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9 April 2025

Planning Officer: Carl Ewin
Direct Telephone: (07) 4086 4656
Our Reference: OPW/25/0002
Your Reference: F24/20 OPW

Wylandra Properties Pty Ltd
C/- Freshwater Planning Pty Ltd
17 Barron View Drive
FRESHWATER QLD 4870

Dear Applicants,

Confirmation Notice
Planning Act 2016

Council acknowledges receipt of your application, which was properly made on 7 April 2025.

This Confirmation Notice has been prepared in accordance with the Development Assessment Rules and contains information relevant to the processing and assessment of the application. The following details are confirmed:

APPLICATION DETAILS

Application No:	OPW/25/0002
Proposal:	Development Permit for Operational Works – Roadworks, Earthworks, Stormwater Drainage and Water Reticulation for Wylandra Stage 1 (14 Lots) and Associated Stormwater Detention Basin
Street Address:	Ray Road, Gallo Drive, Wylandra Drive & Domenic Drive, Mareeba
Real Property Description:	Lot 224 on SP276715, Lot 227 on SP119106, Lot 275 on RP890636 and Lot 222 on SP237051
Planning Scheme:	Mareeba Shire Council Planning Scheme 2016

TYPE OF DEVELOPMENT

The application seeks development approval for:

- Operational Works – Roadworks, Earthworks, Stormwater Drainage and Water Reticulation for Wylandra Stage 1 (14 Lots) and Associated Stormwater Detention Basin

SUPERSEDED PLANNING SCHEME

Is the application for development under the Superseded Planning Scheme? No

CODE ASSESSMENT

Will Code Assessment be required? Yes

The application will be assessed against the following development codes:

- Rural residential zone code
- Agricultural land overlay code
- Airport environs overlay code
- Bushfire hazard overlay code
- Hill and slope overlay code
- Regional infrastructure corridors and substations overlay
- Reconfiguring a lot code
- Works, services and infrastructure code

IMPACT ASSESSMENT

Will Impact Assessment be required? No

PUBLIC NOTIFICATION DETAILS

Is Public Notification Required? No

REFERRAL AGENCIES

Nil

INFORMATION REQUEST

Has the applicant advised on the approved form that the applicant does not agree to accept an Information Request? No

A further Information Request **is made** by the assessment manager as detailed below:

The Applicant is requested to provide a response to each of the queries raised in this information request including reference to any updated plans and documents already submitted as part of this application.

Master Plans

1. *Advice Note: Whilst it is understood that the Applicant wishes to defer Master Planning until after Stage 1, it is recommended that Master Plans for the infrastructure proposed to service the fully developed site be carried out at this early stage.*

   The absence of Master Plans limits Council's ability to assess the demands, service loadings and hence ultimate infrastructure capacity requirements within Stage 1 to suit the fully developed site. Council advises the Applicant and its development team that any infrastructure constructed as part of Stage 1 should be designed to cater for the fully

developed estate. The Applicant will be responsible for confirming these future loadings and any replacements or upgrades (if required) in Stage 1 as a result of future master planning.

Drainage

2. Review the time of concentration adopted (and hence critical rainfall intensity) for External Catchments 1, 2 and 3 as shown on Sketch 160-010-SK02. This is to ensure that the calculated peak flows from the catchments represent the runoff likely to be experienced by the receiving infrastructure.

   The flow paths adopted to determine the time of concentration must be representative of the majority of the catchment to avoid inadvertently creating a design scenario where the partial area effect for sub-catchments would create a higher design flow.

   Updated peak flow calculations for the external catchments are to be provided with the information request response.

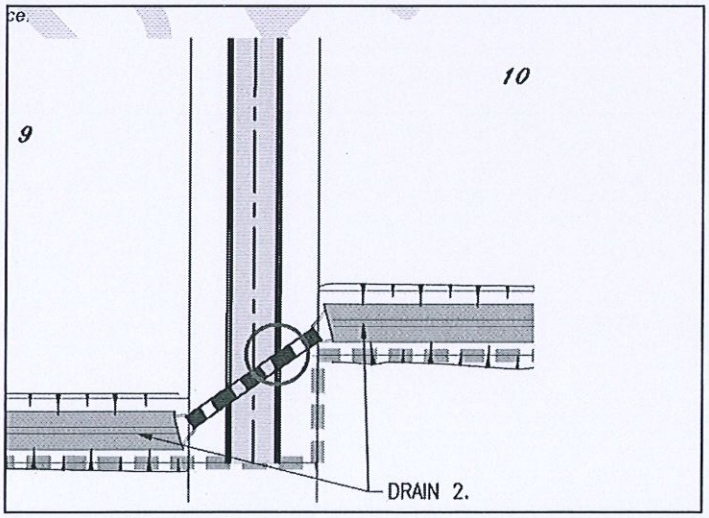
   Advice Note: The Catchment 1 flow path shown on Sketch 160-010-Sk02 and time of concentration calculations in the application's supporting documents are not considered to reflect the likely catchment response for the majority of the catchment.

