

GREEN BUILDING CODE (2011 LAGBC) COUNTER PLAN CHECK NOTES RESIDENTIAL BUILDINGS UP TO SIX STORIES

1. Each appliance provided and installed meets ENERGY STAR if an ENERGY STAR designation is applicable for that appliance. (4.210, 9.210)
2. Where future space for solar is required, an electrical conduit shall be provided from the electrical service equipment to such space. The conduit shall be adequately sized by the designer but shall not be less than one inch. The conduit shall be labeled as per the Los Angeles Fire Department requirements and the electrical panel shall be sized to accommodate the installation of a future electrical solar system. (4.211.4, 9.211.4)
3. When single shower fixtures are served by more than one showerhead, the combined flow rate of all the showerheads shall not exceed the maximum flow rates specified in the 20 percent reduction column contained in Table 4.303.2 or the shower shall be designed to only allow one showerhead to be in operation at a time. (4.303.2, 9.303.2)
4. Installed automatic irrigation system controllers shall be weather- or soil-based controllers. (4.304.1, 9.304.1)
5. Annular spaces around pipes, electric cables, conduits, or other openings in plates at exterior walls shall be protected against the passage of rodents by closing such openings with cement mortar or concrete masonry. (4.406.1, 9.406.1)
6. Materials delivered to the construction site shall be protected from rain or other sources of moisture. (4.407.4, 9.407.4)
7. Only a City of Los Angeles certified hauler will be used for hauling of construction waste. (4.408, 9.408)
8. For all new equipment, a completed *Operation and Maintenance Manual*, form GRN 2, shall be provided to the field inspector at the time of final inspection. (4.410, 9.410)
9. At least 50% of all areas receiving resilient flooring shall comply with the Volatile Organic Compound (VOC) limits or be certified under the Resilient Floor Covering (RCFI) FloorScore program. (4.504, 9.504)
10. All duct and other related air distribution component openings shall be covered with tape, plastic, or sheetmetal until the final startup of the heating and cooling equipment. (4.504.1, 9.504.1)
11. A completed *Pollutant Control Checklist*, Form GRN 3, shall be provided to the field inspector at the time of final inspection. (4.504.1-4.504.4, 9.504.1-9.504.4)
12. A completed *Formaldehyde Emissions Form*, Form GRN 4, shall be provided to the field inspector at the time of final inspection. (4.504.5, 9.504.5)
13. All new carpet installed in the building interior shall meet the testing and product requirements of one of the following:
 - a. Carpet and Rug Institute's Green Label Plus Program
 - b. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350)
 - c. NSF/ANSI 140 at the Gold level
 - d. Scientific Certifications Systems Indoor Advantage™ Gold(4.504.3, 9.504.3)
14. All new carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program. (9.504.3.1)
15. Building materials with visible signs of water damage shall not be installed. Wall and floor framing shall not be enclosed until it is inspected and found to be satisfactory by the building inspector. (4.505.3, 9.505.3)
16. Bathroom exhaust fans shall be ENERGY STAR compliant and be ducted to terminate to the outside of the building. Provide the manufacturer's cut sheet for verification. (4.506.1, 9.506.1)
17. Bathroom exhaust fans, not functioning as a component of a whole house ventilation system, must be controlled by a humidistat which shall be readily accessible. (4.506.1, 9.506.1)
18. Whole house exhaust fans shall have covers or louvers which close when the fan is off and that are insulated with a minimum insulation value of R-4.2. (4.507.1, 9.507.1)
19. The size and layout of the heating and air-conditioning systems shall be in accordance with ACCA Manual J, ACCA 29-D and ACCA 36-S, ASHRAE handbooks (4.507.2, 9.507.2)

MANDATORY REQUIREMENTS CHECKLIST

**ADDITIONS AND ALTERATIONS TO NON-RESIDENTIAL BUILDINGS AND
RESIDENTIAL BUILDINGS OVER SIX STORIES**

(INCORPORATE THIS FORM ONTO THE PLANS)

