer's warranty for specifications, standards, and manufacturer's warranty responsibility if shingles blow off in higher wind speeds.	
Defective shingles.	NONE. NO COVERAGE.	NONE.	Manufacturing defects in shingles are not covered under the Limited Warranty. You should consult shingle manufacturer's warranty for specifications, standards, and manufacturer's warranty responsibility.	
Standing water on built-up roofs.	Water shall drain from a flat or low pitched roof within 24-hours of a rainfall.	Builder/Seller will take corrective action to assure proper drainage of the roof.	Minor ponding or standing of water is not considered a deficiency.	
<b>5.7 Sheet Metal</b> Gutters and downspouts leak.	Gutters and downspouts that leak are deficiencies.	Repair leaks in gutters and downspouts.		
Water remains in gutters after a rain.	Small amounts of water may remain in some sections of gutter for a short time after a rain. Standing water in gutters shall not exceed 1/2-inch in depth.	Builder/Seller will repair gutters to assure proper drainage.	You are responsible for keeping gutters and downspouts free from debris that would obstruct drainage.	
6. Doors and Windows				
<b>6.1 Doors:</b> Interior and Exterior Warpage of interior or exterior doors.	Interior and exterior doors that warp so as to prevent normal closing and fit are deficiencies. The maximum allowable warpage of an interior door is 1/4-inch when measured from corner to corner.	Repair or replace as may be required. New doors to be refinished to match the original as closely as possible.		
Door binds against jamb or head of frame or does not lock.	Passage doors that do not open and close freely without binding against the doorframe are deficiencies. Lock bolt is to fit the keeper to maintain a closed position.		Wood doors may stick during occasional periods of high humidity.	
Door panels shrink and expose bare wood.	NONE.	NONE.	Door panels will shrink due to the nature of the material, exposing bare wood at the edges and are not deficiencies.	

PEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
Door panels split.	Door panels that have split to allow light to be visible through the door are deficiencies.	If light is visible, fill crack and finish panel to match as closely as possible. Correct one time only during first year of Limited Warranty coverage.	
Bottom of doors drag on carpet surface.	Where it is understood by Builder/Seller and You carpet is planned to be installed as floor finish by Builder/Seller, the bottom of the doors which drag on the carpet are deficiencies.	Undercut doors as required.	Where carpet is selected by You having excessive high pil You are responsible for any additional door undercutting
Excessive opening at the bottom of interior doors.	Passage doors from room to room that have openings between the bottom of the door and the floor finish material in excess of 1 1/2-inches are deficiencies.  Closet doors having an opening in excess of 2-inches are deficiencies.	Make necessary adjustment or replace door to meet the required tolerance.	
.2 Garage Doors Attached Garage) Garage door fails to operate or fit properly.	Garage door fails to operate or Garage doors that do not operate and fit the door opening within the manufacturer's installation tolerances are deficiencies. Some entrance of the elements can be expected under heavy weather conditions and is not considered a deficiency.	Make necessary adjustments to meet the manufacturer's installation tolerances.	No adjustment is required when cause is determined to result from anyone but Builder/Seller's or Builder/Seller's subcontractors' installation of an electric docopener.
.3 Wood, Plastic and Metal /indows Interior and Exterior Window is difficult to open or close.		Builder/Seller shall correct or repair as required to meet manufacturer's specifications.	
Double hung windows do not stay in place when open.	Double hung windows are permitted to move within a two inch tolerance, up or down when put in an open position. Any excessive movement exceeding the tolerance is a deficiency.	Adjust sash balances one time only during the first year of Limited Warranty coverage. Where possible, Builder/ Seller will instruct You on the method of adjustment for future repair.	
Condensation or frost on window frames and glass.	NONE.	NONE.	Window glass and frames w collect condensation on the frame and glass surface whe humidity and temperature differences are present. Condensation is usually the result of temperature/ humidity conditions in the Home.

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
<b>6.4 Hardware</b> A doorknob, deadbolt, or lockset does not operate smoothly.	A doorknob, deadbolt, or lockset should not stick or bind during operation.	Builder/Seller will adjust, repair, or replace knobs that are not damaged by abuse, one time only during the first year Warranty Term.	
5.5 Storm Doors, Windows and Screens Storm doors, windows and screens do not operate or fit properly.	Storm doors, windows and screens, when installed, which do not operate or fit properly to provide the protection for which they are intended, are considered deficiencies.	Builder/Seller shall make necessary adjustments for proper fit and operation. Replace when adjustment cannot be made.	Missing screens, rips or gouges in the screen mesh ar not covered by this Limited Warranty.
o.6 Weatherstripping and Seals Drafts around doors and windows.	Some infiltration is usually noticeable around doors and windows, especially during high winds. No daylight shall be visible around frame when window or exterior door is closed.	Builder/Seller shall repair to meet Construction Performance Guidelines.	In high wind areas, You may need to have storm windows and doors installed to eliminate drafts.
<b>5.7 Glass and Glazing</b> Clouding and condensation on inside surfaces of insulated glass.	Insulated glass that clouds up or has condensation on the inside surfaces of the glass is a deficiency.	Builder/Seller shall replace glass in accordance with window and glass manufacturer's requirements.	Glass breakage is excluded.
. Finishes			
7.1 Lath and Plaster Cracks in plaster wall and ceiling surfaces.	Hairline cracks are not unusual. Cracks in plaster wall and ceiling surfaces exceeding 1/16-inch in width are deficiencies.	Builder/Seller shall repair cracks that are greater than 1/16-inch in width and touch up paint to match as closely as possible, one time onl Such conditions should be reported near the end of the first year of Limited Warranty coverage to allow for normal movement in Home.	y. d
.2 Drywall			
Drywall cracks.	Hairline cracks are not unusual. Cracks in interior gypsum board or other drywall materials exceeding 1/16-inch in width are deficiencies.	Builder/Seller shall repair cracks that are greater than 1/16-inch in width and touch up paint to match as closely as possible, one time only. Such conditions should be reported near the end of the first year of Limited Warranty coverage to allow for normal movement in Home.	
Nail pops, blisters, or other blemish is visible on finished wall or ceiling.	Nail pops and blisters that are readily visible from a distance of 6 feet under normal lighting conditions are deficiencies.	Builder/Seller will repair such blemishes, and touch up paint to match as closely as possible, one time only. Such conditions should be reported near the end of the first year of Limited Warranty coverage to allow for normal settlement of the Home.	Depressions or slight mounds at nail heads are no considered deficiencies. Builder/Seller is not responsible for nail pops or blisters that are not visible, such as those covered by wallpaper.

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
Cracked corner bead, excess joint compound, trowel marks, or blisters in tape joints.	Cracked or exposed corner bead, trowel marks, excess joint compound, or blisters in drywall tape, are deficiencies.	Builder/Seller will repair to meet Co Performance Guidelines, and touch match as closely as possible, one tin conditions should be reported near the first year of Limited Warranty co allow for normal settlement of the h	up paint to ne only. Such the end of verage to
<b>7.3 Hard Surfaces</b> Flagstone, Marble, Quarry Tile, Slate, or other hard surface flooring is broken or loose.	Tile, flagstone, or similar hard surfaced sanitary flooring that cracks or becomes loose is a deficiency. Subfloor and wallboard are required to be structurally sound, rigid, and suitable to receive finish.	Builder/Seller shall replace cracked tiles, marble, or stone and resecure loose tiles, marble, or stone flooring.	Cracking and loosening of flooring caused by Your negligence is not a deficiency Builder/Seller is not responsible for color and pattern variations or discontinued patterns of the manufacturer.
Cracks appear in grouting of ceramic tile joints or at junctions with other material such as a bathtub, shower, or countertop.	Cracks in grouting of ceramic tile joints in excess of 1/16-inch are deficiencies. Regrouting of these cracks is Your maintenance responsibility after the Builder/Seller has regrouted once.	Builder/Seller shall repair grouting as necessary one time only within the first year of Limited Warranty coverage.	Open cracks or loose grouting, where the wall surface abuts the flashing lip at a tub, shower basin, or countertop are considered Your maintenance and any resultant damage to other finish surfaces due to leaks, etc. are not considered deficiencies.
7.4 Resilient Flooring  Nail pops appear on the surface of resilient flooring.	Readily apparent nail pops are deficiencies.	Builder/Seller shall correct nail pops that have caused damage to the floor material and repair or replace damaged floor covering in the affected area. Builder/Seller is not responsible for discontinued patterns or color variations.	
Depressions or ridges appear in the resilient flooring due to subfloor irregularities.	Readily apparent depressions or ridges exceeding 1/8-inch are a deficiency. The ridge or depression measurement is taken as the gap created at one end of a 6-inch straight edge placed over the depression or ridge with 3-inches on one side of the deficiency held tightly to the floor.	Builder/Seller shall take required action to bring the deficiency within acceptable tolerances so as to be not readily visible. Builder/Seller is not responsible for discontinued patterns or color variations in the floor covering, Your neglect or abuse, nor installations performed by others.	
Resilient flooring or base loses adhesion.	Resilient flooring or base that lifts, bubbles, or becomes unglued is a deficiency.	Builder/Seller shall repair or replace resilient flooring or base as required. Builder/Seller is not responsible for discontinued patterns or color variations.	
Seams or shrinkage gaps show at resilient flooring joints.	Gaps in excess of 1/32-inch in width in resilient floor covering joints are deficiencies. Where dissimilar materials abut, a gap in excess of 1/8-inch is a deficiency.	Builder/Seller shall repair or replace the resilient flooring to meet the Construction Performance Guideline Builder/Seller is not responsible for discontinued patterns or color variations of floor covering. Proper repair can be affected by sealing gap with seam sealer.	es.

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
7.5 Finished Wood Flooring Cupping, open joints, or separations in wood flooring.	Open joints or separations between floorboards of finished wood flooring shall not exceed 1/8-inch in width. Cups in strip floorboards shall not exceed 1/16-inch in height in a 3-inch maximum distance when measured perpendicular to the length of the board.	Builder/Seller shall determine the cause and if the result of a deficiency in workmanship or material, correct one time only. For repairable deficiencies, repair cracks by filling and refinishing to match the wood surface as closely as possible. For non-repairable deficiencies, replace and finish affected area to match remaining flooring as closely as possible.	Wood floors are subject to shrinkage and swell due to seasonal variations in the humidity level of Home. Whil boards may be installed tight together, gaps or separations may appear during heating seasons or periods of low humidity. Gaps or separations that close during nonheating seasons are not considered deficiencies. You should be familiar with the recommended care and maintenance requirements of their wood floor. Repeated wetting and drying, or wet mopping may damage wood finishes. Dimples or scratches can be caused by moving furniture or dropping heavy objects, and certain high heel style shoes may cause indentations. These conditions are not covered by the Limited Warranty.
<b>7.6 Painting</b> Knot and wood stains appear through paint on exterior.	Excessive knot and wood stains that bleed through the paint are considered deficiencies.	Builder/Seller shall seal affected areas where excessive bleeding of knots and stains appear, one time only during the first Warranty Term. Builder/Seller will touch-up paint to match as closely as possible.	
Exterior paint or stain peels or deteriorates.	Exterior paints or stains that peel or deteriorate during the first year of ownership are deficiencies.	Builder/Seller shall properly prepare and refinish affected areas, matching color as closely as possible. Where finish repairs affect the majority of the surface areas, the whole area should be refinished. The Limited Warranty on the newly repainted surfaces will not extend beyond the original Warranty Term.	Fading, however, is normal and subject to the orientation of painted surfaces to the climactic conditions which may prevail in the area. Fading is not a deficiency.
Painting required as corollary repair because of other work.	Necessary repair of a painted surface under this Limited Warranty is to be refinished to match surrounding areas as closely as possible.	Builder/Seller shall refinish repaired areas to meet the standard as required.	
Mildew or fungus forms on painted or factory finished surfaces.	NONE. NO COVERAGE.	NONE.	Mildew or fungus that forms on a painted or factory finishe surface when the surface is subject to various exposures (e.g.: ocean, lake, riverfront, heavily wooded areas or mountains) is not a deficience

			I	
DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION	
Deterioration of varnish or lacquer finishes.	Natural finish on interior woodwork that deteriorates during the first year of Limited Warranty coverage is a deficiency.	Builder/Seller shall refinish affected areas of natural finished interior woodwork, matching the color as closely as possible.	Varnish-type finishes used on exterior surfaces will deteriorate rapidly and are not covered by the Limited Warranty.	
Interior paint coverage.	Wall, ceiling, and trim surfaces that are painted shall not show through new paint when viewed from a distance of 6-feet under normal lighting conditions.	Builder/Seller shall repaint wall, ceiling or trim surfaces where inadequate paint has been applied. Where the majority of the wall or ceiling surface is affected the entire area will be painted from breakline to breakline. Builder/Seller is not required to repaint an entire room unless all walls and ceiling have been affected.		
Paint splatters and smears on finish surfaces.	Paint splatters on walls, woodwork, or other surfaces which are excessive, shall not be readily visible when viewed from a distance of 6-feet under normal lighting conditions.	Builder/Seller shall remove paint splatters without affecting the finish of the material, or replace the damaged surface if paint cannot be removed.	Minor paint splatter and smears on impervious surfaces that can be easily removed by normal cleaning methods are considered to be Your maintenance and are not deficiencies.	
<b>7.7 Wall Covering</b> Peeling of wallcovering installed by Builder/Seller.	Peeling of wallcovering is a deficiency, unless it is due to Your abuse or negligence.	Builder/Seller shall repair or replace defective wallcovering.	Wallpaper applied in high moisture areas is exempt from this Guideline because the problem results from conditions beyond the builder's control.	
Pattern in wallcovering is mismatched at the edges.	Pattern in wallcovering shall match at the edges.	Builder/Seller shall remove mismatched wallcovering and replace. Builder/Seller is not responsible for discontinued or variations in color.	Defects in the wallcovering patterns are the manufacturer's responsibility, and excluded from Limited Warranty coverage.	
Lumps and ridges and nail pops in wallboard that appear after the Homeowner has wallcovering installed by others.	NONE. NO COVERAGE.	NONE	You shall insure that the surface to receive wallcovering is suitable and assumes full responsibility should lumps, ridges, and nail pops occur at a later date.	
7.8 Carpeting  Carpet does not meet at the seams.	It is not unusual for carpet seams to show. However, a visible gap or overlapping at the seam due to improper installation is a deficiency.	Builder/Seller shall correct to eliminate visible gap or overlapping at the seam.	Carpet material is not covered under the Warranty.	
Color variations in carpet.	NONE. NO COVERAGE.	end to side sh seams, Carpet Limited manuf standa	Colors may vary by dye lot, and from one end to another in the same roll. Side to side shading may show at most if not all seams, even where the same dye lot is used. Carpet material is not covered under the Limited Warranty. You should consult carpet manufacturer's warranty for specifications, standards, and manufacturer's warranty responsibility for color variations.	

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
Carpeting loosens, or the carpet stretches.	When stretched and secured properly, wall-to-wall carpeting installed as the primary floor covering shall not come up, loosen, or separate from the points of attachment.	Builder/Seller will restretch or resecure carpeting to meet Construction Performance Guidelines one time only during the first year of Limited Warranty coverage.	
8. Specialties			
8.1 Fireplaces Fireplace or chimney does not draw properly causing smoke to enter home.	A properly designed and constructed fireplace or chimney shall function correctly. High winds can cause temporary negative or down drafts. Negative drafts can also be caused by obstructions such as tree branches, steep hillsides, adjoining homes, and interior furnaces. In some cases, it may be necessary to open a window slightly to create an effective draft. Since negative draft conditions could be temporary, it is necessary for the homeowner to substantiate the problems to the Builder/Seller by constructing a fire so the condition can be observed.	When determined the malfunction is based upon improper construction of the fireplace, the Builder/ Seller shall take the necessary steps to correct the problem, one time only during the first year Warranty Term.	When it is determined that the fireplace is properly designed and constructed, but still malfunctions due to natural causes beyond Builder/Seller's control, Builder/Seller is not responsible.
Chimney separation from structure to which it is attached.	Newly built fireplaces will often incur slight amounts of separation. Separation that exceeds 1/2-inch from the main structure in any 10-foot vertical measurement is a deficiency.	Builder/Seller shall correct. Caulking or grouting is acceptable unless the cause of the separation is due to structural failure of the chimney foundation. In that case, caulking is unacceptable.	
Cracks in masonry hearth or facing.	Small hairline cracks in mortar joints resulting from shrinkage are not unusual. Heat and flames from normal fires can cause cracking.	NONE.	Heat and flames from norma fires can cause cracking of firebrick and mortar joints. This should be expected, and is not covered by the Limited Warranty.
9. Cabinets and Vanities 9.1 Kitchen Cabinets and			
Vanities			
Kitchen and vanity cabinet doors and drawers bind.	Cabinet doors and drawers shall open and close with reasonable ease.	Builder/Seller shall adjust or replace doors and drawers as necessary to meet Construction Performance Guidelines.	
Warping of kitchen and vanity cabinet doors and drawer fronts.	Warpage that exceeds 1/4-inch as measured from the face of the cabinet frame to the furthermost point of warpage on the drawer or door front in a closed position is a deficiency.	Builder/Seller shall correct or replace door or drawer front as required.	

HBW\_307\_071512

ITEMS COVERED UNDER TH	ITEMS COVERED UNDER THE 1-YEAR WORKMANSHIP COVERAGE			
DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION	
Gaps between cabinets, ceiling and walls.	Countertops, splash boards, base and wall cabinets are to be securely mounted. Gaps in excess of 1/4-inch between wall and ceiling surfaces are a deficiency.	Builder/Seller shall make necessary adjustment of cabinets and countertop or close gap by means of moulding suitable to match the cabinet or countertop finish, or as closely as possible; or other acceptable means.		
<b>9.2 Countertops</b> Surface cracks and delaminations in high pressure laminates of vanity and kitchen cabinet countertops.	Countertops fabricated with high pressure laminate coverings that delaminate or have surface cracks or joints exceeding 1/16-inch between sheets are considered deficiencies.	Builder/Seller shall repair or replace laminated surface covering having cracks or joints exceeding the allowable width.	5	
10. Mechanical				
<b>10.1 Plumbing</b> Faucet or valve leak.	A valve or faucet leak due to materia or workmanship is a deficiency and i covered only during the first year of the Warranty.	· · · · · · · · · · · · · · · · · · ·	Leakage caused by worn or defective washers or seals are Your maintenance item.	
Defective plumbing fixtures, appliances or trim fittings.	Fixtures, appliances, or fittings shall comply with their manufacturer's standards as to use and operation.	NONE.	Defective plumbing fixtures, appliances, and trim fittings are covered under their manufacturer's warranty.	
10.2 Water Supply Staining of plumbing fixtures due to high iron, manganese, or other mineral content in water.	NONE. NO COVERAGE.	NONE. High iron and manganese content in the water supply system will cause staining of plumbing fixtures.	Maintenance and treatment of the water is Your responsibility.	
Noisy water pipes.	Some noise can be expected from the water pipe system, due to the flow of water. However, the supply pipes should not make the pounding noise called "water hammer". "Water hammer" is a deficiency covered only during the first year of the Warranty.	Builder/Seller shall correct to eliminate "water hammer."	Noises due to water flow and pipe expansion are not considered deficiencies.	
10.3 Heating and Air Conditioning Inadequate heat.	A heating system shall be capable of producing an inside temperature of at least 70-degrees Fahrenheit as measured in the center of the room at a height of five feet above the floor under local outdoor winter design conditions. NOTE FOR HEATING: There may be periods when the outdoor temperature falls below the design temperature, thereby lowering the temperature in Home.	Builder/Seller shall correct heating system as required to provide the required temperatures if a deficiency exists.	Orientation of Home and location of room will also provide a temperature differential, especially when the heating system is controlled by a single thermostat for one or more floor levels. You are responsible for balancing dampers and registers and for making other necessary minor adjustments.	

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
Inadequate cooling.	When air conditioning is provided, the cooling system is to be capable of maintaining a temperature of 78-degrees Fahrenheit as measured the center of each room at height of five feet above the floor, under local outdoor summer design conditions. NOTE FOR AIR CONDITIONING: In the case of outside temperatures exceeding 95-degrees Fahrenheit, the system shall keep the inside temperature 15-degrees cooler than the outside temperature. National, state, or local requirements shall supersede this guideline where such requirements have been adopted by the local governing agency.	Correct cooling system to meet the Construction Performance Guidelines during the first year of Limited Warranty coverage.	Orientation of Home and location of room will also provide a temperature differential, especially when the air conditioning system is controlled by a single thermostat for one or more levels. You are responsible for balancing dampers and registers and for making other necessary minor adjustments.
Ductwork and heating piping not insulated in uninsulated area.	Ductwork and heating pipes that are run in uninsulated crawl spaces, garages or attics are to be insulated. Basements are not "uninsulated areas", and no insulation is required.	Builder/Seller shall install required insulation.	
Condensate lines clog up.	NONE. NO COVERAGE.	Builder/Seller shall provide clean and unobstructed lines on Effective Date of Warranty.	Condensate lines will clog under normal conditions. You are responsible for continued operation of drain lines.
Improper mechanical operation of evaporative cooling system.	Equipment that does not function properly at temperature standard se is a deficiency.	Builder/Seller shall correct and adjust so that blower and water system operate as designed during the first year of Limited Warranty coverage.	
Ductwork makes noises.	NONE. NO COVERAGE.	NONE.	When metal is heated, it expands, and when cooled, it contracts. The resulting "ticking" or "crackling" sounds generally are to be expected and are not deficiencies.
Ductwork makes excessively loud noises known as "oil canning".	The stiffening of the ductwork and the gauge of metal used shall be such that ducts do not "oil can". The booming noise caused by oil canning is a deficiency.	Builder/Seller shall take the necessary steps to eliminate noise caused by oil canning.	

#### **11. Electrical Components**

## 11.1 Switches and Receptacles

Fuses blow, or circuit breakers kick out.

Fuses and circuit breakers that deactivate under normal usage, when reset or replaced are deficiencies during the first year of Limited Warranty coverage. Builder/Seller shall check all wiring and replace wiring or breaker if it does not perform adequately or is defective.

 $\label{lem:decomposition} \textit{Drafts from electrical outlets}.$ 

NONE. NO COVERAGE.

NONE.

The electrical junction box on exterior walls may produce a slight air flow whereby the cold air can be drawn through the outlet into a room. This problem is normal in new Home construction.

ITEMS COVERED UNDER THE 1-YEAR WORKMANSHIP COVERAGE				
DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION	
Malfunction of electrical outlets, switches, or fixtures.	All switches, fixtures and outlets which do not operate as intended are considered deficiencies only during the first year of Limited Warranty coverage.	Builder/Seller shall repair or replace defective switches, fixtures and outlets.		
Light fixture tarnishes.	NONE. NO COVERAGE.	NONE.	Finishes on light fixtures may be covered under their manufacturer's warranty.	
11.2 Service and Distribution Ground fault interrupter trips frequently.	Ground fault interrupters are sensitive safety devices installed into the electrical system to provide protection against electrical shock. These devices are sensitive and can be tripped very easily. Ground fault outlets that do not operate as intended are considered deficiencies	Warranty coverage.		
ITEMS COVERED UNDER TH	E 2-YEAR SYSTEMS COVERAG	iE		
DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION	
12. Mechanical Systems				
12.1 Septic Tank Systems Septic systems fail to operate properly.	Septic system should be capable of properly handling normal flow of household effluent.	Builder/Seller shall take corrective action if it is determined that malfunction is due to a deficiency in workmanship, materials, or failure to construct system in accordance with state, county, or local requirements. Builder/Seller is not responsible for malfunctions or limitations in the operation of the system attributable to design	You are responsible for periodic pumping of the septic tank and a normal need for pumping is not a deficiency. The following are considered Your negligence or abuse as exclusion under the Limited Warranty: a.) excessive use of water such as overuse of washing machine and dishwash including their simultaneous use b.) connection of sump pump, roof drains or backwash from	

roof drains or backwash from water conditioner, to the system c.) placing of non-biodegradable items in the system; d.) addition of harsh chemicals, greases or cleaning agents, and excessive amounts of bleaches or drain cleaners; e.) use of a food waste disposer not supplied by Builder/ Seller; f.) placement of impervious surfaces over the disposal area; g.) allowing vehicles to drive or park over the disposal area; h.) failure to periodically pump out the septic tank when required. Sewage pumps are excluded under the Limited Warranty.

HBW\_307\_071512 29

restrictions imposed by state,

county, or local governing

is also not responsible for malfunctions which occur

or are caused by conditions beyond Builder/Seller's

negligence, abuse, freezing, soil saturation, changes in

ground water table, or other

agencies. Builder/Seller

control, including Your

acts of nature.

DEFICIENCY	CONSTRUCTION PERFORMANCE GUIDELINES	BUILDER/SELLER/ WARRANTOR RESPONSIBILITY	EXCLUSION
12.2 Plumbing Water in plumbing pipes freezes, and the pipes burst.	Drain, waste, vent, and water pipes shall be adequately protected to prevent freezing and bursting during normally anticipated cold weather.	Builder/Seller shall correct conditions not meeting Construction Performance Guidelines.	Burst pipes due to Your neglect and resultant damage are not Builder/ Seller's responsibility. You are responsible for draining exterior faucets, and maintaining suitable temperature in the Home to prevent water in pipes from freezing. During periods when the outdoor temperature falls below the design temperature, You are responsible for draining or otherwise protecting pipes. Homes which are periodically occupied, such as summer homes, or where there will be no occupancy for an extended period of time, must be properly winterized or periodically checked to insure that a reasonable temperature is maintained.
Leakage from any piping.	Leaks in any waste, vent and water piping are deficiencies.	Builder/Seller shall make necessary repairs to eliminate leakage.	Condensation on piping does not constitute leakage, and is not a deficiency, except where pipe insulation is required.
Sanitary sewers, fixtures, waste or drain lines are clogged.	The Builder/Seller is not responsible for sewers, fixtures, or drains that are clogged because of Your actions or negligence. Sanitary sewers, fixtures, waste or drain lines that do not operate or drain properly due to improper construction are deficiencies.	When defective construction is shown to be the cause, Builder/Seller shall make necessary repairs.  If Your actions or negligence is the cause, You are responsible for correcting the problem. You are liable for the entire cost of any sewer and drain cleaning service provided by Builder/Seller where clogged drains are caused by Your actions or negligence.	Builder/Seller is not responsible for sewer lines that extend beyond the property lines on which the Home is constructed.
<b>12.3 Water Supply</b> Water supply system fails to deliver water.	All service connections to municipal water main or private water supply are Builder/Seller's responsibility when installed by Builder/Seller.	Builder/Seller shall repair as required if failure to supply water is the result of deficiency in workmanship or materials.	If conditions exist which disrupt or eliminate the sources of water supply that are beyond Builder/Seller's control, then Builder/Seller is not responsible.
12.4 Heating and Air Conditioning Refrigerant lines leak.	Builder/Seller-installed refrigerant lines or ground loop pipes that develop leaks during normal operation are deficiencies.	Builder/Seller shall repair leaking lines and recharge the unit as required.	Leaks due to Your actions or negligence are excluded.
Ductwork separates, becomes unattached.	Ductwork that is not intact or securely fastened is a deficiency.	Builder/Seller shall reattach and resecure all separated or unattached ductwork.	

