



This inspection report is to provide a report on the general state of repair of the property described below. It is not a Full Structural Survey as it is not practical to examine unexposed or inaccessible areas of the property, but it is a report by the surveyor on those matters expressly set out in this report to establish the general state of repair and the structural condition of the property based on the visible elements as outlined in the report. This report will not detail defects of no structural significance or of a minor on unexposed or inaccessible areas as it is a report on the visible surface only. The information set out below must be read in conjunction with the marginal notes which form an integral part of the report. You are advised to show a copy of this report to your solicitor.

**Report No.** 42-07

**Name of Client:** xxxxxxxxxxxxxxxxxxxx

**Address of property inspected:** xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

**Date of Inspection:** 1st February, 2013.

**Weather Conditions:** Cold, Clear and Dry(recent rain)

**Description:**

This report has been prepared to ascertain the source of damp patches occurring in the bedrooms and living rooms of nos. xxxxxxxxxxxxxxxxxxxx, and the presence of structural damage in bedroom 2 of xxxxxxxxxxxxxxxxxxxx

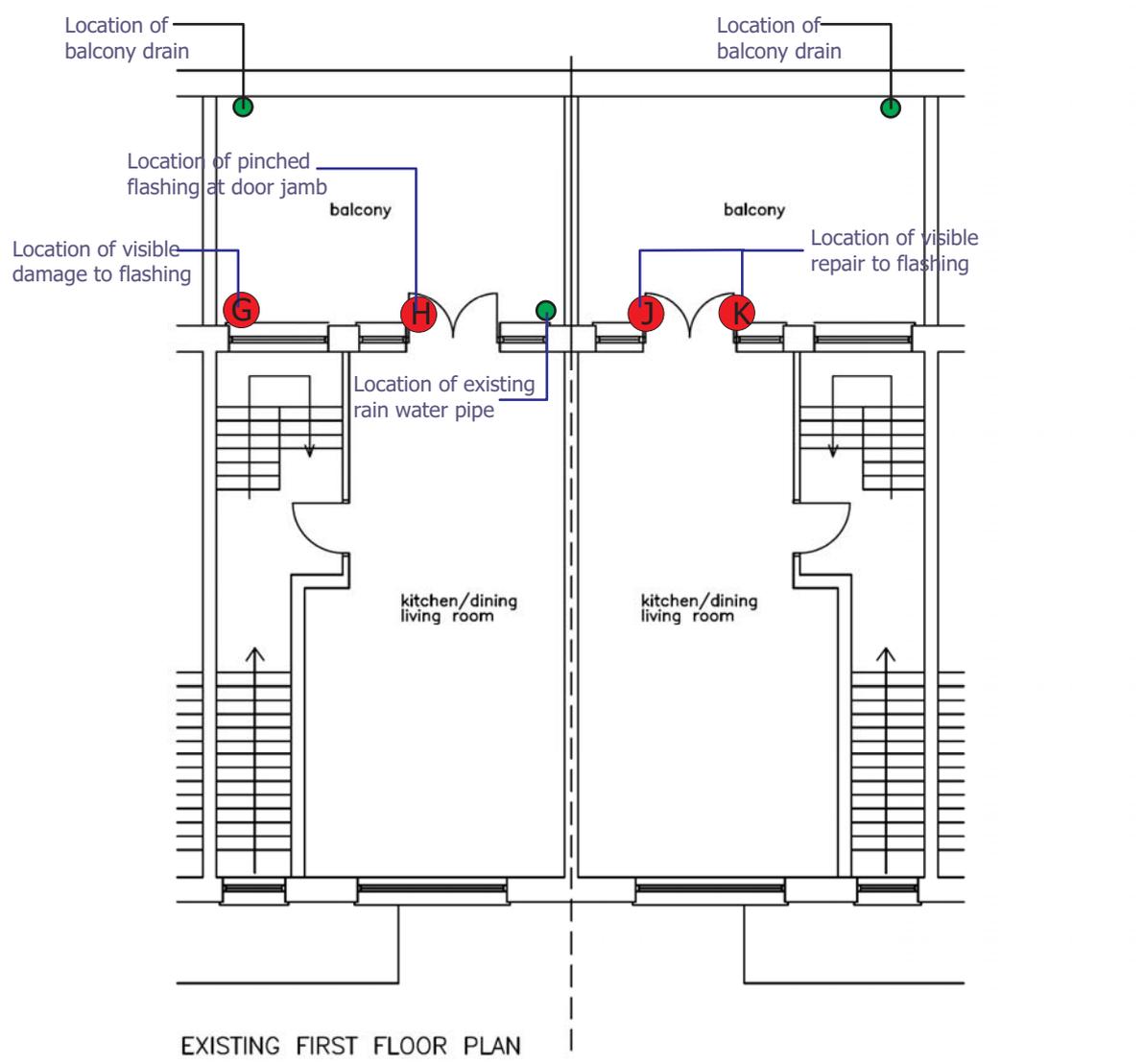
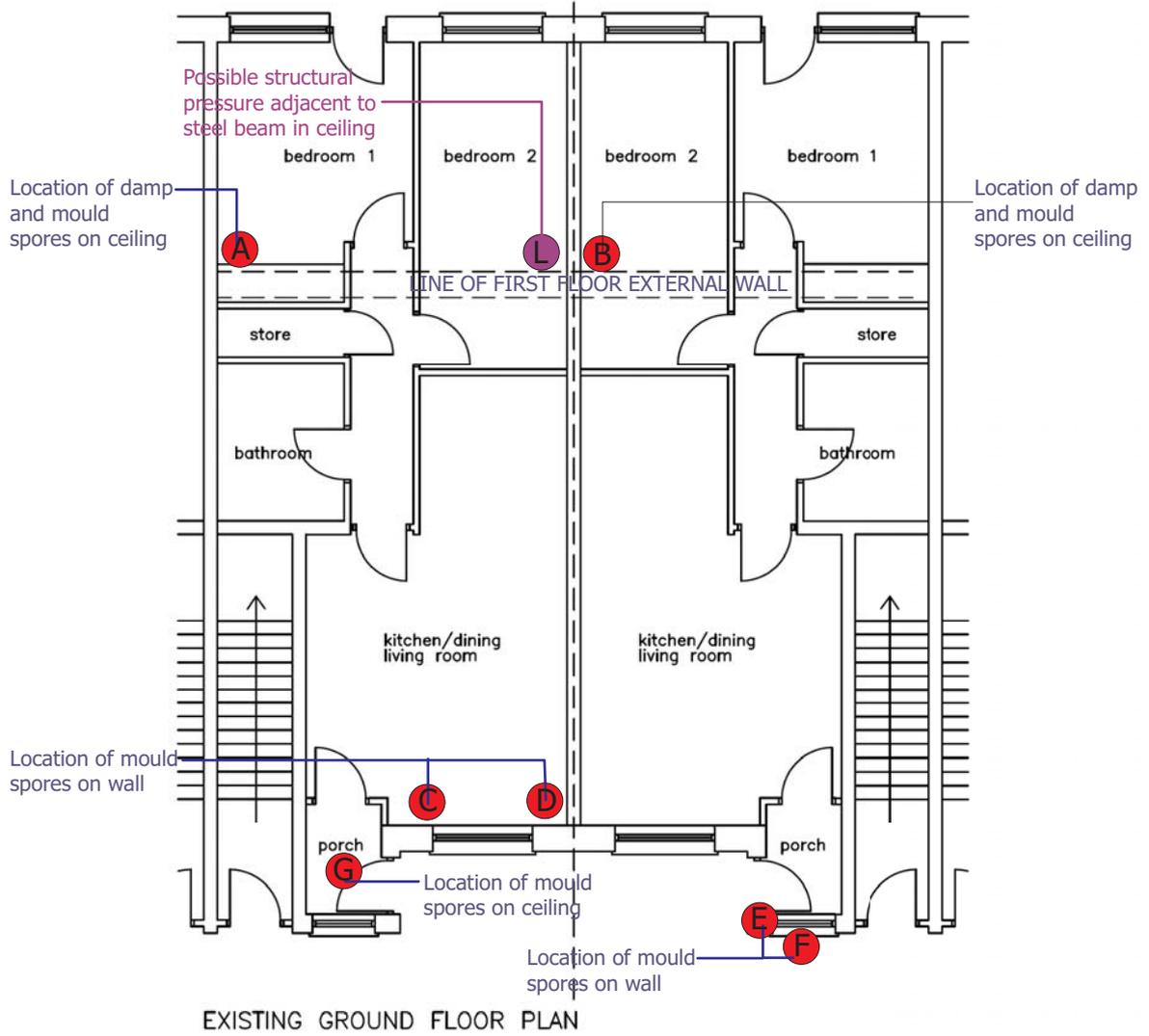
This report has been prepared with the use of a damp meter.

