

19 December 2017

Enquiries: Neil Beck  
Our Ref: 44/ 2400/2017 (837338)  
Your Ref: IH132900

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Dear Sir

**Development Application for Operational Works  
Stage 6A & 6B Ocean Breeze Estate**

Thank you for lodging the above Development Application with Council on 07/12/2017.

Please note that this is an **Action Notice** in accordance with section 3.1 of the *Development Assessment Rules*.

The application is **not** a properly made application in accordance with Section 51(5) of the *Planning Act 2016*. The following is a statement of reasons why the application is not a properly made application:

- The application proposes to undertake development on the adjoining land being Lot 903 on SP199682 which does not form part of the application or for which owners consent has been obtained.

The following actions must be undertaken in order to make the application a properly made application:

- Amend the application to include Lot 903 and obtain owners consent or amend the design to exclude Lot 903.

Despite the application not being properly made, a review of the application has been undertaken and the following would form the basis of a future Information Request:-

**Primary Items**

1. The plans do not indicate the existing vegetation line and the works along the rear of lots 245 to 252 may have impacts on the vegetation. The works may also trigger referrals to other government departments.

Please provide a plan showing the proposed works for Stages 6a and 6b overlaid on an aerial image to confirm location relative to the vegetation.

Please also confirm whether any pre-lodgement meetings have occurred with DILGP/SARA and provide advice on the triggers that have been identified. Triggers may include tidal works for the stormwater outlet (I.L. 1.2m AHD nominated) and for the earthworks footprint proposed (notwithstanding the footprint is identified in Lot 903).

2. Construction issues with the stormwater outlet from the previous Stage (Julaji Close) highlighted that there may be issues with the Master Planning and its ability to provide an acceptable stormwater solution for the site. The issue relates to levels along the northern boundary and the limited fall available for the existing constructed pipe invert levels. Options may need to consider a more direct route to the discharge point and this could include through Stages 6a and 6b.

The Master Plan must be updated and resubmitted to confirm that this footprint is not required as part of the overall solution. An RPEQ certified Stormwater Management Plan is required to be submitted and must be supported by recent survey of the drain outlet levels along the northern boundary (or at discharge points).

3. The Stage 6a/6b stormwater report advises the tailwater level has been adopted at mean sea level of 1.636m. The outlet level is nominated at 1.27m AHD.

The discharge is into a vegetated area with no hydraulic information provided and limited level data to verify free draining conditions beyond the outlet. The Mossman River is approximately 500m north-north-east from the outlet and the use of sea level data with no hydraulic grade is not considered appropriate. Council's LiDAR also raises concerns that the nominated outlet level will not be free draining and may have operational issues with standing water within the pipe system.

Ground levels in the vegetated area between the outlet and the river are variable and appear to be in the order of 1.5m AHD.

Please provide further level information downstream from the outlet to demonstrate that the outlet will be free draining and will not be submerged.

Please also undertake an assessment of the hydraulic grade for the downstream discharge area given the distance to the river and the ground levels (nominally 1.5m) between the outlet and the river.

4. The drain section attached in the report shows that the depth of flow at the overland flow outlet is 0.407m deep; exceeding the 0.300m maximum in QUDM. In addition, the supporting information advises the depth velocity product is 0.729m/s; which is greater than the allowable 0.4m/s (or 0.6m/s subject to a risk assessment).

Note there is no advice on the maximum depth at the road kerb as a result of backwater effects from the overland flow path.

Concern is also raised that the width of the outlet will be further constrained by the proposed pump station located on the corner of the overland flow path. The current calculations do not appear to address this and must be revised.

Comment is also requested from the RPEQ on the additional risk (if any) with the low point (sag) being located on the bend of the road.

5. Council does not support the current design due to the amount of sewers deeper than 3m. The design would result in Council taking ownership and operating a system that will have operation and maintenance constraints for Council in the future. Please review and provide alternative design.
6. The proposed pump station location is in close proximity to proposed lots, which is inconsistent with the requirements of the FNQROC Development Manual. It is also located on State land.

Council does not support the proposed location for the pump station for this lot layout. Please review the lot layout and/or the location of the pump station in order to comply with the separation distances under the FNQROC Development Manual. It is standard practice that land containing the pump station is transferred to Council as freehold tenure with any balance land being transferred to the Crown with Council as trustee. In addition, access to the pump station needs to be in accordance with WSAA SPS – 1200. If no turnaround is being provided, consideration is to be given to the safety of road users when maintenance vehicles are reversing out onto the road.