#### ITEMS COVERED UNDER THE 2-YEAR SYSTEMS COVERAGE

DEFICIENCY CONSTRUCTION PERFORMANCE

CONSTRUCTION BUILDER/SELLER/
PERFORMANCE WARRANTOR
GUIDELINES RESPONSIBILITY

**EXCLUSION** 

## 13. Electrical Systems

## 13.1 Electrical Conductors

Failure of wiring to carry its designed load.

Wiring that is not capable of carrying the designated load, for normal residential use to switches, receptacles, and equipment, is a deficiency.

Builder/Seller shall check wiring and replace if it fails to carry the design load.



#### 2-10 Home Buyers Warranty | Warranty Administration Office

10375 East Harvard Ave., Suite 100 | Denver, CO 80231 | 855.429.2109

# NOTICE OF CLAIM FORM FOR STRUCTURAL CLAIMS ONLY

Please read the 2-10 Home Buyers Warranty® Booklet, section IV, page 5, for filing instructions and pertinent information. Address Of Claim: Street State Home Phone: Business Phone: Email Address: Certificate of Warranty Coverage #:\_\_\_\_\_ Effective Date Of Warranty:\_\_\_ (Date of Closing or First Occupancy) Please note that the 2-10 Home Buyers Warranty® Program provides Limited Structural Defect Warranty Coverage which is subject to exclusions and conditions. You are encouraged to review the Structural Coverage provisions of your Warranty Booklet. Please answer the following questions: 1. Have you reviewed the Definition of a Structural Defect in your Warranty Booklet? Yes □ No □ 2. Do you believe that you have actual physical damage to one or more of the listed load bearing portions of your home? Yes 🗆 No □ 3. Have you reviewed the list of non-load-bearing elements which would not qualify as a Structural Defect under this coverage? Yes 🗆 No □ 4. Do you feel that your home is unsafe, unsanitary or otherwise unlivable as a result of the defect? Yes □ No □ Nature of Defect (Be specific; If available, enclose photographs; attach separate sheet if necessary) Date Defect First Observed:\_\_ It is unlawful to knowingly provide false, incomplete, or misleading facts or information to an insurance company for the purpose of defrauding or attempting to defraud the company. Penalties may include imprisonment, fines, denial of insurance, and civil damages. Any insurance company or agent of an insurance company who knowingly provides false, incomplete, or misleading facts or information to a policyholder (Builder/Seller) or claimant (Homeowner) for the purpose of defrauding or attempting to defraud the policyholder (Builder/ Seller) or claimant (Homeowner) with regard to a settlement or award payable from insurance proceeds shall be reported to the insurance commissioner or your state. CHECK ONE (if applicable): 1)  $\square$  FHA 2)  $\square$  VA 3)  $\square$  RHS Homeowner Signature: Date: If you are the original owner, and your Home has FHA/VA financing, please provide the following: Name of Mortgage Company:\_ Address of Mortgage Company:\_\_\_ Homeowner Signature: Date:



MAIL TO: 2-10 Home Buyers Warranty
10375 East Harvard Ave., Suite 100 | Denver, CO 80231 | 855.429.2109

# NOTICE OF COMPLAINT FORM FOR WORKMANSHIP & SYSTEMS COVERAGE

Please read the 2-10 Home Buyers Warranty® Booklet, section IV, page 5, for filing instructions and pertinent information. If your previous written attempts to resolve your problems with the Builder/Seller have failed, then this form is to be sent to your Builder/Seller, with a copy to the HBW Warranty Administration Office. This form must be received by your Builder/Seller and HBW no later than fifteen (15) days after the expiration of the applicable warranty term. We recommend certified mail, return receipt.

Name:	
Address of Complaint:	
Home Phone:	_ Business Phone:
Email Address:	
Effective Date of Warranty:	_ Certificate of Warranty Coverage #:
Nature of Defect (Be Specific):	
Date Defect First Observed:	_ Date First Reported to Builder/Seller:
	your Builder/Seller involving this matter. Please provide any correspondence her warranty obligations, and a copy of the Certificate of Warranty Coverage.
Homeowner Signature:	
Homeowner Signature:	CHECK ONE (IF APPLICABLE): 1) ☐ FHA 2) ☐ VA 3) ☐ RHS  CASE #:
Homeowner Signature:	Attach any copies of relevant correspondence between you and your Builder/Seller involving this matter. Please provide any correspondence that indicates that your Builder/Seller has failed to perform his/her warranty obligations, and a copy of the Certificate of Warranty Coverage.



# SUCCESSIVE HOMEOWNER TRANSFER AND ACCEPTANCE

As the successive homeowner of the home located I/We accept any coverage remaining on the 2-10 HI We have reviewed and agreed to all the terms in the	BW Warranty provided by the Builder/Seller that first	(Home sold the newly constructed Home. I,
I/We understand that Home Buyers Warranty Corprather provides services to administer the warranty	poration (2-10 HBW) is not the warrantor of the Build $\prime$ .	der/Seller's 2-10 HBW warranty, bu
I/We agree to the Binding Arbitration process for r	resolving warranty disputes between us, the Builder,	/Seller and/or the Warranty Insure
Signature(s) of successive Home Buyer(s):		
SIGN	PRINT	
CICN	DRINT	
SIGN	PRINT	
PHONE	EMAIL	
DATE		

In order to process this request, please mail this form and a check in the amount of \$20 payable to 2-10 HBW to:

2-10 Home Buyers Warranty Corporation Warranty Administration Department 10375 East Harvard Avenue, Suite 100

Denver, CO 80231



For more information about our New Home Warranty program, call 855.429.2109 or visit 2-10.com

2-10 HBW is a registered mark of Home Buyers Warranty Corporation.
© 2012 Home Buyers Warranty Corporation.

2-10 HOME BUYERS WARRANTY CORPORATION • Warranty Administration Office • 10375 East Harvard Ave. • Denver, CO 80231 • 855.429.2109

## **Interior Maintenance**

We want you to enjoy your new home and get the most out of your time in it. Familiarity with the basic practices needed for good home management and maintenance is essential. Minutes spent on minor care, repairs, and adjustments can eliminate many future problems.



For easy reference, we have assembled helpful tips and information that you need to know to keep the interior of your new home functioning smoothly.

Manufactured products are items built entirely off-site. These include your appliances, plumbing fixtures, lighting, etc. The maintenance requirements for these are found in the manufacturer's documentation that came with your new home, and are available on the *Home Experience* website. Always refer to the manufacturer's information and if there is a conflict with this guide, follow the manufacturer's recommendations.

## **Appliances**

#### APPLIANCES: GENERAL RECOMMENDATIONS

Before operating any of the appliances in your new home, be sure to read the manufacturer's documentation for proper operating instructions and maintenance tips. When cleaning any appliance, be careful *not* to use abrasive, caustic or other strong cleaners that may harm the stainless or enamel finishes and wear away the surface lettering on controls. Regularly inspect appliances that use water for leaks. Make repairs immediately.

Recommended Maintenance Tasks	Frequency
Inspect all appliances with water lines for leaks. Repair leaks immediately.	Quarterly

#### **Effects of Deferred Maintenance**

Failure to regularly examine these appliances may result in water damage if leaks go undetected.

## COOKTOP AND VENT HOOD

Your cooktop and vent hood require cleaning and maintenance to keep them in top condition. Some cooktops come with an exhaust fan that is located under the vent hood. Proper use of the exhaust fan will help reduce excess indoor humidity that can result from cooking. Proper care and cleaning of the exhaust fan will help keep your kitchen cleaner and can help control indoor humidity. They have removable filters and fan blades that require periodic cleaning.



Cooktop and Vent Hood

## **Important Information**

Clean Your Filters. The efficiency and performance of your vent hood depends
on regular cleaning of the filters. In cleaning your filters, always use a mild soap in
hot water, no abrasive or detergents should be used. These filters may be cleaned
in your automatic dishwasher or in extremely hot water.

Recommended Maintenance Tasks	Frequency
Use a mild soap to clean the cooktop surfaces and cooking areas.	Regularly, after each use
Clean the top and underside of the hood, along with the filter screen, with a damp, sudsy cloth.	Monthly
Have the hood exhaust duct professionally inspected and cleaned.	Annually

Recommended Maintenance Tasks (Cont'd)	Frequency
Clean the exhaust fan blades. (Always unplug the unit before servicing.)	Periodically

#### **Effects of Deferred Maintenance**

Failure to clean your cooktop and vent hood will lead to a buildup of residue that becomes increasingly difficult to remove, as well as decreased ventilation and humidity control.

#### **DISHWASHER**

Refer to your dishwasher owner's manual for instructions on the proper placement of dishes and the recommended water temperature for optimal cleaning. Use only detergents made specifically for use in automatic dishwashers. *Never use any soap product or foaming detergents for commercial dishwashers as they may damage your machine.* Water conditions vary widely from area to area, so you may need to experiment with different detergents until you find the one that works best for you. Use one brand for at least a week to allow it to "condition" your dishes.



Dishwasher

## **Important Information**

- **Protect Your Cabinets from Steam.** Do not open the dishwasher while it is still steaming. Over time, this can damage the finish on your cabinets.
- Ensure the Garbage Disposal is Empty. Your dishwasher and garbage disposal use the same drain. Always empty the garbage disposal before operating the dishwasher to prevent overflowing the kitchen sink.

Recommended Maintenance Tasks	Frequency
Inspect dishwasher for water leaks. Make repairs immediately.	Quarterly

## **Effects of Deferred Maintenance**

Failure to regularly inspect the dishwasher may result in water damage if leaks go undetected.

#### **GARBAGE DISPOSAL**

Garbage disposals are permanently lubricated and self-cleaning. Use a steady flow of cold water and allow the unit to run long enough to do a thorough job of pulverizing the waste and flushing it through.



Garbage Disposal Under Kitchen Sink

## **Important Information**

- **Use Cold Water.** Do not use hot water to flush waste, especially grease, down the garbage disposal. Hot water melts the grease, which later cools and solidifies, coating your drainpipe with grease.
- **Inspect for Leaks.** Regularly look under the sink for leaks or dampness. If there is a leak, use a pan to catch water drips until it can be repaired. Make repairs as soon as possible to prevent water damage.
- Hand-Tighten Pipes. Hand-tighten pipes only—do not use tools.

## **Quick Tip: Restarting a Stopped Disposal**

- 1. Turn the disposal off and unplug the unit.
- 2. Remove all accessible waste from the disposal.
- 3. Wait one minute before pushing the red reset button located on or near the bottom of the disposal. Refer to the manufacturer's documentation for location of the reset button.
- 4. Check the circuit breaker and reset, if necessary.

- 5. Plug the unit back in and turn the disposal switch to ON. If you hear a humming noise but the blades are not turning, turn off the switch and unplug the unit.
- 6. Use the hex key that came with the garbage disposal to free the blades from obstructions. The key fits into a slot in the bottom center of the disposal. Insert the key in the slot and turn it back and forth.
- 7. Plug the unit back in. Turn on the disposal switch. If the disposal fails to operate, call a qualified plumber for service. A jammed disposal is not covered under your Fit and Finish Warranty.

Recommended Maintenance Tasks	Frequency
Inspect garbage disposal for water leaks. Make repairs immediately.	Quarterly

#### **Effects of Deferred Maintenance**

Failure to regularly inspect the garbage disposal may result in water damage if leaks go undetected.

#### MICROWAVE OVEN

Your microwave oven may be a built-in microwave wall oven or an over-the-range microwave oven. The over-the-range microwave oven includes a vent hood to service the rangetop. Both the microwave oven and vent hood require periodic cleaning and maintenance to keep them in top condition. Refer to the microwave owner's manual for specific care, use, safety, and troubleshooting information.



Microwave Oven

## **Important Information**

- **Cleansers.** Do not use corrosive cleaning agents, such as lye-based oven cleaners, as they may damage the filters. Do not use abrasive cleansers on the oven walls.
- **Cleaning Stainless Steel.** Do not use steel wool or abrasives on stainless steel, as they will scratch the surface.



Warning: Make sure the microwave power is off before cleaning.

Recommended Maintenance Tasks	Frequency
Clean the walls, floor, inside window, metal and plastic parts, and shelves, and outside case with mild soap and water. Clean the underside of the unit often to prevent grease build-up on the microwave and fan filter.	Regularly, with routine cleaning

Recommended Maintenance Tasks	Frequency
Thoroughly wipe down the interior of the microwave with a solution of baking soda and water. Wash the turntable in warm, sudsy water or in a dishwasher.	Periodically
Clean the control panel and door with a damp cloth. Dry thoroughly. (Do not use cleaning sprays or abrasives on the control panel.)	Periodically
Remove and clean the reusable grease filter by soaking in hot water and detergent. Lightly brush to remove embedded dirt and grime. Rinse well and allow to dry before replacing.	Periodically
Replace burned out bulbs. Replace charcoal filters (where applicable)	As needed

## **Effects of Deferred Maintenance**

Failure to maintain the microwave may result in a build-up of dirt and grime that is difficult to remove.

#### **OVEN**

Your built-in wall oven requires cleaning and maintenance to keep it in top condition. If your oven is self-cleaning or continuous-cleaning, please follow the manufacturer's instructions for cleaning.



Oven



**Caution:** Always allow your oven to cool before cleaning! Also, please note that the self-cleaning process heats the oven to very high temperatures to burn off all food and oil residues, and this can cause the oven to emit noxious fumes. It is best to open windows for ventilation and to stay out of the kitchen during and immediately after using the self-cleaning feature.

## **Important Information**

- **Self-Cleaning Feature.** When using the self-cleaning feature on the oven, please remember that chrome discolors in this cycle. Remove the broiler pan and chrome racks from the oven prior to cleaning. Be sure to open all cabinet doors and drawers on either side of the oven. This measure will prevent any damage that may be caused to the cabinets by the heat of the oven.
- **Vents.** Do not block the vents on your oven, as they are important for proper combustion and operation.
- Broiler Pans. Do not clean broiler pans in the self-cleaning cycle of the oven (if applicable).

Recommended Maintenance Tasks	Frequency
Use soap and water to clean the oven surfaces. Include the interior and exterior surfaces in your routine cleaning, as well as the control panel.	Regularly, after each use
Replace light bulb(s).	As needed

## **Effects of Deferred Maintenance**

Failure to clean your oven will lead to a buildup of residue that becomes increasingly difficult to remove.

#### RANGE AND RANGE HOOD

Your range and range hood require cleaning and maintenance to keep them in top condition. If your oven is self-cleaning or continuous-cleaning, please follow the manufacturer's instructions for cleaning.

Some ranges come with an exhaust fan that is located under the range hood. Proper use of the exhaust fan will help reduce excess indoor humidity that can result from cooking. Proper care and cleaning of the exhaust fan will help keep your kitchen cleaner and can help control indoor humidity. They have removable filters and fan blades that require periodic cleaning.



Range



**Caution:** Always allow your oven to cool before cleaning! Also, please note that the self-cleaning process heats the oven to very high temperatures to burn off all food and oil residues, and this can cause the oven to emit noxious fumes. It is best to open windows for ventilation and to stay out of the kitchen during and immediately after using the self-cleaning feature.

## **Important Information**

• **Self-Cleaning Feature.** When using the self-cleaning feature on the oven, please remember that chrome discolors in this cycle. Remove the broiler pan and chrome racks from the oven prior to cleaning. Be sure to open all cabinet doors and drawers on either side of the oven. This measure will prevent any damage that may be caused to the cabinets by the heat of the oven.

Recommended Maintenance Tasks	Frequency
Clean the range and oven surfaces and cooking areas.	Regularly, after each use
Clean the top and underside of the hood, along with the filter screen, with a damp, sudsy cloth.	Monthly
Have the range hood exhaust duct professionally inspected and cleaned.	Annually
Clean the exhaust fan blades. (Always unplug the unit before servicing.)	Periodically

## **Effects of Deferred Maintenance**

Failure to clean your range, oven, and range hood will lead to a buildup of residue that becomes increasingly difficult to remove.

#### REFRIGERATOR

Keep your refrigerator and freezer clean to help reduce odors. Follow the manufacturer's instructions for the model installed in your home; different types of finishes may have different recommended cleaning techniques. Also, if your refrigerator has an ice maker or dispenser, make sure to familiarize yourself with the manufacturer's recommendations for care and use.



Stainless Steel Refrigerator

## **Cleaning Tips**

Unplug the refrigerator before major cleaning. Clean regularly for best results. Wipe up spills immediately and deep clean at least twice per year. Never use abrasive cleansers or pads, such as metallic scouring pads or brushes. Do not use chloride to clean stainless steel. Refer to the manufacturer's documentation for more detailed cleaning and care methods and recommendations.

#### **Interior**

Clean the interior, door liner, gaskets, drawers, bins, shelves, and exterior with soap and water. For tougher build-up, use glass cleaner on glass shelves, and a solution of baking soda and water on the interior surfaces.

#### **Exterior**

Vacuum dust from the front of the toe grille and the backside of the unit. Wipe with a sudsy cloth or sponge, rinse, and dry. Do not use commercial cleaners, ammonia, or alcohol to clean handles. Stainless steel models, however, *can* be safely cleaned with ammonia or stainless steel cleaners.

#### **Stainless Steel**

Use mild cleansers—abrasive cleaners or materials will scratch stainless steel. Always wipe with the grain of the steel.



**Note:** When moving the refrigerator, do not move the unit from side to side, as this may damage the flooring. Pull it straight out. When replacing the unit to its original position, ensure that sufficient clearance is maintained according to manufacturer recommendations.

Recommended Maintenance Tasks	Frequency
Clean the interior and exterior surfaces.	Regularly, with routine cleaning
Inspect water lines to the ice maker and water dispenser (if applicable) for leaks. Make repairs immediately.	Quarterly
Deep clean the interior and exterior, including the toe grille.	Twice per year
Vacuum the condenser coils.	Annually

#### **Effects of Deferred Maintenance**

Failure to maintain the refrigerator and freezer may result in an odor causing build-up of dirt and grime that is increasingly difficult to remove.

#### WINF RFFRIGFRATOR

Your wine refrigerator provides just the right temperature and environment for your wine. Regular cleaning is needed to keep it looking and operating at its best.

#### **Cleaning Tips**

#### **Exterior**

Use mild soap and water to clean the refrigerator cabinet; rinse thoroughly. Do not use abrasive scouring powders or scrubbers. Use glass cleaner or mild soap and water to clean the glass door. Wipe the controls with a damp cloth and dry thoroughly. Do not use cleaning sprays, large amounts of water, or abrasives on the panel, as these may damage it. Clean stainless steel areas with a manufacturer-recommended stainless steel cleaner.

#### **Interior**

Clean the vinyl door gasket with mild soap and water; rinse thoroughly. Apply a thin layer of paraffin wax or petroleum jelly to the clean door gasket on the hinge side to keep the door from sticking. Use a damp cloth when cleaning around switches, lights, or controls. Wipe down the interior of the refrigerator with warm water and baking soda per the manufacturer's recommendations to clean and neutralize odors. Rinse and dry thoroughly. Do not use hot water to clean glass shelving.



**Caution:** Unplug the unit before cleaning or replacing the light bulb.

Recommended Maintenance Tasks	Frequency
Clean the inside and outside of the unit.	Regularly
Check the drain hole and channel for debris and clean as necessary to prevent drain blockages.	Periodically
Replace the light bulb.	As needed

#### **Effects of Deferred Maintenance**

Failure to maintain the unit may result in deterioration of the door gaskets, and buildup of dirt and odors. Improper drainage from a blocked drain hole may result in water damage should the unit not be allowed to drain properly.

## **Cabinets**

Cabinets are installed in your kitchen and bath areas. Modern cabinets are constructed of either natural wood or a laminate product. All cabinets require regular cleaning as well as periodic adjustment of door hinges and drawer assemblies.



Kitchen Cabinets

## **Important Information**

- Adjust Cabinet Hardware. Adjust the cabinet hardware to help prevent damage
  to the cabinets from misalignment or degradation from loose fasteners. Tighten
  loose screws, and keep hinges or drawer guides clean and lubricated. Certain
  hinge types and drawer guides incorporate adjustment screws that may need
  tightening or repositioning over time. Lubricate cabinet hinges with an oil-based
  lubricant when there is squeaking or the door does not move freely. Remove
  excess oil with a dry paper towel.
- Protect from Moisture and Heat. Do not leave damp cloths, sponges, or wet containers on surfaces or shelves. Avoid placing heat and steam-producing appliances in locations where they affect nearby cabinet surfaces. Do not open the dishwasher when still steaming. Do not use electric coffee makers and teapots directly under upper cabinets. When using the self-cleaning feature on your oven, be sure to open all cabinet doors and drawers on either side of the oven. This measure will prevent any damage that may be caused to the cabinets by the heat of the oven.

- **Protect Breadboards.** If your kitchen counters include a natural wood breadboard, it has most likely not been treated. Protect with light mineral oil and reapply as needed.
- **Do Not Overload Shelves.** Be careful not to overload upper cabinet shelves. They have been designed to hold a reasonable number of dishes, but should not be loaded to the top.



**Note:** Cabinets settle over the first few weeks and sometimes are in need of small adjustments. If you feel service is required, contact GHO Homes Corporation' customer service department approximately one month from the date you move in so a service adjustment can be scheduled.



**Note:** There is no warranty for heat damage caused by ovens, candles, or any other excessive heat sources.

# **Cleaning Tips**

Do not use a dish cloth to wipe the cabinet exterior, since it may contain remnants of grease or detergents which may damage the finish. Clean spills immediately. Give special attention to areas around the sink and dishwasher. Avoid draping damp or wet dish towels over the door of the sink base cabinet. Over time, this moisture can cause permanent water damage to the door.

#### Wood

On sealed wood cabinets, use a damp cloth or mild soap, as necessary. Furniture cream or lemon oil will only help clean, but will not renew the wood. If the finish coating is worn and the natural wood is exposed, do not use any cleaning product until the surface is professionally refinished. Do not use abrasive, caustic, or ammonia-based cleaners. See the discussion on "Countertops and Backsplash" in this guide, as the countertops may require cleaners that should *not* be used on the cabinets. Natural wood surfaces (i.e., cabinets not sealed with a paint or a nonporous clear coat) can be renewed with a furniture cream or lemon oil, but avoid paste wax or spray wax. Cover minor scratches with a putty stick from a hardware store.

### Laminates

Laminate cabinets feature a durable thermofused laminate on all exposed surfaces. While highly durable, they should be protected from prolonged exposure to water and steam, as this may result in delamination of the surface. Use a clean cloth dampened with clear water when cleaning normal household spills. After wiping thoroughly, immediately dry the surface with a lint-free cotton cloth. Never use abrasive cleaners, scouring pads, detergents or powdered cleansers. In the case of grime build-up, a soft cloth and mild soapy warm water may be used on the laminate surfaces if immediately rinsed and dried thoroughly.

Recommended Maintenance Tasks	Frequency
Clean cabinet surfaces.	Regularly
Tighten hardware, adjust drawer guides, and check alignment.	Twice per year or as needed
Polish wood cabinet surfaces with furniture polish or other appropriate product in accordance with the manufacturer's recommendations.	Annually or as needed

Failure to properly maintain cabinets may result in shortened life and a loss of appeal.

# Caulking

Caulking refers to the materials used to seal gaps, holes, and joints between surfaces, trim, and fixtures inside your home. They will deteriorate over time from exposure, use and movement, so regular inspection and restoration of the caulking is important to maintain water- and air-tightness.

Cracks in the caulking joints between tile and tub, in the shower stall corners, and at the floor, 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 home settlement and by the weight of the water-filled tub.

Maintaining caulked areas is extremely important to the proper maintenance of your home. Over time, and especially in hot or humid weather, caulking will dry and shrink, no longer providing a good seal against moisture and air. Caulking and sealant are addressed here and elsewhere in your guide as they protect several important parts of your home. They are specifically covered in the pages that cover tubs, showers, and fixtures. The maintenance of windows, doors, trim, and siding on the exterior are also covered in this guide.

## **Types of Caulking**

Silicone sealant is best for joints between smooth, nonporous materials such as tile, glass, stainless steel, and enameled fixtures.

Latex or Butyl sealant is less expensive and a lower grade (often referred to as "painter's caulk"), and is more appropriate for interior and exterior non-critical "hole-filling" before painting.

These sealants are available in different colors to help match adjoining finishes. Follow the sealant manufacturers' recommendations on the package, remembering that cleaning and preparing joints and adjoining surfaces per the instructions is critical for an effective caulk joint.

# **Important Information**

- When to Replace Caulking. Caulking should not be cracked, split, or incompletely adhered. If any of these conditions are identified, remove and replace the caulking.
- Follow Instructions. Always read and follow the manufacturer's instructions on the caulking package for proper use and storage. Use the appropriate caulking for the application.

- What Not to Caulk. Do not caulk window sill drains as these are intended to remain clear for drainage. Take note of what was or was not caulked as part of the original construction. Areas typically sealed include: interior joints formed by dissimilar materials such as sheetrock to wood trim, tile or plastic laminate, or the interior edge of window frames or door frames. Also seal between fixtures or electrical devices and walls, counters, or floors.
- **Proper Preparation.** As with repainting, caulking is only as effective as its preparation. Existing caulking should be removed completely and the surface cleaned per the manufacturer's recommendations.

Recommended Maintenance Tasks	Frequency
Inspect the caulk joints around fixtures, tub and shower areas, ceramic tile, and doors or windows on the interior where caulking was installed. Remove and replace as needed when it is split or coming off.	Monthly

The consequences of faulty caulking depend on the location of the caulking. Faulty water seals may result in damage to surrounding materials, structural damage, discoloration, and mold/fungus growth.

# **Countertops and Backsplash**

### COUNTERTOPS AND BACKSPLASH: OVERVIEW

One or more materials have been incorporated into your kitchen, bath, or utility counters and backsplash to provide durable and attractive surfaces for your cooking, bathing, and other activities. All of the materials used in counters and backsplashes share certain use and care recommendations, as well as additional cautions that are described in the material-specific sections of this guide.



## **General Guidelines**

#### Follow Manufacturer's Recommendations

Review the manufacturer's specific care and use guidance for countertops that are manufactured products, such as synthetic solid surfaces or laminates. There may be specific information on harmful household substances beyond those mentioned here that should be avoided.

### Caulking Maintenance is Important

Maintain caulking at backs, ends, or other joints with the appropriate caulking as discussed in the "Caulking" section of this guide. Generally, these joints are best sealed with a mildew-resistant silicone caulk.

### Protect Your Counters from Hot Items

Do not set hot pans or items directly on counters. Use trivets or other protection.

### Clean Surfaces Regularly

Quickly clean-up liquids or other substances from countertop surfaces. Clean with a damp, nonabrasive cloth; use other cleansers only as appropriate to the surface and as required for more stubborn cleaning. If you have a stain that will not come up simply with water, consult with a home improvement expert about products that will work on the stain.

#### Don't Sit on Counters!

Do not sit on the countertops; excessive weight can cause countertops to warp or pull away from the wall.

### • Use Cutting Boards—Don't Cut on Surfaces

Avoid cutting and chopping directly on the surface; use a cutting board.

