ACT Government
Transport Canberra and City Services

FREEDOM OF INFORMATION COVERSHEET

The following information is provided pursuant to section 28 of the *Freedom of Information Act 2016*.

FOI reference: TCCSFOI 20-040

Information to be published	Status
1. Access application	Published
2. Decision notice and schedule	Published
3. Documents	Published
4. Additional information identified	n/a
5. Fees	n/a
6. Processing time (in working days)	30 days
7. Decision made by Ombudsman	n/a
8. Additional information identified by Ombudsman	n/a
9. Decision made by ACAT	n/a
10. Additional information identified by ACAT	n/a

ACT Government
Justice and Community Safety

Freedom of Information – Access Application Form

PRIVACY NOTICE

The personal information you supply on this form will only be used for the purpose of processing your request. Your application must include an email or postal address to which the respondent can send notices under the Act. If all or some of this information is not collected, the Justice and Community Safety (JACS) Directorate may not be able to communicate with you, inhibiting their obligations under the Act. This could mean the request cannot be dealt with. Your personal information will not be disclosed to a third party without your consent unless statutory obligations require otherwise.

The JACS Directorate Privacy Policy contains information on how you can access or seek to correct any of your personal information that is held by the JACS Directorate, as well as the process for lodging a complaint about an alleged breach of the *Information Privacy Act 2014*. The Privacy Policy can be found on the JACS Directorate website at http://www.justice.act.gov.au/privacy.

Applicant details	
I wish to make an access application to Justice and Community Safety Directorate under the *Freedom of Information Act 2016*.	
Name	[redacted]
Address (where notices relating to this request can be sent – either postal or electronic)	[redacted]
Telephone Contact Residential	
Telephone Contact Mobile	[redacted]
Email Contact	[redacted]

What documents are you requesting under the Act?

- To help the JACS Directorate process your request, please include enough detail in your application so that we can fully understand what government information you want.
- You may wish to include a statement about how the release of information is in the public interest.
- If your application is for access to your own personal information you must include evidence of your identity. If you are an agent acting for an applicant, please supply evidence of your authorisation and evidence of the identity of the applicant.
- If for reasons in section 30 of the Act is not compliant and your application cannot be processed, the JACS Directorate will take reasonable steps to assist you and give you reasonable time to amend your application if you wish.

ACT Government
Justice and Community Safety

• **I request all documents relating to Roads, Traffic and Safety Concerns around Canberra Grammar School from 2017 forward.** • **This includes any and all external and internal Safety Audits, Safety Reports, Traffic Reports, Assessments and Recommendations.** • **I request ACT Government plans and strategies, both past and future, to address the issues raised within any reports.** • **I request ACT Government Risk Assessment on the Reports/Audits and the Government Risk Mitigation strategies.** • **I request all communication regarding the Road Safety Concerns, including reports to the Minister.**	a copy of these documents sent to the above address **OR** to inspect these document

ACT Government
Justice and Community Safety

Fee Waiver

If you wish to apply for a fee waiver, the Act sets out a number of provisions to do so:

- The information being requested was previously publicly available but no longer is.
- The information being requested is of special benefit to the public (Identified by the Ombudsman under section 66 of the Act).
- The applicant is a concession card holder and demonstrates a material connection with the information requested (concession cards include a current health care or pensioner card issued under the *Social Security Act 1991*; a current pensioner concession card issued in relation to a pension under the *Veterans' Entitlements Act 1986* or the *Military Rehabilitation and Compensation Act 2004*; a current gold card; or a card prescribed by regulation).
- The applicant is a not-for-profit organisation and the application relates to the activities or purposes of the organisation.
- The applicant is a member of the Legislative Assembly.

The JACS Directorate must waive any fees for providing information if the information was not publicly available and the agency makes the information publicly available before or within 3 working days after giving it to the applicant.

Fee waiver application (fill in if applicable. Otherwise leave blank)

I would like to apply for a fee waiver because (state reason/s from the list above).

I am [redacted]. I am [redacted] the Canberra Grammar School Parents and Friends Association. We are a not for profit association whose role is to support the Canberra Grammar School Students and Families. Our key focus is improving the student life, including supporting student and community safety.

APPLICANTS SIGNATURE	DATE OF REQUEST
[redacted]	12/06/2020

ACT Government
Transport Canberra and City Services

Ms [redacted]

Dear Ms [redacted]

Freedom of information request: Reference 20-040

I refer to your application made under the *Freedom of Information Act 2016* (the FOI Act) received on 12 June 2020 in which you sought access to all documents relating to roads, traffic and safety concerns around Canberra Grammar School from 2017 forward, including:

- any external and internal Safety Audits, Safety Reports, Traffic Reports, Assessments and Recommendations;
- ACT Government plans and strategies, both past and future, to address the issues raised within any reports;
- ACT Government Risk Assessment on the Reports/Audits and the Government Risk Mitigation strategies;
- all communication regarding the Road Safety Concerns, including reports to the Minister.

I am an Information Officer appointed by the Director-General under section 18 of the Act to deal with access applications made under Part 5 of the Act.

I thank you for your patience in the processing of your application and for agreeing to an extension until 24 July 2020.

Decision on access
A search has now been completed and 30 documents (168 pages) have been identified that fall within the scope of your request. I note that you agreed to refine your scope to exclude any email documentation. I have, however, included emails where it provides background information to the documents that are an attachment to the email.

I have included a schedule of the documents at **Attachment A**.

I have decided to:

- grant partial access to nine documents; and
- grant full access to 21 documents.

I have refused access under section 35(1)(c) of the FOI Act to some of the information that you have requested. This is because it is contrary to the public interest to release.

My access decision is detailed further in the following statement of reasons.

Statement of Reasons
In reaching my access decision, I have taken the following into account:
The Act, in particular:

- Schedule 2

Factors favouring disclosure (Schedule 2)

- Section 2.1 (a)(iii) – inform the community of the government's operations, including the policies, guidelines and codes of conduct followed by the government in its dealings with members of the community;
- Section 2.1 (a)(i) - promote open discussion of public affairs and enhance the government's accountability;
- Section 2.1 (a)(iv) - ensure effective oversight of expenditure of public funds; and
- Section 2.1 (a)(viii) reveal the reason for a government decision and any background or contextual information that informed the decision.

Factors favouring non-disclosure (Schedule 2)

- Section 2.2 (a)(ii) – prejudice the protection of an individual's right to privacy or any other right under the *Human Rights Act 2004.*

As an Information Officer, I must decide where, on balance, public interest lies. As part of this process I must consider factors favouring disclosure and non-disclosure.

I consider that it is in the public interest to release most of this information. Release of the information is in the public interest as it informs the community of the government's operations which can affect members of the community and the process followed by government in relation to such matters. It also improves the Directorate's accountability for decisions it makes by being transparent in releasing the information.

The factors I considered relevant in relation to favouring non-disclosure is where information might prejudice the protection of an individual's right to privacy. I have decided that names and contact details of third parties should not be released because the release could identify an individual and would prejudice their right to privacy.

I am satisfied that the factors in favour of release can still be met while protecting the personal information of individuals involved. I find the protection of this information outweighs disclosure. I have decided that release of this information could prejudice their right to privacy under the *Human Rights Act 2004*.

Charges
I have decided to waive the fees as the number of pages that exceeds the fee free threshold is only marginal.

FREEDOM OF INFORMATION REQUEST SCHEDULE

Please be aware that under the *Freedom of Information Act 2016*, some of the information provided to you will be released to the public through the ACT Government's Open Access Scheme. The Open Access release status column of the table below indicates what documents are intended for release online through open access.

Personal information or business affairs information will not be made available under this policy. If you think the content of your request would contain such information, please inform the contact officer immediately.

Information about what is published on open access is available online at: https://www.tccs.act.gov.au/about-us/freedom_of_information/disclosure-log

File number	WHAT ARE THE PARAMETERS OF THE REQUEST
FOI – 20-040	**Road safety at Canberra Grammar School**

Ref No	No of Folios	Description	Date	Status	Reason for non-release or deferral	Open Access release status
1	**1-9**	Community path request Reference CP 17-03-14	2017	Full access	N/A	Documents to be published
2	**10-18**	Community path request Reference CP 17-03-15	2017	Full access	N/A	
3	**19-26**	Community Path Request Reference CP 17-03-16	2017	Full access	N/A	
4	**27-34**	Community Path Request Reference CP 17-03-17	2017	Full access	N/A	
5	**35-38**	Email and attachment (Map and site observations) Email - Subject – Canberra Grammar School – Site visit observations and highlighted concerns Attachment 1 – Map	07 April 2017	Full access	N/A	

		Attachment 2 Site observations				
6	**39**	Traffic Control Devices	18 March 2018	Full access	N/A	
7	**40-41**	Ministerial response – Speed detecting sign trial	11 April 2018 (signed)	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii) Prejudice the Protection of an Individual's Right to Privacy	
8	**42- 44**	Email and attachments Subject – Canberra Grammar Attachment 1 – Monaro Crescent Improvements	20 February 2018	Full access	N/A	
9	**45-53**	Email Subject – Canberra Grammar Attachment – Action Plan	27 February 2018	Full access	N/A	
10	**54-63**	Functional Brief	1 March 2018	Full access	N/A	
11	**64-72**	Email and attachments Email subject – Canberra Grammar Attachment – Canberra Grammar Action Plan	6 March 2018	Full access	N/A	
12	**73**	Ministerial response	10 March 2018	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii) Prejudice the Protection of an Individual's Right to Privacy	
13	**74**	Ministerial response	15 March 2018	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii)	

					Prejudice the Protection of an Individual's Right to Privacy	
14	**75-83**	Alexander Street Footpath Red Hill site 1	20 May 2018	Full access	N/A	
15	**84-89**	Alexander Street Footpath Red Hill Site 2	20 May 2018	Full access	N/A	
16	**90**	Ministerial response	23 July 2018	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii) Prejudice the Protection of an Individual's Right to Privacy	
17	**91**	Traffic Speed Survey results	01 August 2018 3 May 2018	Full access	N/A	
18	**92**	Traffic control Devices – Alexander Street Red Hill	13 September 2018	Full access	N/A	
19	**93 -96**	TCCS Advisory Note - Canberra Grammar School Attachment A – Map of works	24 October 2018 – signed by Minister	Full access	N/A	
20	**97**	Draft letter to the residents	February 2019	Full access	N/A	
21	**98 - 102**	TCCS Advisory Note Attachment A – Letter to the Residents - Road and Path Improvements Red Hill Attachment B – Parking Improvements	26 March 2019	Full access	N/A	
22	**103-132**	Flinders Way, Red Hill – Safe Systems Infrastructure Assessment – TCCS Final	21 August 2019	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii)	

					Prejudice the Protection of an Individual's Right to Privacy	
23	**133-37**	Email and attachment Subject – Alexander Street children's crossing Attachment – internal brief – relation of the existing children's crossing on Alexander Street	4 November 2019	Full access	N/A	
24	**138- 141**	Email and attachment Email subject – request for dot points pls – request for meeting re Canberra Grammar road safety Attachment – Dot Point Request – Canberra Grammar Road Safety	6 November 2019	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii) Prejudice the Protection of an Individual's Right to Privacy	
25	**142- 147**	Assessment Report Community Path – Alexander Street, Red Hill Reference CP 20/02/36	2020	Full access	N/A	
26	**148-152**	Email and attachments Email subject – For noting – email to MO on Alexander Street children's crossing Attachment 1 – Map of works Attachment 2 – internal brief – relocation of the existing children's crossing on Alexander Street	17 February 2020	Full access	N/A	
27	**153-155**	Question Time Brief and attachment Canberra Grammar School incident Attachment A – Map of school improvement works	18 February 2020	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii) Prejudice the Protection of an Individual's Right to Privacy	

28	**156-163**	Brief Request – 2020/3573 Brief and attachments Attachment A – Letter to the residents	26 February 2020	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii) Prejudice the Protection of an Individual's Right to Privacy	
29	**164-166**	Question Time Brief – Canberra Grammar School Incident and attachment Attachment A – Map of school improvement works	25 March 2020	Partial access	Information Privacy Act 2014 Schedule 2, Section 2.2 (a)(ii) Prejudice the Protection of an Individual's Right to Privacy	
30	**167-168**	Question Time Brief – School Traffic Management	15 June 2020	Full access	N/A	

Online publishing - disclosure log
Under section 28 of the Act, TCCS maintains an online record of access applications called a disclosure log. Your original access application, my decision and documents released to you will be published. Personal information, such as your name and contact details will be removed prior to publication.

Ombudsman review
My decision on your access request is a reviewable decision as identified in Schedule 3 of the Act. You have the right to seek Ombudsman review of this outcome under section 73 of the Act within 20 working days from the day that my decision is published in TCCS' disclosure log or a longer period allowed by the Ombudsman.

If you wish to request a review of my decision, you may write to the Ombudsman at:

The ACT Ombudsman
GPO Box 442
CANBERRA ACT 2601

Via email: ombudsman@ombudsman.gov.au

ACT Civil and Administrative Tribunal (ACAT) review
Under section 84 of the Act, if a decision is made under section 82(1) on an Ombudsman review, you may apply to the ACAT for review of the Ombudsman decision.

Further information may be obtained from ACAT at:

ACT Civil and Administrative Tribunal
Level 4, 1 Moore Street
GPO Box 370
CANBERRA CITY ACT 2601
Telephone: (02) 6207 1740
www.acat.act.gov.au

If you have any questions concerning the directorate's processing of your request, or would like further information, please contact the directorate's FOI Coordinator on 6205 5408 or email tccs.foi@act.gov.au.

Yours sincerely

Cherie Hughes
Information Officer

23 July 2020

Community Path Request

Location: Alexander Street, Woden Valley
IAMS Reference: TBC
Enquirer: Canberra Grammar School – via Andrew Crichton
Assessed by: Heather Rae

NOTE – Extend path full length of Alexander St amend 09 March 2018. – Length 410m

Request to review, upgrade and provide paths in the surrounding school environment that have been raised in conjunction with some traffic safety concerns. This is location 1 of 5.

Request for community path along Alexander Street, located opposite the school crossing, by Penrhyn Street. [need site visit to confirm school crossing location, recent maps unable to confirm location]
Path request location is from Penrhyn Street down to Mugga Way, there are existing community paths located at this location.

Approaching the school, after Fishburn Street, sight distance is compromised around the right hand corner. Vegetation should be trimmed to improve sight distance around the corner. Residents appear to have used the verge for garden area, which hasn't been maintained to a suitable level.

The area has a number of trees along Alexander Street may obstruct any potential community path.

Desktop study indicates existing footpath has been recently upgraded with works associated with on site bus and car parking recently installed.

This is the second request for a path at this location, the first being CP 16-04-10.

The proposed path would be made of concrete and be approximately 92m long and 1.5m wide. Alexander Street is classified as an access street and has a speed limit of 50 km/h or under.

Photos

Figure 1 – Aerial view of Alexander Street and proposed community path (in red).

