

DON'T SHIFT BRICKS!

A HERITAGE ASSET UPGRADE



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Welcome to Ōtepoti | Dunedin
"a pretty good plan D"



IT'S LIKE
BALI
BUT, WITH WETSUITS.



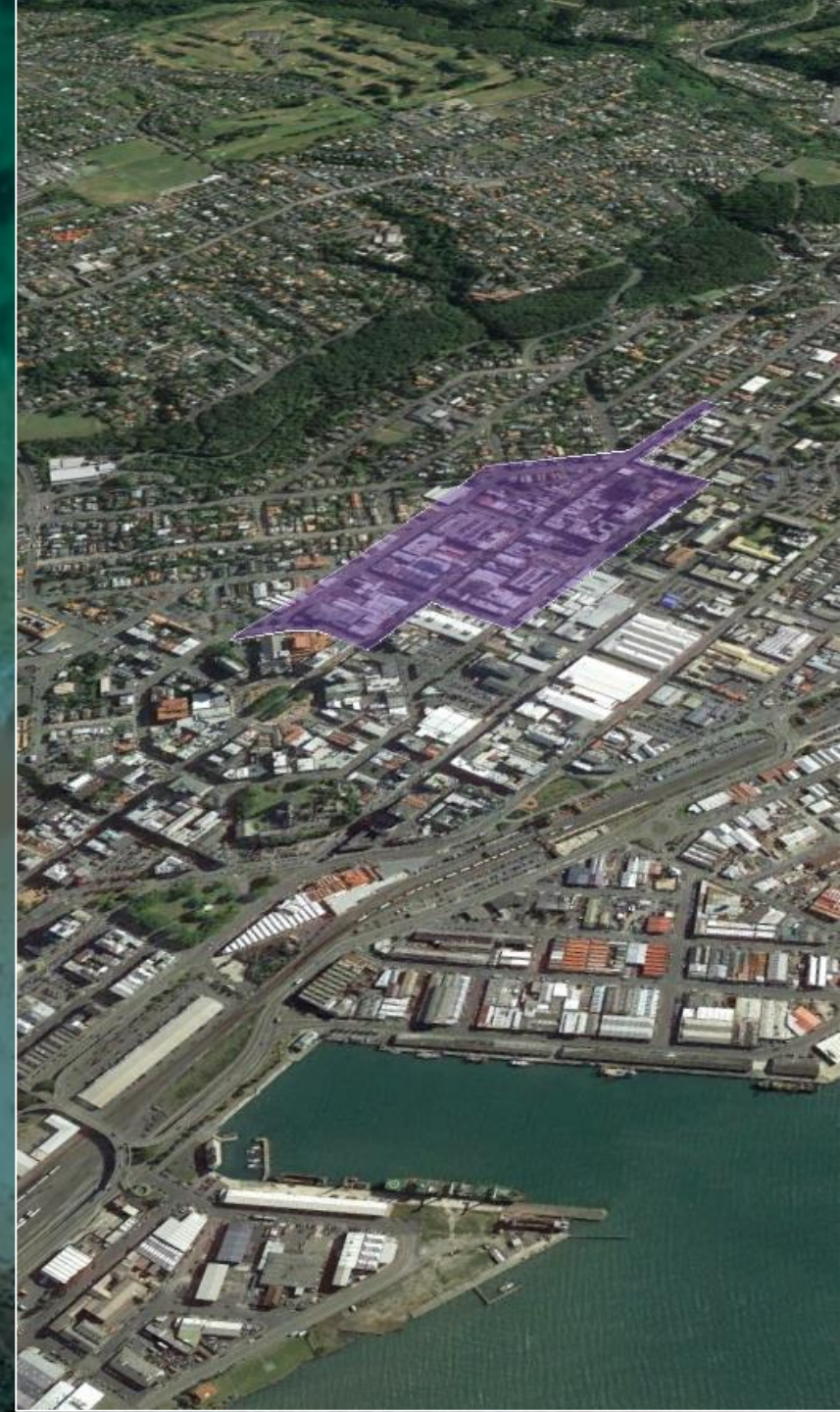
IT'S NOT EXACTLY
EDINBURGH
BUT IT SORT OF IS.