Project Address: _____

Date: _____

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note # or detail #)
PLANNING AND DESIGN				
1	10.106.1	Storm water drainage and retention during construction		
2	10.106.4	Bicycle parking (≥ 10 vehicular parking spaces)		
3	10.106.5	Designated parking (≥ 10 vehicular parking spaces)		
4	10.106.8	Light pollution reduction		
5	10.106.10	Grading and Paving		
ENERGY EFFICIENCY				
6	10.210.1	ENERGY STAR equipment and appliances		
7	10.211.4	Prewiring for future solar ($> 2,000 \text{ ft}^2$)		
8	10.211.4.1	Off grid prewiring for future solar		
WATER EFFICIENCY & CONSERVATION				
9	10.303.1.1	Buildings in excess of 50,000 square feet/submeter		
10	10.303.1.2	Excess consumption		
11	10.303.2	20 Percent Savings		
12	10.303.2.1	Multiple showerheads serving one shower		
13	10.304.2	Outdoor potable water use		
14	10.304.3	Irrigation design		
MATERIAL CONSERVATION & RESOURCE EFFICIENCY				
15	10.407.1	Weather protection		
16	10.407.2.1	Sprinklers		
17	10.407.2.2	Roof overhangs and recesses entries		
18		Nonabsorbent interior finishes		
19	10.408.1	Construction waste diversion		
20	10.410.1	Recycling by occupants (additions that are $> 30\%$ of existing floor area)		
21	10.410.4	Testing, adjusting and balancing		
22	10.410.4.2	– Systems		
23	10.410.4.3	– Procedures		
24	10.410.4.3.1	– HVAC balancing		

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note # or detail #)
25	10.410.4.4	– Reporting		
26	10.410.4.5	– Operation and maintenance manual		
27	10.410.4.5.1	– Inspections and reports		
ENVIRONMENTAL QUALITY				
28	10.503.1	Fireplace		
29	10.503.1.1	Woodstoves		
30	10.504.3	Covering of duct openings and protection of mechanical equipment during construction		
31	10.504.4	Finish material pollutant control		
32	10.504.4.1	– Adhesives, sealants, and caulks		
33	10.504.4.3	– Paints and coatings		
34	10.504.4.3.1	– Aerosol Paints and Coatings		
35	10.504.4.3.2	– Verification		
36	10.504.4.4	Carpet systems		
37	10.504.4.4.1	Carpet cushion		
38	10.504.4.5	Composite wood products		
39	10.504.4.6	Resilient flooring systems		
40	10.504.5.3	Filters		
41	10.504.7	Environmental tobacco smoke (ETS) control		
42	10.505.1	Indoor moisture control		
43	10.506.2	Carbon dioxide (CO ₂) monitoring		
44	10.507.4.1	Exterior noise transmission for roof		
45		Exterior noise transmission for walls		
46		Exterior noise transmission for windows		
47	10.507.4.2	Interior sound		
48	10.508.1.1	CFCs		
49	10.508.1.2	Halons		

MANDATORY REQUIREMENTS CHECKLIST
ADDITIONS AND ALTERATIONS TO RESIDENTIAL BUILDINGS OF SIX
STORIES OR LESS

(INCORPORATE THIS FORM INTO THE PLANS)

Project Address: _____

Date: _____

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note # or detail #)
PLANNING AND DESIGN				
1	9.106.2	Storm water drainage and retention during construction		
2	9.106.3	Surface drainage		
ENERGY EFFICIENCY				
3	9.210.1	Appliance rating		
4	9.211.4	Future access for electrical solar system(>2,000 ft ²)		
5	9.211.4.1	Space for future electrical solar system (>2,000 ft ²)		
WATER EFFICIENCY & CONSERVATION				
6	9.303.1	20 percent savings		
7	9.303.2	Multiple showerheads serving one shower		
8	9.304.1	Irrigation controllers		
9	9.304.1.1	Irrigation design (>500 ft ² addition and > 2,500 ft ² landscape area)		
MATERIAL CONSERVATION & RESOURCE EFFICIENCY				
10	9.406.1	Joints and openings		
11	9.407.3	Flashing details		
12	9.407.4	Material protection		
13	9.408.1	Construction waste reduction of at least 50 percent		
14	9.410.1	Operation and maintenance manual		
ENVIRONMENTAL QUALITY				
15	9.503.1	Fireplaces and woodstoves		
16	9.504.1	Covering of duct openings and protection of mechanical equipment during construction		
17	9.504.2	Finish material pollutant control		
18	9.504.2.1	Adhesives, sealants, caulks		
19	9.504.2.2	Paints and coatings		
20	9.504.2.3	Aerosol Paints and Coatings		
21	9.504.2.4	Verification		
22	9.504.3	Carpet systems		
23	9.504.3.1	Carpet cushion		
24	9.504.4	Resilient flooring systems		

