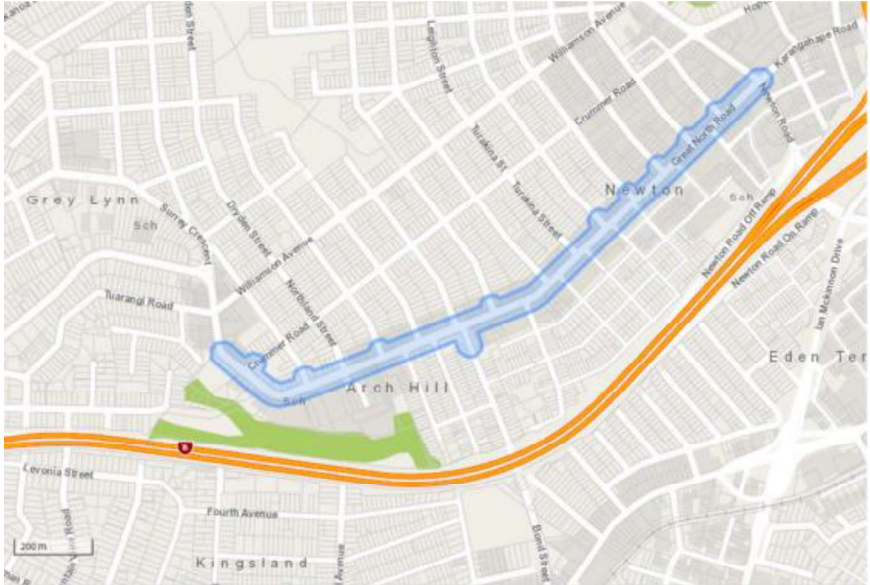


SUBMISSION FOR DEPARTURE FROM STANDARDS

PROJECT NAME	Connected Communities – Great North Road Detailed Design
APPLICANT ORGANISATION	██████████
CONTACT DETAILS:	██████████ – ██████████
APPLICANT REF	
HIGHWAY AUTHORITY REF	
DATE SUBMITTED	18/03/2022

1) PROJECT DETAILS

A	Description	<p>Road safety improvements are proposed at the Great North Road as part of the Connected Communities Programme. The improvement works consist of:</p> <ul style="list-style-type: none"> • Upgraded and new signalised raised mid-block pedestrian crossings • New separated cycle lane facilities along Great North Road; • New speed tables at side roads connecting to Great North Road • New Bus Stops along the road corridor • Road marking delineation and signage improvements; and • Upgraded pedestrian and cycling facilities for all users <div style="text-align: center;">  </div>
B	Location	Great North Road between the Karangahape Intersection and Grey Lynn Village
C	Road category and type	<p>Under NZTA’s One Network Road Classification (ONRC), Great North Road is classified as a regional road.</p> <p>Great North Road is identified as a Frequent Transit Network 2 in AT’s Future Connect maps.</p>
D	Design speed and speed limit	<p>Posted speed limit: 50 km/h</p> <p>Design speed: 50km/h</p>

E

Traffic and NMU flows

Great North Road: 19,952vpd (est. April 2019)

There are 23 side roads along its length and a significant number of driveways. A number of them are busy and/ or serve a number of commercial properties. Weekday traffic counts were undertaken for key intersections on Great North Road Wednesday 11 August 2021 and Thursday 12 August 2021 between 7am and 7pm. The flows are predominately tidal eastbound in the morning peak towards Auckland CBD and in the reverse for the afternoon peak.

Road	7-7 Traffic Volumes (2-way)	7-7 Cyclist Volumes (2-way)
Crummer Road	609	10
Great North Road (between Crummer Rd - Coleridge St)	9335	170
Coleridge Street	571	11
Northland Street	872	10
Bond Street	12542	108
Great North Road (between Bond St - Beaconsfield St)	20887	278
Beaconsfield Street	1557	6
King Street	2617	12
Mackelvie Street	2032	13
Pollen Street	2654	20
Great North Road (Pollen St - Maidstone St)	19489	357
Maidstone Street	1294	22

2) DEPARTURE DETAILS

A	Discipline	Design Standards SISD and MGSD (Side Road Intersections)
	Type	Transport Infrastructure
B	Relevant Standard(s)	Transport Design Manual (TDM), Urban and Rural Roadway Design (version 1) , Section 4: Design Parameters
	Clause	<p>Within the above identified standard the relevant sections for this departure application is #3 TDM Urban and Rural Roadway Design, Sections 4.</p> <p><u>Section 4.3 – VISIBILITY FOR SAFETY</u> Minimum gap sight distance (MGSD) and safe intersection sight distance (SISD) need to be checked for “Safe to Go” and “Safe Avoidance” safety assessments.</p>

