

26 November 2020

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Northrop
Level 2
3 Horwood Place
Parramatta NSW 2150

Attention: Stephanie Noble

RE: Penrith City Park, Penrith – Traffic Management Advice

Dear Stephanie,

Ason Group has been commissioned to provide traffic consultancy services in regard to the assessment of the proposed Penrith City Park development (the Proposal) east of Station Street, Penrith (the Site). The Site Location plan in **Figure 1** shows the proposed boundary of the park, located southeast of the intersection of Station Street with Henry Street and abutting Gaymark Lane to the east and the existing one-way westbound lane of Allen Place to the south.



Figure 1: Site Location

Within the proposed park area – along the southern boundary – is existing public Council car parking as well as sections of Allen Place. In order to facilitate the lands for the Park, the configuration of Allen Place is to be modified largely by upgrading existing – and providing new – streets adjacent to the southern and western boundaries of the proposed Park.

Following recent discussions, it is understood that the objective of Ason Group’s engagement is two-fold:

- **Item 01: Design Advice** – Initially to provide traffic and design advice to Northrop and JMD in relation to the proposed street modifications to ensure they comply with relevant standards and guidelines. This advice is intended to assist with the preparation of a final plan or Proposal.
- **Item 02: Traffic Management Plan** – Subsequently to prepare a Traffic Management Plan (TMP) for submission with a future application for the final Proposal. In turn, the objective of the TMP would be to demonstrate that any potential traffic impacts of the Proposal are acceptable.

This Transport Statement (TS) provides our initial design advice and comments in relation to Council’s draft concept plan issued to Ason Group via email of 6 May 2020 and shown in **Figure 2** and subsequent changes that have been agreed to.

