

9 December 2021

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For the attention of: **Kay Panther Knight**

via email: [kay@formeplanning.co.nz]

Kay

**160 Kāpiti Road, Paraparaumu: Consent Application  
Response to KCDC s92 Request (Transportation)  
Application Reference: 210151**

### **Background**

It is proposed to construct and operate a Countdown Store and two adjacent trade retail tenancies on land at 160 Kāpiti Road, Paraparaumu.

An application for the necessary consents was lodged with the Kāpiti Coast District Council (**KCDC**) and was supported by an Integrated Transportation Assessment (**ITA**), dated July 2021.

In a letter dated 27 July 2021, KCDC responded with a request for further information.

In a reply letter dated 12 August 2021, responses were provided to the information requested. Subsequently, an on-line meeting was held with KCDC officers on 2 September 2021 in which agreement was reached on a number of matters. This meeting also identified a number of residual matters for which information was requested.

A full response was provided in a letter dated 29 September 2021. This was accompanied by CAD plans showing the proposed interventions within the road reserve.

KCDC subsequently notified the application and received submissions in response.

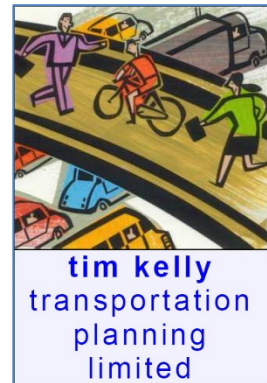
In a letter dated 30 November 2021, KCDC has requested further information arising from its review of the submissions.

This document responds to this request.

For ease of reference, the question numbers below are those from the KCDC letter.

### **KCDC Question 1**

*Supply justification and assess the suitability of using traffic counts from differing months of the year and variations in traffic flows, in relation to the use of counts from August and November.*



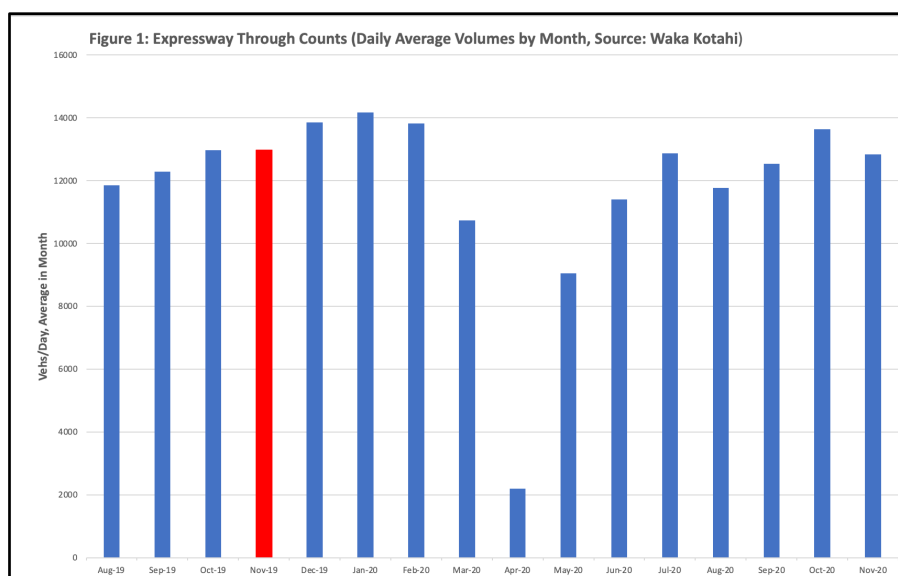
## Response(s)

The ITA (**Section 2.3**) describes the use of data supplied by KCDC for Kāpiti Road for August 2017, August 2018, August 2019 and November 2020. This information was used to establish the weekday and Saturday growth rates.

Data for August 2020 was not available. This was considered to be potentially unreliable because traffic volumes were unlikely to have recovered fully following the lockdowns in March / April 2020.

Continuous data is not available for the Kāpiti Road count site, from which the monthly trends could be checked. Such data is available from counts maintained by Waka Kotahi for the expressway – it is considered that the monthly variability in these figures would be similar to that exhibited on Kāpiti Road.

**Figure 1** shows average monthly volumes for the through traffic movements on the expressway at the Kāpiti Road interchange.



This indicates that in the pre-Covid period, average daily volumes in November (2019) were 9.4% higher than the corresponding volumes for August (2019). In 2020, the November volumes were 9.1% higher than the August volumes (but, as noted above, these could have been suppressed by post-lockdown effects). The November 2020 counts were 8.3% above those for August 2019.

From this information, there is no evidence that the use of November 2020 count information would have under-stated rates of traffic growth. On the contrary, it appears likely that the calculated rates of growth may have been over-stated, resulting in an over-statement of forecast volumes for the 2026 assessment year.

### **KCDC Question 2**

*Provide an additional traffic assessment where Saturday traffic growth is not negative with background traffic kept at the 2018 values for use in the 2026 forecast year. Carry an assessment on network effects using the 2026 forecast year (with no negative growth) with and without the proposed Countdown store.*

Response(s)

Our letter of 29 September 2021 documented the agreement reached with KCDC regarding the growth rates adopted in the modelling, as discussed in a meeting held with KCDC officers on 2 September 2021. As such, this issue was considered to have been ‘closed’ at this time.

Surprisingly, KCDC has now re-opened this issue with the current request, despite no alternate analysis being available which questions the reliability of the original assumptions.

In this context, although the requested model run has been undertaken, the results are considered to carry little weight in any consideration of the future performance of the intersection.

The results of this modelling upon the operation of the Kāpiti Road / Friendship Place roundabout are summarised by **Table 1** (an updated version of Table 4.1 of the ITA).

