Attn: [redacted]

Water Leak Detection Report

Address: [redacted]
Date: Tuesday 25th October 2014
Weather: The weather on the day of testing was cloudy and mild with zero rainfall. However heavy rain was experienced on the day prior to testing.

Picture of the Area tested.

Unit [redacted] is the top unit, with unit [redacted] underneath.
In this photo you can see stains on the soffit of unit [redacted] caused by the water ingress.

Reported by: Heath Cornish, [redacted]

Summary: Water stains have appeared on the soffit of the balcony of unit [redacted]; it is suspected that the entry point for the water could be the sliding door and frame of unit [redacted]. [redacted] will begin testing from the point closest to the water ingress exit point, in this case the soffit, and move further away from there using a variety of coloured dyes in an attempt to locate the source of the water ingress.
Extensive works to the building was completed by [redacted] within the last 12 months. A part of these works was to rip up the existing tiles on the balcony of unit [redacted], install a new waterproofing membrane and re-tile the balcony. As the membrane and tiles on this balcony were tested for leaks at the time the work was completed and no evidence of any water ingress was found they have not been tested again at this time.

Prior to testing beginning [redacted] conducted a visual inspection of the area and gained some moisture level readings to be able to compare against once testing had begun.

Photo 1.
Shows a moisture level reading prior to testing beginning.

Test 1: [redacted] first tested the trench drain to see if could be a source of water ingress. Water was poured directly into the trench to test this area.

Photo 2.
Test 1 in progress.

No evidence of any leaks coming from this area was found after testing had been completed.
Once this test had been completed [redacted], owner of unit [redacted] told me he has also previously poured water down this drain in an attempt to see if this is the source of the water leaks but had also seen no results. This provides further evidence that the trench drain is not the source of the water ingress.

Test 2: [redacted] next used red dyed water to test the area of skirting tiles and the base of the door frame. In one particular area a small gap can be seen in the caulking between the tile and door frame and it is suspected that it's possible for water to enter through this gap which would then allow it to run down the back of the frame – behind the waterproofing membrane and into the soffit below.

Photo 3.
Test 2 in progress.
The small gap in the caulking can be seen here.

No red dye was found immediately following this test.

Test 3: The next area tested was the sliding door and frame. Blue dyed water was used for this test.

Photo 4.
Test 3 in progress.

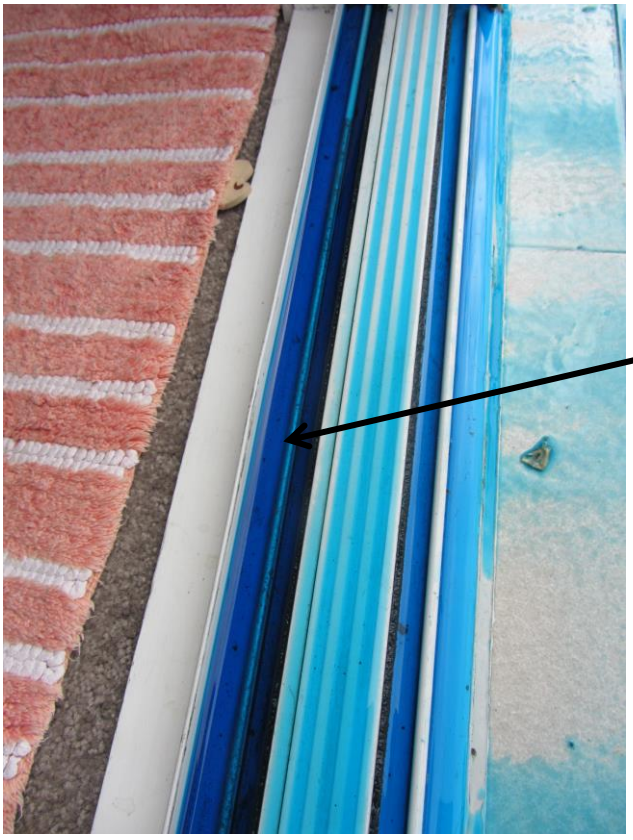

Photo 5.
Water can be seen in the door tracks.