The rising main is nominated in the batter at the rear of the lots. A minimum 3m trafficable corridor (max crossfall grade 1 in 10) is to be provided for maintenance purposes along this route. Alternatively, relocate the sewer rising main to the road verge and re-route the main through to the discharge point. Land tenure for the rising main in its current location will require resolving.

### **Secondary Items**

7. The concrete pathway is not on the standard alignment of 0.7m from the property boundary. The crossfall on the pathway has not been nominated at 2.5%; based on recent acceptance issues, it is recommend this notation be included to clearly inform contractor.

Road 2 has a change of grade at the intersection of 2% at the intersection and no vertical curve, FNQROC requires vertical curves to be shown where the change is greater than 1%.

The temporary turn around is shown below natural surface and at the bottom of a low point without any drainage (tables drains) shown. Please clarify with notation or similar to ensure free draining conditions will be provided.

8. Subsoil drainage has not been provided along sections of the kerb on Road 1 between pits 2/5 and 4/2.

Stormwater pipe 2/2 to 2/1 is currently shown as having 50mm clearance to the water main.

The calculations will need to be updated based on the consideration of tailwater level, (see primary issues above).

The drain section attached in the report shows that the depth of flow at the overland flow outlet is 0.407m deep exceeding the 0.300m required in QUDM. In addition, it shows the depth velocity ratio as 0.729m/s which is greater than the required 0.6m/s. If this depth was to be achieved the depth on the road at lip level would be approximately 0.60m deep. It is likely this occurs because the width of the outlet has been constrained by the pump station being located on the corner. This sag is located on the bend of the road creating an additional hazard.

From the Table the width/depth of flow in a minor (Q5 event) exceeds the road crown indicating additional upstream capture points may be required.

The bypass from pit 2/6 is 35L/s but the width of flow is not nominated. It is considered that the flow will exceed the width limitations of 1.0m around intersection kerb return. Please review the upstream inlet location/configuration and update as required to reduce the bypass flow volume.

A catchment plan has not been included in the submission documents.

The long sections show that the 675 dia pipes are to be RCP but the calculation table shows it as Black Max. Council does not support Black Max pipes for this pipe size.

No design table or details have been provided for the Major event, 1%AEP (Q100) flows, except the manual calculation at the overland flow section. The calculations are to be provided in accordance with FNQROC and QUDM requirements in including the major flows at each pit and advice on the flow capacity of the road at these locations. In particular, the approach flows from each side of the Sag point are to be confirmed and the hydraulic operation of the two opposing flows meeting and turning through 90 degrees to enter the overland flow path.

Condition 27 of the planning approval requires pollution control devices to be installed, however, no GPT has been provided prior to the end of line.

9. Please provide a Pump station schematic / section as required by FNQROC.

Please provide advice regarding pipe class and manhole reinforcing/thickness for sewers that are proposed to be more than 3.0m deep.

Please confirm additional specification requirements as well as supervision and testing proposed to ensure that compaction, subsidence and ground water controls will be addressed for the project noting the depth of both sewer and pump station.

Pump Station is currently discharging the sewerage overflow into stormwater pit 2/2. Please confirm hydraulic calculations for the overflow operation to ensure freeboard is provided to the sewage water levels at the lots, and, that the stormwater does not enter the sewer system.

The design illustrates the scour discharging directly to a truck as opposed to the conventional method of discharging to a manhole. Please advise.

Confirm downstream operating conditions, flow rates and hydraulic grade of the receiving manhole given the existing gravity catchment being serviced and the proposed contributing catchment.

10. The Statement of Compliance submitted with the application is confusing insofar as it nominates "Y" to the range of the design elements listed. However, no further comments are made.

If the "Y" is intended to confer compliance with the design elements listed then this is not correct as identified above. Please submit a Statement of Compliance which identifies areas of non-compliance and accompany by further detail as to how the performance is still being achieved.

The assessment period for the application will not commence until the application is taken to be properly made.

Should you require any further clarification regarding this matter, please contact Neil Beck of Development Assessment and Coordination on 07 4099 9451.

Yours faithfully

Paul Hoyer  
**Manger Sustainable Communities**