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note # or detail #)
25	9.504.5	Composite wood products		
26	9.505.2.1	Capillary break		
27	9.505.3	Moisture content of building materials		
28	9.506.1	Bathroom exhaust fans		
29	9.507.1	Whole house exhaust fans		
30	9.507.2	Heating and air-conditioning system design		

MANDATORY REQUIREMENTS CHECKLIST

**ADDITIONS AND ALTERATIONS TO RESIDENTIAL BUILDINGS OF SIX
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PLANNING AND DESIGN				
1	9.106.2	Storm water drainage and retention during construction		
2	9.106.3	Surface drainage		
ENERGY EFFICIENCY				
3	9.210.1	Appliance rating		
4	9.211.4	Future access for electrical solar system(>2,000 ft ²)		
5	9.211.4.1	Space for future electrical solar system (>2,000 ft ²)		
WATER EFFICIENCY & CONSERVATION				
6	9.303.1	20 percent savings		
7	9.303.2	Multiple showerheads serving one shower		
8	9.304.1	Irrigation controllers		
9	9.304.1.1	Irrigation design (>500 ft ² addition and > 2,500 ft ² landscape area)		
MATERIAL CONSERVATION & RESOURCE EFFICIENCY				
10	9.406.1	Joints and openings		
11	9.407.3	Flashing details		
12	9.407.4	Material protection		
13	9.408.1	Construction waste reduction of at least 50 percent		
14	9.410.1	Operation and maintenance manual		
ENVIRONMENTAL QUALITY				
15	9.503.1	Fireplaces and woodstoves		
16	9.504.1	Covering of duct openings and protection of mechanical equipment during construction		
17	9.504.2	Finish material pollutant control		
18	9.504.2.1	Adhesives, sealants, caulks		
19	9.504.2.2	Paints and coatings		
20	9.504.2.3	Aerosol Paints and Coatings		
21	9.504.2.4	Verification		
22	9.504.3	Carpet systems		
23	9.504.3.1	Carpet cushion		
24	9.504.4	Resilient flooring systems		

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26	9.505.2.1	Capillary break		
27	9.505.3	Moisture content of building materials		
28	9.506.1	Bathroom exhaust fans		
29	9.507.1	Whole house exhaust fans		
30	9.507.2	Heating and air-conditioning system design		

MANDATORY REQUIREMENTS CHECKLIST

**NEWLY-CONSTRUCTED NON-RESIDENTIAL BUILDINGS AND RESIDENTIAL
BUILDINGS OVER SIX STORIES**

(INCORPORATE THIS FORM ONTO THE PLANS)

Project Address: _____

Date: _____

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note # or detail #)
PLANNING AND DESIGN				
1	5.106.1	Storm water pollution prevention plan		
2	5.106.4.1	Short-term bicycle parking		
3	5.106.4.2	Long-term bicycle parking		
4	5.106.5.2	Designated parking		
5	5.106.5.3.1	Electric vehicle supply wiring		
6	5.106.8	Light pollution reduction		
7	5.106.10	Grading and Paving		
ENERGY EFFICIENCY				
8	5.210.1	ENERGY STAR equipment and appliances		
9	5.211.4	Prewiring for future solar		
10	5.211.4.1	Off grid prewiring for future solar		
WATER EFFICIENCY & CONSERVATION				
11	5.303.1.1	Buildings in excess of 50,000 square feet/submeter		
12	5.303.1.2	Excess consumption		
13	5.303.2	20 Percent Savings		
14	5.303.2.1	Multiple showerheads serving one shower		
15	5.303.4	Wastewater reduction		
17	5.304.1	Water budget		
18	5.304.2	Outdoor potable water use		
19	5.304.3	Irrigation design		
MATERIAL CONSERVATION & RESOURCE EFFICIENCY				
20	5.407.1	Weather protection		
21	5.407.2.1	Sprinklers		
22	5.407.2.2	Roof overhangs and recesses entries		
23		Nonabsorbent interior finishes		
23	5.408.1	Construction waste diversion		
24	5.408.4	Excavated soil and land clearing debris		
25	5.410.1	Recycling by occupants		
26	5.410.2	Commissioning (> 10,000 sq ft.)		
27	5.410.2.1	– Owner’s Project Requirements (OPR)		