### CULTURED MARBLE COUNTERTOPS

Cultured marble countertops are similar, and often referred to as, solid surfaces. Cultured marble is made from marble dust and high strength polyester resin in a process that involves several steps. It is usually stronger than common marble and is widely used in bathroom surfaces and products like shower pans, bathtubs, vanity tops, shower surrounds, and bases. Though it is durable and hard, it needs proper care and maintenance to last several years. Cleaning cultured marble is not very hard, but one needs to know about what should or should not be used on them to avoid possible damage. This is because the use of wrong products can result in considerable damage, especially to the gel coat that imparts that brilliant glaze to these products. Below are some ways on how to clean cultured marble.

If maintained properly, cultured marble can be quite durable and can last for several years. Proper cleaning is also a crucial part of daily care and maintenance, which can be efficiently performed by following these simple tips outlined above.

Follow the general countertop recommendations listed in the "Countertops: Overview" section of this guide. In addition, observe the expert advice below for cultured marble.

## **Important Information**

- **Renew Cultured Marble.** Purchase a product such as Gel-gloss to renew cultured marble surfaces.
- **Protect the Counters.** Although it may be possible to repair minor scratches and abrasions by light sanding and buffing, avoid cutting directly on the countertop.

# **Cleaning Tips**

Regular cleaning is the best way to keep your cultured marble free from stains, soap scum, and dirt. If possible, excess water from the shower base and surrounding areas should be squeezed out after each shower to prevent water stains. For stubborn hard water stains, you can use vinegar for cleaning the marble surface. Vinegar can also be used to remove soap scum without damaging the seal. Just spray some distilled white vinegar on the surface and let it stay for sometime, around half an hour. Then rinse the surface with water, and wipe with a soft damp cloth. Never use warm water on the surface of cultured marble, even for cleaning purposes.

Use of abrasive cleaners like scrubbing sponges, scouring powder, and steel wool should be avoided, as they can scratch the surface. They can also damage the seal applied on the surface of cultured marble. Instead, you can use a mild soap or detergent cleaner or an all-purpose cleaner for the daily cleaning of marble surfaces.

Simply spray the cleaner on the surface and then gently wipe with a soft and damp cloth. Use of cleaners that contain harsh chemicals such as acids is not advisable. Use water-based cleaners or those that are pH-neutral. Never begin cleaning without first wetting the surface.

#### **Stubborn Stains**

For removing stubborn stains from cultured marble, you may require a harsher cleaner. Mix 1/4 cup each of baking soda, vinegar, and ammonia and dilute it in eight cups of water. Wipe the stains with this solution and leave on for 10 minutes. Then wash off with cold water. Repeat if necessary. Alternatively, mop the area with a soft rag that has been dipped in hydrogen peroxide and let it stay overnight Wipe off the stain the next morning and rinse with water. Many people prefer to use turpentine, paint thinner or denatured alcohol in such a situation. But before applying such products, they should be tried on a small inconspicuous area to avoid any major damage. You can also take the advice of a professional or the manufacturer of the product to clarify any doubt regarding the use of such substances on your cultured marble products.

Recommended Maintenance Tasks	Frequency
Renew the surface of cultured marble with a manufacturer recommended product.	As needed

### **Effects of Deferred Maintenance**

Improper or neglected maintenance and care of the countertop may result in premature deterioration, loss of visual appeal, higher replacement or repair costs, water intrusion, and possible voiding of your Fit and Finish Warranty.

## NATURAL STONE COUNTERTOPS

Natural stone countertops (such as granite, limestone, marble, or travertine) features a great deal of color and veining variation and are never exactly alike. Lack of consistency of the stone and the resin is not considered a flaw, but part of its natural beauty. These countertops are highly durable but may be scratched, chipped, and stained with misuse.

Follow the general countertop recommendations listed in the "Countertops: Overview" section of this guide. In addition, observe the expert advice below for natural stone.

# **Important Information**

- **Seal the Stone.** Sealing the stone is strongly recommended in order to prevent staining. Tile and stone stores carry specific cleaning agents and sealers.
- Acidic Liquids. Some types of natural stone are vulnerable to damage from acidic liquids, such as citrus juices, tomato juice, and vinegar. Sealers will help protect the surfaces.
- **Consult a Professional for Repairs.** Repair chips, scratches, burns, and stains using the manufacturer-recommended techniques, or consult a professional.

# **Cleaning Tips**

Clean with neutral cleaner or stone soap and warm water. Avoid cleansers that are abrasive or products that contain lemon, vinegar or other acids. Do not use steel wool or polish. Blot up spills immediately.

Recommended Maintenance Tasks	Frequency
Dust the surface.	Regularly
Clean the stone with a few drops of neutral cleaner or stone soap and warm water.	Regularly, after each use, when practical
Repair chips, scratches, burns, and stains using the manufacturer recommended techniques, or consult a professional.	As needed
Reseal the stone.	Every 1–2 years or as needed

Improper or neglected maintenance and care of your countertop may result in premature deterioration, loss of visual appeal, higher replacement or repair costs, water intrusion, and possible voiding of your Fit and Finish Warranty.

# **Electrical Systems and Safety**

### FLFCTRICAL SYSTEMS AND SAFFTY: OVFRVIFW

Your home has a master control panel to protect the wiring and electrical equipment in your home. The control panel includes a main shutoff that controls all incoming electrical power; it also contains circuit breakers that control separate circuits. The circuit breakers interrupt the flow of electricity in overload conditions and protect the wiring from overheating and causing fire.



**Caution:** Before digging in your yard, check the location of buried service leads by calling the local utility locating service. In most cases, wires run in a straight line from the service panel to the nearest public utility pad.

# ARC FAULT CIRCUIT INTERRUPTER (AFCI)

AFCIs are sensitive circuit breakers that monitor the electrical outlets in the bedrooms for unwanted arcing conditions caused by erratic current flows. They are a safety feature that could protect against fires caused by, but not limited to, wiring in the walls that are punctured from nails when hanging pictures or when electrical cords are crimped by furniture and doors. AFCI circuit breakers are located in the panel box containing the conventional circuit breakers. Refer to the manufacturer's documentation for the model installed in your home. In the event that the recommendations in this guide conflict with the manufacturer, the manufacturer's recommendations prevail.

# **Important Information**

- Do Not Automatically Reset a Tripped AFCI. AFCIs function by rapidly switching
  off the current when a potentially fire-causing arc is detected. When an AFCI is
  tripped, the source of the fault must be located and repaired before restoring
  service.
- Test Your AFCIs. Test the AFCI at least once a month. Refer to the manufacturer's
  documentation for the testing procedures for the model installed in your home.
   Should the AFCI fail the test, immediately consult a qualified electrician to replace
  the AFCI.

Recommended Maintenance Tasks	Frequency
Test all AFCIs.	Monthly

An AFCI that fails to switch off electrical current in the event of an unwanted arcing condition can result in a fire.

## CIRCUIT BREAKERS AND PANELS

Circuit breakers are a safety feature designed to trip if there is an excessive load on a given circuit. Electrical failures are usually caused by overloading a circuit when using too many appliances at one time, a defective cord, or starting a large electric motor. Your circuit breaker box usually has a circuit directory installed on the inside cover of the box to show which appliances, outlets, or other services are connected to each breaker. If electricity fails in any part of your home, first determine if circuit breakers in the master control panel have tripped.



Exterior Circuit Breaker Panel



Interior Circuit Breaker Panel

## **Important Information**

- **Use Professionals and Get Permits.** Never let anyone other than a licensed electrician repair or alter the wiring or electrical system in your home. Some changes may require a permit.
- Keep Access to Panels Clear. Do not block access to the panel, and be careful
  when concealing interior panels with wall hangings or pictures. The panel should
  always be easily accessible in the event power is lost to your home. Proper
  working clearances are required around and in front of electrical switches and
  circuit breakers.
- **Keep the Panel Cover Closed.** In order to maintain the waterproof protection of exterior control panels, keep the cover closed.
- Check the Amperage Before Replacing. Never install a circuit breaker with a greater amperage rating than the one being replaced.
- **Learn About Fire Prevention.** Obtain fire prevention guidelines from your local fire department and take precautions necessary to prevent electrical fires.

# **Quick Tip: Restoring a Tripped Circuit Breaker**

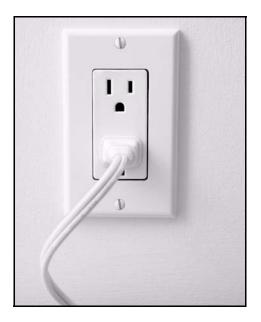
- Before you restore the current, attempt to locate the cause of the failure. After locating the cause, disconnect it from the electrical source prior to resetting the breaker. If you cannot locate the cause of the failure, call a state-licensed electrician or GHO Homes Corporation.
- 2. Reset the circuit breaker. First flip the breaker switch to the OFF position and then to the ON position.
- In the event of a total loss of electrical power, contact your neighbors to determine if the problem is limited to your home. If other homes are without power, contact the electric company.

### **Effects of Deferred Maintenance**

A circuit breaker panel that is not used properly and protected from water may fail prematurely, resulting in electrical failure in your home.

## **ELECTRICAL OUTLETS AND SWITCHES**

Electrical outlets are located in each room and around the exterior of your home for your convenience. Switches are installed to control the permanently-installed lighting in your home. Switches are also installed to control at least one electrical outlet in each room; the switched outlet is installed upside down to help you quickly identify it.



**Electrical Outlet** 

# **Important Information**

- **Unplug Small Appliances.** Do not leave small appliances plugged in when they are not in use.
- Childproof Your Outlets. Where applicable, teach children that it is dangerous to touch or play with electrical outlets and wiring. As a further precaution for small children, childproof electrical outlets with covers that are available at local hardware or electrical supply stores.
- **Plug In Completely.** Insert plugs all the way into outlets. Partially plugged in electrical cords can cause overheating of the outlet, sparks, and fire.
- Replace Damaged or Deteriorating Outlets. The U.S. Consumer Product Safety
  Commission Document #524 advises homeowners to have a qualified electrician
  replace receptacles that are damaged or feel hot, emit smoke or sparks, have
  loose fitting plugs, or those where plugged-in lamps flicker or fail to light.

- Outlet Capacity Limits. Do not exceed the capacity of the outlets by plugging in adaptors that add more than two receptacles per outlet. Overloading the circuit, including the use of multiple extension cords, can cause a fire.
- **Selecting Decorative Outlet Coverplates.** Whenever possible, avoid decorating the outlet coverplates with paint or wallpaper. Purchase decorative coverplates for a designer look instead. If the coverplates must be painted or wallpapered, do not interfere with the system wiring.
- **Proper Use of Extension Cords.** Do not run extension cords in concealed spaces such as under rugs or furniture.



**Note:** For additional information on electrical outlet safety, visit the U.S. Consumer Product Safety Commission website at www.cpsc.gov.

Recommended Maintenance Tasks	Frequency
Inspect plugged in items to ensure they are completely plugged in.	Regularly
Check interior outlets to ensure they are not damaged or deteriorating. Replace damaged outlets immediately.	Twice per year

### **Effects of Deferred Maintenance**

Faulty electrical outlets can result in overheating, sparks, fire, or electrical shock.

# GROUND FAULT CIRCUIT INTERRUPTER (GFCI)

GFCIs are very sensitive circuit breakers that are installed in the bathrooms, kitchen, garage and patio. They are a safety feature that could protect against electrical shock in case of ground fault conditions or an electrical overload; GFCIs function by rapidly switching off the current. If the power fails in one of these areas, it will usually be the GFCI that has tripped.



Interior GFCI

# **Important Information**

- **Test Your GFCI.** To test the GFCIs, press the Test Button briefly until the Reset Button "pops" (breaks the circuit). If the Reset Button does not respond to the testing, press the Reset Button and start the test over. If the GFCI is working properly, the Reset Button should "pop" each time the Test Button is pressed. After the testing procedure has been completed, be sure to depress the Reset Button and leave it in this position.
- **Not for Major Appliances.** *Do not* use GFCI receptacles for major appliances such as refrigerators and air conditioners. These appliances create electrical surges that trip the GFCI and break the circuits.
- **Use for Power Tools.** The U.S. Consumer Product Safety Commission (CPSC) recommends the use of a GFCI with every power tool to protect against electrical shock hazards.
- **Resetting a Tripped GFCI.** Push the Reset button on the GFCI outlet to restore power. If power is not restored, determine if there is a tripped circuit breaker.

Recommended Maintenance Tasks	Frequency
Test the GFCIs.	Monthly

A GFCI that fails to switch off electrical current in the event of an electrical overload or ground current condition can result in serious injury from electrical shock.

## LIGHTING

Lighting fixtures are installed throughout the interior of your home, as well as outside exterior entrances, such as your patio or front door. When replacing light bulbs, make sure to select bulbs with the correct size and wattage for the fixture.



Interior Light Fixture



Interior Light Fixture

Recommended Maintenance Tasks	Frequency
Check for and replace burned out bulbs.	Monthly

Recommended Maintenance Tasks	Frequency
Clean the encasement of light fixtures so light can shine at full illumination. Ensure that mounting screws and plates are tight and wall plate is fully against the exterior wall or soffit.	Quarterly

Failure to maintain the lighting in your home will result in a diminished appearance as well as inconvenience.

# **Flooring**

## FLOORING: OVERVIEW

The flooring in your new home is made of materials selected for their beauty and functionality. Proper care and regular maintenance are key in maintaining the appearance and maximizing the useful life of your flooring. Common sense guidelines apply to all flooring types, some of which are listed below. Additional recommendations are explained for each flooring type in the pages that follow.



### **General Guidelines**

#### Use Doormats

Place doormats outside all exterior doors, as dirt and other substances tracked in from outside are the primary sources of wear.

### • Clean Up Spills Immediately

Blot up liquid with a clean, absorbent, white cloth or sponge. Remove solids with a blunt knife or scraper.

#### Protect Your Floor

Use protective pads or pieces of plywood under heavy appliances when moving them across flooring. If appliances such as refrigerators are mounted on casters, be sure the casters are large enough to adequately spread the weight to avoid distressing the flooring.

### • Refer to the Manufacturer's Guidelines

Please note that the following maintenance recommendations do not attempt to address all possible maintenance needs. Consult specific flooring manufacturers for guidelines regarding recommended floor care products and comprehensive stain removal instructions.

## **CARPETING**

Carpeting wears out from foot traffic that tramples dirt and sand particles deep into the pile. Choose a vacuum with strong suction and maintain it properly (changing the bag or emptying the vacuum canister) to maximize its effectiveness in removing small, heavy grains. Dirt can discolor even carefully maintained carpet. Such apparent loss of color should not be mistaken for permanent discoloration or fading. Professional cleaning can sometimes restore the original color.

# **Important Information**

- Stain Removal Tips. Refer to the manufacturer's recommendations about treating specific types of spills or stains. General purpose carpet spotter products may be used as part of spill and stain cleaning, but should be blotted up, rinsed and thoroughly blotted up again.
- **Floor Mats.** Use inside and outside entrance mats to reduce the amount of dirt that enters your home.
- Water Damage. If flooding or large spills cause any part of your carpeting to be saturated with water or other liquid, the carpeting should be professionally and fully dried within 12 hours. Otherwise, it should be evaluated by a professional, who will usually recommend that the damaged carpeting be removed as quickly as possible, to prevent the growth of mold and bacteria.
- Professional Cleaning. Professional carpet cleaning is often the best way to
  restore the appearance of carpeting. However, please note that professional
  cleaning companies use a variety of cleaning methods, some of which are hard on
  the carpet and should be done as infrequently as possible.
- Areas Exposed to Moisture. We recommend that you do not install carpeting in a kitchen, bathroom, laundry room, or any other area that is regularly exposed to moisture. Carpeting can serve as a breeding ground for mold and bacteria, as well as dirt and particulates that can contribute to allergy problems.

# **Quick Tip: Treating Common Conditions**

Crushing: Vacuum regularly.

Burns: Clip burnt ends or replace carpet.

Fading: Protect from sunlight.

Shedding: Balls of fluff gradually disappear with regular vacuuming.

General Spills and Stains: First, blot liquids with a dry, white, absorbent cloth. Do not scrub. Second, blot with a cleaning solution, working from the edges toward the center of the spill. Rinse with clean water and blot until dry.

*Semi-solid stains:* Gently scrape with a rounded spoon and vacuum up. Do not add moisture.

*Ripples:* Carpet that is worn or needs to be re-stretched may develop ripples or ridges. When normal stretching occurs during the life of the carpet, re-stretch it to eliminate excessive wear.

Recommended Maintenance Tasks	Frequency
Vacuum frequently traveled areas and near outdoor entrances. Carpet cannot be vacuumed too often. A clean carpet is a long wearing carpet.	Daily or as needed
Thoroughly vacuum all areas, even those rooms which receive very little traffic, to remove dust deposited from the air.	Weekly
Professionally clean carpeting that is too soiled to respond to routine maintenance.	Annually or as needed

### **Effects of Deferred Maintenance**

Poor appearance and premature replacement costs may result from deferred carpet maintenance.

## **CERAMIC TILE FLOORS**

Ceramic tile floors are an attractive, functional, and long-lasting choice for your home.

## **Cleaning Tips**

Clean regularly with a vacuum, broom, or wet mop. Remove dirt daily to prevent build-up and the potential for staining. Neutral pH cleaners are recommended and available from tile supply stores. Do not use harsh abrasive cleaners, metal scrubbers, acids or acid based cleaners, as these can deteriorate the grout and finish.



**Note:** Tile grout is not typically sealed as part of the new construction, as it is necessary for grout to cure (at least a month is recommended) before sealing. Surface sealers protect against everyday wear and tear. Once the tile has cured, a professional should seal the grout joints. Sealers and waxes can save on routine cleaning.

Recommended Maintenance Tasks	Frequency
Sweep or vacuum on a regular basis to reduce grit, which can scratch and dull the floor's finish.	Daily in areas of heavy use
Clean flooring with a damp mop or a mild detergent. Wax or sealers are not necessary. Buff floors lightly to improve the shine to a high gloss.	Weekly
Inspect and, if necessary, regrout, or caulk the area between the tiles and the baseboard. Check around door thresholds, tubs, and toilets. Sealing these areas are important to prevent the water intrusion.	Annually
Seal the tile. If needed, re-finish with non-skid wax.	Annually
Examine the perimeter and high traffic areas for hollow-sounding or loose tiles, as well as cracking.	Annually

### **Effects of Deferred Maintenance**

Poor appearance of the flooring, degradation of grout or joints, and even water intrusion and damage can result from deferred maintenance.

## ENGINEERED HARDWOOD FLOORING

Engineered hardwood flooring has the beauty and durability of solid hardwood, but is stronger and resists warping better than solid hardwood flooring. It is constructed of multiple plies of unfinished hardwood layered and bonded to one another, with a finished wood veneer on top. Engineered hardwood flooring *is* real wood, and should be treated as such. Engineered hardwood flooring is typically pre-finished, and while it can be refinished, experts recommend that it only be refinished once in its lifetime, as the thin top layer can only be sanded down one time without sanding it too thin.

# **Important Information**

- Characteristics of a Natural Product. Wood (parquet or planks) is a natural
  product, and may vary slightly in grain and color. Also, during normal seasonal
  cycles, changes in humidity may result in expansion and contraction of the
  materials. This may result in small separations between planks or parquet during
  dryer seasons, and is to be expected.
- **Protect from Moisture.** Promptly remove water and other liquids from the surface to prevent water from penetrating and harming the flooring. Never wet mop your wood floor.
- Professional Service. Contact a local flooring distributor to remove heavy stains or for refinishing.
- Minimize Wear. Use area rugs in areas of heavy traffic to prevent excessive wear. Avoid using rubber-backed rugs. Do not drag furniture or other heavy objects across the floor without a pad. Place protector pads under all furniture legs.

# **Cleaning Tips**

In general, cleaning is limited to sweeping with a soft bristle broom, cleaning with a vacuum cleaner soft floor attachment, and periodically cleaning with professional wood floor cleaning products. Remove dirt at joints, between boards, and at doorway thresholds or transitions to other flooring materials. Do not use ammonia or dust cleaners on wood flooring. Wipe up spills immediately!

Engineered hardwood flooring should not be wet-mopped. It is especially susceptible to damage from water from long-term sources such as leaks and exterior doors with poor weather protection.



**Caution:** Always consult the manufacturer's recommendations or a wood flooring supplier/installer to determine the appropriate floor care products. Improper maintenance may void your warranty.

Recommended Maintenance Tasks	Frequency
Sweep or vacuum to remove loose dirt. Remove stains as needed.	Daily to weekly, depending on use
Clean with professional wood floor cleaning products.	Per manufacturer's recommendations

Incomplete maintenance can result in damage or stains, reducing the value these floors add to the home.

### LAMINATE FLOORS

Laminate flooring combines the beauty of hardwood with the ease of a manufactured floor. Laminate flooring is composed of composite, machine-made planks, with a faux hardwood laminate surface.

Laminate is rugged and spill resistant, but it is not indestructible. Laminate flooring is made for simple, no-wax maintenance; however, there are some recommendations to keep your flooring at its best.

## Important Information

- **Protect from Moisture.** Promptly remove water and other liquids from the surface to prevent water from penetrating edges. Never wet mop your laminate floor with soap and water.
- Dents, Cuts, and Gouges. Laminate is designed to resist dents, cuts and gouges
  that could result through normal wear. However, laminate is not indestructible
  and small scratches or denting may occur over time. Most manufacturer's have
  touch up methods available, including putty, wax crayons or pencils to fill in minor
  scratches or dents.
- **Use Mats.** Place non-staining mats outside entrances to reduce wear and tear resulting from tracked in dirt and sand.
- **Moving Large Items.** Protect the flooring with plywood when moving heavy objects across the floor. Rolling casters can damage laminate flooring.

# **Cleaning Tips**

Clean regularly by sweeping or vacuuming. Wipe up spills immediately to prevent staining. Clean spills with lukewarm water and ammonia when necessary. Vacuum and damp-mop regularly.

### **Recommended Cleaning Products**

Wash the flooring with a manufacturer-recommended cleaning product. Never use abrasive cleaners, soaps, paste waxes, or solvents on laminate flooring, as they dull the finish.

Recommended Maintenance Tasks	Frequency
Dust, vacuum, or damp mop.	Daily to Weekly
Inspect seams and edges to ensure they are securely adhered.	Periodically, with routine cleaning

Poor appearance of the flooring, degradation of grout or joints, and even water intrusion and damage can result from deferred maintenance.

### NATURAL STONE FLOORS

Granite, limestone, marble, and travertine are durable natural stones but may be scratched, chipped, and stained with misuse.

## **Important Information**

- **Use Mats and Rugs.** Use non-slip mats or area rugs inside and outside entries to reduce wear resulting from tracked in sand and dirt, which can scratch the stone.
- Repair as Needed. Repair chips, scratches, and stains using the manufacturerrecommended techniques, or consult a professional.
- Acidic Liquids. Some types of natural stone are vulnerable to damage from acidic liquids, such as citrus juices, tomato juice, and vinegar. Sealers will help protect the surfaces.
- **Hints for Sealers.** It is strongly recommended that you seal your stone in order to prevent staining. There are specific cleaning agents and sealers for natural stone that are available through tile and stone stores.

## **Cleaning Tips**

Blot up spills immediately. Sweep with a soft broom, brush, or dust mop as a part of everyday maintenance. Damp mop smooth surfaces two to three times per week after sweeping or vacuuming, in addition to more thorough wet cleaning per the manufacturer's recommendations. Soaps without detergents and pH balanced cleansers are generally good choices; always rinse thoroughly with clear water.

### **Recommended Cleaning Products**

For routine cleaning, vegetable-based natural soaps are a good choice. Stains can typically be cleaned with a detergent. Be sure to select a detergent that is appropriate for the type of stone. Consult the manufacturer or a stone retailer for specific product recommendations.



**Caution:** Avoid abrasive cleansers or products that contain lemon, vinegar, or other acids. Do not use steel wool, polish, or liquids containing acid or vinegar on the surface.

### **Treating Stubborn Stains**

Stubborn stains typically require professional care. Acidic cleaners are not recommended for routine care, but may be used to remove grout haze, mineral deposits, or rust acid, and should only be used by a professional. Acidic cleaners will eventually erode the grout and make cleaning more difficult.

Recommended Maintenance Tasks	Frequency
Sweep, vacuum, and mop the surfaces. Clean more thoroughly with an appropriate cleaning product as needed. Lightly brush the grout joints to loosen debris.	2–3 times per week/ Daily in high traffic areas
Inspect perimeter and high traffic areas for hollow- sounding or cracked tiles. Inspect around door thresholds, tubs, and toilets. If necessary, regrout or caulk the area between the tiles and the baseboard.	Annually
Reseal the stone.	Every 1–2 years or as needed
Repair chips, scratches, and stains using the manufacturer-recommended techniques, or consult a professional.	As needed

Poor appearance of the flooring, degradation of grout or joints, and even water intrusion and damage can result from deferred maintenance.

# **Interior Doors**

Interior doors are made of wood or a composite material and add to the overall beauty of your home.



Interior Wood Door



**Sliding Closet Doors** 

## **Important Information**

- **Sliding and Pocket Doors.** Keep closely joined surfaces and moving parts, such as rollers, lubricated, and free of dirt.
- Avoid Slamming Doors. Slamming doors can damage the door, door jambs, and
  even crack the walls. Likewise, do not allow children to hang from or swing on
  doors as this loosens the door hardware and causes the door to sag.
- Hollow Doors. Many doors are "hollow core" construction. Do not attach
  additional hooks or other items to the face of the door, as the hooks may pull out
  under excessive weight.
- **Cracks.** If cracks appear in painted door joints during the dry season, fill them with putty or caulking and refinish if needed.
- Hinge Screws. Heavy use of a door results in hinge screws being loosened, allowing the door to sag. Tighten the screws as necessary. If they fail to tighten, the door or jamb wood is probably cracked or stripped at the hinge screw, requiring additional filling or screw modification.

## **Quick Tip: Fix a Sticking Door**

The most common cause of a sticking door is the natural expansion and contraction of the lumber in the building. This sticking is due to expansion during a damp season. *Avoid planing the door.* When the dry season returns, the door shrinks back to normal size. Make sure that all edges of the doors are sealed and painted.

Recommended Maintenance Tasks	Frequency
Remove smudges with warm water and a mild detergent.	Regularly, with routine cleaning
Coat stained doors with lemon oil to prevent cracking. Low-VOC, solvent-free lemon oil products are available. Use touch-up varnish on nicks and scratches. Use touch-up paint on nicks and scratches.	Monthly
Lubricate door hinges. Remove the hinge pin and rub it with a graphite tube or pencil lead. Avoid oil; it gathers dust. Lubricate door locks with a graphite lubricant. Wipe up excess with a dry paper towel.	As needed
Lubricate and clean rollers, moving parts, and faying surfaces (those closely joined) on pocket or sliding doors.	As needed

Recommended Maintenance Tasks	Frequency
Repaint or restain doors.	As needed

Deferred maintenance can result in premature failure of your doors and potentially higher replacement costs.

# **Plumbing System**

Your plumbing system is comprised of several different components, including pipes, shut-off valves, sinks, toilets, showers, tubs, and fixtures. All require periodic inspections and routine cleaning and maintenance.