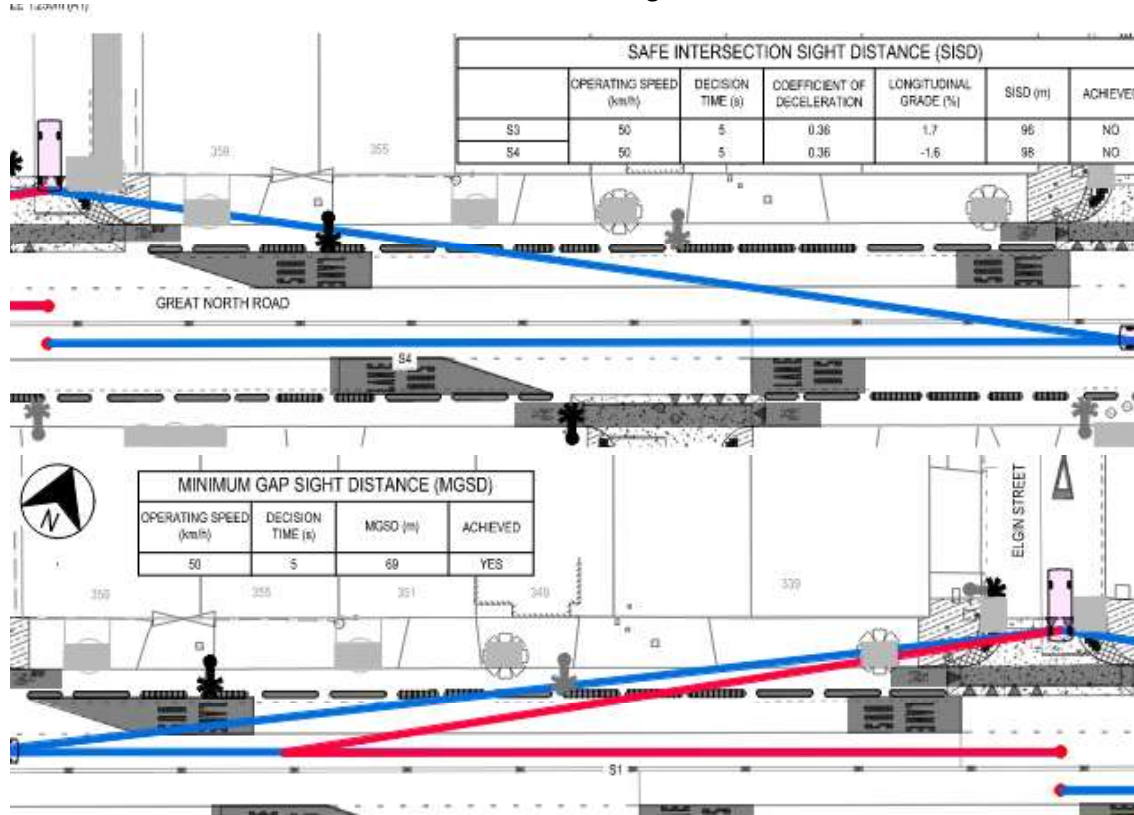
C

Difference between Standard(s) and Proposed Design

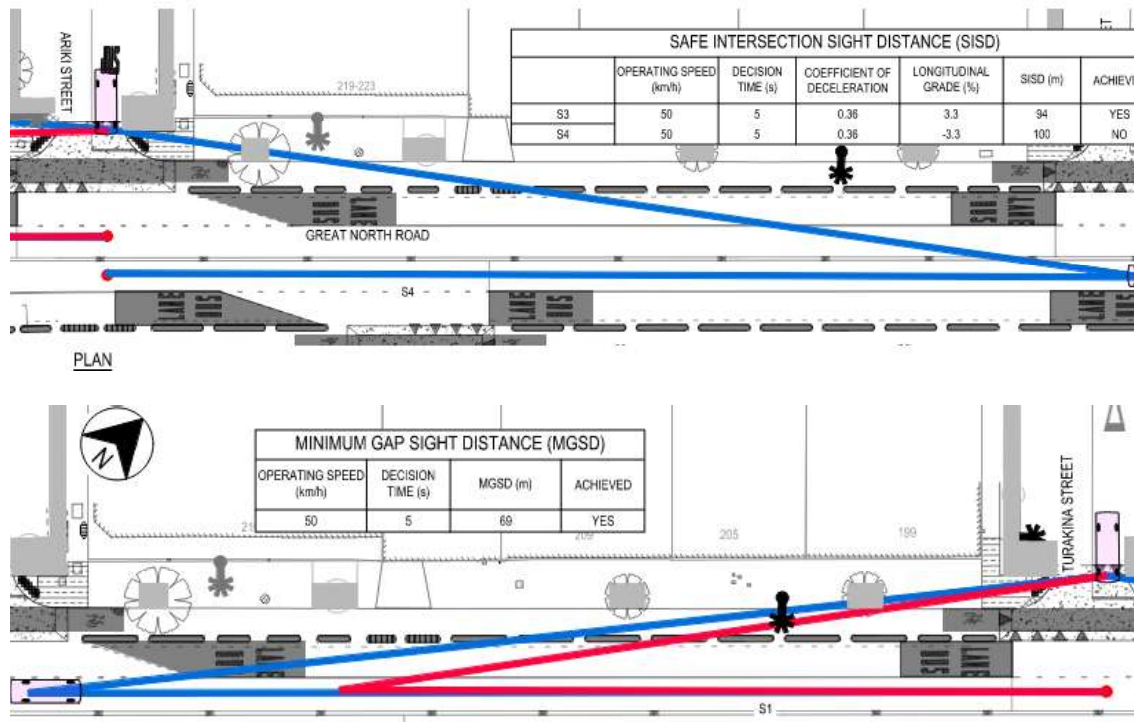
Design seeks a departure to achieving either SSD or MGSD at the following locations where new parking locations are