The layout of the building in which nos. xxxxxxxxxxxxxxxxxxxx are situated is as follows:

- No. 1 - two storey maisonette/townhouse with balcony to rear situated above
- No. 2 - ground floor apartment
- No. 3 - two storey maisonette/townhouse with balcony to rear situated above
- No. 4 - ground floor apartment

On initial discussion with our client, we were informed that the main location for the sources of damp are the bedroom areas located to the rear of the ground floor apartment nos. 2 & 4 respectively.

This location coincides with a balcony arrangement to the rear first floors of apartment nos. 1 & 3 Bremore Pastures Park respectively.



The diagram on the previous page (page 2) of our report indicates the ground and first floors layouts of the apartments and also indicates the key locations of visible damp areas and visibly damaged external flashings as indicated by our client.



Mould spores clearly visible above fitted wardrobes



Moisture meter reading 50% moisture at location 'A'



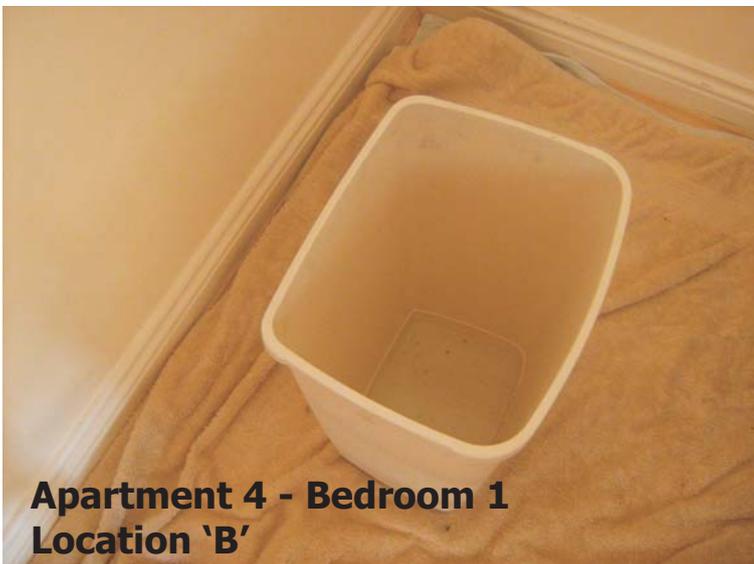
Moisture meter reading 50% moisture at location 'A'



Hole in ceiling from damp penetration



Moisture meter reading 50% moisture at location 'B'



Water visible in bucket on floor below location 'B'



On examining the flat roof to the balconies to apart nos. 1 & 3 respectively, we noted that the construction appeared to be concrete roof tiles fitted on top of a heavy duty waterproof membrane.

