Aquatherm® (PP-R pipe) Polypropylene

Distillery and Quarry Apartments
Jacksons Landing
Aquatherm® (PP-R) polypropylene pipe used for potable hot & cold water in Distillery and Quarry Apartments.
• The leaks started occurring in the Aquatherm® hot water pipework in Late 2008

• Between **Late 2008 and December 2010** there was a total of **14 failures** in the Aquatherm® hot water pipework in the Distillery and Quarry Apartments

• Since January **2011** there has been a **further 24 failures**. Please see graph attached.

• In **total 38 failures**, 30 in the Distillery Apartments, 7 in the Quarry Apartments and 1 in the Car Park

• The reason for these failures are still being investigated
Summary of Failures

- Green triangle = Quarry Apartments
- Yellow triangle = Distillery Apartments
- Orange diamond = Terrace Carpark
Water Leak at Bracket

Water spraying from hot water pipe
Water Leak at Joint
Due to the amount of failures to date, Lend Lease have proposed a solution to replace all Aquatherm® pipework with copper pipework. This solution has been agreed with the Strata’s OC Representatives.

This will then make all Aquatherm® hot and cold water pipework redundant. (The pipe in some instances will remain in the building in a decommissioned state)

Complete all Builders Works eg. coreholes, removing joinery, ceiling works, painting required to complete works. (The work will be to the same high standard as your apartment)

Meanwhile, we continue to investigate the causes of the failure of Aquatherm® material, but this will not stop us from continuing with the works outlined here.
The Works Outline associated with replacing Aquatherm
The Proposed Solution (Rectification Plan)

**Cold**

**Hot**

**Hot Return**

Existing Aquatherm pipes

NEW CUPBOARD WILL BE APPROXIMATELY 100 to 120mm SMALLER THAN EXISTING TO ALLOW FOR NEW INSULATED COPPER RISERS TO BE INSTALLED.

20MM HOT & COLD SUPPLIES RUN ON WALL BEHIND WASHING MACHINE IN AREA WHERE INLET AND OUTLET HOSES RUN AT BACK OF MACHINE.

NEW COPPER PIPE WORK WILL CONNECT TO EXISTING HOT WATER METER AND COLD SUPPLIES UNDER LAUNDRY TUB. EXISTING CROSS LINKED PVC YET REMAINING PIPEWORK SERVICING THE APARTMENT WILL REMAIN.
1. Install New Hot and Cold Water Supply and Hot Water Return Pipework

- Hot and Cold Water feeds from Plant Room down to each apartment

- Blue = Cold Water Supply
- Red = Hot Water Supply
- Yellow = Hot Water Return

- Water Supply from Basement Level to Plant Room
2. Install New Hot and Cold Water Pipework to Transfer Floors

On Transfer Floors (noted in blue) hot and cold water is transferred from central riser out to each apartment. Refer to attached plans.
1. New Hydraulic Riser created in common area
2. New Apartment Riser created behind cupboard in laundry
3. Hot and Cold Water Services taken from hydraulic riser to each of the apartment riser. Indicative route
4. Above services run through the ceiling space
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2. New Apartment Riser created behind cupboard in laundry
3. Hot and Cold Water Services taken from hydraulic riser to each of the apartment riser. Indicative route
4. Above services run through the ceiling space
3. Install Hot and Cold Water to High Rise Apartments

Green denotes Apartment Risers from Levels 18 (Quarry) and 19 (Distillery) down to Level 10. Refer to sketch for Apartment Riser detail.
4. Install Hot and Cold Water Low Rise Apartments

Yellow denotes Apartment Riser from Level 9 to Level 1 (Distillery and Quarry). Refer to sketch for Apartment Riser detail.
1: Remove existing cupboard
2: Remove section of plaster ceiling (refer to each apartment drawing for extent of work)
3: Drill holes through slab
4: Install new copper pipes with 20mm hot and cold branch lines within stud wall behind washing machine to under tub.
5: Pressure test new pipes
6: Replace plaster ceiling, Install new Laundry cupboard
7: Connect existing hot water meter and cold pipe work under tub to new copper lines.
8: Old Aquatherm pipe work in riser and ceiling is now disconnected and redundant.

Existing cross-linked polyethylene pipe work reticulating to apartment fixtures and tap ware to remain in service.
Aquatherm Programme

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<th>Finish Date</th>
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<tr>
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<tr>
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Note: Replacement of Aquatherm Works will occur concurrently in the four and Guany One work crew per Building.

- Proposed Hours of Works: Monday – Friday    7.30am to 5.00pm
  Saturday   7.30am to 3.00pm
- For this programme to be achieved access to apartments needs to be granted on the times and dates as nominated by Lend Lease. We will work with you for these appointments.
Privacy, Security and Protection of Apartments

The following measures will be implemented at each apartment prior to works commencing:

• Lend Lease will complete a **dilapidation survey** with each resident prior to start, they will also identify furniture, ornaments which should be packed away.

• **Full time Lend Lease supervisor** will be overseeing works for the duration.

• Each worker will have a **security pass** issued by Guardhouse Security.

• Lend Lease will **protect floors and walls** while completing works and **leave apartments clean** at the completion of each days works.

• **Privacy screens** can be temporarily installed in each apartment corridor (if requested), separating the work areas from the kitchen/ lounge area.

• **Doors** to individual rooms will be **closed** for the duration of the works.
• Lend Lease will contact each owner/tenant to arrange an individual apartment inspection

• At this time any specific technical issues as well as privacy and security options can be discussed

• Lend Lease will reconfirm construction programme closer to the date works proceed