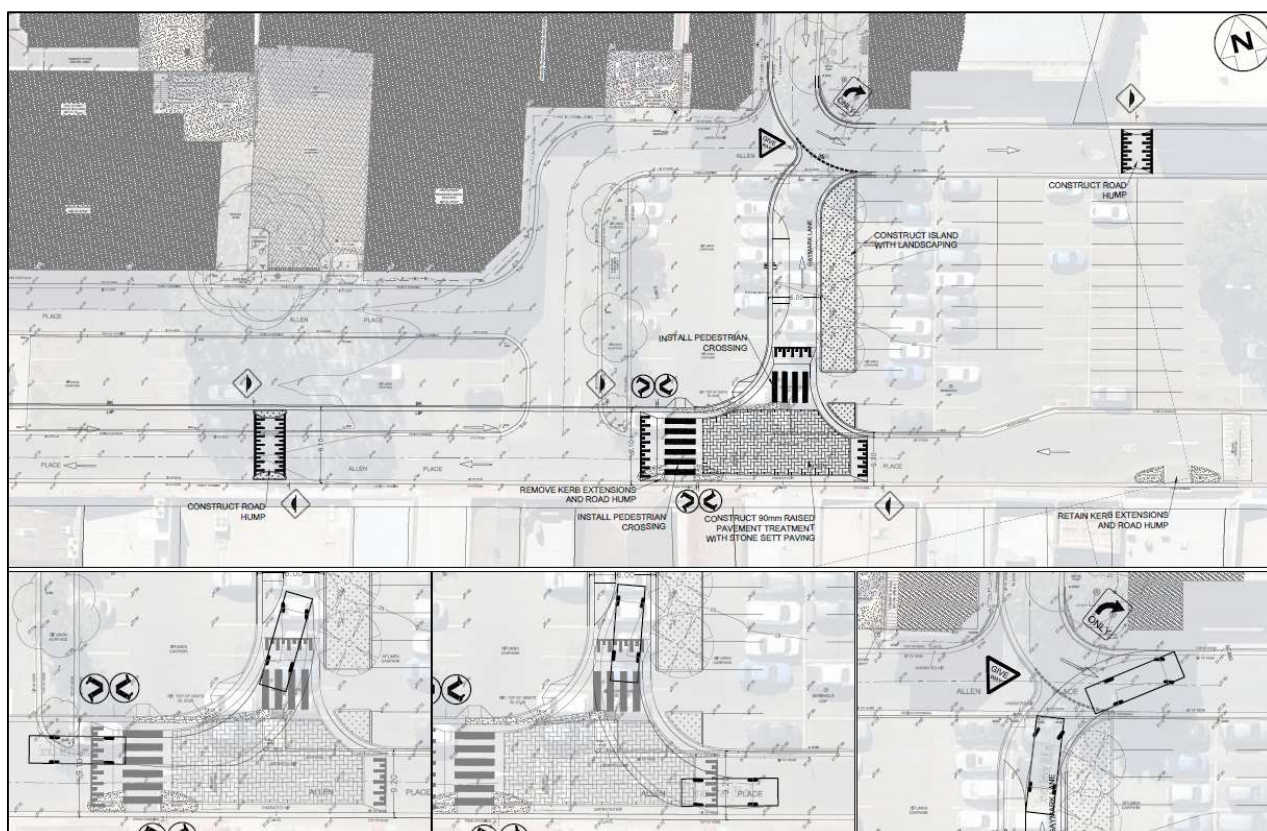


Figure 2: Proposed Draft Concept Design by Penrith City Council

Furthermore, an updated plan was submitted to Ason Group via email on 2 November 2020, shown in **Figure 3**. This TS also provides design advice based on the latest concept design.

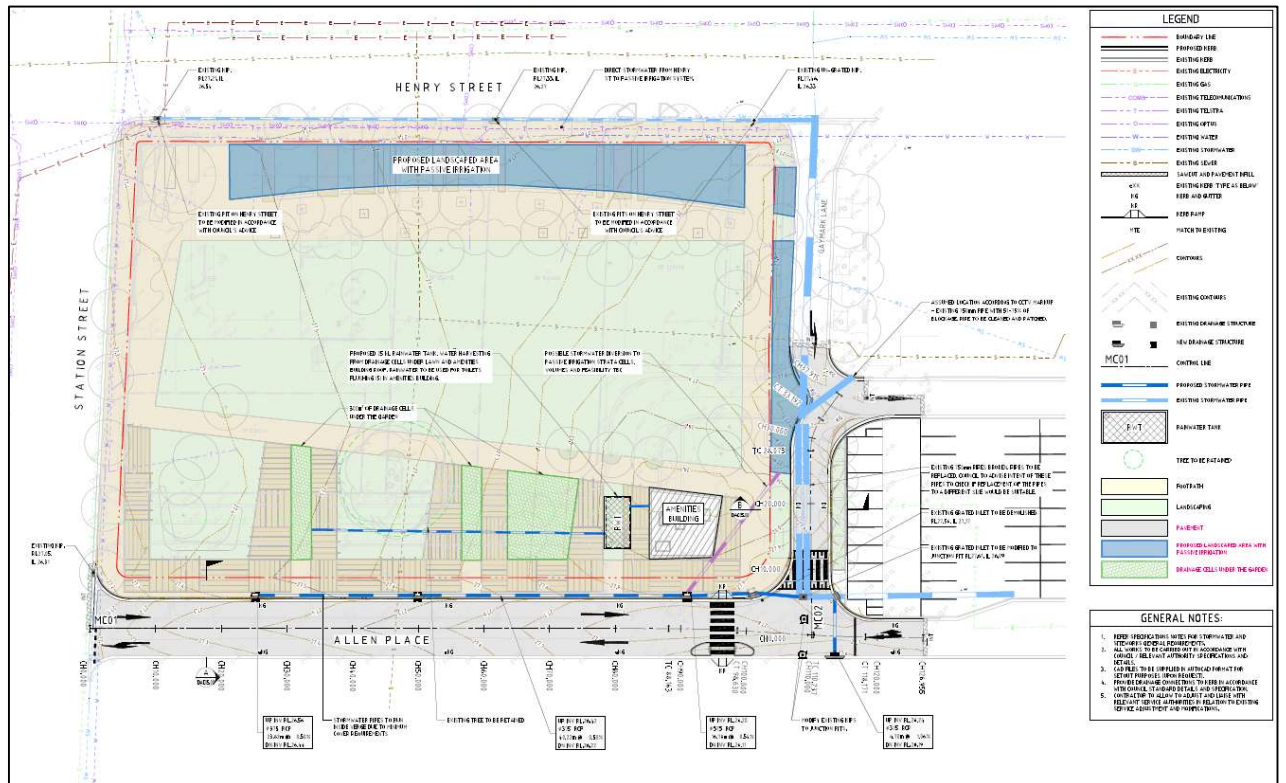


Figure 3: Updated Concept Design – 2 November 2020

We provide our advice and comments herewith.