IT'S NOT QUITE
LONDON
BUT WE DO HAVE
SOME OF THEIR STUFF

The Retail Quarter Project:

- Streetscape upgrades
- 3 waters upgrades
- Delivered by the Ō3 Collective:
 - Isaac Construction
 - AECOM
 - Jasmx



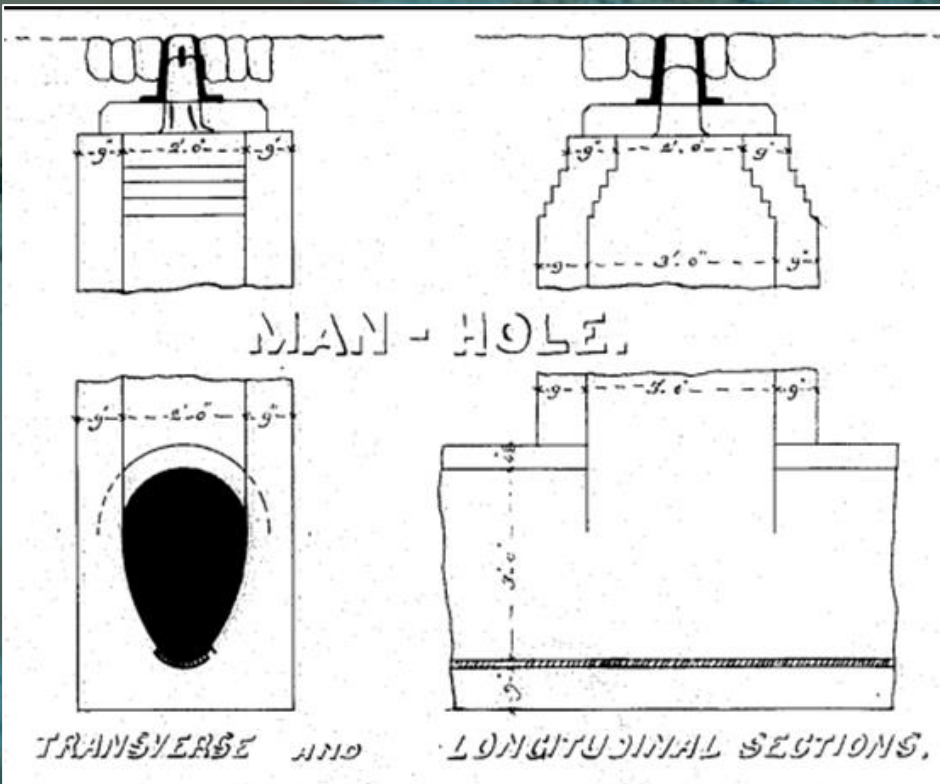
Meet the brick barrels

- Heritage pipes (1870's) constructed by hand
- 4.3 km of brick barrels within the Retail Quarter
- Convey stormwater from the hillside
→ beneath the CBD
→ to the ocean outfall
- 2 – 4 m depth to invert
- Two egg-shaped geometries:
900 H x 600 W or 1200 H x 900 W