Figure 2 – Streetview – start of proposed path near intersection of Penrhyn Street

Figure 3 – Streetview – proposed path along Alexander Street

Figure 4 – Streetview – proposed path along Alexander Street by Charlotte Street

Figure 4 – Streetview – end of proposed path along Alexander Street and Mugga Way

Bus Routes

Weekday Service Route 4 – along Golden Grove

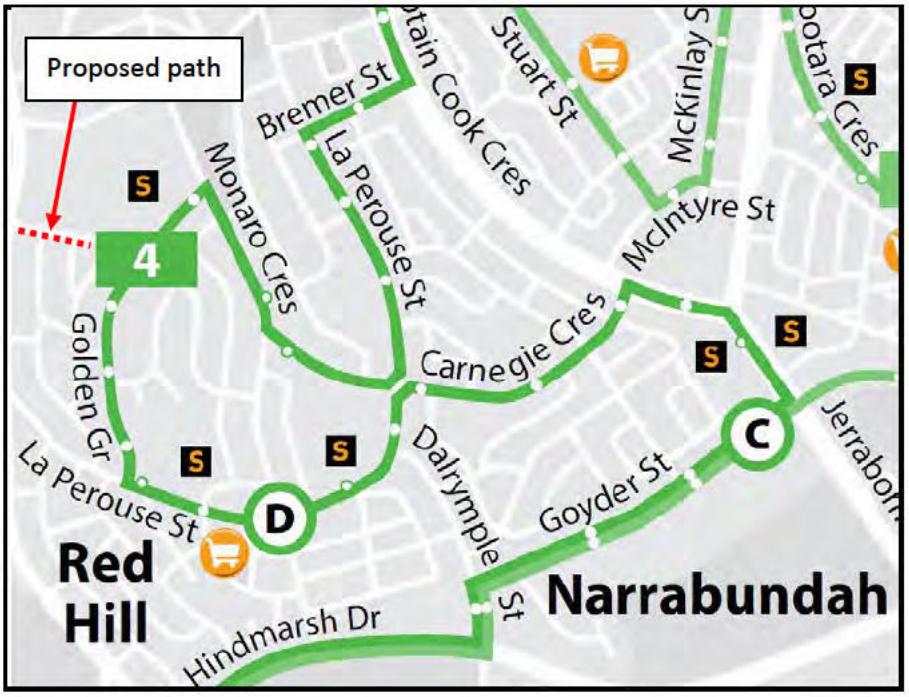

Figure 5 – Action Route 4 Map

Weekend Service Route 935 – along Golden Grove

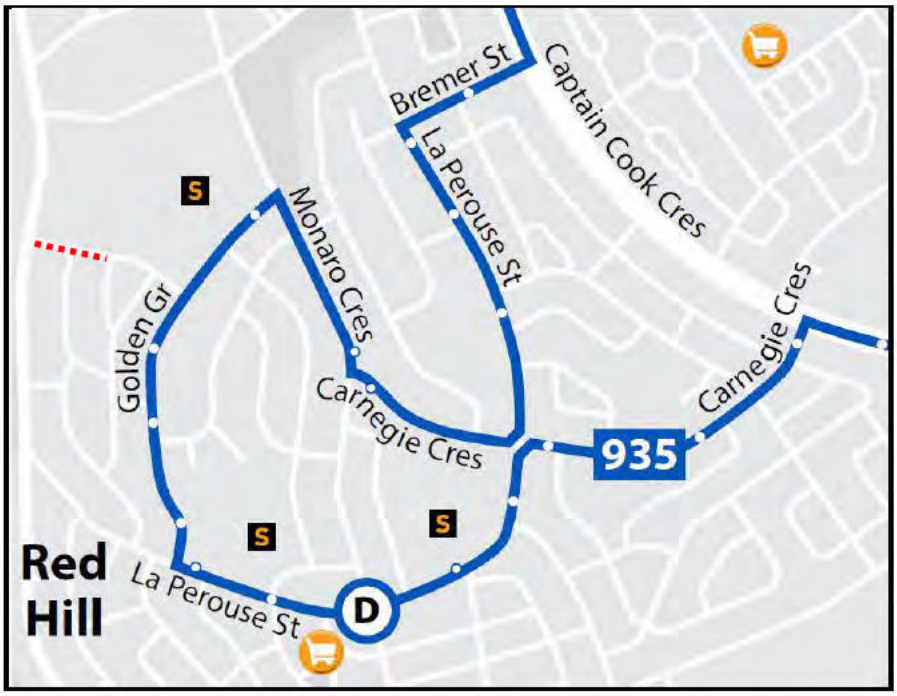

Figure 6 – Action Route 935 Map

Bus Stop Locations

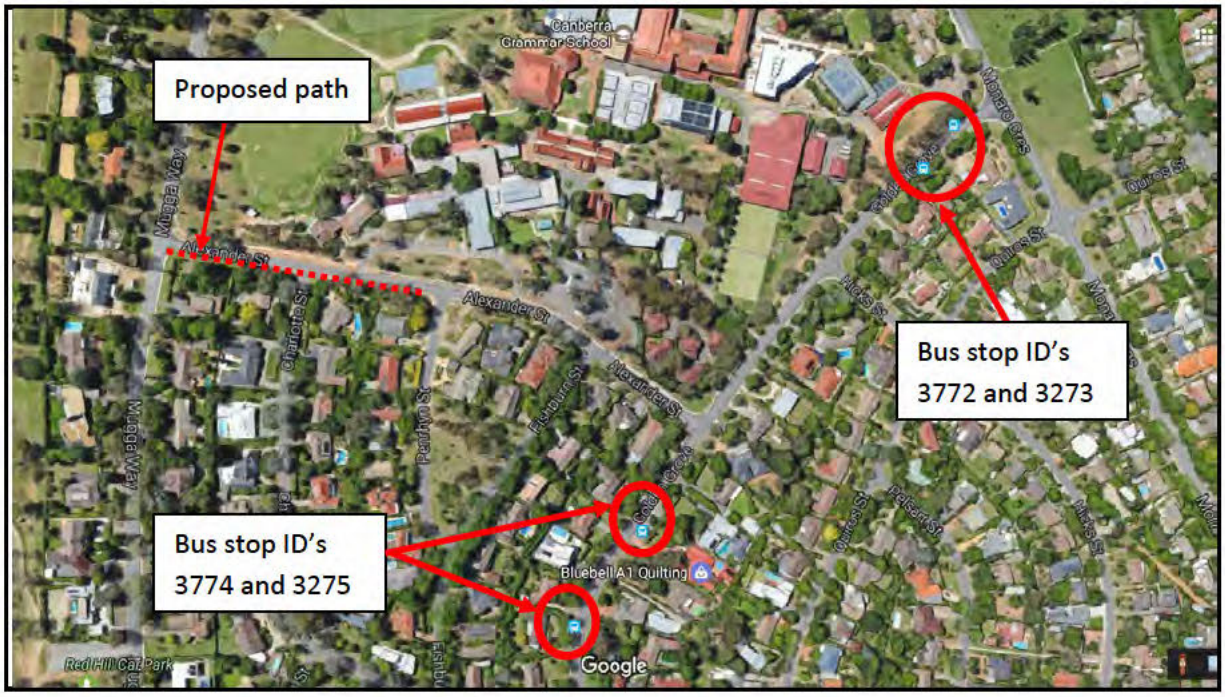

Figure 7 – Google - Bus Stops and Aerial View of proposed path and surrounding area.

Bus Stop ID description and distance to proposed path

3272 – Golden Grove before Monaro Crescent – 495m to start of proposed path

3273 – Golden Grove opposite SBG School – 375m to start of proposed path

3274 – Golden Grove after Friendship Street – 300m to start of proposed path

3275 – Golden Grove after Hicks Street – 475m to start of proposed path

ACTive Travel Practitioners Tool

There are no proposed active travel routes within the study area.

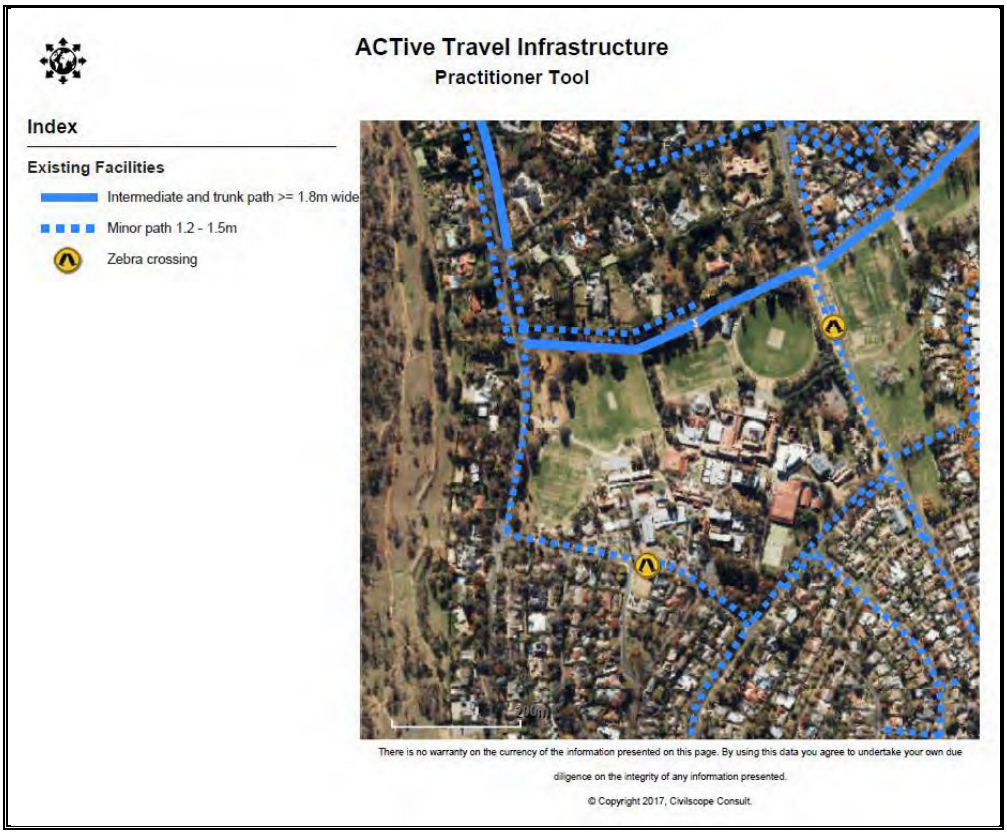

Figure 8 – ACTive Travel – Existing path network

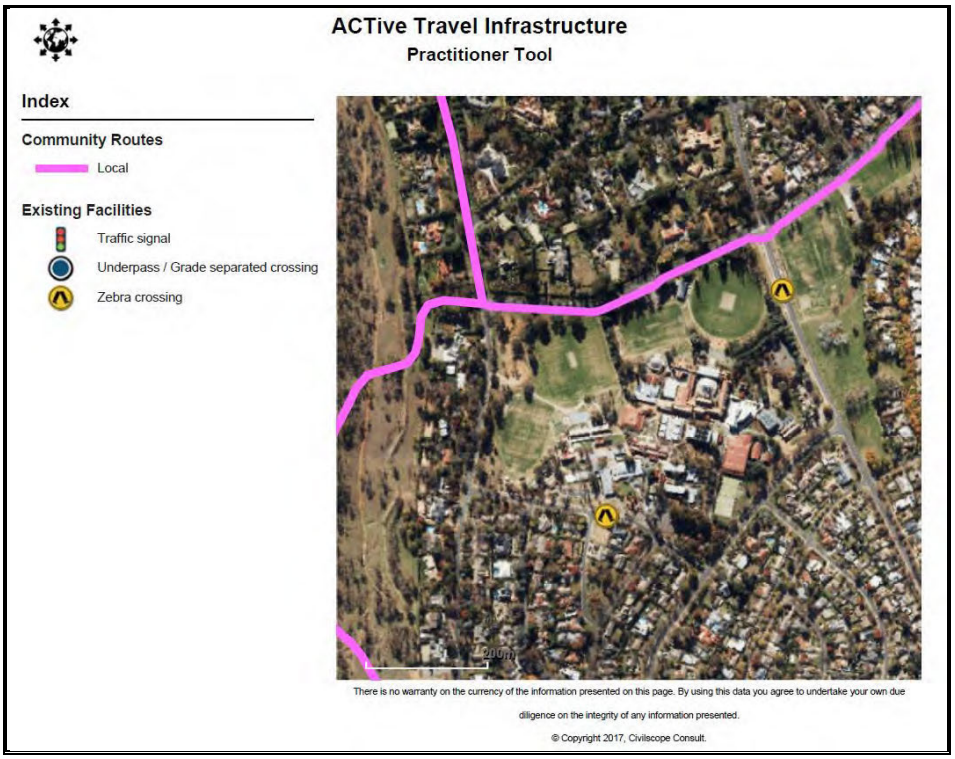

Figure 9 – ACTive Travel – Existing Community Local Path Network

GIS Map

Figure 11 – Updated GIS Map recording request

ACTMapi - Community Interests Map

Figure 12 – Community Interests

Community Interests within 400m radius of the proposed paths include:

- Child care x 1
- Preschool x1
- Primary School x1
- High School x1

Summary Comments

Connectivity in Network:
Recent works associated with the Canberra Grammar school bus stop, car park and drop-off area appear to have partly constructed a path on the southern verge of Alexander Street. The proposed path would continue this path westwards towards Mugga Way.
The path would then connect into the existing path on Mugga Way.

Community:
The data from ACTMapi shows a small number of community interests within the 400m radius of the proposed paths. The proposed path extension is based within a low density urban area.

Public Transport:
The proposed path extension is within 300m to the existing bus network.

Safety:
The proposed path would provide a missing link between the school crossing and Mugga Way.
The kerb on Alexander Street is a layback kerb and has restricted parking at the morning and afternoon peak school times. Outside of this time, parking is permitted, from the desktop study; parking appears to have encroached onto the verge.
The layback kerb offers no protection to users on the verge and desktop study indicates part of the verge would be used for parking, construction of the path would need to review/consider the kerb treatment to restrict vehicles from encroaching onto the path location.

Constructability:
The construction of the path would likely impact on various trees and large shrubs through some sections of the alignment.
The path alignment could be located to be clear of trees; however this would need to be reviewed in relation to the parking and encroachment noted above. Where parking was prominent and encroaching onto the verge, consideration to providing an upright kerb could be included at these locations to allow the construction of the path.

Community Path Request

Location: Mugga Way, Woden Valley
IAMS Reference: TBC
Enquirer: Canberra Grammar School – via Andrew Crichton
Assessed by: Heather Rae

Request to review, upgrade and provide paths in the surrounding school environment that have been raised in conjunction with some traffic safety concerns. This is location 2 of 5.

Request for a community path to be continued long the western side of Mugga Way, behind the intersection with Flinders Way and create a new kerb ramp further away from the intersection.

The current design has the kerb ramp directing users into the middle of the intersection and into the area of the turning vehicle. The kerb ramp is to link to the existing off-road share path.

Path request location is from the intersection of Mugga Way and Flinders Way, down the western verge to a new safe crossing point.

The existing path is confined by an existing power pole on one side, with an existing tree on the other. The existing path appears only to be 1.2m wide. The area also provides access to the Red Hill Reserve, no formal vehicle crossing is provided, with visible wear marks of vehicles crossing the verge for access.

The proposed path would be made of concrete and be approximately 40 long and 1.5m wide. Mugga Way is classified as a Major Collector and has a speed limit of 60 km/h or under.

Photos

Figure 1 – Aerial view of Mugga Way and proposed community path (in red).