Geometric Design of Proposed Roads

The Proposal seeks to provide a north-south street corridor along the eastern boundary of the proposed Park, consisting of the existing Gaymark Lane (which runs one-way southbound) and a new street running one-way northbound from the one-way westbound section of Allen Place. Furthermore, the Proposal seeks to convert the section of Allen Place (between Station Street and the new northbound street) from one-way to two-way traffic.

As per Council's plan, a width of 9.1 metres would be provided for Allen Place and 6.0 metres for new one-way northbound street. The proposed widths have been assessed against the requirements set out in Table C10.1 of Council's DCP, replicated below for reference:

Table C10.1: Road Configurations

Street/Road Type	Parking Lane Provision (m)	Width of Dedicated Travel Lanes – Both directions (m)	Verge widths (m)	Road Reserve (m)	Concrete Pathway 1.5m wide
Local	2 x 2.5	3	2 x 3.8	15.6	Both sides ⁽⁹⁾
Collector	2 x 2.5 ⁽⁴⁾	7 ⁽⁴⁾	2 x 4.8	21.6 ⁽⁴⁾	Both sides ⁽⁴⁾
Distributor	2 x 3.95 ⁽⁶⁾	7 ⁽⁶⁾	2 x 4.8	24.5	Both sides
Industrial	2 x 3.0 ⁽⁴⁾	7 ⁽⁴⁾	2 x 3.8	20.6 ⁽⁴⁾	Both sides ⁽⁴⁾
Rural	n/a	7	2 x 6.0 ⁽⁷⁾	19	n/a

Notes:

- 1) *It is not intended that this table address all road configurations. The characteristics and requirements for other roads will be assessed on merit as part of any development proposal. Special consideration will need to be given to other road configurations such as laneways, access ways, commercial precincts and roads fronting schools.*
- 2) *Road configurations shall allow for widening at horizontal curves and intersections to allow for the turning paths of design vehicles without encroachment upon nominal centrelines of the road network.*
- 3) *Additional widening will be required for the provision of specialist drainage functions within the road reserve.*
- 4) *Additional widening may be required on collector and industrial roads to provide for cyclists in accordance with the Australian Road Design Guidelines. Provision for cyclists will be dependent on Penrith City Council's cycleway strategy and the surrounding cycle network.*

Based on the controls stipulated in Council's DCP, both Allen Place and Gaymark Lane would fall under the category of a 'Local Road' which is defined as *a road or street used primarily for property access. Local roads include laneways, access ways and rural residential roads for lots typically less than or equal to 1 hectare.* With consideration to Table C10.1, the proposed widths are consistent with the requirements of Council's DCP.

Furthermore, having consideration for the traffic volume data provided by Council, which indicates that these streets accommodate relatively low volumes of traffic, the proposed widths are compliant with Austroads *Guide to Road Design – Part 3: Geometric Design*, which recommends widths of 3.0m – 3.3 metres per travel lane in low-speed urban environments with low truck movements (as is assumed to be the case).

Therefore, the proposed road widths of Allen Place and Gaymark Lane are supportable from a geometric design perspective. Moreover, there is opportunity to investigate the provision of other facilities such as bicycle lanes.

Traffic Volumes and Distributions

It is anticipated that there would be minimal influence by the Proposal on existing traffic flows and distributions on the local road network surrounding the Site. Noting that it is intended to remove car spaces and shops to facilitate the Proposal, it would be expected that would result in a minor reduction in traffic volumes.

Furthermore, the proposed design essentially relocates eastbound traffic on Allen Place south by approximately 15 metres. As such, the Proposal would not result in any reassignment of trips over the broader road network as vehicles would not be required to change their routes.

It is therefore expected that traffic flows and distributions would be consistent with existing operations and accordingly there would be no traffic impacts on the surrounding road network.