proposed as a result of public consultation.

The locations propose to use the following sight distance parameters to achieve proposed additional parking.

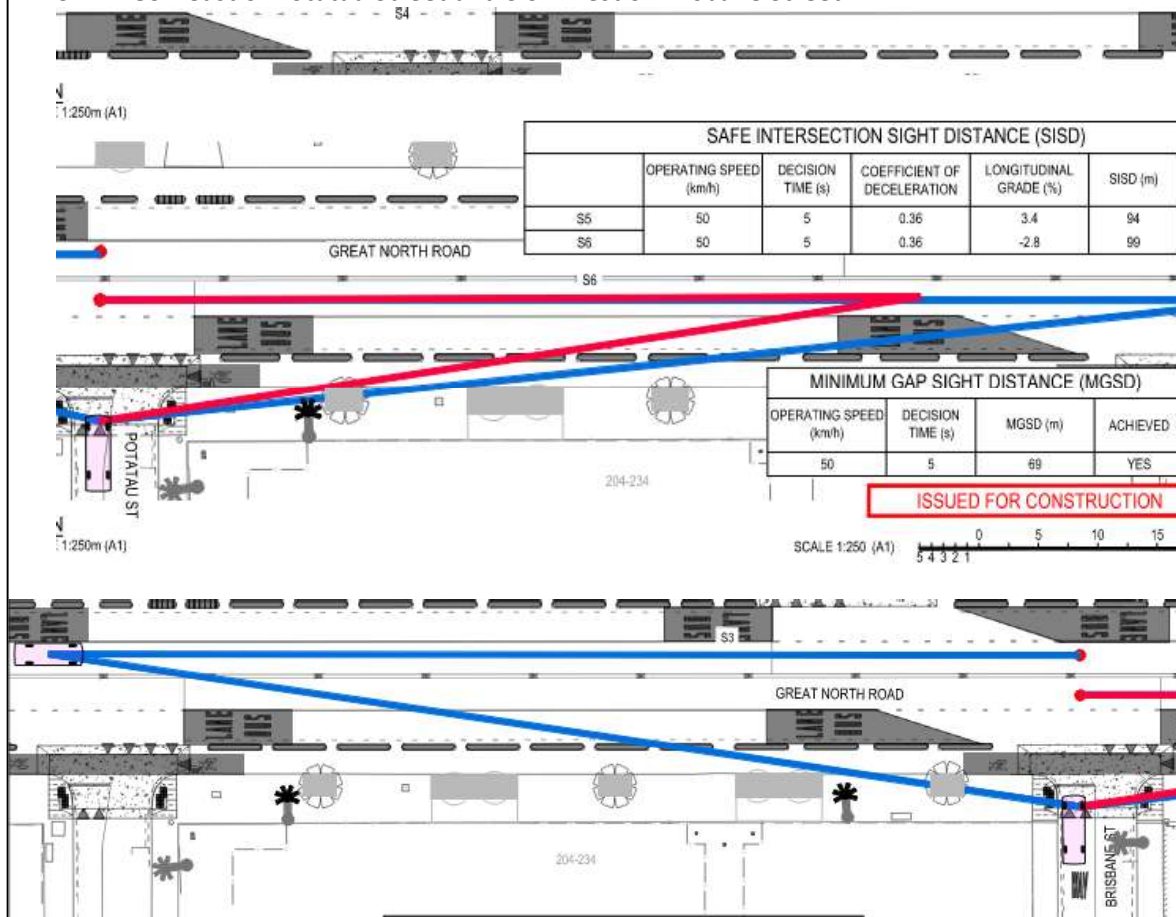
1. SISD east of Harcourt Street and MGSD west of Elgin Street