Figure 2 – Streetview – Proposed path near intersection of Flinders Way

Figure 3 – Streetview – Proposed path near intersection of Flinders Way

Figure 4 – Streetview – existing kerb ramp and proposed path

Figure 5 – Streetview – existing kerb ramp directs users into the intersection and into the area of turning cars

Bus Routes

Weekday Service Route 4 – nearest route

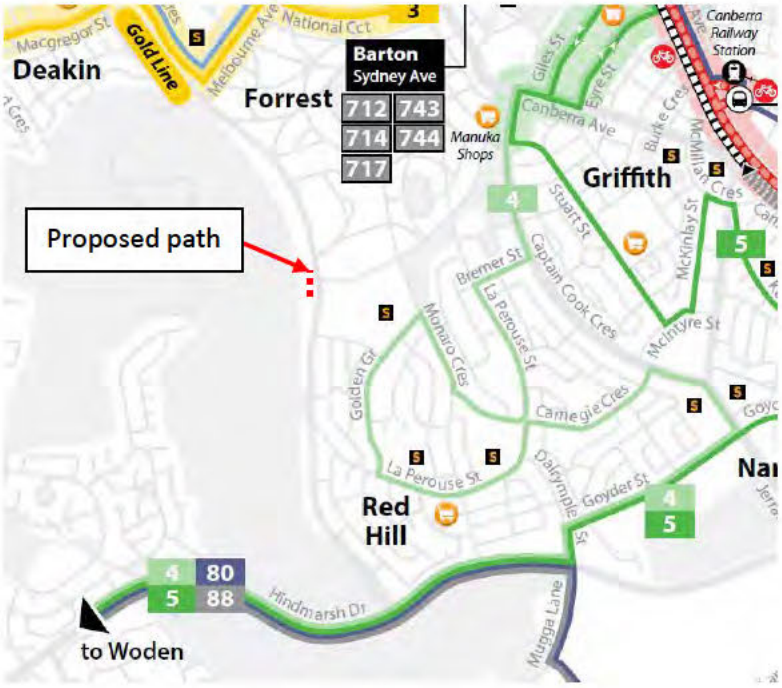

Figure 5 – Action Route 4 Map

Weekend Service Route 935 – along Golden Grove

Figure 6 – Action Route 935 Map

Bus Stop Locations

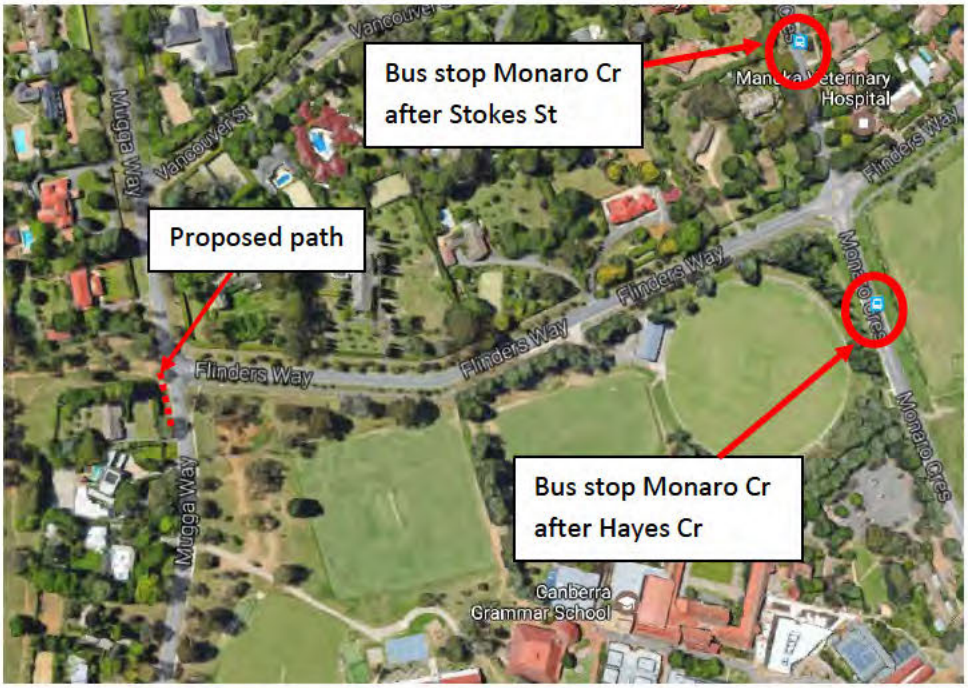

Figure 7 – Google - Bus Stops and Aerial View of proposed path and surrounding area.

Bus Stop ID description and distance to proposed path
Monaro Crescent after Hayes Crescent – 570m to proposed path

Monaro Crescent after Stokes Crescent – 620 to proposed path

ACTive Travel Practitioners Tool

There are no proposed active travel routes within the study area.

Figure 8 – ACTive Travel – Existing path network

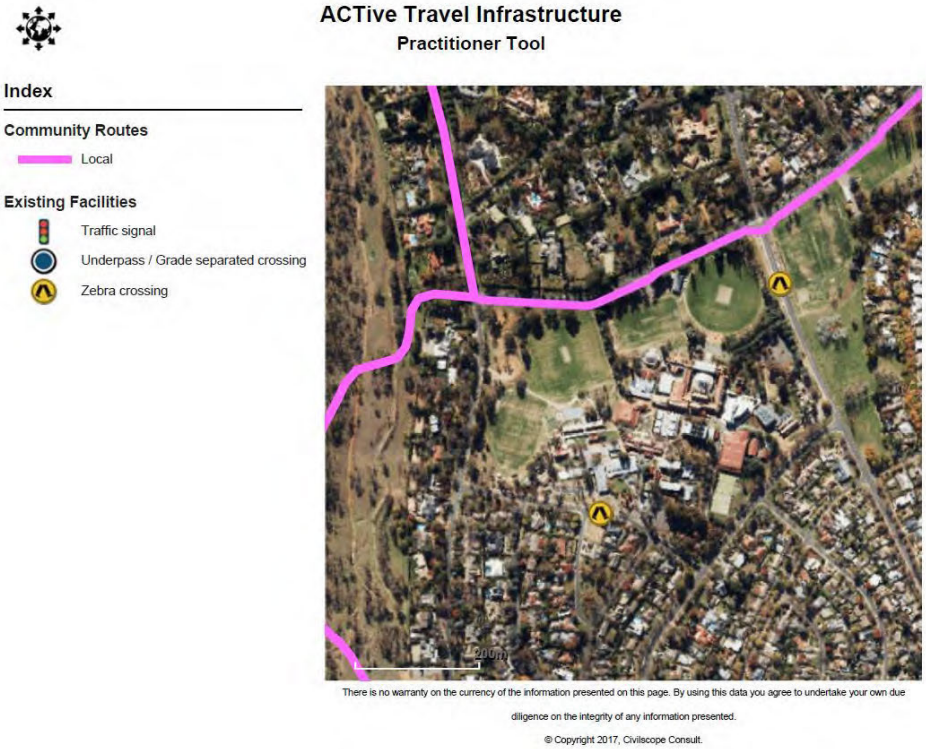

Figure 9 – ACTive Travel – Existing Community Local Path Network

GIS Map

Figure 10 – Updated GIS Map recording request

ACTMapi - Community Interests Map

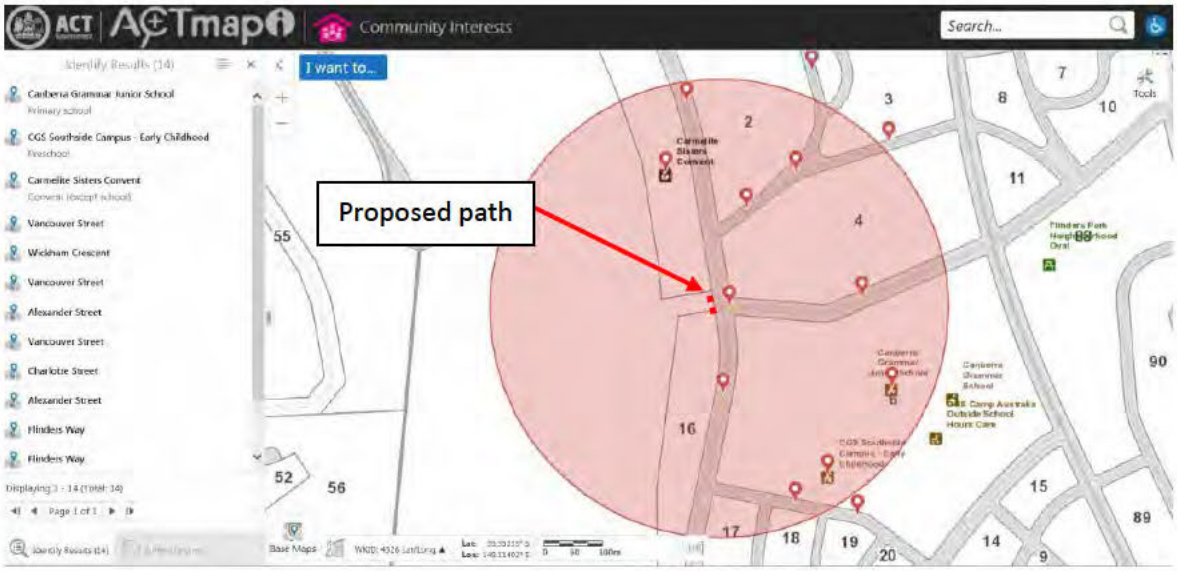

Figure 11 – Community Interests

Summary Comments

Connectivity in Network:
The existing path network terminates at the proposed path location. The kerb ramp directs users to cross the street and link with the path on the opposite verge.
The extension of the existing path would move users away from the intersection and direct user to a new kerb ramp that would be located in a safer environment to allow for crossing of Mugga Way.

Community:
The data from ACTMapi shows a small number of community interests within the 400m radius of the proposed paths. The proposed path extension is based within a low density urban area.

Public Transport:
The proposed path extension is between 570 and 620m to the existing bus network.

Safety:
The proposed path extension is considered a safer outcome than the current design for the safe crossing of Mugga Way.
The existing layout directs users into the intersection, with the opposite kerb ramp located within the holding area of a turning vehicle.
With Mugga Way identified as a major collector with speeds up to 60km/hr, the current configuration is not safe for users to cross the road.
The close proximity of the Red Hill Nature Reserve, off-road shared path network, residential area, and school, the crossing would be expected to attract a high volume of users.
Desire lines to cross Mugga Way further from the intersection appear to occur from observations using Google Maps, Street View.

The path termination and location of kerb ramps highlights a very high hazard environment.

Constructability:
The extension of the path would likely impact on an existing tree, as the current path manoeuvres between the tree and an overhead power pole.
Continuing the path further away from the intersection could impact on a second tree.
A suitable alignment to avoid the second tree would place the path at the back of verge, future growth of the tree (appears similar to adjacent trees) could impact on the surface of the extended path.
Access to the Red Hill Nature Reserve is also at this location, no vehicle crossing is provided. An visual wear area is present on the verge, indicating vehicles access this area by driving over the kerb. Vehicles entering the verge at this location are fully within the intersection and considered an unsafe manoeuvre.
Google Street View shows vehicles parked within this area, likely used as a parking area to use the Red Hill Nature Reserve.

Community Path Request

Location: Monaro Crescent, Woden Valley
IAMS Reference: TBC
Enquirer: Canberra Grammar School – via Andrew Crichton
Assessed by: Heather Rae

Request to review, upgrade and provide paths in the surrounding school environment that have been raised in conjunction with some traffic safety concerns. This is location 3 of 5.

Request for a community path on the eastern side of Monaro Crescent to connect the existing bus stop, school crossing to the existing off-road shared path at Flinders Way, there is currently no path at this location.
The provision of a path at this location would allow users to use the school crossing to cross Monaro Crescent and then link with the off-road network at Flinders Way.

The proposed path would be made of concrete and be approximately 60 long and 1.5m wide.
Monaro Crescent is classified as a Minor Collector and has a speed limit of up to 50 km/h.

Photos

Figure 1 – Aerial view of Monaro Crescent and proposed community path (in red).

Figure 2 – Streetview – Proposed path by existing school crossing and bus stop on Monaro Crescent

Figure 3 – Streetview – Proposed path after bus stop on Monaro Crescent

Figure 4 – Streetview – Proposed path along Monaro Crescent connecting into the existing off-road shared path on Flinders Way

Figure 5 – Streetview – Existing off-road shared path on Flinders Way

Bus Routes

Weekday Service Route 4 – nearest route

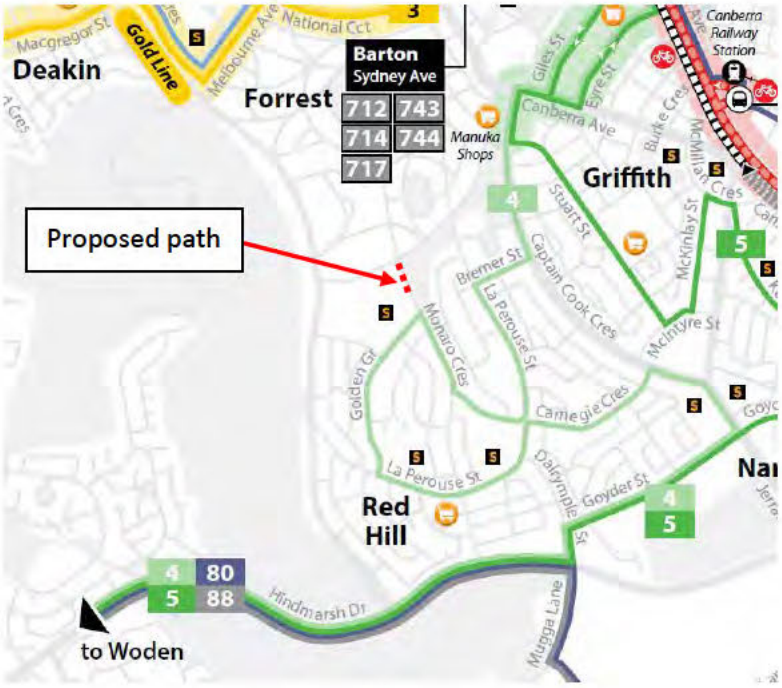

Figure 5 – Action Route 4 Map

Weekend Service Route 935 – along Golden Grove and Monaro Crescent

Figure 6 – Action Route 935 Map

Bus Stop Location

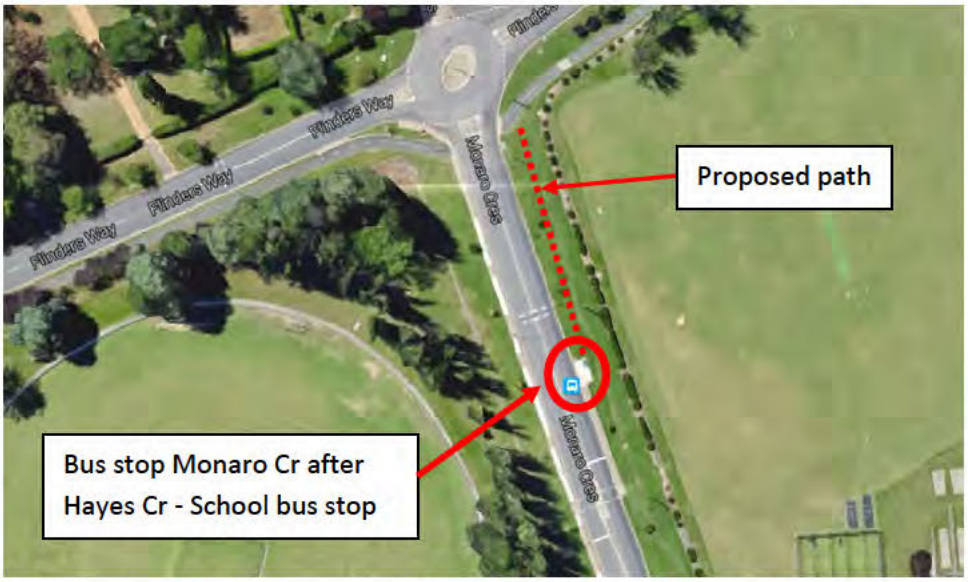

Figure 7 – Google - Bus Stop and Aerial View of proposed path and surrounding area.

ACTive Travel Practitioners Tool

There are no proposed active travel routes within the study area.

