

DCI - DESIGN CONSTRUCT INDUSTRIES PTY LTD

STRUCTURAL & CONSTRUCTION CONSULTANTS

ABN: 50 117 543 129

99 Tralee Street, HUME ACT 2620

TEL: 02 6260 1500/ 0411 725 886

Email: andystodulka48@gmail.com

Web: www.designconstructindustries.com.au

Attn: Robert Warren

Structural Assessment: 45 Carefree Rd Narrabeen

SUMMARY

The construction at 45 Carefree Rd is based on a solution encompassing bored piers to refusal, capped with strip beam footings. The foundations support core filled reinforced blockwork walls cast in-situ, buttress wall and reinforced concrete slabs formed on bondek.

Site considerations: -

The site is constrained by an extremely narrow public road, a fall-away from the road of up to 12m, dictates traditional construction techniques of blockwork, and cast-in-situ walband slabs as opposed to precast panels which would require craneage. The material required can be delivered by medium sized trucks and deposited on the off road car parking area on a needs/daily basis. The car parking area to be constructed first, will be utilized for all loadings, transport of materials and concrete placing vehicles.

Construction: -

As indicated above, the construction work is based on traditional methods staged to suit the site access difficulties

- Piers and reinforced strip footings poured in discrete stages
- Reinforced core filled block work supported by perimeter scaffolding and intermediate bondek formed cast-in-situ slabs.
- Construction- fit out, plumbing, electrical comms etc. as normal.
- Dilapidated retaining wall to be replaced with core filled blockwork on a foundation pierced to solid rock, or cast in-situ formed concrete reinforced walls

Geotechnical considerations: -

The soil conditions are classes as 's'- sandy loam overlaying bedrock and floaters.
To overcome the variable ground conditions piercing to solid rock is recommended.



Date: 18/10/2021

Andy Stodulka (Director) - Design Construction Industries Pty Ltd

B. Eng Hons (Soil Mechanics) (Sydney Uni) M Eng Sc (Sydney Uni)

MIE Aust CPEng (No. 3017)NPER

RPEQ (No. 7035) 20445 ES N.T.

PE 0002240 VIC



COMPANY & PRODUCT AWARDS

- HIA INNOVATION 95 • HIA - COMMONWEALTH SCIENCE AWARD 95 • I.E. AUSTEXCELLENCE 95
• MBA ENERGY 96 • TELSTRA 97 • YELLOW PAGES 97 • BUILDING SCIENCE FORUM 97 • A.I.B. - BO
RALR&D 98 • I.E. AUST. DESIGN 98 • AUSTRALIAN STANDARDS ENGINEERING 99 •