

2 March 2023

Toowoomba Regional Council
PO Box 3021
Toowoomba QLD 4350

Attention: **Craig Thompson**

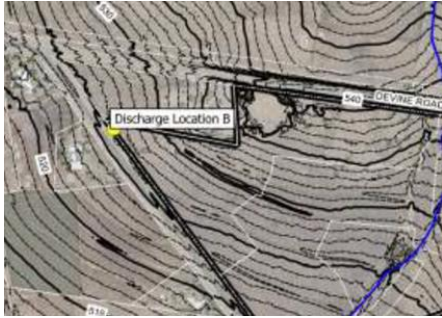
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02/03/2023
**TOOWOOMBA
REGIONAL COUNCIL**

RE: **LOTS 10 & 11 ON SP300552 DRAYTON WELLCAMP ROAD, GLENVALE QLD
4350 – PROPOSED OPERATIONAL WORKS RFI RESPONSE**

Dear Craig Thompson,

This letter has been prepared to respond to items 1 to 8 of the information request (OW/2022/5568) dated 4 January 2023 by Toowoomba Regional Council (TRC).

Information Request Item	Response
ITEM 1. PLANNING 1.1 The development permit for RAL/2015/1869/A includes Condition 40 that requires the provision of stormwater quality treatment progressively at each stage of development. Operational works associated with the earlier stages of development (Stage 1A, 1B and 2A) and the current application (Stage 2B and 3A) do not include on-site provision for stormwater quality treatment and Council has no record that an Infrastructure Agreement has been arranged for the provision of a financial contribution towards a regional stormwater quality facility. The applicant is advised that condition 40 will need to be satisfied before plan sealing of the previous and current stages of development.	An Infrastructure Agreement has been arranged with Toowoomba Regional Council.
ITEM 2. EARTHWORKS AND RETAINING WALLS 2.1 The retaining wall design drawings are incomplete and structural details have not been provided. The retaining wall design details need to be included and certified within these operational works drawings.	Details of retaining wall is provided on the earthworks drawing.
ITEM 2. EARTHWORKS AND RETAINING WALLS	The design plans have been amended to show the following:

<p>2.2 There is insufficient detail for earthworks contained within the design drawings including:</p> <ol style="list-style-type: none"> 1. The earthworks volumes in Stage 4 show there is some 2,172m³ of fill required and there is no indication where this fill will be sourced. 2. There is no detail about stockpile sites in both Stage 4 & 5 for topsoil or surplus material and the required erosion and sediment control treatment; and 3. Erosion and sediment control plans and roadworks plans in both Stage 4 & 5 do not show reinstatement details for verges and lots. 	<ol style="list-style-type: none"> 1. The source materials for earthworks volumes of 2,172m³ of fill in Stage 4 has been indicated. 2. Stockpile locations are shown on the plan, Erosion and sediment control treatments have also been outlined. 3. Reinstatement details for verges and lots has been indicated in the notes on sheet C4100 and C5100
<p>ITEM 3. STORMWATER</p> <p>3.1 The design drawings include insufficient detail about stormwater drainage including:</p> <ol style="list-style-type: none"> 1. There is no information or calculation tables for Q100 major storm to determine stormwater flows within the stormwater pipes and overflow paths; 2. There is an upstream catchment north of Stages 4 & 5 that drains to the proposed lots which hasn't been accounted for in the external stormwater catchment. The design must be amended to allow for conveyance of the external developed catchment through the development site to the basin adjacent to Drayton Wellcamp Road; 3. Stormwater alignment at Stage 4 needs to more closely follow the kerb, e.g. G1/2 and G2/2 at the Road E and Road D intersection; and 4. Stormwater alignment at Stage 5 needs to more closely follow the kerb, e.g. G2/13 and G3/13 near the Road C and Road J intersection. 	<p>The design drawings have been amended to show the required components:</p> <ol style="list-style-type: none"> 1. Major flow calculation has been included on page C5500 2. Stage 4: - A swale is proposed to convey and redirect the flows from external catchment. Stage 5: - The contours below are flowing to the west. Only minimum flow drains into Stage 5, hence no additional treatment is required.  <ol style="list-style-type: none"> 3. Refer to attached updated plans 4. Refer to attached updated plans
<p>ITEM 4. ROAD DESIGN</p> <p>4.1 The design drawings include insufficient detail about road design including:</p> <ol style="list-style-type: none"> 1. Intersection set-out points are not provided for the intersection of Road D and Road E in Stage 4; 	<ol style="list-style-type: none"> 1. Refer to updated plan C4480 2. Refer to updated plan C5480 3. Refer to updated plan C5480 4. Refer to updated plan C4450 and C5451