Pedestrian (Zebra) Crossing

Pedestrian (zebra) crossings are proposed as part of Council's concept plan, at the newly formed intersection of Allen Place and Gaymark Lane. It is proposed to install a zebra crossing on Gaymark Lane and another on Allen Place (western leg). It is important to note however, that Transport for New South Wales (TfNSW) specify warrants in the Supplement to Austroads Guide to Traffic Management Part 10 (Version 3.0) which need to be satisfied prior to installation of zebra crossings.

These warrants are a calculation based on pedestrian and vehicle numbers, as follows:

Normal warrant:

A pedestrian (zebra) crossing is warranted where:-

In each of three separate one hour periods in a typical day

(a) the pedestrian flow per hour (P) crossing the road is greater

than or equal to 30

AND

(b) the vehicular flow per hour (V) through the site is greater than or equal to 500

AND

(c) the product PV is greater than or equal to 60,000

Whilst pedestrian flow data is not available, and is expected to change as a result of the development of the Penrith City Park, the vehicle flows are expected to fall below and not meet the warrants which requires PV to be greater than or equal to 60,000 in each of three separate one hour periods in a typical day; therefore, TfNSW may not approve the proposed pedestrian crossings.

Notwithstanding, consideration has been given to the requirements of a 'Special Warrant,' as shown below:

Special Warrant:

In certain circumstances where:-

(a) $PV \geq 45,000$ (but less than 60,000)

AND

(b) $P \geq 30$

AND

(c) $V \geq 500$

then consideration can be given to a potential pedestrian crossing site. In such circumstances, council should justify why this location is in need of special consideration.

With consideration to the above, the requirements for a Special Warrant can be satisfied quantitatively.

Furthermore, Council are required to justify the reasoning behind the special consideration for this location. In this regard, the construction of a new recreational park should serve as an acceptable justification.

The provision of 2 x zebra crossing on Gaymark Lane and Allen Place (western leg) is therefore supportable from a traffic perspective.

Local Area Traffic Management

The following is a summary of traffic management items which are proposed as part of the preliminary signage plan:

1. Provide directional traffic signage, such as 'One Way', 'No Entry,' 'Right Only' and pavement arrows at strategic locations.
Reason: To establish a clear and understandable traffic flow network for all drivers.
2. Install 'Give Way' and 'Stop' signage and associated linemarking at relevant intersection locations.
Reason: To create a priority system between drivers to reduce confusion and improve traffic flow and safety.
3. Establish zebra crossings at the intersection of Allen Place and Gaymark Lane.
Reason: To facilitate safe on-road crossing movements for pedestrians.
4. Install 'Pedestrian Crossing' and 'Road Narrows' warning signage.
Reason: To provide adequate warning for all drivers on approach to pedestrians crossings to look out for pedestrians and pinch points.

With consideration to the above, refer to **Attachment 1** for the preliminary signage plan which presents the locations of all traffic management devices and signs recommended for the Proposal.

It is noted that all other parking restrictions are to remain as per existing with further details to be shown once detailed plans are finalised.

Schedule of Recommended Items

With reference to the proposed measures, **Table 1** presents a list of signs and items required to deliver the preliminary signage plan as discussed.

Table 1: Traffic Management Items Schedule

Item Type	RMS Reference No.
Stop	r1-1
Give Way	r1-2
One Way (left)	r2-2_l
One Way - repeater	r2-17
No Entry	r2-4n
All Traffic (right)	r2-14_r
Pedestrian Crossing	r3-1
Speed Hump	w5-10
20 km/h	w8-2
Speed Hump Ahead	w3-4
Next 30m	w8-17-2
Pavement marking (Stop, Give Way lines and directional arrows)	-

I trust the above is of assistance. Should you have any questions, or should you wish to discuss further, please contact the undersigned.