Figure 8 – ACTive Travel – Existing path network

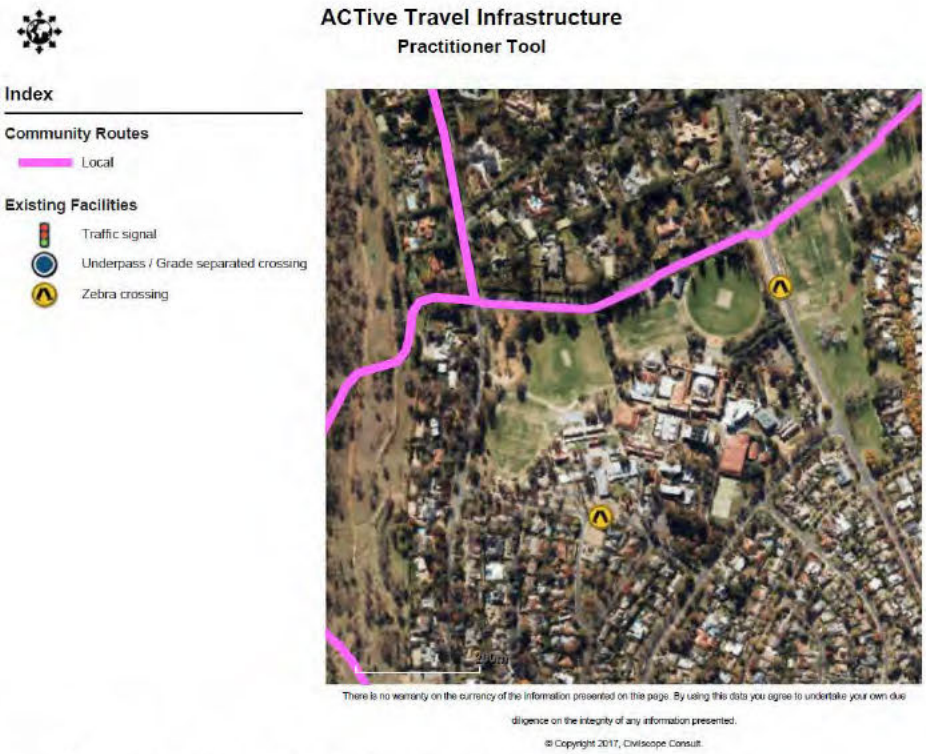

Figure 9 – ACTive Travel – Existing Community Local Path Network

GIS Map

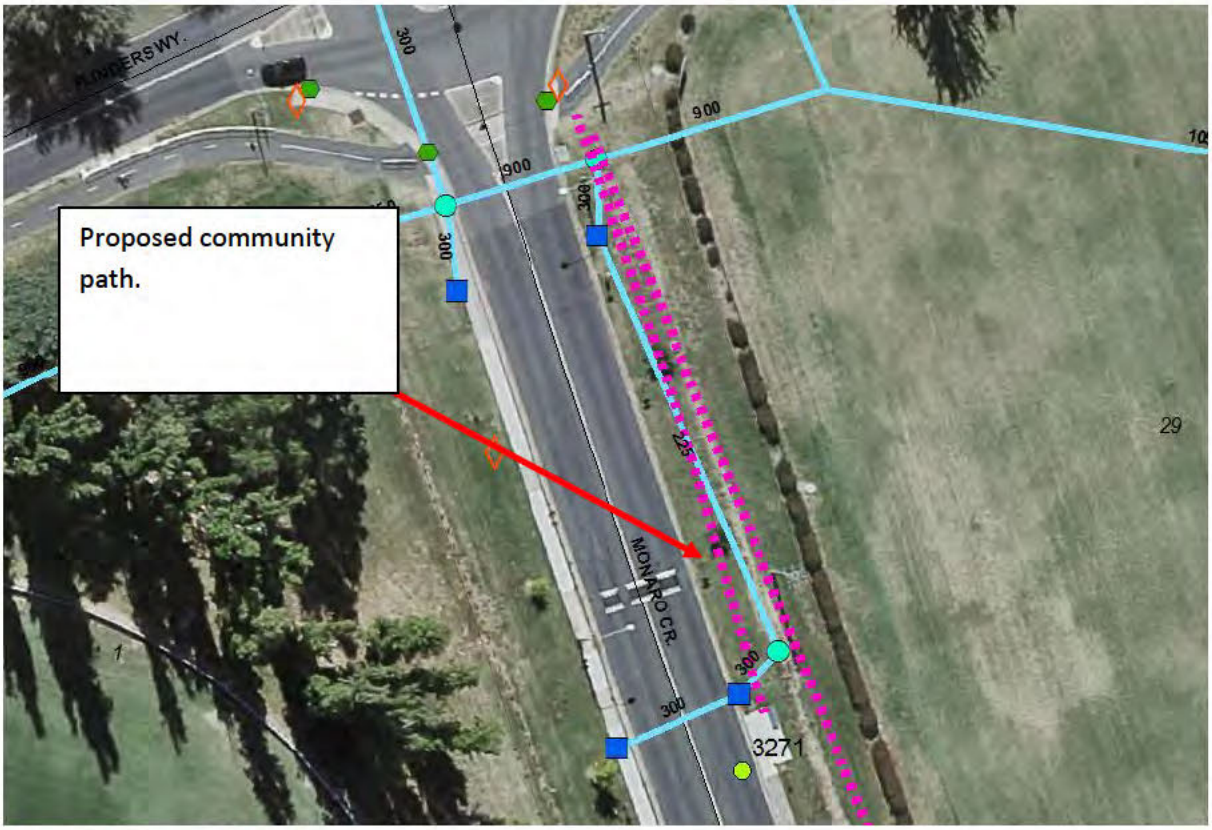

Figure 10 – Updated GIS Map recording request

ACTMapi - Community Interests Map

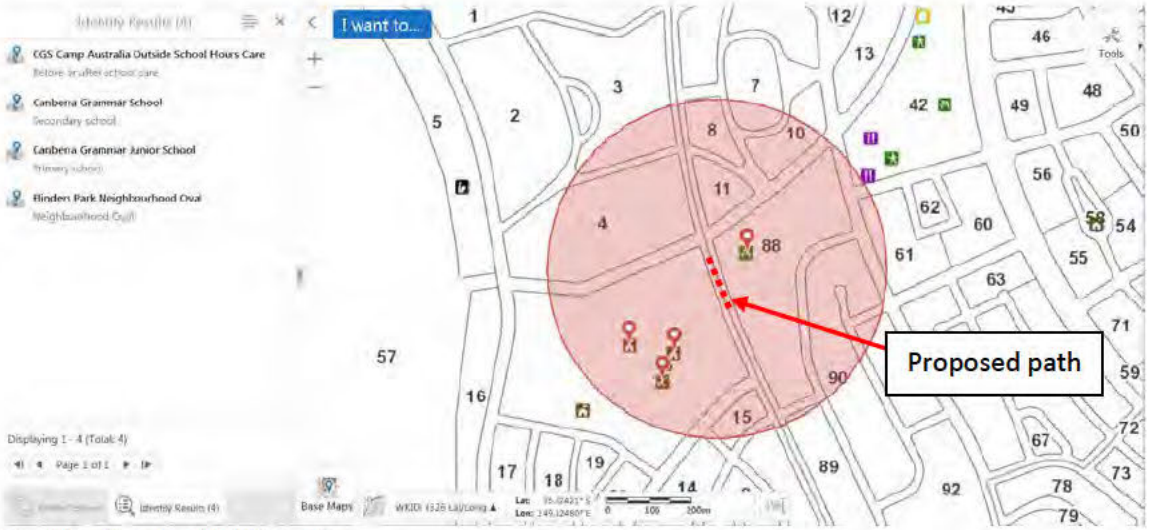

Figure 11 – Community Interests

Summary Comments

Connectivity in Network:

There is no community path at the proposed location; the proposed path would provide a link to the existing off-road shared path on Flinders Way and connection with the wider suburban path network.

The link would also provide a connection from the off-road shared path on Flinders Way to the school crossing location.

An obvious desire line is present along the proposed alignment.

Community:

The data from ACTMapi clearly shows a small number of community interests within the 400m radius of the proposed paths. The proposed path extension is based within a low density urban area.

Public Transport:

The proposed path extension will provide a connection to the existing bus stop on Monaro Crescent.

Safety:

The proposed path location would be easily accommodated within the existing verge, with no obvious safety issues present.

Suitable tie-in treatment at the existing off-road shared path on Flinders Way would ensure priority movement and right-of-way for users.

Monaro Crescent is identified as a minor collector; however the majority of the proposed path would be located within a school zone, therefore expected speeds would be between 40-50km/hr dependant on the time of day.

The presence of a desire line indicates the area is already used as an informal link from Flinders Way to the school crossing.

Constructability:

The construction of the path is unlikely to impact on any existing trees.
The extent of the path should consider the two user groups, as those using the bus service and local users, the local users have developed a desire line behind the bus stop and path connection to the school crossing, therefore maintaining a separation at this location would be beneficial.

Community Path Request

Location: Monaro Crescent Roundabout, Woden Valley
IAMS Reference: TBC
Enquirer: Canberra Grammar School – via Andrew Crichton
Assessed by: Heather Rae

Request to review, upgrade and provide paths in the surrounding school environment that have been raised in conjunction with some traffic safety concerns. This is location is to address both 4 and 5 of the locations identified.

Request for a community path to go around the existing roundabout, the second request is to provide island slots and kerb ramps for the path.
The two are unable to be separated.

The proposed path would be made of concrete and be approximately 40 long and 1.5m wide.
Kerb slots would require the removal of existing concrete and construction of two new kerb ramps.
Flinders Way Crescent is classified as a Minor Collector and has a speed limit of up to 50 km/h.

Photos

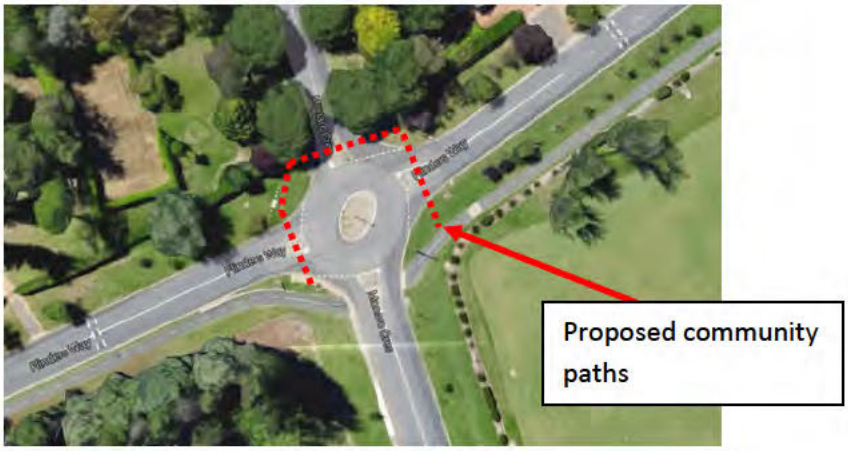

Figure 1 – Aerial view of Flinders Way and Monaro Crescent roundabout, with proposed community paths (in red)

Figure 2 – Streetview – Proposed path and crossing of Flinders Way

Figure 3 – Streetview – Proposed path and crossing of Monaro Crescent

Figure 4 – Streetview – Proposed path and crossing of Flinders Way

Bus Routes

Weekday Service Route 4 – nearest route

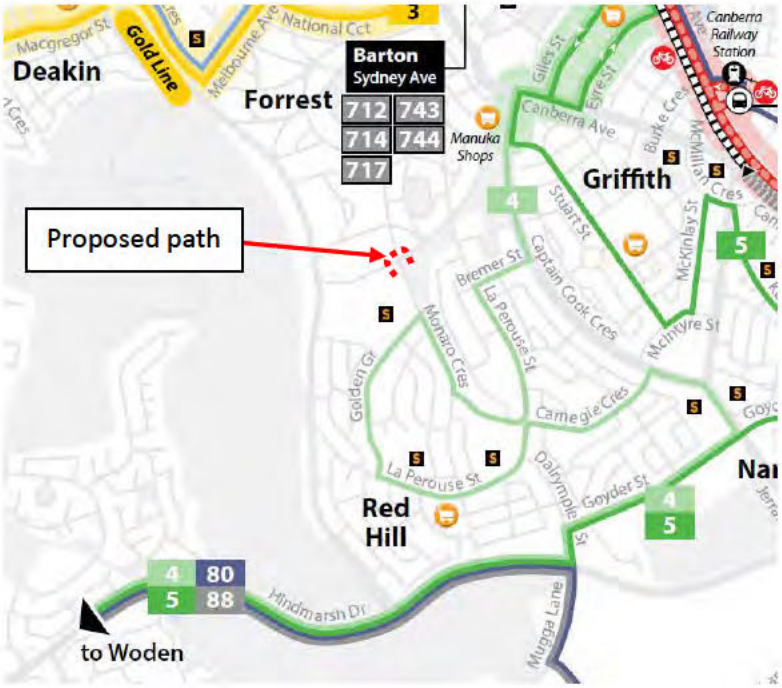

Figure 5 – Action Route 4 Map

Weekend Service Route 935 – along Golden Grove and Monaro Crescent

Figure 6 – Action Route 935 Map

Bus Stop Location

Figure 7 – Google - Bus Stop and Aerial View of proposed path and surrounding area.

ACTive Travel Practitioners Tool

There are no proposed active travel routes within the study area.