   Reference is made to the networks of roads, kerbs and formed open drains through the existing developed area where the dominant flow conveyance will be via concentrated flow path with higher velocities and a more direct flow path to the downstream (Stage 1) infrastructure.

   Updated peak flow calculations are to be provided assessing the more direct flow path or assessing the partial area effect for the catchment serviced by direct flow paths.

3. Provide detail on the proposed stormwater pits and/or stormwater junctions for the underground stormwater network shown connecting the two crossroad culverts on Road 1 and Road 3.

   Advice Note: The application's supporting material does not include stormwater pit details; however, the design proposes junctions of box culverts (part of the underground stormwater network) connecting perpendicularly into the crossroad box culverts without detailing the pit or junction arrangement. As these junctions occur at the kerb line, they could impact the long-term integrity of the stormwater system and road asset. Additional information is required from the Applicant in regard to the stormwater junctions/pits proposed to enable access and maintenance.



Junction of Box Culverts – Extract from Erscon Drawing 160-010-SK01

Council Officers advise that the preference is to keep the two stormwater systems separate and discharge the piped network on the downstream side independent from the crossroad culverts.

4. Provide detail on the proposed stormwater pits on the underground pipe network. For example, Pit 6/1 on Line 1 where pipes are required to cross under the pit lintels or enter the pit from under the road. Provide an assessment of cover, clearances and levels to demonstrate that the stormwater pit is constructable.

   Advice Note: For clarity, these key items are repeated against the relevant drawing to identify where the review comments originate from.

   Drawing 160-010-C103

5. Provide pre-and post-development flow calculations for each open drain in or adjacent Stage 1, and identify the changes to these stormwater catchments.

   Advice Note: The current site contour information on drawing C103 confirms that the open drains adjacent existing Lots 99 to 102 do not currently connect to the drainage downstream behind Lots 103 to 108.

   Officers note the proposed development alters the contributing catchment to the downstream drain, and post development, there will be a change in flows behind Lots 103 to 108.

   The supporting information does not appear to include assessment of the drains' operation pre and post development. This is required to confirm that the drains will operate with appropriate capacity, freeboard and operating velocity with the altered drainage now proposed.

6. Provide pre-and post-development flow calculations for the eastern open drain downstream from Stage 1, and identify the changes to these stormwater catchments.

   Advice Note: The drainage downstream from Lot 108 is not currently available for Council to review and the Applicant must provide an assessment of all drainage to the point where sufficient capacity exists downstream.

   Drawings 160-010-C106 and C107

7. Confirm cover to stormwater pipes and services crossings, and confirm the class of pipe proposed is appropriate for the available cover. Calculations on pipe class must consider the construction loads at subgrade level where cover is at its lowest.

   Advice Note: The pavement detail on Drawing C108 specifies 98% compaction of the subgrade, applied at the bottom of the pavement box, 280 mm below road surface level.

8. Confirm the pipe class and cover to the following stormwater pipes:

   a. Diameter 375mm pipe at approximate Chainage 70m on Road 2; and

   b. Diameter 375mm pipe at approximate Chainage 15m on Road 3.

   Confirm the construction loads at subgrade level for these locations.

9. Confirm the extent and depth of ponding in the Road 3 sag point during minor and major rainfall events.

   Advice Note: The longitudinal section for Road 3 indicates an approach grade to the road sag of 0.5%. Council's review indicates that the Road 3 centre line level does not reach the crown level of Road 1 intersection until approximately Chainage 60m. Council seeks to

understand the potential constraint on road trafficability due to the flat approach grade into the sag.

10. Provide advice on the hydraulic design, including tailwater and head water level, for the crossroad culverts at approximate Chainage 90m on Road 3. Concern is raised that operation of the crossroad culverts may create adverse downstream conditions for the on-road stormwater pipe network.

11. Confirm the drawing scale (vertical and horizontal) used on Drawing C106 and C107. It appears that difference scales have been used on these drawings.

Drawings 160-010-C108

12. Provide road pavement design calculations and confirm the ultimate traffic loading for the proposed pavement detail shown on Drawing C108, noting that traffic from future stages will pass through the roads in Stage 1.

Advice Note: The absence of a Road and Traffic Master Plan limits Council's ability to assess this element. The Applicant must ensure the Stage 1 road pavement is designed for the ultimate traffic load for the estate.

