

Our Ref: LM: DA/4590:AD2023/0001010

31 March 2023

Euan Bruce
MTC Tower Pty Ltd
c/- KFB Engineers
PO Box 927
CAIRNS QLD 4870

E-mail: euau@kfbeng.com.au

Dear Mr Bruce

Information Request

Given under section 12 of the Development Assessment Rules

Cook Shire Council has carried out a further review of your development application for the following premises.

Location Details

Street Address: 2 Hope Street, Cooktown

Real Property Description: Lot 23 on SP219110

Local Government Area: Cook Shire Council

Application Details

Application Number: DA/4590

Approval Sought: Development Permit for Operational Works

Description of Proposal: Associated with Reconfiguring a Lot (1 into 12 Lots)

Category of Development: Assessable Development

Category of Assessment: Code Assessment

Information Requested

Cook Shire Council has determined that the following additional information is needed to assess the application:

GENERAL

1. The Applicant is required to resubmit the FNQROC Statement of Compliance form addressing all non-conformances with the condition of the Development Permit for Reconfiguring a Lot and/or the FNQROC Development Manual.

Advice Note:

The review of the operational works application identified a number of elements that represent departures (non-compliances) from the RaL Decision Notice conditions and/or from the design guidelines set out in the FNQROC Development Manual.

The Applicant's completed FNQROC Statement of Compliance form for Operational Works Design certified by the RPEQ has not acknowledged these departures/non-compliances as required.

Note: After addressing the Information Request items and providing the amended drawings, if any elements remain non-compliant with the FNQROC Development Manual, the applicant must confirm these elements and provide the non-compliance report/drawing number as nominated in the FNQROC Statement of Compliance form.

2. The Applicant is requested to submit a revised Design Report in accordance with FNQROC Development Manual AP1.08.

Advice Note:

The Applicant's Design Report dated 7 February 2023 does not provide the information nominated in the FNQROC Development Manual AP1.08.

The Design Report does not provide sufficient information to justify the responses to Council's Decision Notice dated 24 February 2022. For example, the Design Report does not include stormwater drainage calculations for the open drains or culvert crossings and has not assessed the downstream drainage capacity to receive the increased stormwater discharge.

STORMWATER

3. Provide revised drawings to specify details of the drain treatment at Pipe Outlet 1/1. Drawing K9168-C02, does not provide details on lining or scour protection treatments at this outlet into the roadside table drain.

4. Provide additional calculations and details on energy dissipation and scour protection for the northern Catch Drain longitudinal section shown on Drawing K9168-C06. The catch drain outlet detail and supporting calculations must verify that the downstream drain profile can contain and control the run-off or advise additional lining and protection of the drains in revised Drawings and/or Design Report for Council's consideration.

Advice Note:

Drawing K9168-C06 nominates the catch drain longitudinal section and lists a vertical geometry grade of 19.9% for the final section of the catch drain discharging into the Hope Street table drain. Drawing K9168-C03 also shows that this steep section of drain does not align with the crossroad culvert, hence run-off from the catch drain is required to negotiate a bend into the roadside table drain (as well as a 19% change in grade) and then another bend into the culvert inlet.

The Applicant is requested to advise what calculations have been undertaken in regards to the ability for the roadside table drain to contain the high velocity run-off from the proposed catch drain and the flow path geometry changes.

5. To address Items 3 and 4, the Applicant is requested to provide a separate drawing to document the drainage works leading to the new crossroad culvert (Culvert 1), including details of the roadside table drain near the upstream inlet of Hope Street cross road culvert (Culvert 1) and the interface of the table drain with:
 - the catch drain along the northern boundary;
 - the Pipe outlet 1/1 and surface runoff from the internal road; and
 - Crossroad Culvert 2 under the internal road.

6. Provide hydraulic calculations for the proposed crossroad culverts; Culvert 1, Culvert 2, and for the roadside table drain for the full frontage of the site.

The Applicant is to provide hydraulic calculations for the operation of these drainage elements in the revised Drawings and/or Design Report. In particular, the supporting information must address the immunity level achieved by the proposed drain and culvert sizes.

In the event that these drains do not convey run-off from the 1 in 100 year ARI (1% AEP) event, the Applicant is requested to demonstrate where the overland bypass flows are directed and provide calculations to demonstrate sufficient capacity to accommodate these flows.

7. Provide advice on the operation of the proposed northern Catch Drain including depth and velocity and confirm that suitable freeboard is provided. The freeboard is to be in accordance with QUDM section 9.3.4. Concern is raised with the velocity head noting the drain longitudinal grade is up to 32.3%.

Advice Note:

Drawing K9168-C06, nominates a catch drain along the north-eastern boundary of the development to intercept runoff from the upslope catchment. However, hydraulic calculations for the operation of the drain, including the operating velocities have not been provided in the submission to Council. This information is part of the information nominated in the FNQROC Development Manual AP1.08.