Figure 8 – ACTive Travel – Existing path network

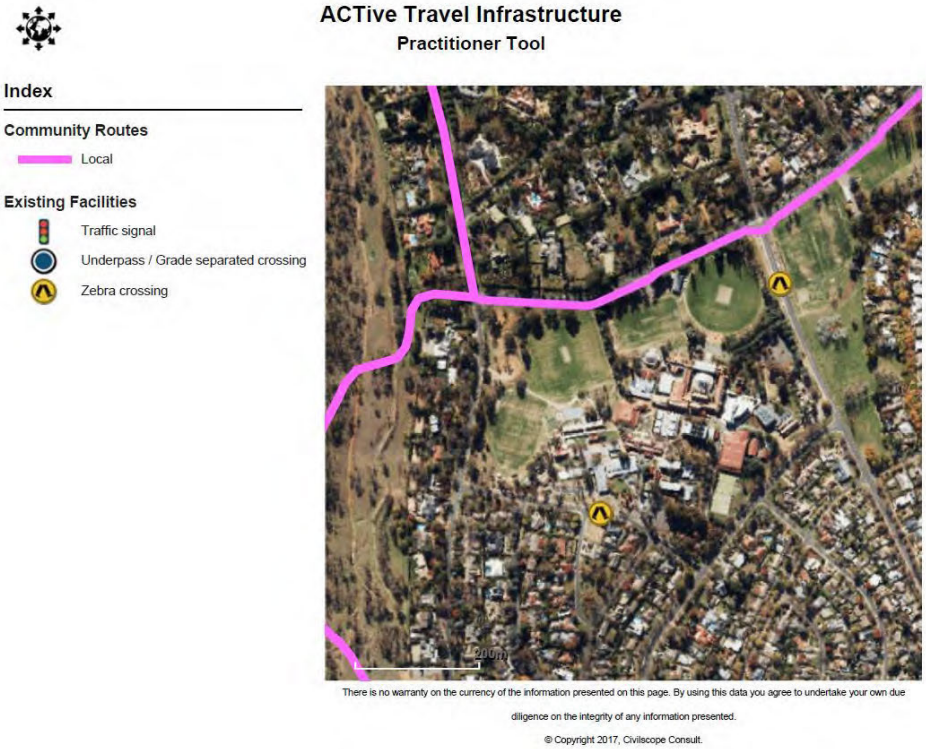

Figure 9 – ACTive Travel – Existing Community Local Path Network

GIS Map

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ACTMapi - Community Interests Map

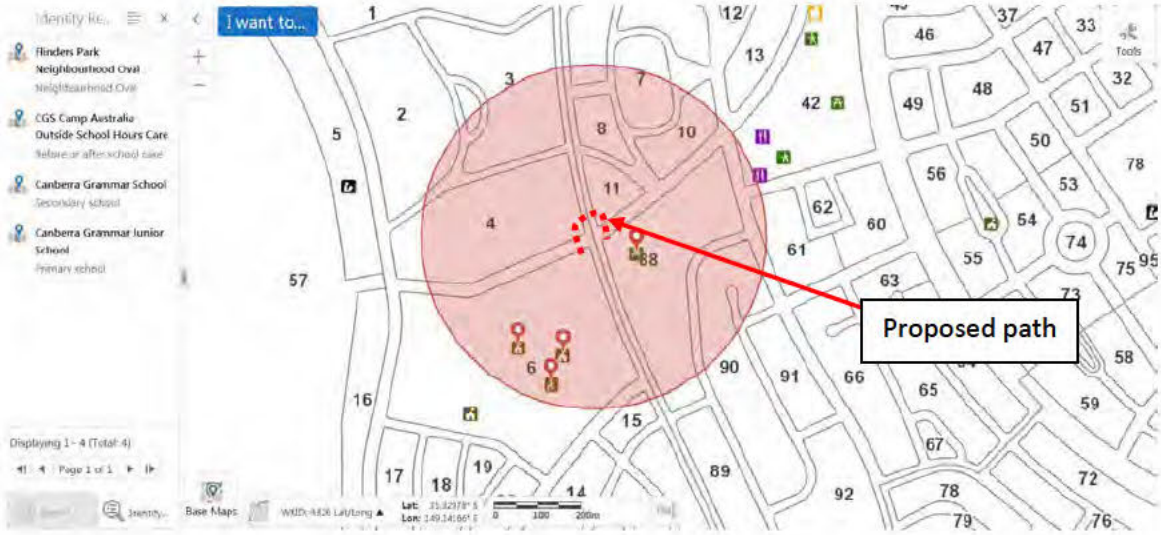


Figure 11 – Community Interests

Summary Comments

Connectivity in Network:

The dominant user movement appears to be east-west, with the presence of the off-road shared path.
Desk top study identified that an existing path and kerb ramp were located on the Canberra Grammar corner of Monaro Crescent and Flinders Way. No additional kerb ramps, island slots, or path connections are shown for the other legs of the roundabout.
An existing minor path is located on the opposite verge of Flinders Way, east of the roundabout, this continues north up Monaro Way.
North on Monaro Way, only one path is provided on the verge, with obvious desire lines shown on the other verge approaching Canberra Grammar, with missing path links to the wider suburban network.

Community:
The data from ACTMapi clearly shows a small number of community interests within the 400m radius of the proposed paths. The proposed path extension is based within a low density urban area.

Public Transport:
The proposed path is 60m to an existing bus stop on Monaro Crescent.

Safety:
There are no obvious safety issues in relation to the path locations.
Suitable tie-in locations and treatment would be required to ensure right of way for the off road path network.

Constructability:
Generally there are no constructability issues with the path, however on the north-western corner of the roundabout, the location would need to consider the existing underground services.
As noted at the start of the report, the path would require the construction of kerb ramps and creation of island kerb slots for the path around the roundabout to function.
It is for this reason that 17-03-18 should be part of this assessment.

From:	Rae, Heather
To:	Hubbard, Benjamin; Zeta, Darwin; Crichton, Andrew; Pedersen, Andrew
Subject:	Canberra Grammar School - Site Visit observations and highlighted concerns [SEC=UNCLASSIFIED]
Date:	Friday, 7 April 2017 2:15:00 PM
Attachments:	Site visit observations.doc Canberra Grammar.pdf image003.png

Hi All,

As per my last email, please find attached a map and associated site observations from the visit this week.

Kind Regards

Heather Rae | Senior Engineer | BEng (MIEAust)
P 6207 1825
Roads ACT, Strategic Planning and Development | Transport Canberra and City Services Directorate | **ACT Government**
Level 1, 490 Northbourne Avenue, Dickson | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | heather.rae@act.gov.au

ACT Government
Transport Canberra and City Services

Connected services for the people of Canberra


Capital Indoor
Plant Hire PTY
Flinders Way
Flinders Way
Flinders Way
Flinders Way
Monaro Cres
Monaro Cres
Monaro Cres
Canberra
Grammar School
Mugga Way
Mugga Way
Mugga Way
Alexander St
Alexander St
Alexander St
Charlotte St
Fishburn St
Parkhyll St
Golden Grove
Quiros St
Hicks St
Hicks St

Observations of surrounding road network

Canberra Grammar School – Site Visit 4 April 2017 – 2.30 to 4.00

Location 1 – Monaro Crescent – 3 existing crossing locations

a. Crossing closer to Golden Grove
   - Review width and alignment of paths for better alignment.
   - Improve pavement marking
   - Review kerb returns for speed management

b. Crossing midway – near exit of new car park
   - Review location as currently not aligned with desire line from new car park.
   - Move crossing closer to exit would align with desire line and also limit right turn movement
   - Change to full zebra crossing would address speed and approach.
   - Connect new path to fields opposite

c. Crossing approaching Flinders Way
   - Current school crossing, not often used
   - Linked with bus stop, likely only school
   - Used to access fields opposite
   - Layout to be updated to current standards

Location 2 – roundabout Monaro Crescent and Flinders Way

- No approach deviation therefore no slowing of cars
  - School representative advise crashes occur regular basis
- Full review of intersection to address speed environment
- Path connections missing
- Approach desire lines along Monaro (nth) present with no paths
- Desire lines also along Flinders Way (north-west side) present with no paths
- Main east-west community path not integrated with cross movement paths

Location 3 – entry to maintenance area for fields

- In poor condition, but not considered a safety issue
- Not promoted as an entrance due to need to cross fields.

Location 4 – existing bus stop and path entrance to school

- Area overgrown and path condition not good
- Unsure if bus stop is actually used.
- Level difference between verge path and road
- Review school zone signage placement and extent

Location 5 – Flinders Way and Mugga Way intersection

- Complete review of intersection
- Obstructed path connections with turning traffic
- Kerb ramps directing users into intersection
- Wide crossing area with fast approach speeds
- Crossing from Mugga Way (Westside) should be moved away from intersection
- Access to reserve via middle of intersection, no formal vehicle crossing
- Safety issue, high priority area

- Review school zone signage placement and extent

Location 6 – Mugga Way – waiting area and potential new access to 'temporary' staff car park area

- Have school review car park layout, with access from Mugga Way car park could turn into another pick up area

Location 7 – Alexander St and Mugga Way intersection

- Kerb return totally damaged with turning vehicles

Location 8 – Alexander St from new car park entry back to 'temporary' staff car park entry

- Massive traffic delays with new car park
- Delays cause traffic to stop, sometime in both directions
- Stopped traffic cause bus movement to use opposite lane to travel to bus stop
- No formal safe crossings
- No formal paths on opposite side
- Side roads used for parent parking and child pickup, no formal safe crossings lead to children and parents crossing between queued cars
- Queued cars reduce sight distance
- Alexander St has high bus volume at morning and afternoon times

Location 9 – Alexander St from Penrhyn to car park exit

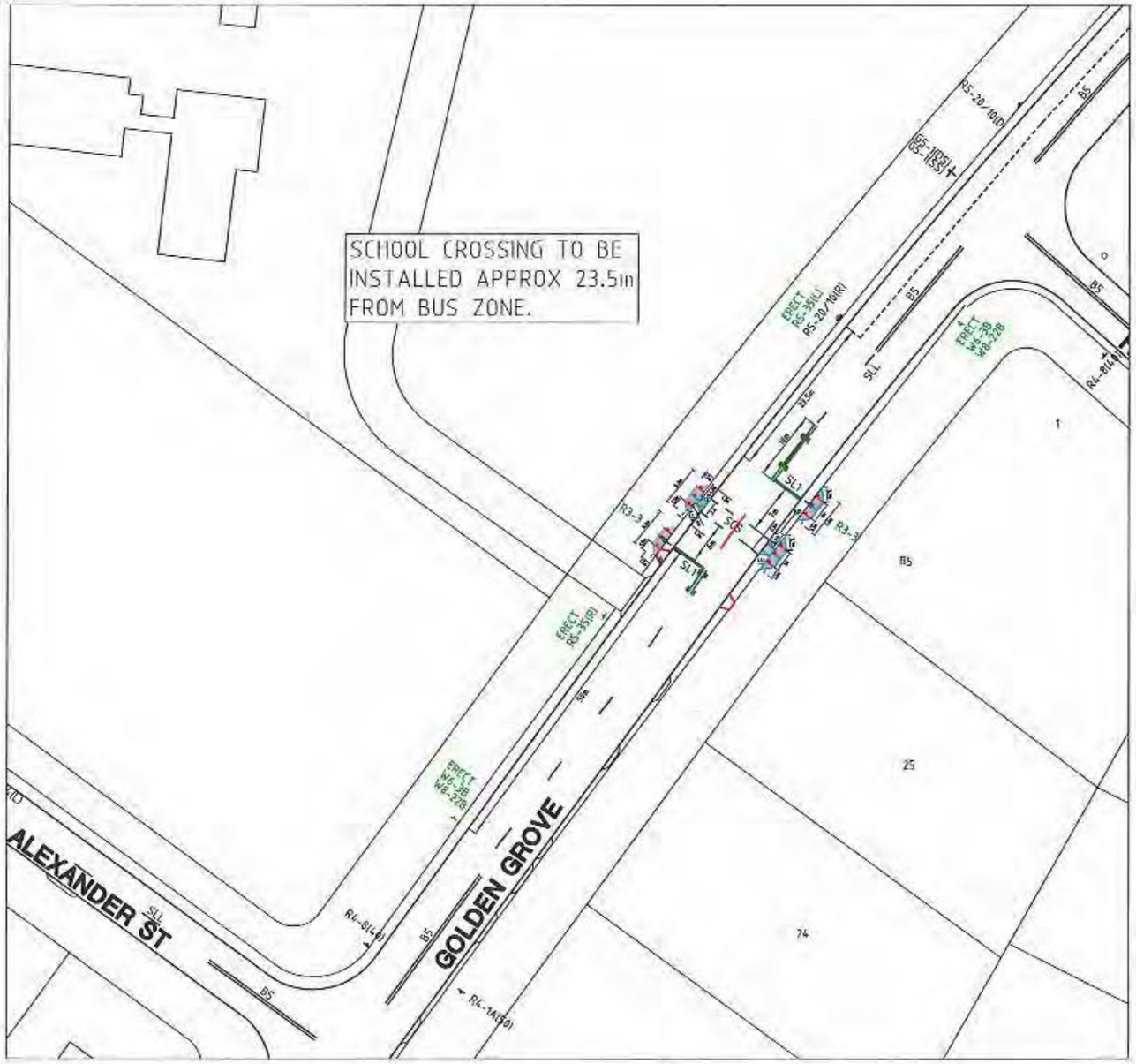
- Crest of hill limits forward sight distance
- Afternoon winter sun causes sun strike
- Vegetation overgrown on LHS
- No safe crossing areas
- No formal paths on opposite side

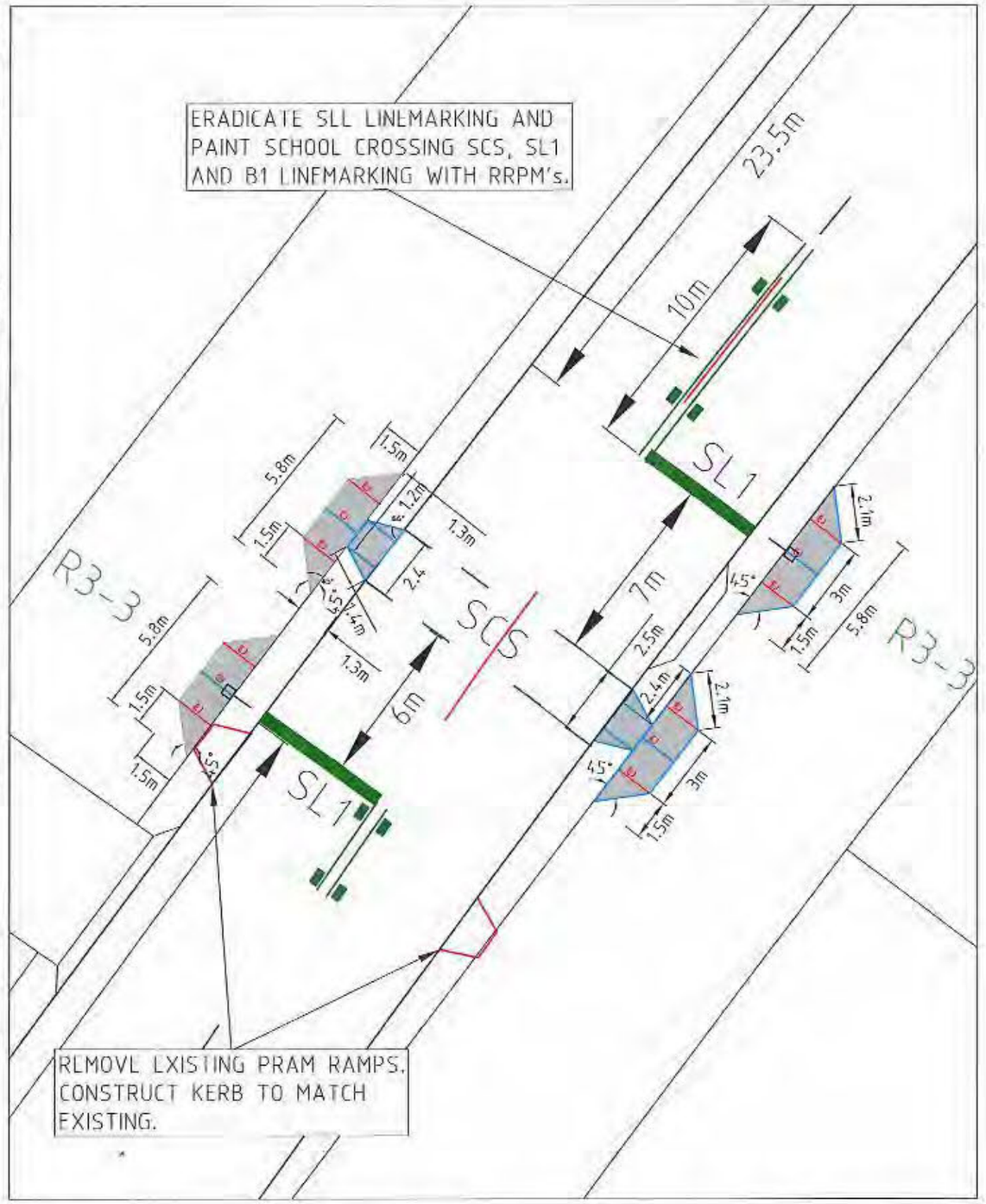
Location 10 – Alexander St from car park exit down to Golden Grove

- Second car park appears under utilised
- Verge width wide but path is located at back of kerb and only 1.5m wide, feels unsafe being so close to traffic and buses.
- Review path width with aim to widen
- Bus drivers actually stop on downgrade to allow students to cross road (mid block)
- Review school zone signage placement and extent
- Wide intersection with Golden Grove, potential for pedestrian refuges

Location 11 – Along Golden Grove

- Senior school area, wide road appears to function well





NOTE

ALL PAVEMENT MARKINGS AND SIGN POSTING
TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1742 EXCEPT WHERE MODIFIED BY TERRITORY AND MUNICIPAL SERVICES DESIGN STANDARD FOR URBAN INFRASTRUCTURE DS09-TRAFFIC CONTROL DEVICES. FOR A COPY PLEASE VISIT http://www.tams.act.gov.au/__data/assets/pdf_file/0003/34698/Ref-11_TAMS_Drafting_Standard.pdfALL SIGNAGE INSTALLED ON ELP's TO BE POSITIONED TO AVOID COVERING THE ELP ASSET NUMBER.
ALL LINEMARKING TO BE WATERBORNE PAINT UNLESS NOTED OTHERWISE. LLM DENOTES LONG LIFE MATERIAL SUCH AS THERMOPLASTIC, COLD APPLIED PLASTIC CEMENT BASED PRODUCTS CAPABLE OF HAVING QUARTZ APPLIED.
ALL REDUNDANT AND/OR CONFLICTING LINEMARKING TO BE ERADICATED.