### Shut-Off Valves

We recommend that you become familiar with the system as soon as you move in. To prepare yourself for a potential plumbing emergency, you should locate the following shut-offs in your home:

- · The main water shut-off at your house and at the water meter
- The gas service meter shut-off
- The hot and cold water shut-offs beneath each sink and behind the toilets
- The water shut-off for the water heater

In any emergency, your first step should be to turn off the water. Main shut-off valves are usually located where pipes enter the house. If you suspect a leak within the walls of your home, immediately turn the main shut-off valve to the OFF position and call GHO Homes Corporation customer service department or a plumber. A leak between the walls can severely damage the walls and the flooring. All fixtures except tubs and showers have separate shut-off valves. Know how to use these shut-off valves in case of leaks or other problems. In the event of a hot water leak, the valve on top of the water heater should be turned off. This will stop the flow of hot water in your home and will prevent possible damage to your home and its contents. Make sure you know where all water shut-off valves are located and that the hot and cold shut-off valves are marked.



**Caution:** Immediately shut-off the water at the appropriate location when leaks are discovered. Remedy all water leaks from any source immediately, as they can allow mold growth and cause structural damage. These conditions are often not covered under GHO Homes Corporation's warranty or typical homeowners insurance policies.

# **Important Information**

• Water Barrier. Maintain a water barrier between your home and the sewer line. (Occasionally run water in sinks or showers that are used infrequently to fill the drain trap.)

Recommended Maintenance Tasks	Frequency
Inspect for leaks around toilets, sinks, showers, tubs and the water heater. Listen for running water to help locate unseen leaks.	Monthly
Test the shut-off valves and replace valves as needed.	Annually

Failure to maintain the plumbing system can damage your home, costing you both time and money.

# SHOWERS, TUBS, AND SURROUNDS

Shower and tub surrounds are designed to provide clean, bright, durable and watertight bathing areas. The variety of finishes and fixtures incorporated in these assemblies need specific care and maintenance to maintain their finish and watertight condition.

Walls and surfaces adjoining tubs and shower pans are typically ceramic tile or molded fiberglass units designed as one or two-piece assemblies, including the tub or shower pan.

Maintenance of the sealant at corners, junctures, and around fixture piping or enclosures is critical to the overall watertightness of the bathing area. Maintain sealant with mildew-resistant silicone sealant that is designated for bathroom use. Take care to avoid sealing joints or openings that are intended to be free to "weep" or drain (such as at the bottom of the shower valve plate or shower door sills and rims designed to drain back into the shower.) Take note of what was or was not sealed as part of the original construction. Refer to the "Caulking" section of this chapter for more information on caulking and sealants.



Tub with Fiberglass Surround

# **Important Information**

- **Keep Water Confined.** Take care to confine water and wet items to the surfaces designed for wet use. Take care when using your tub and shower to prevent water from escaping the shower or tub enclosure.
- Clean Regularly. Avoid soap accumulation on walls and enclosure glass.

- **Keep the Tub and Shower Ledges Clear.** Avoid an excessive accumulation of bathing accessories and shampoo bottles on tub and shower ledges; these can contribute to water and soap accumulation.
- Close the Shower Curtain or Door. Keep the shower enclosure door or curtain closed until water is sufficiently drained.
- **Do Not Let Water Stand.** Mop up any excess water that might accumulate where exiting the shower; standing water can cause staining and/or damage to flooring.

### **Cleaning Tips**

Use non-abrasive bathroom cleaners for fiberglass tubs, shower pans, one-piece enclosures, and fixtures. Use a neutral pH tile cleaner for ceramic tile areas.



**Caution:** When cleaning, note any dampness or staining that might be evident on the floors or walls adjoining the shower or tub, and make repairs as needed. Use another bathing area, if possible, until repairs are made. Failure to remedy leaking may result in mold growth and damage to finishes and framing.

Recommended Maintenance Tasks	Frequency
Clean chrome bathroom fixtures with warm water and a mild detergent. Avoid scouring pads, abrasive cleansers, and anything that might scratch the chrome finish. Dry completely after cleaning.	Regularly, with routine cleaning
Clean and monitor the condition of tub and shower surfaces as part of your regular housecleaning.	Weekly and as needed
Inspect shower door seals and adjust if necessary to keep water from leaking out of the enclosure.	Monthly
Thoroughly clean ceramic tile surfaces and grout with tile cleaner and a brush. Check the condition of sealant and grout; repair as needed.	As needed (Typically monthly to quarterly)
Reseal joints at wall, tub, and receptor junctures as described above. Fill any grout joints that may have developed gaps.	Every 1–2 years and as needed

#### **Effects of Deferred Maintenance**

Failure to maintain your tub and showers may result in costly damage to adjacent finishes, deterioration of structural framing, and mold growth.

### SINKS AND FIXTURES

Your home may have one or more types of sinks installed throughout the kitchen and bath areas. Be sure to maintain these surfaces according to the manufacturer's recommendations for your particular sinks. Some general maintenance recommendations are listed in the table below.



Stainless Steel Kitchen Sink



**Note:** To prolong the life of the faucet fixtures, do not use excessive force when turning off the faucet.

### **Quick Tip: Resolving Common Issues**

#### **Leaking Faucet**

A leaking faucet can waste water as well as be annoying. Call a plumber to make the repairs, or, if you can, make the repair yourself. Visit a local hardware store or home improvement center for parts and helpful advice. Shut off the water below the sink, remove the faucet stem, and replace the washer with the appropriate part. Reinstall the faucet stem and turn the water back on.

#### **Chipped Porcelain Sinks**

For chipped porcelain, a bottle of liquid porcelain from your local hardware store is a simple, inexpensive remedy. Follow the product directions carefully. To fill a deep chip, a second coat may be necessary.

#### Slow Drainage

Bathtub, shower, and sink drains can become clogged by grease, hair, lint, or soap. We recommend that you call a plumber if you are experiencing slow drainage in your bathtub, shower, or sink drains.

#### **Aerator Blockage**

If you experience restricted flow in a faucet, it is likely that the problem is a blocked aerator. Unscrew the aerator, remove the screen and rinse away the gritty sediment that is causing the blockage, then replace the aerator screen.



Remove the Aerator Screen to Repair Blockages

#### **Clogged Traps**

Clogged drain traps can be easily cleared with a plunger or similar device. We do not recommend the use of harsh chemicals to unclog stopped up drains, as they may be harmful to the environment.



Drain Trap in a Bathroom Sink



**Note:** If you are selecting/replacing any sink faucets, look for faucets that have low-flow or ultra-low-flow fixtures, to save water.

Recommended Maintenance Tasks	Frequency
Clean sinks and fixtures regularly, as part of your routine cleaning schedule.	Regularly

#### **Effects of Deferred Maintenance**

Deferred maintenance will detract from the appearance and cleanliness of your sinks.

### STANDARD TANK WATER HEATER

The water heater provides hot water for your home. Periodically drain the tank to add to its useful life. Be sure to read the manufacturer's instructions for your water heater to ensure you follow the safest, most economical use.



Water Heater

# **Important Information**

- Proper Water Heater Settings. To ignite your water heater's pilot light, refer to the instructions on the heater or call your utility company. If the heater has a thermostat indicator, set it at 120 degrees, per the manufacturer's recommendation. Experience will give you the feel of the gauge so you can get your water hot enough for general use yet not so hot that you are wasting energy. Overheating water speeds the build-up of lime deposits and shortens the life of the water heater. If on vacation for long periods of time, place the water heater setting on "vacation" or low.
- **Draining the Tank.** Part of regular maintenance is draining the water heater tank to remove mineral deposits before they can solidify. To drain your water heater, turn off the water; turn the pilot control knob to the *Off* position; open the plug or faucet at the bottom of the heater; drain off the water through a garden hose or into a bucket. *Caution:* The water may be very hot.
- Inspect Strapping. Ensure that your heater remains securely strapped to the wall.

### **Quick Tip: Noisy Pipes**

If you hear noises in the pipes when hot water is running, the temperature may be set too high, which may cause steam in the pipes. Remedy by lowering the temperature setting.



**Warning:** If you smell gas, immediately leave the house and use your cell phone or go to a neighbor's telephone and call the gas supplier or fire department.



**Caution:** In the event of a leak, shut off both valves at the top of the heater and drain the tank to prevent damage to the house.

Recommended Maintenance Tasks	Frequency
Drain the water heater tank.	Annually
Professionally inspect and service the water heater.	Every 5 years or per manufacturer's recommendations

#### **Effects of Deferred Maintenance**

A shortened water heater life will result from deferred maintenance. The expected life of your water heater is usually imprinted on it. It is recommended that the water heater be replaced on or before it has reached its life expectancy. A leaking water heater may result in damage to your home and property.

### TANKLESS WATER HEATER

Tankless water heaters heat your water as you need it, instead of continously heating a large tank of water, resulting in energy savings. Some models heat the water by using gas to fuel the burner (with an electrical connection for the solid-state circuitry) while other models heat the water using just electrical power. Be sure to read the manufacturer's instructions for the tankless water heater installed in your home to ensure you follow the safest, most economical use.



**Tankless Water Heater** 

### **Important Information**

- **Disconnect Gas or Power Before Servicing the Unit.** Before performing any service on the water heater, turn off the gas, electricity, and water to the unit.
- **Flammable Materials Can be Dangerous.** Do not store any combustible materials, gasoline, or any flammable liquids and vapors near the water heater.
- Water Heater Settings. Refer to the manufacturer's recommendation for the proper temperature setting.
- Remedy for Noisy Pipes. If you hear noises in the pipes when hot water is running, the temperature may be set too high, which may cause steam in the pipes. Remedy by lowering the temperature setting.

• Annual Professional Inspection and Service. The manufacturer recommends having the unit checked once a year or as necessary by a licensed technician. If repairs are needed, they should be done by a licensed technician.

Recommended Maintenance Tasks	Frequency
Check the hot water heater connections for leaks or dampness, and make sure all openings for combustion and ventilation air are not blocked. Check that the exhaust vent is not blocked.	Regularly
Professionally inspect and service the water heater to include checking the venting system, burner, and heat exchanger, and also manually operate the pressure relief valve and clean the water filter.	Annually or per manufacturer's recommendations

#### **Effects of Deferred Maintenance**

A shortened water heater life will result from deferred maintenance.

### **TOILETS**

Toilets are made of a tough vitreous material; however, they require occasional maintenance and proper cleaning.



Standard Toilet



**Note:** Always change wax rings when replacing the toilet or flooring. Additionally, if odors, leaks, or "rocking" is noticed, the wax ring may need replacing.

### **Helpful Precautions**

- If your toilet blocks up, try using a plunger to discharge the waste. If not call a professional plumber.
- Do not use toilet bowl cleaners and/or disinfectants inside your tank. These may damage the interior parts.
- Do not use drain cleaners or colored tank cleaners in toilets. The harsh chemicals in these products can damage toilet seals and cause leaks.
- Do not flush bulky items down the toilet.

### **Quick Tip: Stopping a Running Toilet**

- 1. Inspect the shut-off ball float or clip inside the tank. The ball float or clip is probably not being lifted high enough in the tank by the water level to shut off the valve completely.
- 2. Bend the float ball rod down gently or lift the clip until the float stops water at the proper level. Be sure the float is free and not rubbing on the sides of the tank or other parts.
- 3. Check the flap at the bottom of the tank and replace it if worn.
- 4. Examine the flush handle mechanism. Too tight a chain between the flush handle lever and the flap will cause a leak. Sometimes leaks result around the outlet at the base of the tank under the rubber plunger.
- 5. If none of these adjustments correct the trouble, consult a plumber or GHO Homes Corporation's customer service department.

Recommended Maintenance Tasks	Frequency
Regularly clean toilets using a toilet bowl cleaner and a brush or cloth.	Weekly

#### **Effects of Deferred Maintenance**

Deferred maintenance to your toilet can result in decreased toilet life, clogged toilets, unpleasant odors, higher water bills, and damage to your bathroom floor.

### WATER PRESSURE REGULATOR

A water pressure regulator is installed on homes when required by the Uniform Building Code. It is usually installed where the water supply pipe enters the structure, typically in the front yard or garage. It is designed to automatically reduce the high incoming water pressure to a lower, more functional pressure. Water pressure can vary as much as 30%, increasing at nighttime and decreasing during the day.

Normal operating pressure is usually 50 to 60 psi (pounds per square inch). Pressure over 60 psi is considered excessive. Pressure that is too high may damage pipes and fixtures and also result in greater water usage. High pressure may also damage appliances such as the water heater and may cause water hammering.



**Note:** The Uniform Building Code requires water pressure regulators be placed at the inlet side when the mainline pressure is 80 psi or greater.

Recommended Maintenance Tasks	Frequency
Inspect for proper functioning by reading the pressure with a gauge on a faucet, downstream of the regulator. Replace regulators that cannot be adjusted using the adjustment screw.	Annually

#### **Effects of Deferred Maintenance**

Failure to provide the maintenance required may result in problems and increased repair expenses.

# Safety

## CO/SMOKE DETECTOR COMBO

Your combo carbon monoxide/smoke detectors are designed to alert you to the possible presence of smoke or carbon monoxide in your home. The average life of the lamp in a detector is six years. Your detectors are hard-wired (connected to an electricity source), with a battery backup

#### What is Carbon Monoxide?

The Environmental Protection Agency (EPA) defines carbon monoxide (CO) as "a colorless, practically odorless, and tasteless gas." It results from incomplete oxidation of carbon in combustion in gas appliances and fireplaces, and can be a serious health hazard. Regular inspection and maintenance of your gas appliances can help minimize the risks of carbon monoxide poisoning. Carbon monoxide detectors alert you if carbon monoxide in your home reaches unsafe levels. Regular inspections and maintenance are important in ensuring that your CO detector works properly at all times.



CO/Smoke Detector

## **Important Information**

• Batteries and Lamp Replacement. In battery-operated models, an automatic pulsing alarm is a "trouble call" that indicates the need for a lamp or battery replacement. Lamps and batteries are available at local hardware stores and home centers.

- **Test Your Detectors.** Test your detector regularly by pressing the test button on the outer cover. The alarm will sound if the detector is working properly.
- Check with the Manufacturer. Consult the manufacturer's documentation for guidelines specific to the system and model installed in your home. In the event that the recommendations in this guide conflict with those of the manufacturer, the manufacturer's recommendations prevail.
- Do Not Move or Disable Detectors. Your CO/smoke detectors are installed in specific locations to meet local and state building code requirements and should not be moved or painted. Never disconnect or remove the batteries from your detectors or leave them disabled in any way.

Recommended Maintenance Tasks	Frequency
Replace the batteries in your carbon monoxide detector. Refer to your owner's manual for the correct battery type; an incorrect battery may have a detrimental effect on the alarm.	Twice per year
Clean the detectors per the manufacturer's recommendations.	Periodically

#### **Effects of Deferred Maintenance**

Deferred maintenance to your carbon monoxide detector could lead to serious health hazards in the event your family is not alerted to a potential danger.

### **SMOKE DETECTORS**

Your smoke detectors are designed to alert you to the possible presence of smoke in your home. The average life of the lamp in a smoke detector is six years. Your smoke detectors are hard-wired (connected to an electricity source), with a battery backup.



**Smoke Detector** 

### **Important Information**

- **Test Your Detectors.** Test your smoke detectors by pressing the test button on the outer cover. The alarm will sound if the detector is working properly.
- Batteries and Lamp Replacement. An automatic pulsing alarm is a "trouble call" that indicates the need for a lamp or battery replacement (in battery-operated models). Lamps and batteries are available at local hardware stores and home centers.
- Refer to the Manufacturer's Documentation. Some smoke detectors are hard-wired to your home's electrical system, while others are battery-operated. Refer to the manufacturer's information to determine which type is installed in your home, and what maintenance is necessary.
- Do Not Move or Disable Smoke Detectors. Smoke detectors are installed in specific locations to meet local and state building code requirements and should not be moved or painted. Never disconnect or remove the batteries from your smoke detector or leave it disabled in any way.

Recommended Maintenance Tasks	Frequency
Test all smoke detectors in your home.	Twice per year
Replace the batteries (if applicable).	As needed

### **Effects of Deferred Maintenance**

Deferred maintenance to your smoke detector could lead to serious damage to your home, and injury or death in the event your family is not alerted to a potential danger.

# **Trim and Finishes**

### **MIRRORS**

Wall mirrors retain their beauty longer with proper care. They are attached with hardware or bonded to the wall with special mastics.



Wall Mirror in Bathroom



Mirrored Closet Door



**Caution:** Moisture is the number one enemy of mirrors. If a wet cleaner is sprayed into the joints, it can puddle and invade the protective coating, resulting in deterioration of the reflective silver beneath. When cleaning, be careful not to allow the edges of the mirror to get or remain wet.

### **Cleaning Tips**

Clean with warm water and a soft cloth. Standard glass and mirror cleaners that do not contain ammonia or vinegar are also safe choices. Never spray cleaner directly onto a mirror—apply the cleaner to a soft cloth and wipe the mirror.

Remove surface marks or stubborn dirt with oil-free steel wool. Do not use solvents, as they may damage the edges and backing.

Recommended Maintenance Tasks	Frequency
Clean with warm water or glass and mirror cleaner and a soft cloth. Dry thoroughly. Remove stains as needed.	Regularly, with routine cleaning

#### **Effects of Deferred Maintenance**

Inadequate cleaning diminishes the visual appeal of the mirror and may increase the potential for premature deterioration.

#### PAINTED SURFACES

The painted areas of your home, such as walls, ceilings, baseboards, crown molding and other trim, will retain their beauty longer if you care for them properly.



Painted Walls and Molding

### **Important Information**

- **Bathrooms and Kitchens.** Bathrooms and kitchens are exposed to steam and condensation; consider repainting these areas more frequently.
- **Newly Painted Surfaces.** Do not wash newly painted surfaces for at least three months to allow the paint to dry and set. Mild, soapy water is generally the best choice. Do not use strong cleaners or abrasives as they may permanently damage the paint. Before using any cleanser, test it on a small, inconspicuous area.
- Shrinkage and Cracking is Normal. Normal shrinkage of the wood in any new building sometimes causes the joints in the woodwork to open, doors to stick, and slight cracks to appear, especially around door openings. Cracking is inevitable, but it can be minimized by keeping the temperature between 68°F–78°F during the first year to create a uniform drying process. Minor cracks can be easily filled with drywall patching compounds, primed, and painted to match. If cracks continue to open after the house has had an opportunity to settle and adjust to interior conditions, there may be other issues to consider, such as humidity changes or cracked sealants on the exterior of the home.
- **Treating Mildew.** Mildew can grow in areas that are dark and moist, with limited air movement. Consult professionals to treat mildew.

• **Flat Paint.** Remember that the flat paint typical of living area rooms does not withstand as much scrubbing as the smoother enamel paint used on doors, trim, and bath areas.

### **Quick Tip: Repainting**

All paints change color as they age. While paint touch up is possible, it is hard to achieve a perfect color match. It is usually advisable to repaint at least the entire area that requires touch-up.

Preparation may be even more important than the paint and its application. Following are some tips for preparing your surfaces prior to painting:

- 1. Clean and dry the surface before applying paint.
- 2. If patching was necessary or if other unpainted materials are incorporated into the work, make sure they are primed with the appropriate primer. Consult knowledgeable paint store staff about this and other questions regarding appropriate paint, application methods, tools, and protective sheeting for the area as well as the type of surface you are painting.

Recommended Maintenance Tasks	Frequency
Dust and remove cobwebs from ceilings and walls.	Monthly
Clean painted surfaces with water and a mild cleanser like dish soap.	As needed
Repaint ceilings and walls as routine maintenance to enhance the look of your home. Fill minor cracks with caulking or wood filler.	As needed

#### **Effects of Deferred Maintenance**

Inadequate paint maintenance will add to overall maintenance costs and diminish the visual appeal of your home.

# **Ventilation and Air Conditioning**

Cooling systems are designed to fit the demands of the local climate. Your ventilation and air conditioning system should be checked periodically and cleaned by a professional service company. Perform a trial run of your system well before the season when you will use it most.

### AIR CONDITIONING SYSTEM

A residential air conditioning systems is comprised of an outdoor condensing unit and an indoor air handler, and is referred to as a "split-system." (A condensing unit only cools, it does not heat.) Your annual professional service call will include service on both the condensing unit and the air handler.



**Condensing Unit** 

# **Important Information**

Test Your System. It is a good idea to run your system at least once before the
periods of heaviest use, as it is not good for the system to be out of operation for
long periods of time. Your air conditioning system should not be run when it is
very cold outdoors. Refer to your manufacturer's maintenance instructions to
verify the lowest outdoor temperature at which your system can be run without
damage.

- Be Practical. Practical approaches, such as using window coverings, are an
  important part of your home's cooling system. For example, on hot days close
  drapes, blinds, or shutters to block sunlight. On sunny, cold days, opening your
  window coverings may help heat your home. Also, do not leave doors and
  windows open for significant periods of time when the cooling system is
  operating.
- Use Vacation Settings While Away. If you will be away from your home for more than a couple of days, do not completely shut off the system. The potential change in temperature and lack of airflow may cause condensation that may damage the home.
- Freeze-up Condition Remedy. Under some high humidity conditions, cooling coils may ice up, stopping the circulation of air through the system. Switch from the "cool" setting to "fan" until the ice melts; the air conditioning should function normally when turned back on.
- **Trim Landscaping Around the Unit.** Keep landscaping trimmed well away from the outside unit and condensate lines.
- Do Not Run the A/C Fan Continuously. During high humidity conditions, do not
  run the air conditioning with the fan set to run continuously. The fan should cycle
  on and off with the outdoor (condensing) unit. Continuous fan operation reevaporates moisture from the cooling coil back into the house, raising the indoor
  humidity.
- **Humidity Control.** Set the A/C system thermostat to the "fan-auto" setting to allow the system to perform the best dehumidification.



**Caution:** Never close more than 30% of the registers in your home at one time. Reduced airflow will not only place strain on the HVAC fan unit, but can result in condensation and water damage in higher humidity rooms.



Warning: If you notice a gas odor, call your gas company immediately.

Recommended Maintenance Tasks	Frequency
Change/clean the air filter, typically monthly during high use seasons. For reusable filters, vacuum and wash with detergent and water; allow filter to air dry before replacing it.	Monthly or per manufacturer's recommendations
Clean the registers to keep them free of dust and debris.	Monthly

Recommended Maintenance Tasks	Frequency
Check the condensate drain lines to ensure that water is flowing freely.	Seasonally
Examine the condensate drain pan float switch to ensure it is mounted on the pan properly and that it turns off the A/C unit when the pan accumulates a significant amount of water.	Seasonally
Contact a professional service company to service your system.	Annually or per manufacturer's recommendations

#### **Effects of Deferred Maintenance**

Failure to properly maintain and properly use your cooling system may result in malfunction or premature failure. The air conditioning system cools and, to some degree, dehumidifies the air. Malfunction of the system may result in poor dehumidification and increased moisture in the home, resulting in moisture damage to your home or its contents.

#### AIR CONDITIONING CONDENSATE PIPES

The air conditioning condensate discharge pipes drain condensed water away from the A/C system. It must be checked periodically for clear flow to keep your system operating at maximum efficiency. Serious water damage to your home and its contents may occur as a direct result of an obstruction to the condensate line.

Know the locations of the primary and secondary condensate discharge pipes. They are usually white plastic pipes protruding through exterior walls. Water actively discharging from a secondary condensate pipe is an indication that the primary pipe is clogged. Have the primary line cleaned right away. The clogged pipe may cause water leakage, resulting in damage to other building components. An overflow switch may be installed on the secondary condensate discharge line to shut down the unit when water overflows into the secondary line. You may want to consider using algaecide tablets to inhibit biological growth which can lead to blocked drains and premature pan deterioration.

### AIR FILTER

Learn the location of the air filter in your cooling system. The most common air filters are wall or ceiling units. Many air handling units have slots to insert filters into the air flow. Although it takes less than a minute to change the filter, this is one of the most commonly overlooked details. Clean filters provide an even flow of clean air within your home and reduce system operating costs. Clogged air filters can result in reduced airflow and colder supply temperature which may cause condensing units to automatically shut off, causing units to cycle excessively and reduce efficiency. Dirty filters can also cause streaking on the walls near vents.



Example of an Air Filter Location

Consult the manufacturer's documentation for the type and location of the air filter used in the system. Some filters are so tightly meshed that they actually starve the system of air. Ensure that the new filter is properly fitted so air is properly filtered and does not bypass the system.

### **BATHROOM EXHAUST FANS**

Exhaust fans play significant role in your home's ventilation, and are installed in your bathrooms. The exhaust fans may have filters that need to be cleaned or replaced periodically. Refer to the manufacturer's documentation for information on the fans installed in your home.



Bathroom Exhaust Fan

## **Important Information**

- **Use Fan While Showering.** Moisture and mildew problems can occur in any room where water vapor is present. In bathrooms, use the exhaust fan while showering in order to control indoor humidity. Proper use of the exhaust fans to control steam can help reduce the potential for mold growth in your shower and bathroom.
- **Disconnect the Power Before Servicing.** When filters or filter screening is part of your exhaust fan assembly, disconnect the power before servicing.

### **Quick Tip: Fixing a Noisy Fan**

If fans become noticeably noisier over time and have otherwise been properly maintained, have them serviced by a professional.

Recommended Maintenance Tasks	Frequency
Clean reusable filters and screens with soap and water to remove dust or lint that may have accumulated.	Quarterly

Recommended Maintenance Tasks	Frequency
Replace filters.	Per manufacturer's recommendations
If your fans have exterior exhaust vents, inspect and clean the exterior hood or vent. Ensure that the back draft damper (flap) is clear and free moving.	Annually

#### **Effects of Deferred Maintenance**

Failure to maintain exhaust fans may result in decreased efficiency and performance, a shortened useful life, and decreased air quality in your home.

### **CEILING FANS**

Ceiling fans are a feature that, when used in conjunction with your HVAC system, can help evenly distribute cooled or heated air throughout your home, resulting in lower utility bills.

Ceiling fans require periodic cleaning to keep them looking and working their best. Consult the manufacturer's recommendations for model-specific information and troubleshooting tips. Ceiling fans may require occasional tightening of the attachment hardware to prevent wobbling or noise during operation.



Ceiling Fan with Light Fixture



**Caution:** Do not use water, cleansers, harsh rags, or abrasives, as they may scratch or warp the fan blades. In addition, water may damage the motors and create the possibility of electrical shock.

Recommended Maintenance Tasks	Frequency
Clean the fan blades with a soft brush or lint free cloth to remove dust.	Periodically
Replace light bulbs in ceiling fan fixtures. Tighten the hardware and connections to prevent the unit from wiggling during use.	As needed

#### **Effects of Deferred Maintenance**

Failure to periodically clean and maintain the ceiling fans may result in a build-up of dust, a diminished appearance, or a decreased performance of the unit.

### **REGISTERS**

Registers (or air vents) distribute conditioned air throughout your home. Room air returns to the heater and A/C through the return vents. For efficient airflow, keep furniture, drapes and other objects away from registers. The registers can be adjusted to provide the desired temperature for each room.



