Your Ref: 2311-38006 SRA
Our Ref: F22/31
MSC Ref: MCU/23/0012

04 May, 2024

Department of State Development, Infrastructure,
Local Government and Planning
Far North Queensland Regional Office
PO Box 2358
**CAIRNS QLD 4870**

**Attention: Isley Peacey**
**SARA Far North Queensland**

Dear Sir,

**RE: RESPONSE TO SARA INFORMATION REQUEST**
**APPLICATION FOR A MATERIAL CHANGE OF USE – EDUCATIONAL ESTABLISHMENT**
**LOT 71 ON SP292140, 267 MCIVER ROAD AND CHEWKO ROAD, MAREEBA.**
**DEVELOPMENT APPLICATION MCU/23/0012.**

I refer to the State Government's (SARA) Information Request letter dated 16 January, 2024. The following advices, are provided for your information in accordance with the Development Assessment Rules, 2017 supported by the *Planning Act, 2016.*

Information Request Item 1

**Railway level crossing safety**
***Issue**:*
*Vehicle access to the development is proposed from Chewko Road via an existing occupational crossing of the Mungana Branch Railway corridor. The Transport Impact Assessment (TIA) submitted with the application (prepared by Rytenskild, dated 13/09/2023, report number 23281, version 1) does not adequately demonstrate that traffic*
*generated by the development will not adversely impact the railway level crossing. In particular, the report does not provide sufficient information about the existing road traffic volume over the level crossing (including seasonal volumes, vehicle type and length) or clarify the maximum design vehicle proposed for the development to enable a full safety assessment to be conducted by the railway manager.*

***Action**:*
*The applicant is therefore requested to provide a revised Transport Impact Assessment to demonstrate compliance with PO6 – PO13 of State Code 6: Development in a Railway Environment of the State Development Assessment Provisions (SDAP).*

*In particular, the Transport Impact Assessment will be required to address the following:*

- *Australian Level Crossing Assessment Model (ALCAM) input data*
  - *Existing traffic flows (expressed as vehicles per day) over the impacted railway level crossing/s, including the number and percentage of heavy vehicles and buses and seasonal volumes, vehicle type and length.*

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t/e The Freshwater Trust
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- *The expected background traffic growth (expressed as vehicles per day) over the impacted railway level crossing/s, including the number and percentage of heavy vehicles and buses. This should include background traffic growth from the anticipated commencement of construction and commencement of use of each development stage to a ten year horizon.*
- *The expected development generated traffic (expressed as vehicles per day), including the percentage of heavy vehicles and percentage of buses, that will pass over the impacted railway level crossing/s from the commencement of construction and the commencement of use of each development stage to a ten year design horizon.*
- *The maximum size and type of vehicle (including length, width, height and weight) anticipated over the impacted railway level crossing/s as a result of the development during construction and on-going operation (including any stages).*
- *The following data table is required to be populated for the impacted railway level crossing:*

- *Short stacking*
  - *Demonstrate how the development generated traffic will not worsen vehicular queuing (short stacking) issues over the impacted railway level crossings. In particular, demonstrate that there is sufficient clearance between the railway level crossing and relevant intersections to allow the maximum size of vehicle used in the operation to queue. The minimum clearance should be 5m from the edge running rail (of the closest railway track) as per Section 5.4 – Short Stacking and Figure 3.2 – Yellow Box Marking of AS1742.7:2016 Manual of Uniform Traffic Control Devices, Part 7: Railway plus the length of the maximum design vehicle. It is recommended that the available clearances are confirmed by a registered surveyor.*

Attached to this Response is an additional data to that originally requested through the Prelodgement Assessment and provided within the Town Planning Assessment. It is noted that the proponent's Consultant has been working closely with both Departments to ensure the appropriate information has been provided. It is considered that the data provided is acceptable and appropriate for the assessment of the Railway Level Crossing Safety.

Information Request Item 2

**Stormwater impacts on the railway corridor**

***Issue**:*

*The referral material has not included adequate information to demonstrate that the stormwater impacts of the proposed development will not adversely impact on the railway corridor. In particular, the site appears to both discharge towards the railway corridor and accept stormwater from the railway corridor. The development will increase the impervious area on the site and may therefore alter stormwater impacts in the railway corridor.*

***Action**:*

*The applicant is therefore requested to provide a Stormwater Management Plan to demonstrate compliance with PO12 – PO14 and PO16 of State Code 2: Development in a Railway Environment of the SDAP.*

*The Stormwater Management Plan should demonstrate that the management of stormwater post development can achieve a no worsening impact (on the pre-development condition) for all flood and stormwater events that exist prior to development and up to a 1% Annual Exceedance Probability (AEP). This should include at least the following flood and stormwater events: 63.2%, 50%, 20%, 10%, 5%, 2% and 1% AEP. Stormwater management for the proposed development must ensure no worsening or actionable nuisance to the railway corridor, including rail transport infrastructure, caused by peak*