During this test water could be seen pooling in the door tracks on the internal side of the frame, this shows that water is being trapped in the tracks of the door frame. This issue is exacerbated by the fact there appears to be no weep holes at the base of the door frame to allow this water to escape. After approximately 10-15 minutes the water would seep away through the frame.

Photo 6.
Water has seeped away through the base of the frame.

No blue dye was found following this test, however, there was a significant increase in the moisture level readings and the soffit appeared to be cool and damp to the touch indicating that water was pooling on top of the cement sheet of the soffit.

Photo 7.
The levels of moisture had significantly increased following this test.

Test 4: [redacted] next tested the corrugated sheeting of the external wall. The sheeting has been installed incorrectly with the screws in the low parts of the corrugations instead of the high points. The issue with the screws being inserted in the low section of the corrugations is that water is channelled into the lower points of the corrugated sheets as it runs down the wall creating a possible point of water entry. Green dyed water is used for this test.

Photo 8.
Test 4 in progress.
Note how the water has been channelled into the low points of the corrugations.

No leak was found from this point.

Results: While checking the results of test 4 a small amount of blue dye was noticed in the soffit.

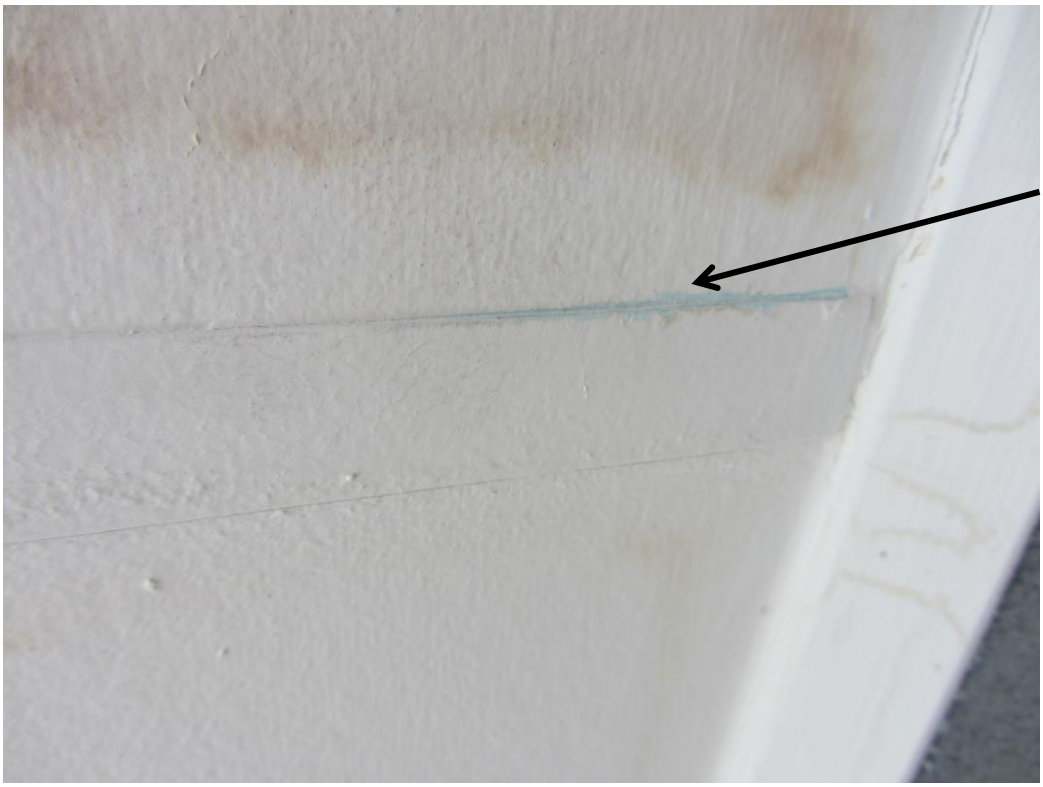

Photo 9.
Blue dye can be seen in the soffit.

The fact that this blue dye is situated alongside a join in the cement sheeting shows that the water is running down the joist onto the soffit. The fact that it took an extended period of time for the water to show itself in the soffit suggests that it is coming from a small, slow leak.