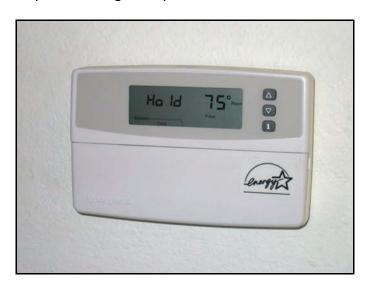
Adjustable Register

### **THERMOSTAT**

Your thermostat controls the HVAC system, and allows you to set the temperature at which you want your home cooled or heated to. Set your thermostat to a setting comfortable for you and your family. To maximize energy efficiency, leave your thermostat at a constant setting to avoid energy-wasting fluctuations. Due to the demands of energy conservation, thermostats have become quite complex; familiarize yourself with the manufacturer's instructions.

Your thermostat has an integrated time delay feature that prevents manually starting the system repeatedly and protects the compressor from damage. When switching the thermostat to "ON", there is normally a delay of up to 15 minutes before the compressor will switch on.

Keep your home at an even temperature, especially in the first year, to minimize the expansion and contraction of the building materials. Minor cracking is inevitable but can be minimized by maintaining a temperature between 68°F–78°F.



**Programmable Thermostat** 

# **Exterior Maintenance**

Your home's exterior maintenance needs may feel overwhelming. But with a little bit of knowledge and a plan, you'll find that it's very manageable. And the reward of having a home that still looks like new, maintains its value, and has plenty of curb appeal makes it all worth it.

Proactive exterior home maintenance is particularly important in hurricane and tropical storm prone areas. A well-maintained home will weather storms better than a home that has cracking sealants or deteriorating roofing and wall systems.



This chapter describes how to maintain the exterior of your home and provides recommendations for your exterior home inspections. Refer to your CC&Rs for exterior finish restrictions when repainting, refinishing, or making additions to the exterior of your home.

# **Exterior Walls**

#### **EXTERIOR WALLS: OVERVIEW**

This section discusses the preventive maintenance tasks that are necessary to keep the exterior surfaces of your home weathertight and looking their best.

#### **General Guidelines**

#### • Trim Trees and Plants

Keep trees and other plantings trimmed to prevent them from impacting or brushing the wall finish during windy periods, as well as to allow proper ventilation and drying of walls near plantings.

#### • Maintain Proper Drainage

Make sure gutters and downspouts are clear and ground surfaces are properly sloped to keep water moving away from the base of the foundation. Prevent splashing from roof runoff that can stain and deteriorate wall finishes. Soil buildup or erosion around the house can affect the drainage characteristics and contribute to deterioration of the walls.

#### Keep the Walls Clean

Keep walls and ledges clear of dust and debris build-up, which can stain exterior finishes. Particularly on consistently shaded surfaces, dirt and moisture can cause mildew growth and harm the finish.

#### • Keep an Eye on Water

Your home has been designed and built to withstand normal weather; however, keep concentrated water such as roof-edge drainage from dripping or flowing onto walls and ledges. This will help prevent leaks, finish deterioration, and staining from dirt that is carried down with roof runoff. Take care to prevent irrigation overspray from spraying onto your home.

#### Do Not Puncture the Surfaces

Avoid any added penetrations of the exterior walls (attaching new wiring, shade covers, etc.) unless absolutely necessary. You cannot hold GHO Homes Corporation responsible for damages resulting from after-market changes to walls. Additions should be made by a qualified professional and sealed in a manner consistent with the exterior construction of the building.

### **STUCCO**

Exterior stucco is a durable, low-maintenance finish. It requires regular inspection and maintenance to keep it performing its best and to prevent the possibility of water intrusion.



Stucco Siding

### **Important Information**

- **Protect the Stucco.** As with all exterior walls, prevent water from dripping onto the stucco and from splashing up from gutter downspouts.
- **Cracking is Normal.** Stucco is a cement product, and has the same properties as concrete. Occasional hairline cracks can be expected, due to expansion and settling and may not be a defect in workmanship. Cracks in stucco are generally cosmetic in nature, and should be patched to avoid the collection of dirt and debris. Clean cracks to remove dirt that may have collected, and seal with an acrylic stucco patch and color match.
- Hints for Patching. Should your stucco finish require minor patching, there are stucco patch products available at home improvement stores. Stucco patching, especially at cracks, can be tricky and difficult to achieve permanence and an acceptable appearance. Significant patches are best performed by a qualified professional who can match and blend texture and color.
- **Cracks.** Should small cracks appear in your stucco due to shrinkage, we recommend that you fill the crack with caulk. Once the caulk is dry, repaint the area over the caulk with paint that matches the stucco color. Refer to the Sealants section for more information on selecting the proper caulk.

- Discoloration. If it is an integrally color coated stucco finish, do not be alarmed by wet "blotches" after rain. This is normally occurring surface absorption.
   However, repeated roof runoff or sprinkler overspray can cause discoloration of the stucco.
- **Keep the Foundation Clear.** Keep a minimum of four inches of clearance between the bottom of the stucco termination and the grade or landscaping (check local codes; some experts recommend six to eight inches). Keep a minimum of two inches (4-6" preferred) clearance between the screed and the top of any walking or hard surfaces. (See the "Foundations" section in this guide for additional information.)
- Integral Color Coats. If your stucco has an integral color coat, it should not be necessary to paint it for many years. If repainting becomes necessary, be sure you properly clean and prepare surfaces, seal where needed, and prime and paint with products recommended by a recognized paint manufacturer or store.

#### **Cleaning Tips**

Always begin with the most mild cleaning methods, and use stronger cleaners only when necessary. Try clean water and a soft brush first, and add mild soap if water is not strong enough. For tougher dirt or stains, use low-pressure water or appropriate chemical cleansers that are designed to remove dirt, grime, rust and other stains without harming the stucco surface. Consult the manufacturer's or installer's documentation prior to performing any maintenance tasks.

Recommended Maintenance Tasks	Frequency
Inspect surfaces for chipping or cracking. Repair chipped or cracked stucco with a stucco repair product.	Annually
Clean surfaces with a light pressure wash. Be careful around doors and windows where pressurized spray can actually seep around flashing and into wall framing.	Annually
Repaint or refog the stucco as weathering and exposure indicate.	Every 3–5 years and as needed

#### **Effects of Deferred Maintenance**

Failure to keep water off the stucco can cause discoloration which would require the application of a new fog coat to the stucco. Water penetrating chipped or cracked stucco can damage walls.

# **Foundations**

#### SLAB ON GRADE

Slab on grade foundations are built directly on the soil below the slab. Slabs built on expansive soils may need more attention than those built on other types of soils. Expansive soils shrink from loss of moisture and swell upon the introduction of water. If the shrinking and swelling movement of the soil is severe, the movement can cause unacceptable levels of stress in the concrete slab and may eventually cause damage to the foundation resulting in exterior wall damage, interior wall damage, and inoperable doors and windows.

Moisture may originate from rain water, underground water, etc. Dry soil may be the result of a variety of conditions such as overly dry weather conditions or trees that are in close proximity to the slab. Learn about the ground water table in your area to determine if groundwater is a serious concern worthy of close monitoring.

### **Important Information**

- Trees. Trees that are planted too close to your foundation can draw moisture
  away, consequently affecting the moisture content around your home. Avoid
  planting trees with extensive root systems close to your home. Plant trees no
  closer to your slab than the height of the tree at maturity. Regular watering of the
  trees planted near your home will reduce the trees' need to absorb the
  subsurface moisture that is needed for your foundation.
- **Subterranean Termites.** Do not install landscaping within 16 inches of the foundation. Only install irrigation outside of that plant line, in an effort to reduce the risk of termites.
- **Proper Drainage.** Avoid irrigation or roof-edge splash that will wet the weep screed or base of siding. It is vital to maintain the drainage away from the house.
- **Soil and Wood Chips.** Soil, wood chips, and other debris can add to the risk of deterioration, fungus growth, and insect infestation. Do not stack wood against the side of the house or use wood chips around the perimeter of the foundation.

Recommended Maintenance Tasks	Frequency
Inspect the grade around your home to ensure there is no standing water within five feet of the foundation.	Monthly in dry seasons/Weekly in wet seasons

Recommended Maintenance Tasks	Frequency
Check the gutter and downspout system during a rain to ensure that water is drained sufficiently away from the foundation.	Monthly in dry seasons/Weekly in wet seasons
Examine the drainage flows of flower and landscape beds that are adjacent to the slab. All water should drain freely away from the slab.	Monthly in dry seasons/Weekly in wet seasons
In areas subject to termite infestation, inspect the base of the wall for termite 'tubes' between the grade and the base of the wood framing.	Twice per year

### **Effects of Deferred Maintenance**

Failure to perform recommended maintenance may result in deterioration to your foundation and as well as water intrusion or damage.

# Lighting

The area lights around your home are for safety and aesthetics. They may be controlled by photo cells mounted on the side of your house or on the light unit itself. Your lighting may also be controlled by wall switches located in your home.



Exterior Light Fixture

# **Important Information**

- **Use the Correct Bulbs.** Do not exceed the bulb wattage recommended for the fixture. The heat from confined high wattage bulbs can damage the fixture encasement. Use exterior light bulbs for exterior fixtures and wet location light bulbs appropriately.
- **Keep an Eye on Water.** Keep water off the unit as much as possible. Ensure that roof drainage does not occur on or around the fixtures.

Recommended Maintenance Tasks	Frequency
Look for and replace burned out bulbs.	Monthly and as needed
Clean the encasement so light can shine at full illumination.	Quarterly

Recommended Maintenance Tasks	Frequency
Ensure that mounting screws and plates are tight and wall plate is fully against the exterior wall or soffit.  Inspect sealant at joints between light fixtures and walls.  Repair or replace the sealant as needed.	Quarterly

Failure to provide the maintenance required may cause danger if proper illumination is not maintained. Water and lack of cleaning will diminish the attractiveness and function of this feature.

# **Openings**

This section details the maintenance needed to keep the openings on your home such as doors, windows, and vents, weathertight and looking their best.

### **EXTERIOR DOORS**

The exterior doors in your home may include a variety of door types, materials, and finishes to complement your home's entry, openings to the yard or balconies, and utility areas. Regularly inspect the condition and operation of the doors, hardware, frames, and weatherstripping to ensure that the building interior is well-protected and secure.



Interior View of Front Door

# **Important Information**

- **Refinishing.** When door refinishing or repainting is necessary, do not overlook the door edges.
- **Additions.** If you choose to add alarms or additional security devices, do not compromise the weathertightness of the door and frame.
- **Protect from Water.** Prolonged moisture is a major enemy of exterior doors, and hosing down doors is not advised. Direct sprinklers away from doors and/or use drip irrigation in these areas.

- **Clean Gently.** Use mild household cleaners on your doors and *never* use abrasive chemicals on the doors or hardware. Consult a professional for specific products and applications to help extend the life of your door.
- Inspect Regularly. Check doors during major storms or windy conditions to gauge the performance and condition of weatherstripping, thresholds, and adjoining sealants. Make adjustments or repairs as necessary. Annually examine the sealants located between the door frame and wall finishes and repair or replace when needed.
- Thresholds. Door thresholds are located at the bottom of the door, and are
  designed to close the gap between the bottom of the door and the floor
  construction. Inspect regularly for water intrusion and ensure that the threshold
  is continuous and securely attached.

Recommended Maintenance Tasks	Frequency
Dust and clean composite doors as part of routine cleaning. Do not use water; consult the manufacturer for recommended cleaning products.	Regularly
When needed, apply a low sheen cleaner and finish protectant to composite doors to remove surface contaminants and protect the finish.	Regularly
When vacuuming, run the nozzle along the tracks of all sliding doors. This will help remove debris and help prevent damage to rollers. This will also allow for proper drainage during rains.	Monthly
Inspect weatherstripping to ensure it forms a tight seal against the door surface when the door is shut.	Quarterly and in hot and cold seasons
Remove the snap-in closure over a portion of the sill track to clear dirt accumulated there.	Twice per year
Check door finishes. Touch-up and reseal as needed.	Twice per year
Use a spray silicone lubricant to keep your sliding door hardware functioning smoothly and reduce possible friction that might cause excessive wear.	Twice per year
Clean and adjust the hardware if door latches, locks, and rollers are difficult to operate or if the door is not sliding properly.	Twice per year
Examine the sealants located between the door frame and wall finish and repair or replace when needed.	Annually

Recommended Maintenance Tasks	Frequency
Refinish exterior of wood faced doors.	Every 2–3 years or as needed

Failure to maintain the doors will result in improper functioning and shorter life.

### GARAGE DOORS

Garage doors are important for the security of your home, so keep them in good working condition. Metal garage doors are typically constructed of steel with a low maintenance, painted finish. As with all of the products installed in your home, become familiar with the manufacturer's recommendations for using and caring for the door and opener.



Garage Door

# **Important Information**

- **Metal Surface Touch-Up.** Metal doors with a manufactured coating do not require repainting. However, should the door become pitted or blemished from wind-blown dirt or debris, touch-up the finish with a matching auto paint to prevent the aluminum base from being exposed to the elements.
- Close Doors During Inclement Weather. Large amounts of heat can be lost, even when the garage is unheated and lightly insulated. Also, rain may saturate and distort wood overhead garage doors and frames.
- Prevent Obstructions. Take care to avoid any interior storage that might obstruct
  or damage the tracks and guide. Do not block the light beam at the base of the
  door or place items in line with the door base that can interrupt closing of door. If
  the garage door will not close, inspect the safety light beam and remove any
  obstruction. Realign if necessary.



**Note:** In the event of a power failure use the manual release cord to open the door.



**Warning:** If rust or deterioration of the door springs is discovered, repair or replacement should only be done by a professional service person, as these springs are typically under tension.

Recommended Maintenance Tasks	Frequency
Clean the light beam assembly at the base of the garage door.	Monthly
Examine for any loose track or spring mounting bolts or screws, as these can affect the door alignment and operation.	Quarterly
Lubricate the moving parts of the doors.	Twice per year
Check and tighten the door hardware. Inspect for rust, deterioration, and distortion of door counterbalance springs. A water-displacement spray will help control rust.	Annually
Check surface for pitting or blemishes. Touch-up as needed.	Annually and as needed
Examine the finish on wood doors. Touch-up or repaint as needed. Repaint painted doors as conditions indicate.	Annually
If installed, check supplemental hurricane hardware and fasteners for proper quantity, fit, and condition.	Prior to hurricane season (April 1st) or per manufacturer's recommendations
If installed, ensure that automatically activated hurricane attachments are functioning properly. Clean as needed.	Prior to hurricane season (April 1st) or per manufacturer's recommendations
Clean with a hose and spray nozzle to remove dust and dirt from the garage door. Use a mild detergent to remove stubborn grime from the door if needed.	As needed

# **Effects of Deferred Maintenance**

Deferred maintenance of your garage doors will detract from the appearance of your home, wear out the working parts and surfaces of your doors, and increase energy bills.

# **VENTS**

There are several types of vents found in various locations on the exterior of your home: attic ventilation (such as soffit vents), kitchen and bathroom exhausts, etc. All are important for the proper ventilation of your home. Many vents have a "flapper" under the hood to prevent pest entry and cold or hot outside air "back draft."



Attic Vent

# **Important Information**

- **Prevent Obstructions.** Take care not to obstruct vents with shrubs or anything left leaning against the side of the house.
- **Do Not Paint Vent Screening.** When painting, do not paint the attic vent screening.

Recommended Maintenance Tasks	Frequency
Lubricate the flapper hinge with a product such as WD-40 or equivalent.	As needed, typically every 2 years
Have vent pipes cleaned professionally.	At least every 3 years

#### **Effects of Deferred Maintenance**

Failure to maintain may result in the vents rusting. A permanently open vent can allow birds or rats to nest.

# **WINDOWS**

Windows are an important component in your home's energy efficiency, beauty, and security. Windows are typically made of vinyl or aluminum, and will last longer with regular inspection and care.



Window

# **Important Information**

- **Do Not Seal Weep Holes.** Window frames are designed to collect water during a rainstorm and drain it out at the bottom through weep holes. It is normal to find some water within the inside track during heavy, windblown rain. *Do not caulk the weep holes when caulking around the window!*
- Clean Gently. Do not use hydrocarbon cleaners such as gasoline, kerosene, or oil to clean vinyl windows and frames. Avoid using abrasive cleansers and scrubbers.
- **Tint Cautiously.** Refer to the window manufacturer's documentation before tinting any windows. Some window warranties may be voided by aftermarket tinting.

# **Cleaning Tips**

Always begin with the most mild solution and test the cleaning method in a non-conspicuous location. Keep cleaning solutions away from the adjacent walls, as wall finishes can be harmed by some cleansers. During routine cleaning, inspect the interior for stains that may indicate water intrusion. Pull back the carpeting at thresholds to observe the tack strip or floor sheathing for staining.

#### **Aluminum Frames**

Clean with warm soapy water. Clean stubborn stains with mineral spirits as recommended by the manufacturer. Solvents and abrasives can destroy sealants, gaskets, and finishes. Aluminum surfaces that have become dull can usually be restored with a quality car cleaner and wax.

#### **Vinyl Frames**

Use a soft cloth or sponge and mild dish soap and water. Rinse with clean water and wipe dry. For stubborn stains, refer to product information or contact the manufacturer for recommendations.

#### Glass and Glazing

Wash with a mild window washing solution. Clean interior glass with a premixed vinegar-based cleaning solution (1 part white vinegar to 1 part water) and a soft towel. Rinse with clear water. Avoid using ammonia or alcohol-based cleaners, as they attract moisture and dirt. Do not clean in direct sunlight. Avoid power-washing, as it can damage seals and weatherstripping and result in leaks to the interior.

Remove grease, oil, tape, and paint with non-abrasive cleansers. Apply cleanser with a soft cloth or towel and rub the area, taking care not to allow the cleanser or solvents to come in contact with the adjacent framing. Do not use razor blades, as they can scratch the glass and cause it to break.

#### **Hardware**

Most finishes can be cleaned with water and mild soap. Apply a thin layer of dry lubricant (such as paraffin, silicone, or graphite finish, as recommended by the hardware manufacturer) to the clean, dry surface. Avoid using oily lubricants, as they attract dust and grime. Use graphite on locks, keyways, and hinges. *Note:* Vinegars, citrus-based cleaners, and paint removers can damage hardware finishes.

Recommended Maintenance Tasks	Frequency
Clean windows and frames as part of routine cleaning.	Regularly
Clean window tracks of any debris to keep the weep holes free of blockage to prevent water from leaking into your home. Always inspect before the rainy season.	Regularly, with routine cleaning
Lubricate window tracks with silicone or paraffin sprays.  Avoid oil, as it attracts dust and lint.	Twice per year and as needed
Check the sealants between the window frame and wall finish, and repair or replace when needed.	Annually, before the rainy season
Examine double or triple glazed windows to ensure that the seal has not deteriorated or been damaged. Replace panel when the seal is compromised.	Annually

Deferred maintenance will result in diminished appearance, more difficult opening and closing of windows, and possible water damage.

# **Roof Systems**

### **ROOFS**

Since your roof is overhead, not easily accessible and tends to be "out of sight, out of mind," it is particularly necessary to develop and follow a strategy and program for its inspection and related maintenance.

The roof is the most exposed part of your house, so roofing materials have been carefully selected that are not only attractive but durable. Extreme exposure to sun, rain, wind and accumulated wind-blown dust and debris constantly impacts your home's roof and can significantly shorten its life and result in costly damages to your home if you do not monitor and maintain it properly.



# Inspections

Nothing is more critical to the long-term performance of your roof than following a program of regular inspections and proper maintenance. The longevity of your roof is also dependant on the type of roofing material installed, as well as the local climate. There are several different types of roofs used in residential construction. These include tile and shingle materials, and may be installed on flat, low, or high pitched roofs as appropriate. While general roof maintenance applies to most types, some require additional maintenance inspections and tasks. Follow the recommendations in this chapter.

Roofing manufacturers strongly advise homeowners to **stay off the roof**, especially tile and shingle roofs. When access to the roof is necessary, proper use of ladders and roof safety measures must be applied. If your home's design incorporates a particularly steep roof pitch, it may limit your access by any normal method. Consequently, it is advisable that you develop an alternative method to inspect your roof, using binoculars or careful ladder access to check the roof from the edges.

You may wisely choose to use professional services for at least a portion of your roof inspection needs, as well as for repair and maintenance tasks. Repairs to the roofing assembly should always be done by a licensed, qualified roofer. Nothing is more critical to the long-term performance of your roof than following a program of regular inspections and proper maintenance.

One critical area to inspect regularly is flashing. Flashing includes the assemblies, usually sheet metal, that terminate the roof against walls, chimneys and parapets, and provides collars and transitions around pipes, vents, or other roof penetrations. It typically has laps and junctures that need to remain closed to weather, and may include sealant as part of the assembly.



Example of roof penetration flashing



**Caution:** Damaged flashing contributes to three-fourths of all roofing problems. Pay special attention to this important component especially at patios, chimneys, above and below windows, and at corners.

Recommended Maintenance Tasks	Frequency
Check the interior ceiling and attic for roof leaks and repair leaks immediately.	Twice per year and after storms
Examine the general appearance for debris, drainage, and general condition.	Twice per year and after storms
Inspect the attic for proper ventilation. Install additional vents or mechanical venting if high levels of heat occur. Ensure that vents are not blocked.	Twice per year

Recommended Maintenance Tasks	Frequency
Check sheathing and rafters or beams for condensation, mold, or other signs of inadequate ventilation.	Twice per year
Ensure gable end, ridge, and eaves vents (if present), are clear and unobstructed. Ensure that mechanical vents and thermostat controls are operable.	Twice per year
Professionally examine for any damage, slipping, or lifting of the roofing and related flashing. Inspect flashing at edges and around pipe collars to ensure laps and seals are in place and unbroken. Repair as needed.	Annually and after storms
Check sealant joints to ensure they are not cracking, split, or incompletely adhered. Repair or replace as needed. (Refer to the "Sealants" section in this chapter for additional information on this topic.)	Annually
Trim nearby trees to prevent branches from impacting the roof during windy conditions. Keep branches from spreading over roof areas, as frost can cause branches to break off and damage roofing.	Annually
Lightly pressure wash concrete and clay tiles.	As needed, as exposure indicates

Failure to provide the maintenance required may result in greater repair expenses and potential damage if water penetrates the membrane.

# **GUTTERS AND DOWNSPOUTS**

The gutters and downspouts are designed to collect water from the roof and direct it to a safe drainage pathway at the ground or to a subsurface drain. It may be helpful to observe your gutters during a heavy rain to ensure they are effectively handling the roof runoff. Do not place ladders against the gutters, as this may dent the gutters.



**Gutter and Downspout** 

# **Important Information**

- **Underground Drainage.** Downspouts may continue below grade and drain at a lower level, away from the house. Seasonally inspect for the proper functioning of buried drains by flushing the drains and observing for the proper exiting of water at the exposed end of the drain.
- Check for Runoff. While the roof and gutter system is designed to substantially collect all runoff directly into the gutters and downspouts, concentrated or confined areas of roof runoff (such as at the ends of gutters and roof valleys) may overrun the gutter. Adding an additional diverter made from aluminum may aid in collecting this water and avoiding staining to the walls and fascia.
- Trees. Debris such as leaves, twigs, other vegetation, and bird's nests can accumulate in gutters and clog downspouts, especially where trees grow near the home. Installing leaf guards over the gutters can help reduce this problem in areas with heavy vegetation.
- **Downspouts.** Downspouts should drain water *away* from the house. If necessary, add three to five foot extensions to the downspouts to ensure proper drainage. Water should *never* pond near the base of your walls.

• **Splash Pans.** Splash pans may be installed at the drainage end of the downspouts. The splash pans may be heavy and settle over time; the heavy weight at the back of the pan can result in the splash pan tilting towards the foundation. It may need periodic lifting by adding soil or gravel beneath it.



Downspout



**Caution:** Added diverters should in no way block the drainage at the roof edge, which would create an additional problem rather than a solution.

Recommended Maintenance Tasks	Frequency
Examine and clear gutters of all debris. Where adjacent trees or windy conditions have caused the build up of leaves, flush gutters and downspouts with a hose jet as necessary.	Seasonally and as needed
Clear dirt and roofing surface granules that may build up in the bottom of the gutter, as they can slow or impede the downspout drainage	Seasonally and as needed
Inspect the fascia boards and adjacent walls for stains indicating leaks or incomplete roof-to-gutter laps. Repair as needed.	Seasonally
Flush underground drainage pipes to remove debris buildup and ensure proper drainage from the downspouts.	Seasonally

Recommended Maintenance Tasks	Frequency
Check any seams or joints in the gutter and downspout system to determine if resealing is necessary.	Annually
Re-paint painted gutters and downspouts.	As needed, typically every 3–5 years

Failure to provide the maintenance required may result in broken and leaking gutters, from which water damage and staining can result.

# **Sealants**

Sealants are important in constructing and maintaining watertight and airtight building envelopes. Sealant is an elastic compound used to fill the small crevices, holes, separations, and joints between similar and different building components or materials. They are used to seal joints, terminations of waterproofing membranes, around windows and doors, and at flashings. These openings typically cannot be sealed by any other means to prevent the passage or penetration of wind, rain, water and dust.

There is a distinction between caulking and sealants. Caulking refers to products that are manufactured for interior use, and are often used by painting contractors. They are lower-grade materials that are used as a filler between dissimilar materials.

Sealants are higher-grade materials than interior caulking, usually applied to exterior building components, and exposed to the elements.

Polyurethane and Silicone sealants are the best choice for components such as stucco, trim, rough concrete and wood siding joints. Polyurethane is paintable, but silicone is not. It is sometimes referred to as a sash and trim sealant. These come in different grades with different extension and compression capabilities and strengths.

Latex or Butyl sealants are latex or oil-based, less expensive, lower grade (often referred to as "painter's caulk"), and are more appropriate for non-critical "hole-filling" before painting.

# **Important Information**

- Proper Preparation. As with repainting, caulking and sealing is only as effective
  as its preparation. Follow directions for surface preparation as an improperly
  prepared surface may lead to early loss of adhesion.
- Expansion Joints. Do not seal expansion joints as these are used to
  accommodate natural shifting and settling in your house. Take note of what was
  or was not caulked or sealed as part of the original construction, or ask GHO
  Homes Corporation's customer service department. In addition to expansion and
  contraction joints, keep areas such as window sill weep holes and exterior wall
  base screeds clear for movement or drainage.
- Inspect the Surfaces. No amount of sealant will correct deteriorated surfaces. If there is already rust or rot present, repair affected areas prior to applying sealant.

- **Follow Instructions.** Always read and follow the manufacturer's instructions on the sealant package and for the component itself. Use the appropriate sealant for the application.
- Inspection and Replacement. Check sealants regularly. Sealants should be elastic (recover after deformation). Remove and replace sealants that are cracked, split, or incompletely adhered.



**Note:** Use a primer or cleaner where required as recommended by sealant manufacturer when resealing.

Recommended Maintenance Tasks	Frequency
Examine for cracking or incompletely adhered caulking and sealant, and repair or reapply as needed. Common areas for this maintenance are around wood trim, light fixtures, and windows.	Annually

#### **Effects of Deferred Maintenance**

Failure to provide the maintenance required will result in water intrusion and possible damage.

