



January 5, 2007

Home Inspection Report
for
John Smith



The Villages at Manu Kai
Kilauea Coast HI 96731
TMK #3-6-0-0-0



Woodbury Home Inspection Service Inc.
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This report, does not enlarge in any way, the duties, obligations, and exceptions, provided in the inspection agreement. These reports are confidential and are for the exclusive private use of the customer. They are not to be copied or disseminated to any other party without the expressed written consent of the inspector. Read both the summary report and field report in their entirety. The items listed below may require repair.

January 5, 2007

Home inspection Summary Report for:
John Smith

Location:
The Villages at Mauna Lani
Kohala Coast HI 96743

Dear Mr. Smith:

The following is a summary of your inspection report, including defects and problems I have discovered at The Villages at Mauna Lani :

Exterior:

- 1.) At the siding at the garage exterior below the building number sign, I observed noticeable blotchy cosmetic patching at the siding surface. Additional cosmetic touch up is needed to provide an even visual finish.

Lanai:

- 1.) Grout repair is needed at the pool deck lanai near the lanai sliding doors where the grout line has cracked along a cold joint between the house and patio slab. It may be prudent to install a color matched elastomeric caulking "expansion joint" in this location. Consult a licensed tile specialist.

Garage:

- 1.) I observed a small cosmetically chipped section of concrete slab at the garage entry.



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Attic, roofing, and gutters:

1.) At the gutter downspout between the garage and the entry, a section of gutter downspout is missing. Additionally, at the Northwest corner of the building, the gutter downspout splash block needs to be placed back under the downspout



2.) At the roofing I observed a few small sections of ridge and hip cap tile where the tile grout has come loose, apparently as a result of the October 3006 earthquakes, spot cosmetic repair is needed.

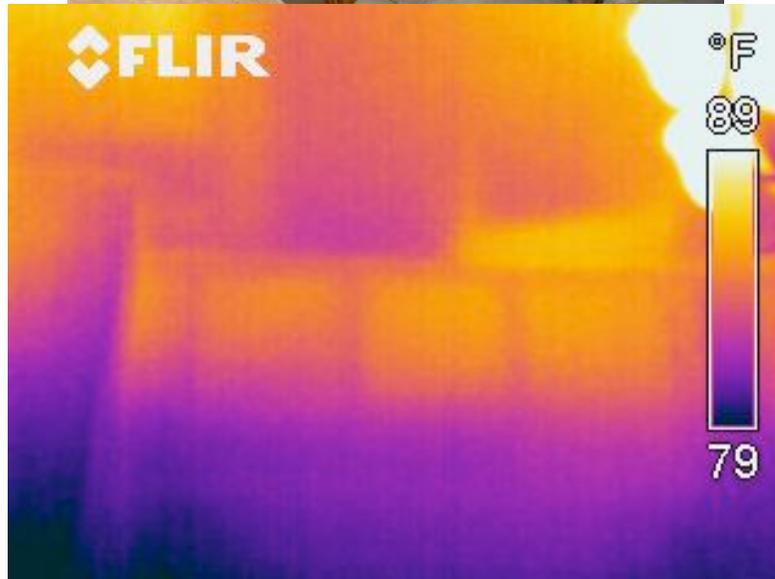


A licensed roofing contractor should be consulted to assess and correct the roofing items.

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Insulation:

1.) Using the thermal imaging camera, I was able to determine that insulation is missing at the entry foyer vaulted ceiling walls. I was able to confirm this with visual inspection from the attic as well.



The missing or misplaced insulation should be reinstalled by an insulation specialist.

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Plumbing:

1.) The large 120 gallon water heater that is located in a closet in the garage is currently fitted with a small seismic strap rated for a 50 gallon water heater.

I would recommend adding an additional seismic safety strap to the lower 1/3 of the water heater per the Uniform Plumbing Code (UPC), section 510.5 "In seismic zones 3 and 4, water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Strapping shall be at points within the upper one-third (1/3) and lower one-third (1/3) of its vertical dimensions. At the lower point, a minimum of four (4) inches (102mm) shall be maintained above the controls with the strapping."

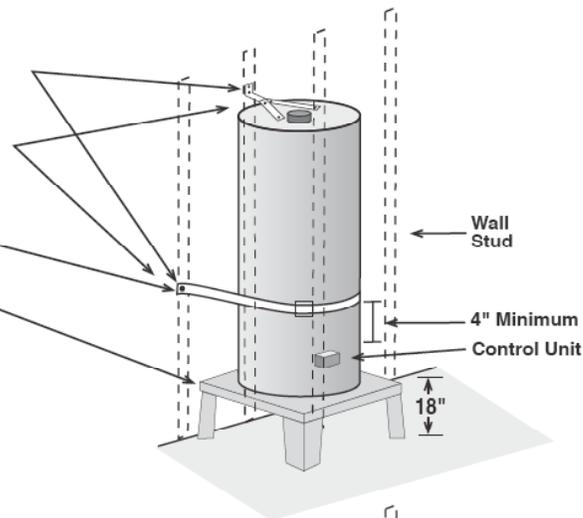
Example 1

These types of restraints are over-the-counter products sold at your local hardware store.

Drill pilots on center line of stud, insert screws through punched holes in strap. Use washers.