<p>2. Intersection set-out points are not provided for the intersections at Road C and Road J, and Road H and Road G in Stage 5;</p> <p>3. No details are provided for the speed control device in Stage 5 at the intersection of Road C and Road J; and</p> <p>4. Typical cross sections must show the road reserve width.</p>	
<p>ITEM 5. WATER INFRASTRUCTURE STAGE 4</p> <p>5.1 The drawings include insufficient detail about water reticulation design including:</p> <p>1. A sluice valve is required at the corner of lot 228 at Road D drawing C4600;</p> <p>2. The streetlight post conflicts with the water service connection at the corner of lot 234. There must be a minimum of 1m separation;</p> <p>3. Clarification is required in the notes about how the water services connection will be made to lot 197 to lot 205 under the proposed retaining walls;</p> <p>4. The water service connection under the street is not aligned between the common boundaries both sides of the street at lots 199/200, 204/205, and 228/229;</p> <p>5. SEQ-WAT reference in the general notes is not relevant. The notes must reference WSAA standards only;</p> <p>6. General note No 7 is not acceptable and must be removed. Water connections and meters are provided at building stage;</p> <p>7. Water services under the street crossing must be enveloped only and a brass kerb marker installed. The notes must be updated to include this requirement; and</p> <p>8. Fire hydrants must be located at a min 200 mm offset from the property boundary.</p>	<p>1. A sluice valve has been added, refer to drawing C4600</p> <p>2. Both streetlight post and water service connection are existing infrastructures. These have been constructed in the previous stage</p> <p>3. A typical water conduit detail has been added to sheet C4600</p> <p>4. This has been amended as required.</p> <p>5. All reference is now referring to WSAA standards</p> <p>6. General note 7 has been removed</p> <p>7. This has been noted on the plan</p> <p>8. Drawing has been amended to reflect a min 200mm offset</p>
<p>ITEM 6. WATER INFRASTRUCTURE STAGE 5</p> <p>6.1 The drawings include insufficient detail about water reticulation design including:</p> <p>1. The water main across Road J between lot 35 and lot 44 and Road H between lot 52 and lot 116 must be DICL material;</p> <p>2. The water main for the Road C cul-de-sac water mains must be a loop with 63 mm OD poly pipe from upstream of the proposed fire hydrant at the corner of lot 33 to the start point of the cul-de-sac at lot 34. The poly pipe</p>	<p>The design drawings had been updated to show all the required amendments.</p> <ol style="list-style-type: none"> 1. Refer to updated plan C5600 2. Refer to updated plan C5600 3. A fire hydrant has been added between lot 44 and 46 4. Refer to updated plan C5600 5. All reference is now referring to WSAA standards

<p>must be inside a 100mm Class 8 uPVC enveloping conduit for the road crossing. Two control valves are required for both sides of the poly pipe. Property service connection must be made with the poly pipe for lot 30-32;</p> <p>3. A fire hydrant might be required between lot 44 and lot 46 depending on existing fire hydrants along Road C. Please check the previous stage as-constructed plans and amend the drawing if required to ensure the hydrant is within a 40m cordon. There is a duct foot hydrant to be removed and replaced with a conventional hydrant with min spacing 80m;</p> <p>4. The water service connection under the street is not aligned between the common boundaries both sides of the street at proposed lots 53/54, 188/189, and 28/29;</p> <p>5. SEQ-WAT reference in the general notes is not relevant. The notes must reference WSAA standards only;</p> <p>6. General note No 6 is not acceptable and must be removed. Water connections and meters are provided at building stage;</p> <p>7. Water services under the street crossing must be enveloped only and a brass kerb marker installed. The notes must be updated to include this requirement;</p> <p>8. Fire hydrants must be located at a min 200 mm offset from the property boundary; and</p> <p>9. A minimum 0.3m separation is required from the water mains to the footpath at Road G. The separation between the footpath and kerb must be reduced accordingly and adjusted on the roadworks layout and sections.</p>	<p>6. General note 6 has been removed</p> <p>7. Refer to updated plan C5600</p> <p>8. Drawing has been amended to reflect a min 200mm offset</p> <p>9. This has been addressed in the updated drawing</p>
<p>ITEM 7. WASTEWATER INFRASTRUCTURE STAGE 4</p> <p>7.1 The drawings include insufficient detail about wastewater reticulation design including:</p> <p>1. Retaining walls (type 1 and type 2) cross-sectional plans and details are required. The typical concrete sleeper wall sewer bridging details must be amended to show the horizontal clearance at 1.2 m (not 0.5m) from the centreline of the sewer main for both type of retaining walls;</p>	<p>All items have been addressed on the updated drawing.</p>

