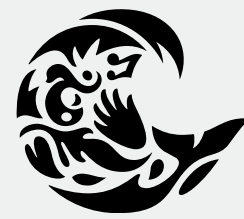


Alkira Circuit Drainage Upgrade



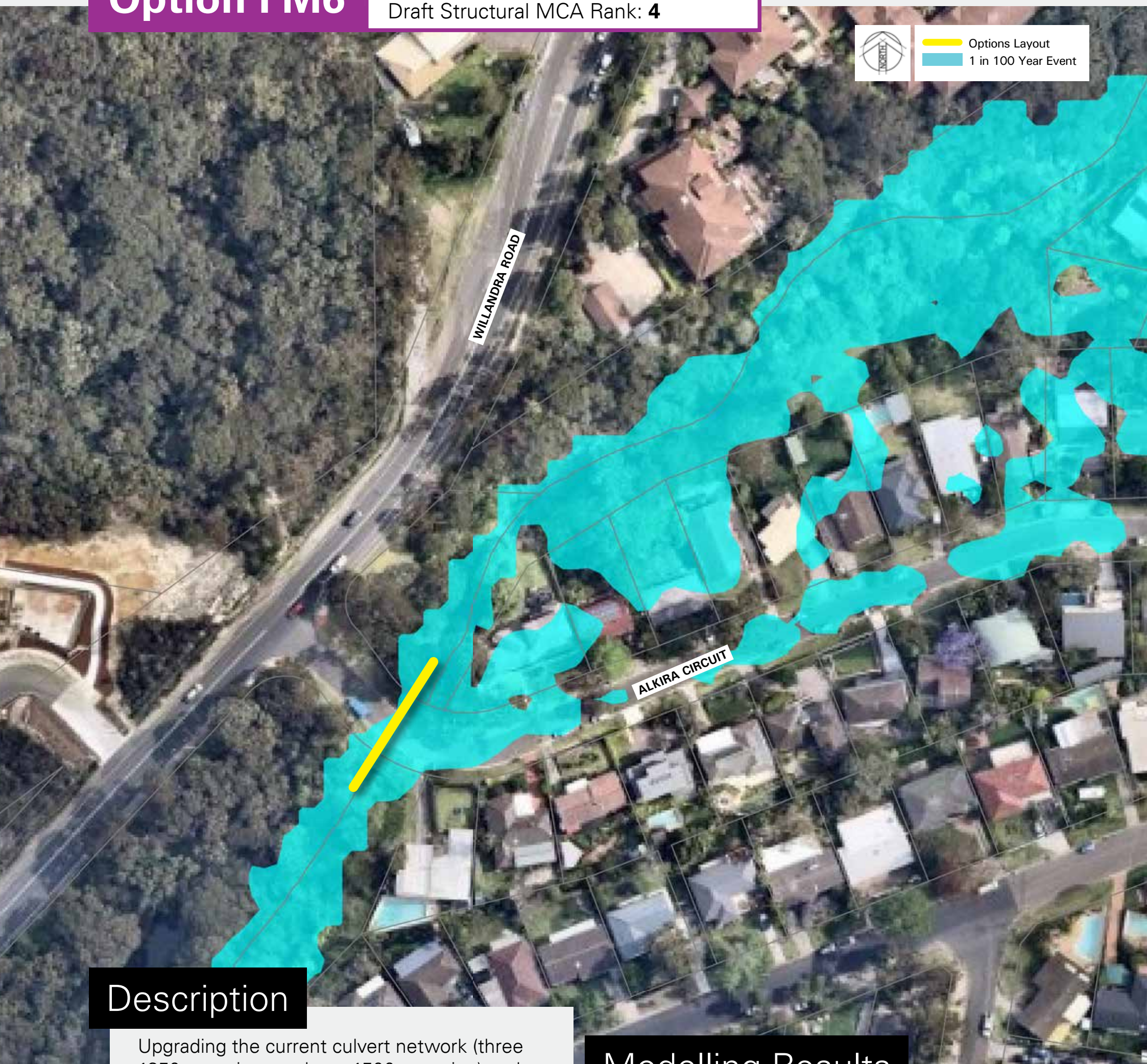
northern
beaches
council

Option FM6

Capital Costs (excl. GST): **\$484,000**
Draft Structural MCA Rank: **4**



Options Layout
1 in 100 Year Event



Description

Upgrading the current culvert network (three 1350 mm pipes and one 1500 mm pipe) under the low-lying Alkira Circuit crossing (road level is only 2.3 m above channel invert) from the current 1 in 5 year capacity to convey the 1 in 100 year event and avoid overland flow being diverted from the road surface into residential properties downstream. Three 3.2W x 1.5H Reinforced Concrete Box Culverts (RCBC) would be required to achieve this outcome. This option may result in no overtopping of Alkira Circuit up to the 1 in 100 year event.

Modelling Results

The results of the simulations show that under the proposed culvert arrangement the overland flow conveyed down the road can be contained within the channel. This in turn reduces the amount of affected properties on the north side of the road. While increasing the culvert size results in some higher water levels within the channel these increases do not adversely affect properties in the area.