2. SISD east Arika Street and MGSD west of Turakina Street



3. MGSD east of Potatau Street and SISD west of Brisbane Street



Differences:

The resulting criteria was primarily to use the greater of the MGSD sight distances or the Stopping Sight Distance (SSD) for a bus travelling along GNR to identify the hazard from an existing vehicle. Additionally, a 35m cycle visibility distance clearance was provided.

MGSD distances were taken with the vehicle shown on the edge of the raised speed platforms and sitting temporarily in the cycle lane. This would mean the driver would be positioned 1.2m back from the edge of the top of the platform and be of a more realistic approach for drivers, which was identified to occur during a site walkaround. The resulting MGSD distances were in the order of 111m for right turning movements.

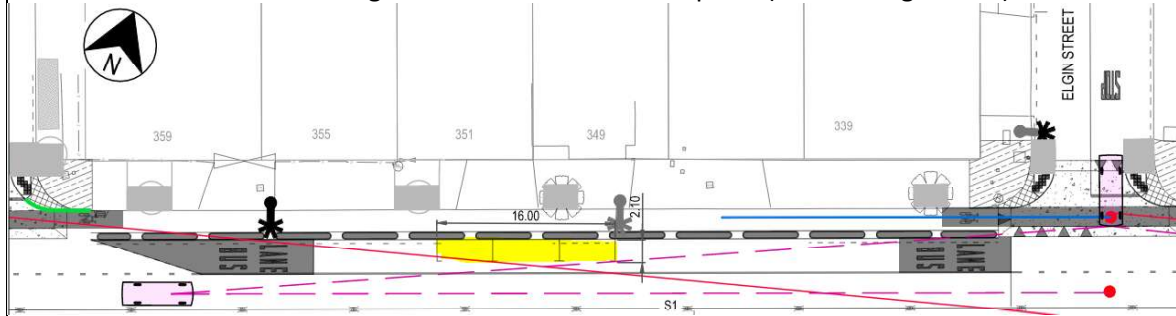
For Brisbane Street, due to the low traffic volumes expected for a dead end street, a “no worse than existing” approach was taken for the sight distances. This was undertaken using the existing carparking extents and identifying the resulting sightlines.

1. Between Harcourt Street and Elgin Street
 - a. Right turn movement out of Harcourt Street – MGSD of 111m
 - b. Left turn movement out of Elgin Street – SSD of 84m
2. Between Ariki Street and Turakina Street
 - a. Right turn movement out of Ariki Street – MGSD of 111m
 - b. Left turn movement out of Turakina Street – SSD of 75m
3. Between Potatau Street and Brisbane Street
 - a. Right turn movement out of Brisbane Street to use existing sight lines based off existing parking locations due to low volume nature of Brisbane Street
 - b. Left turn movement from Potatau Street – SSD of 74m

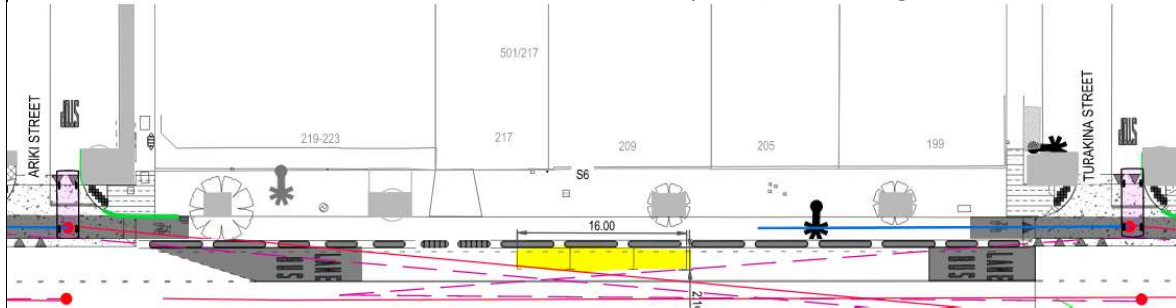
D Reason for Departure (overview)