Year	Time Period	Countdown Development	LOS - Delays (secs/veh)																Total Volume (vehs/hr)	
			From: Kāpiti Road (SE)				From: Friendship Place (SW)				From: Kāpiti Road (NW)				From: Access / Countdown (NE)					Intersection
			Left	Ahead	Right	Approach	Left	Ahead	Right	Approach	Left	Ahead	Right	Approach	Left	Ahead	Right	Approach		
2018	WkDy PM Peak	No	5	5	9	5	12	12	16	14	4	4	8	5	8	8	12	9	7	1,887
2018	Saturday Peak	No	5	5	9	5	24	24	28	26	13	12	17	13	14	14	18	15	14	2,178
2026	Saturday Peak (ZG)	No	5	5	9	5	24	24	28	26	13	12	17	13	14	14	18	15	14	2,178
2026	Saturday Peak (ZG)	Yes	11	11	15	12	163	162	167	165	43	43	47	44	19	19	23	22	58	2,451
2026	Saturday Peak (ZG)	Yes (mitigation)	11	11	15	11	13	12	16	14	64	64	68	65	20	20	24	22	34	2,451
2026	Saturday Peak (ZG/Adj)	Yes (mitigation)	11	11	15	12	13	12	16	15	28	28	32	29	17	17	21	19	19	2,381

Table 1: Kāpiti Road / Friendship Place Roundabout Performance

KEY: Level of Service					
A	B	C	D	E	F

This indicates that, for the zero growth Saturday peak period scenario, delays (LOS F) would occur on the Friendship Place approach to the Kāpiti Road roundabout as a result of the addition of the development-related traffic. As for the weekday PM assessment, these delays would be significantly reduced by the proposed mitigation in the form of an additional approach lane from Friendship Place. But by releasing more traffic from Friendship Place, additional delays would be experienced by traffic on the Kāpiti Road NW approach, which would then operate at LOS E.

These results prompted a detailed review of the underlying traffic volumes for the Kāpiti Road NW approach. The ‘background’ volumes were based upon a count undertaken by Matrix<sup>1</sup> in June 2018, which recorded 877 eastbound and 909 westbound movements during the Saturday peak hour.

A count undertaken by KCDC in November 2020 (reported in Table 2.1 of the ITA) recorded 806 eastbound and 799 westbound movements. While the COVID-19 pandemic may be responsible for some reduction in volumes, it is expected that seasonal influences would result in a higher count in November (as suggested by the chart at **Figure 1**). Also, this count may be lower because this exhibits the decline in Saturday peak period volumes identified in the count data for the section of Kāpiti Road further east, which formed the justification for the adoption of the negative growth rate. For these reasons, the November count information is considered to be representative of typical Saturday conditions.

An adjustment to the eastbound entry volume<sup>2</sup> at the roundabout to reflect this difference (‘Saturday peak ZG / Adj’ in **Table 1**) results in a significant reduction in the delays and operation of this approach at LOS C.

KCDC officers suggested that a further count undertaken in 2019 by consultants acting for Countdown would assist in reconciling the 2018 and 2020 count information. Flow Transportation Specialists have confirmed that the counts used for the assessments were those recorded in 2018 and that no information was collected in 2019.

This analysis points to the sensitivity of conditions to the levels of background traffic activity. It should also be noted that since the SIDRA modelling approach cannot make allowance for the behavioural responses made by drivers to congestion (changing the route, time, frequency, destination or even mode of travel), it will overstate forecast delays on the network. This emphasises a need for model outputs to be subject to careful interpretation, rather than taken at 'face value'.

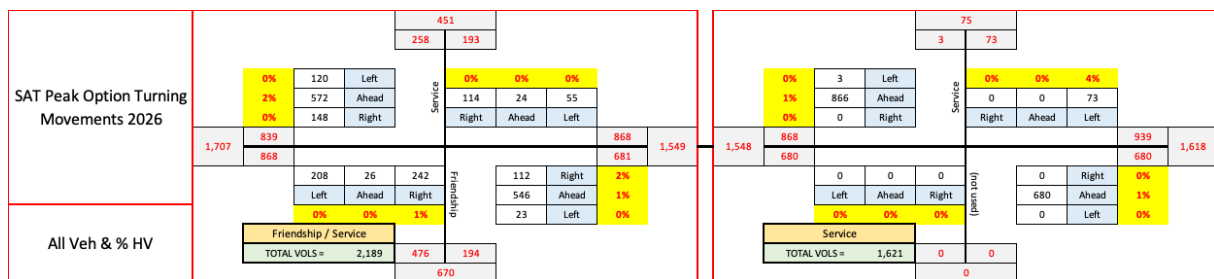
It is stressed that these assessments relate only to the operating capacity of the intersection. There is no indication that there are any safety concerns at this location.

### KCDC Question 3

Provide the development traffic flows for the Saturday Peak Period at the Friendship Way [sic] roundabout and the left/in left out access onto Kapiti Road.

#### Response(s)

Refer figure below (this relates to the original assessment).

