Community Engagement
Prince St Intersection Upgrades

PRESENTERS:
Steve Rossier
Ivo Pais
Mike Nelson

May 2022

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01 Welcome

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02 Introduction

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- Purpose
- Review of agenda
- Ground rules/expectations
- Introductions

Item	Time	Topic	Presenter
1.	6.00	**Welcome**	Steve Rossiter (WSP – Facilitator)
2.	6.05	**Introduction** • Purpose • Review of agenda • Ground rules/expectations • Introductions	Steve Rossiter / Mike Nelson (Wollondilly Shire Council)
3.	6.15	**Project Context** • Traffic modelling – how it works • Picton Town Centre Transport Master Plan • Picton Bypass • Questions/answers	Ivo Pais (Cardno – Manager Transport Advisory)
4.	6.35	**Community Interests** • What is important to you?	Group activity
5.	6.50	**Presentation of options** • Presentation of each option and discussion • Questions of clarification on options	Ivo Pais
6.	7.30	Break	
7.	7.40	**Discussion of options** • Can any options be taken off table? (Agreed by community and Council/Cardno) • What modifications/adaptations could be made to existing options to make them more acceptable/improve them? • Are there any options that have not been considered?	Group activity
8.	830	**Close and Next Steps**	Steve Rossiter / Mike Nelson

03 Project Context

03 Context

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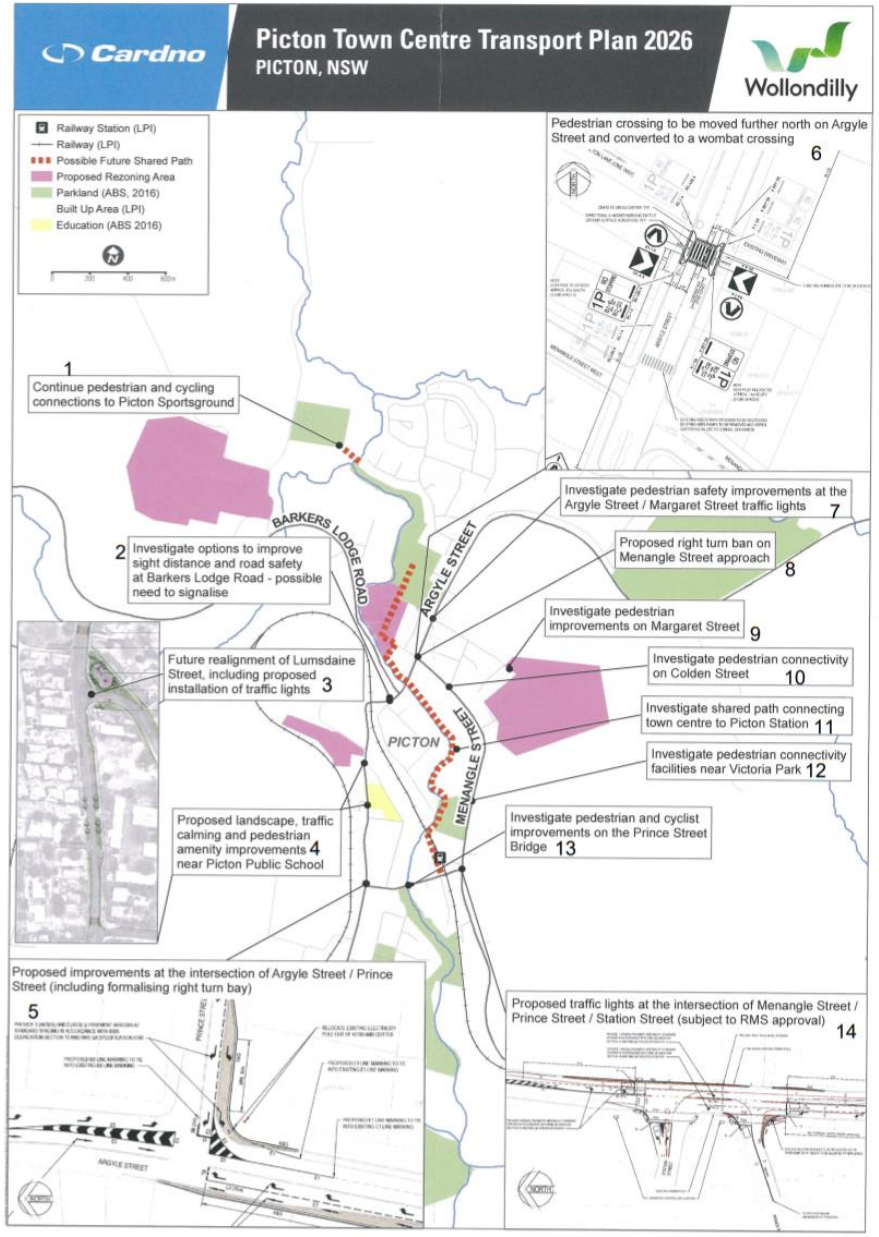
03 Context

03 Picton Town Centre Master Plan 2026



- Given the population growth in the next 20-30 years, traffic congestion in Picton is expected to increase.

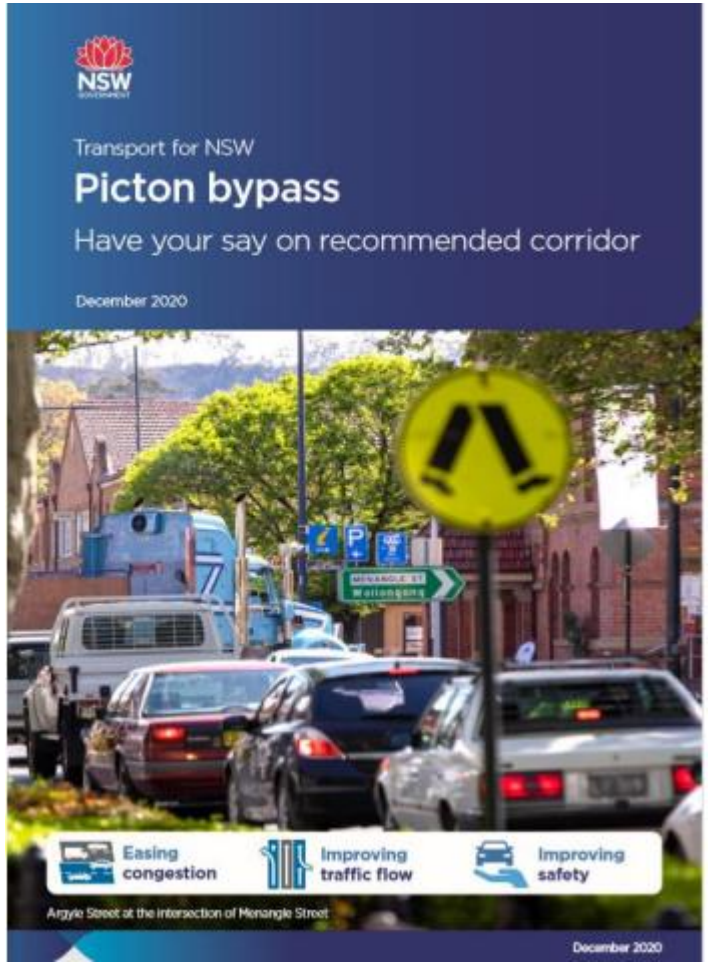
- In anticipation of this, Council developed the Picton Town Centre Transport Masterplan to improve traffic conditions in the town centre.