- Public consultation resulted in feedback on the greatly reduced number of carparks along GNR compared to existing conditions. Carparking was identified as a key component of the feedback.
- Carparking locations were considered based on public feedback on locations where parking was essential for local businesses and only allowed where deemed appropriate and safe to do so with AT SME input. Certain locations deemed unfeasible were not considered due to the lack of visibility.
- Between Harcourt Street and Elgin Street, carparking was considered due to development of existing property resulting in proposed local business and removal of existing vehicle crossings.
- Parking between Potatau Street and Brisbane Street was provided based on the low traffic volumes expected.

1. Harcourt Street and Elgin Street – additional 3 carparks (16m in length total)



2. Arika Street and Turakina Street – additional 3 carparks (16m in length total)



3. Potatau Street and Brisbane Street – additional 6 carparks (34m in length total)



PLAN
SCALE 1:250m (A1)

E	Associated Project Departures	
F	Other options considered	<ul style="list-style-type: none">• Various locations for additional carparks was considered and assessed with AT SMEs on site based on public consultation feedback.• Side streets with clear and obvious visibility restraints were not considered.

3) JUSTIFICATION (POTENTIAL POSITIVE AND NEGATIVE IMPACTS)

A	Safety	<ul style="list-style-type: none"> • Not achieving SISD or MGSD increases risk of crashes. • Removal of the central median and raised side road crossings will reduce the operating speed and should reduce the severity of any impact. • There is an overall improvement in meeting both SISD and MGSD for remaining side streets in comparison to existing sight visibility for GNR.
B	Congestion/ delay	N/A
C	Environmental/ Sustainability	N/A
D	Capital and Whole Life Cost/Value	<ul style="list-style-type: none"> • Departure allows the full value of the GNR to be achieved
E	Accessibility	No negative impact.
F	Integration	No negative impact.
G	Structural	No negative impact.
H	Network Resilience & Maintenance	No negative impact.

4) COMPENSATORY MEASURES

A	Included Measures	N/A
B	Rejected Options	<ul style="list-style-type: none"> Alternative side streets identified for additional parking

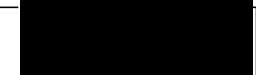
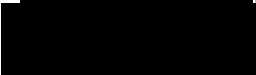
5) ATTACHMENTS & OTHER INFORMATION

A	List of Attachments	SIGHT DISTANCE ANALYSIS DRAWINGS
B	Consultations	<p>The original design was consulted internal and externally. Auckland Transport received high number of feedback from the external consultation to increase the number of carparks along GNR as a result of the improvements to maintain local businesses.</p> <p>Auckland Transport SME have been integral to the location of the additional carpark locations and the sight visibility requirements.</p>
C	Other information	

6) DESIGN ORGANISATION'S CONCLUDING REMARKS

The proposed road design provides an overall safer road environment within what will be a lower speed operating environment and also meets the requirements of Auckland Transport for the location of loading zones and bus stops in a very constrained urban environment.

7) DECISION

Reviewer	Andy Irwin - Principal SME Transport Design	Signature		Date	20/11/2024
Approver	Richard westerman Transport Design SME Mgr	Signature		Date	26 November 2024
Decision	<input type="checkbox"/> Approved <input checked="" type="checkbox"/> Approved with comments <input type="checkbox"/> Rejected with reasons				
*COMMENTS or *REASONS FOR REJECTION (*delete as applicable)	Monitor behaviour after construction to review acceptable intersection performance				

Notes for Completion

- This form must be provided with a signed cover sheet giving full details of the applicant's staff and checking process in accordance with the Quality Assurance procedures in place. The Departures submission should be considered as a "report".
- If a particular box is not relevant, do not leave it blank, instead state "not applicable" or similar.
- Names and signatures associated with the Decision (see Section 6) should be inserted in accordance with agreed responsibility and competency matrix set out by the highway authority policy.
- When completing section 2A, please refer to list of choices provided by highway authority which will normally be broadly based on DMRB/volume or SHW/series categorisation.

