



5 February 2025

Planning Officer: Brian Millard
Direct Telephone: 07 4086 4657
Our Reference: OPW/24/0009

Conmat Pty Ltd
C/- ERSCON Consulting Engineers Pty Ltd
10/320 Sheridan Street
CAIRNS NORTH QLD 4870

Dear Applicants,

Information Request

Planning Act 2016

I refer to the below mentioned revised application which was received by Council on 8 January 2025 and advise that Council requires further information to satisfactorily assess the proposal.

APPLICATION DETAILS

Application No:	OPW/24/0009
Proposal:	Application for Development Permit for Operational Works (Roadworks, Earthworks, Drainage, Water & Sewer Supply Works) for Development Permit RAL/23/0009 (Ray Road Estate – Stage 1)
Street Address:	Ray Road & Cater Road, Mareeba
Real Property Description:	Lot 1 on RP747077
Planning Scheme:	Mareeba Shire Council Planning Scheme 2016

INFORMATION REQUIRED

The information requested is set out below:

General

Information Required

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.

The Applicant is requested to provide a Statement of Compliance noting any non-conformances in accordance with FNQROC Development Manual AP1 – Application Procedures, (In particular, AP1 – Clause 11a).

Master Plans

1. Provide Master Plans for site earthworks grading, stormwater drainage, water supply, sewer reticulation to enable the assessment of Stage 1 and interface with future stages.

RAL Conditions

2. Provide the advice on the drainage Easement A on RP733064 as required under RAL Condition 4.1(b). Specifically, the civil infrastructure works recommended to ensure the long-term stability and functioning of this drainage easement.
3. Provide the 4m pathway connection between Lots 11 and 12 as required under RAL Condition 4.3(e).
4. Confirm construction staging of Ray Road as per Condition 4.4 (b) of the RAL Decision Notice, noting that the Decision Notice does not commit Council to contributing to the road upgrade with Stage 1.

In particular; confirm how construction of the western half of Ray Road will be completed maintaining the existing eastern surface drainage system prior to upstream drainage works in the catchment (upstream from Zenel Road).

Advice Note: Councils planning and concept drainage for Zenel Road and catchments south from Zenel Road indicates that diversion of the entirety of ERSCON's Catchment A will not be possible. This has implications for the capacity required along the eastern side of Ray Road even after the upgrades and catchment diversions at Zenel Road.

Further discussions on the required Ray Road drainage capacity will be required.

5. Provide a prices Bill of Quantities to substantiate the construction values included in Table 3 of the ERSCON Design Report.

Advice Note: Council makes no commitment to contribute to the upgrade of the Ray Road at this time.

Drawing C104

6. As per Item 5 above, provide clarification on how ERSCON's proposed cost apportionment was determined for works on Ray Road.

Advice note: Officers do not support the simplistic determination that all works on the eastern side will be Council responsibility.

The stormwater layout shown indicates that the drainage design proposes to take piped infrastructure from the western side of Ray Road, across Ray Road in front of proposed Lot 1 (approximate Ray Road chainage 250m) and convey that runoff in larger pipes on the eastern side of Ray Road.

This appears to increase the pipe sizing on the eastern side through to the discharge point outlet drain at approximate road chainage 175m.

The stormwater calculations suggest the runoff in this reach of the pipe network is predominantly from the development site. Based on the contributing catchment, it is not envisaged that cost contribution would apply to this reach.

Further clarification on the applicant's proposed cost apportionment is required for Council to consider the timing for upgrade works on the eastern side to determine if these can be done with Stage 1 road works.

7. Further clarification is also required on the retention of Council existing road asset in the existing Ray Road pavement and formation that Council has already provided within the road corridor.

Advice Note: It is unclear whether the development proposes to abandon the existing 6m to 6.5m wide road asset and reconstruct a new 10m wide road. Council does not expect to pay for 10m width of new road where currently it provides a two-lane road carriageway.

Eastern Side of Ray Road.

8. Clarify drainage capacity and immunity level achieved on the eastern side of Ray Road noting changes to existing culverts. For example at the eastern property access at Ray Road Chainage 240m (opposite the Road B intersection).

Advice Note: Referencing Drawings C103 and C104, the proposed new drainage at the access replaces an existing 1500mm x 600mm RCBC with a 1200mm x 600mm culvert network, but with additional western pipe network connected into this pipe reach.