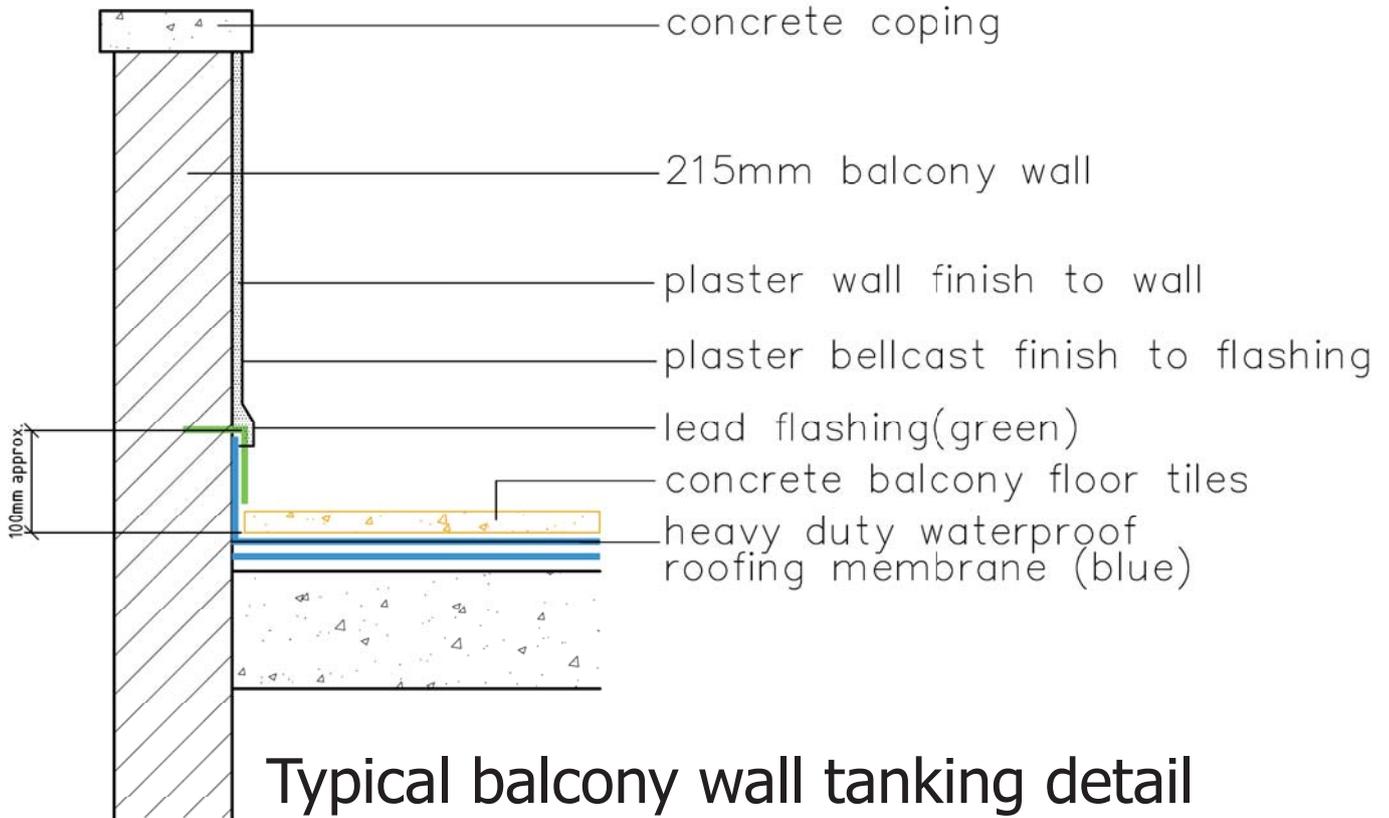
It was noted that the the concrete roof tiles appeared not to be laid to a fall as the spirit level showed a horizontal position at locations checked on both balconies.

This assumes that the balcony was designed to retain water in the event of rain, and this water would subsequently drain off to the two drains indicated respectively on the floor plans on page 2 of this report.

