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Report prepared on February 13, 2009

Prepared for:

Project:

On January 8 & 9, 2009 Allied Roofing Company performed a visual inspection of all 31-residence buildings, carports and the pool house. The roofs are what is referred to in the industry as a one-piece concrete 'S' tile. The roof tile appears to be the standard weight tile. This determination was made by the look and feel of the tile. The tiles were not weighed.

Overall the roofs appear to be in good condition. There are no excessive amounts of broken tile or signs of numerous roof repairs. It is unknown to Allied Roofing Company the extent of water intrusion to the interior of the units if such conditions exist. Should you require us to look to address any water intrusion and report on the cause, we would be more than happy to. There would be an additional \$0.00 fee per unit.

The roof slope is a moderate pitch requiring skill and safety equipment for those walking on the roof. The roof slope is a favorable condition as most roofs with steep or moderate slopes last much longer than those seen on most single-family homes. We did not do any destructive testing to determine the condition of the underlay.

There are three major concerns, which are common with all of the roofs. They are as follows:

- 1) The biggest concern on these roofs should be excessive debris in the waterways. The debris is usually the result of leaves from neighboring trees and those, which blow through the air during high winds. Debris buildup in the waterways blocks the flow of rainwater. When the rainwater cannot evacuate quick enough and could cause water intrusion. This condition will occur at the skylights, chimneys, valleys, etc. There is also debris build up in the rain gutters and downspouts. This condition will cause water to overflow the rain gutter and possibly back up into areas susceptible to water intrusion at the roofline.
- 2) The roof tiles were installed tight to the skylights, chimneys and valleys. While this is esthetically pleasing and conceals the roof metal from view, it allows debris to collect in these areas. Coupled with the debris, this condition is of serious concern at the chimneys and skylights. Rainwater can now be forced into unlikely places causing water intrusion, which would not normally occur. Water can actually be forced out into the field of the roof causing deterioration of the underlay and eventual water intrusion.
- 3) There is one condition, which cannot be corrected properly without re-roofing. This is the lack of roof metal along the perimeter edge of the roof. There is a 'bird stop' metal, yet no metal covering the topside of the fascia. The only threat to the buildings at these locations is possible dry rot to the fascia and roof sheathing. Proper installation of a tile roof system at the roof perimeter would included a layer of roofing underlay, the installation of 2" x 2" metal, one more layer of roofing underlay and then the 'bird stop'. There is no way to effectively correct this situation in a financially feasible manner without re-roofing.

Aside from the three items listed on the previous page, there wasn't much on the roofs, which was out of the ordinary for a tile roof system. All of the roofs shared some common items, which need attention while some had other issues. Below are the common items found on all of the buildings followed by a description of additional items for each building.

All Buildings:

- All of the roofs and rain gutters have debris in various amounts. This debris is primarily located at the skylights, chimneys and valleys. Some areas are excessive while others are light and of minor concern.
- The exposed mortar where the ridgelines meet is either cracked or completely missing.
- The seal at the roof projections (waste, heater and exhaust vents) is compromised.
- Roof tiles set tight to the backside of the skylight curbs and chimneys. The tiles are actually resting against the skylights and chimneys.
- The roof metal at the skylights and chimneys is compromised at the exposed vertical corners. These areas are susceptible to water intrusion.
- The sheet metal cap on top of the chimneys is compromised at the fastener locations.
- The fasteners used to secure the trim tiles and skylights are either bent over or protruding outward. This will leave the skylights and trim tiles loose.

The following are additional items not common to all buildings:

Building 1:

- There are six broken tiles.
- There are two missing 4" vent caps at the heater exhaust vents.

Building 2:

- There is one missing 4" vent cap at the heater exhaust vent.

Building 3:

- There is one missing 4" vent cap at the heater exhaust vent.

Building 4:

- There are three broken tiles.

Building 5:

- There are three broken tiles.

Building 6:

- There are four broken tiles.

Building 7:

- There is one skylight, which is broken. This needs to be replaced. The skylight is a 2' x 4' white acrylic dome skylight.
- There are three broken tiles.
- There is a 1 ½" waste vent which does not protrude through the roof metal. This condition will contribute to water intrusion. The vent pipe either was pushed down, or never made it through the roof metal. To correct this the roof tile as well as the surrounding components will need to be removed and the vent pipe extended through the roof at least 12".

