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NAME:	ROOF ADDRESS:
DATE: October 6, 2006	
METHOD OF INSPECTION: Walked on roof, crawle	ed attic where accessible.
MAIN ROOF COVERING Cement Tile: Strip Shingle: _XX Wood Shingle: Tar and Gravel: Other: Pitch: Steep: Medium: _XX _ Flat:	Other:
Attic Ventilation: Screen Vents: XX Turbine: XX	% Of Attic Limitation: 60 Reason: Design, insulation
Attic Insulation: Batts: XX Blown:	Other: Thickness: 4 to 6 Inches
been inspected. Inspection is valid for the date of Inspincluded in the scope of Inspection. Graph is not an ea warranty or guarantee of any kind. Magnum Inspefor repairs.IT IS REQUIRED THAT ALL REPAIRS WARRANTY INFORMATION SHOULD BE OBTA	t the time of Inspection. See below for details. All system components have section, only, unless otherwise noted. Metal/plastic or Lien-to roofs are not exact representation of leaks or visible damage. This Inspection report is not ctions does not warranty the work of others. This inspection is not a contract BE PERFORMED BY A LICENSED ROOF CONTRACTOR. ANY INED FROM THE SELLER OF THE PROPERTY.
DEFICIENCIES: See attached page.	
= Leaks = Rotted Wood <u>INSPEC</u>	TOR: ERIC VAN DE VEN SIGNATURE:
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ROOF INSPECTION CONTINUED

NAME:	ADDRESS:
DATE: October 6, 2006	

A new roof has been installed at the above property. The homeowner requested an inspection of the installation. Below are the results of that inspection.

MAIN ROOF

Numerous shingles are either overdriven, underdriven, or in some instances, not even nailed to the deck. This does not meet the manufacturers installation specifications or the South Florida Building code pertaining to the High Velocity Wind zone. These shingles may not stay in place under high wind conditions.

There were numerous nails that have missed the trusses in the attic. This does not meet the new nailing pattern. Although nails may have been installed next to the missed nails, there is no way to know without removing the roof coverings.

There was rotted/damaged wood present at all vent stacks and at the dryer and bathroom vent hoods. The turbine fans were installed improperly. One has the hole cut in a manner that only allows 1/3rd of the total air flow to be used (garage side fan) and the other fan appears to have been installed where the power vent fan used to be. The hole is too large and as a result, the metal tab at the rear of the fan is not supported by any decking.

Flashing has been added to the front decorative beam. The flashing has been nailed from the top which will allow the water to pool on top of the nails. This will result in the nails rusting, they have already started to rust, and eventually, the beam will also rot.

The wall flashing at the living room/garage joint was not installed properly and the stucco was also damaged. The wire mesh is exposed. The homeowner stated that water was leaking in this area. It is highly probably that the water is leaking in this area.

The homeowner stated that the roofing contractor replaced all of the vent stacks. In fact, none of the vent sack boots were replaced. The vents for the dryer and bathroom were replaced, however, there is damaged/rotted wood under these vents that was not removed.

There is a dip in the plywood decking between and on either side of the front skylights. The decking is warped due to the previous improper ventilation of the attic. The decking should have been replaced to ensure a flat surface for the shingles to be installed on. The owner submitted pictures showing the dip prior to the contractor adding more shingles to build up this area. This is not the proper method to level warped plywood. The shingles are to be used as a "final roof covering", not spacers.

RECOMMENDATIONS:

It is recommended that the entire roof be replaced to insure that proper installation methods have been used. Repair to any damaged wood should also be done to facilitate a flat roof decking surface. Proper permitting and inspections should be performed during each phase of the re-roof.

If there are any questions about this report, please do not hesitate to call.

Eric Van De Ven Owner/Inspector Magnum Inspections Inc. 954 340-6615

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ROOF CODE REFERENCES

NAME:	ADDRESS:
DATE: October 6, 2006	<u> </u>

SECTION 1514 HIGH-VELOCITY HURRICANE ZONES— WEATHER PROTECTION

1514.1 General.

Roof decks shall be covered with roof coverings secured to the building or structure in accordance with the provisions of this chapter. Roof coverings shall be designed, installed and maintained in accordance with this code and the manufacturer's installation instructions such that the roof covering shall serve to protect the building or structure. All roof coverings, roof systems and roof assemblies shall be designed and installed to resist the wind-load requirements of Chapter $\underline{16}$

1514.2 Flashings.

Flashings shall be installed in such a manner as to prevent moisture entering the wall through the joints in the coping, through moisture permeable materials, at intersections with the roof plane or at parapet wall penetrations. All roof flashing and terminations shall be designed and installed to resist the wind-load requirements of Chapter 16

1514.2.1 Locations.

Flashings shall be installed at (1) wall and roof intersections, (2) at gutters, (3) wherever there is a change in roof slope or direction, this requirement does not apply to the hip and ridge junctions, and (4) around roof openings. Where flashing is of metal, the metal shall conform with the provisions of RAS 111.