*discharges, flow velocities, water quality, sedimentation and scour effects. In particular, the following should be addressed:*

*(i) Pre-development condition. Provide information to verify the existing drainage characteristics of the site, particularly in relation to the railway corridor. All legal points of discharge for the development site should be identified.*

*(ii) Earthworks Plan. Provide a concept earthworks plan, including cross sections/elevations, and any required supporting technical details clearly showing the location and extent of proposed excavation and filling (earthworks). The difference between existing site levels and finished/design levels should be clearly shown.*



*(iii) Catchment Analysis. Provide pre-development and post-development catchment plans that clearly identify all internal catchments on the site, external catchments draining into the site, the flow paths (direction of flow) within each catchment, the size of each catchment and the legal point of discharge for each catchment.*

*(iv) Maintain the pre-development condition. The pre-development flow scenario will need to be replicated in the post development condition. The proposed development should not impede or interfere with any drainage, stormwater or*

*floodwater flows, including sheet flows, from the railway corridor or vice versa. Retaining structures, filling/excavation, landscaping, buildings and structures or any other works to the land should be designed to include provision for*

*drainage so as not to adversely impact on the railway corridor. The development design will need to address any concentration of flows, potential for back-up/ponding and scour/erosion which may undermine the railway corridor.*

*(v) Water quantity assessment. The peak discharge analysis should provide adequate details of the pre and post development impervious area of the site and detail analysis of the pre and post development volumes and velocities at*

*each legal point of discharge. Where mitigation is proposed the design flood peak discharges should be shown for the mitigated case to demonstrate there is no worsening impact on the railway corridor.*

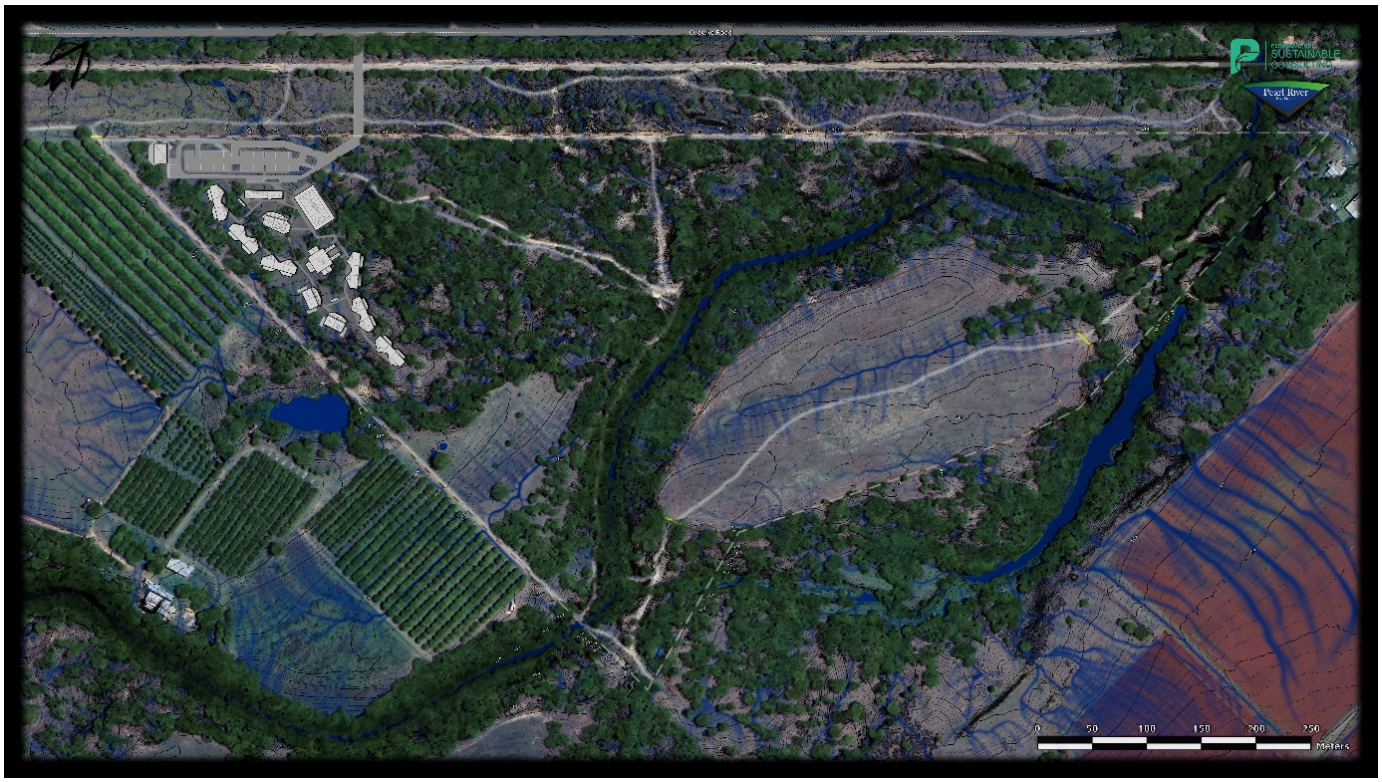
*(vi) Conceptual drainage layout. Provide a conceptual stormwater drainage layout plan showing the proposed internal stormwater network on the site, including roof-water connections, pit and pipe network, field inlets, any detention basins/tanks, swales/open drains and demonstrate how all roof and surface water flows will be collected and conveyed to the legal points of discharge.*