# **Trim and Accents**

Wood and metal trim (including the wood fascia) are used on your home for both beauty and function. They finish and protect your roof edges, and may be used as railings and to accent your windows, doors, or decks. Surfaces should be well-sealed and painted at all times.



Accent

# **Important Information**

- Protect Wood Trim. Prime all wood surfaces and inspect annually for signs of
  insect attack or rot. Annually treat wood that is in contact with the ground with
  an approved preservative.
- **Proper Roof Maintenance.** Proper roof maintenance is important for maintaining the life of your wood trim. Maintain flashings, proper roof drainage, and avoid excessive debris accumulation on the roof.
- Metal Trim. Exposed steel will rust. While galvanizing provides some protection, the zinc coating is a sacrificial layer with a limited lifetime. Repairs should be made using similar metals to avoid bi-metallic corrosion.
- Protect from Water. Water is the biggest danger to these components. Be sure
  to follow the maintenance requirements in the gutters and irrigation system
  sections.

Recommended Maintenance Tasks	Frequency
Check for chipping, peeling, or other signs of finish failure. Pay attention to gaps, separation of trim, and staining or rotting resulting from moisture intrusion. Replace trim that is damaged or rotting.	Annually
Examine to ensure that railings are secure.	Annually
Inspect for gaps and caulk where needed.	Annually
Check to ensure that the shutters and accents are secured to the side of the house.	Annually
Treat wood surfaces that come in contact with the ground with an approved preservative.	Annually
Prep and paint the surfaces as exposure and weathering indicate.	Every 2–3 years in the sun or every 4–5 years in the shade

If the paint fails, water may gain access to the surfaces, resulting in damage and higher replacement costs.

# **Landscape and Irrigation**

# **Landscape and Irrigation: Overview**

The landscape and irrigation around your home plays an important role in the overall beauty of your property, as well as helps to preserve proper water drainage and prevent erosion. Well-maintained landscaping and hardscapes will help increase the value of your property. Landscape maintenance is divided into four main categories: Drainage and Irrigation, Hardscape, Plants, and Walls and Fencing.



Proper maintenance of your landscaping components has important consequences for the long-term protection of not only your home and property, but your neighbor's property as well. Neglected or improper maintenance may result in moisture intrusion or erosion.

Refer to your CC&Rs to determine what maintenance responsibilities or limitations may apply to your property and areas where your property borders the common area. Planting regulations and hardscape addition rules may be in effect.

#### **General Guidelines**

#### Underground Utilities

Your home has underground utility services such as sanitary sewer and water. There may be other utilities brought underground into your residence such as gas, electrical power, and telephone. These underground utilities occupy trenches under the surface of landscape. Prior to digging holes for planting trees, installing any new trenches for irrigation systems, cable, etc., learn where the existing underground trenches are, how deep they are, and what utilities are in them. Many states require that a utility locator service survey the area to be excavated. Contact your local power or telephone company to determine local requirements before digging.

#### Subterranean Termites

Do not install landscaping within 16 inches of building foundations, and install irrigation only *outside* of that plant line. Do not install fence posts, trellises, or any other wood decoration that touches both the ground and your home.

#### Drainage and Foundations

Keep plants that require heavy watering away from your home's foundation. Where possible, pave two feet immediately adjacent to the foundation.

#### • Report Common Area Problems

If your home is in an HOA, report any common area landscaping or irrigation problems to your HOA representative immediately.

#### • Preserve Drainage Design

Landscape or hardscape additions that change slopes or grades can affect drainage. Keep water moving *away* from your house. Many communities are built so that water drains from yard to yard. If you install landscaping or hardscape (patios, walkways, or walls) that interfere with this flow, you may create a significant problem and be liable for damage. Always consult an expert when work affects drainage.

# **Drainage and Irrigation**

#### DRAINAGE AND GRADING

Maintain proper drainage and grading to best protect your landscaping, home, and property from water damage. Your lot has been graded to facilitate drainage of water to the street or other approved drainage structures. It is essential that you maintain proper grading and drainage to prevent pooling that could affect your foundation slab. Furthermore, you could be liable for any damage from water diverted to your neighbor's property. If you choose to add rain gutters and downspouts to your home, make sure that water is properly directed away from your home and to the proper drainage channels. Water should not stand near your home's foundation.



#### Caution: Water is the #1 potential hazard to your home!

Be sure to keep the adjacent grade sloped away from your home to allow water to drain properly.

## **Important Information**

- Maintain the Grade. Be sure to keep the grade sloped away from your foundation per local codes (typically a slope of 2% to 5%). Check local codes to see what is required for the city or county your home is located in.
- **Keep Area Drains Clear.** Drains may be a part of your drainage system, and are often installed around your home to remove excess surface water from the landscape. Keep drains free from blockage in order to prevent clogging and flooding. Wood chips may float up and block drains; consider using landscaping stones for 2–3' around drains if wood chips are used in a landscaped area.

#### **Effects of Deferred Maintenance**

Landscape drain blockages may lead to flooding in lower ground areas, surrounding lawns, or plants. Severe flooding may also affect nearby hardscape or structures, as well as contribute to soil erosion.

# **DRIP SYSTEM**

Drip emitters disperse water from the irrigation system to the plants. Every attempt has been made to provide efficient coverage for all areas irrigated by the drip emitters. However, because every area is a unique shape, with varying sun, wind, and soil conditions, dry (or wet) spots may develop.



**Drip System Emitter** 

# **Important Information**

Monitor for Oversaturation. The drip irrigation system is extremely efficient at
delivering water to the plants' root system. As the plants mature, they typically
require less water from the drip emitters. Inspect the plants for signs of
oversaturation, and adjust the drip irrigation system as needed.

Recommended Maintenance Tasks	Frequency
After any irrigation repair, flush piping and re-test for proper function.	As needed
Check for broken or clogged emitters.	Monthly
Operate the air and flush valves.	Quarterly

#### **Effects of Deferred Maintenance**

Failure to examine, replace, and adjust irrigation system components may result in inadequate or surplus water supply, affecting nearby grass, trees, and other plant life. Over watering will eventually lead to soil erosion, and could harm nearby structures and/or hardscape surfaces.

# **HOSE BIBS**

Hose bibs are located at various points on the exterior of your home. Hose bibs require very little maintenance, but should be regularly inspected to ensure they are not leaking and that the valve is working properly. If a leaking or damaged hose bib is discovered, repair it *immediately* to prevent water damage to adjacent surfaces and components.

Some hose bibs are equipped with anti-siphon valves, which is in essence a small backflow preventer. These devices prevent non-potable water from flowing back into the water system, and are most often found in hose bibs used for irrigation.



Hose Bib

Recommended Maintenance Tasks	Frequency
Inspect the hose bibs to ensure they are not leaking.	Regularly
Test the valves to ensure they are working properly and close tightly. Repair or replace parts as needed.	Quarterly

#### **Effects of Deferred Maintenance**

Failure to inspect and maintain the component may result in higher repair or replacement costs and damage to adjacent components and systems.

# **IRRIGATION PUMP**

Your community's irrigation systems may use well water for irrigating the landscaping. The irrigation pump for your lot is your responsibility. The irrigation pump requires little to no maintenance; however, should it stop working properly, refer to the Owner's Manual for troubleshooting and repair information.

# **Important Information**

- **Prime the Pump.** Before performing maintenance or repairs, prime the pump according to the product Owner's Manual.
- **Motor Replacement.** If the motor is replaced, replace the shaft seal per the Owner's Manual.
- **Lubrication.** Check motor label for lubrication instructions. The mechanical shaft seal in the pump is water lubricated and self-adjusting.
- **Drain the Pump.** Drain pump when disconnecting from service or when it might freeze.

#### **Effects of Deferred Maintenance**

Failure to maintain the pump may result in premature failure of the unit.

### IRRIGATION SYSTEM AND CONTROLLER

A comprehensive maintenance program will help ensure the reliability of the irrigation system. The irrigation system includes all of the components necessary for distributing water to your landscaping. When installing additional irrigation equipment, make sure the new equipment is compatible with the system that is already installed.



**Irrigation Controller** 

# **How the System Works**

The irrigation controller is the master control that regulates the irrigation process. It maintains the time of day and controls how often the irrigation system disperses water. It turns the irrigation valves on and off according to a programmed watering schedule. The controller has a battery backup, which should be inspected after power outages to verify that the timing schedule has not been lost if the battery is not fresh.

Only water when plants and weather conditions require. Watering is typically best done in the early morning when wind and temperatures are low. Evening watering may encourage plant diseases such as fungus when foliage is wet all night. Also, once plants are established, watering tends to be more effective when done less often and deeper, if weather and soil conditions allow.

Changing short-term weather conditions and seasonal changes will require fine-tuning the program for proper watering. During wet seasons or extended rainy periods, shut down the controller until additional water is needed in the landscaped areas. Your system utilizes a rain sensor that will turn off the system while it is raining. The goal is to apply only as much water as the plants need for healthy growth.

Because plant growth and weather vary by month, inspect water application amounts on a monthly and seasonal basis and adjust as needed to allow for site-specific conditions. Exposure, weather, soil variables, and other factors which cannot be predicted will affect the amounts of water needed and irrigation schedules should be adjusted accordingly.



**Note:** Apply water only in amounts necessary to meet plant needs, without excess. Unusual increases in water bills can be indications of leaks in the irrigation system.



**Caution:** Check the system after electrical storms, as lightning strike may affect the system.

#### **Mainline and Lateral Pipes**

The mainline and lateral pipes carry water from the water source to, and between, the disbursement points (sprinkler heads). Mainline (supply) pipes are "hot" (always pressurized) and connect the valves to the water source. Lateral pipes are filled with water only when a remote control valve is opened to serve a group of sprinkler heads.



**Caution:** Repair plastic (PVC) irrigation supply and lateral pipes immediately if leaking is detected. As with the other components of the irrigation system, repairs that are not attended to immediately could result in long-term damage to plant life and cause soil erosion in the affected areas.

Recommended Maintenance Tasks	Frequency
Examine controller for moisture damage and corrosion. Inspect for dead backup batteries, loose connections, deteriorated weatherproofing or damaged hardware.	Monthly
Check the controller to ensure the scheduled program is working properly, and adjust for proper watering.	Monthly
Adjust each irrigation station run time in response to changing weather conditions and plant needs. Record changes to irrigation settings.	Monthly and as needed
Reset the controller schedule for Daylight Saving Time (where applicable) and after any power failures. Keep a fresh battery in the controller to minimize the need for resetting.	Twice per year and as needed
Replace the backup battery.	Annually
Replace the controller(s) as they fail.	Every 4–5 years and as needed

Failure to examine the controllers may result in inadequate or overwatering which, even for a short period of time, may be disastrous to surrounding landscaping. Overwatering may cause water accumulation that may lead to plant death, pavement failures, slippery pavements, and surface waterproofing problems.

# SPRINKLER HEADS

Irrigation sprinklers disperse water from the irrigation system to the plants. Irrigation systems are designed to provide double-coverage for all areas irrigated by the sprinkler system. However, because every area has a unique shape with varying sun, wind, and soil conditions, dry (or wet) spots may develop.



Irrigation Sprinkler Head

# **Important Information**

- **Risers.** As shrubs grow, it may be necessary to add risers to some sprinkler heads or trim shrubbery so spray patterns are not blocked. It may be necessary to stake irrigation heads for risers 12" or taller to maintain performance. Heads can start to tilt or sway if tall risers are not secured.
- Prevent Overspray. While the sprinkler patterns have been chosen to keep
  overspray to a minimum, windy conditions, plant growth, and other factors will
  sometimes result in isolated overspray or underspray problems. Regular
  inspections will identify such areas. Make necessary adjustments immediately.
  Use the manual run function of your sprinkler system to inspect the coverage and
  flow of your sprinkler heads.
- Flush the System After Repairs. Flush and re-test the piping after repairs to the irrigation system to ensure the sprinklers are functioning properly and providing adequate coverage.



**Caution:** Keep water off structures and hardscape to prevent damage and slipping hazards.

Recommended Maintenance Tasks	Frequency
Check the amount of water being applied and adjust, if necessary.	Weekly
Examine for broken or improperly adjusted sprinkler heads, clogged or worn nozzles and gear drives, grit in seals or moving parts, mower or other physical damage, and broken sprinkler lines.	Monthly and as needed
Inspect for appropriate sprinkler coverage. Check for proper spray pattern, and ensure that structure walls are not in the spray pattern. Adjust the riser height of sprinklers as needed.	Monthly
Compare and analyze the site and plant conditions to determine if the water amounts are appropriate. Make adjustments if necessary.	Annually

Failure to examine, replace, and adjust sprinkler system components may result in inadequate or surplus water supply, affecting nearby grass, trees, and other plant life. Overwatering will eventually lead to soil erosion, and could harm your house and/or hardscape surfaces.

# **VALVES**

Valves are the remotely controlled irrigation valves that, in conjunction with the irrigation controller, regulate the flow of water throughout the system.



Valve Boxes



**Note:** The water pressure supplied to the valve should be at least 50 psi, not to exceed 60 psi. Test the system upstream of the valve connection and adjust/install a pressure regulator as needed.

Recommended Maintenance Tasks	Frequency
Manually operate and visually inspect the valves to ensure they are operating properly. Check quick coupling valves, and ball or gate valves.	Monthly
Schedule a thorough inspection for diaphragm or seat wear, sticking solenoids or diaphragm, corrosion of wire connections, clogged screens and orifices, and debris or stones lodged under the valve.	Annually

#### **Effects of Deferred Maintenance**

Because the remote control valves control the disbursement of water, repairs that are not attended to could result in long term damage to landscaping in the affected areas.

# **Fencing**

### FENCING: OVERVIEW

There are several different types of fencing found on residential properties. Each type requires different maintenance tasks and frequencies. However, no matter what kind of fencing you have there are some common guidelines.

#### **General Guidelines**

#### • Trim Landscaping

Keep landscaping trimmed away from walls and fencing.

#### Do Not Change the Grade

The grade of the ground next to a wall or fence has been designed by an engineer. Changes may cause tilting and cracking.



**Caution:** As much as possible, *keep sprinklers directed away from the fencing*. Prevent water from ponding near fencing. Water, especially reclaimed water, can cause premature deterioration of the fencing materials.

# **METAL FENCING**

Metal fencing is generally constructed of tubular steel or wrought iron. Maintenance is necessary to prevent rusting where the surface coating or paint is deteriorating, or where water or damp soil is allowed to accumulate around the support post bases.



Metal Fencing



**Note:** When repainting your fence, be sure to clean the fencing, wire brush away any loose paint or rust, and use a rust-inhibiting primer *the same day*. Paint with high quality exterior "industrial" enamel.



**Caution:** As much as possible, *keep sprinklers directed away from the fencing*. Prevent water from ponding near fencing. Water, especially reclaimed water, can cause premature deterioration of the fencing materials.

Recommended Maintenance Tasks	Frequency
Inspect the length of the metal fencing for scratches, blisters, or peeling paint.	Annually
Check the post bases (down to the top of the concrete footings) to ensure they are not below the soil surface and subject to rust.	Annually
Repaint or repair finish. Touch-up as necessary.	Every 3–5 years and as needed

#### **Effects of Deferred Maintenance**

Failure to maintain or lack of control of unnecessary water, soil buildup, and adjacent plantings, may result in premature deterioration of fencing materials, as well as a poor appearance.

# VINYL FENCING

The vinyl fencing is resilient and low-maintenance, and will maintain its appearance and durability over time. The fencing is composed of through-color PVC. The fencing may need to be washed to maintain a bright appearance. Refer to the manufacturer's documentation for the best cleaning techniques. Refer to the Vinyl Siding Institute's website at www.vinylsiding.org for more information about vinyl siding.



Vinyl Fencing



**Caution:** As much as possible, *keep sprinklers directed away from the fencing*. Prevent water from ponding near fencing. Water, especially reclaimed water, can cause premature deterioration of the fencing materials.

# **Important Information**

• Avoid Contact with Heat. Keep all heat sources, such as grills, mulch or trash, away from the fence. Vinyl is a flammable material.

Recommended Maintenance Tasks	Frequency
Clean fencing by removing surface accumulation with a garden hose. Tougher stains can be removed with a power washer or non-abrasive vinyl cleaner.	Regularly
Inspect vinyl fencing for loose components and signs of damage. Replace damaged components; refasten loose fencing.	Annually and after storms

## **Effects of Deferred Maintenance**

Failure to properly maintain the fencing will result in reduced aesthetic appeal, and premature deterioration of the fencing material.

# Hardscape

The hardscape around your home may include walkways, patios, and other surfaces. Patios and walkways, if installed by GHO Homes Corporation, have been designed to meet the soil conditions and drainage patterns of your lot. If you add a patio or walkway as an improvement there are several very important things to remember.



**Backyard Patio** 

#### **General Guidelines**

#### Weep Screed Line

Do not pour a patio slab higher than 2–3 inches below the house foundation (weep screed line).

#### Proper Drainage

Provide a drainpipe or other means of drainage when patios or walks cross flow lines. Do not allow water to collect against your house or behind walks or planters.

#### Expansion Joints

Concrete surfaces such as driveways, sidewalks, and patios generally have expansion joints to reduce cracking. There should also be an expansion joint between the edge of these surfaces and the face of the foundation of the house. These joints are sometimes filled with 1" x 4" treated lumber that is set between the adjacent concrete. The joints can also be formed with a variety of sealants and or expansion joint filler.

#### Underground Utilities

Confirm the location of underground utilities *prior* to the planning and excavation of any hardscape features.

#### Maintain a Slope

Always slope concrete away from house (2% slope: 1/4 inch drop for every 12 inches of length) to a drain or swale.

#### Hire Professionals

Contract a licensed contractor and professional engineer who is knowledgeable about the building code requirements and soil conditions for your area. There may by structural reinforcements necessary for your improvements. Note that most municipalities require designs to be signed off by a licensed, professional engineer. Sidewalk and driveway construction details may be mandated by your municipality.

#### • Get Necessary Approvals

Obtain necessary approvals and permits from appropriate governmental agencies and your HOA's appropriate committee (if your community is governed by an HOA).

#### • Permeable Paving Materials

Consider using permeable paving materials, such as pavers or porous concrete, which allow water to seep into the ground rather than run off into storm sewers or pond on the pavement. Avoid using asphalt (a petroleum product) or other dark paving materials, especially in regions with hot summers. Dark materials absorb heat from the sun; on hot days this can contribute to a "heat island" effect around your home, which can increase the need for air conditioning. If adding concrete, consider using a white or grey concrete, to help reduce the summer heat island effect.

## **CONCRETE SURFACES**

The concrete surfaces include your driveway, garage, walkways, and patios. Walkways are the concrete sidewalks leading to your front door and backyard. Promptly repair walkways with hazards such as lifting and ponding of water. Tripping hazards should be promptly corrected.



**Expansion Joint in Concrete Walkway** 

## **Important Information**

- **Stain Removal.** Remove grease/oil spots from driveways with concrete cleaners from your hardware store.
- **Prevent Heavy Loads.** Do not permit heavy equipment, such as concrete trucks or moving vans, to drive on your concrete, as it was not designed for heavy loads.
- **Joint Fillers.** The joint filler in the expansion joints will deteriorate over time. The life of the filler may be dependent on environmental conditions such as the amount of rain or ultra violet radiation, or the amount of movement. Failure to replace these deteriorated joints will allow excessive water intrusion to enter the joints, eventually undermining the soils under the slab, and will cause these sections of concrete to shift vertically.
- **Expansion and Settling.** Concrete is a very hard type of material. However, small cracks due to expansion and settling are common. Seal cracks to prevent water penetration that can worsen the crack. Another element of concrete is spalling. Spalling occurs when the top layer of concrete begins to flake or wear away.



**Caution:** If chipping, lifting, separating, and cracking is discovered, determine if the cause of this condition may be related to roots that should be controlled or removed, or a drainage-related concern. Resolve the contributing factors to prevent future problems.

Recommended Maintenance Tasks	Frequency
Hose off walks. Schedule to coincide with mowing or other maintenance.	Quarterly
Inspect concrete for chipping, lifting, separating, and cracking, which can create a safety hazard that may result in homeowner liability.	Annually
Check the walkways adjacent to exterior walls for settling that may change the slope away from the house.	Annually
Examine the expansion joints in patios and walkways and replace the joint filler as needed. Ensure that the joint filler adheres to both faces of the concrete, and is not sagging, crumbling, or cracking.	Annually

#### **Effects of Deferred Maintenance**

Failure to adequately maintain the concrete around your home may create safety hazards. Serious cracks or fissures in walkways that remain unrepaired are a potential liability to you as the homeowner.

## **PAVERS**

Pavers are bricks laid over sand and earth and add a warm and elegant appearance to your landscaping. They require very little maintenance.



**Driveway Pavers** 

Recommended Maintenance Tasks	Frequency
Inspect to ensure that the bricks remain level. Reset uneven or loose bricks.	Annually and as needed
Clean oil stains left by vehicles.	As needed

## **Effects of Deferred Maintenance**

Failure to maintain may lead to early deterioration of pavers and diminish your home's appearance. Uneven pavers can cause trip hazards.

# **Plants**

### **PLANTS: OVERVIEW**

Grass, trees, and shrubs, if installed by GHO Homes Corporation, have been selected for their compatibility with each other, with architectural, site, and soil conditions. They grow at varying rates depending on climatic conditions, maintenance, and a host of other factors. The important thing to keep in mind is that the landscaping is a dynamic, living system and proper care is critical for it to mature successfully. When installing additional plants, always choose plants that are compatible with existing plants.



#### **General Guidelines**

#### Tips for Choosing and Maintaining Plants

If your lot has significant steep banks, selection and maintenance of plants and watering may have important consequences for drainage and erosion control. Keep plants from overgrowing drainage swales. When adding additional plants, consult with a local landscape architect or nursery regarding plants that are appropriate to local soil and other conditions.

#### Adjust Your Maintenance Schedules

The maintenance needs of your plants may change over time with the seasons and plant growth. Apply these changes to your long-term maintenance plan. You may want to consult periodically with a local landscaper to review the maintenance plan for your property.



**Warning:** Always closely follow the manufacturer's recommendations for any insecticides, garden chemicals, and fertilizers that you use on your property. Some may be toxic, and should be stored away from children and pets. Try minimal, natural controls first, if possible.

## **GRASS**

As with the other plants on your property, regular fertilization of grass is a must. Consult with a local landscape expert to determine the optimal fertilization schedule. Inspect periodically to evaluate the response to the prescribed fertilization schedule and make adjustments as necessary.

Weeds are common, more so during the early stages before plantings become fully established, and to a lesser degree thereafter. Maintain all areas weed-free.



Grass

## **Important Information**

- Pest Control. Control animal burrowing.
- **Ensure Proper Drainage.** Do not allow water to flow over slopes, as this will cause soil erosion.

Recommended Maintenance Tasks	Frequency
Mow grass areas. Gather and dispose of leaves and trash from planting areas. Remove grass as needed, by hand or spraying, from within 12 inches of tree trunks to eliminate potential damage from mowers and string trimmers.	Weekly
Edge grass areas.	Twice per month

Recommended Maintenance Tasks	Frequency
Apply fertilizers to replenish soil nutrients required for healthy grass and plant growth. Fertilization is usually best done in March, May, July, and September.	Four times per year or per landscaper recommendations
Remove weeds. Periodically apply appropriate herbicides to control unwanted weeds and grasses.	Twice per year and as needed
Aerate and vertically mow grass areas to relieve soil compaction and thatch buildup, allowing air and water to reach the root system.	Annually

## **Effects of Deferred Maintenance**

Failure to provide adequate maintenance may result in the deterioration of grass, as well as a poor appearance. Soil erosion may develop in areas where shrubs and other plant life have deteriorated.

## **SHRUBS**

Consult with a local landscape expert to determine the optimal fertilization schedule for the shrubs on your property. Periodically assess the shrubs' response to the recommended fertilization program and make adjustments as necessary.



Shrubs

## **Important Information**

- **Monitor Plant Health.** Monitor shrubs for signs of nutrient deficiency and treat as necessary. Treat fungal, bacterial, and viral infestations as symptoms appear.
- Monitor for Pest Problems. Apply insecticides to control infestations (such as aphids or white fly). Apply snail bait to prevent snails from damaging shrubs and plants.

Recommended Maintenance Tasks	Frequency
Apply fertilizer to shrubs. Fertilizing is typically best done in March, May, July, and September.	Four times per year or per landscaper recommendations
Prune shrubs and plants to prevent them from becoming "rangy" and to contain their size. Prune with care not to "poodle" shrubs.	Annually and as needed

#### **Effects of Deferred Maintenance**

Neglect may result in the deterioration of the shrubs around your home, eventually requiring removal, replacement, drastic pruning, or result in a poor appearance.

## **TREES**

The trees on your property will grow at varying rates depending upon climatic conditions, maintenance, and a host of other factors. Like the other plants, regular fertilizing of the trees is a must. Consult with a local landscape expert to determine the optimal fertilization schedule.

When choosing new trees, consider the size of the tree at maturity to ensure that it is appropriate for the intended location. Avoid planting trees in locations where roots or limbs may impact the foundation, paving, walls, etc. Do not plant trees with shallow (yet spread out) root systems within 20' of foundations and/or site walls. Also, consider the potential impact of trees on neighboring property.



Palm Trees

## **Important Information**

- **Root Pruning.** A proportional amount of foliage should be removed at the same time as roots are pruned. **Note:** Never root prune more than 25% of a tree's surface roots in any one year.
- Monitor Tree Health. Monitor trees for signs of nutrient deficiency and treat as necessary. Treat fungal, bacterial, and viral infestations as symptoms appear. Palm trees, if present, require palm-specific products for fertilizing and treatment of infestations. Consult a local landscaper or nursery for the application that is best for your trees.



**Note:** Do not allow your tree branches to overhang the roof of your home or your neighbor's home.

Recommended Maintenance Tasks	Frequency
Inspect water or breather tubes that may be installed at the tree base to ensure proper drainage. Remove standing water from breather tubes.	Monthly
Check trees to determine whether staking should be added, removed, or adjusted to promote growth in the appropriate direction and protect from wind.	Quarterly
Apply fertilizers within the drip line to promote healthy growth. Fertilizing is typically best done in March and September, or as appropriate for the tree species.	Twice per year or per landscaper recommendations
Examine tree trunk diameters. Replace trees planted in areas less than five feet wide when the trunk diameter exceeds six inches.	Annually and as needed
Thin or lace trees while dormant. Prune to remove dead, diseased, or weakened limbs and promote the healthy and symmetric growth of the tree. Remove limbs that may impact buildings under windy conditions.	Annually and as needed
Prune roots to prevent the potential cracking of sidewalks or driveways. Do not begin pruning roots until three years after the initial planting.	Annually
Prune palm trees, if present, to remove dead fronds.  Large palm trees are best pruned by a professional.	Annually and as needed

#### **Effects of Deferred Maintenance**

Failure to properly care for the trees may lead to the deterioration of their health and appearance. Improper staking or root pruning may result in long-term damage to the adjacent hardscape or structures.