Consideration must be given to the timing for upstream drainage works in the catchment, and a risk assessment provided to understand the operating scenario for the new lots created with Stage 1, based on the current operating scenario (prior to potential upstream works).

Drawing C105

9. Provide further clarification on the design of the rear drain behind Lots 9 to 16 and the underground drainage infrastructure in this corridor.

Advice Note: FNQROC Section D 4.13 does not permit rear of allotment piped drains requiring "All inter allotment drainage works shall be conveyed above ground via open channel".

The absence of a drainage master plan limits the ability for Officers to fully understand and assess the current proposed drainage arrangement.

The notes on Drawing C105 indicate that the rear drain longitudinal section is provided on Drawing C122. However; Drawing C122 includes the longitudinal section for the drain reach from Ch 0m to Ch 277m and not for the full extent. The longitudinal section also indicates a 600mm x 600mm RCBC below the surface drain. The underground drainage does not appear to be included on the drainage plans and no further details are currently available at its discharge arrangement at CH 277m.

Drawings C106 and C107

10. Provide advice on the minimum extent of the Ray Road upgrade to facilitate functional operation and access to the lots and intersection of Road B.

Advice Note: As per Condition 4.4 (b) of the RAL Decision Notice, the developer is required to construct the western half of the ultimate road form. In addition, the timing for proposed stormwater management upstream is unlikely to permit the upgrade of the eastern half of Ray Road with Stage 1.

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11. Clarify how Section B on Drawing C106 interfaces or relates to Section A and the longitudinal drain grading on Drawing C122.

Drawing C108

12. Per IR Item 7, provide clarification on the Typical Road Cross Section and whether the existing Ray Road pavement is being widened or if the developer is proposing to remove the existing road pavement and seal in its entirety in its Ray Road Upgrade.

Advice Note: Drawing C108 indicates a typical road cross-section for Ray Road. It is not clear from this section where the existing road formation is in this section and how the new design includes the existing road.

The Typical Road Cross Section indicates that this application seeks Council to contribute for part of the road upgrade. Provide clarification on the extent that the developer seeks council to contribute to. A priced schedule and bill of quantities will be required for this element to be properly considered.

Drawing C110

13. Provide advice on the potential ponding depth and resulting road trafficability for Road B at the sag point near Ray Road. This query relates to the proposed road centreline design levels shown on the Road B longitudinal section and the interface levels at Ray Road.

Advice Note: Officers are concerned that the road grading and levels will not meet FNQROC and/or QUDM maximum depth limitations. The longitudinal section for Road B has a sag that is 417 mm lower than the Ray Road grade line. For the entirety of the road surface in Stage 1, the road grading is below the Ray Road crown level. Stormwater must ultimately outlet to Ray Road and further east. The 100-year flow depths must be considered for road trafficability and safety.

Drawing C111

14. Provide clarification on why the design adopts large lintels for the kerb inlet pits near the intersection of Road B with Ray Road. Large stormwater lintels are not preferred by Council.

Drawing C112 – Ray Road Cross sections

15. Per IR Items 7 and 12, clarify if any of the existing road pavement on Ray Road is proposed to be incorporated into the new works.

The cross-sections from Ch 60m onwards appear to indicate greater widening required on the left-hand side of the road, currently nominated as the side requiring financial contributions from Council.

Advise what alternative solutions may be available to minimise the costs of the road upgrade to all parties. These should include consideration of reduced verge width to maximise the retention of the existing Ray Road pavements.

Advice Note: Council considers that the existing surface drainage capacity on the eastern side (left-hand side) will need to be maintained (and or improved by Council) in a staged Ray Road upgrade to maximise drainage capacity until other catchment improvement works can be scheduled. This would limit any road widening works on the eastern side of the existing formation.

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16. Per IR Item 6, Ch 220 and 240 indicate increased infrastructure on the eastern side of Ray Road (left-hand side of cross sections). Clarify the developers position regarding costs noting that the stormwater calculations confirm this infrastructure predominantly services runoff from the Stage 1 site.

Drawing C115 and 116

17. Provide pit labels for all Stage 1 stormwater lines. In particular; the stormwater line behind Lots 33 and 34, and the stormwater line in Road B.