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28	5.410.2.2	– Basis of Design (BOD)		
29	5.410.2.3	– Commissioning plan		
30	5.410.2.4	– Functional performance testing		
31	5.410.2.5.1	– Systems manual		
32	5.410.2.5.2	– Systems operations training		
33	5.410.2.6	– Commissioning report		
34	5.410.4	Testing, adjusting and balancing (< 10,000 sq ft)		
35	5.410.4.2	– Systems		
36	5.410.4.3	– Procedures		
37	5.410.4.3.1	– HVAC balancing		
38	5.410.4.4	– Reporting		
39	5.410.4.5	– Operation and maintenance manual		
40	5.410.4.5.1	– Inspections and reports		
ENVIRONMENTAL QUALITY				
41	5.503.1	Fireplace		
42	5.503.1.1	Woodstoves		
43	5.504.3	Covering of duct openings and protection of mechanical equipment during construction		
44	5.504.4	– Finish material pollutant control		
45	5.504.4.1	– Adhesives, sealants, and caulks		
46	5.504.4.3	– Paints and coatings		
47	5.504.4.3.1	– Aerosol Paints and Coatings		
48	5.504.4.3.2	– Verification		
49	5.504.4.4	Carpet systems		
50	5.504.4.4.1	Carpet cushion		
51	5.504.4.5	Composite wood products		
52	5.504.4.6	Resilient flooring systems		
53	5.504.5.3	Filters		
54	5.504.7	Environmental tobacco smoke (ETS) control		
55	5.505.1	Indoor moisture control		
56	5.506.1	Outside air delivery		
57	5.506.2	Carbon dioxide (CO ₂) monitoring		
58	5.507.4	Acoustical control		
59	5.507.4.1	Exterior noise transmission for roof		
60		Exterior noise transmission for walls		
61		Exterior noise transmission for windows		
62	5.507.4.2	Interior sound		
63	5.508.1	Ozone depletion and global warming reductions		
64	5.508.1.1	CFCs		
65	5.508.1.2	Halons		

MANDATORY REQUIREMENTS CHECKLIST

NEWLY-CONSTRUCTED RESIDENTIAL BUILDINGS OF SIX STORIES OR LESS

(INCORPORATE THIS FORM INTO THE PLANS)

Project Address: _____

Date: _____

ITEM #	CODE SECTION	REQUIREMENT	REFERENCE SHEET (Sheet # or N/A)	COMMENTS (e.g. note # or detail #)
PLANNING AND DESIGN				
1	4.106.2	Storm water drainage and retention during construction		
2	4.106.3	Surface drainage		
3	4.106.6	Electric vehicle supply wiring		
ENERGY EFFICIENCY				
4	4.210.1	Appliance rating		
5	4.211.4	Future access for electrical solar system		
6	4.211.4.1	Space for future electrical solar system		
WATER EFFICIENCY & CONSERVATION				
7	4.303.1	20 percent savings		
8	4.303.2	Multiple showerheads serving one shower		
9	4.304.1	Irrigation controllers		
10	4.304.1.1	Irrigation design		
MATERIAL CONSERVATION & RESOURCE EFFICIENCY				
11	4.406.1	Joints and openings		
12	4.407.3	Flashing details		
13	4.407.4	Material protection		
14	4.408.1	Construction waste reduction of at least 50 percent		
15	4.410.1	Operation and maintenance manual		
ENVIRONMENTAL QUALITY				
16	4.503.1	Fireplaces and woodstoves		
17	4.504.1	Covering of duct openings and protection of mechanical equipment during construction		
18	4.504.2	Finish material pollutant control		
19	4.504.2.1	Adhesives, sealants, caulks		
20	4.504.2.2	Paints and coatings		
21	4.504.2.3	Aerosol Paints and Coatings		
22	4.504.2.4	Verification		
23	4.504.3	Carpet systems		
24	4.504.3.1	Carpet cushion		
25	4.504.4	Resilient flooring systems		

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26	4.504.5	Composite wood products		
27	4.505.2.1	Capillary break		
28	4.505.3	Moisture content of building materials		
29	4.506.1	Bathroom exhaust fans		
30	4.507.1	Whole house exhaust fans		
31	4.507.2	Heating and air-conditioning system design		

Operation and Maintenance Manual

In compliance with the California Green Building Standards Code, this Operation and Maintenance Manual shall be available at Final Inspection and remain with the building throughout the life-cycle of the structure.

This manual has been prepared for the dwelling located at:

Address

City/State/Zip

Builder

Address

City/State/ Zip

Phone/Internet

Electricity for this property is provided by:

Check if solar or alternate source of electricity is used.