Drawings 160-010- C109

13. Council request consideration of kerb flares at the intersection of Road 1 and Wylandra Drive. Kerb setout points 1 and 14 may represent potential traffic hazards/conflict points for northbound through traffic on Wylandra Drive. The Applicant is to assess this risk and provide supporting advice on the kerb set out adopted.

14. Provide detail design contours at maximum 100 mm increments at all intersections to provide clarity on grading and stormwater overland flow paths.

15. The Applicant is to review the hydraulic grade and potential backwater to stormwater pits and kerb levels at the intersection of Road 3 with Road 1. The Applicant is to assess the consequence of the crossroad culvert proposed under Road 3 (at approximate Chainage 80m and connecting the open drains from behind Lot 10 to behind Lot 9).

Advice Note: Reference is made to the low points in the kerb gradings for the Road 3 intersection. Kerb set out points 38, 39 and 42 are understood to provide the kerb lip levels (20mm above invert level). The levels indicate surcharging back up the stormwater line when the crossroad culvert is running full with a headwater.

Drawings 160-010-C110

16. Clarify the spot levels nominated on the road verge adjacent the rear of allotment drain behind Lots 9 and 10. The levels noted on Drawing C110 appear to vary (lower) from the levels calculated based on centreline levels and road typical cross sections shown on Drawing C108 at Chainage 80m and 100m.

Advice Note: The calculated verge level at Chainage 80m is 456.36m, (refer also to cross sections on Drawing C122). The level noted on Drawing C110 is 455.992m.

The Applicant is to clarify this apparent anomaly.

17. Clarify how Lot 10 is to be drained and any risk of inundation of the northwest corner of this lot noting the drain is bunded by Road 3 to a higher level than the Lot 10 surface levels.

18. In accordance with QUDM, provide a severe impact assessment for Drain 2 in the event of blockage or partial blockage of the crossroad culvert under Road 3.

Drawing 160-010-C111

19. Confirm the drain hydraulics at the confluence of the drain running west from Road 2 joining at 90 degrees to Drain 2. The application does not appear to include calculations regarding the confluence of the drains.

Water Reticulation

Drawing C112 and C113

20. Confirm if network water modelling has been done for Stage 1 and for the ultimate development. If so, what assumptions have been used in modelling for the ultimate development.

    Advice Note: The pipe sizes nominated in Stage 1 are generally consistent with the expected sizes, however, the application does not provide master plans to confirm the ultimate connected catchment.

21. Assess the impact of the ultimate demand on the external network and any impacts to the available pressures and flows in the existing system, or advice how this has been assessed.

Stormwater

Drawing 160-010-C114

22. Provide detail on the proposed junction of Stormwater Line 1 with the crossroad culvert.

    Advice Note: Officers are not supportive of the current concept on the basis that the internal stormwater network will compete with the crossroad culvert and headwater created by Drain 2.

    The Applicant may wish to consider an independent discharge location for Line 1 downstream (north) from Road 3 at the rear of Lot 9 to avoid hydraulic implications from the crossroad culvert and Drain 2 headwater.

23. Review the levels at Pit 5/1 and 6/1, and confirm that the pipe obverts will pass underneath the pit lintel. The levels appear to be too shallow to accommodate normal lintel depths and may require deeper pipes.

24. Review the grate levels at Pit 1/4 and Pit 6/1 in Road 3, and confirm that these pits will drain feely against the hydraulic grade in Drain 2 and the crossroad culvert.

Drawing 160-010-C115

25. Provide advice on the junction pit for Line 2 into the crossroad culvert proposed under Road 1 for Drain 1.

    Advice Note: Review comments similar to the Road 3 crossroad culvert apply.

    Officers are not supportive of the current proposed arrangement and request consideration of a discharge on the downstream side of Road 1.

26. Provide a severe impact assessment for existing Lots 99 to 108 as a result of drainage changes along their western boundary. The severe impact assessment must consider blockages or partial blockages of the open drains and culvert crossings.

27. Provide modelling outputs for all open drains and culvert crossings. The modelling software and/or calculations must consider the losses at culvert entrances and at drain junctions or bends.

Drawing 160-010-C116

28. Provide clarification on the proposed pipe connection details at the crossroad culverts or the amended pipe layouts to maintain separate drainage systems for on-road flows and crossroad drainage.

    Advice Note: The Drain 1 and 2 culvert cross-sections appear to show circular pipes penetrating through the culvert crowns. The stormwater design information indicates box culverts intersecting with these crossroad culverts.

    Officers seek to clarify this anomaly and additional detail of the junction pits if this remains the Applicant's proposed design. Offices encourage the separation of the road pipework from the crossroad culverts by discharging the on road pipework at the downstream side of each road.

