

Date: 14th October 2021

Our Ref: **21064**

Your Ref: TBC

The Managing Director

PSA Consulting Pty Ltd

Level 11/270 Adelaide Street

BRISBANE QLD 4000

Attention: Mr David Ireland

RE: Proposed Stormwater Plan, Proposed Poultry Development (Rearing Farm)

Client: Pace Farms Pty Ltd

Location: 1065 Inverkip Road, Warrah Ridge 2343

Land: Lot 393 in DP 556635

We refer to your request for a concept stormwater management plan for the above mentioned poultry development. We have subsequently undertaken a preliminary review of the stormwater requirements and possible impacts associated with the site.

Based upon this preliminary review, we have prepared a concept stormwater design (see attached) which seeks to capture and divert stormwater flows away from the proposed farm infrastructure.

The concept arrangement proposes to utilise the existing contour bank present above the proposed rearing farm to prevent upslope flow from entering the site. The area below this contour bank will utilise a series of three (3) metre wide trapezoidal channels and other drainage structures to collect and divert stormwater flows.

The channels and drainage structures have been sized to accommodate the anticipated design flows and convey them to downstream areas. All discharge points associated with the drainage structures will feature appropriate scour protection measures to dissipate slow velocities and reduce any sediments loads.

As part of the preliminary review undertaken the site was inspected (and surveyed by a registered land surveyor) for obvious signs of erosion and other indicators of damaged caused by excessive flow velocities. Neither the site inspection nor detail survey undertaken indicated the site experienced significant erosion or degradation as a result of existing stormwater flows.

Based upon the preliminary review undertaken and the subsequent concept drainage works undertaken, it is considered unlikely that the site will have a negative impact on downstream areas.

We note that no detailed catchment and stormwater analysis has been undertaken and, as such all engineering details shown on the attached plan are concept only. As result of the preliminary nature of the works undertaken, all concept stormwater details and measures are subject to confirmation and change as a result of detailed engineering analysis and design.

We trust that the information provided will be sufficient for the assessment and determination of the proposed development.

If you require any additional information or would like to discuss this matter further, please do not hesitate to contact our office.