<p>2. The sewer connection stub must be made to the manhole at EX4/5, EX3/4, MH2/4, MH2/3 and MH2/1;</p> <p>3. Manhole MH2/5 must be removed from lot 199 and relocated to lot 200 by extending the sewer main at least 1.5m away from the driveway retaining wall at lot 200, and the sewer connection stub made to the manhole for lot 200;</p> <p>4. The sewer connection stub must be removed from the driveway at lot 197 and be connected to manhole MH3/5;</p> <p>5. The sewer connection stub must be removed from the driveway at lot 198 and lot 199 and be installed at the right-hand side of the driveway with min 1.0m clearance;</p> <p>6. A minimum 1.0m separation must be provided between the stormwater and sewer mains from lot 225 to lot 222. The separation between the stormwater connection stub and sewer connection stub must be min 1.0m as well and the stormwater stub extended a minimum 0.5m past the sewer main. Dimensions must be provided showing the separation requirements;</p> <p>7. A manhole is required at the rear of lot 195 to allow for future stage connection;</p> <p>8. The drop in the manhole MH2/5 from E1/5 must be a minimum of 40mm; and</p> <p>9. The pipe cover beneath the driveway must be a minimum of 900mm with invert levels at driveways shown on the long section.</p>	
<p>ITEM 8. WASTEWATER INFRASTRUCTURE STAGE 5</p> <p>8.1 The drawings include insufficient detail about wastewater reticulation design including:</p> <p>1. The sewer main at E5/11 must be extended 1m clear of the southern retaining wall of the driveway at lot 42 and the connection stub provided at this location;</p> <p>2. The property service connection stub must be removed from the driveway at lot 41 and connected to MH4/11;</p> <p>3. The property service connection stub must be removed from the driveway from lot 40 to</p>	<p>All items have been addressed on the updated drawing.</p> <p>6. A upstream connection is proposed in lot 33. Note that when Stages 1A and 1B were designed the previous engineers did not consider the future upstream connection and this sewer has been built. The sewer could have been lower.</p> <p>It is proposed to provide a upstream connection to north end of lot 33 (1.0m inside lot 33) and grade at a slope of 1 in 180. This is the best result can be achieved without sewer reconstruction through Stages 1A and 1B. Note this means when</p>

lot 36 and be positioned 1.0m clear of the driveway retaining walls of each lot;

4. A minimum 1.0m separation must be provided between the stormwater and sewer mains from lot 26 to lot 29. The separation between the stormwater connection stub and sewer connection stub must be min 1.0m as well and the stormwater stub extended a minimum 0.5m past the sewer main. Dimensions must be provided showing the separation requirements;

5. Manholes are required at the end cap E4/8 and E2/7 to allow for future stage connection;

6. How will provision be made for future sewer connection for Lot 1 RP225271 at 30 Devine 5 Road once developed?

7. The sewer connection stub must be made to the manhole at MH1/7, MH2/6, MH2/12, MH1/12 and EX1/8;

8. Manhole MH2/11 may conflict with services in the street. Please redesign the location of the manhole, keeping it within Lot 35;

9. At Line 9 a manhole at E1/9 is required (incorrectly labelled as E2/9 on the long section) and the drop required is a minimum of 80mm. The invert levels are missing at manhole E1/9 and EX1/8

10. The drop in the manhole MH1/7 must be less than 150mm otherwise an external drop is required;

11. The drop in the manhole MH2/6 must be a minimum of 80mm; and

12. The pipe cover beneath the driveway must be a minimum of 900mm with invert levels at driveways shown on the long section.

the north lot is developed they will need to fill and retain.

Yours faithfully,
van der Meer Consulting



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