Advice Note: Officers have assumed these are Stormwater Lines 2 and 3, however this must be clarified on the drawings.

18. Provide updated drawings for the longitudinal section and cross-sections for the extent of the rear of allotment drain behind Lots 1 to 16.

Advice Note: There does not appear to be complete details of the design included in the current drawing set.

19. Provide additional information on the proposed works to the open drain on the southeast side of the McIver Road - Ray Road intersection.

Advice Note: Stormwater Line 22 is shown discharging to this drain and the level information indicates upgrading of this drain is required.

The scope of earthworks and lining in the open drain is unclear in the current documentation set. Drawing C104 refers to Drawing C116, however, labelling and control line information remains unclear.

In addition, site reviews indicate that the current drain appears to discharge to an existing 450mm diameter RCP further east. Details on the levels and capacity of the downstream system must be included in this documentation set to assess the proposed drain upgrades.

Drainage longitude sections

20. Provide evidence of the operating levels in the receiving drainage systems to support the hydraulic grade line level assumptions in the stormwater design calculations. Subject to the implications of the review of starting water levels, reconfirm the piped drainage design for Stage 1 and future stages.

Advice Notes: The starting hydraulic grade line on the drainage longitudinal sections on Drawings C117 to C121 appear lower than normal operating outlet drain levels would permit.

Council consider that the outlet drains will be running full for the purpose of downstream drainage calculations and the starting hydraulic grade line should be at/or near the top of bank.

To assist, photos of the Ray Road drains taken during inspections in 2024 are included to indicate open drains running full are a common occurrence in the local area.



21. Clarify the extent of underground drainage proposed to be constructed under the Stage 1 works package.

Advice Note:

- *Line 2 on Drawing C118 appears to extend further upstream in the plan views.*
- *Line 3 on Drawing C119 appears to extend upstream behind Lots 33 and 34.*
- *Line 4 appears to extend upstream from Pit 6/4 to be outside the Lot 16 Road frontage.*

Reviewing officer comments are based on assumed line numbers and pit numbers and these should be clarified as per the comment relating to Drawing C115.

Drawing C122

22. Provide clarification of the drainage intent and site grading is required, including the apparent low point included at rear drain CH 132.695m. The master plan for the site is also required to understand how this rear drain fits into the overall site grading and stormwater control, and the potential risk to property flooding if the rear drain capacity is exceeded.

23. Clarify where Section A refers to on the rear drain line. The label indicates that Section A is referenced on this Drawing C122, but does not appear to be shown.

Drawing C115 refers to drain Section C on drawing C122, however, no Section C exists on this drawing. The drawings must be updated to clarify section locations and references.

24. Provide updated drawings showing the proposed extent of underground culvert infrastructure in the rear allotment drain as shown in the longitudinal section on Drawing C122.

Advice Note: It is unclear where the underground culvert segment commences or finishes as there is no corresponding linework indicating the presence and extent of this infrastructure on the plan view on Drawing C122.

The surface drain section and the underground drain longitudinal section does not demonstrate free draining outlet conditions. This appears to indicate part of the drain information may be missing from the current drawing set as no drainage information or grading is available beyond Ch 277.82m.

No pipework within the rear drain is apparent on the Drawings C115 or C116.

Advice Note: FNQROC Section D 4.13 does not permit rear of allotment piped drains requiring "All inter allotment drainage works shall be conveyed above ground via open channel".

Drawing C123 – Stormwater Pit Design

25. Provide advice on what traffic loads have been assumed for the pit structural design. Provide designs for each pit or demonstrate the design for the most critical load combination and pit geometry, and provide a Form 15 for that arrangement.

Advice Note: Concern is raised with the level of detail available for Council to assess the pits adjacent and under the roads, including for the construction contractor to achieve the intent based on this stormwater network. A project risk is perceived based on a limited structural information provided on Drawing C136.

Drawing C124

26. Provide updated details for the proposed outlet Head Wall 1/1 including earthworks batters and extents required to interface to the channel bed, and above the head wall and wing wall.

The Work footprint and batter slopes/extent must be confirmed with detailed survey and the minimum details must include:

- a. labels on the existing surface contours,

- b. the location of significant trees >200mm DBH,
- c. setout details and offset to property and easement boundaries,
- d. outlet velocity from the culverts;
- e. cut off walls and drain protection downstream from the apron;
- f. depth of cut or fill longitudinally along the drainage line; and
- g. resulting downstream drain gradient.