Yours sincerely,



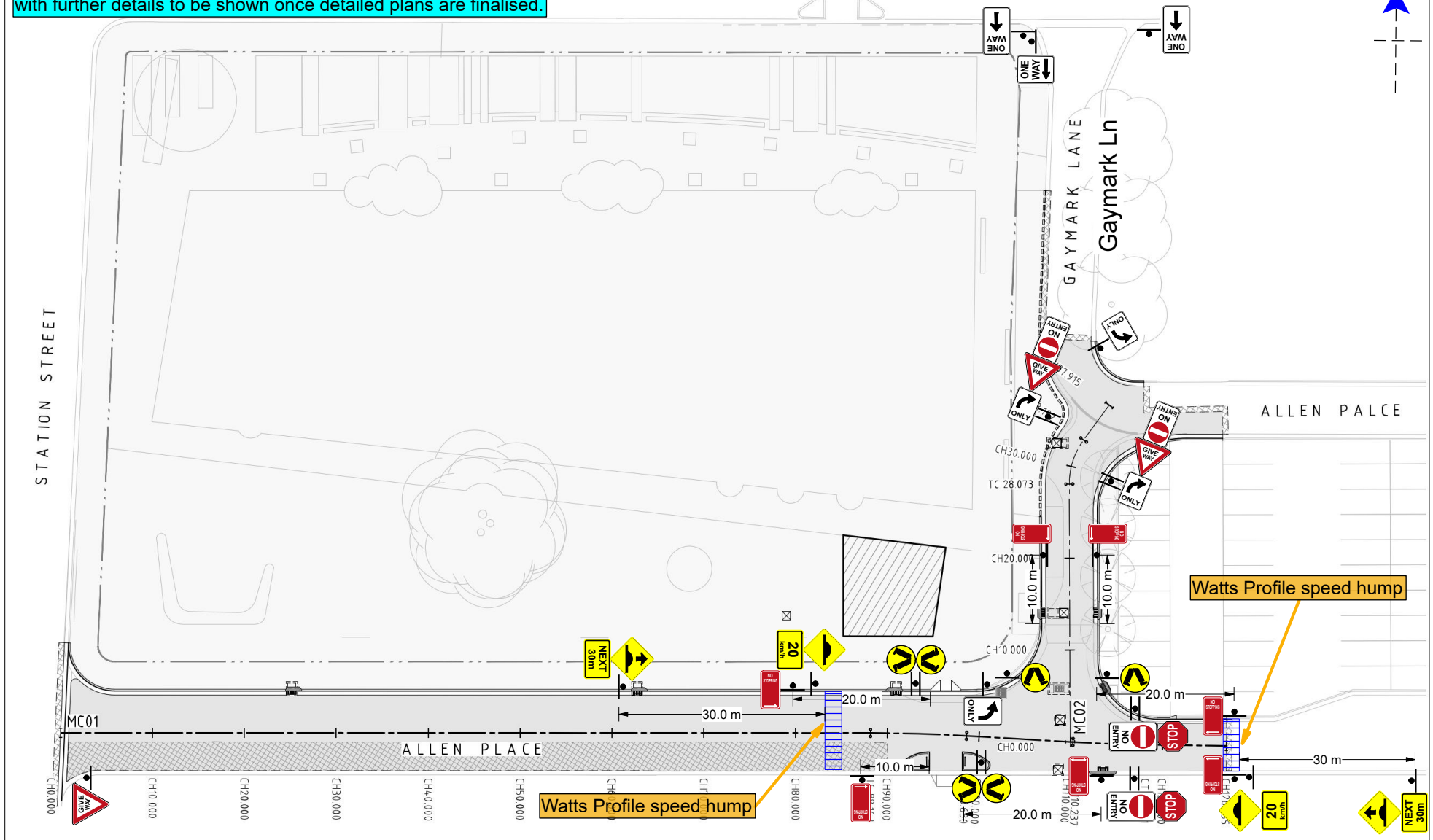
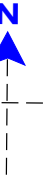
Dora Choi
Principal Traffic Management & Operations – Ason Group
Email: dora.choi@asongroup.com.au

Attachment(s): 1) Preliminary Signage Plan and Sign locations

Attachment 1 – Preliminary Signage Plan

Note: All other parking restrictions are to remain as per existing with further details to be shown once detailed plans are finalised.

HENRY STREET



	Closure: N/A	Project: Job No: 1311 Address: Allen Place, Penrith	Date: 26/11/2020	
	Client: Northrop		Drawing Title: P1311-TMP-01-Penrith City Park_Penrith	
			Drawing Number: AG.01	