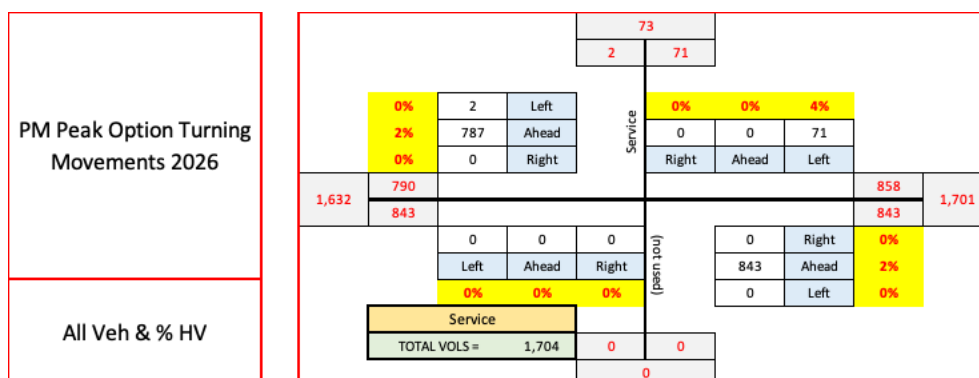


### KCDC Question 4

Provide the development traffic flows for the Weekday Peak Period at the left/in left out access onto Kapiti Road.

#### Response(s)

Refer figure below.



<sup>1</sup> Matrix was contracted by Flow Consultants with the counts being used to inform the assessments of the original Countdown proposal (at a site on the opposite side of the intersection).

<sup>2</sup> Only the Eastbound entry volume was adjusted for this test. Other turning movements at the roundabout would also be lower, because in addition the westbound exit volume was lower, as well as the entry and exit volumes on the Kāpiti Road (SE) arm of the roundabout.

**KCDC Question 5**

*Confirm that the swept path analysis includes allowance for 0.5m clearance from the vehicles analysed. If not then we require this to be carried out and any areas of conflict to be addressed.*

Response(s)

The CAD engineer has confirmed that the clearance buffer shown on the plans is 0.5m.

**KCDC Question 6**

*Confirm that the proposed roundabout alterations will comply with the design parameters as set out in Austroads Part 4b.*

Response(s)

The CAD engineer has confirmed that the proposed entry lane width is compliant but notes that we are retro-fitting some aspects into an existing roundabout to improve its efficiency associated with the proposed development.

**KCDC Question 7**

*Confirm that the proposed alterations to the roundabout arm on Friendship Way [sic] can be completed within the legal road reserve.*

Response(s)

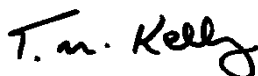
The CAD engineer has confirmed that it is possible to accommodate the additional lane within road reserve, as identified on plans accompanying this letter.

While this addresses the specific need to mitigate the effects of the Countdown proposal, it is noted that this area is subject to wider development pressure which will be likely to require a more holistic review of the form of this intersection.

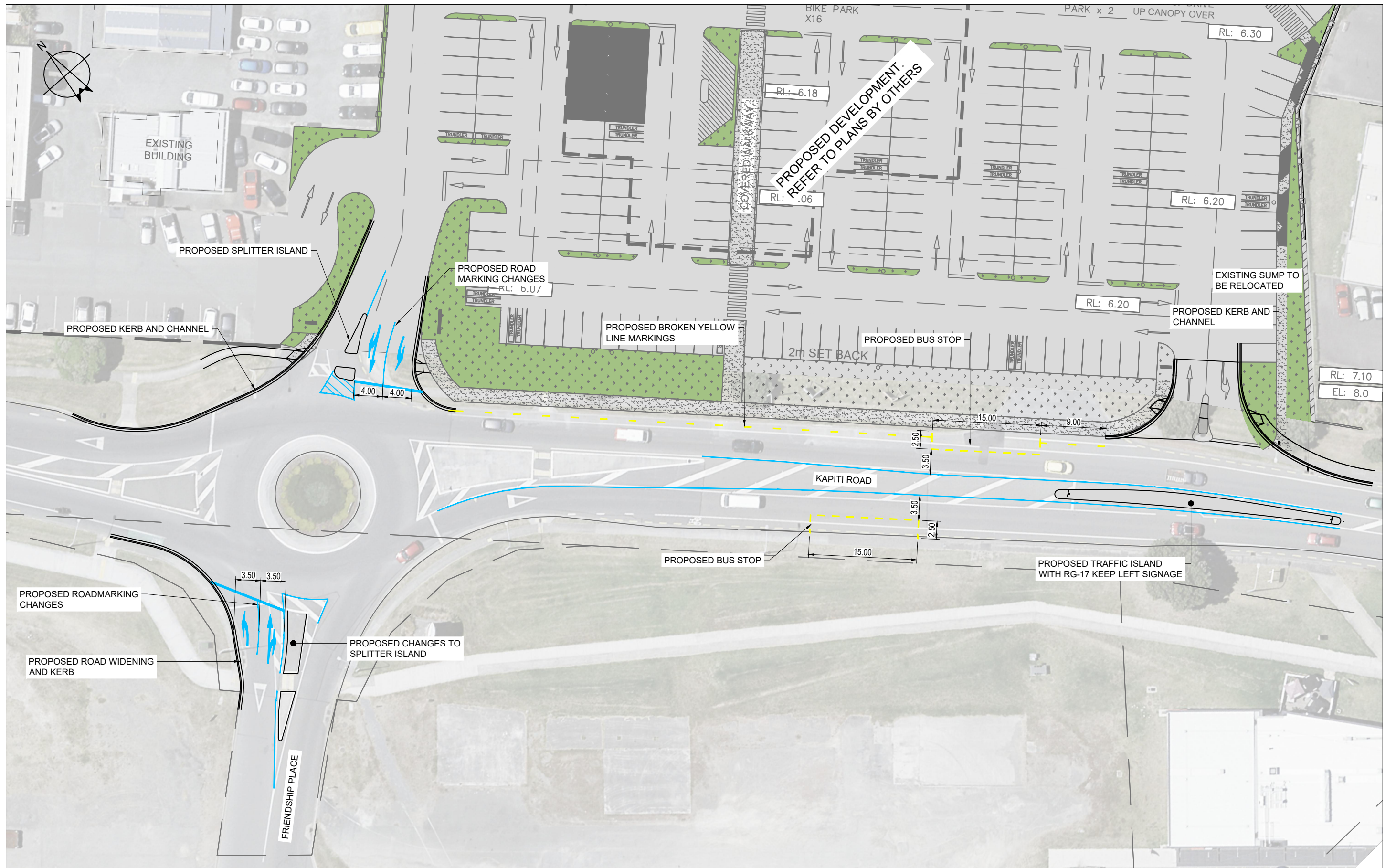
**Closure**

This document provides additional information requested by KCDC in relation to the transportation assessments of the proposed Countdown supermarket on Kāpiti Road. The analyses described above confirm that the conclusions reached in the ITA regarding the overall level of effect remain valid.

