

22/3/2024

Mark Ewers
C/O Green Design
207A Strickland Ave
South Hobart 7004
green@greendesign.net.au

RE: Lot 2, 471 Nicholls Rivulet Rd, Oyster Cove – Prelim Onsite Wastewater System Assessment

Dear Mark,

We have undertaken a desktop assessment of Lot 2, 471 Nicholls Rivulet Rd (CT: 116957/2) to provide a preliminary wastewater assessment for the proposed development.

While the subject property is relatively large (approx. 1.9ha), there is only limited space available for development in the area between Nicholls Rivulet Rd and Oyster Cove Rivulet. The proximity to Oyster Cove Rivulet will be a main restriction for any onsite wastewater application and secondary treatment of effluent will be required. It is therefore recommended that an Aerated Wastewater Treatment System be installed, with treated effluent applied through subsurface irrigation.

The assessment the soil has been assigned Category 5. This is a conservative estimate based on inspection of nearby properties which have been a mix of Category 4 and Category 5 soils. Assigning Category 5 will ensure the application area indicated by this assessment will potentially be oversized as soil conditions may be more favourable. A Design Irrigation Rate (DIR) of 3mm/day has therefore been assigned for application of secondary treated effluent to a Category 5 soil.

The proposed three-bedroom dwelling will have a calculated maximum wastewater output of 600L/day. This is based on a tank water supply and a maximum occupancy of 5 people (120L/person/day). Using the DIR of 3mm/day, an irrigation area of 200m² will be required.

The following setback distances will be required to comply with Building Act 2016:

Upslope or level buildings:	3m
Downslope buildings:	6m
Upslope or level boundaries:	1.5m
Downslope boundaries:	7.5m
Downslope surface water:	15m

While the proposed development will be exempt from E23 Onsite Wastewater Code of the Kingborough Interim Planning Scheme 2015, it would be prudent to provide assessment of the setback distances outlined in E23.10.1. It is expected that the proposed development would comply with the acceptable solutions for setbacks to buildings (A1), boundaries (A3) downslope waterbores (A4), distance to groundwater (A5) and separation to limiting layer (A6). The development would also comply with the requirements to downslope surface water outlined by P2.

The Kingborough Council also require any onsite wastewater will need to be located within any assigned bushfire hazard management area (if assigned) and away from trees of significance and clear from any assigned tree protection zones (TPZ).

The provided site plan (attached) shows that 200m² of irrigation can be accommodated onsite and meet the required setback distances to comply with both Building Act 2016 and be outside of any assigned TPZ of the remaining trees. Therefore, it is our opinion that the proposed development will be able to provide a land application area of sufficient size to accommodate the expected wastewater load of a three-bedroom dwelling.