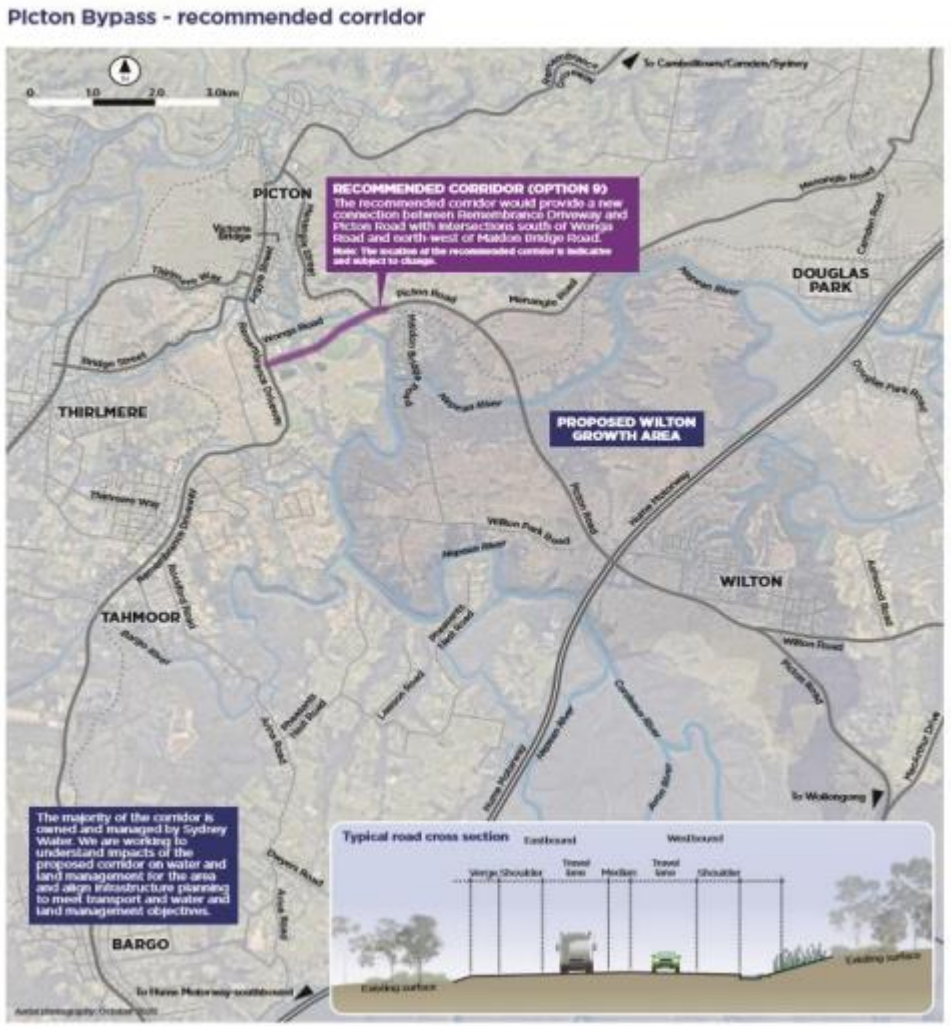
- This includes significant upgrades to Prince Street, refinement to traffic flow through Colden Street and Margaret Street, relocating the Argyle Street pedestrian crossing and general improvements around the town centre.

- As construction on the Bypass is likely to be some years away, it's important for Council to manage the traffic congestion in Picton in the meantime. The measures outlined in the Picton Town Centre Transport Master Plan will alleviate traffic stress and continue to serve our local roads even after the Picton Bypass has been completed.

- The Plan was adopted by Council in 2019 and a number of recommendations have already been implemented

03 Picton Bypass





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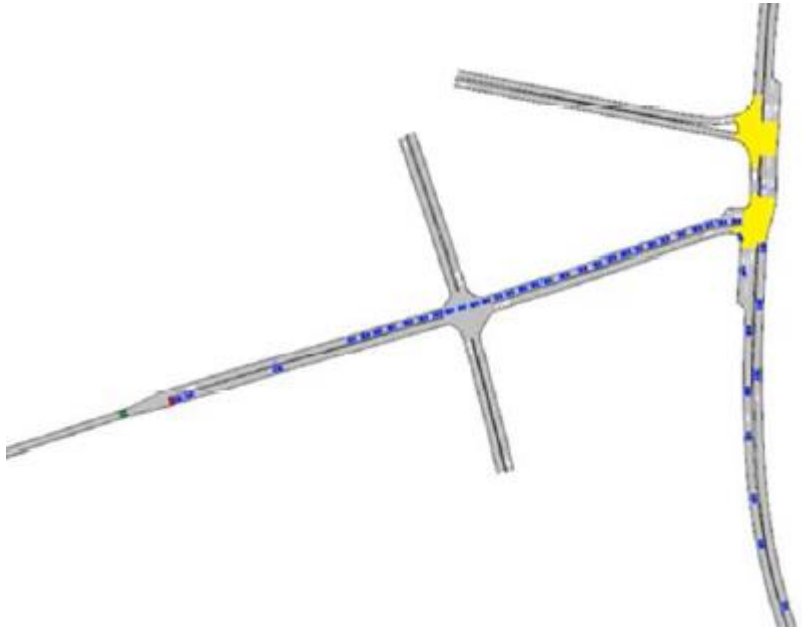
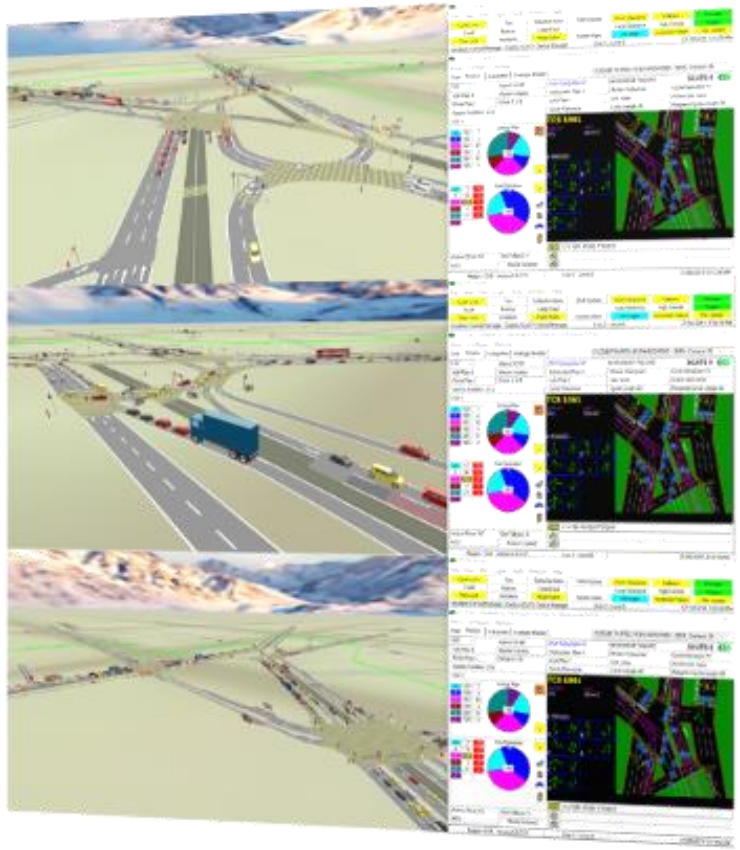
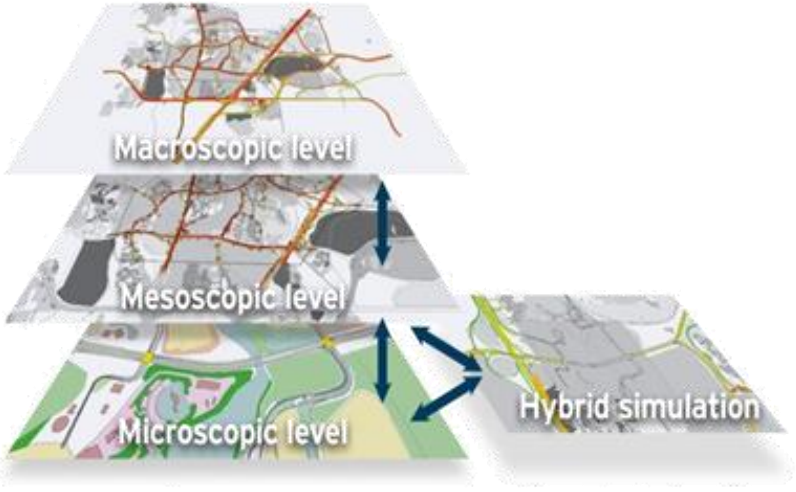
TRAFFIC MODELLING OVERVIEW