N

LEGEND

- ERADICATE LINEMARKING, SIGNS AND REMOVE KERB/CONCRETE.
- EXISTING LINEMARKING, SIGNS KERB AND CONCRETE.
- APPLY NEW LINEMARKING
- INSTALL NEW KERB, CONCRETE
- ERECT R5-35 — ERECT NEW SIGN

NO	AMENDMENTS	APPROVED DATE
1	CONCRETE WORK	18/03/2018

SIGNS TO BE ERECTED

SIGN	DESCRIPTION	HAND	SIZE	NO. OF
R5-35	NO STOPPING	L,R		1,1
W6-3	CHILDREN		B	2
W5-22	CROSSING AHEAD		B	2
R3-3	SCHOOL CROSSING FLAGS			2

SIGNS TO BE REMOVED OR RELOCATED

SIGN	DESCRIPTION	HAND	SIZE	NO. OF

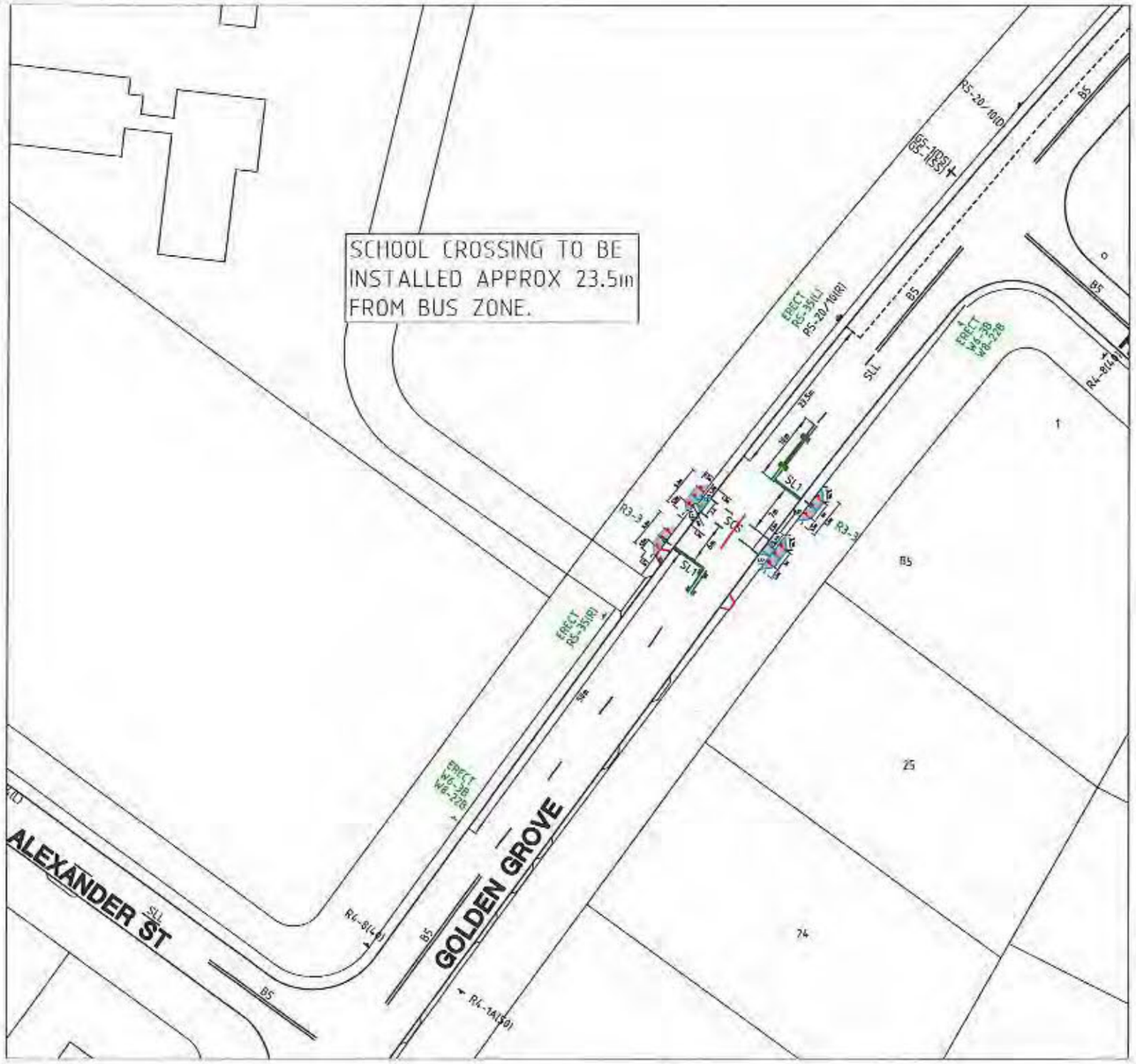
DWG NUMBER G-370 — JOB NUMBER 1047263
DOCUMENT STATUS APPROVED
PROJECT OFFICER GO
PHONE NO: — SIGNATURE:
DRAFTED VS
ACTION DATE 07-02-2018
DATE PLOTTED 07-02-2018
SCALE NTS
DOCUMENT NUMBER TC18-054
SHEET No 1/1 — REVISION

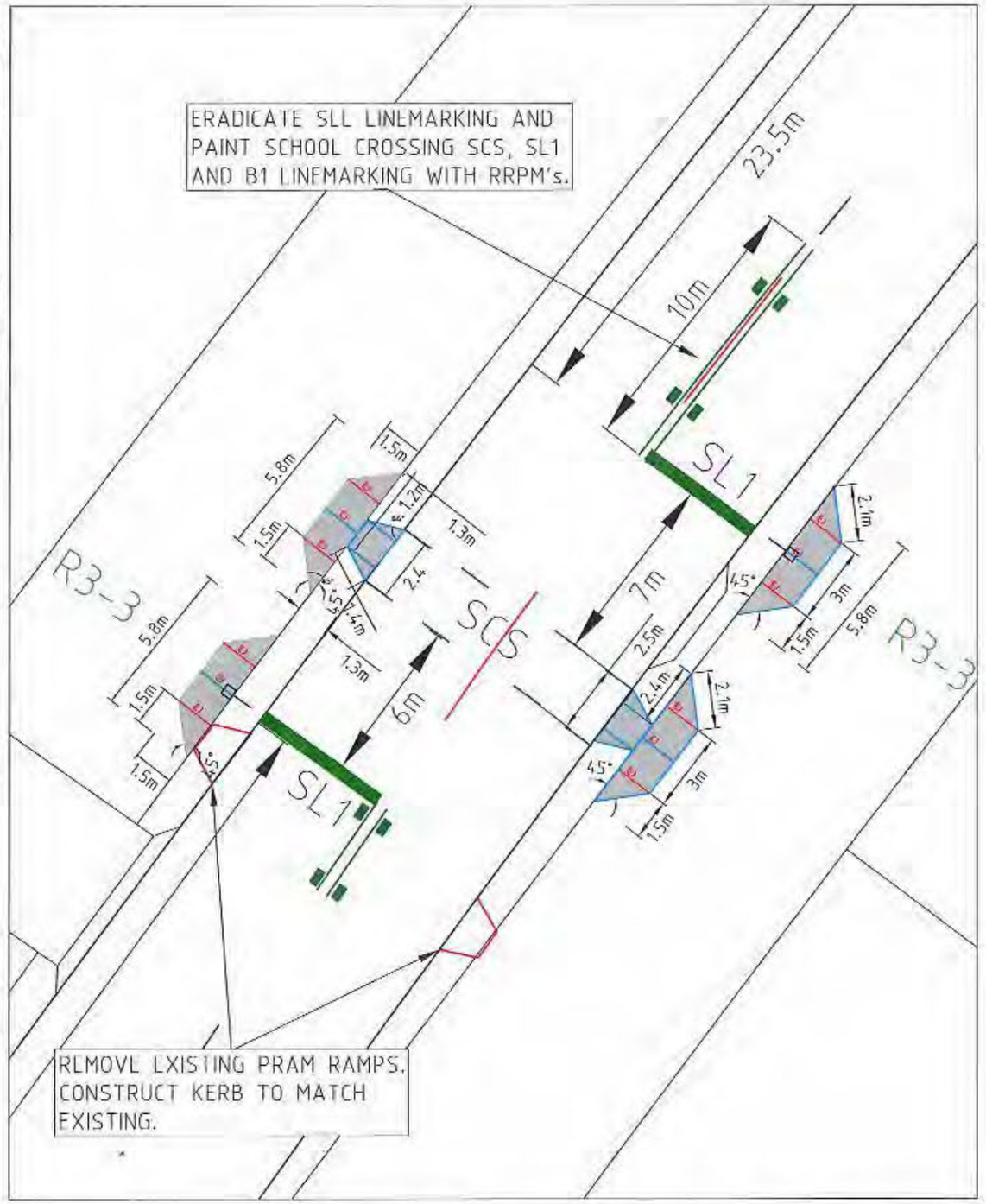
ACT GOVERNMENT

Authorised pursuant to Part 3 of Road Transport (Safety and Traffic Management) ACT 1999
Authorising Signature

ACT Government
Transport Canberra and City Services

RED HILL
Golden Grove
Traffic Control Devices





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Authorised pursuant to Part 3 of Road Transport (Safety and Traffic Management) ACT 1999
Authorising Signature

ACT Government
Transport Canberra and City Services

RED HILL
Golden Grove
Traffic Control Devices

ACT Government

Transport Canberra and City Services

RECEIVED DATE 9.4.18 BY to BT

Critical Date: ~~22/3/2018~~

Critical Reason:

CITY SERVICES CLEARANCE SHEET
Ministerials

SUBJECT: Rattenbury, Shane MLA obo [redacted] - Speed Detecting Sign Trial - Canberra Grammar School	
OBJECTIVE/TRIM/FILE NUMBER OR ID	MIN18/0378

ACTION REQUIRED ☑	☐ AGREE/SIGN
	☐ REVIEW
	☐ ENDORSE

APPROVAL PROCESS	Initials	Date:
Deputy Director-General, City Services	JC	6.4.18
Director, Governance and Ministerial Services	✓	
Executive Director, City Places and Infrastructure	on leave	
Director Roads ACT:	KM	3/4/18
Action Officer/Originator: Ben Hubbard		

COMMENTS:

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E-MAILED
12.4.18.

Meegan Fitzharris MLA

Member for Yerrabi

Minister for Health and Wellbeing
Minister for Transport and City Services
Minister for Higher Education, Training and Research

[redacted]@cgs.act.edu.au

Dear [redacted]

Thank you for your letter of 1 March 2018 to Mr Shane Rattenbury MLA, regarding the 'smiley face' speed detecting sign trial. I am responding as this matter falls within my portfolio responsibilities.

Your support of the ACT Government's new 'smiley face' initiative to raise motorists' awareness of their travelling speeds is appreciated. The implementation of this trial is in line with our continued efforts to reduce travelling speeds, particularly in residential areas, and enhance road safety for all road users.

All of the current inventory of 'smiley face' signs are deployed as part of the initial trail. I have asked that Canberra Grammar school be included as a priority site within the future deployment program, if the trial proves to be successful.

It is intended that these signs will be installed on a rotating program, as this maximizes their effectiveness. I have asked an officer from Transport Canberra and City Services to contact you and discuss a suitable location for a 'smiley face' sign at your school and to arrange for a footing for the sign to be installed in readiness for a sign becoming available.

Thank you for raising this matter. I trust the information provided is of assistance.

Yours sincerely

Meegan Fitzharris MLA
Minister for Transport and City Services
11/4/2018

AUSTRALIAN CAPITAL TERRITORY LEGISLATIVE ASSEMBLY
London Circuit, Canberra ACT 2601, Australia GPO Box 1020, Canberra ACT 2601, Australia
Phone +61 2 6205 0051 Email fitzharris@act.gov.au

@MeeganFitzMLA MeeganFitzharrisMLA

From: Crichton, Andrew
To: Hubbard, Benjamin; Ortiz, Gilbert
Subject: Canberra Grammar [SEC=UNCLASSIFIED]
Date: Tuesday, 20 February 2018 10:00:48 AM
Attachments: Monaro Crescent improvements.pdf

Hi Ben/Gilbert,

When I visited Canberra Grammar last week with Ken and Jim, the school raised some concerns along Monaro Crescent, please see attached. We discussed some potential minor improvements to improve visibility of the crossing/refuges. The changes are fairly straight forward and include:

- Installing crossing flags on the refuge to increase visibility of the children's crossing
- Moving one of the crossing flags closer to the road and installing a small section of footpath behind the flag so children don't walk on the road
- Repairing the keep left signage on one of the refuges further up Monaro Crescent

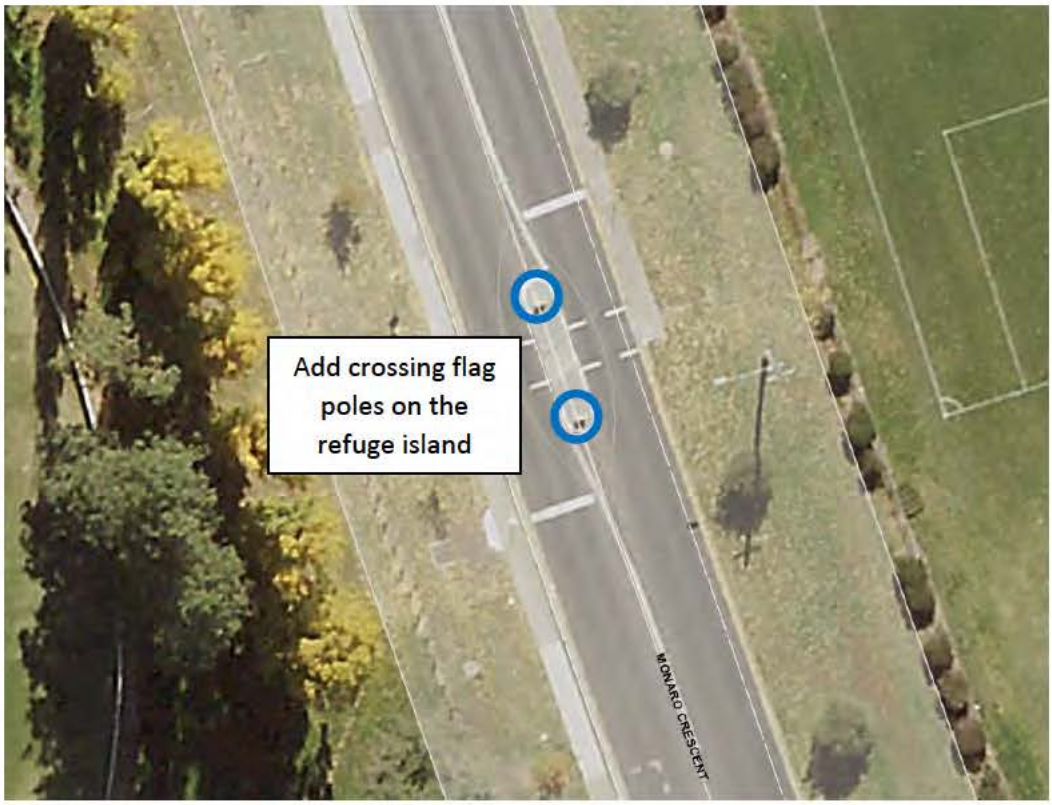
Can we please arrange for these improvements to be delivered?