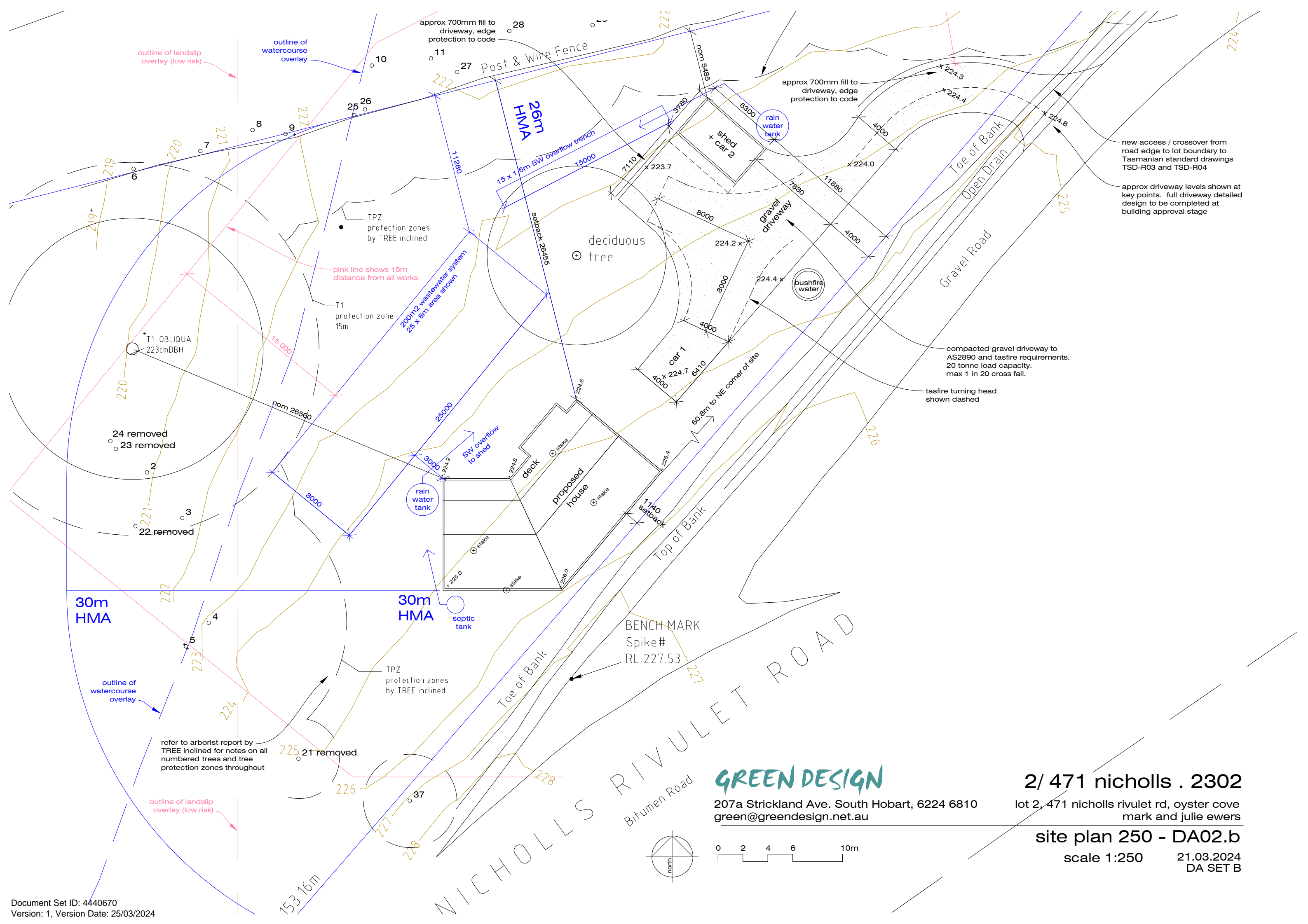
A detailed site inspection and wastewater design will be required prior to any plumbing permit being granted.

Please contact me if you require any further information

Kind regards,

A handwritten signature in blue ink, consisting of a stylized 'J' followed by a long horizontal stroke that tapers to the right.

Dr John Paul Cumming B.Agr.Sc (hons) PhD CPSS GAICD
Environmental and Engineering Soil Scientist



outline of landslip overlay (low risk)

outline of watercourse overlay

approx 700mm fill to driveway, edge protection to code

26m HMA

15 x 15m SW overflow trench

approx 700mm fill to driveway, edge protection to code

rain water tank

new access / crossover from road edge to lot boundary to Tasmanian standard drawings TSD-R03 and TSD-R04

approx driveway levels shown at key points. full driveway detailed design to be completed at building approval stage

TPZ protection zones by TREE inclined

pink line shows 15m distance from all works

T1 protection zone 15m

200m2 wastewater system 25 x 8m area shown

deciduous tree

bushfire water

compacted gravel driveway to AS2890 and tasfire requirements. 20 tonne load capacity. max 1 in 20 cross fall.

tasfire turning head shown dashed

T1 OBLIQUA 223cmDBH

24 removed
23 removed

22 removed

rain water tank

30m HMA

septic tank

TPZ protection zones by TREE inclined

refer to arborist report by TREE inclined for notes on all numbered trees and tree protection zones throughout

outline of landslip overlay (low risk)

