



Our Reference: 12301/PREC 1/1

**Civil Engineering
Project Coordination
Urban & Regional Planning**

29th November 2016

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ABN: 39 116 375 065

Project 28 Pty Ltd
(Leda Developments Pty Ltd)
PO Box 1914
SURFERS PARADISE 4217

Attention: Mr Michael Geale

**Kings Forest Service Station & Food Outlets Land and Environment Court Appeal
Response to Key Issues contained in DoPE letter dated 15 November 2016**

On behalf of the proponents (Project 28 Pty Ltd) we provide the following response to DoPE's letter dated 15 November 2016 in regards to civil engineering matters:

3.0 The Respondent considers that insufficient information has been provided on the following issues:

- a. *Water: The stormwater engineering drawings should show geometry of surfaces and the drainage system.*

Please find attached Mortons-Urban Solutions drawing number 12301-SK060A (Rev C) and 12301-SK061 (Rev A) showing preliminary earthworks grading of the site and preliminary stormwater infrastructure to cater for surface runoff. These drawings have been updated to incorporate bio retention systems for stormwater quality in accordance with the stormwater quality management plan submitted by others.

We note that the stormwater drainage is to pick up surface flows and roof water and be conveyed to the bio retention ponds prior to discharging into the stormwater infrastructure along Kings Forest Parkway. The fuel dispensing area runoff will not be conveyed to the stormwater reticulation system as this area is to be bunded and drain to a sump collection system. This is not shown on the attached drawings as detailed design of the bunding and sump will be completed as part of building hydraulics.

- b. *An infrastructure Plan showing sewer and water services should be provided.*

Please find attached Mortons-Urban Solutions Drawing number 12301-SK060A (amend C) showing sewer and water connections for the proposed service station and food outlet. The plan shows how the overall site is serviced; however, individual buildings will be designed by the building hydraulics engineer at the time of detailed design. As reported in Mortons-Urban Solutions original servicing report for the proposed development water and sewer infrastructure to the site is proposed by the following:

Water Reticulation

There is currently no water reticulation at the proposed development site. As part of the overall Kings Forest Development, the initial stages require an extension of the water main currently constructed to Dianella Drive along Tweed Coast Road. It is proposed to construct the extension with a 450mm diameter main or as determined in future network analysis. The main is to be constructed to Kings Forest Parkway. The proposed development will connect to the 450mm diameter or similar. We anticipate that the proposed main to the development will be constructed with 100mm or 150mm diameter depending on potable and fire flows.

Sewer Reticulation and Pump Stations

There is no current sewer infrastructure to service the proposed development. Sewerage from the Kings Forest Development will be pumped to a proposed Regional Pump Station 01 (SPS 4023 as previously allocated in Council's numbering system). This pump station is to be constructed by Project 28 Pty Ltd as part of Stage 1 of the development. The location of SPS 01 is shown on the attached drawings 12301-SK-060A (Rev C)

It is anticipated that the sewer from the proposed development will gravitate to a discharge manhole and discharge to SPS01.

The flows from the proposed development along with the flows from the overall development will be required to have a full network analysis prior to construction to avoid septicity issues and design the pumps for the anticipated initial low flows.