We feel that due to a lack of fall to the intended drains on both balconies, during a period of extended, or heavy rain, this could lead to a significant ponding of water on the balconies.

We noted that the perimeters of the balconies were filled with fine draining stone, but no suitable grills had been placed at the drain points, effectively clogging these, and as a result this would slow down the escape of water from the balconies.

The waterproof membrane appears to have been extended up the walls, and subsequently flashed down onto, with a plaster bellcast dressed down to complete the flashing detail similar to the detail indicated below.



We would have concerns relating to the positioning of the flashing detail relevant to the finished floor level of the balcony, as it appears very close to the ground.

In the event of a prolonged spell of rain, and in combination with the previously mentioned factors (no fall to roof/clogged drains) could lead to excessive water being retained on the balcony and allowing it to climb up and over the flashing detail by capillary action thereby breaching the roofing membrane and allowing it into the walls and ceilings adjacent to the balconies.



On closer examination of the flashing details, we noted significant damage to the flashings at the corner of the balcony wall with the rear external wall at apartment 1 (location G on diagram page 2.).



Flashing completely disintegrated at location G.



Flashing pinched at door jamb at location H.



Rainwater pipe (indicated on dwg-page 2) discharging water onto balcony from adjacent roof and ponding at location.



Flashing detail at location G with concrete paving removed



Flashing detail at location G with concrete paving removed



Flashing detail at location G with concrete paving removed



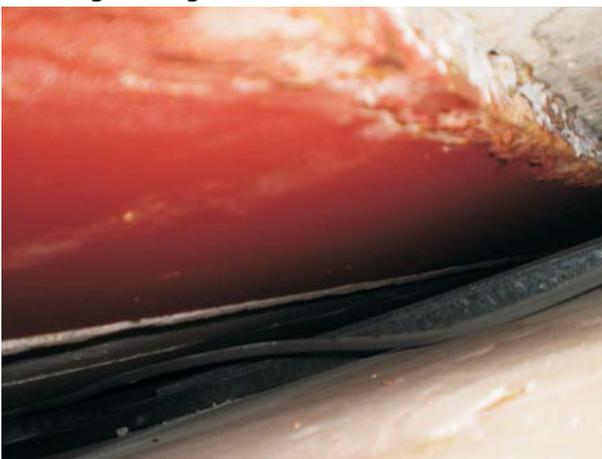
Flashing detail at location G with concrete paving removed



Portion of ceiling removed to show water damage along steel beam



Location of balcony drain with concrete paving removed - wall structure inhibiting flow of water to hopperhead



Portion of ceiling removed to show water damage along steel beam

We also note a rainwater pipe discharging directly on to the balcony, and this water has been ponding at this location.

On examining the balcony to apartment 38 we notice similar damage (and repair) to the flashing adjacent to the apartment wall and the jambs of the balcony doorset at locations J & K respectively.



Flashing damaged and repaired with flexible sealant at location J.



Flashing damaged and repaired with flexible sealant at location K.

This damage to the flashings on both balconies corresponds closely to the locations of the ceiling leaks at the ground floor locations respectively.

This combined with the rainwater pipe discharging water which subsequently ponds on to the balcony of apartment 1 can only compound any problems at these locations.

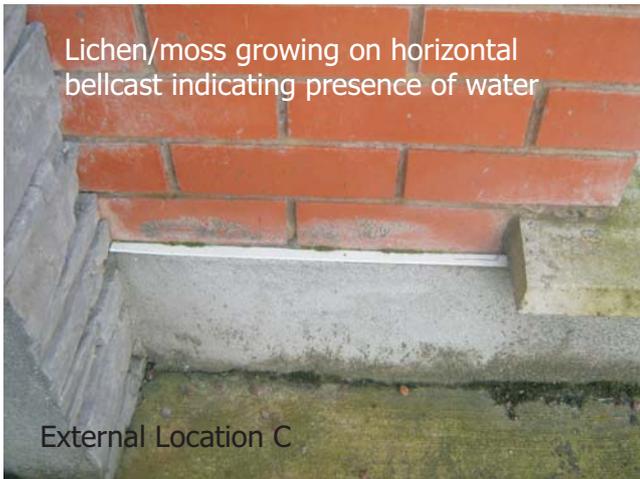
We also note mould spores at various locations C,D,E,F and G on the ground floor of both apartments