Yours sincerely,

**Tim Kelly**

Tim Kelly Transportation Planning Limited  
(Phone: 027-284-0332, E-mail: [tim@tktpl.co.nz](mailto:tim@tktpl.co.nz))



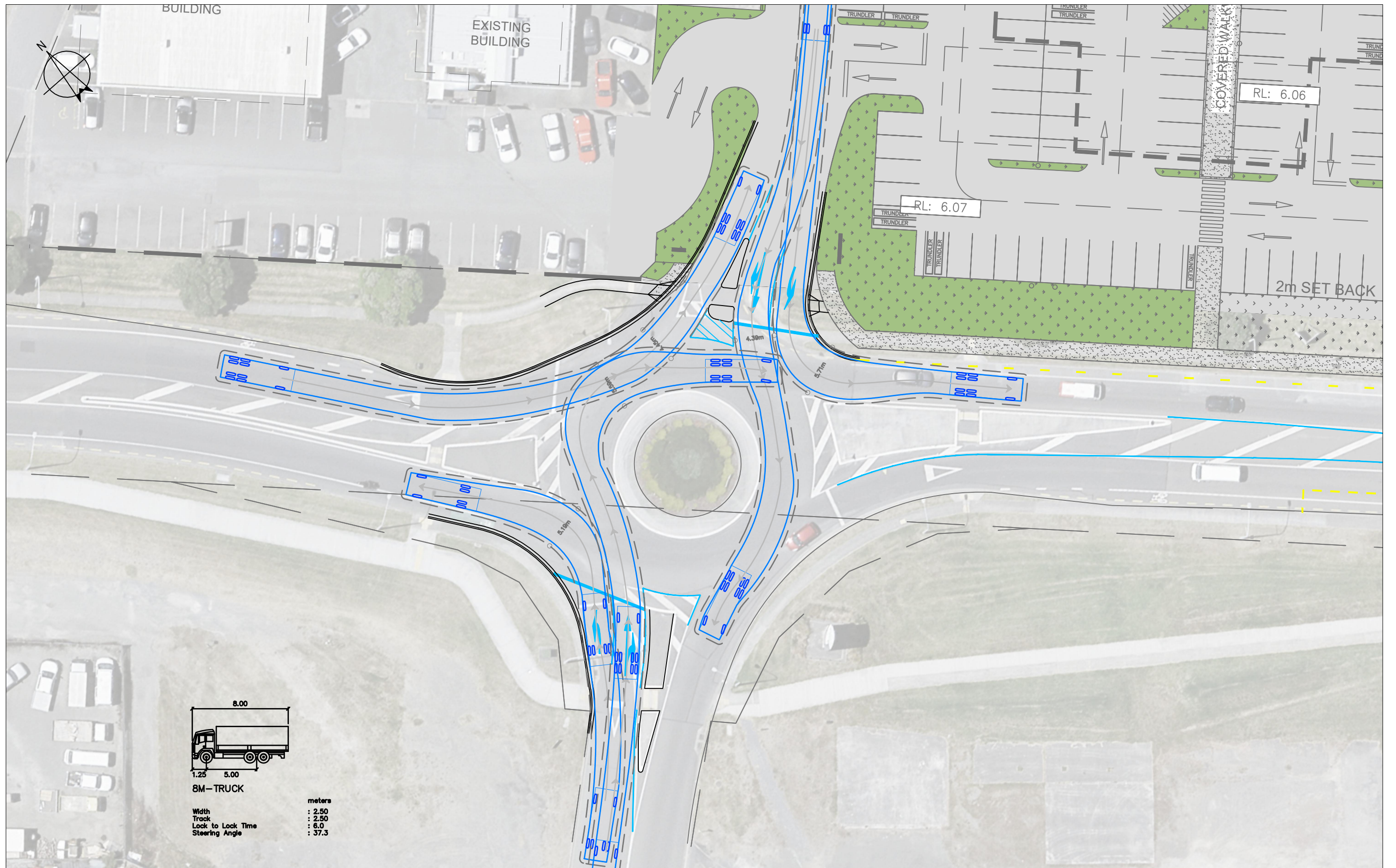
NOT FOR CONSTRUCTION

REV	REVISION DESCRIPTION	DRAWN	CHECKED	APPROVED	DATE	APPROVED	NAME
D	DESIGN REVISED TO AVOID LAND TAKE	JO	TK		03.12.21		J. ORRINGE
C	LAND TAKE AREA ADDED	JO	TK		01.12.21		J. ORRINGE
B	23m B-TRAIN TRACKING ADDED	JO	TK		29.09.21		T. KELLY
A	ISSUED FOR DISCUSSION	JO	TK		28.09.21		T. KELLY

**CTD**  
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TIM KELLY TRANSPORTATION PLANNING LIMITED  
COUNTDOWN KAPITI ROAD, PARAPARAUMU  
INDICATIVE ROAD LAYOUT CHANGES