03 Types of Traffic Models





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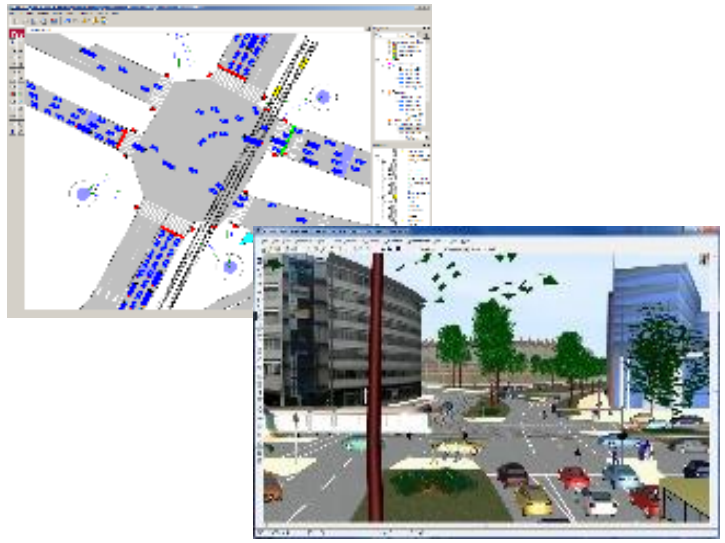
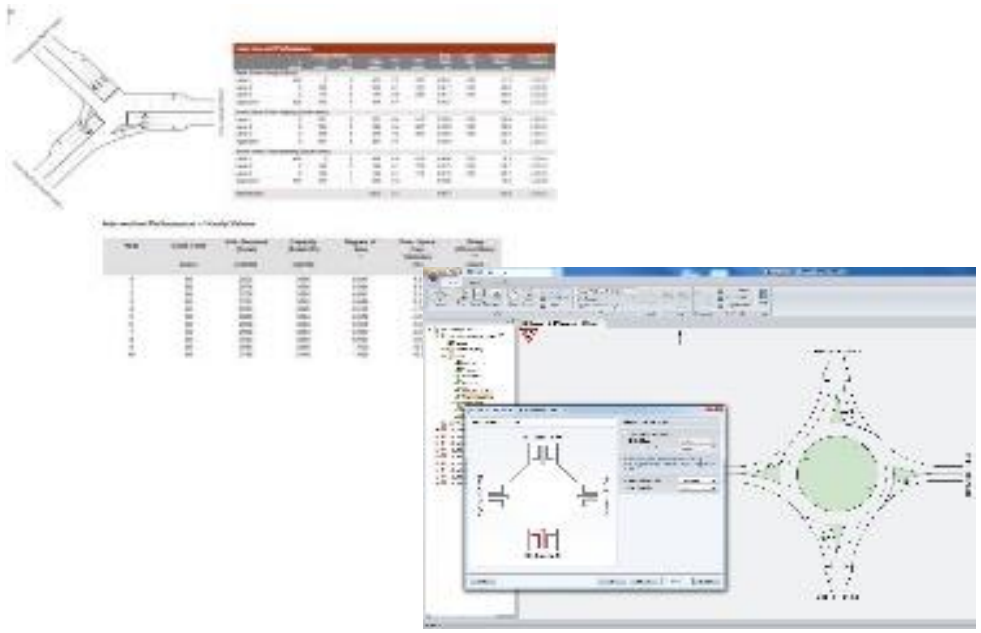
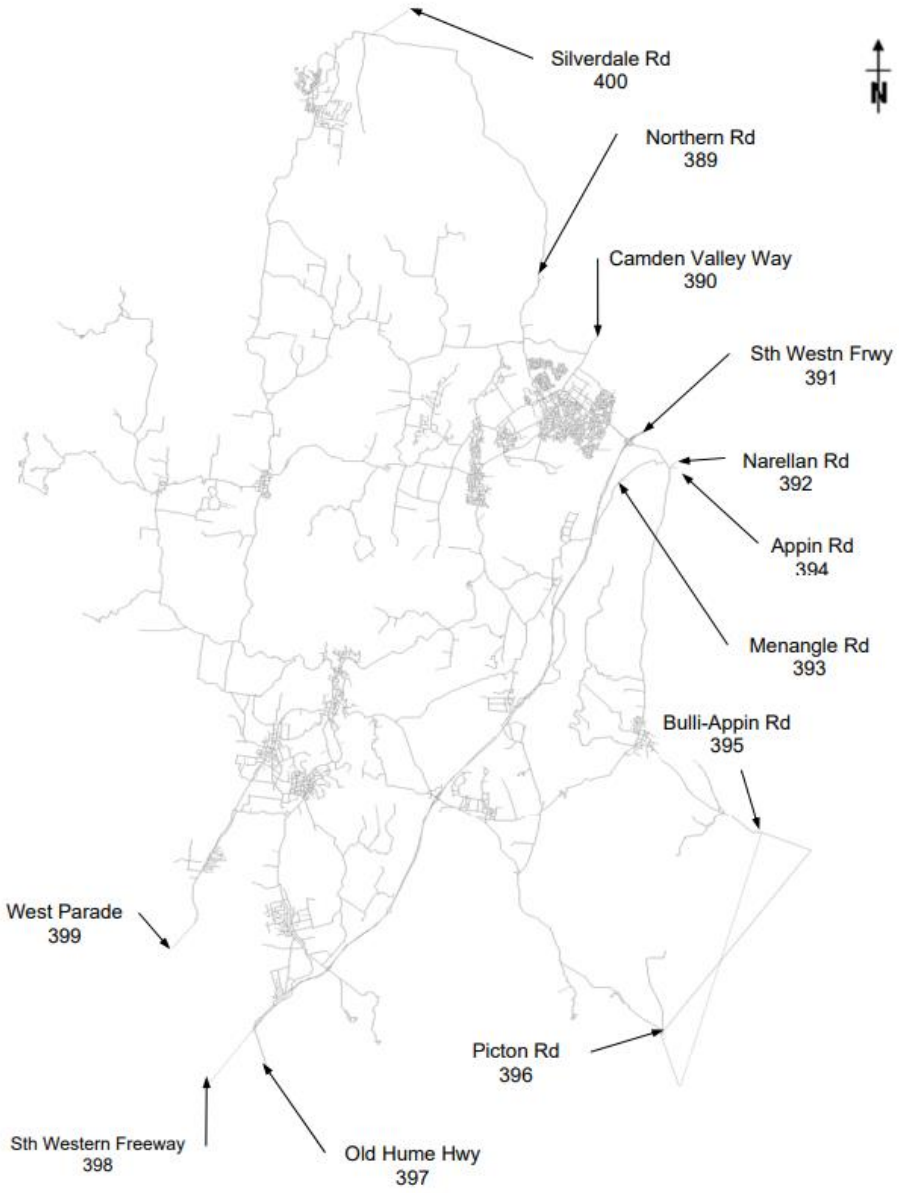