1514.2.2 Membrane flashings.

All membrane flashing shall be installed according to the roof assembly manufacturer's published literature and in accordance with the provisions set forth in RAS 111.

1514.2.3 Metal flashings and terminations.

Metal flashing and terminations shall be of the material and thickness described in Section 1517.6

1514.2.3.1

Such felts shall be embedded in hot bitumen or an approved adhesive.

1514.2.3.2

Metal surfaces shall be primed with an ASTM D 41 or ASTM D 43 primer, as appropriate and allowed to dry prior to receiving hot bitumen or cold adhesive.

1514.2.4 Metal counterflashing.

Metal counterflashing shall be of the material and thickness described in Section 1517.6

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SPECTIONS

ROOF CODE REFERENCES CONTINUED

NAME:		ADDRESS:
DATE: October 6, 2006	_	
	SECTION 1514	

HIGH-VELOCITY HURRICANE ZONES— WEATHER PROTECTION

1514.2.4.4

Where metal counterflashing is used as the means of sealing (such as a vented system) it shall be set in an approved sealant, sealed with an approved adhesive on the top flange and all joints shall be sealed with an approved sealant and lapped a minimum of 4 inches (102

1514.2.5 Roof penetration flashing.

1514.2.5.1

All pipes shall be flashed with approved lead sleeve-type, pitch pans or other approved methods detailed in the roofing system assembly Product Approval. Lead flashing shall not be less than 2.5 pounds per square foot (12.2 kg/m 2). Flanges shall be a minimum of 4 inches (102 mm).

1514.2.5.2

Other roof penetrations shall be suitably flashed with curbs, collars, pitch pans, in compliance with RAS 111 or an approved method, in compliance with the roofing system assembly Product Approval.

1514.2.5.3

No roof penetration shall be located in roof valleys.

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ROOF CODE REFERENCES CONTINUED

NAME:		ADDRESS:
DATE: October 6, 2006		
	SECTION 1518	

HIGH-VELOCITY HURRICANE ZONES—ROOF COVERINGS WITH SLOPES 2:12 OR GREATER

1518.1 General.

Prepared roof coverings shall be as defined in Section <u>1513</u> and in general limited to application over sloped roof decks capable of receiving mechanical fasteners. Prepared roof coverings may be mechanically fastened or, in specific limited cases noted in the Product Approval, set in an adhesive bond.

1518.2 Underlayments.

Underlayment shall be as defined in Section 1513. Underlayment shall be installed in compliance with the roofing component Product Approval and shall be in compliance with the following minimum requirements:

1518.2.1

Underlayment shall be attached to a nailable deck in a grid pattern of 12 inches (305 mm) between the overlaps, with 6-inch (152 mm) spacing at the overlaps.

1518.2.2

Where the architectural appearance of the underside is to be preserved, the underlayment shall be secured in accordance with Section 1519.5.2

1518.2.3

Tin caps and nails or cap nails shall be applied as defined in Section 1517.5.2

1518.2.4

Underlayment nails shall be as defined in Section <u>1517.5.1</u>

Fiber-cement shingles shall be installed in compliance with the nailing requirements set forth in the Product Approval; however, attachment of each component shall be with not less than two corrosion resistant fasteners. If adhesive is used at the head or side laps, the system shall be defined as a "sealed system" with load calculations in compliance with Chapter 16

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ROOF CODE REFERENCES CONTINUED

NAME:	ADDRESS:
DATE: October 6, 2006	

1518.5 Fiber cement shingles.

Fiber-cement shingles shall be applied in compliance with the shingle manufacturer's roofing assembly Product Approval. The roofing system assembly Product Approval shall meet the following minimum requirements:

1518.5.1

All nonasbestos fiber-cement shingles shall conform to ASTM C 1225.