The lower strap must be a minimum of 4" above the control unit.

This 18" stand is required for heaters installed in a garage location.



Example 2

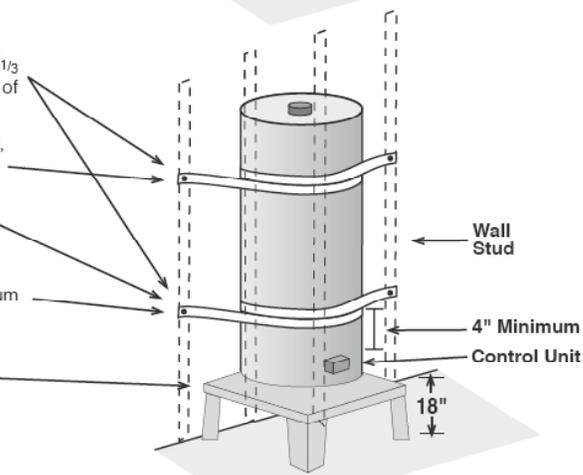
Minimum 22 Gauge metal strap material installed within the top 1/3 of the heater and the bottom 1/3 of the heater.

Drill pilots on center line of stud, insert screws through punched holes in strap.

Use minimum 1/4" screws with minimum 1 1/2" penetration. Use washers.

The lower strap must be a minimum of 4" above the control unit.

This 18" stand is required for heaters installed in a garage location.



2.) I was unable to get a significant amount of hot water at the various plumbing fixtures. The temperature settings at the water heater should be checked prior to occupancy.

A licensed plumber should be consulted to assess and correct the plumbing items.

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Electrical system:

- 1.) Using a thermal imaging camera, I inspected the electrical panels under full simulated load to determine if any breakers, or connections displayed excess heat which can indicate a loose connection or an electrical malfunction. I did not observe any apparent defects at the electrical panels using the thermal imaging camera. All recorded temperatures were well within acceptable industry allowed ranges. The wiring workmanship in the electrical panels is impeccable.
- 2.) At the entry foyer, the two recessed ceiling lights both have insulation in contact with them in the attic. These lights are rated “non insulation contact” and the insulation should be removed around the recessed lights to prevent the build up of excess heat.

Air conditioning system:

- 1.) The air filters at the return air registers are soiled and will require replacement. Dirty filters significantly reduce the efficiency of these systems. The air filters should be replaced after every 30 to 45 days of continuous system use, and the systems should be serviced annually by a licensed HVAC specialist. Service should include filter changes, coil cleaning, condensate drain line and condensate pan cleaning, and full refrigerant test and balancing services.
- 2.) Additional duct sealant is needed at the supply side of the Southern return air handler. Currently the duct leakage is decreasing system efficiency and causing condensation formation on the air handler exterior around the leak. This is an item that can be simply addressed during routine maintenance.



The area outlined in red in the thermal image is below the dew point, its surface temperature is low enough to cause condensation to form on its surface.

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Air conditioning continued:

3.) I would recommend insulating the condensate drain lines at both air handlers. After calculating the dew point in the attic space using temperature and relative humidity measurements, I was able to program a dew point alarm into the thermal imaging camera, and determined that the traps at the condensate drain lines cool to below the dew point during air conditioning use. To prevent condensation from forming on the drain line traps and dripping onto the ceiling below, these condensate drain lines should be insulated. This is also an item that can be simply addressed during routine maintenance.



Consult an HVAC specialist to assess and service these air conditioning systems.

Laundry:

1.) I observed evidence of past leakage at the laundry sink drain line.

Kitchen:

1.) I was unable to get the “Wolf” cooktop to heat. Consult an appliance specialist to assess and correct this condition.

Interior:

1.) I observed a few small cosmetic cracks in the sheet rock in a few locations that appears to be left over from the 2006 earthquakes. Cosmetic repair is needed.

Doors and windows:

- 1.) The garage fire door does not latch when closed. Adjustment is needed at the door hardware.
- 2.) At the bi-fold pantry doors in the kitchen, adjustment to the door track hardware is also needed. Currently the hardware binds when the right hand door is opened.

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Pool and spa:

- 1.) I was unable to locate the portable spa remote control.
- 2.) The permanently mounted spa controller at the pool equipment needs to be properly secured.
- 3.) At the spa heater plumbing, a chlorine bleeder line has been cut, and when the spa jet feature is engaged, this line squirts water all over the spa control equipment. I was unable to fully test the spa heater and jets feature as a result. Repair is needed.
Consult a licensed pool contractor.

Pests:

- 1.) Paper wasps are nesting in a few locations at the building eaves, and at the pool pump room interior. These wasps will need regular abatement.
Consult a licensed pest control specialist.

Apart from the deferred maintenance and left over builder related “punch-list” items listed above I found few problems at this well constructed luxury residence. As is typical of Centrel built houses, This residence has been constructed with fine craftsmanship, quality materials and great attention to detail. It is well maintained and in “like new” condition. I would recommend a re-inspection to ensure that the above identified items have been properly corrected prior to occupancy.

Please call if you have any questions, and thank you for having me provide you with a home inspection report.

Respectfully submitted,
Alex Woodbury

Alex Woodbury
Woodbury Home Inspection Service Inc.