03 Modelling Used on the Prince St / Menangle St Project



<u>Step 1</u>:
Region wide strategic model for the Campbelltown-Camden-Wollondilly area

The main model inputs are:

- Existing and proposed road layouts
- Current and future land use (including expected development & growth)
- Census population data
- Traffic count data

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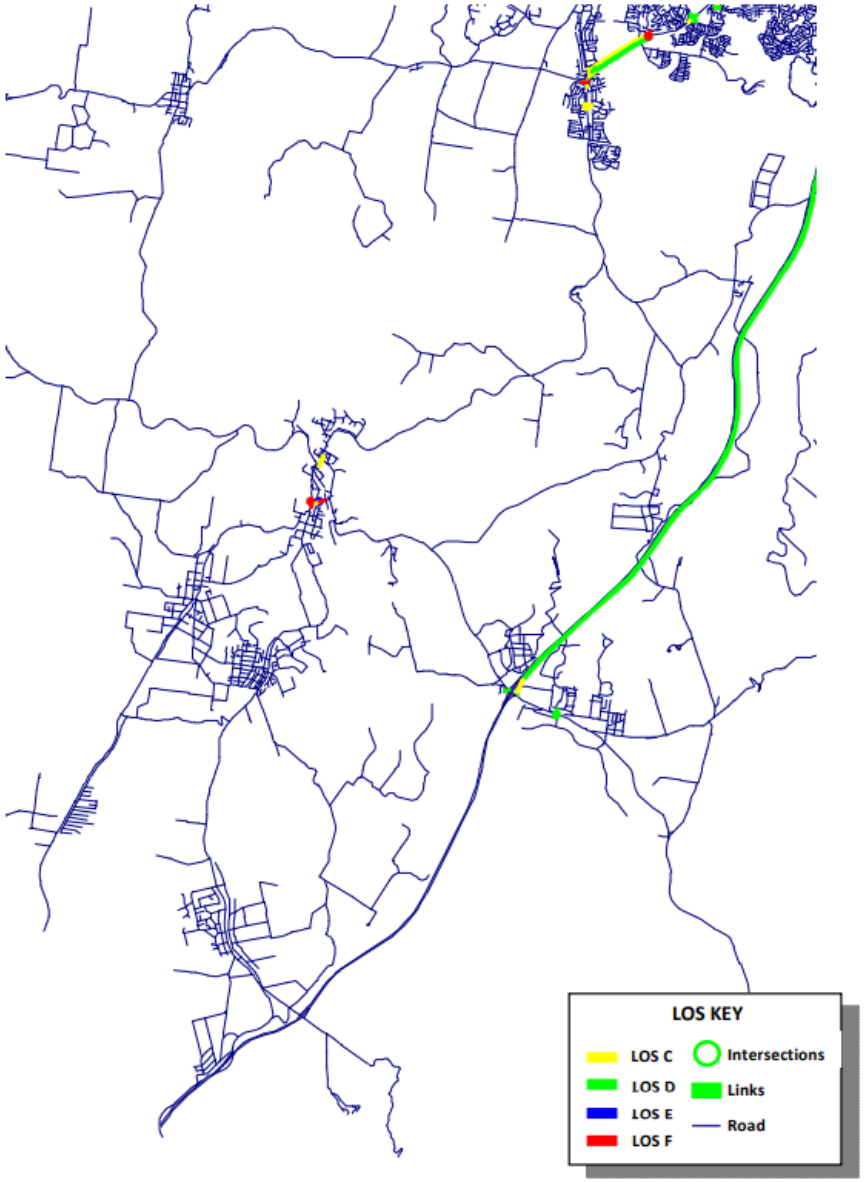

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<u>Step 2</u>:
Aimsun microsimulation model

Aimsun allows evaluating traffic operation in more detail for a selected area.

The traffic simulation shows areas where capacity is insufficient to absorb demand and consequent congestion and redistribution.

The model can also test benefits of proposed treatments

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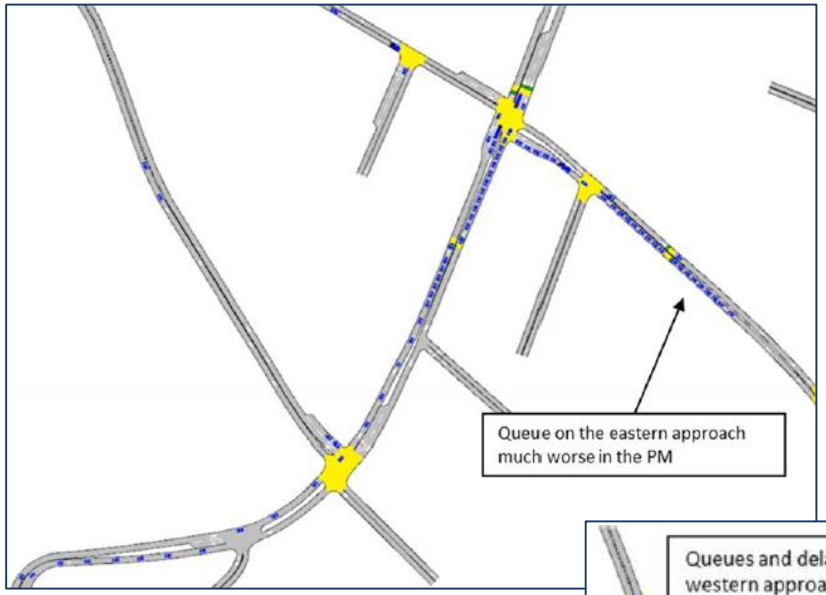