Building 8:

- There are four broken tiles.

Building 9:

- There are two broken tiles.

Building 10:

- There is one 3" vent cap missing.
- There are two broken tiles.

Building 11:

- There is one 3" vent cap missing.
- There are three broken tiles.

Building 12:

- There is one broken tile.

Building 13:

- There is one broken tile.

Building 14:

- There are two broken tiles.

Building 15:

- There are three broken tiles.

Building 16:

- There are three broken tiles.

Building 17:

- There are two broken tiles.

Building 18:

- There are seven broken tiles.

Building 19:

- There are three broken tiles.

Building 20:

- There are four broken tiles.

Building 21:

- There is one broken tile.

Building 22:

- There are three broken tiles.
- There is a T-Top exhaust vent flashing which is missing the top piece. The top part of this roof flashing is what diverts the rainwater away from the interior of the structure. It is recommended that the flashing be removed and replaced with a new T-top. This will require the removal of the roof tile and roof components for replacement. New underlay and the existing tile shall be installed in conjunction with the new t-top flashing.
- At the edge of this roof near a fireplace, there is what appears to be some sort of solar charging system. There is exposed wiring. At this time, we are unsure of what this is and why it is on the roof. Since it has been secured to the roof and may also be penetrating the roof tile and underlay, it is recommended it be removed or installed in a manner, which does not compromise the roof system.

Building 23:

- There is one broken tile.

Building 24:

- There are five broken tiles.

Building 25:

- There are three broken tiles.

Building 26:

- There are four broken tiles.
- There is a T-Top exhaust vent flashing which is missing the top piece. The top part of this roof flashing is what diverts the rainwater away from the interior of the structure. It is recommended that the flashing be removed and replaced with a new T-top. This will require the removal of the roof tile and roof components for replacement. New underlay and the existing tile shall be installed in conjunction with the new t-top flashing.

Building 27:

- There are eleven broken tiles.

Building 28:

- There are eight broken tiles.

Building 29:

- There are eleven broken tiles:
- There is a 6" oval heater vent flashing which is missing the top piece.

Building 30:

- There are five broken tiles.

Building 31:

- No added deficiencies other than what is stated above for all buildings.

The carports have debris and issues with the mortar where the ridgelines meet. Other than this there were no other visible concerns with the carport roofs.

Recommendations for all buildings including those with additional items:

- Remove and replace the broken tiles with new to match. Repair the underlay where each tile is removed as needed. Seal the nail hole from the broken tile.
- Replace any missing tiles with new to match.
- Clean roofs and all waterways including the rain gutters and downspouts of debris.
- Reset any loose or displaced roof tiles.
- Re-nail the trim tiles where the nails are loose or protruding outward. The new nails shall be hop dip galvanized 16d nails.
- Apply new mortar where the existing is cracked, damaged or missing. The new mortar shall be mixed with color to match the roof tile or existing mortar.
- Remove the existing sealants at all roof projections and apply a polyurethane sealant to all roof projections.
- Cut the roof tiles back a minimum of two inches behind all of the skylights and chimneys. This shall include the removal of any debris from beneath the tiles at these locations.
- Seal all corners of the roof metal at the skylights and chimneys using a polyurethane sealant.
- Seal the sheet metal caps on top of the chimneys. This shall include the removal of the existing sealants and application of a polyurethane sealant at the fastener locations of the sheet metal cap and shroud.
- Seal the fasteners securing the skylights with a polyurethane sealant.
- Furnish and install new vent caps where the existing vent caps are missing.
- Remove and replace the damaged skylight on building #7.
- Remove the roof tiles and components surrounding the short waste vent pipe at building #7. Extend the waste vent; install new underlay, sheet metal flashing and roof tiles.
- Remove and replace the damaged T-top flashing on building #22 and #26.

All of the above findings and recommendations are being provided for the purpose of roof maintenance and general information of the condition of the roofs.

Beyond roof maintenance, re-roofing may or may not be a consideration. We are providing the following information should re-roofing be a consideration in near or distant future.