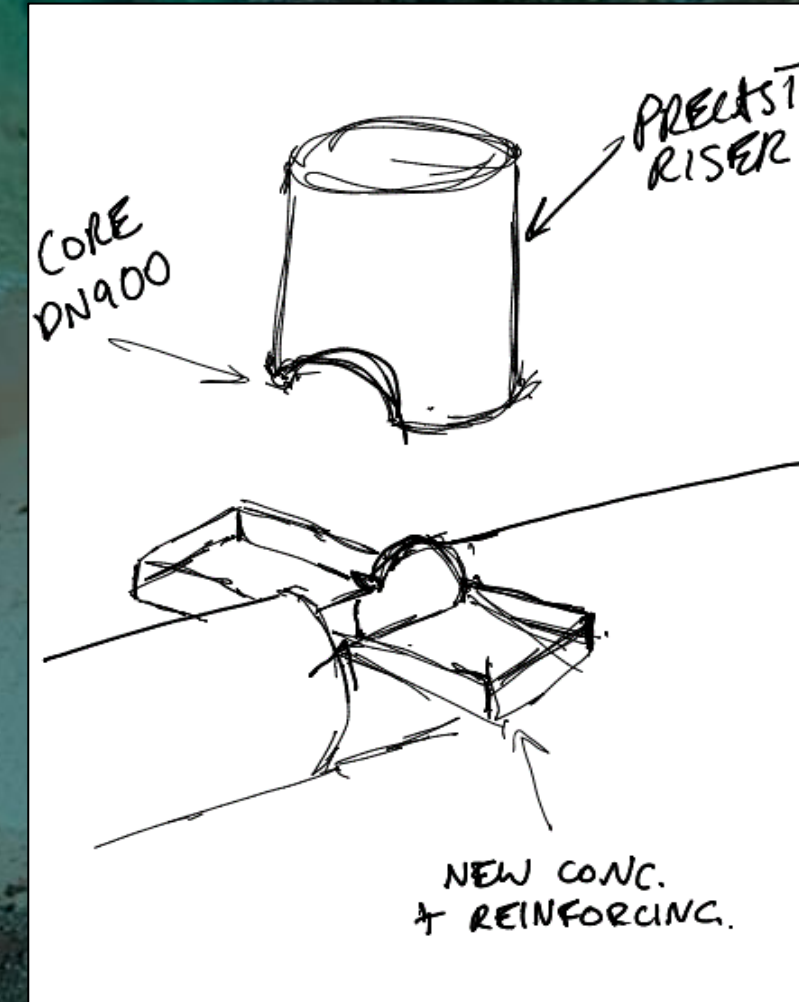
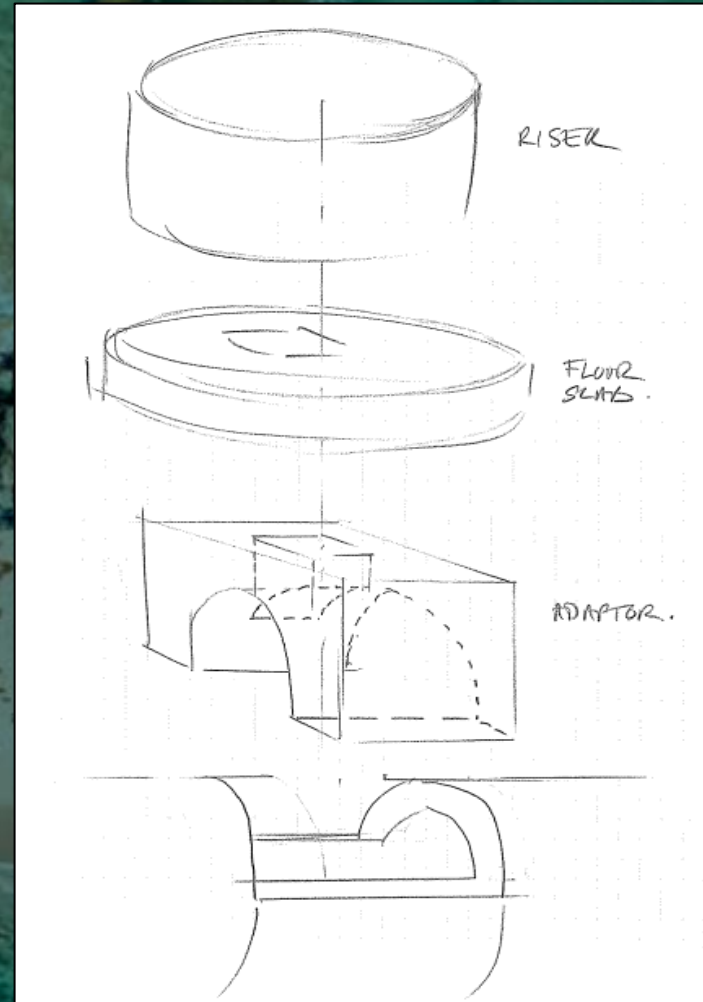
Problem statement:

How to install CIPP liners in fragile brick barrels, when existing access structures are too small to fit the lining equipment?