8. Provide additional detail on the northern Catch Drain dimensions proposed. With reference to Drawing K9168-C04, the catch drain detail does not provide dimensions of the depth of the drain lining (particularly the downslope side).
9. Provide details of the proposed stone pitching and the 100 mm high rock check dams at 15m spacings within the invert of the drain.

Advice Note:

Officers have concerns with the nominated 100 mm thick stone pitched drain, given the steep longitudinal grades of the catch drain and the risk of high velocities during the operation of the drain. Officers consider that a thicker drain and a higher concrete strength will be required in addition to some form of cut-off wall to key in the drain.

The Applicant is requested to consider these matters and provide revised drawings for Council's consideration.

10. Provide advice on how proposed Lots 5 and 6 are protected from runoff from the upslope external catchment. Drawing K9168-C08 does not show a catch drain protecting future houses on these Lots.
11. Provide details to demonstrate how runoff from the upslope catchment is to be managed through Lots 5 and 6 to be directed to the kerb and channel to allow the capture at Pit 5/1.

In particular, Drawing K9168-C04 shows the existing surface level in Lot 5 at the southern edge of the earthworks has a level of 45 m AHD, whereas Point 25 nominated on the cul-de-sac kerb grading has a level of 46.198 m HD.

Advice note:

It is unclear how the concentrated flow from the upslope catchment will be managed to get to the road frontage without significantly impacting Lot 5. The level of information in the current submission does not allow for further assessment of this element.

12. With reference to Drawing K9168-C08, the pre and post development stormwater drainage catchment plans indicate that a significant part of the southern catchment (assessed as approximately 1ha) is now being diverted by the development works to the new crossroad culvert under Hope Street (Culvert 1) and into Seagren Street.

Provide suitable calculations of the flow capacity of elements within road system to convey this runoff. This includes the capacity of upgraded Culvert 1 and the existing capacity within Seagren Street.

Confirm the downstream impact as a result of the additional catchment. This includes assessment of the on-road capacity and minor flow capacity in Seagren Street, and at the road crossings of Adams Street and Savage Street further downstream.

13. Provide clarification of the vertical grading proposed at the Seagren Street outlet for Culvert 1.

Advice Note:

The Culvert 1 detail on Drawing K9168-C04 appears to indicate a lowering of the downstream invert level discharging runoff into the Seagren Street verge. Reference is made to the existing surface line and design surface and the note nominating regrading downstream.

Officers understand that the new culvert has the same height as the existing culvert.

Clarification of the works scope is required to continue the assessment of this element.

14. Provide clarification of the footprint of the works and interface batters within Seagren Street to accommodate the outlet for Culvert 1.

Advice note:

In addition to the vertical geometry query in Item 13, the design appears to have horizontal impacts on Seagren Street from resulting batters or footprint required to construct works at the outlet of Culvert 1. Council is unable to continue its assessment of the design until such time that there is complete information on the proposed works.

15. Provided grading detail from the outlet of Culvert 1 through to the Seagren Street kerb invert to demonstrate that the proposed drain outlet is free draining. Provide assessments of the capacity and impacts from the works and catchment diversions proposed.

Advice note:

Concern is raised that the new outlet and the increased runoff being diverted will require upgrades to the drainage in Seagren Street. In particular, it is noted that the existing crossroad culvert discharges runoff through the open drain then onto the kerb invert along Seagren Street. Impacts from revised invert grading, increased drain width and increased crossroad discharge into Seagren Street have not been adequately addressed in the current information provided to Council.

The Applicant is requested to investigate this matter and provide additional detail downstream from Culvert 1 including proposed works and existing drainage infrastructure verified by detail survey. Any amendments required to the drainage as a result of the existing downstream infrastructure are to be included on revised drawings for Council's consideration.

16. Confirm the sub-catchment areas in the drainage calculations table and provide updated calculations for stormwater drainage Line 1.

Advice Note:

From a review of Drawing K9168-C08 and K9168-C10, the sub-catchment area values entered in the calculation table appear to be different to the values in the catchment plan. In particular, the sub-catchment area to pit 2/1 is inconsistent.

17. Provide revised drawings to include the drainage easement and catch drain design along the rear boundary of Lot 8 to 13 required per Condition 7 of Council's Decision Notice dated 24 February 2022. Drawing K9168-C02 does not provide any drainage controls for the discharge from Lots 8 to 13.
18. The erosion and sediment control plan (Drawing K9168-C13) is to be updated to reflect the additional stormwater easement and catch drain servicing Lots 8 to 13.

In addition, the erosion and sediment control plan must show how the concentrated flows arriving at the Lot 5 earthworks area will be managed. The concentrated flow path is evident by the existing contours on the south-eastern side of Lot 5.