DRAWING STATUS: <b>CONCEPT</b>	
PLOT DATE: 03.12.2021	SCALE AT A1: 1:250
DRAWING NO. <b>21-005-SK001</b>	REV <b>C</b>



NOT FOR CONSTRUCTION

REV	REVISION DESCRIPTION	DRAWN	CHECKED	APPROVED	DATE
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C	LAND TAKE AREA ADDED	JO	TK		01.12.21
B	23m B-TRAIN TRACKING ADDED	JO	TK		29.09.21
A	ISSUED FOR DISCUSSION	JO	TK		28.09.21

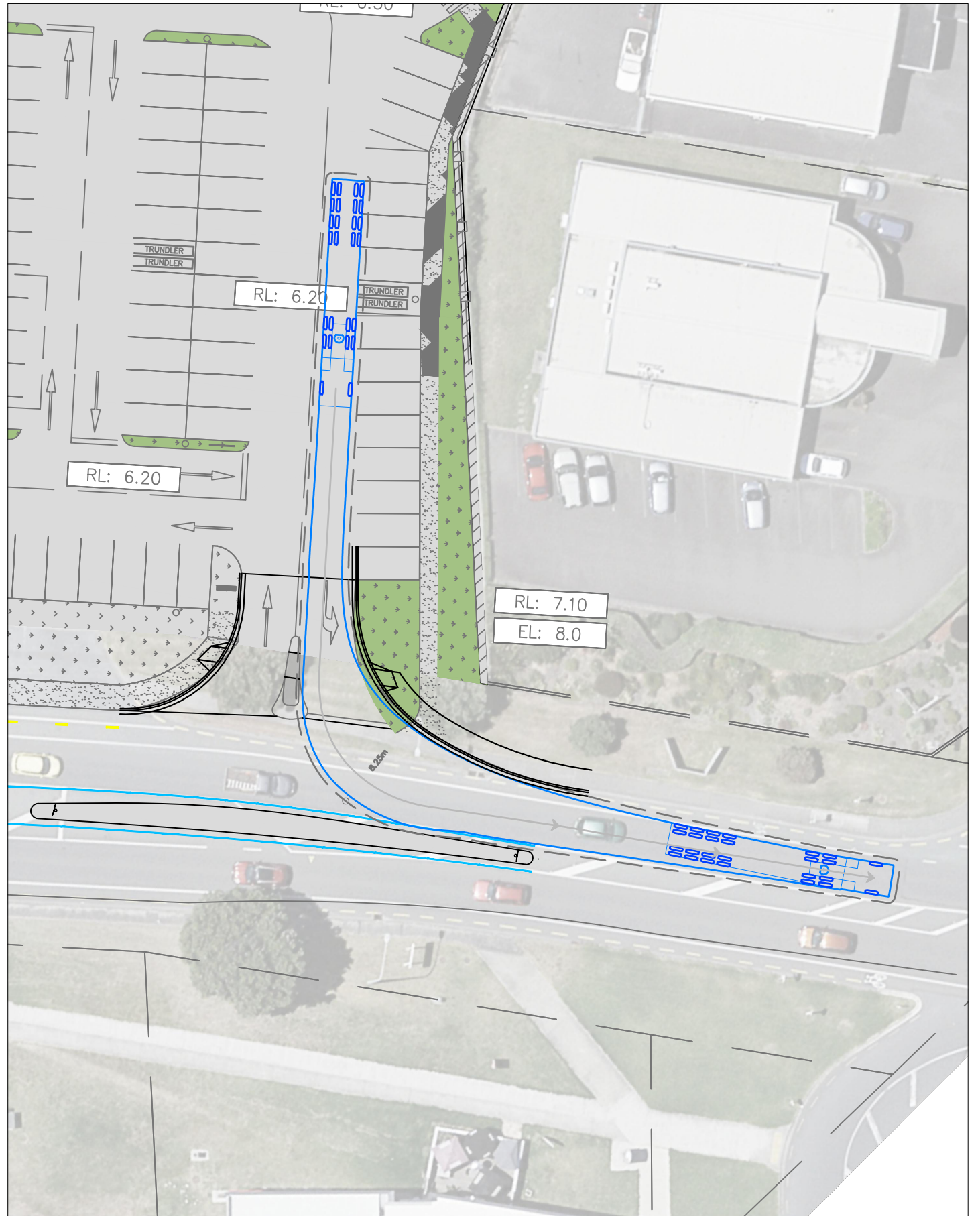
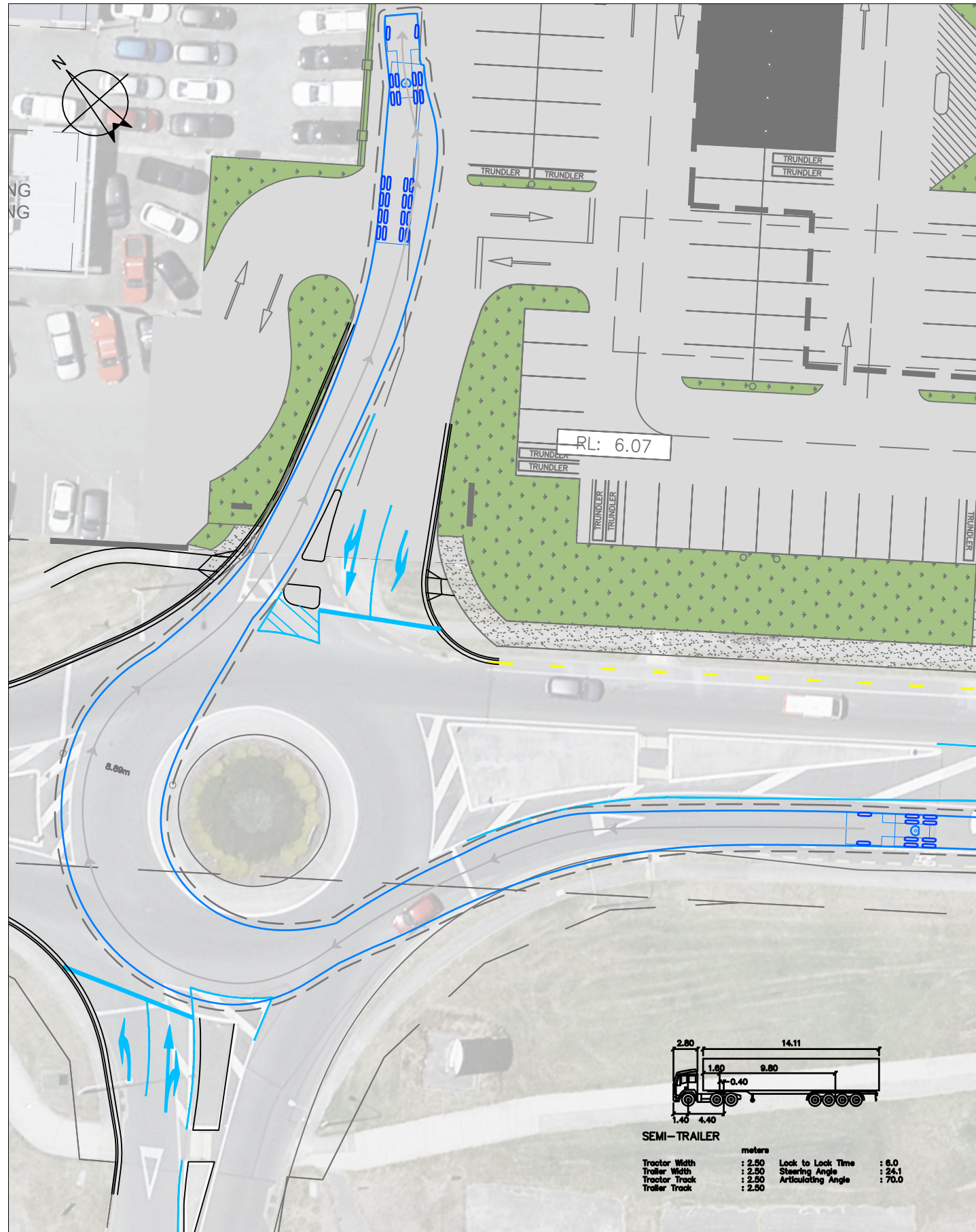
	NAME
DESIGNED	J. ORRINGE
DRAWN	J. ORRINGE
REVIEWED	T. KELLY
APPROVED	