Internal Location C

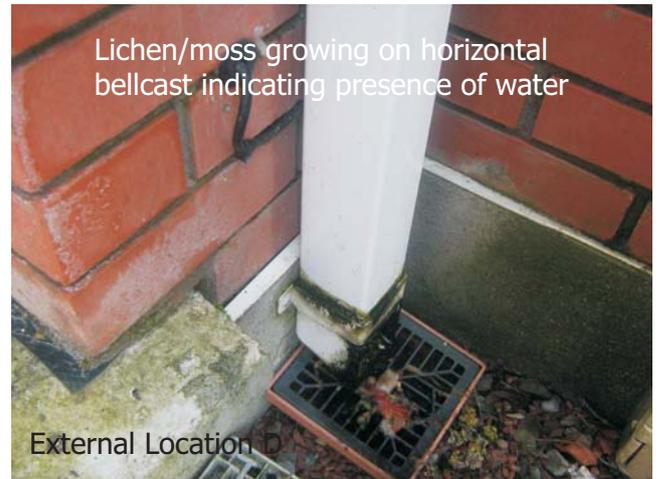


Internal Location D



Lichen/moss growing on horizontal bellcast indicating presence of water

External Location C



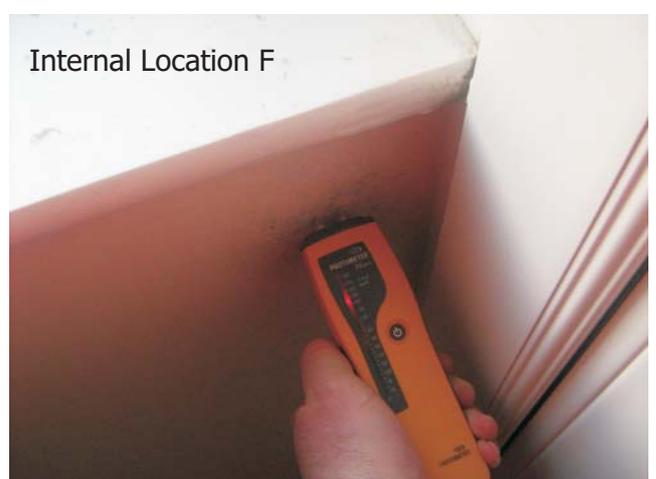
Lichen/moss growing on horizontal bellcast indicating presence of water

External Location D

We note the presence of lichen on the horizontal uPVC bellcast suggesting that water is sitting on the bellcast.

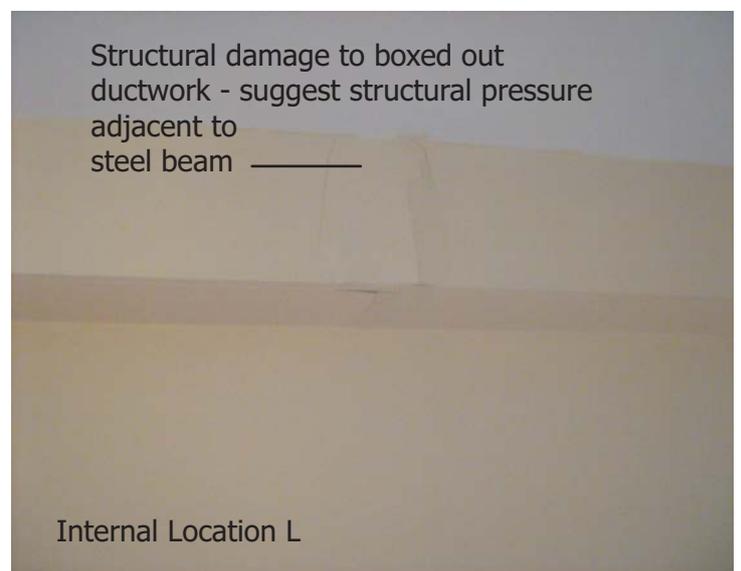


Internal Location E



Internal Location F

Damp readings were taken at locations E & F indicating moisture content of 50%.