Design decisions, decisions...

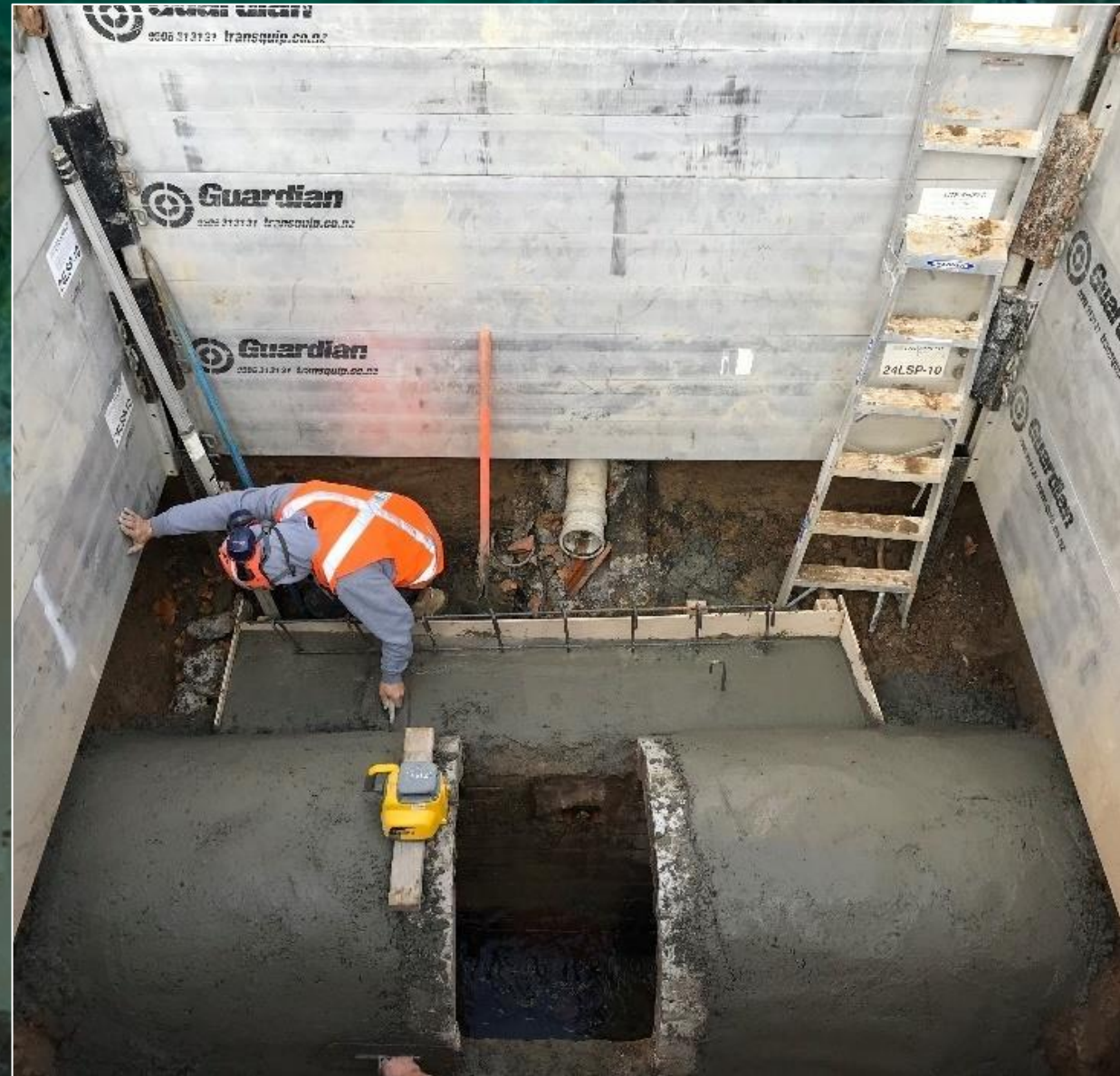
- Shape of new structure
- Installation methodology
- Excavation extent (springline versus invert)
- Number of pours
- Dimension of footing