Advice Note: Detailed information on the outlet works is required to address RAL Condition 4.1(b) for the works in drainage Easement A on RP733064. The design must detail the civil infrastructure works required to ensure the long-term stability and functioning of the drainage easement.

Sewerage Reticulation

27. Master plans for the sewer reticulation network are required for Council to consider proposed designs for gravity sewers greater than 3m depth to verify optimisation of the reticulation network. Reference is made to FNQROC D7, Clause 5c “sewers shall not be greater than 3m deep unless approved by Council”.

Additional information is required to:

- a. Clarify why the sewer network is graded at these depths noting the sewer controls appear to allow for raising of the invert levels;
- b. Confirm that the minimum self-cleansing flows are achieved for the 225mm diameter pipe section;
- c. Confirm that the end of line grading meets the FNQROC min grade (1 in 100);
- d. Provide details for the proposed road crossing of Cater Road; and
- e. Confirm clearance between the power pole and the boundary of Lot 1 and Lot 6 on M356144 between sewer Manholes 2/1 and 3/1.

Advice Note: The sewer appears to be approximately 3.7 to 4 m deep and the downstream alignment shows the sewer adjacent existing property boundaries, passing power poles and crossing under Cater Road. These represent significant works and the level of detail currently available is not considered to reflect the construction challenges arising from the proposed work scope. It is also not clear what steps have been taken to minimise the sewer depths. The Master Plan is required to understand the design intent and rationale.

28. Update the sewer reticulation design to ensure sewer manholes comply with the maximum spacing per FNQROC Guidelines. Specifically, sewer line 2/1 to 3/1 is >100m in depth conflicting with the design statement in the ERSCON report and FNQROC Guidelines.
29. Update the sewer reticulation plan clear of other control lines and stage boundary to enable assessment of the alignment including offsets where required to the property boundary.

Advice Note: The sewer line work on Drawing C126 conflicts with the stage boundary and is also adjacent the Drain Control Line.

Water reticulation

30. Provide the hydrant flow test data referenced in the design report. This was not included in Appendix F.
31. Provide network modelling of Stage 1 as an interim scenario to confirm flows and pressures are achieved at the southernmost nodes when Stage 1 is completed but prior to the full network interconnectivity being achieved.

Advice Note: Council advises that the water reticulation pipe sizes are consistent with expectations. The modelling is to inform interim operating scenario.

32. The application must be supported with master plans for the entirety of the reticulation network for the development site.

Advice Note: The Epanet printout in Appendix F is acknowledged but does not provide the clarity on pipe connectivity and pipe sizes of a Master plan. A suitable sketch or drawing is expected to be provided for this purpose.

Vehicle turn paths

33. Provide further advice confirming the design vehicle for each road hierarchy and the check vehicle. Based on the confirmation of design vehicle at each intersection, confirm that the design vehicle is able to complete the turning movement and remain within its lane as required by FNQROC and Austroads guidelines.

Advice Note: Officers do not have any significant concerns with the kerb return radius for each intersection. The information is to assist both parties to demonstrate compliance with the standards as the current turn paths appear to suggest the design vehicle may encroach into the opposing lane.

End of Information Request

Under the provisions of the *Development Assessment Rules 2017*, you have three options available in response to this Information Request. You may give the assessment manager (in this instance Council):

- (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.

For any response given in accordance with items (b) and (c) above, you may also advise Council that it must proceed with its assessment of the development application.

Please be aware that under the *Development Assessment Rules 2017*, the applicant is to respond to any Information Request within **3 months** of the request. If you do not respond to the Information Request within this time period, or, within a further period agreed between the applicant and Council, it will be taken that you have decided not to provide a response. In the event of no response being received, Council will continue with the assessment of the application without the information requested.

Council prefers that all of the information requested be submitted as one package. If any additional matters arise as a result of the information submitted, or, as a result of public notification (where applicable), you will be advised accordingly.

Should any referral agency make an information request, you are reminded of your obligation to provide council with a copy of the information response provided to that referral agency.

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



BRIAN MILLARD
COORDINATOR PLANNING & BUILDING