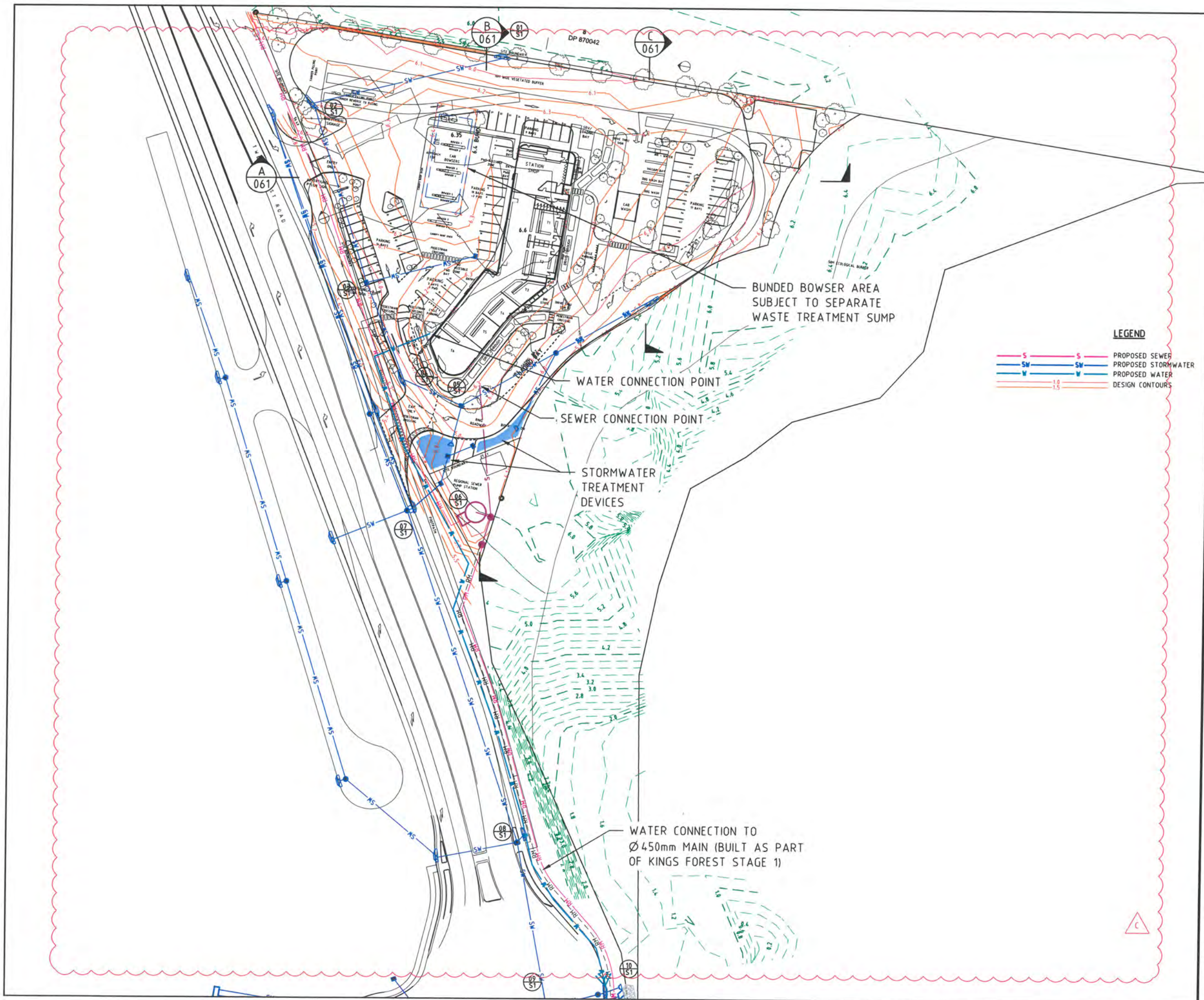
Should you have any queries in regards to the above information please do not hesitate to contact myself on 55 71 1099

Yours faithfully



Kevin Fox
Mortons – Urban Solutions

Encl: Mortons- Urban Solutions drawings 12301-SK-060A (Rev C) &061 (Rev A)



PROJECT NAME KINGS FOREST

CONCEPT PLANNING

CLIENT
PROJECT 28
PTY LTD



0 5 10 15 20 25m
Scale 1:500 - A1 (1:1000 - A3)

ISSUES	DATE
TENDER	
COUNCIL	
CONSTRUCTION	

C	25-11-16	STORMWATER TREATMENT AREA & LEGEND ADDED
B	06-05-15	SHEET LAYOUT CHANGED
A	16-12-14	COUNCIL ISSUE

PRE DATE	AMENDMENT
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ASSOCIATED CONSULTANTS

DRAWING TITLE

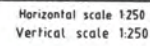
KINGS FOREST
PRECINCT 1
GRADING PLAN

MORTONS
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DESIGNED RB	DRAWN RB
APPROVED	DATE 16-12-16
DRAWING NUMBER 12301-SK-060A	AMEND. C



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12301-SK-061	AMEND.
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