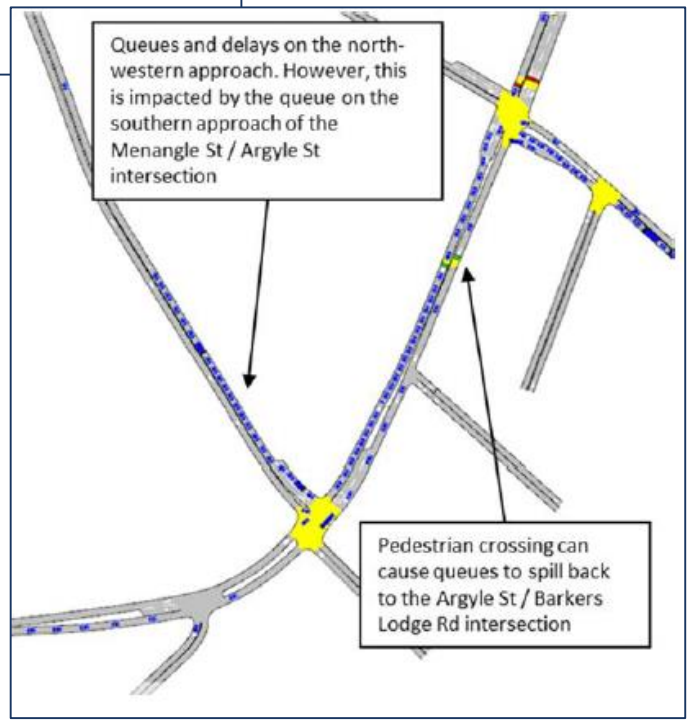

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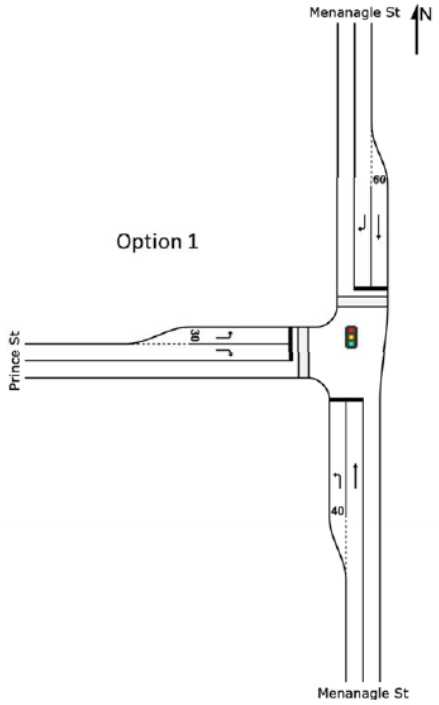

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Menanagle St											
1	L2	339	0.3	0.232	8.0	LOS A	3.6	25.1	0.28	0.66	51.7
2	T1	407	7.2	0.827	30.4	LOS C	16.0	118.7	0.85	0.87	39.9
Approach		746	4.1	0.827	20.3	LOS B	16.0	118.7	0.59	0.77	44.6
North: Menanagle St											
8	T1	687	8.6	0.757	17.6	LOS B	22.3	167.8	0.83	0.76	46.5
9	R2	58	1.8	0.447	49.5	LOS D	2.5	17.7	1.00	0.75	32.3
Approach		745	8.1	0.757	20.1	LOS B	22.3	167.8	0.84	0.76	45.0
West: Prince St											
10	L2	68	1.5	0.845	40.0	LOS C	23.8	167.1	0.99	0.95	35.6
12	R2	471	0.2	0.845	40.0	LOS C	23.8	167.1	0.99	0.95	35.5
Approach		539	0.4	0.845	40.0	LOS C	23.8	167.1	0.99	0.95	35.5
All Vehicles		2031	4.6	0.845	25.4	LOS B	23.8	167.8	0.79	0.81	41.9

<u>Step 3</u>:
SIDRA Modelling

- Focused at the intersection level (not network wide)
- Generates operational results in the format typically requested by TfNSW

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03 Questions on Project Context

04 Community Interests

04 What's Important to you?

05 Options Investigated

05 Challenges / Intersection Layout Complexity

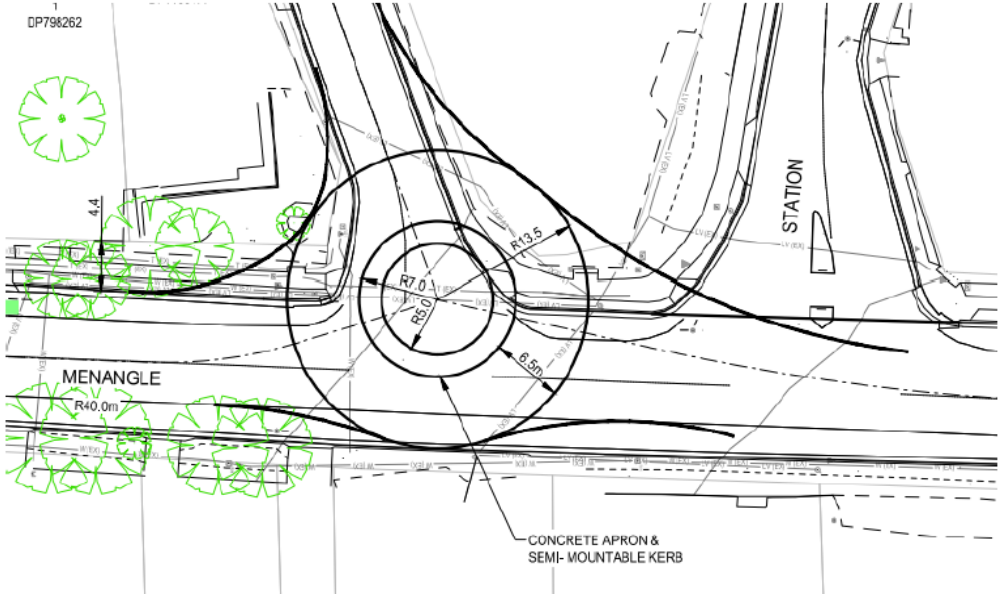
- The proximity between Station St and Prince St
- Challenging geometry for any road upgrade consideration (roundabout / signals)
- Operational issues are predominantly driven by traffic numbers (not speed)
- Road safety / risk of accidents will also deteriorate as volumes increase
- For a signalised configuration – signal phasing / timings / coordination with pedestrian crossings are challenging due to the unusual geometry. Difficult to safely and efficiently maintain all movements.

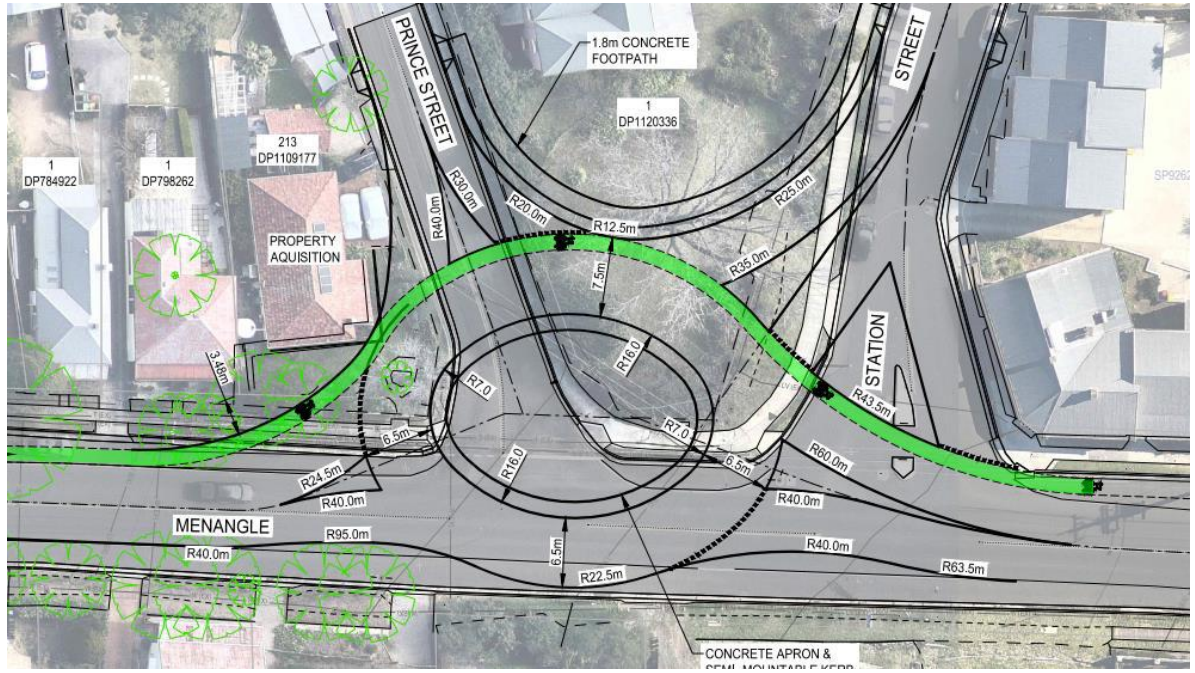
05 One Way Option

Reducing Prince Street to One-Way Flow Option

- Significant additional traffic directed to Argyle St resulting in operational issues.
- Significant upgrade to Menangle/Argyle Street intersection (signals) and result in loss of on street parking and amenity, difficulties for heavy vehicles.
- Still requires work to at least one of the Prince St intersections.
- Ssurrounding network experiencing some of the issues typically observed when the bridge is closed