29. Provide advice on the access provisions for maintenance and cleaning of the open channels as per Section D4.12 of the FNQROC Development Manual. Practical access to the drains must be shown on the design drawings and must be provided clear of culvert headwalls and wingwalls.

30. Provide advice on the low flow protection proposed in the open drains noting that FNQROC Development Manual nominates hard lining of channels to cater for the 3-month ARI rainfall event flows.

    Advice Note: Officers are generally not supportive of unlined drains due to maintenance concerns.

Drawing 160-010-C117

31. Provide justification for the starting hydraulic grade line for Stormwater Lines 1 and 2 noting that these points represent the side wall of the crossroad culverts.

    Provide justification for pit loss values at these junction points.

    Advice Note: It is the responsibility of the certifying RPEQ to ensure the information provided is assessed and complete. No information has been provided in the supporting calculations for this hydraulic matter.

32. Confirm with further drainage calculations that Stormwater Line 1 achieves the 150 mm freeboard at inlet Pits 1/4 and 6/1 based on the hydraulic grade in Drain 2 and/or the crossroad culvert.

    Advice Note: The longitudinal section for Line 1 shows the low point at Pit 6/1 and the uphill grade on Road 3 up to the junction Pit 7/1. The current design suggests the hydraulic grade line achieves the 150 mm freeboard at Pit 6/1, but this appears to be at risk if a higher starting hydraulic grade level was applied.

    The current starting hydraulic grade suggests that the crossroad culvert does not run full. There does not appear to be calculations for the water level or the junction losses.

    Officers reiterate concerns with the grading of Road 3 and the intersection with Road 1 due to the resulting low kerb invert levels and the implications for draining these low spots to the downstream drainage.

33. Confirm pipe classes have been assessed based on the depths and cover achieved including the reduced cover available at the subgrade level where compaction levels of 98% are specified. Suitable calculations of pipe class should be provided to respond to this Information Request item.

Drawing 160-010-C122

34. Provide confirmation of clearance between the kerb and the box culvert at the low point in Road 3. Cross-sections on Drawing C122 for Road 3 at Ch18.439 and Ch20 appear to indicate that the kerb unit would not physically fit above the box culvert.

Drawing 160-010-C126

35. Provide clarification on the levels at the detention basin outlet having regard to the levels nominated at the end of Drain 2.

Advice Note:

- *The design surface level at the base of the detention basin and the outgoing pipe invert level on Section A indicate a level of 453.2m;*
- *The drain outlet level at the downstream end of Drain 2 (at the rear of Lot 8) is nominated as 453.212m, (reference is made to Drawing C116 at Ch 394.28m for the Drain 2 level);*
- *This indicates that there is 12 mm fall from the end of Drain 2 to the level of the pipe through the embankment wall of the detention base. The designer is requested to provide clarification on these levels and the operation of Drain 2 and detention basin.*

36. Provide clarification on the downstream surface levels from the outlet pipe at the detention basin, and the downstream drain lining and scour protection proposed at the outlet.

37. Drains 2 and 3 are shown as being within separate land parcels on the submitted plans. The plans approved under Development Permit RAL/24/0009 show drain 2 as being situated within Easements AA and AB (drain 3 was not included on the earlier plans). Amend the plans to include drains 2 and 3 within Lots 8 – 14 respectively and/or within the Estate balance land, and to be covered by drainage easements.

End of Information Request

In responding to the Information Request, *Development Assessment Rule 13* states: -

"13. Applicants Response

13.1 The period for the applicant to respond to an information request is 3 months from the date the information request was made or a further period agreed between the applicant and the assessing authority that made the information request.

13.2 The applicant may respond by giving the assessing authority that made the information request, within the period stated under section 13.1 -

(a) all of the information requested; or
(b) part of the information requested; or
(c) a notice that none of the information will be provided.

13.3 For any response given in accordance with sections 13.2(b) or (c), the applicant may also advise the assessing authority that it must proceed with its assessment of the application.

13.4 An applicant must provide a copy of any response to an information request made by a referral agency to the assessment manager."

PROJECT TEAM

The contact details of the project team for your application are provided below. Your primary point of contact for any general enquires regarding this application is the project manager.

Project Managers (Planning)	**Carl Ewin**	**(07) 4086 4656**
	Brian Millard	**(07) 4086 4657**

OTHER DETAILS

You can follow the progress of this application online at www.msc.qld.gov.au

Should you have any further queries in relation to the above, please do not hesitate to contact the undersigned on the above number.

Yours faithfully

CARL EWIN
SUPERVISOR BUILDING & PLANNING