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TIM KELLY TRANSPORTATION PLANNING LIMITED  
COUNTDOWN KAPITI ROAD, PARAPARAUMU

VEHICLE TRACKING PLAN  
8m MEDIUM RIGID TRUCK

DRAWING STATUS:	
<b>CONCEPT</b>	
PLOT DATE: 03.12.2021	SCALE AT A1: 1:200
DRAWING NO. 21-005-SK002	REV C



NOT FOR CONSTRUCTION

REV	REVISION DESCRIPTION	DRAWN	CHECKED	APPROVED	DATE
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C	LAND TAKE AREA ADDED	JO	TK		01.12.21
B	23m B-TRAIN TRACKING ADDED	JO	TK		29.09.21
A	ISSUED FOR DISCUSSION	JO	TK		28.09.21

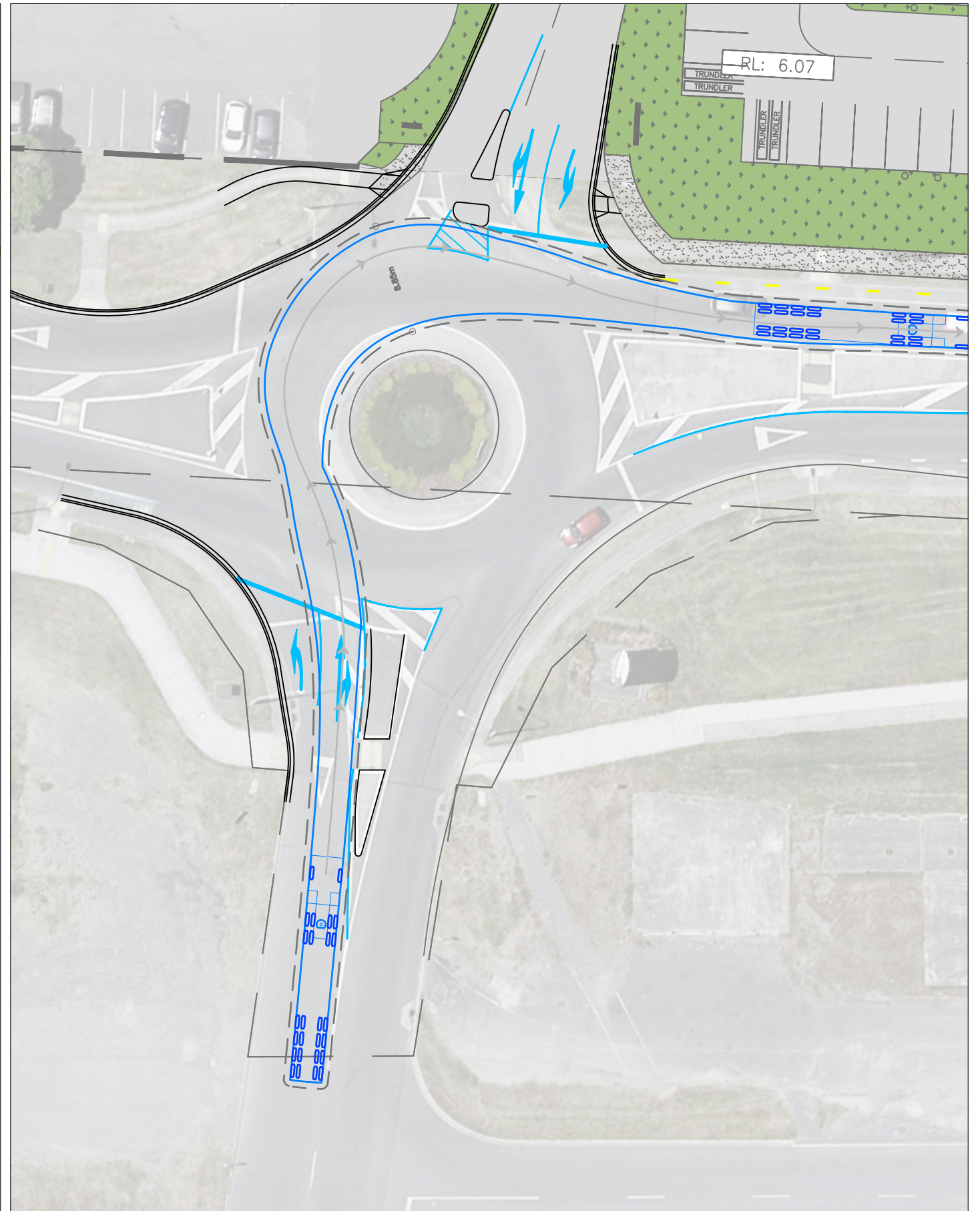
NAME	ROLE
J. ORRINGE	DESIGNED
J. ORRINGE	DRAWN
T. KELLY	REVIEWED
	APPROVED

