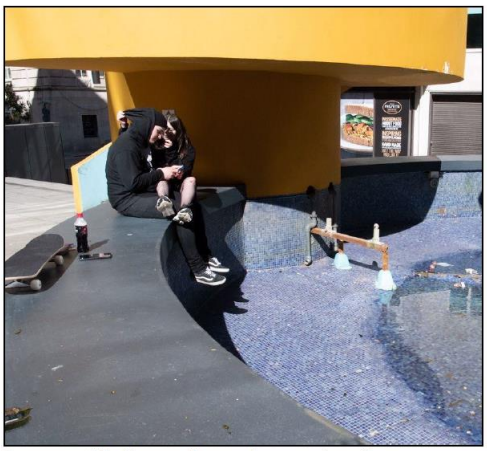
The Width of the Receiving Pool Wall

Introduction

We previously postponed a decision on the final width of the receiving pool wall, but a decision on this is needed, among other reasons to determine the number of Welsh Slate mosaic tiled sheets that are needed. I don't think it is appropriate to leave this decision to the eventual contractor as it is largely an aesthetic choice concerning the extent to which we want to restore the original appearance of the fountain. Restoring the wall of the receiving pool to its original narrower width has a number of major advantages, some of which are effectively illustrated in the following two revised restoration slides and are listed below.

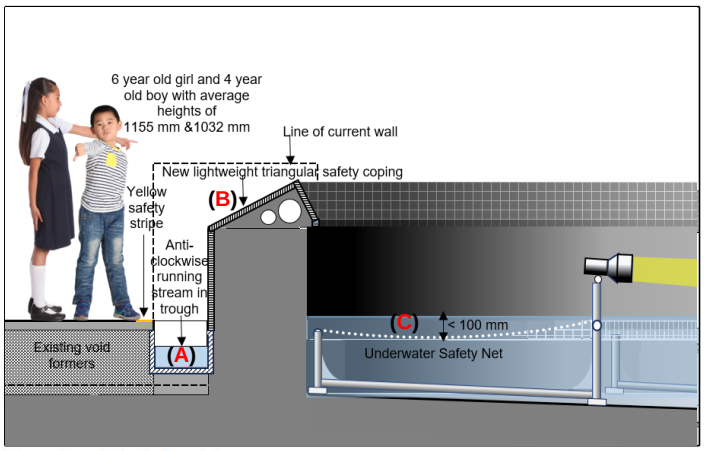
Restoring the 420mm Pool Depth and Resulting Wave Effects



Current wide flat coping on low pool wall

Encourages children to climb onto, sit and stand on rim - increases risk of small children falling into new deeper water and invites others to paddle in pool.

Water depth above 100mm not considered safe.



Three Possible Safety Measures

A) **Restore original thinner wall width & form shallow stream around base**
Provides barrier & distracting safe water feature for small children

B) **Replace flat coping with triangular safety coping**
Stops people from sitting, standing or walking on rim of pool

C) **Install a freestanding underwater safety net**
Catches small children still falling in & prevents paddling in pool

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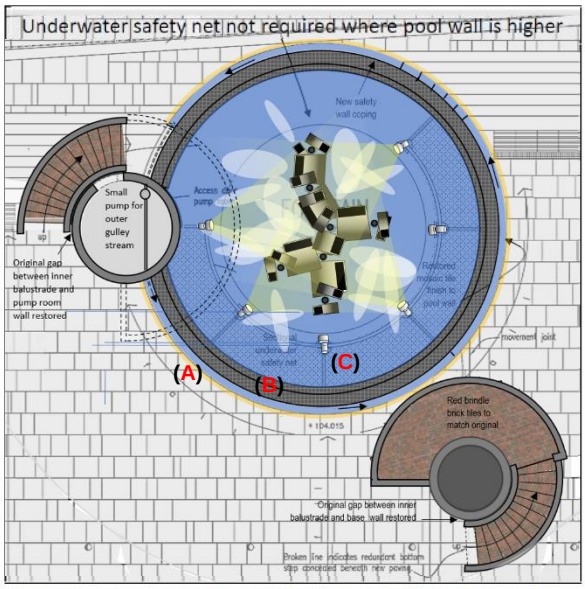
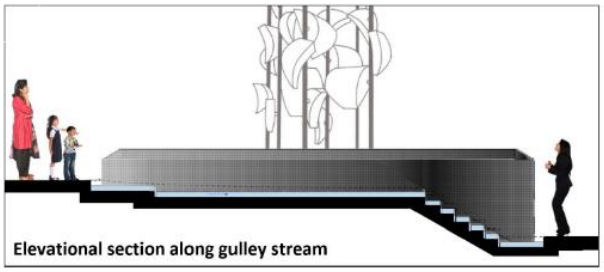
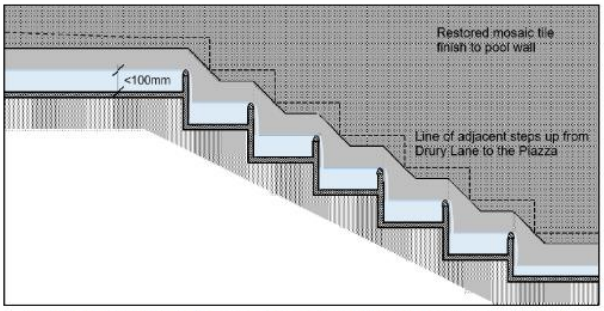


Plan of fountain complex, showing all 3 possible safety measures



Elevational section along gulley stream



Section through mini cascades alongside steps from Drury Lane

Aesthetic advantages

95% of respondents to Engage's questionnaire wish to fully return the fountain to its original appearance and performance. Reducing the pool wall to its original width and closer to its original height, in line with this result would restore the more elegant original proportions of the fountain as designed by Richard Huws..

Advantages for health and safety

Reducing the wall width by nearly a half also provides the opportunity to introduce a third layer of safety on top of the proposed installation of a triangular safety wall coping and a safety net 100mm or less under the water surface. With the LCC providing no advice whatsoever on the health and safety requirements needed to compensate for the proposed significantly increased pool depth and there also being little or no official guidance available from HSE or others on this issue, minimising the possible risk of a small child drowning in the deeper water is no insignificant thing, even if this is seen as somewhat of a belt and braces approach.

Advantages for structural loading

While I do not disagree with Clancy Consulting's conclusions, these appear to have been based on a professionally informed hunch rather than actually on any true structural survey investigating the dimensions of the structure or involving a careful calculation of the imposed loads. Consequently, clearly reducing the imposed loads to directly compensate for the increased weight of water by reducing the width of the wall would again be to err on the safe side.

Performance advantages

The gulley stream would catch any water splashing over the pool on the rare but entirely possible occasion when more than 3 hoppers tip simultaneously to produce exceptionally high waves. To avoid the gulley stream from overflowing due to additional wave water or just rain, there would be a simple overflow at the lower level connected to the adjacent street drains.