1518.5.2

Fiber-cement shingles shall be installed in compliance with the nailing requirements set forth in the Product Approval; however, attachment of each component shall be with not less than two corrosion resistant fasteners. If adhesive is used at the head or side laps, the system shall be defined as a "sealed system" with load calculations in compliance with Chapter 16

SECTION 1521 HIGH-VELOCITY HURRICANE ZONES—REROOFING

1521.1 General.

Materials and methods of application used for recovering or replacing an existing roof covering, system or assembly shall comply with the requirements set forth in Sections <u>1512 through 1525</u>

1521.2

Repairs shall be carried out with roofing components as defined in this chapter having a Product Approval.

1521.3

Repairs shall be carried out in such a manner as to not create additional ponding water.

1521.5

A roofing system shall not be applied over an existing roof or over an existing roof deck where the roof sheathing has not been fastened in compliance with this code or where the roof sheathing will not permit effective fastening or where sheathing is water soaked or deteriorated so that effective attachment is not possible. All areas of deteriorated sheathing shall be removed and replaced. The building official shall not be required to inspect the renailing of the sheathing under this section.

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MANUFACTURERS SPECIFICATIONS

NAME:	ADDRESS:
DATE: October 6, 2006	
	·

From GAF Timberline 40 installation instructions (see attached). Underlined portions pertain to this roof specifically.

ROOF DECKS: For use on new or reroofing work over well-seasoned, supported wood deck, tightly-constructed with maximum 6" (152mm) wide lumber, having adequate nail-holding capacity and **smooth surface.** Plywood decking as recommended by The Engineered Wood Assn. is acceptable. Where a Class A rating is required over decks less than 15/32" thick, an underlayment is required. **Do not** fasten shingles directly to insulation or insulated deck unless authorized in writing by GAFMC. Roof decks and existing surfacing material must be **dry** prior to application of shingles.

FASTENERS: Use of nails is recommended. Use only zinc coated steel or aluminum, 10-12 gauge, barbed, deformed or smooth shank roofing nails with heads 3/8" (10mm) to 7/16" (12mm) in diameter. Fasteners should be long enough to penetrate at least 3/4" (19mm) into wood decks or just through the plywood decks. **Fasteners must be driven flush with the surface of the shingle. Over driving will damage the shingle. Raised fasteners will interfere with the sealing of the shingles.**For normal installation, four fasteners must be installed per shingle, a nominal 6" (152mm) up from the bottom of the shingle. Fasteners must be installed approximately 1"–1-1/2" (25-38mm) and 13-1/2"–14-1/2" (343-368mm) from each side.

Second Course

Start and continue second course as shown. Trim 6" (152mm) from the end of the shingle. Position the shingles in the second and subsequent courses flush with the tops of the wide cutouts. This results in a 5-5/8" (143mm) exposure. Continue with full width shingles across the roof. Strike a chalk line about every 6 courses to check parallel alignment with eaves. NOTE: Shingles may be laid from either left or right hand side. Start at either rake

edge with shingles having 6" (152mm) trimmed from rake.

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Nails that have missed the trusses. There were a few nails like this throughout the roof.



Rotted/damaged decking observed at right side vent stack.



Missing plywood observed at left side turbine fan. There is no wood under the metal lip of this turbine fan base.



The right side turbine fan is installed in a manner that only allows for a third of the fan to be used.



Rotted/damaged decking at dryer vent stack.



Rotted/damaged wood at bathroom vent fan vent stack.

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More nails that missed the trusses.



Damaged stucco at roof flashing. The homeowner stated water was entering at this point. Due to the numerous voids, water is most likely entering the structure.



Vent stack sleeve that was not changed.



Metal flashing nailed from above at decorative beam. The nails have already started to rust. The beam will rot prematurely.



This is the base of the turbine fan. There is no wood under the metal flap.



Another vent stack that was not changed.

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Another vent stack that was not changed.



The other turbine fan base.



Another vent stack not changed.



Another vent stack not changed.



Over-driven nail at center of roof.



Another over-driven nail at the ridge caps. Numerous shingles were nailed like this.

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Full view of damaged stucco and exposed wire mesh at living room/garage roof joint.



Uneven shingle installation at peak of roof.



Nails used for installation of shingles. These nails may not be long enough for this application.



Extra row of shingles.



Another overdriven nail in the field of the roof.



Another nail driven in the sticky strip.

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Under-driven nail and over-driven nail in field shingles.



Dip in plywood decking between skylights.



Tar on skylight.



More damaged stucco at living room/garage roof joint.



Under-driven nail and over-driven nail in field shingles.