Please let me know if you require funding to deliver any of these improvements.

Thanks

Andrew

Andrew Crichton | Manager, Schools Program
T: (02) 6205 8457 | E: andrew.crichton@act.gov.au
Transport Canberra | Transport Canberra and City Services Directorate | ACT Government
496 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601 | act.gov.au



Can we please include crossing flags on the refuge island to increase visibility of the crossing?

The school said children need to walk very close to the road to walk around this crossing flag. Can it be moved closer to the road and a small section of footpath installed around the back of the pole? Something similar has been done at the crossing flag on the opposite side of the road.

The keep left signage on one of these refuges has been driven over. Can the signage please be updated to increase visibility of the refuge?

From: Crichton, Andrew
To: Marshall, Ken; Gilles, Jennie; Hubbard, Benjamin
Subject: RE: Canberra Grammar [SEC=UNCLASSIFIED]
Date: Tuesday, 27 February 2018 1:43:33 PM
Attachments: Canberra Grammar - Action Plan.docx

Hi all,
Following the catch up yesterday afternoon I have developed a plan highlighting the issues and the actions we will follow up. Can you please review the plan and make any amendments, particularly if you think any of the action timeframes are unrealistic?
Thanks
Andrew

Andrew Crichton | Manager, Schools Program
T: (02) 6205 8457 | E: andrew.crichton@act.gov.au
Transport Canberra | Transport Canberra and City Services Directorate | ACT Government
496 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601 | act.gov.au

From: Marshall, Ken
Sent: Friday, 23 February 2018 12:09 PM
To: Stravens, Helen <Helen.Stravens@act.gov.au>
Cc: Crichton, Andrew <Andrew.Crichton@act.gov.au>; Gilles, Jennie <Jennie.Gilles@act.gov.au>; Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>
Subject: FW: Canberra Grammar [SEC=UNCLASSIFIED]
Helen,
Could you arrange a quick coordination meeting on this with Andrew Jennie and Ben?

Ken Marshall | Director, Roads ACT
Phone 02 62 076588 | Email: ken.marshall@act.gov.au
Roads and Infrastructure, Roads ACT | Transport Canberra and City Services Directorate | ACT Government
496 Northbourne Avenue, Dickson ACT 2602 | Locked Bag 2000, Civic Square ACT 2608 | www.act.gov.au

From: Crichton, Andrew
Sent: Thursday, 15 February 2018 11:44 AM
To: Marshall, Ken <Ken.Marshall@act.gov.au>
Cc: Corrigan, Jim <Jim.Corrigan@act.gov.au>
Subject: Canberra Grammar [SEC=UNCLASSIFIED]
Hi Ken,
Please find the report from Sellicks attached that was organised by Canberra Grammar. It includes proposed improvements for the Flinders Way/Mugga Way and Monaro Crescent/Mugga Way intersections and the potential costs. I have also included the designs for each intersection as separate attachments. It looks like the designs were led by the school's wishes, as they have included a signalised crossing and a pedestrian crossing in each of the designs.
I have also attached the design for the Flinders Way/Mugga Way intersection that was developed for TCCS by Gossips in 2015. These designs don't include an improvement like a roundabout, it proposes to fix up the footpath connections and install a refuge on Mugga Way.
Would you like me to engage Gossips to undertake the following?

- Develop designs for the footpath on Alexander Street
- Develop designs for the children's crossing on Monaro Crescent (additional crossing flags in the island)
- Develop designs to make improvements to the Flinders Way/Monaro Crescent intersection

The designs (and potentially works) can be funded through the Safer walking and cycling around schools BIF funding.

Please let me know how you would like to proceed with the Mugga Way/Flinders Way intersection. If Roads ACT is supportive of a roundabout at that location, should we have designs developed and start discussions with the school about whether they are willing to fund the works?

Thanks

Andrew

Andrew Crichton | Manager, Schools Program
T: (02) 6205 8457 | E: andrew.crichton@act.gov.au
Transport Canberra | Transport Canberra and City Services Directorate | ACT Government
496 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601 | act.gov.au

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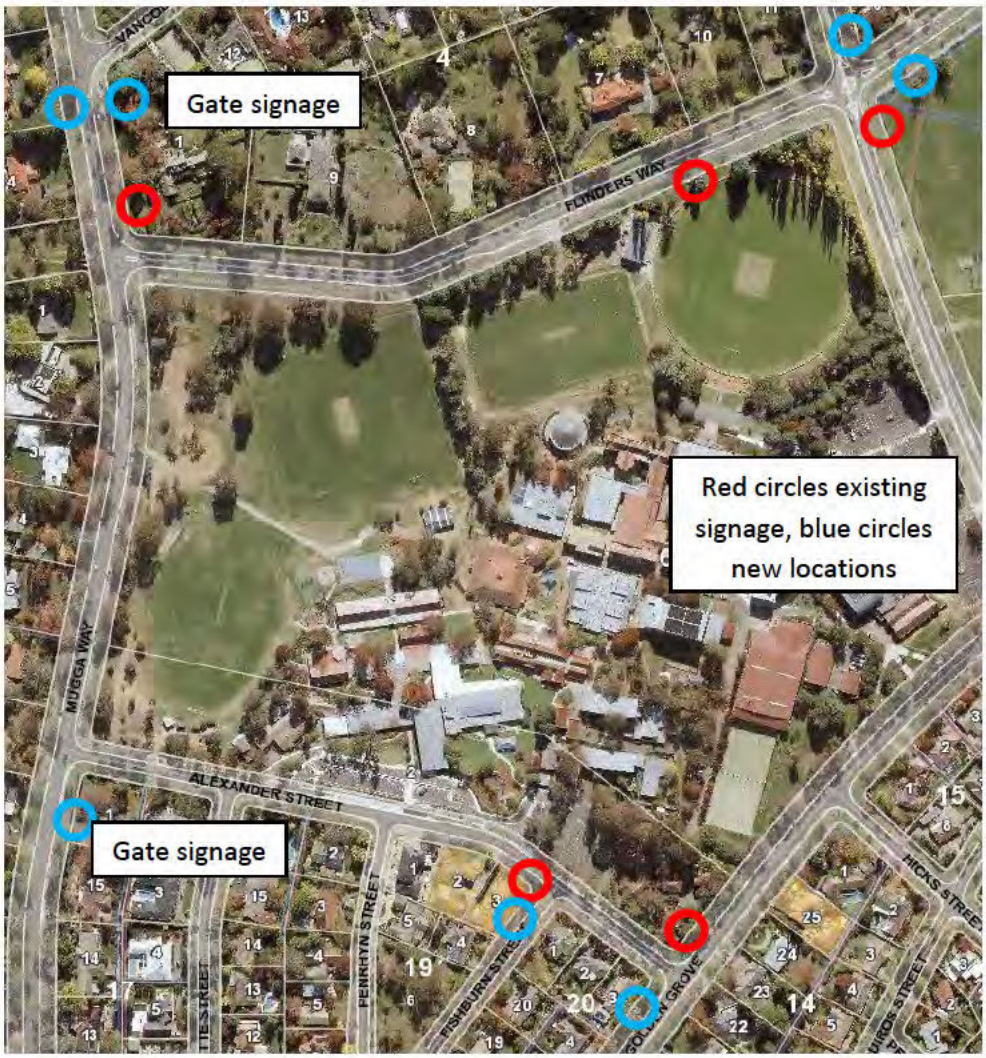
Canberra Grammar Action Plan

The Canberra Grammar School is a P-12 school in Red Hill with approximately 1500 students. The school has been very keen to make infrastructure improvements around the school to increase safety and access for pedestrians. Transport Canberra and City Services (TCCS) has been working with the school to review the local road environment, to see what improvements are warranted. The most recent meeting between TCCS and Canberra Grammar was on 15 February 2018.

Issues

Speed zone signage

The 40km/h speed zone signage does not currently cover the full perimeter of Canberra Grammar. The school has requested the school zone signage be relocated to cover the entire school boundary.



TCCS action	Timeframe
Move 40km/h signage to cover the school boundary	March 2018

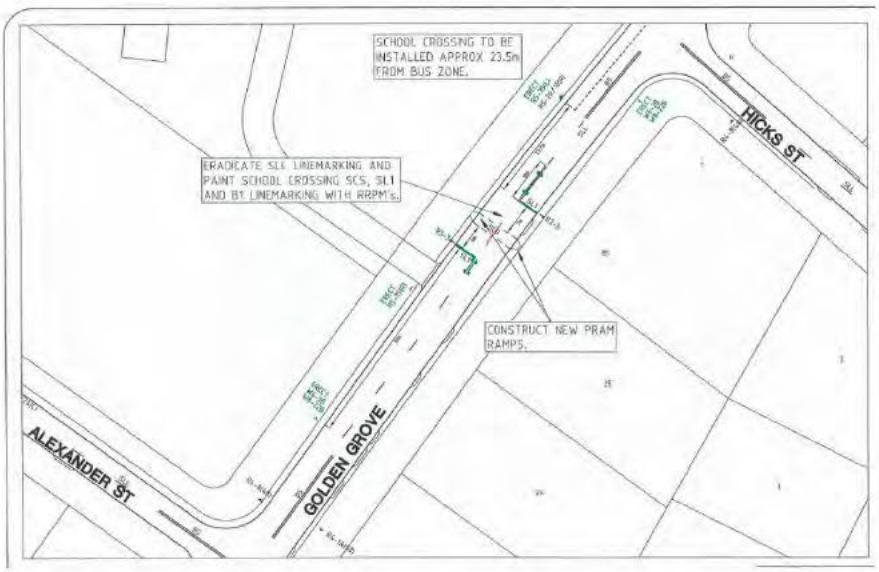
Alexander Street footpaths

There is currently no footpath along Alexander Street on the opposite side to the school. The section between Charlotte and Penrhyn Streets (blue line below), provides access to the children's crossing. Pedestrians are currently walking along Alexander Street and crossing away from the crossing because there is no footpath to provide access to the side streets (Charlotte and Penrhyn). Canberra Grammar has requested a footpath be considered to increase safety for pedestrians, particularly children.

TCCS actions	Timeframe
Engage consultants to design and build the section of footpath between Charlotte and Penrhyn Streets (blue section)	April 2018
Develop designs to potentially extend the footpath to Fishburn Street (red section), pending the availability of funding	April 2018 (designs only)
Include the section of footpath between Fishburn Street and Golden Grove on the Footpath Upgrades Program for potential future works	Complete

Golden Grove children's crossing

Canberra Grammar has requested additional crossings to increase safety for students. Roads ACT has explained that crossings don't necessarily increase safety, they are designed to increase amenity in high pedestrian areas by providing priority to pedestrians. Counts were undertaken in 2017 at a number of locations around the school. The only additional location that currently warrants a crossing is on Golden Grove. TCCS has developed designs for a children's crossing on Golden Grove (see below), which have been shared with Canberra Grammar.



TCCS action	Timeframe
Install children's crossing on Golden Grove	March 2018

Monaro Crescent children's crossing

Canberra Grammar has requested a pedestrian crossing replaces the children's crossing on Monaro Crescent. Roads ACT organised pedestrian and traffic counts at this location in 2017 and the location did not meet the warrant for a pedestrian crossing. Roads ACT explained to the school that a pedestrian crossing does not make the crossing any safer for pedestrians and that the current infrastructure (which includes a refuge island and speed humps on the approach) provides sufficient amenity for safe pedestrian access. Roads ACT said some minor improvements can be made to the crossing to improve its visibility and accessibility for pedestrians.

TCCS action	Timeframe
Install crossing flags on the refuge island and move one of the crossing flags (opposite side of the road to the school) to provide easy and safe pedestrian access	April 2018

Mugga Way and Flinders Way intersection

Canberra Grammar would like to see a number of improvements made to the Mugga Way and Flinders Way intersection to slow traffic and improve pedestrian access. TCCS currently has designs to upgrade the intersection and provide better pedestrian access. The designs have not been delivered due to the cost, which requires capital funding rather than minor new works funding. The designs include a refuge island on Mugga Way, which will provide better pedestrian access and also help to slow traffic.

The current designs do not include better pedestrian access across Flinders Way or traffic calming measures on the left hand turn from Mugga Way into Flinders Way. TCCS will request updated designs to gain a clearer understanding about the scope and potential cost of these improvements.

TCCS action	Timeframe
Request updated designs that include better pedestrian access across Flinders Way and traffic calming around the Mugga Way to Flinders Way left hand turn	June 2018 (updated designs only)

Monaro Crescent and Flinders Way intersection

Canberra Grammar would like improved pedestrian access around the Monaro Crescent and Flinders Way intersection. These improvements may include better footpath connections and pram ramps. The school has also raised concerns about the shape of the roundabout and the speed at which motorists travel through the roundabout. Relocating the speed zone signage to the approaches of the roundabout will help to reduce speed prior to motorists entering the roundabout.

TCCS will engage a traffic engineer to develop designs to highlight potential improvements to this intersection. The designs will allow TCCS to gain a clear understanding about the likely cost to deliver any future works at this location.

TCCS action	Timeframe
Engage a traffic engineer to review the Monaro Crescent and Flinders Way intersection to see what improvements can be made to increase amenity for pedestrians and potentially slow motorists	June 2018 (designs only)

Alexander Street congestion

Canberra Grammar has raised concerns about the level of congestion on Alexander Street during the morning and afternoon peak, which can reduce safety for children. This issue is caused by the large number of parents that choose to drive their children to the drop off area on Alexander Street.

The school has suggested a third lane on Alexander Street might help to improve traffic flow by allowing cars to queue to enter the school driveway. This option will require substantial works, including the removal of a number of power poles. TCCS has advised the school that this option would be subject to the budget process and is unlikely to receive funding given the minimal benefit to the broader community.

TCCS has explained that the best way to reduce the congestion is to promote behavioural change within the school community, by encouraging more active travel and use of partway drop off locations around the school. The ACT Government offers a free program to support the school to achieve this, the Ride or Walk to School program.

TCCS has advised Canberra Grammar that they can investigate (through the development approval process) a second driveway (green line below) to the car park at the corner of Mugga Way and Alexander Street. A second driveway will potentially help to ease congestion by reducing the number of cars that need to turn into Alexander Street.

TCCS has also advised the school that Transport Canberra is willing to investigate an alternative location for buses to drop off and collect children around the perimeter of the school, which will remove the buses from Alexander Street. This will help to reduce congestion on the street and will also provide parents with an additional space (existing bus stop) to drop off and collect children.