05 Roundabout





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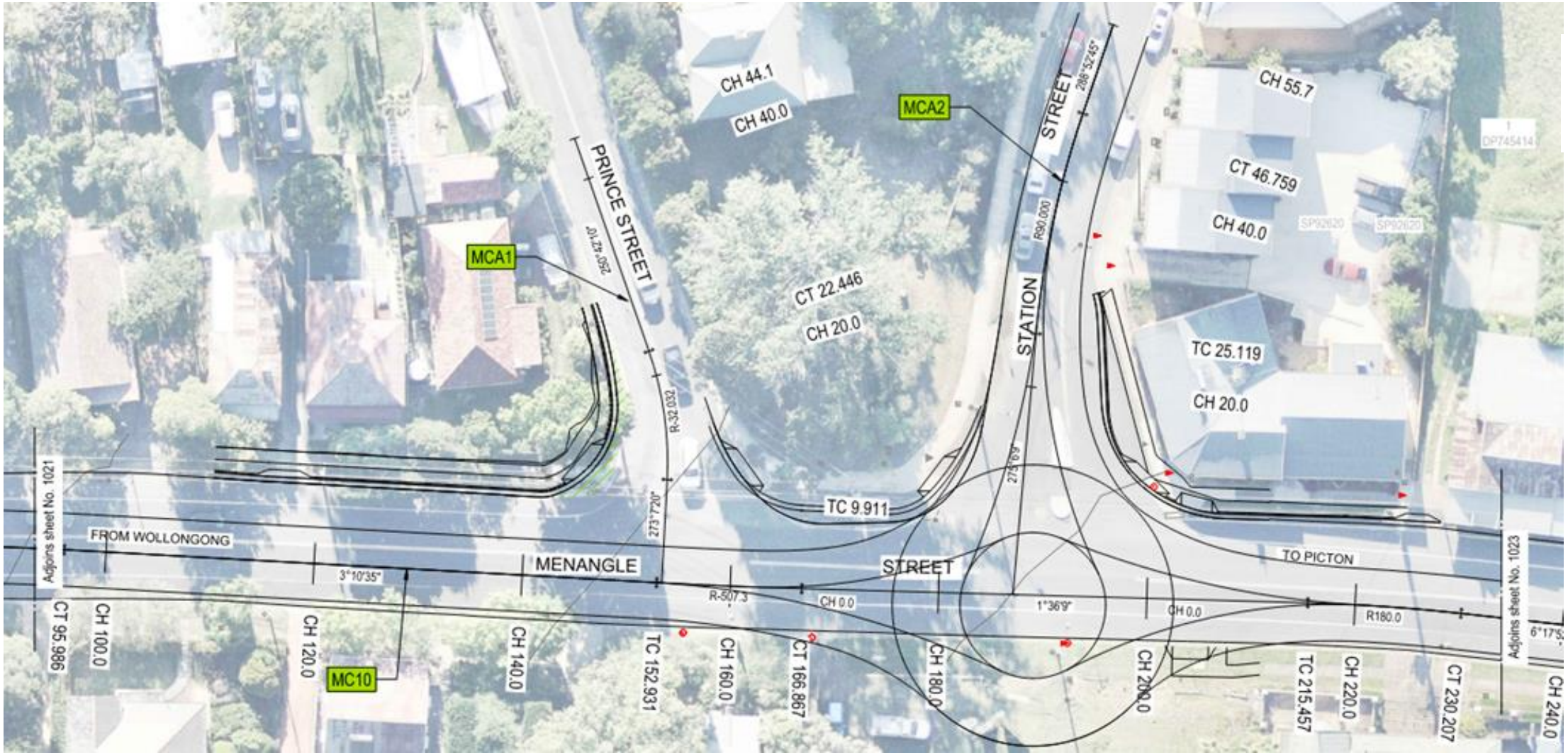

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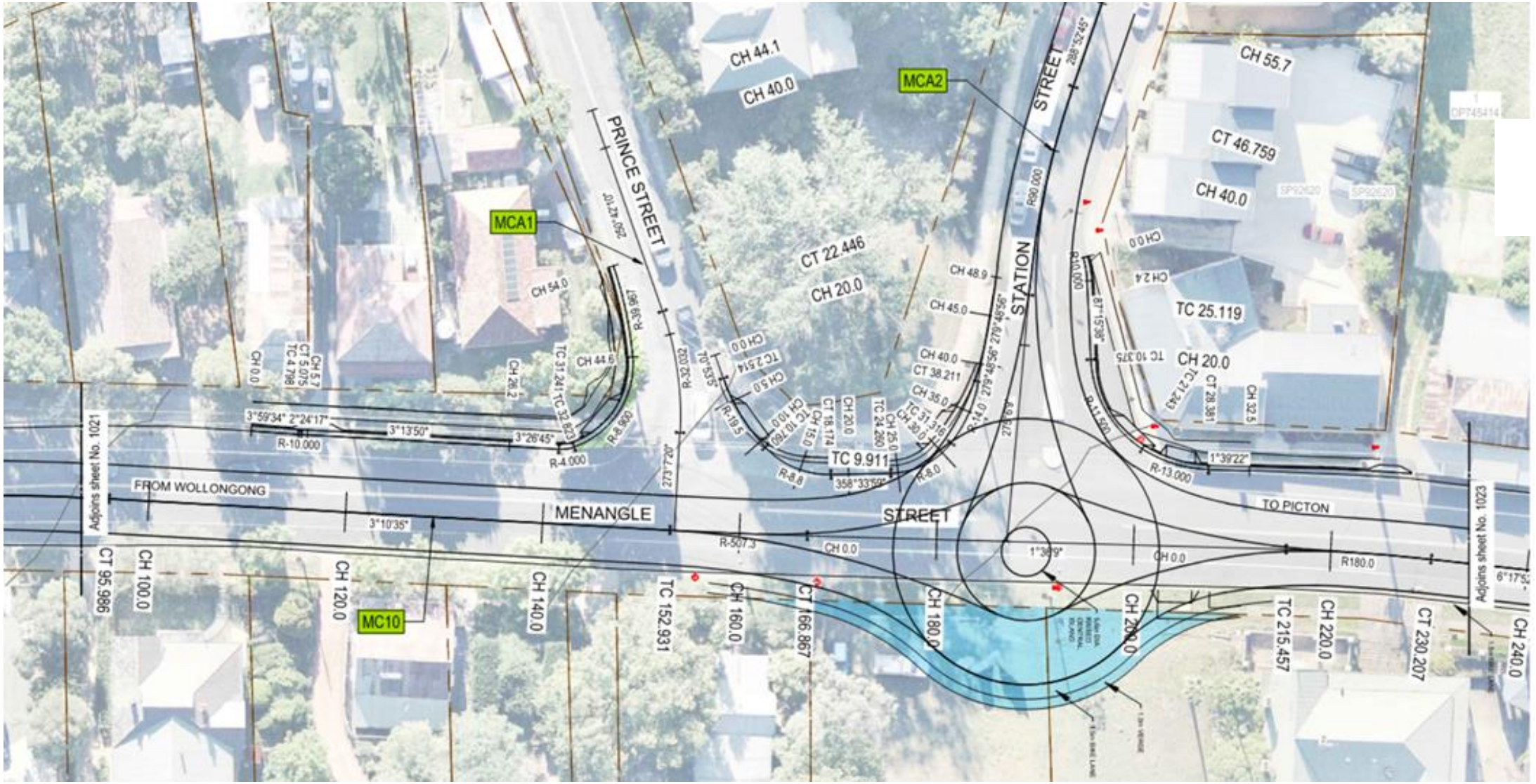