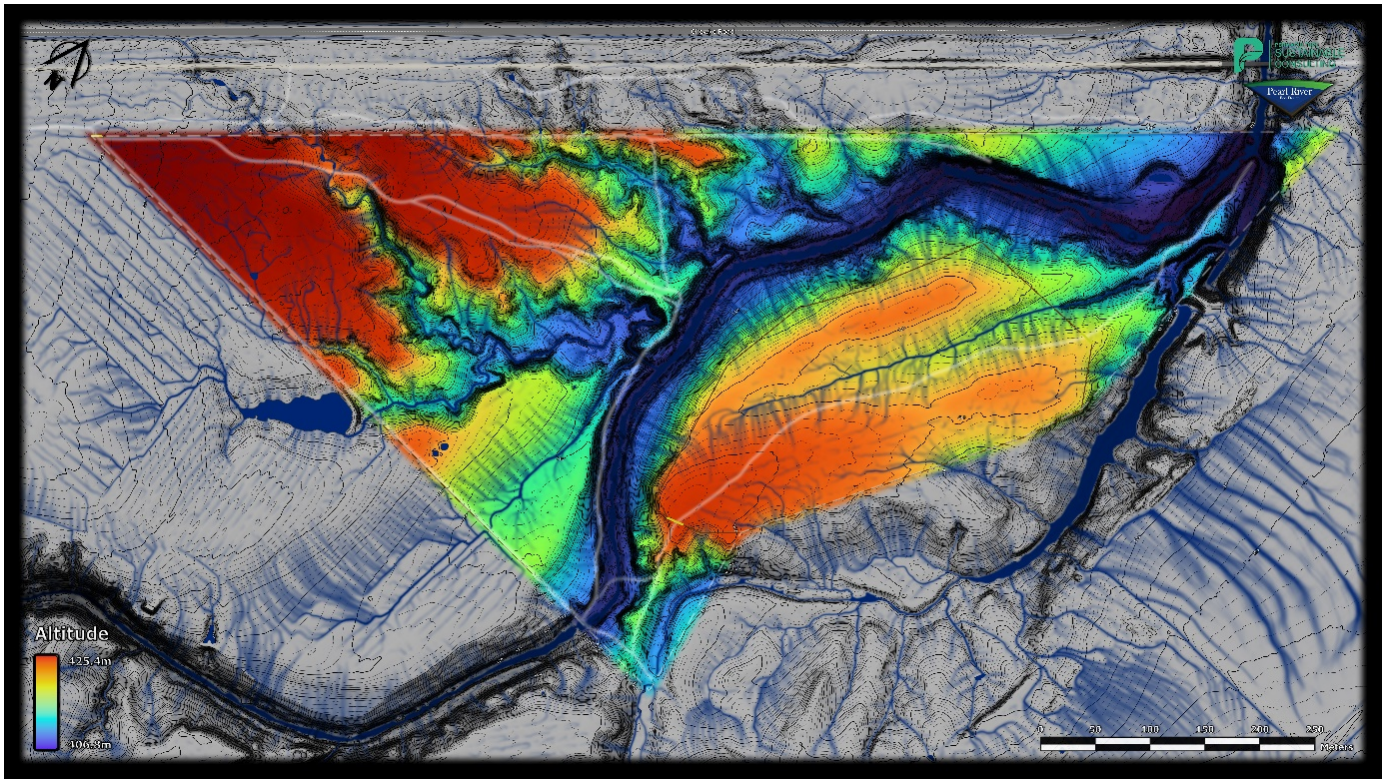
*Mitigation measures. include details of the mitigation measures proposed to address any potential stormwater and flooding impacts of the proposed development. All mitigation measures must be located on the site and not in the railway corridor.*

The Project Manager in conjunction with the Developers have gained LiDAR mapping for the site and provide below for your records. The first image shows the satellite image with the proposed builds and the second image shows the altitude of the property.