There are two ways you could proceed with re-roofing. Most common with a tile roof is to remove the tiles, install new sheet metal, underlay and then re-install the existing tiles. Any broken or damaged tiles are replaced with new to match. This will generally give you a warranty against leakage for a period of 5-10 years. The warranty period is dependant upon the roofing contractor. The other option for re-roofing is to remove the tiles and install an entirely different product. This method is not recommended from a cost standpoint. There is nothing wrong with the roof tiles on these buildings. The tiles will last a lifetime while the underlay and sheet

metal will not. If this ever becomes a consideration, we have provided diagrams of the roofs with dimensions and square footage.

Building identification:

To simplify things we assigned each building a number. There are a total of 31 residence buildings not including the carports, pool/club house, etc. Please see the attached map along with the following information.

- Building 1: 13422, 13424, 13426, 13428, 13430, 13432, 13434, 13436, 13438
- Building 2: 13410, 13412, 13414, 13416, 13418, 13420
- Building 3: 13398, 13400, 13402, 13404, 13406, 13408
- Building 4: 13380, 13382, 13384, 13386, 13388, 13390, 13392, 13394, 13396
- Building 5: 13362, 13364, 13366, 13368, 13370, 13372, 13374, 13376, 13378,
- Building 6: 13350, 13352, 13354, 13356, 13358, 13360
- Building 7: 13338, 13340, 13342, 13344, 13346, 13348
- Building 8: 13320, 13322, 13324, 13326, 13328, 13330, 13332, 13334, 13336
- Building 9: 13308, 13310, 13312, 13314, 13316, 13318
- Building 10: 13337, 13335, 13333, 13331, 13329, 13327
- Building 11: 13355, 13353, 13351, 13349, 13347, 13345, 13343, 13341, 13339
- Building 12: 13373, 13371, 13369, 13367, 13365, 13363, 12661, 13359, 13357
- Building 13: 13360, 13362, 13364, 13366, 13368, 13370
- Building 14: 13350, 13352, 13354, 13356, 13358, 13360
- Building 15: 13355, 13357, 13359, 13361, 13363, 13365
- Building 16: 13375, 13377, 13379, 13381, 13383, 13385, 13387, 13389, 13391
- Building 17: 13411, 13413, 13415, 13417, 13419, 13421
- Building 18: 13423, 13425, 13427, 13429, 13431, 13433
- Building 19: 13435, 13437, 13439, 13441, 13443, 13445, 13447, 13449, 13451
- Building 20: 13453, 13455, 13457, 13459, 13461, 13463, 13465, 13467, 13469
- Building 21: 13442, 13444, 13446, 13448, 13450, 13452, 13454, 13456, 13458
- Building 22: 13422, 13424, 13426, 13428, 13430, 13432, 13434, 13436, 13438
- Building 23: 13402, 13404, 13406, 13408, 13410, 13412, 13414, 13416, 13418
- Building 24: 13405, 13407, 13409, 13411, 13413, 13415, 13417, 13419, 13421
- Building 25: 13431, 13433, 13435, 13437, 13439, 13441, 13443, 13445, 13447
- Building 26: 13453, 13455, 13457, 13459, 13461, 13463,
- Building 27: 2720, 2724, 2728, 2732, 2736, 2740, 2740, 2744, 2752
- Building 28: 2756, 2760, 2764, 2768, 2772, 2776
- Building 29: 2780, 2784, 2788, 2792, 2796, 2800, 2804, 2808, 2812
- Building 30: 13440, 13442, 13444, 13446, 13448, 13450
- Building 31: 13452, 13454, 13456, 13458, 13460, 13462, 13464, 13466, 13468

Roof area square footage:

- Roof plan A: 7,500 square feet
- Roof plan B: 13,000 square feet
- Carports: 15,174 square feet
- Pool House: 805 square feet

Plan A ridgeline: 416 lineal feet

Plan B ridgeline: 628 lineal feet

There are 14 plan A roofs and 17 plan B roofs. This gives a total of 341,979 square feet including the carports and pool house.

Conclusion:

The roofs are in good condition. There are some deficiencies of concern. With corrective action, the roofs can be serviced for many more years. It is also recommended that the roofs be cleaned at least once annually. This helps minimize debris build up on the roofs and in the rain gutters. When the roofs are cleaned, they can be inspected for any possible problems. Preventive maintenance will help curb future water intrusion.

I hope this information is helpful. Should you have any questions or need further assistance, please let me know.

With Thanks,

Jared Ewart
Allied Roofing Company