ROAD AND TRAFFIC

19. Provide revised drawings to move the Hope Street table drain (and associated batters) away from the lane edge to provide a road shoulder and provide flexibility for future road upgrades, pedestrian connectivity and provide appropriate road safety elements. The revised design is requested to include a minimum road shoulder width of 2.5m clear from the top of the drain batter.

Advice Note:

With reference to drawing K9168-C02 and K9168-C04, Officers have concerns with the footprint of the external works. In particular, the roadside table drain appears to be located immediately adjacent to existing Hope Street traffic lane.

The footprint resulting from the proposed design shows that the reprofiled roadside table drain batters start at the edge of the existing Hope street traffic lane.

This removes the opportunity to have a road shoulder and does not appear justified given the width of the road verge between the Hope Street road edge and the property boundary of Lot 13. Austroads guidelines Table 4.7 requires a 2.5m shoulder for the higher order roads, (which this section of Hope Street is assessed as).

20. Provide revised intersection design between Road A and Hope Street to provide a full width verge through Road A to the Hope Street road edge. The intersection details on drawing K9168-C04 must be amended to ensure the drainage elements and batters occur outside the full width road verge.

Advice Note:

Officers have concerns with the lack of pedestrian connectivity provided from the internal road (Road A) to Hope Street and Seagren Street.

With reference to drawing K9168-C03, the road verge of Road A does not continue further north past Pit 2/1, therefore, the design does not cater for pedestrians to connect to Hope Street from this side of the road.

Drawing K9168-C07 shows reduced verge widths between chainage 20 to 40. The Applicant has not nominated an alternative road cross section or change of road verge width in the typical road cross section shown on drawing K9168-C04.

21. Provide confirmation of the drain freeboard for the proposed open channel and confirm that no pedestrian safety issues are presented within Road A. In particular, Road A Ch30m cross section on drawing K9168-C07. The Applicant is to confirm the freeboard to the proposed open channel and confirm that no pedestrian safety issues are presented within Road A.
22. The Applicant is requested to consider road traffic treatment(s) proposed at Road A and provide A revised intersection design for Council's consideration. In addition, the design vehicle for the intersection is to be in accordance with the FNQROC Development Manual.

Advice Note:

With reference to drawing K9168-C03, the line marking plan nominates adjustments to the existing painted traffic island on Hope Street. The plan indicates an existing holding line on Seagren Street. Concern is raised that the line marking plan does not provide any line marking for Road A. The level of external traffic management is evident by existing Seagren Street.

With reference to drawing K9168-C03, Council does not accept that the B99 vehicle is the design vehicle for the intersection upgrade.

The Applicant is requested to refer to Austroads Design Manuals for the appropriate design vehicle and provide revised intersection details based on the appropriate method in Austroads Design Manuals, including revised turning path analysis with appropriate design vehicle.

23. Provide a revised design for the cul-de-sac to comply with the FNQROC Development Manual clause D1.06 with respect to the maximum grading of 5 %.

Advice Note:

With reference to drawing K9168-C04, the grade of the cul-de-sac area for Road A is 12% at the centreline and approximately 10% at the kerb setout points listed. The road grading shown on the Road A longitudinal section on drawing K9168-C05 does not provide a vertical curve (per normal design practice) prior to the lesser grade required at the cul-de-sac.

The resulting cul-de-sac design grade does not comply with the maximum grade of 5 % specified in the FNQROC Development Manual Section D1.06.

Council Officers note that the certified Statement of Compliance provided by the Applicant did not identify any departures from the FNQROC Development Manual in regards to this cul-de-sac grading.

24. With reference to drawing K9168-C05, Driveway 1 and 2 both do not comply with the FNQROC Development Manual D2.12 which specifies the maximum driveway grade of 20%. Condition 17 of the Decision Notice dated 24 February 2022 required that the driveway grades comply with the FNQROC Development Manual.

It is noted that the certified Statement of Compliance provided by the Applicant did not address this non-compliance. As noted in item 1, the applicant is requested to provide a revised Statement of Compliance to address **all** departures from the FNQROC development manual.

The applicant is requested to provide substantiation as to why an alternative design was not considered. The Applicant may need to consider a request for change to condition if it is intended to utilise the existing driveway, which is non-compliant with Condition 17.

Alternatively, the Applicant is requested to provide revised driveway design to comply with the maximum driveway grade of 20% per FNQROC Development Manual.

25. The applicant is requested to provide a revised design for driveway contained within the individual Lots. Drawing K9168-C02 shows that Driveway 1 (shared driveway for Lot 6,7,8) is within Lot 7.
26. Provide revised design drawings for the driveway(s) to include drainage complying with Condition 19 of the Decision Notice.