# **Swimming Pool**

For all pool equipment, two rules apply: consult the manufacturer documentation and hire professionals. The recommendations made in this section are general to products typically installed in pool areas. Consult the manufacturer's documentation for model-specific care and maintenance; if there are conflicts between this manual and the manufacturer's recommendations, defer to the manufacturer. Always hire qualified professionals to service your pool equipment.



## **IAQUALINK WEB CONNECT**

Your swimming pool is equipped with a device that connects your pool equipment to a web-based system, allowing you to manage your equipment via the web, anywhere, anytime. The set-up guide and instructions for using your system are included in the Caring for Your Home menu on *Home Experience*.



**Caution:** All electrical work must be performed by a licensed electrician and conform to all national, state, and local codes.

## **DECK**

The deck surface is the concrete that surrounds the pool. Like concrete walkways, this component requires regular inspections.

## **Important Information**

- **Cleaning.** Do not wash deck debris into the pool or adjacent landscaping. Direct all deck debris into the surface drains.
- **Sealants.** Sealant is installed between the coping and the deck surface to prevent water intrusion and deterioration of the foundation, which may result in a lifting of the deck surface.

Recommended Maintenance Tasks	Frequency
Clean the surfaces to remove dirt and debris. Wash down the deck to remove spills and surface stains.	Weekly
Inspect the sealant between the coping and the deck surface for cracks. Inspect tiles around the edge of the pool, if installed. Replace broken and loose tiles.	Quarterly
Inspect the surface for lifting or separating to prevent trip hazards.	Annually
Replace sealants completely.	Every 2 years

#### **Effects of Deferred Maintenance**

Failure to provide the recommended maintenance results in a dirty deck. Concrete displacement may present a trip hazard.

## HAND RAILS

Hand rails help your family and guests safely access the pool.

Recommended Maintenance Tasks	Frequency
Inspect to ensure the hand rails are not loose; tighten wedges as needed.	Weekly

## **Effects of Deferred Maintenance**

Loose rails can result in slipping and potential injury. If left unrepaired, the condition may worsen and require more extensive and expensive repair.

## **POOL FILTER**

The filter for the pool cleans the water.

Recommended Maintenance Tasks	Frequency
Bleed air from filter tank.	Twice per week
Clean the filter. An indication of a dirty filter is a reading that is 10 psi higher than the start up pressure printed on the filter.	Twice per year and as needed

## **Effects of Deferred Maintenance**

Improper maintenance can lead to more frequent cleaning needs, low water flow, or cloudy water.

## **POOL HEATER**

The heater is used to heat the pool water.

## **Important Information**

- Pilot Flame Conditions. A blue flame indicates proper function; a yellow flame indicates restricted air openings. A lifted or blowing flame indicates high gas pressure. Should this occur, shut the heater off and contact the gas supplier or qualified service agency.
- **Storage.** Do not store items or chemicals near the heater. The heater must have fresh air around it for proper combustion. The fumes from corrosive or combustible chemicals such as chlorine, pool acids, or gasoline can contaminate the combustion air, resulting in damage to the heater (and voiding the warranty) or injury if the chemicals combust.

Recommended Maintenance Tasks	Frequency
Inspect the top of the heater and draft hood for soot, and open flue gas passageways. Clean sooty areas to ensure proper operation. Clean the room intake openings to assure adequate flow of combustion and ventilation air.	Twice per year
Visually inspect the burner and pilot flame—a blue flame indicates proper function. Clean the main burners and pilot burners to remove dust and lint. Inspect and manually operate all controls, gas valve, and pressure relief valve.	Twice per year
Remove and clean the heat exchanger and burner tray. Inspect wiring for frays and electrical continuity.	Annually

#### **Effects of Deferred Maintenance**

Failure to provide the recommended maintenance may result in premature failure and require replacement of the heater. Improper ventilation or storing combustible materials near the heater may result in injury.

## **POOL PUMP**

The pool pump works with the filter to circulate and clean the water on an established cycle.



**Note:** Rust and corrosion may form on the electrical panel and switch enclosures. If this condition is identified, refinish with an anti-rust base and one coat of anti-rust paint.

Recommended Maintenance Tasks	Frequency
Inspect and clean the skimmer basket at the side of the pool to remove debris or trash that may collect in the basket and choke off the water flow through the pump. Inspect the pump strainer lid for tightness. Do not overtighten.	Twice per week
Inspect the electrical panel and switch enclosure for rust and corrosion. Remove rust and refinish as needed.	Periodically

#### **Effects of Deferred Maintenance**

Accumulated debris restricts water flow, reduces the efficiency of the system, and may lead to a burned-out pump motor.

## **POOL TIMER**

The timer controls the frequency and duration of the water filter, heater, and pump for the pool. Proper timer usage and maintenance minimizes electricity usage and optimizes the performance of the pool equipment.

Recommended Maintenance Tasks	Frequency
Inspect the "visual wheel" to ensure it is moving. If it is stalled or is not keeping proper time, and it is receiving proper power, replace the inner mechanism of the timer only. Check the stop pins.	Twice per week
Change the timer for Daylight Saving Time.	Twice per year

#### **Effects of Deferred Maintenance**

Delayed or neglected timer maintenance may result in malfunction of the filters, heaters, and pumps. This may result in cloudy or even unsafe water.

### POOL WATER AND SURFACES

Maintaining proper water, pH, and chlorine levels are important for the health, safety, and enjoyment of your family and guests. Maintaining proper levels also extends the life of the pool surfaces and equipment.

## **Important Information**

- **Cleaning.** Clean water results in lower chemical expenses and helps preserve the surface of the pool. Therefore, drain and refill the pool as recommended.
- Salt Level Test. Use salinity test strips, a TDS/salinity meter, or another reliable method to test the salinity of the pool water. Once the existing salinity has been established, refer to the owner's manual for the salt water sanitation system to determine the amount of salt to add to reach the desired level. Be conservative when adding salt as it is easier to add more if needed than it is to dilute if there is too much salt.
- Metals Test. It is recommended that the pool water be tested periodically for the
  presence of metals such as iron, and manganese. These metals should not be
  present in the pool water. If those metals are present, contact your local pool
  professional.

### **Recommended Levels and Settings**

• pH (7.4-7.6)

• chlorine (1.0-3.0 ppm)

calcium hardness (175-400 ppm)

total alkalinity (80-120 ppm)

cyanuric acid (30-50 ppm)

Recommended Maintenance Tasks	Frequency
Keep the water at the recommended levels and settings of pH, calcium hardness, alkalinity, chlorine.	Daily
Keep the water at the recommended levels and settings of salinity and cyanuric acid.	Monthly
Take pool water sample to local pool store for testing.	Monthly
Test for the presence of metals. If metals are present, contact your local pool professional.	Monthly
Drain the pool.	Annually or as needed

Recommended Maintenance Tasks	Frequency
Acid wash the pool to remove superficial stains, fine scale deposits, and various colored deposits from the plaster. Acid washing should not be performed more frequently than every two years.	Every 2 years
Re-plaster the pool surfaces. A flaking surface is an indication that re-plastering is necessary.	Every 10 years and as needed

## **Effects of Deferred Maintenance**

Improper or neglected maintenance may result in algae and contaminant growth, and fouled water and surfaces. Pool system failure, water leaks, or failure of the plaster may also result.

### SALT WATER SANITATION SYSTEM

The swimming pool is managed by a salt water sanitation system. Maintaining proper water levels, pH levels, or other treatment levels are important for the health, safety, and enjoyment of the pool and users. Maintaining proper levels also extends the life of the pool and its equipment.

## **Important Information**

 Manufacturer's Documentation. Refer to the manufacturer's documentation for specific information regarding cleaning the cell.

Recommended Maintenance Tasks	Frequency
Evaluate the cell condition and clean as needed.	Monthly

#### **Effects of Deferred Maintenance**

Improper or neglected maintenance may result in algae and contaminant growth, and fouled water and surfaces. Pool system failure, water leaks, or failure of the plaster may also result.

# **Swimming Pool Safety**

Refer to the U.S. Consumer Product Safety Commission publications "Swimming Pool Safety Alert" and "Safety Barrier Guidelines for Home Pools" at www.cpsc.gov/cpscpub/pubs/chdrown.html for additional information.

# **Special Considerations**

This chapter contains information and recommendations for special topics that are important for you to be aware of. We encourage you to take a few minutes to read through this chapter.



# **Humidity Management**

Managing the humidity in your home is essential in the proper ventilation of your home, as well as in preventing moisture damage and mold. ASHRAE (American Society of Heating, Refrigerating, and Air-Conditioning Engineers) recommends that you keep your home at a relative humidity level between 30% and 60%. Most people are more comfortable when relative humidity levels are in this range. High humidity levels can encourage growth of molds and bacteria, as well as cause deterioration of building materials. Low humidity levels can not only be uncomfortable for occupants, but cause minor cracking in portions of your home. You can purchase a hygrometer to measure the humidity levels in your home.

## **Monitor Humidity in Your Home**

If dehumidifiers are not part of your home's standard features, it is your responsibility as the homeowner to monitor the humidity levels in your home and purchase and install a dehumidifier if necessary.

Inexpensive humidity meters can be purchased at your local hardware store. If the humidity rises above 60% relative humidity, reduce activities that generate or introduce moisture in the house, such as boiling foods. If you cannot curtail such activities, consider purchasing a dehumidifier to supplement the air conditioning.

### **Low Humidity Conditions**

Humidifiers are available for climates that experience low humidity conditions throughout the year.

### Use Your Air Conditioning and/or House Fans

Run your fans and/or air conditioning system during hot and humid conditions. In addition to cooling the home, the A/C system also removes some of the excess humidity. During lower summer outdoor temperatures and coincident high humidity periods, pay particular attention to reducing the introduction of humidity into the house. Understand, however, that while your air conditioning system will remove some humidity when running, it alone does not *control* humidity. Outdoor conditions and indoor activities can and will affect the indoor humidity. Do not run the air conditioning with the fan set to run continuously. The fan should cycle on and off with the outdoor (condensing) unit. Continuous fan operation re-evaporates moisture from the cooling coil back into the house, raising the indoor humidity.

### **Keep Your House Closed Up**

During high humidity conditions, keep the frequency and duration of open doors to a minimum. Keep windows closed during high humidity conditions. Do not open windows at night, even if the temperatures are cooler. Opening the windows may saturate the indoor air with an excessive level of humidity.

#### **Exhaust Fans**

Always run your bathroom exhaust system while bathing. Turn the fan off when you are not bathing. Leaving the fan on when not needed will pull hot humid air into the home from the outdoors or attic spaces. Likewise, always run your kitchen exhaust system while cooking. Turn the fan off when you are not cooking. Leaving the fan on when it is not needed may pull hot humid air into the home from the outdoors or attic spaces.

# **Hurricane Preparation**

It is essential to be ready for tropical storms and hurricanes. Proper preparation and awareness is the best way to prevent personal injury and to reduce damage to your property. Personal preparation, such as for food and water, battery-operated radios, evacuation procedures, is not within the scope of this guide. Refer to recommendations found in pre-season newspapers and those published by the Federal Emergency Management Agency in *Are You Ready, An In-Depth Guide for Citizen Preparedness*, Publication IS 22, available at the Internet Website address www.fema.gov or by calling 800-480-2520.

Before a hurricane threatens and when trash removal is still in effect, trim trees and shrubs. When a hurricane threatens, the following pre-storm procedures are recommended to reduce damage to your property.



**Caution:** Know where your hurricane shutters are located and learn how to install them. Refer to the manufacturer's instructions for proper installation methods. If necessary, consult with a professional.

## **Important Information**

### **Be Prepared**

- Latch shutters or install panels
- Place special fasteners in garage doors as required
- Unplug your TV before taking down satellite dish or antenna
- Consult w/satellite dealer before taking down large dishes
- Lower CB antennas, being careful of power lines
- Lower the water level in swimming pools approximately 1 foot
- Turn off electricity to pool pump and cover it if exposed
- Add extra chlorine to swimming pools to prevent contamination
- Bring in objects that can be blown away, such as garbage cans, garden tools, lawn furniture, plants, and light boats
- Anchor objects that can not be brought indoors

#### **Maintain Your Home**

The best way to physically prepare your home for a storm is to keep up with the maintenance recommendations found in this guide on a regular basis, as there will be insufficient time to perform maintenance procedures of any significance in the few days before a storm. Additionally, you will need to be planning for your personal protection during this time.

#### **Water Intrusion**

Concerning water intrusion through doors and windows during a storm, remember that your home has doors and windows, not portholes and hatches. This is to say that doors and windows specified for high wind zones are designed to be water resistant only up to 30 percent and 40 percent respectively of their design wind speed. For example, if the windows in your home are specified by code to be designed for a 100 miles per hour wind speed, they are built to be water resistant to a maximum wind speed of 40 miles per hour. Hurricanes are an extreme weather event and water intrusion during prolonged exposure to rain and wind is not unexpected and is not considered a construction defect.



**Warning:** Stay informed about current extreme weather conditions, and take appropriate precautions to protect your doors, windows, vents and other openings on your home.

# Mold

Molds are part of the natural environment. Outdoors, molds play a part in nature by breaking down dead organic matter such as fallen leaves and dead trees, but indoors, mold growth should be prevented.

Molds reproduce by means of tiny spores; the spores are invisible to the naked eye and float through outdoor and indoor air. Mold may begin growing indoors when mold spores land on surfaces that are wet and have the necessary organic material (either in the finish material or dust and dirt on the surface) to "feed" them. There are many types of mold, and none of them will grow without water or moisture.

### **Moisture and Mold Prevention and Control Tips**

This guide addresses many areas of maintenance related to cleaning and moisture monitoring and control inside and outside the home, all of which are part of the effort to reduce interior mold concerns.

The tips and techniques presented in this section will help you focus on how to both prevent and clean up minor mold problems. In the event of a major, sustained source of moisture intrusion and mold growth, professional cleaning and remediation services may be necessary, and will employ methods not in the scope of this guide.

## Moisture Control is the Key to Mold Control

When water leaks or spills occur indoors—act quickly. If wet or damp materials or areas are dried 24–48 hours after a leak or spill happens, in most cases mold will not grow.

#### **Control Exterior Water Sources**

Perform preventive maintenance to avoid moisture buildup and intrusion:

- 1. Control debris and maintain unobstructed drainage on the roof, gutters, and in the yard surrounding your home.
- 2. Maintain the weathertightness of the exterior surfaces and openings of the home.

#### **Control Interior Water Sources**

Perform preventive maintenance on interior water sources, cleaning, and air conditioning units:

- 1. Keep air conditioning drip pans clean, and the drain lines unobstructed and flowing properly.
- 2. Monitor and maintain plumbing fixtures, tubs, showers, and related tile areas for leaks. Inspect caulking and repair or replace as necessary.

### **Prevent High Indoor Humidity**

The following are suggestions to help control indoor moisture and condensation:

- 1. If possible, keep indoor relative humidity below 60 percent, ideally between 30 and 50 percent. Relative humidity can be measured with a moisture or humidity meter, which is a small, inexpensive instrument available at many hardware stores.
- 2. Run the bathroom fan or open the window when showering. Use exhaust fans or open windows whenever cooking, running the dishwasher or dishwashing.
- 3. If you see condensation or moisture collecting on windows, walls or pipes, act quickly to dry the wet surface. Find the humidity or moisture source while increasing exhaust, ventilation, or the supply of heated or conditioned air, if possible.
- 4. Cover cold surfaces, such as cold water pipes, with insulation.

### **Clean Regularly**

Keep interior surfaces, such as window ledges, clean to prevent aiding any moisture buildup from supporting mold growth. Scrub mold off hard surfaces with detergent and water, and dry completely.



**Caution:** Please note that mold may cause staining and cosmetic damage. It may not be possible to clean an item so that its original appearance is restored; in this case the item should be discarded. If the damages to the home interior finishes or articles are significant, consult with a specialist in water damage restoration and remediation services (commonly listed in phone books). Be sure to ask for and check references. Look for specialists who are affiliated with professional organizations.

This information includes guidance from the U.S. Environmental Protection Agency publication titled "A Brief Guide to Mold, Moisture and Your Home" and can be accessed at www.epa.gov/iaq/moldguide.html or by contacting them directly at (800) 438-4318.

# **Pest Control**

Proper pest control is an essential part of maintaining an adequate level of indoor hygiene. Rodents and insects can carry disease into the house, and their preclusion is necessary for health reasons. Regular pest control treatment by the homeowner or a professional is recommended to achieve these goals.

#### **Animals**

Native creatures, including but not limited to raccoons, rabbits, gophers, skunks, and coyotes can be a general hazard to both property and individuals. Gophers can slowly undermine a foundation and destroy a well-kept lawn.

Household waste containing food scraps can be an attraction to the local animal population. Depending upon where you live, you may wish to invest in animal-resistant trash receptacles designed for your particular area to deter or discourage animals from venturing near, into, or under your home. If animals become a problem, call your local Animal Control Center. Keep your property and home secure and well-maintained; take necessary measures to ensure your family's safety and prevent animals from damaging your property.

#### **Termites**

Wood-destroying termites are especially challenging pests. They are essential in nature to help get rid of dead wood and cellulose debris but they also do costly damage to wood structures. They are more common in warm areas but may be a problem anywhere. The possibility of termite infestation will be reduced by preventing moisture problems in your house. Small roof, window, or plumbing leaks may cause enough wet wood to encourage termites to invade your house. Also, keep wood piles and other debris away from your house.

Homeowners usually discover subterranean termites in the spring when winged "swarmers" come out after a rain and fly around to find mates and start new colonies. You should also look for "mud tubes" going up the side of your house or running under carpet, or small holes chewed through the sheetrock where swarmers emerge. A few "drywood" species of termites may infest wood that is not wet. These species do not reproduce as quickly as subterranean termites and do not damage wood as quickly.

Whenever soft wood is observed, such as when painting baseboards or exterior wood trim, the homeowner should employ a professional to evaluate the condition. Inspection is beyond the capability of the homeowner and only licensed exterminators are legally allowed to apply effective chemicals. The homeowner is cautioned to never bring wood that has been buried in the ground into the home.

## **Important Information**

- **Trim Trees.** Trim overhanging branches away from your home to help keep rodents away from your roof.
- **Call a Professional.** Have a professional service company inspect regularly and treat the condition as necessary.
- **Repair Water Leaks Immediately.** Water attracts many pests, as well as causes deterioration of your surfaces.
- **Clean Regularly.** Clean up spills immediately, and keep foods and liquids in sealed containers. Food and liquid can attract pests such as ants.
- **Pay Attention.** Do not allow wood or soil to build up around your home. Observe the maintenance recommendations in this guide for the exterior of your home to reduce the potential of pest problems.
- Handle Pesticides Carefully. All pesticides are toxic to some extent. There are no completely "safe" pesticides. They should always be used according to label directions and handled with proper protective equipment listed on the label. They should always be kept out of reach of pets and children.
- Keep Your House Sealed. Regular maintenance of your home will go a long way
  in preventing pests from accessing your house. Keep appropriate areas caulked
  and sealed, keep doors closed and window and vent screens in good repair.

# **Protecting Your Home While Away**

Your new home was designed for occupancy and this guide was prepared to present maintenance procedures for a long service life from your home as occupied. However, when you are going to be away from your home for an extended period of time, there are additional preventive measures you will want to take.

### **Water and Plumbing**

- Close the water supply valve to the house and irrigation system. Ensure water supply to fire protection systems as applicable. If water supply is desired to be continued while the house is not occupied, have the plumbing system checked by a reputable, licensed plumber. Include faucets and hoses to dishwashers, refrigerators, icemakers, water filters, and clothes washers.
- Plan to have the home checked weekly for odors, plumbing and roof leaks. This
  walk-through inspection can be done by neighbors or hired companies that
  perform such services.
- Seal toilets with kitchen-type plastic wrap. Place covers over all drains.
- Engage a professional for recommendations that would maintain the humidity in the home at desirable levels.

### **Appliances and Electricity**

- Maintain electric power to the house.
- Refrigerators and freezers: Remove all contents, properly defrost, wipe down excess moisture, unplug the unit, and leave the doors secured in the open position.

#### Storm Preparation

 Ensure that exterior maintenance tasks are up-to-date and your home is wellsealed.

#### **Pest Control**

• Plan for continued pest control services. Secure the building perimeter from penetration by animals, rodents and insects.

#### Security

- Consider purchasing a monitored security system that includes the smoke/fire detection system. Maintain telephone service as required for the security system. Close and lock all doors and windows.
- For security purposes, consider installing timed lighting in multiple rooms.

# Radon

#### **General Information**

Radon is a radioactive gas. It comes from the natural decay of uranium that is found in nearly all soils. It typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation. Your home traps radon inside, where it can build up. Any home may have a radon problem. This means new and old homes, well-sealed and drafty homes, and homes with or without basements.

### How does radon enter my home?

- 1. Cracks in solid floors
- 2. Construction joints
- 3. Cracks in walls
- 4. Gaps in suspended floors
- 5. Gaps around service pipes
- 6. Cavities inside walls
- 7. Water supply

## Why is it important to know about radon?

Radon is classified as a human carcinogen by the Environmental Protection Agency. However, any cancer resulting from inhaling radon is not likely to become apparent for at least 20–30 years after initial exposure. The level of radon exposure, duration of exposure, and use of tobacco (smoking) are factors in determining the risk of developing lung cancer. Exposure to radon does not result in acute respiratory symptoms such as colds, asthma, or allergies.

A standard unit of measurement for radon is picadores per liter of air (pCi/L). In the United States, the average level of radon found indoors is 1.3 pCi/L, but can range from 0.25 to over 3,000 pCi/L. There is insufficient data to define a "safe" or harmless level of radon, though it is accepted that the greater the level of exposure and the longer duration of exposure, the greater the health risk. The EPA guideline states that radon levels should not exceed 4 pCi/L indoors. If the radon levels in your home measures above 4pCi/L, the you should consider a radon mitigation system.

Generally, living areas that are closest to the soil will have the highest levels of radon, as compared to living areas or rooms on second stories. Radon can also be present in tap water, as it can be absorbed into the ground water from soil containing radon. Radon present in water can be released when showering, washing dishes, or washing clothes. Radon can also be present in water when the water source is a well that is exposed to uranium and radium rock strata; radon is more of a concern when it comes from this type of source.

Mitigation of radon is not required by laws, neither state nor federal. Homeowners may decide to reduce the level of radon in the home at their own discretion. Testing is the only way to know if you and your family are at risk from radon. Testing is inexpensive and easy—it should only take a few minutes of your time.

This information includes guidance from the U.S. Environmental Protection Agency (EPA). For more information, view the EPA's website at www.epa.gov or contact them directly at (800) 438-4318.

# **Storm Water Pollution Prevention**

As a homeowner it is your responsibility to properly dispose of contaminants that may harm the quality of the ocean, rivers, lakes, and water supplies.

The following information is excerpted from the Environmental Protection Agency publication titled "10 Things You Can Do to Prevent Stormwater Runoff Pollution."

#### Ways to Prevent Water Pollution

- Wash automobiles at a car wash instead of in the driveway.
- Avoid pesticides; learn about Integrated Pest Management (IPM).
- Vegetate bare spots in your yard.
- Compost your yard waste.
- Use fertilizers sparingly and sweep up driveways, sidewalks, and roads.
- Direct downspouts away from paved surfaces.
- Pick up after your pets.
- Have your septic tank pumped and system inspected (if applicable) regularly.
- Never dump anything down storm drains.
- Inspect for automobile leaks and recycle motor oil.

### **Additional Information**

Contact the local Regional Water Quality Board and ask to speak with someone about storm water pollution control programs. Go to the Environmental Protection Agency's website for additional information and resources at www.epa.gov.

### **Water Intrusion**

Water intrusion is a common and damaging result of poor or neglected maintenance. As a homeowner, it is your responsibility to properly maintain all of the components inside and outside of your home, including your landscaping. Regular preventive maintenance, most specifically on components which are part of the "building envelope" or directly exposed to moisture, will reduce the risk of water damage to your home.

Preventing water intrusion into your home goes beyond maintaining the plumbing or checking the sprinkler system. A number of components used in the construction of your home may be damaged by water if caulking or sealants deteriorate, leaving areas unprotected from the elements. If not properly maintained, unsealed doors, windows, and exterior walls are unable to do the job they were designed for—keeping your home efficient and protected from the outdoors. Maintaining proper roof and landscaping drainage is also a critical aspect of protecting your home from water intrusion.

We strongly recommend that you thoroughly read this guide and note the required tasks that are related to water or moisture prevention. Use proper maintenance methods and, when and where necessary, products designed for your home's particular needs. If moisture or water intrusion is discovered, take immediate action to prevent damage from occurring and follow this guide's guidelines to prevent the problem from recurring.

## **Home Maintenance Summary**

As a new homeowner, a scheduled maintenance program is the best way to ensure you will maximize the value and enjoyment of your home. For easy reference, this chapter contains the primary maintenance recommendations outlined in the Recommended Maintenance tables throughout this guide. The tasks are organized by the frequency that the tasks needs to be done, starting with the most frequent.





**Note:** The tasks listed on the following pages are grouped alphabetically by how often the work should be done. Refer to the corresponding sections in this guide for more detailed information, additional recommendations, and precautions.

Category Component Task	
-------------------------	--

# **Monthly**

		Monthly
Appliances	Cooktop and Vent Hood	Clean the top and underside of the hood, along with the filter screen, with a damp, sudsy cloth.
Appliances	Range and Range Hood	Clean the top and underside of the hood, along with the filter screen, with a damp, sudsy cloth.
Caulking	Caulking - General Recommendations	Inspect the caulk joints around fixtures, tub and shower areas, ceramic tile, and doors or windows on the interior where caulking was installed.  Remove and replace as needed when it is split or coming off.
Drainage and Irrigation	Drip System	Check for broken or clogged emitters.
Drainage and Irrigation	Irrigation System and Controller	Adjust each irrigation station run time in response to changing weather conditions and plant needs. Record changes to irrigation settings.
Drainage and Irrigation	Irrigation System and Controller	Check the controller to ensure the scheduled program is working properly, and adjust for proper watering.
Drainage and Irrigation	Irrigation System and Controller	Examine controller for moisture damage and corrosion. Inspect for dead backup batteries, loose connections, deteriorated weatherproofing or damaged hardware.
Drainage and Irrigation	Sprinkler Heads	Inspect for appropriate sprinkler coverage. Check for proper spray pattern, and ensure that structure walls are not in the spray pattern. Adjust the riser height of sprinklers as needed.
Drainage and Irrigation	Sprinkler Heads	Examine for broken or improperly adjusted sprinkler heads, clogged or worn nozzles and gear drives, grit in seals or moving parts, mower or other physical damage, and broken sprinkler lines.
Drainage and Irrigation	Valves	Manually operate and visually inspect the valves to ensure they are operating properly. Check quick coupling valves, and ball or gate valves.