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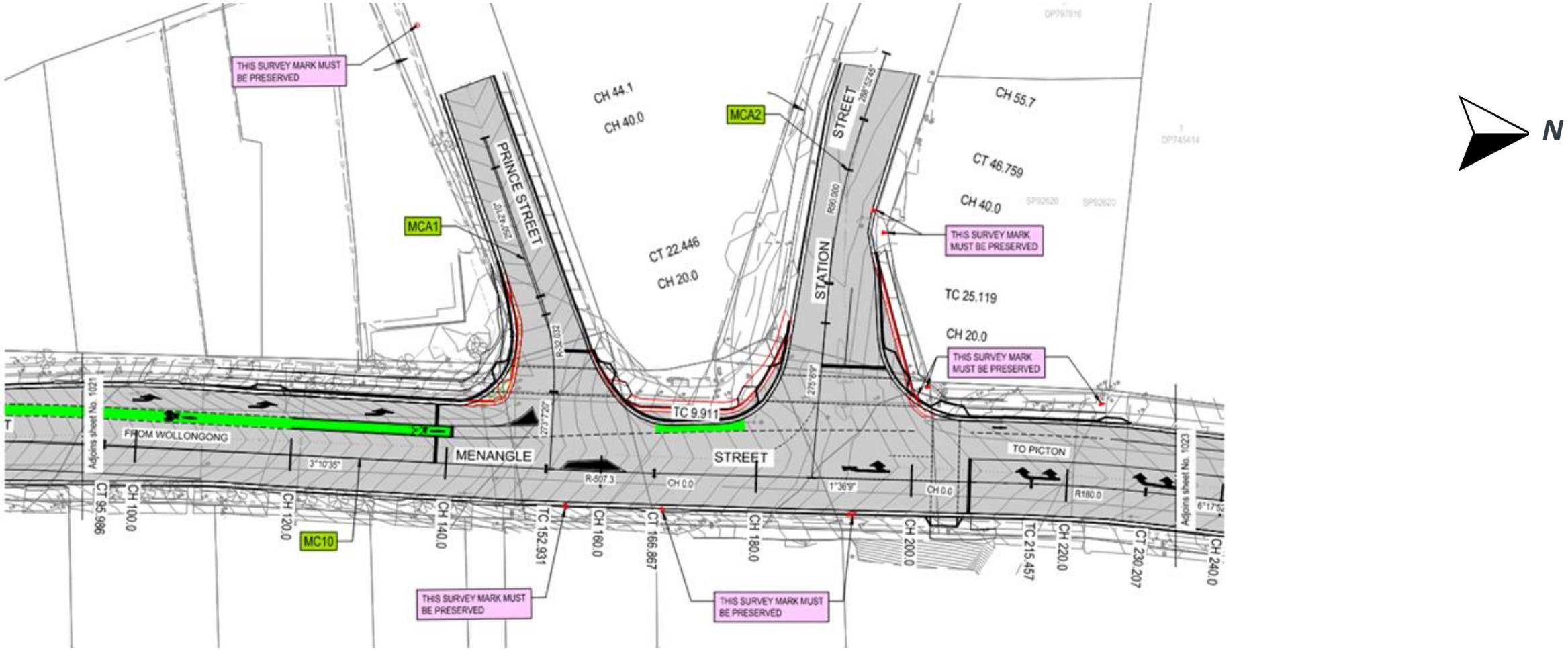
05 Roundabout

Roundabout Options

- no increase in performance compared to signals
- Poor pedestrian connectivity
- Larger footprint = greater impact to adjacent heritage items and aesthetics
- more Property acquisition and significantly more works = higher cost
- No better for on street parking
- Difficult Design required to address sight lines, speed and heavy vehicles
- Truck Noise impacts
- Smaller non-conforming permissible with lower traffic numbers, acceptable sight lines, speeds, permit heavy vehicles to go over centre island

05 Signalised intersection (with bicycle lane)



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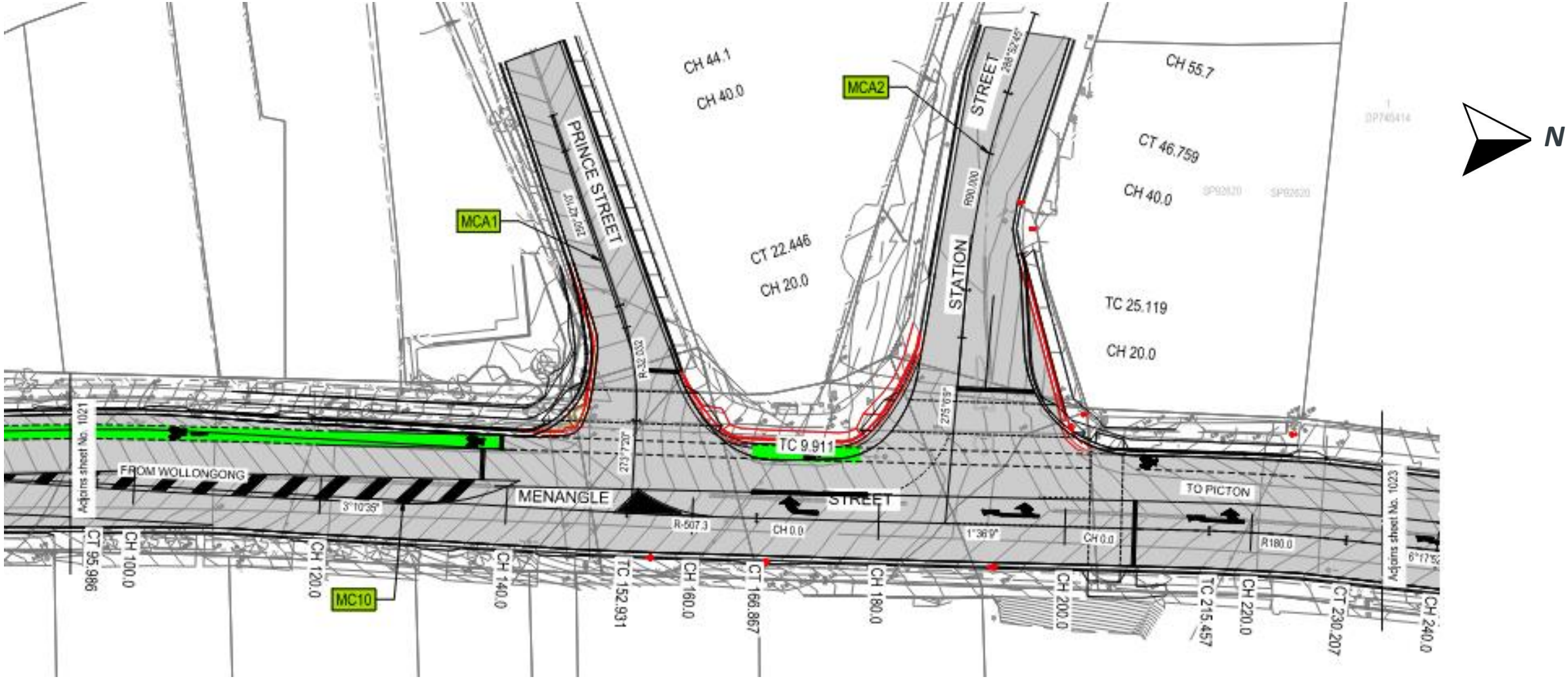