Advice Note:

Drawing K9168-C02, Driveway 1 is nominated as Type 1 driveway in accordance with FNQROC standard drawing S1110, which does not include drainage.

The Driveway 1 design therefore does not comply with Condition 19 of Council's Decision Notice dated 24 February 2022 requiring ancillary stormwater drainage.

The design is also inconsistent with Section 5.4 of the Geotechnical Report submitted by the Applicant, which also required the driveway to include kerbs to contain stormwater runoff.

27. Demonstrate that a compliant driveway solution is available for access to each Lot as required by Condition 17. The existing contours do not enable the driveway grades to be verified without further supporting information.

Advice note:

Condition 17 of Council's Decision Notice dated 24 February 2022 has required that the location and grade of access driveway from each proposed Lot need to be identified in the OPW drawings, and sufficient sight distance at property entrances need to be achieved.

In this regard, Council Officers note that this condition specifies that driveway grades must comply with the FNQROC Development Manual. The FNQROC Development Manual clause D2.12 nominates the maximum driveway grade of 20%. It is unclear whether the Lots can comply with this requirement.

The Applicant has not provided the driveway information required from this condition. It is understood the Application has requested that this condition to be applied in future building design stage.

Whilst Officers are generally agreeable with future driveway design, the Applicant must demonstrate that a compliant solution is available for access to each Lot.

The Applicant is requested to provide additional information on revised drawings to demonstrate that each Lot can be accessed with driveways that comply with the maximum grade as required by Condition 17.

28. With reference to drawing K9168-C04, the carriageway width of Road A is 5.5m with road reserve width of 14m. This does not comply with the FNQROC Development Manual Table D1.1, which specifies minimum requirements of 7.5m carriageway width and 16.5m road reserve width for "Residential Street" for Cook Shire Council.

The Applicant is requested to provide revised Road A design to comply with FNQROC Development Manual.

Provide revised drawings to show the full extent of the road cross sections including interface of design batters and natural surfaces to confirm the extent of works. Provide further information on changes required to the drawings to comply with the parameters nominated in the Geotechnical Report.

Alternatively, the Applicant is to provide information to justify that the 1V:1H batters are acceptable from a geotechnical perspective.

Advice Note:

With reference to drawing K9168-C07, some cross sections (chainage 150 for example) does not show convergence of the design batter with the natural surface.

With reference to drawing K9168-C02, the batters from Chainage 160 to 190 and the batters at the head of the cul-de-sac in front of Lot 6 are shown as 1V:1H, which do not comply with the fill batter slope of 1V:4H nominated in section 5.2 of the Geotechnical Report submitted by the Applicant.

The Applicant is requested to provide further information on changes required to the revised drawings to comply with the parameters nominated in the Geotechnical Report or to provide information to justify the batters as acceptable from a geotechnical perspective.

29. Clarify with amended drawings the nomination of Lot 1 and Lot 7. The drawings currently label Stage 1 as "Lot 1" and have another Lot 1 near Hope Street. It is understood that Stage 1 is intended to refer to Lot 7.

WATER SUPPLY

30. Provide full design documents for the proposed booster pump including details of the pump, generator and building design.

Council is unable to complete its assessment without all details and drawings of the booster pump station. The level of detail provided in Applicant's submission is not consistent with the normal expectations for installation of this magnitude.

Advice Note:

The Applicant's Design Report has stated that "a design/specification for the booster pump assembly will be prepared and submitted to Council separately from this Operational Works Permit Report". However, the Applicant's submission does not include design/specification for the booster pump.

Assessment of the booster pump station cannot be completed without this detail. The applicant is requested to provide full design documentation for the proposed booster pump station.

SEWER

31. Provide revised sewer grading longitudinal sections confirming all locations have minimum cover between the existing/design surface and the top of pipe as nominated in the FNQROC Development Manual. Drawing K9168-C12 indicates that Sewer Line 1 sections will have limited cover to the pipe.

Further details

The due date for providing the requested information is **three (3) months** from the date of this request, therefore you are required to respond no later than **30 June 2023**.

In accordance with section 13.2 of the Development Assessment Rules, you may respond by giving:

- (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.

As Cook Shire Council's assessment of your application will be based on the information provided, it is recommended that you provide all the information requested. In accordance with section 14.2 of the Development Assessment Rules, if you do not provide a response before the above due date (or a further agreed period), it will be taken as if you have decided not to respond to the information request and the Cook Shire Council will continue the assessment of your application without the information requested.

Please note that Council may request further advice any time before the application is decided if other matters arise as a result of public notification or further assessment of the application.

For further information, if you have a query, or to seek clarification about any of these details, please contact Council's Planning and Environment Department on (07) 4082 0500 or e-mail mail@cook.qld.gov.au.

Yours sincerely



Brian Joiner
Chief Executive Officer
Cook Shire Council