Category	Component	Task
Electrical Systems and Safety	Arc Fault Circuit Interrupter (AFCI)	Test all AFCIs.
Electrical Systems and Safety	Ground Fault Circuit Interrupter (GFCI)	Test the GFCIs.
Electrical Systems and Safety	Lighting	Check for and replace burned out bulbs.
Foundations	Slab on Grade	Examine the drainage flows of flower and landscape beds that are adjacent to the slab. All water should drain freely away from the slab.
Foundations	Slab on Grade	Check the gutter and downspout system during a rain to ensure that water is drained sufficiently away from the foundation.
Foundations	Slab on Grade	Inspect the grade around your home to ensure there is no standing water within five feet of the foundation.
Interior Doors	Interior Doors - General Recommendations	Coat stained doors with lemon oil to prevent cracking. Low-VOC, solvent-free lemon oil products are available. Use touch-up varnish on nicks and scratches. Use touch-up paint on nicks and scratches.
Lighting	Lighting - General Recommendations	Look for and replace burned out bulbs.
Openings	Exterior Doors	When vacuuming, run the nozzle along the tracks of all sliding doors. This will help remove debris and help prevent damage to rollers. This will also allow for proper drainage during rains.
Openings	Garage Doors	Clean the light beam assembly at the base of the garage door.
Plants	Trees	Inspect water or breather tubes that may be installed at the tree base to ensure proper drainage. Remove standing water from breather tubes.

Category	Component	Task
Plumbing System	Plumbing System - General Recommendations	Inspect for leaks around toilets, sinks, showers, tubs and the water heater. Listen for running water to help locate unseen leaks.
Plumbing System	Showers, Tubs, and Surrounds	Inspect shower door seals and adjust if necessary to keep water from leaking out of the enclosure.
Swimming Pool	Pool Water and Surfaces	Test for the presence of metals. If metals are present, contact your local pool professional.
Swimming Pool	Pool Water and Surfaces	Take pool water sample to local pool store for testing.
Swimming Pool	Pool Water and Surfaces	Keep the water at the recommended levels and settings of salinity and cyanuric acid.
Swimming Pool	Salt Water Sanitation System	Evaluate the cell condition and clean as needed.
Trim and Finishes	Painted Surfaces	Dust and remove cobwebs from ceilings and walls.
Ventilation and Air Conditioning	Air Conditioning System	Change/clean the air filter, typically monthly during high use seasons. For reusable filters, vacuum and wash with detergent and water; allow filter to air dry before replacing it.
Ventilation and Air Conditioning	Air Conditioning System	Clean the registers to keep them free of dust and debris.

## Quarterly

Appliances	Appliances: General Recommendations	Inspect all appliances with water lines for leaks. Repair leaks immediately.

Category	Component	Task
Appliances	Dishwasher	Inspect dishwasher for water leaks. Make repairs immediately.
Appliances	Garbage Disposal	Inspect garbage disposal for water leaks. Make repairs immediately.
Appliances	Refrigerator	Inspect water lines to the ice maker and water dispenser (if applicable) for leaks. Make repairs immediately.
Drainage and Irrigation	Drip System	Operate the air and flush valves.
Drainage and Irrigation	Hose Bibs	Test the valves to ensure they are working properly and close tightly.  Repair or replace parts as needed.
Electrical Systems and Safety	Lighting	Clean the encasement of light fixtures so light can shine at full illumination. Ensure that mounting screws and plates are tight and wall plate is fully against the exterior wall or soffit.
Hardscape	Concrete Surfaces	Hose off walks. Schedule to coincide with mowing or other maintenance.
Lighting	Lighting - General Recommendations	Clean the encasement so light can shine at full illumination.
Lighting	Lighting - General Recommendations	Ensure that mounting screws and plates are tight and wall plate is fully against the exterior wall or soffit. Inspect sealant at joints between light fixtures and walls. Repair or replace the sealant as needed.
Openings	Exterior Doors	Inspect weatherstripping to ensure it forms a tight seal against the door surface when the door is shut.
Openings	Garage Doors	Examine for any loose track or spring mounting bolts or screws, as these can affect the door alignment and operation.

Category	Component	Task
Plants	Grass	Apply fertilizers to replenish soil nutrients required for healthy grass and plant growth. Fertilization is usually best done in March, May, July, and September.
Plants	Shrubs	Apply fertilizer to shrubs. Fertilizing is typically best done in March, May, July, and September.
Plants	Trees	Check trees to determine whether staking should be added, removed, or adjusted to promote growth in the appropriate direction and protect from wind.
Swimming Pool	Deck	Inspect the sealant between the coping and the deck surface for cracks. Inspect tiles around the edge of the pool, if installed. Replace broken and loose tiles.
Ventilation and Air Conditioning	Bathroom Exhaust Fans	Clean reusable filters and screens with soap and water to remove dust or lint that may have accumulated.

## **Twice Per Year**

Appliances	Refrigerator	Deep clean the interior and exterior, including the toe grille.
Cabinets	Cabinets - General Recommendations	Tighten hardware, adjust drawer guides, and check alignment.
Drainage and Irrigation	Irrigation System and Controller	Reset the controller schedule for Daylight Saving Time (where applicable) and after any power failures. Keep a fresh battery in the controller to minimize the need for resetting.
Electrical Systems and Safety	Electrical Outlets and Switches	Check interior outlets to ensure they are not damaged or deteriorating. Replace damaged outlets immediately.
Foundations	Slab on Grade	In areas subject to termite infestation, inspect the base of the wall for termite 'tubes' between the grade and the base of the wood framing.

Category	Component	Task
Openings	Exterior Doors	Check door finishes. Touch-up and reseal as needed.
Openings	Exterior Doors	Use a spray silicone lubricant to keep your sliding door hardware functioning smoothly and reduce possible friction that might cause excessive wear.
Openings	Exterior Doors	Remove the snap-in closure over a portion of the sill track to clear dirt accumulated there.
Openings	Exterior Doors	Clean and adjust the hardware if door latches, locks, and rollers are difficult to operate or if the door is not sliding properly.
Openings	Garage Doors	Lubricate the moving parts of the doors.
Openings	Windows	Lubricate window tracks with silicone or paraffin sprays. Avoid oil, as it attracts dust and lint.
Plants	Grass	Remove weeds. Periodically apply appropriate herbicides to control unwanted weeds and grasses.
Plants	Trees	Apply fertilizers within the drip line to promote healthy growth. Fertilizing is typically best done in March and September, or as appropriate for the tree species.
Roof Systems	Roofs	Inspect the attic for proper ventilation. Install additional vents or mechanical venting if high levels of heat occur. Ensure that vents are not blocked.
Roof Systems	Roofs	Examine the general appearance for debris, drainage, and general condition.
Roof Systems	Roofs	Check the interior ceiling and attic for roof leaks and repair leaks immediately.

Category	Component	Task
Roof Systems	Roofs	Check sheathing and rafters or beams for condensation, mold, or other signs of inadequate ventilation.
Roof Systems	Roofs	Ensure gable end, ridge, and eaves vents (if present), are clear and unobstructed. Ensure that mechanical vents and thermostat controls are operable.
Safety	CO/Smoke Detector Combo	Replace the batteries in your carbon monoxide detector. Refer to your owner's manual for the correct battery type; an incorrect battery may have a detrimental effect on the alarm.
Safety	Smoke Detectors	Test all smoke detectors in your home.
Swimming Pool	Pool Filter	Clean the filter. An indication of a dirty filter is a reading that is 10 psi higher than the start up pressure printed on the filter.
Swimming Pool	Pool Heater	Visually inspect the burner and pilot flame—a blue flame indicates proper function. Clean the main burners and pilot burners to remove dust and lint. Inspect and manually operate all controls, gas valve, and pressure relief valve.
Swimming Pool	Pool Heater	Inspect the top of the heater and draft hood for soot, and open flue gas passageways. Clean sooty areas to ensure proper operation. Clean the room intake openings to assure adequate flow of combustion and ventilation air.
Swimming Pool	Pool Timer	Change the timer for Daylight Saving Time.

# **Annually**

Appliances	Cooktop and Vent Hood	Have the hood exhaust duct professionally inspected and cleaned.
Appliances	Range and Range Hood	Have the range hood exhaust duct professionally inspected and cleaned.

Category	Component	Task
Appliances	Refrigerator	Vacuum the condenser coils.
Cabinets	Cabinets - General Recommendations	Polish wood cabinet surfaces with furniture polish or other appropriate product in accordance with the manufacturer's recommendations.
Countertops and Backsplash	Natural Stone Countertops	Reseal the stone.
Drainage and Irrigation	Irrigation System and Controller	Replace the backup battery.
Drainage and Irrigation	Sprinkler Heads	Compare and analyze the site and plant conditions to determine if the water amounts are appropriate. Make adjustments if necessary.
Drainage and Irrigation	Valves	Schedule a thorough inspection for diaphragm or seat wear, sticking solenoids or diaphragm, corrosion of wire connections, clogged screens and orifices, and debris or stones lodged under the valve.
Exterior Walls	Stucco	Clean surfaces with a light pressure wash. Be careful around doors and windows where pressurized spray can actually seep around flashing and into wall framing.
Exterior Walls	Stucco	Inspect surfaces for chipping or cracking. Repair chipped or cracked stucco with a stucco repair product.
Fencing	Metal Fencing	Inspect the length of the metal fencing for scratches, blisters, or peeling paint.
Fencing	Metal Fencing	Check the post bases (down to the top of the concrete footings) to ensure they are not below the soil surface and subject to rust.
Fencing	Vinyl Fencing	Inspect vinyl fencing for loose components and signs of damage. Replace damaged components; refasten loose fencing.

Category	Component	Task
Flooring	Carpeting	Professionally clean carpeting that is too soiled to respond to routine maintenance.
Flooring	Ceramic Tile Floors	Inspect and, if necessary, regrout, or caulk the area between the tiles and the baseboard. Check around door thresholds, tubs, and toilets. Sealing these areas are important to prevent the water intrusion.
Flooring	Ceramic Tile Floors	Seal the tile. If needed, re-finish with non-skid wax.
Flooring	Ceramic Tile Floors	Examine the perimeter and high traffic areas for hollow-sounding or loose tiles, as well as cracking.
Flooring	Natural Stone Floors	Inspect perimeter and high traffic areas for hollow-sounding or cracked tiles. Inspect around door thresholds, tubs, and toilets. If necessary, regrout or caulk the area between the tiles and the baseboard.
Flooring	Natural Stone Floors	Reseal the stone.
Hardscape	Concrete Surfaces	Examine the expansion joints in patios and walkways and replace the joint filler as needed. Ensure that the joint filler adheres to both faces of the concrete, and is not sagging, crumbling, or cracking.
Hardscape	Concrete Surfaces	Inspect concrete for chipping, lifting, separating, and cracking, which can create a safety hazard that may result in homeowner liability.
Hardscape	Concrete Surfaces	Check the walkways adjacent to exterior walls for settling that may change the slope away from the house.
Hardscape	Pavers	Inspect to ensure that the bricks remain level. Reset uneven or loose bricks.
Openings	Exterior Doors	Examine the sealants located between the door frame and wall finish and repair or replace when needed.

Category	Component	Task
Openings	Garage Doors	If installed, ensure that automatically activated hurricane attachments are functioning properly. Clean as needed.
Openings	Garage Doors	Check and tighten the door hardware. Inspect for rust, deterioration, and distortion of door counterbalance springs. A water-displacement spray will help control rust.
Openings	Garage Doors	Check surface for pitting or blemishes. Touch-up as needed.
Openings	Garage Doors	Examine the finish on wood doors. Touch-up or repaint as needed. Repaint painted doors as conditions indicate.
Openings	Garage Doors	If installed, check supplemental hurricane hardware and fasteners for proper quantity, fit, and condition.
Openings	Windows	Check the sealants between the window frame and wall finish, and repair or replace when needed.
Openings	Windows	Examine double or triple glazed windows to ensure that the seal has not deteriorated or been damaged. Replace panel when the seal is compromised.
Plants	Grass	Aerate and vertically mow grass areas to relieve soil compaction and thatch buildup, allowing air and water to reach the root system.
Plants	Shrubs	Prune shrubs and plants to prevent them from becoming "rangy" and to contain their size. Prune with care not to "poodle" shrubs.
Plants	Trees	Examine tree trunk diameters. Replace trees planted in areas less than five feet wide when the trunk diameter exceeds six inches.
Plants	Trees	Thin or lace trees while dormant. Prune to remove dead, diseased, or weakened limbs and promote the healthy and symmetric growth of the tree. Remove limbs that may impact buildings under windy conditions.

Category	Component	Task
Plants	Trees	Prune roots to prevent the potential cracking of sidewalks or driveways.  Do not begin pruning roots until three years after the initial planting.
Plants	Trees	Prune palm trees, if present, to remove dead fronds. Large palm trees are best pruned by a professional.
Plumbing System	Plumbing System - General Recommendations	Test the shut-off valves and replace valves as needed.
Plumbing System	Showers, Tubs, and Surrounds	Reseal joints at wall, tub, and receptor junctures as described above. Fill any grout joints that may have developed gaps.
Plumbing System	Standard Tank Water Heater	Drain the water heater tank.
Plumbing System	Tankless Water Heater	Professionally inspect and service the water heater to include checking the venting system, burner, and heat exchanger, and also manually operate the pressure relief valve and clean the water filter.
Plumbing System	Water Pressure Regulator	Inspect for proper functioning by reading the pressure with a gauge on a faucet, downstream of the regulator. Replace regulators that cannot be adjusted using the adjustment screw.
Roof Systems	Gutters and Downspouts	Check any seams or joints in the gutter and downspout system to determine if resealing is necessary.
Roof Systems	Roofs	Professionally examine for any damage, slipping, or lifting of the roofing and related flashing. Inspect flashing at edges and around pipe collars to ensure laps and seals are in place and unbroken. Repair as needed.
Roof Systems	Roofs	Check sealant joints to ensure they are not cracking, split, or incompletely adhered. Repair or replace as needed. (Refer to the "Sealants" section in this chapter for additional information on this topic.)
Roof Systems	Roofs	Trim nearby trees to prevent branches from impacting the roof during windy conditions. Keep branches from spreading over roof areas, as frost can cause branches to break off and damage roofing.

Category	Component	Task
Sealants	Sealants - General Recommendations	Examine for cracking or incompletely adhered caulking and sealant, and repair or reapply as needed. Common areas for this maintenance are around wood trim, light fixtures, and windows.
Swimming Pool	Deck	Inspect the surface for lifting or separating to prevent trip hazards.
Swimming Pool	Pool Heater	Remove and clean the heat exchanger and burner tray. Inspect wiring for frays and electrical continuity.
Swimming Pool	Pool Water and Surfaces	Drain the pool.
Trim and Accents	Trim and Accents - General Recommendations	Examine to ensure that railings are secure.
Trim and Accents	Trim and Accents - General Recommendations	Treat wood surfaces that come in contact with the ground with an approved preservative.
Trim and Accents	Trim and Accents - General Recommendations	Check to ensure that the shutters and accents are secured to the side of the house.
Trim and Accents	Trim and Accents - General Recommendations	Inspect for gaps and caulk where needed.
Trim and Accents	Trim and Accents - General Recommendations	Check for chipping, peeling, or other signs of finish failure. Pay attention to gaps, separation of trim, and staining or rotting resulting from moisture intrusion. Replace trim that is damaged or rotting.
Ventilation and Air Conditioning	Air Conditioning System	Contact a professional service company to service your system.
Ventilation and Air Conditioning	Bathroom Exhaust Fans	If your fans have exterior exhaust vents, inspect and clean the exterior hood or vent. Ensure that the back draft damper (flap) is clear and free moving.

Category	Component	Task
		Every 2 Years
Openings	Exterior Doors	Refinish exterior of wood faced doors.
Swimming Pool	Deck	Replace sealants completely.
Swimming Pool	Pool Water and Surfaces	Acid wash the pool to remove superficial stains, fine scale deposits, and various colored deposits from the plaster. Acid washing should not be performed more frequently than every two years.
Trim and Accents	Trim and Accents - General Recommendations	Prep and paint the surfaces as exposure and weathering indicate.
		Every 3 Years
Exterior Walls	Stucco	Repaint or refog the stucco as weathering and exposure indicate.
Fencing	Metal Fencing	Repaint or repair finish. Touch-up as necessary.
		Every 4 Years
Drainage and Irrigation	Irrigation System and Controller	Replace the controller(s) as they fail.
		Every 5+ Years
Plumbing System	Standard Tank Water Heater	Professionally inspect and service the water heater.

Category	Component	Task
Swimming	Pool Water and	Re-plaster the pool surfaces. A flaking surface is an indication that re-
Pool	Surfaces	plastering is necessary.

### References

### **Technical Advisors**

The following experts were consulted in the writing of this guide.

#### Structure, Site Maintenance, and Interior

Building Analysts, a division of Salerno/Livingston Architects, San Diego, CA.

Builders Engineering Corporation, Columbia, SC.

James Cohen Consulting, Pennington, NJ.

MAC Associates Construction Consultants, Los Angeles, CA and Portland, OR.

Rimkus Consulting Group, Ft. Lauderdale, FL and Houston, TX.

#### Electrical

Builders Engineering Corporation, Columbia, SC.

MacDonald Engineers, San Diego, CA.

#### Mechanical

Builders Engineering Corporation, Columbia, SC.

MAC Associates Construction Consultants, Los Angeles, CA and Portland, OR.

Rimkus Consulting Group, Ft. Lauderdale, FL and Houston, TX.

#### Fire Protection

Mr. Lamont Landis, Fire Protection Consultant, Temecula, CA.

Pistorino & Alam Consulting Engineers, Miami, FL.

#### **Landscaping and Irrigation**

Marriotti Landscape Architecture, Las Vegas, NV.

#### **Editorial Consultant**

Ms. Janae Long, freelance paralegal. Extensive experience in due diligence and construction defect litigation, San Diego, CA.

## **Additional Resources**

#### **Electrical Safety**

U.S. Consumer Product Safety Commission: www.cpsc.gov

#### **Fire Protection**

National Fire Protection Agency: www.nfpa.org

#### Roofing

National Roofing Contractors Association: www.nrca.net

#### **Storm Preparation**

American Red Cross: www.redcross.org

Federal Emergency Management Agency (FEMA): www.fema.gov

## **Glossary**

Following are helpful terms and definitions you will want to know:

**Aerator** – Located at the end of the kitchen and bathroom faucets. It mixes air with the water in order to provide a smooth, splash-free flow of water.

**AFCI** – Abbreviation for Arc Fault Circuit Interrupter. Similar to a circuit breaker in that it is designed to interrupt the flow of electricity. AFCIs are usually located in the bedrooms. In the event of an erratic current flow which can be caused, for example, by crimping electrical cords by furniture or doors, the AFCI may break the electrical circuit immediately and prevent a fire. They are typically located in the panel box containing the conventional circuit breakers.

**Amperage rating** – The amount of electric current (measured in amps) that a circuit breaker or other electrical device or connected equipment is designed or rated to carry, and its limitation.

**Ball float/float ball** – This is the float device found in the toilet tank that controls the automatic filling of the tank after flushing, and turns it off when refilled. It may actually be a ball-like float at the end of a lever to the filler valve, or it may be a float integrated with the valve assembly.

**Base/Baseboard** – The strip of molding or trim at the bottom of walls. The baseboard adds an attractive finish and protects the wall from scuffs and damage from furniture or vacuum cleaners.

**Catch basin** – Refers to a concrete or molded plastic drainage collector box, usually connected to an underground drainage line. It may serve as an area drain at the low point of the yard, the termination point of a drainage swale, and/or may be a collector for other local drainage lines such as those from downspouts.

**Caulking** – A material used as a sealant around sinks, tubs and showers. Other applications for caulking include sealing window and door frames; also referred to as sealant.

**CC&Rs** – The covenants, conditions, and restrictions that govern a subdivision.

**Circuit** – The electrical system in your home is separated into individual units referred to as circuits. Depending upon the layout of your home and electrical Codes in your area, each circuit may be designed for a room, an area of the home, or a single appliance.

**Circuit breakers** – Prevent electrical overload or shorting. The circuit breaker opens the circuit when an overload or short occurs, thereby breaking the flow of electricity.

**Common areas** – Many neighborhoods have areas that are common property and owned by a homeowners association. These areas may include streets, parking areas, walkways, slopes and recreational areas and are maintained and governed by the Homeowners Association (HOA).

**Condensation** – The moisture droplets that form on cool surfaces when warmer humid air (such as from baths, cooking) comes in contact with cooler surfaces, such as windows or occasionally interior wall surfaces.

**Condenser** – The air conditioning system unit that is located outside the home.

**Cultured marble** – A man-made product that has much of the durability and beauty of natural marble.

**Drywall** – The interior walls of a home are usually constructed of drywall. This material is also called gypsum board or sheetrock. The material is functional, and can be textured and painted to complement the style of any home.

**Efflorescence** – The white, powdery substance that sometimes accumulates on stucco, masonry, or concrete. Excessive efflorescence can be removed by scrubbing with a strong vinegar solution or commercial product.

**Erosion** – The wearing away of dirt or soil from the surface. It may be caused by rain or the flow of water from irrigation systems, and can change the drainage of the yard.

**Expansion** – The increase in dimension, usually length or volume, that is typical of solid, liquid, and gaseous materials when their temperature increases.

**Expansion joints** – Joints or intentional breaks in materials, such as paving, stucco, or metal assemblies, which allow adjoining material to expand without deforming or cracking.

**Faucet stem** – The piece of the faucet, usually vertical and rod-like, to which the faucet handle connects. The other end typically connects to the faucet's internal valve parts (cartridge, valve seat, etc.).

**Flap, flapper (toilet)** – The rubber flapper at the bottom of the toilet tank that is typically linked to the flush handle so that it opens to allow water into the toilet bowl when flushed.

**Flashing** – Usually composed of sheet metal (or occasionally another waterproof material) that is formed and installed to tie building assemblies together in a waterproof manner. They are common elements found in roofs, balconies, and wall penetrations.

**Fluorescent** – Lighting type that is typically in the form of a long, tubular light bulb. It provides even, soft illumination in kitchens, bathrooms, and other areas of the home.

**Fuses** – In contemporary homes, fuses have been replaced by circuit breakers; however, some fuses are still used to protect the air conditioning condenser. They are usually a pair of cylindrical devices located in a metal weatherproof enclosure on an exterior wall near the condensing unit. Their purpose is to break the circuit in the event of an overload.

**GFCI** – Abbreviation for Ground Fault Circuit Interrupter. Similar to a circuit breaker in that it is designed to interrupt the flow of electricity. GFCIs are usually located in the garage, kitchen or the bathrooms. In the event of a short circuit, such as dropping an appliance into a filled tub or sink, the GFCI may break the electrical circuit immediately and prevent a serious electrical shock.

**Graphite** – A carbon-based powdery substance that is used as a lubricant for applications in which oil can be damaging. Graphite is usually recommended for use on your aluminum windows and doors.

**Grout** – The cement-like material visible between squares of ceramic tile.

**Hardware** – The hinges, locks, handles and other metal attachments to doors, cabinets, and drawers are commonly referred to as hardware.

**Homeowner maintenance** – Tasks required of a homeowner to maintain the various features of a home. Some of these maintenance items have been indicated in the Homebuilder's Warranty section of this guide. This continuing maintenance is the responsibility of the owner.

**Homeowners Association (HOA)** – In some areas, neighborhoods are governed by a small group of homeowners who represent the interests of all nearby homeowners. The association is usually formed by the builder and is turned over to the homeowners when the majority of the homes are sold. The association collects dues that are to be used for proper maintenance of the common areas and to communicate with the members.

**Hose Bib** – A water faucet that is outside the home and is intended for use with a garden hose.

**Incandescent** – Lighting fixtures that use traditional light bulbs are called incandescent fixtures. Incandescent lighting is used for lamps, spotlighting, and exterior lighting.

**Laminate** – A thin, solid surface finish bonded to a backing panel to provide a durable, stiff, aesthetic surface; often refers to plastic laminate such as Formica, or may refer to a veneer such as wood.

**Manufacturer's Warranty** – The appliances and certain other components of a new home are covered by warranties that are supplied by original manufacturers. These warranties are passed on to you. They include components of the plumbing and electrical systems, air conditioning system, water heater, and other manufactured items.

**Masonry** – The concrete, block and brickwork in a home. Often used to construct exterior landscape walls.

**Neutral base or neutral pH cleanser** – A cleaning product that is neither acidic or base (alkali) chemically; often refers to tile and grout cleaners.

**Polyurethane** – This refers to a wide variety of synthetic polymer materials, but for home maintenance refers mostly to durable synthetic rubber sealants (caulking) or coatings used for exterior caulk, or as part of waterproof coatings for balconies and retaining walls.

**Porcelain enamel** – Your tubs and sinks may be constructed of porcelain-glass enamel. Made of a silicate paint which is fired onto steel at high temperatures, it forms a durable smooth and shiny surface much like glass.

**Return air vent** – Because modern homes feature almost airtight seals, the air conditioning systems require return air vents to draw air back to the cooling system.

**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.

**Scupper** – This is a channel or box-like drain collector, usually sheet-metal, that collects water from the roof or balcony surface and carries it through the surrounding wall or parapet to drain to a downspout or the ground below. The scupper may be the primary drain for the roof or balcony, or may be a slightly raised overflow drain.

**Shower receptor (shower pan)** – This is the waterproof floor and curb assembly that incorporates the shower drain at the base of the shower walls or glass enclosure. It may be built on-site of ceramic tile over waterproofing and framing, or it may be a molded or cast one-piece waterproof fixture made of fiberglass or a synthetic solid composite, incorporating the drain.

**Shut-off valves** – Shuts off water or gas supply. Water shut-off valves (also known as angle valves), are located at the toilets and sinks. The main water supply shut-off to the house is usually located in a hand box at the sidewalk. The natural gas shut-off is usually located at the gas meter.

**Settling** – In the first months and for years after a new home is built some settling can occur as the underlying soil gains and loses moisture. Minor settling is normal, particularly in the first months after a new home is built.

**Spackle** – The putty-like material that is used to fill surface irregularities in drywall. Its most common use is to fill nail holes in walls before repainting.

**Spalling** – Cracking, chipping, or flaking of brick or masonry wall materials.

**Stucco** – The mortar-like material that covers the exterior of many homes. It provides excellent durability, insulation, and beauty to the home. Stucco is relatively brittle so you should avoid sharp blows to the walls.

**Swale** – Sloped surface drainage channels or paths, which may be simply turf and soil, or may be concrete or other paving material. They may serve to collect local yard surface drainage or may also include collected drainage from adjacent banks and properties, and generally carry drainage to a catch basin, street, or other established drainage inlet.

**Tack strips** – The devices between the sub-flooring and carpeting that are used to hold carpeting in place.

**Thermostat** – The wall-mounted device that controls the air conditioning units is a thermostat. By cycling the air conditioning units on and off, it will maintain a desired temperature in the home.

**Vitreous china** – The kiln-fired, pottery material that is used in most toilet bowls and tanks. It is a very durable and impervious to water but can be broken by sharp blows from hard objects.

**Water pressure regulator** – An adjustable plumbing device used to control the amount of water pressure going into the home. It is usually located near the water shut-off valve where the water pipe enters the house or garage.

**Wax ring (toilet)** – A donut-shaped wax seal that is installed between the base of the toilet and the plumbing sewer pipe floor flange. The wax accommodates any slight variations in level or thickness of the flooring under the toilet, which has "coupling" bolts that attach the base of the fixture to the pipe flange.

**Weep holes** – Small holes in door and window frames that allow water to drain away are called weep holes.

**Weep screed** – A flashing device at the base of a stucco wall that allows moisture to drain ("weep") from the wall system.