We noted extensive damp mould spores in the ceiling at location G in the porch of apartment No. 36 suggesting cold bridging with the flat roof above.

We also noted damaged plasterwork in bedroom 2 of apartment No. 36 at location L. This is adjacent to the steel beam which supports the floor/walls above. This beam may be exerting pressure at this point and would need to be examined further.

## CONCLUSION

We feel that the previously mentioned damp issues are due to badly installed flashings and the ponding of water on balconies which have no apparent fall to them.

In order to address these issues the following remedies are required.

### ROOF DRAINAGE

Remove all draining stone choking balcony drains, and install perforated covers to same ensuring drains remain free running. Examine if existing structure is inhibiting flow of water from roof. Cut back structure if required, and re-flash/re-seal as appropriate, water proof and make good.

Extend rainwater pipe discharging directly on to balcony to drain point or alternative location ensuring water finally discharges to a proprietary hopper head/rain water pipe and eventually discharges to a gully trap installed as part of the surface water drainage on site.

### DAMP LOCATIONS A,B,G,H,J,K

Remove a minimum of two rows of concrete tiles from balcony adjacent to rear walls of both first floor apartments.

Remove all flashings and bellcasts at rear walls of both first floor apartments including flashings at door thresholds.

Employ a competent, experienced flat roof roofing contractor to dress up a new roof finish from existing roof to a minimum 150mm above finished (concrete tile) floor level including correct dressing/mitreing to corners.

Re-fit new flashings to appropriate height (minimum 150mm above finished (concrete tile) over.

Re-render wall to include new bellcast to flashing detail and make good.

On completion water test the new roof/flashing to establish remedy is working correctly.

Repair all damaged ceilings, re-skim, re-paint and make good.

### DAMP LOCATIONS C,D,E & F

Examine the presence of water being retained on pvc bellcasts and in the case of the porches in the PVC jointing between the window frames, and the concrete cills.

Re-fit the bellcasts at an angle so that water is deflected away from these junctions.

Re-fit the uPVC corner pieces so that water does not lodge in the uPVC/concrete cill joints.

There may be some element of cold bridging in the external walls transmitting cold directly through the walls leading to cold/hot contact points which generate mould spores at these locations.

This would have to be resolved with an invasive survey of the walls at this point.

#### **DAMP LOCATION G**

Cold bridging is occurring on the ceiling in the porch of Apartment 36.

Install 100mm bonded thermal insulation/plasterboard to ceiling, skim plaster to finish, repaint and make good.

#### **STRUCTURAL ISSUE L**

Remove plasterboard adjacent to damaged area, and have any structural issues assessed by a competent structural engineer including a solution for same.

Have issues(if any) repaired, made good and certified by a competent structural engineer.

**Finally, in accordance with our standard practice statement we confirm that this report is for the use only of the party to whom it addresses, and no responsibility is accepted to any third party for the whole or part of it's contents. The report is prepared on the basis of full disclosure of all relevant information and facts.**

Signed



Roger Bell dip.arch.tech. Bsc. CAD. RIAI (arch.tech.) ACIAT

Dated : 1st February, 2013.



**BELL**  
**ASSOCIATES**  
ARCHITECTURE  
PLANNING

Roger Bell  
dip. arch. tech. Bsc. CAD

E Bellassociates@eircom.net T 01-8430267 T 042 938 3865 M 087 2371984

Rogerstown, | Muchgrange,  
Rush, | Greenore,  
Co. Dublin. | Co. Louth