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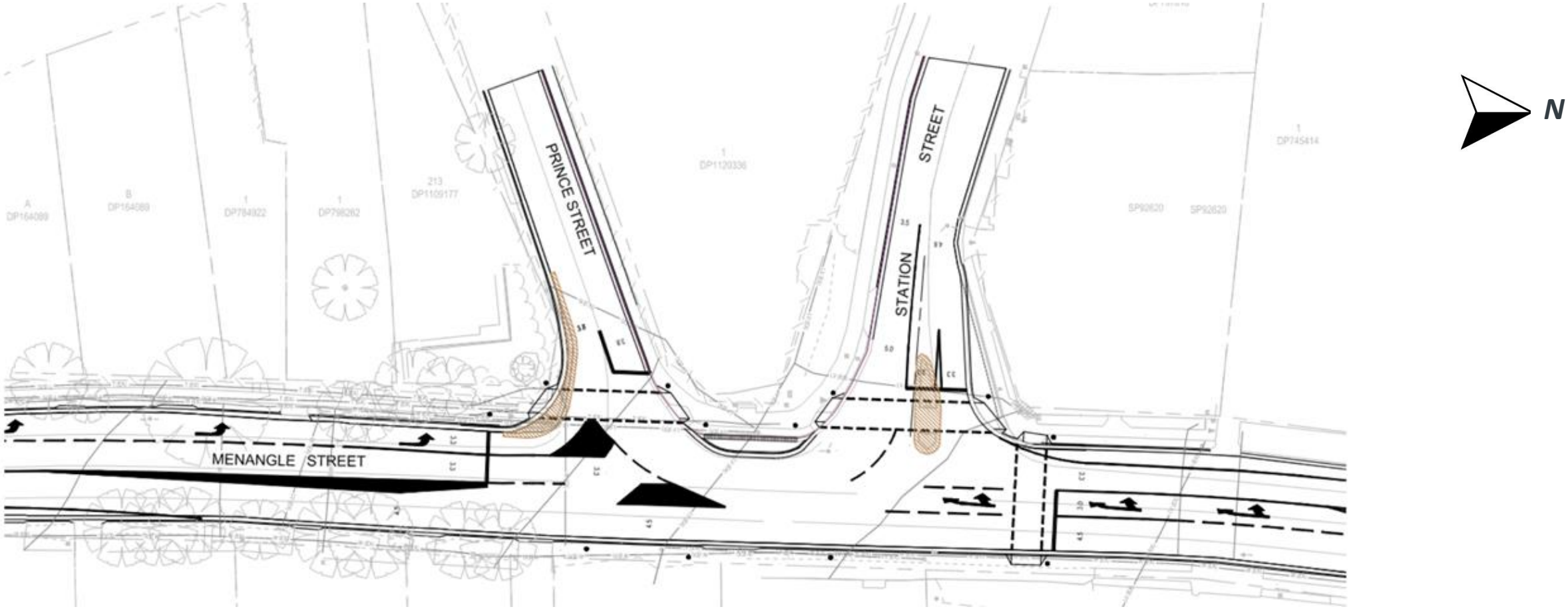

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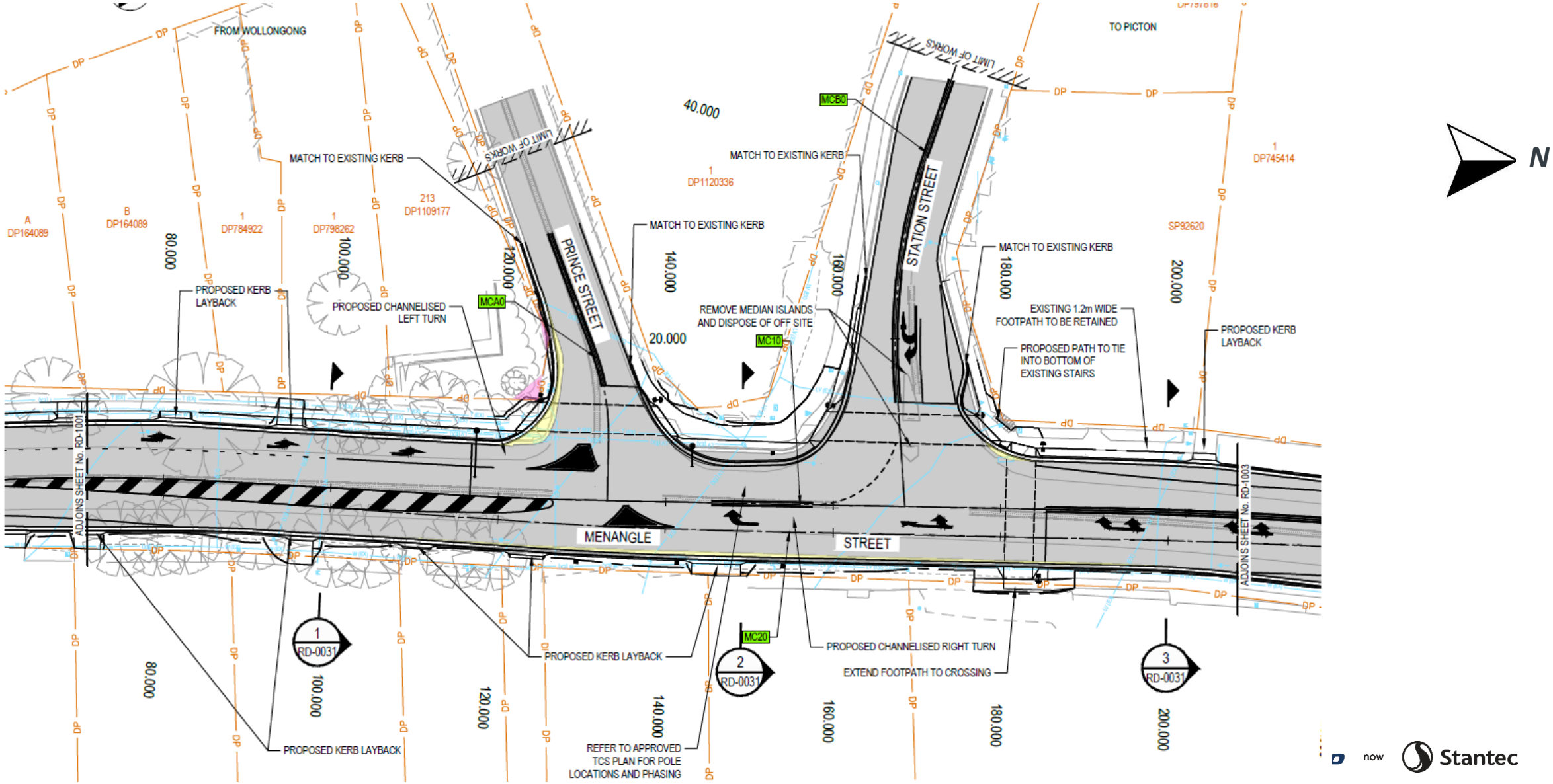

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05 Signalised intersection

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06 Break

07 Discussion of options

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08 Close and Next Steps

Thank you

For more information

Ivo Pais
Transport Advisory and Roads Manager
www.cardno.com

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