These images show us the Pre-construction state of the property that;

1. The proposed construction is contained on the highest part of the property based on the below LiDAR Maps.
2. The natural levels of the land are highest where the development is proposed and have fall towards the creek.






During the Design Development phase of the project a RPEQ Civil Engineer will be engaged for;

1. An assessment of the geotechnical investigation information
2. Design of all proposed building pads and trafficable surfaces
3. Assessment of all stormwater and direction of stormwater discharge to existing creek.

We acknowledge your concern regarding the Stormwater Impact on the Railway Corridor, during design development all stormwater will be considered, designed and directed to ensure that there is no impact on your

infrastructure. It is not considered that there will be any significant additional Stormwater Impacts to the Railway Corridor with the proposal. The Lidar Imagery clearly demonstrates that natural flows, features, and drainage over the property which is directed away from the Railway Corridor.

Information Request Item 3



**Bus layby parking**

***Issue**:*

*The Final Plan – Parking and Drop-off, prepared by Life Design, dated 24/07/2023, drawing number 162/A162, issue 3 shows a drop-off area which can accommodate 3x 49 seat (14.5m) bus, and a layby parking area which can accommodate a 1x 49 seat (14.5m) bus. Layby parking is required to store buses when they are not in use (for example between AM and PM drop-off/pick-up times). The layby area is not of a sufficient scale to accommodate all the buses utilising the drop-off area.*

***Action**:*

*The applicant is therefore requested to provide further information to demonstrate how the proposed development will comply with PO26 – PO29, Table 6.3 of State Code 6 – Protection of State Transport Networks of the Development Assessment Provisions.*

*(i) In particular, the applicant should provide revised proposal plans and traffic engineering information demonstrating that provision will be made for bus lay-by parking commensurate with demand. The location of bus lay-by parking should allow for the convenient circulation of buses to and from the bus set-down facility.*

*(ii) The maximum design vehicle for a private/chartered coach/bus should be a single unit rigid bus of 14.5m in length.*

*(iii) Detail any proposed staging of these parking spaces.*

The proposed development is for an Educational Establishment for an expected 300 students over a fifteen year development period located within Mareeba. The way the Bus Servicing arrangements are provided within Mareeba and over the Tablelands are via a Bus Company. The proponents have informed Freshwater Planning Pty Ltd that 'regarding Public Transport/School Buses provided in Mareeba, these buses would not be stored on site at any time and only drop off/pick up and depart back to the depot who provides the service to the community.' Therefore, there is no requirement for onsite storage of Buses. However, if the School were to acquire future transportation, then this would most likely be in the form of smaller 12 seater vans or a smaller minibus (20 seater) of which there is an overflow of onsite parking.

This completes this Response to the Information Request. Please do not hesitate to contact me, in the first instance, should you require further information in relation to the matter.

Yours faithfully,

**MATTHEW ANDREJIC**
**FRESHWATER PLANNING PTY LTD**

Stage 1

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 82 | 1 HRV , 2 x SRV | 8 x 6.5m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 2

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 108 | 1 HRV , 2 x SRV | 12 x 6.5m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 3

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 120 | 1 HRV , 2 x SRV | 16 x 6.5m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 4

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 164 | 1 HRV , 2 x SRV | 8 x 8.8m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 5

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 162 | 1 HRV , 2 x SRV | 12 x 8.8m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 6

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 418 | 1 HRV , 2 x SRV | 20 x 8.8m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 1

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 82 | 1 HRV , 2 x SRV | 8 x 6.5m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 2

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 108 | 1 HRV , 2 x SRV | 12 x 6.5m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 3

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 120 | 1 HRV , 2 x SRV | 16 x 6.5m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 4

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 164 | 1 HRV , 2 x SRV | 8 x 8.8m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 5

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 162 | 1 HRV , 2 x SRV | 12 x 8.8m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |

Stage 6

| AADT over railway level crossing | | | | |
|---|---|---|---|---|
| Year | Without development (background growth) | With development | No. and dimensions/ type of heavy vehicles | No. and dimensions/ type of buses |
| 2023 (current scenario) | 20 | N/A | 2 X HRV | 0 |
| Commencement of construction (prepare for each stage) | 20 | 30 | 10 x HRV, 10 x SRV | 0 |
| Commencement of the use (prepare for each stage) | 20 | 418 | 1 HRV , 2 x SRV | 20 x 8.8m bus |
| Ten year design horizon (prepare for each stage) | 20 | 418 | 2 x HRV, 6 X SRV | 20 x 8.8m bus |