BENCH MARK Spike# RL:227.53

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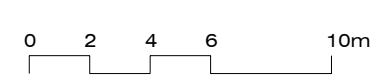
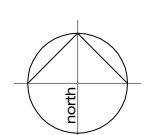
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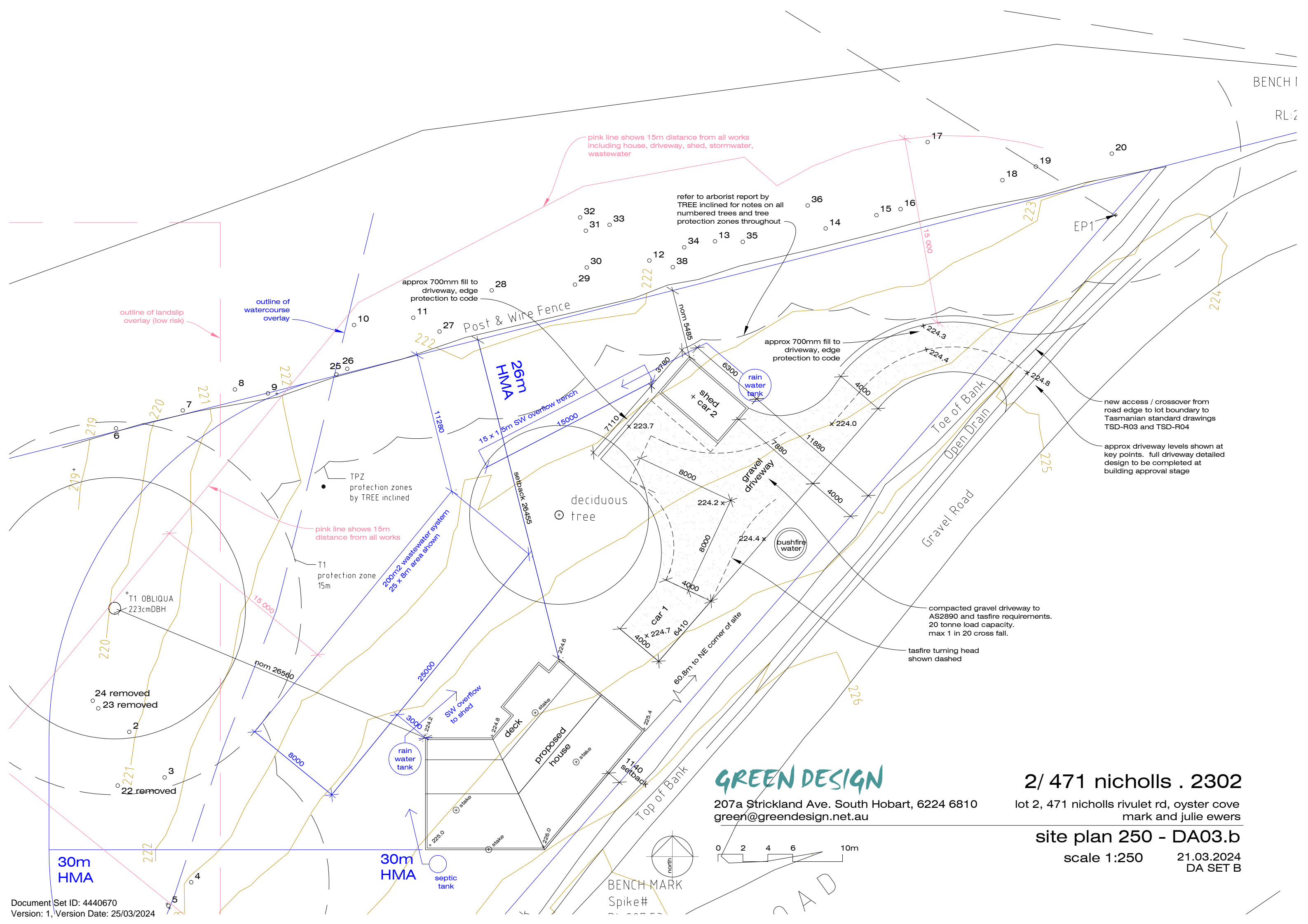
lot 2, 471 nicholls rivulet rd, oyster cove mark and julie ewers

site plan 250 - DA02.b

scale 1:250

21.03.2024
DA SET B





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