Closure - Dry Drain Forum.
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Drain line carry requires that we fully understand the mechanisms of solid transport in attenuating flows.

There is a substantial body of published research to help engineers and designers tackle the ‘dry drain’ issue.

However this will require a change in attitudes – we do not need to re-invent the wheel and we need to base strategies on understandable basic theory not national rules of thumb.
Alternate approaches should be considered

Cross sectional shapes considered during the evaluation of non-circular section building drainage branches.
Flow depth, linked to sectional shape is the key to solid transport

Comparative steady flow depth in a range of cross section branch drains at a 1/100 slope.
Solid velocities along a 1/60 and 1/100 slope branch drain as a result of a 6 litre w.c. appliance discharge for a 75 mm and 100 mm diameter drains and parabolic gutter.

1, 1' 100 mm dia drain.
2, 2' 75 mm dia drain.
3, 3' parabolic gutter.
Conclusions and design implications.

Climate change will make water conservation even more important.

Possibility of changing usage patterns low.

New appliance designs will have to deliver water conservation targets.

Reduced w.c. flush volumes an obvious strategy.

Water savings must be achieved without detriment to drainline carry and this will require design decisions.

Tissue transport will dominate drainline considerations.

Experimental and predictive work identifies that dual flush w.c. designs can deliver both water conservation and reasonable transport.
It is essential that we recognise the vast body of research into drain line carry already available in published journals. We do not have to re-invent the wheel.

It is essential that concerns over dry drain operation DO NOT limit the overriding necessity to conserve water or limit the design freedom to generate appliances with further reduced flush volumes.

Thank you for listening