Service Provider

Address

City/State/Zip

Phone/Internet

Alternate Source

*Information to reduce use of electricity is included.

Water for this property is provided by:

Check if well or alternate source of water is used.

Service Provider

Address

City/State/Zip

Phone/Internet

*Information to reduce consumption of water is included.

***Note: The provider of this manual is required to include information from local utility, water and waste recovery providers on methods to further reduce resource consumption including recycle programs and locations.**

Sewer for this property is provided by: <input type="checkbox"/> Check if private sewage disposal/septic is used.
Service Provider
Address
City/State/Zip
Phone/Internet
*Information to reduce demand on sewage system is included.

Fuel Gas for this property is provided by: <input type="checkbox"/> Check if Liquid Propane tank is used.
Service Provider
Address
City/State/Zip
Phone/Internet
*Information to reduce consumption of fuel gas is included.

***Note:** The provider of this manual is required to include information from local utility, water and waste recovery providers on methods to further reduce resource consumption including recycle programs and locations.

Garbage/Trash removal for this property is provided by:

Service Provider

Address

City/State/Zip

Phone/Internet

*Information on waste reduction is included.

Recycling for this property is provided by:

Service Provider

Address

City/State/Zip

Phone/Internet

*Information about local recycling programs and their locations is included.

***Note: The provider of this manual is required to include information from local utility, water and waste recovery providers on methods to further reduce resource consumption including recycle programs and locations.**

Public Transportation

Regional and local public transportation options, including address, phone and web addresses are provided below.

Bus line

Phone/Internet

Light Rail / Train

Phone/Internet

Car Pool/Van Pool

Phone/Internet

Ride Share or Other

Building Department

Occupancy of this dwellings occupancy was authorized by authority of the Local Enforcing Agency.

Local Enforcing Agency

Address

City/State/Zip

Phone

Special Inspection Verification/Certification

Special inspection required by the CALGreen code or by the local enforcing agency shall be verified. Upon completion a copy of inspection verification and/or certificates of completion shall be included in this manual.

- | | |
|---|--|
| <ul style="list-style-type: none">● HVAC system commissioning● HERS Verification● Cool roof verification● Material conservation● Other third party requirements | <ul style="list-style-type: none">● Blower door testing● Attic Insulation● Thermal insulation● Cement reduction |
|---|--|

Note: The above listed items are not an all inclusive of measures that may need "Special Inspection." Check with the local enforcing agency to verify mandated special inspections and verification requirements.

Fill in any other verifications or certifications below:

Solar Incentive Programs

California Programs

Information about state renewable energy incentive programs, such as the California Solar Initiative, is available through the California Energy Commission or through Go Solar California at the websites below.

- <http://www.energy.ca.gov/>
- <http://gosolarcalifornia.ca.gov>

Other Programs

Contact your local government or public utility from the information provided previously in this manual for more information regarding energy conservation tips, strategies and public/private partnerships that promote enhanced sustainability and/or save money.

Tax breaks, including rebates, credits or discounts may also be available through the local government, public utilities or the Federal Government, US Department of Energy.

The U.S. Department of Energy website: <http://www.energy.gov/yourhome.htm>

Water Conserving Landscape

To comply with the California Green Building Standards Code, automatic irrigation system controllers for landscaping installed at the time of final inspection must be weather- or soil moisture-based.

Irrigation Controllers

There are several types of irrigation controllers that base the irrigation schedule on evapotranspiration data. Other irrigation controllers may use a combination of historical data and real-time data feeds from on-site temperature sensors, soil moisture sensors, sunlight intensity indicators or they may use data from weather stations. Weather and/or soil moisture-based controllers represent technological advances in irrigation that enable the proper amount of water required by the landscape plants or postpone irrigation during periods of rain. Utilizing these "smart" controllers is an improvement over irrigating by an arbitrary "run time" where the amount of water needed and the amount of water applied may not be effectively matched.

Landscape Water Use Conservation Methods

There are many methods to reduce the amount of water used in a landscape and still maintain the health, appearance and function of the landscape. Following are a few examples:

- Conform to local or the California Department of Water Resources' model Water Efficient Landscape Ordinance
- Use water-efficient landscape designs utilizing native and drought tolerant plants and by minimized turf areas

- Use mulch, soil amendments or other soil improvement methods to reduce water loss through evaporation or runoff and to improve water availability for plant use.
- Install efficient irrigation systems and follow a regulator maintenance schedule. Adjust irrigation controllers as necessary to accommodate changes in seasons and plants needs.
- Schedule landscape irrigation during early or late hours
- Continue learning or education to stay current on new technologies, strategies or products that promote efficient water use.