Installation: Preparing the brick after removing existing access



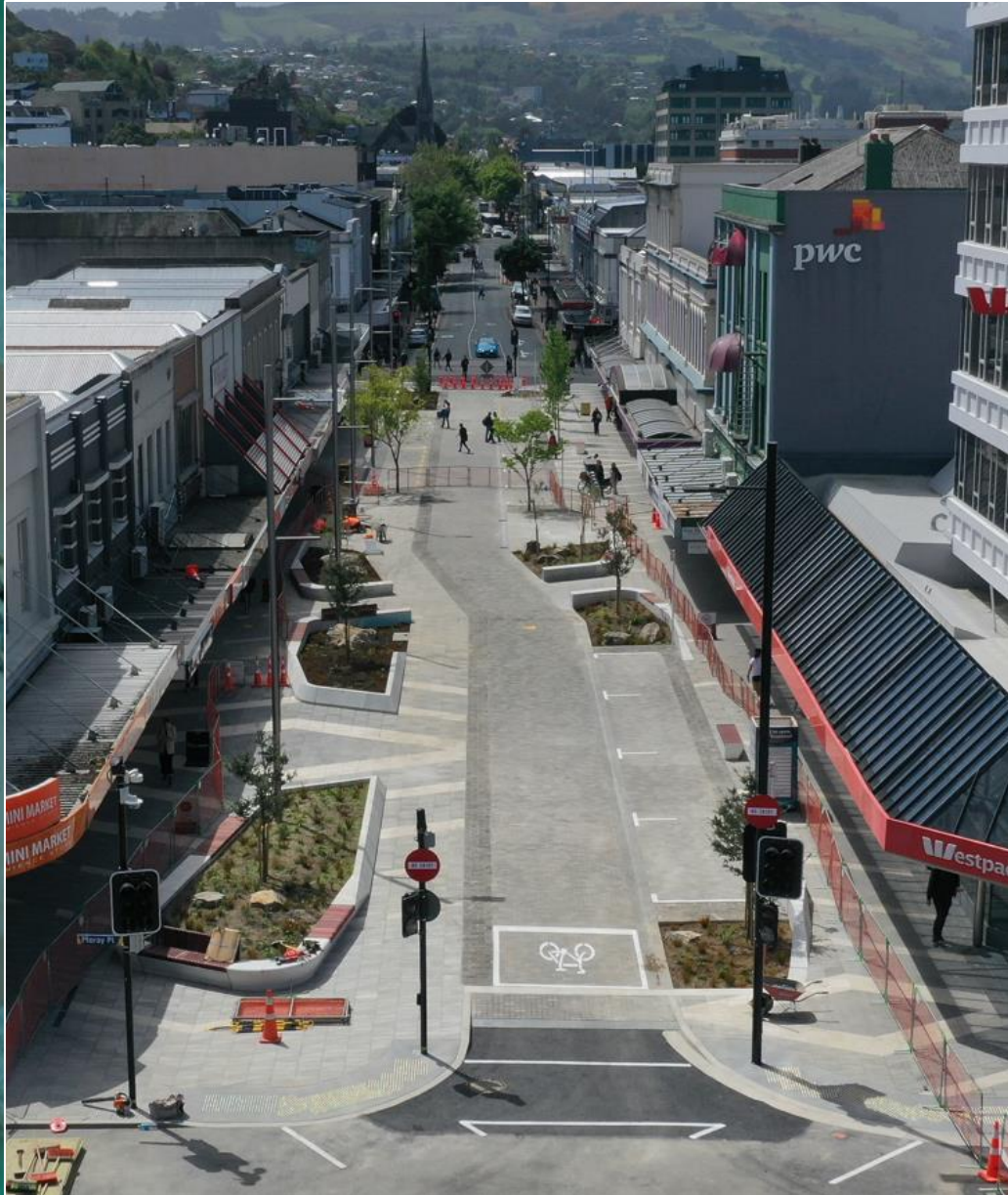
Installation: In-situ pour of new manhole foundation at springline



Installation: Installing new riser w/ semi-circular core



Installation: The results



Thank you