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COUNTDOWN KAPITI ROAD, PARAPARAUMU  
VEHICLE TRACKING PLAN  
SEMI - TRAILER TRACKING

DRAWING STATUS:	
<b>CONCEPT</b>	
PLOT DATE: 03.12.2021	SCALE AT A1: 1:200
DRAWING NO. 21-005-SK003	REV C





NOT FOR CONSTRUCTION

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B	23m B-TRAIN TRACKING ADDED	JO	TK		29.09.21
A	ISSUED FOR DISCUSSION	JO	TK		28.09.21

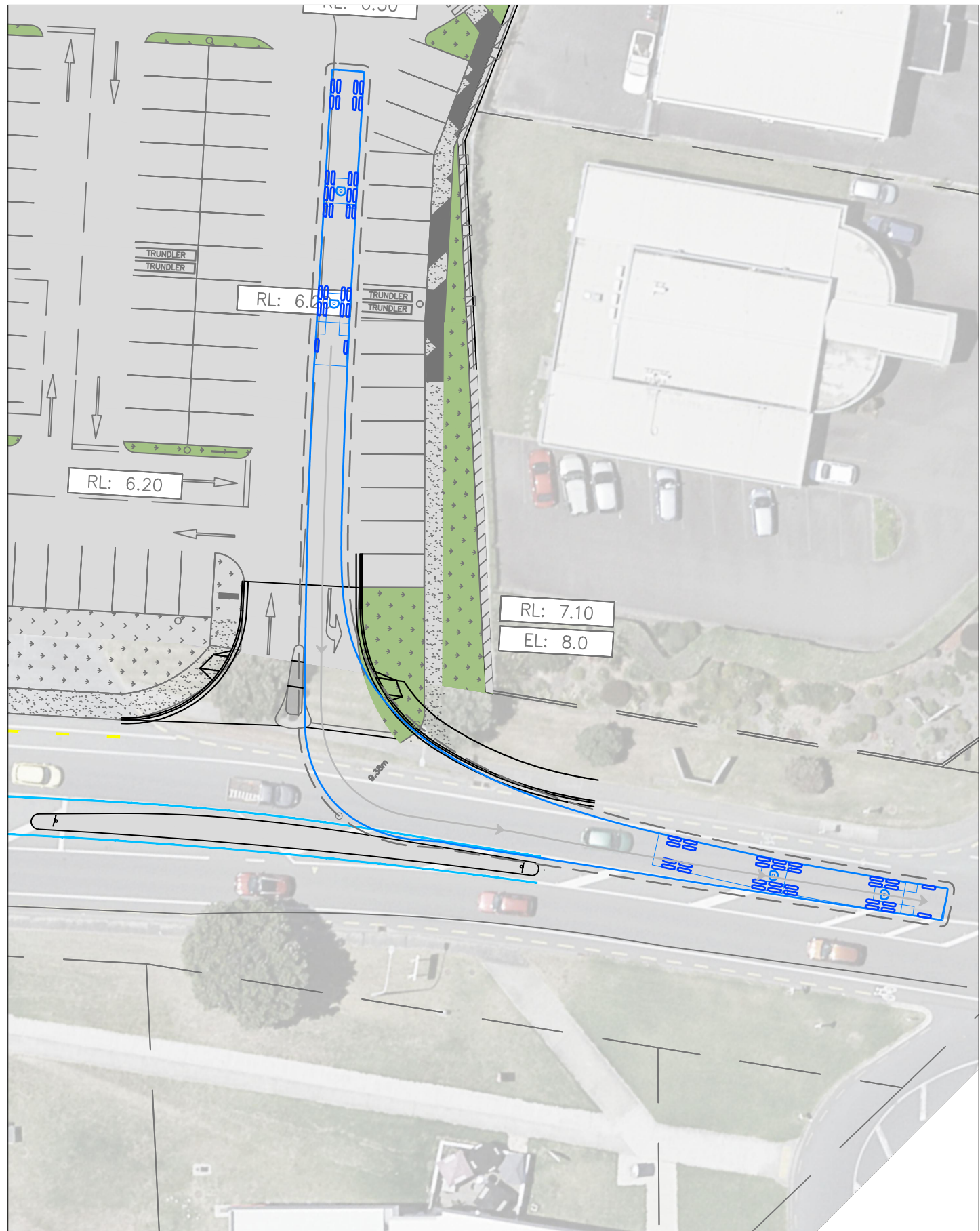
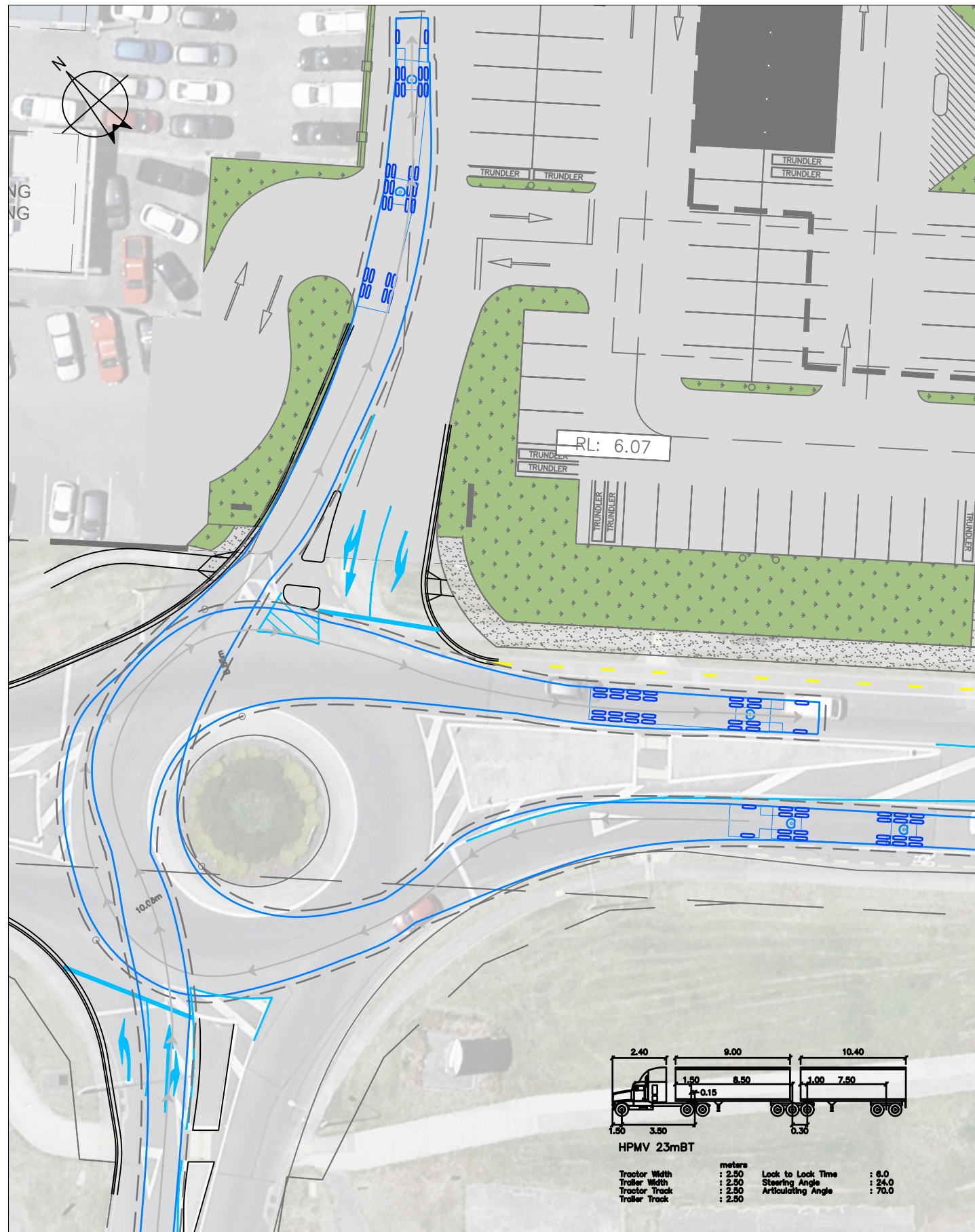
NAME	DESIGNED	DRAWN	REVIEWED	APPROVED
J. ORRINGE	J. ORRINGE	T. KELLY		

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COUNTDOWN KAPITI ROAD, PARAPARAUMU

VEHICLE TRACKING PLAN  
SEMI TRAILER

DRAWING STATUS: <b>CONCEPT</b>	
PLOT DATE: 03.12.2021	SCALE AT A1: 1:200
DRAWING NO. <b>21-005-SK004</b>	REV <b>C</b>



NOT FOR CONSTRUCTION

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C	LAND TAKE AREA ADDED	JO	TK		01.12.21
B	23m B-TRAIN TRACKING ADDED	JO	TK		29.09.21
A	ISSUED FOR DISCUSSION	JO	TK		28.09.21

NAME	ROLE
J. ORRINGE	DESIGNED
J. ORRINGE	DRAWN
T. KELLY	REVIEWED
	APPROVED

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TIM KELLY TRANSPORTATION PLANNING LIMITED  
COUNTDOWN KAPITI ROAD, PARAPARAUMU  
VEHICLE TRACKING PLAN  
23m B-TRAIN

DRAWING STATUS: <b>CONCEPT</b>	
PLOT DATE: 03.12.2021	SCALE AT A1: 1:200
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