Irrigation System Design

Homeowners or a design professional can develop an efficient system design meeting homeowner expectations while also reducing waste and conserving natural resources.

When planning landscaping and irrigation the follow ideas can help:

- Use drought tolerant or native species plants.
- Minimize the usage of spray heads.
- Install a low consumption irrigation system such as drip or subsurface.
- Use graywater or recycled water when possible.
- Consider rainwater catchment and storage systems.
- Follow the manufacturer's installation instructions to ensure optimum system efficiency.

Operation and Maintenance Information

This property and structure requires periodic maintenance of the grounds, equipment and appliances.

Manufacturer installation, operation and maintenance instructions must be followed for all equipment and appliances.

Examples of these manuals include but are not limited to;

- HVAC system
- Water heater
- Water saving devices and water reuse systems
- Water pump and/or well
- Water treatment system
- Kitchen appliances
- Garage door and opener
- Whole house fan
- Security alarm system
- Smoke, fire and carbon monoxide alarms
- Landscape irrigation system
- Photovoltaic electrical system
- Septic system

Included or attached to this manual are the manufacturer's installation and maintenance instructions for each specific appliance and/or equipment installed.

Checklist

Proper maintenance will extend the life of a building and the systems installed there in. In addition to specific manufacturer instructions for maintenance and service, the following checklist will assist setting a typical maintenance schedule required on a building.

Weekly

- Survey the property, check overall condition
- Check landscape irrigation system for leaks and broken heads
- Check exterior lighting for burned out bulbs

Monthly

- Change return air filters
- Check caulking- exterior, interior at plumbing fixtures and at floors (tub, toilet etc.)
- Check exterior drainage and swales
- Check exhaust fan and damper door for correct operation
- Dust off and test smoke and carbon monoxide detectors for operation
- Check plumbing for leaks (bathtubs, dishwasher, sinks, lavatories, showers, laundry hook ups, water heater, toilets and any other plumbing)
- Check plants and shrubs – trim to avoid contact with house
- Check irrigation sprinklers and adjust as necessary – avoid water spray on building and ensure uniform coverage
- Test ground fault circuit interrupter (GFCI) outlets

Semi-Annually

- Check clothes dryer vent pipe and remove any lint
- Clean out roof gutters and downspouts
- Inspect roof system for broken or missing roofing material
- Check and clean window weep holes
- Check weather stripping
- Check outdoor AC condenser unit for obstructions and/or debris, clean fins with water hose (while unit is off) for optimal performance
- Check house for evidence of termites and other pests
- Check all painted surfaces
- Drain water heater to remove sediment

Annually
Change batteries in smoke and carbon monoxide detectors
Check condensate drain lines for blockage
Trim trees back to avoid contact with house
Check chimney flue and vents for obstructions and debris

Portions of this property will require routine maintenance and may not have a specific manual.

Grading

The grading around the building is sloped away from the structure is not only functional, but a building code requirement enforced during the final inspection. The yard drainage must not drain onto neighboring property or near the building foundation. It is important the owner or tenant maintain this grade or swale to protect the building from moisture. An inspection after any landscaping, construction or a storm is necessary, so the swale or grade always directs the flow of water away from the foundation of the building and to storm sewer systems or other appropriate locations approved for the structure.

Gutters

The gutter and downspouts will need periodic maintenance to ensure proper function. The required interval for this maintenance will vary by season, however, gutters and downspouts should be inspected for debris before the rainy season. When trees and other deciduous vegetation shed leaves that drop into the gutters, this will inhibit the flow of water and possibly clog downspouts. The leaves and/or debris must be removed in order for the system to work as designed. The downspouts should direct the storm water away from the foundation at least 5 feet to avoid damage to the structure. Always keep the area clear where the storm water flows out of the downspout, if a clear area is not possible subsurface drains may need to be installed.

Irrigation

Inspect the landscape irrigation systems weekly for leaking or broken heads.

Frost Protected Foundation Systems

When the building utilizes a Frost-Protected Shallow Foundation, as allowed by local conditions, the monthly mean temperature of the building must be maintained at a minimum of 64°F (18°C).