Yours faithfully,

Tim McLean

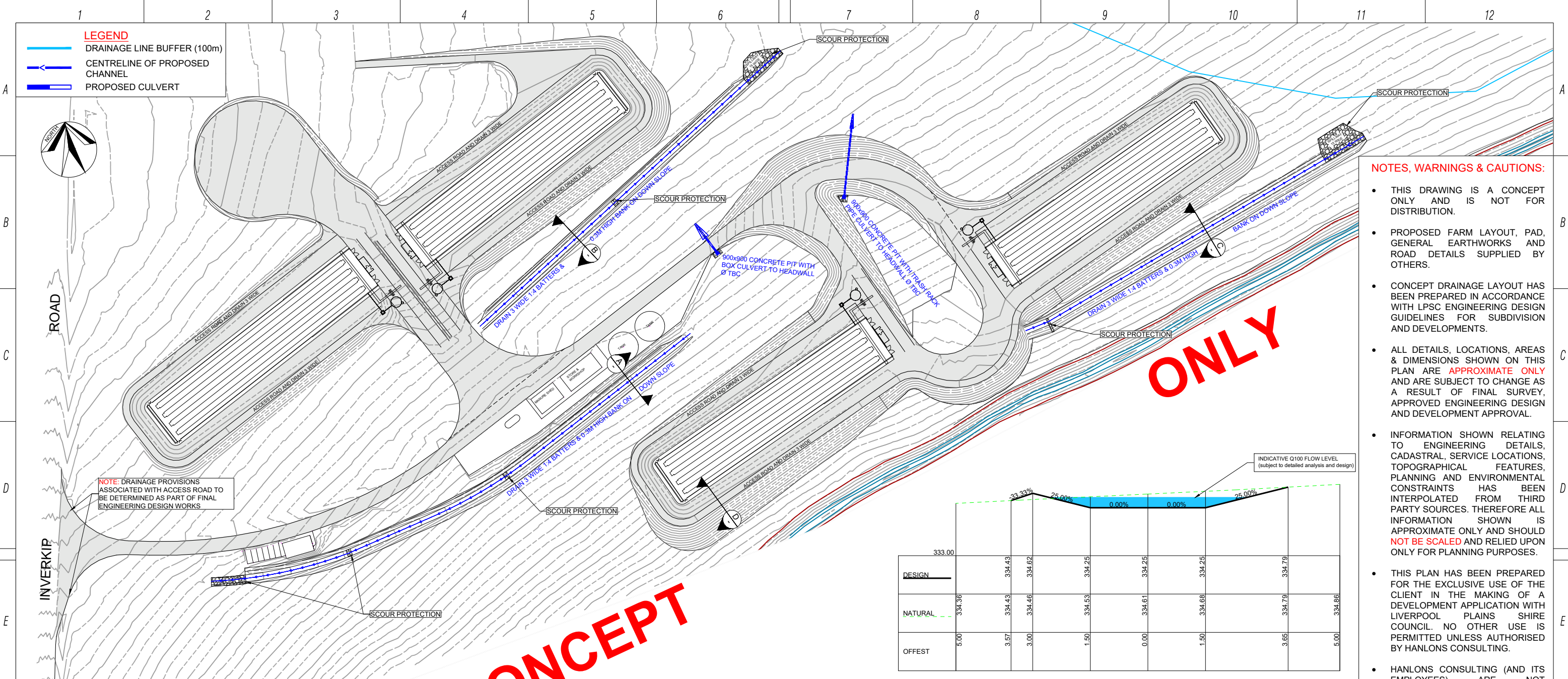
Senior Consultant

*B.Eng.Tech (Environmental), UNE, Dip.Proj.Mgt, (TNE)
MALGA, TMIEAust, MEIANZ*

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Attachments:

- Concept Drainage Layout

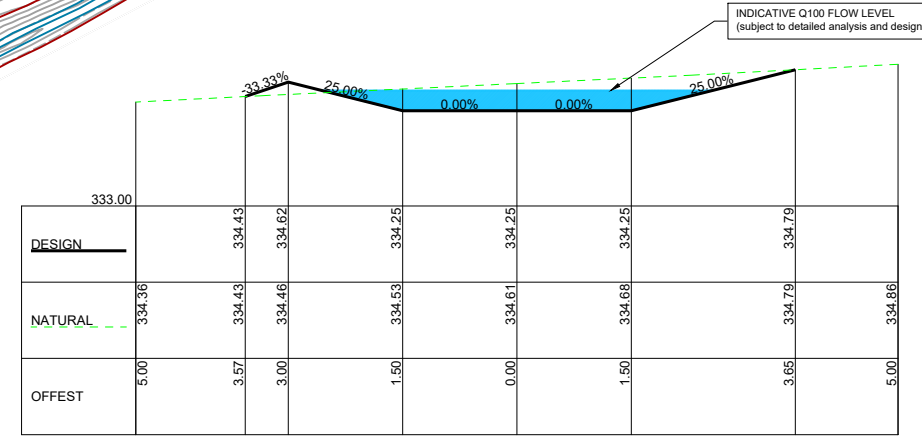


NOTES, WARNINGS & CAUTIONS:

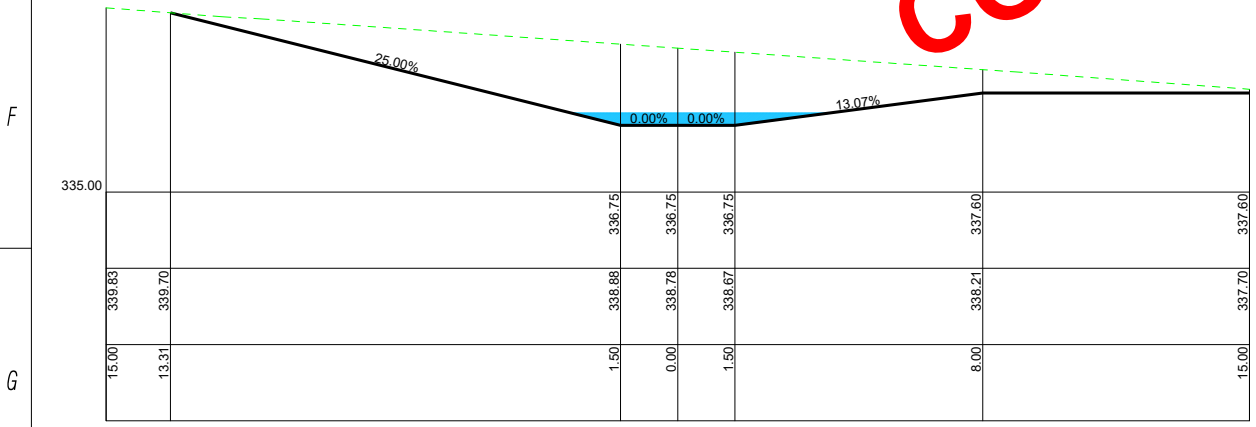
- THIS DRAWING IS A CONCEPT ONLY AND IS NOT FOR DISTRIBUTION.
- PROPOSED FARM LAYOUT, PAD, GENERAL EARTHWORKS AND ROAD DETAILS SUPPLIED BY OTHERS.
- CONCEPT DRAINAGE LAYOUT HAS BEEN PREPARED IN ACCORDANCE WITH LPSC ENGINEERING DESIGN GUIDELINES FOR SUBDIVISION AND DEVELOPMENTS.
- ALL DETAILS, LOCATIONS, AREAS & DIMENSIONS SHOWN ON THIS PLAN ARE **APPROXIMATE ONLY** AND ARE SUBJECT TO CHANGE AS A RESULT OF FINAL SURVEY, APPROVED ENGINEERING DESIGN AND DEVELOPMENT APPROVAL.
- INFORMATION SHOWN RELATING TO ENGINEERING DETAILS, CADASTRAL, SERVICE LOCATIONS, TOPOGRAPHICAL FEATURES, PLANNING AND ENVIRONMENTAL CONSTRAINTS HAS BEEN INTERPOLATED FROM THIRD PARTY SOURCES. THEREFORE ALL INFORMATION SHOWN IS APPROXIMATE ONLY AND SHOULD **NOT BE SCALED** AND RELIED UPON ONLY FOR PLANNING PURPOSES.
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ONLY

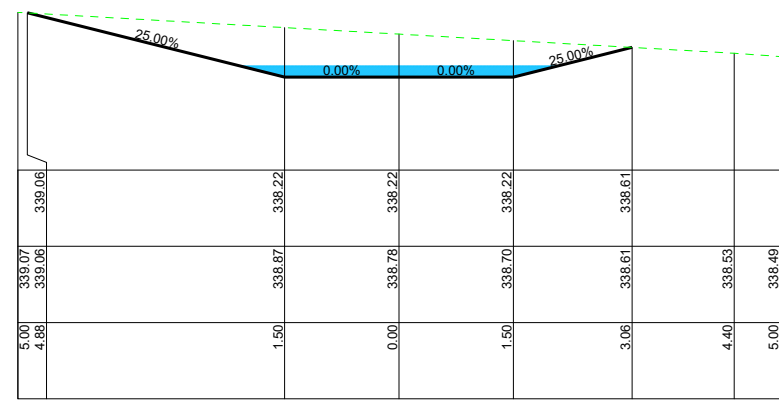
CONCEPT



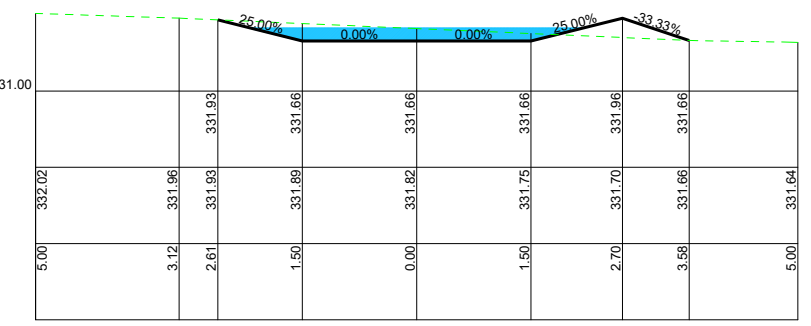
SECTION A- (CHANNEL 1)



SECTION D- (ACCESS ROAD AND DRAIN)



SECTION C- (CHANNEL 3)



SECTION B- (CHANNEL 2)

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REV	BY	DATE	DESCRIPTION	APPD.
A	TMC	30/09/2021	ISSUED TO CLIENT FOR DISCUSSION	MBH

A1 Original Co-ordinate System: BY OTHERS Height Datum: BY OTHERS Scale: DO NOT SCALE

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pace farm

DRAWN	T McLean
DRG CHECK	M Hanlon
DESIGNED	T McLean
DESIGN CHECK	M Hanlon
APPROVED	

PROJECT: WARRAH RIDGE REARING FARM
 CONCEPT DRAINAGE LAYOUT

FILE No. 21064
 STATUS: **PLANNING PURPOSES ONLY**

FIGURE: 1

A1
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