The next day, Wednesday 26th October, another inspection of the soffit of unit [redacted] was conducted. More blue dye could be seen as well as a small amount of red dye.

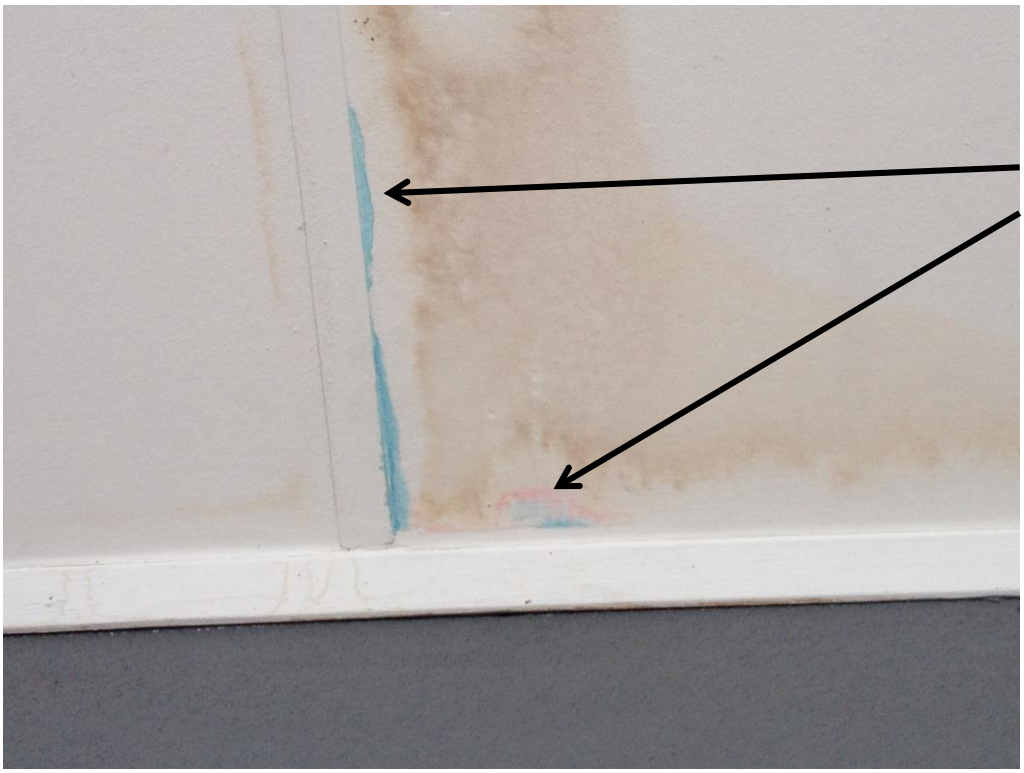

Photo 10.
Blue and red dye was seen on the soffit the following day.

This provides further evidence that the water ingress is occurring slowly and that it takes a long period of time for it to display itself in the soffit.

Opinion: [redacted] feels that the water ingress to unit [redacted] of [redacted] is coming from the sliding door and frame on the balcony of unit [redacted] above. The lack of any weep holes in the frame would be contributing to the leak as water has no other way of escaping the door tracks. The combined factors of the increased moisture level readings; the cool, damp feeling of the soffit holding water and the blue dye in the soffit all provide evidence that support this finding. The fact that the leak took so long to reveal itself in the soffit shows that the water ingress is occurring slowly and that water is only seeping through the water entry point. The small amount of red dye and the fact that it wasn't until the next day that it became visible shows that again water is ingressing through a small point of entry, most likely the small gap in the caulking, and is taking a long time to make its way down to the soffit below.

Reviewed By: [redacted]

Note: *Water testing will be carried out using colour dyes of various colours. We will start the lowest point and work up to the highest point. Due to the nature of water leaks they can come from at times up to tens of meters away from the exit point and take hours to reveal themselves, this being the case we will cease water testing at a reasonable point where we believe we may have covered all the leaks.*

Disclaimer: ***Owing to the nature of the work, the sealing of water leaks as specified cannot be guaranteed to eliminate all leaks.***

Regards

[redacted]