Relative Humidity (RH)

RH is the percent of moisture in the air compared to the maximum amount of moisture this air can hold at the same condition. Warm air will hold more moisture than cold air. The design of the HVAC system should include controlling the moisture levels appropriate to the climate. The addition of moisture (humidification) may be required in colder climates during the winter season and removed (dehumidification) during the summer months.

Automatic, computer controlled humidifiers can control the humidity levels, providing enough moisture for a healthy comfortable dwelling and within the limits to prevent window and cold surface condensation. These levels are usually between 30 to 60 percent RH although certain health conditions may dictate benefits at either the higher or lower ranges.

Hygrometer

The hygrometer will show RH. Although the RH will not be exactly the same throughout the structure, one hygrometer is usually sufficient. It should be placed where the humidity symptoms are most obvious, in the room that you are most concerned about.

Low Relative Humidity

Below 30 percent RH, people can be uncomfortable and can suffer from dry mucus membranes which can lead to nosebleeds and infections. In general, low RH is only a problem during the winter months, when the outside air contains very little moisture. It is this dry outside air entering through cracks and openings in the building shell that causes the inside air to become dry. The greater the amount of outside air which leaks into the building, the dryer the indoor air becomes. By air-sealing and using energy-efficient construction, uncontrolled air leakage is greatly reduced, a more controlled indoor environment is created, and RH can be maintained at acceptable levels without the use of a humidifier.

Humidifiers require maintenance to avoid becoming breeding grounds for biological contaminants. The effects of bacteria, viruses, fungi, respiratory infections, allergic rhinitis and asthma, and ozone production can be minimized by higher humidity levels. Studies have shown that wintertime operation at 68° F at 60% RH provides the same level of occupant comfort as does 72° F at 30% RH; so lower utility bills and healthier environment are both benefits of controlled RH.

High Relative Humidity

High RH can lead to occupant discomfort, annoyances, and possibly serious health issues as they relate to bacteria, viruses, fungi, mites (dust mites and mold), allergic rhinitis and asthma, and chemical interactions. with mold, dust mites, and other biological pollutants.

The air conditioning system and/or stand-alone dehumidifier are designed to remove moisture (latent load) and decrease the RH levels. Studies show that summertime operation at 78° F at 30% RH provides the same level of occupant comfort as does 74° F at 70% RH. This lower humidity level will provide increased comfort, lower utility bills and less risk of health issues associated with high humidity.

Using exhaust fans in the bathrooms and kitchen can remove much of the moisture that builds up from everyday activities and help keep RH below 50%. Having a humidistat connected to an exhaust fan is required in bathrooms. This is an effective way to control RH in moisture prone areas. When using an adjustable humidistat, the setting should be adjusted according to the season -- lower RH in the summer and higher RH in the winter. Another benefit to using kitchen and bathroom exhaust fans is removal of odors and pollutants. These fans can also be part of an active ventilation system for the entire house and help to reduce humidity levels.

EQUIPMENT & FIXTURE INFORMATION

Provide the make, model and maintenance information for the following equipment and fixtures. This information may be submitted by the contractor at the time of final inspection.

Compressor

Manufacturer's catalog is provided, or

The information for this equipment is provided as follows:

Equipment type: _____ Make: _____

Model: _____

Maintenance Instructions: _____

Air Filter

Manufacturer's catalog is provided, or

The information for this equipment is provided as follows:

Equipment type: _____ Make: _____

Model: _____

Maintenance Instructions: _____

Furnace

Manufacturer's catalog is provided, or

The information for this equipment is provided as follows:

Equipment type: _____ Make: _____

Model: _____

Maintenance Instructions: _____

Water Heater

Manufacturer's catalog is provided, or

The information for this equipment is provided as follows:

Equipment type: _____ Make: _____

Model: _____

Maintenance Instructions: _____

Garbage disposal

Manufacturer's catalog is provided, or
 The information for this equipment is provided as follows:
Equipment type: _____ Make: _____
Model: _____
Maintenance Instructions: _____

Dishwasher

Manufacturer's catalog is provided, or
 The information for this equipment is provided as follows:
Equipment type: _____ Make: _____
Model: _____
Maintenance Instructions: _____

Roof & Yard Drainage:
Maintenance Instructions: _____

Landscape Irrigation:
Maintenance Instructions: _____

Other:
Maintenance Instructions: _____

Other:
Maintenance Instructions: _____