Canberra Grammar actions	Timeframe
Join the Ride or Walk to School program to drive a culture change within the school community and encourage more walking and riding, which will help to reduce the congestion on Alexander Street	2018
Consider installing a second driveway to the car park at the corner of Mugga Way and Alexander Street	2018
In consultation with the TCCS Schools Program, consider alternative locations for school bus services to collect children to remove buses from Alexander Street during the peak periods, allowing parents to use the bus zone to drop off and collect children	2018

ACT Government
Transport Canberra and City Services

Actions summary

Action	Responsibility	Timeframe	Status
Move 40km/h signage to cover the school boundary	TCCS	March 2018	In progress
Engage consultants to design and build the section of footpath between Charlotte and Penrhyn Streets	TCCS	April 2018	In progress
Develop designs to potentially extend the footpath along Alexander Street to Fishburn Street, pending the availability of funding	TCCS	April 2018 (designs only)	In progress
Add the section of footpath on Alexander Street between Fishburn Street and Golden Grove on the Footpath Upgrades Program for potential future works	TCCS	Complete	Complete
Install a children's crossing on Golden Grove	TCCS	March 2018	In progress
Install crossing flags on the refuge island on the Monaro Crescent children's crossing and relocate one of the crossing flags (opposite side of the road to the school) to provide easy and safe pedestrian access	TCCS	April 2018	In progress
Request updated designs at the Mugga Way and Flinders Way intersection, which include traffic calming around the Mugga Way to Flinders Way left hand turn and better pedestrian access across Flinders Way	TCCS	June 2018 (updated designs only)	Pending
Engage a traffic engineer to review the Monaro Crescent and Flinders Way intersection to see what improvements can be made to increase amenity for pedestrians and potentially slow motorists	TCCS	June 2018 (designs only)	Pending
Join the Ride or Walk to School program to drive a culture change within the school community and encourage more walking and riding, which will help to reduce the congestion on Alexander Street	Canberra Grammar	2018	TBC
Consider installing a second driveway to the car park at the corner of Mugga Way and Alexander Street	Canberra Grammar	2018	TBC
In consultation with the TCCS Schools Program, consider alternative locations for school bus services to collect children to remove buses from Alexander Street during the peak periods, allowing parents to use the bus zone to drop off and collect children	Canberra Grammar	2018	TBC

ACT Government

Transport Canberra and City Services

Functional Brief

Version 1, March 2018

1. Overview

This Functional Brief is the high level management document for the project.

The Functional Brief details the general requirements for all projects being undertaken by TCCS. The Reference Documents provide detailed background information relative to the project and the standards provide guidance on technical matters related to this Brief.

The ACT Government has embarked on a program to progressively upgrade and enhance the local suburban community path network on a prioritised basis, to fulfil the government policies to encourage active travel and improve health in the community.

A primary goal of the ongoing investment in Active Travel is to provide a strategic pedestrian/cycling network by identifying missing links and upgrading facilities where usage is higher.

2. Site of Works

- Link 1:design and construct a concrete footpath along Alexander Street along Alexander Street from Charlotte Street to Penrhyn Street , Red Hill
- Link 2:design only to continue the concrete path from along Alexander Street from Penrhyn Street to Fishburn Street, Red Hill

3. Scope of Works

Most recently RM has a direction from the TCCS executive to

- design and construct a concrete footpath along Alexander Street in Forrest from Charlotte to Pengrhyn Street; and
- design to continue the concrete path from along Alexander Street from Penrhyn Street to Fishburn Street, Red Hill ACT 2603

Infrastructure Finance and Capital Works (IFCW) along with Roads ACT will be involved in procurement for Design and construct

The scope of works to be carried out by IFCW are as follows:

- Assist to engage an external consultant to prepare design documentations for Link 1;
- Assist engaged consultant prepare tender documentation for construction for Link 1;
- Provide a Tender Evaluation Report and recommend a contract(s) capable of successfully completing the construction for Link1;
- Award construction contract; and
- Contract manage the construction works and handover of completed works.

It is noted that the Infrastructure Finance and Capital Works Contract Manager with the assistance of the Designer will be responsible for responding to all RFIs during the construction tender process. All proposed changes to the scope of works will be communicated to the Infrastructure Finance and Capital Works Contracts Manager.

4. Contract Manager

IFCW will undertake all of the necessary work to ensure effective communication between all relevant parties to enable the timely progress of the project. The Contract Manager for this Project is Peter Dickson Senior Project manager, IFCW, CMTEDD.

The Contract Manager will:

- Manage and monitor project activity through detailed plans and schedules;
- Assist consultant with preparation of tender documentation.
- Review final design, cost estimation and confirm scope of works with TCCS officer
- Assess tenders received and provide a Tender Evaluation Report recommending a contractor (s) capable of successfully completing the construction
- Project Manage the construction of this work.
- Assist the Project Manager in internal and external communications including community consultation.
- Report at regular intervals against forecast schedule milestones and budget;
- Maintain a close working relationship with the Procurement Directorate to ensure the contract and its management are meeting the overall project expectations, especially in the areas of Schedule and Budget;
- Approve all variations to the contract or Functional Brief in a formal manner, ensuring the Asset Manager or Owner is involved in the process; and
- Manage (client/provider/stakeholder) expectations through formal specification and agreement of goals, objectives, scope, outputs, resources required, budget, schedule, project structure, roles and responsibilities.
- Ensure that variations are managed formally and that CW and / or the Asset Manager / Owner is involved in the process; and
- Handover of completed works

5. Consultant

The Consultant will:

- Liaise with relevant authorities and services stakeholders throughout development of design proposals to ensure suitable authorisation, timely coordination as well as compliance with Territory and National Capital Authority requirements for all works associated with the upgrade. Particular attention should be paid to seeking the most current information from ACT Roads;

- Prepare detailed drawings and final documentation that includes specifications, bill of quantities / schedule of rates suitable for inclusion in the Tender to construct the works.

- Prepare Construction tender documents for the agreed works, allowing for review by Infrastructure, Finance and Capital Works.

- Ensure concept plan for TTMs is endorsed in principal by TCCS prior to going to tender.
- Fully investigate functional issues such as services etc prior to going to tender.
- Prepare a life cycle cost estimate for all assets being delivered under this project
- Assisting the TCCS Project Manager to ensure linking with current and prior planning.
- Ensuring appropriate landscaping design.

The draft engineering brief is to be circulated to the Capital Works project officer for comment and approval prior to advertising tenders.

6. Superintendent

Once engaged the consultants will superintend these works.

The Superintendent will:

- Ensure that the Contractor prepares documents showing that construction will be staged in a way that minimises disturbance to nearby residences, roads and footpaths;
- Ensure that Temporary Traffic Management Plans (TTMP) are prepared and approved;
- Ensure that plans for project site safety, environmental management and WHS are submitted and reviewed;
- Ensure that the Contractor submits a Project Quality Plan (PQP) that incorporates the activities to be undertaken during the course of the project. The PQP is to be submitted within 14 days of notification as the successful tenderer;
- Ensure that the construction program is submitted and is achievable;
- Ensure that the Contractor identified risks are comprehensive and manageable;
- Monitor the project against program milestones;
- Ensure that the necessary approvals are provided by an authorised delegate and have been sought from relevant agencies, sighted and forwarded to the Client;
- Coordinate hold points and verification checks throughout the construction program;
- Regularly check the works;
- Ensure services are accurately located on Dial Before You Dig, pot holing and Work as Executed (WAE) documents;
- Identify all necessary certifications and approvals for construction. Application processing fees associated with these items should be identified prior to awarding the construction tender in order that they are included in the lump sum;

- Coordinate weekly progress meetings during construction with the lead Contractor, IFCW and Client representative. The frequency of meetings may be adjusted in consultation with the Client to suit project specific requirements during the construction;

- Record minutes and maintain records of all meetings relating to the project and distribute as appropriate to the relevant parties within two days of the meeting taking place;

- Review all progress claims and invoices related to the construction contract;

- Administer the construction contract, including but not limited to: extensions of time, variations, certificates, site visits, quality assurance, liquidated damages, handover, defects liability period, contractual disputes, in accordance with the contract;

- Prepare asset description forms;

- Review the Contractor's WAE documentation to ensure that services and new assets are accurately located on WAE documents; and Prepare asset description forms that show number or area of existing assets and proposed changes to these assets, for example, area and type of paving, numbers of seats or bins. On completion of the upgrade the actual changes to the nominated assets should be recorded;

- Undertake all necessary administration and documentation in the course of the works.

7. Contractor

The Contractor will:

- Attend a start-up meeting and site visit with the TCCS Project Officer, IFCW Procurement Officer and the Superintendent prior to the works commencing and after the PQP, program and staging plan have been submitted;
- Provide a Temporary Traffic Management Plan (TTMP) for the Construction works;
- Ensure possession of site documentation is in place;
- Provide a site management and staging program. The staging program dates and locations will be made available to the community for information. The preference is for works to be undertaken in discrete sections in order to minimise disruption;
- Undertake due diligence, including identifying and confirming the locations of underground and overhead services in conjunction with the Superintendent;
- Obtain all relevant approvals for the construction works;
- Undertake the construction of the works in accordance with contract.
- Make good landscaped or grassed areas disturbed during construction;
- Undertake hold point inspections with the Superintendent;
- Provide end of project documentation including WAE documentation in accordance with Transport Canberra and City Services Ref 08 Requirements for Works as Executed Quality Records Issue 1 Revision 0.

- Liaise with relevant authorities and stakeholders throughout the project;
- Undertake all necessary administration and documentation in the course of the works;
- Ensure all sub-consultants/ contractors are fully qualified and IRE compliant.

Procurement Directorate will:

- Co-ordinate and distribute design documentation and reports as necessary to the relevant ACT Government Directorates for Design Acceptance;

  Undertake all the necessary work to ensure effective communication between all relevant parties and to enable the timely progress of the project.

8. Engineering Brief and Contract Arrangement

If tenders received exceed the available budget IFCW maybe required to assist TCCS to revise the scope of works.

9. Governance requirements

The Project's governance structure is based on the Project Management Guidelines. The assessment and selection of people to perform the functions within an appropriate structure is critical to the project's overall success.

10. Quality Assurance

The consultant is required to submit a **Project Quality Plan** (PQP) and the Inspection and Test Plan (ITP) that incorporates the activities to be undertaken during the course of the project. These documents are to be submitted 14 days after signing the contract. The PQP will be checked by Infrastructure, Finance and Capital Works and approved by the client Directorate.

The construction of the project must also comply with the requirements of the Quality Management System requirements. These requirements must be satisfied to allow design acceptance and final acceptance of the project. The Consultant should be aware of these requirements.

Construction documentation is to be completed with reference to the most current issue of the following:

- TCCS Ref No: 08 - Requirements for Works as Executed Quality Records.
- TCCS Ref No: 09 - Requirements for Operational Acceptance Submissions.
- TCCS Ref No: 06 - Requirements for Design Acceptance Submissions.
- TCCS Ref No: 04 - Guidelines for the Protection of Public Landscape Assets Adjacent to Development Works.
- TCCS Ref No: 10 - Requirements for Landscape Consolidation and Final Handover for Soft Landscape Works

- TCCS Drafting Standard

11. Project Output requirements

- The Project Manager or the Lead Consultant, depending on the project, will be required to coordinate all the specialist inputs and to deliver the required project outputs.
- Draft Sketch Plans (DSP) Submission should consist of five (5) sets of unbound A3 drawings. Three (3) copies of the costs estimate are also to be supplied.
- Final FSP Submission should consist of three (3) sets of unbound A3 colour drawings. Three (3) copies of the costs estimate are also to be supplied. Final FSP submission should also include graphic material, including perspective drawings, of a high quality suitable for public display.
- Draft Design Review (DR) Submission should consist of five (5) sets of unbound A3 drawings and three (3) copies of the draft Tender document/specifications.
- Final DR Submission should consist of one (1) set of unbound drawings, five (5) sets of bound drawings and three (3) copies of the specifications and Bill of Quantities. Final DR Information is also to be supplied in digital form on CD

12. Project Acceptance and Handover Requirements

12.1 Practical Completion / Operational Acceptance

The consultant shall collate and submit the following items to the Procurement and Capital Works on Practical Completion of the works prior to Operational Acceptance.

An Operational Acceptance inspection will be arranged approximately five working days after these documents are submitted.

The following tasks and documentation are required:

- Certificate of Practical Completion signed by the Superintendent and the Contractor; Construction drawings, three (3) copies X A3 size showing any alterations from the approved DR drawings;
- All Works As Executed (WAE) drawings to be presented as follows:
    - WAE records and documentation in the formats required by TCCS QS Ref No: 08 are to be supplied to IFCW at Operational Acceptance;
    - WAE digital data shall be submitted via the project wise portal as set out in the most current TCCS Drafting Standards;
    - All drawings are to be dated and signed by the Superintendent;
- All documentation relating to the deliverables of the project including, but not limited to:
- Operating Manuals
- Maintenance Manuals
- Other relevant safety Manuals

Note: The drawings and text in the WAE documentation should show works 'as constructed'. They should not merely be a copy of the construction drawings. The documents that are provided electronically must be an exact duplicate of the data provided in the hard copies.

- Completed Asset Description forms as described in TCCS Ref No: 08. Note: Current, proposed, and actual asset quantities should be shown, with current assets documented **before** construction commences;
- Superintendent's site inspection report completed and presented to Infrastructure Finance and Capital Works or other provider, again at the same time as request for Practical Completion;
- Report to include a draft Defects Rectification Plan that lists all minor defects and omissions with their rectification due dates signed by the contractor;
- Compliance certification for drawings that state they comply with the ACT Design Standards and Standard Specifications for Urban Infrastructure and other relevant standards. Compliance certification is to be signed by the Contractor and the Superintendent;
- Certificate of Site Possession, Electrical Certificate of Safety, Plumbing Certificate and others as relevant;
- A Final Defects Rectification Plan within five (5) working days after Operational Acceptance. The Plan shall be certified as satisfactory and signed by the Superintendent;
- Operational and Maintenance Manuals; and
- Relevant warranties.

12.2 Final Acceptance

The following items must be submitted prior to Final Acceptance.

- Final Certificate signed by the Superintendent; and
- Maintenance records certified by the Superintendent that show all defects and omissions have been rectified according to the Defects Rectification Plan.

12.3 Standards

All works are to be carried out to the required TCCS standards and specifications as referenced in the contract documentation.

The Consultant shall ensure that all documents and drawings produced for this project acknowledge the sponsoring client, Transport Canberra and City Services Directorate, TCCS, Capital Works as well as Infrastructure, Finance and Capital Works by including logos and names in the title block of drawings or in text documents.

13. Schedule

The dates identified for the construction work for Link 1 is within the school holidays (07 July 2018–20 July 2018).

13.1 Preliminary Estimates

Link 1: Design and construct a concrete footpath (Length 95m Width 1.8m) along Alexander Street from Charlotte Street to Penrhyn Street , Red Hill ACT 2603;

Breakdown construction Project Costs	**Total Cost $**
Design & Superintendency	$4,920
Construction	$32,800
Contingency	$6,560
Utilities Relocation (fees & levies)	$1,640
Total	**$45,920**

Link 2: Design a concrete path (Length 115m Width 1.8m) along Alexander Street from Penrhyn Street to Fishburn Street, Red Hill ACT 2603;

Breakdown Project Costs	**Total Cost $**
Design	$3,910
Total	**$3,910**

Link 2: Construct a concrete footpath (Length 95m Width 1.8m) from along Alexander Street from Penrhyn Street to Fishburn Street, Red Hill ACT 2603;

Breakdown construction Project Costs	**Total Cost $**
Construction	$39,100
Superintendency	$1,955
Contingency	$7,820
Utilities Relocation (fees & levies)	$1,955
Total	**$50,830**

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14. Consultation

Key stakeholders include:

- Roads ACT - TCCS
- Strategic Planning and Development - TCCS
- ACTION – TCCS
- Public Transport/Network Planning & Development – TCCS
- ACT Emergency Services Agency (ESA) – JACS
- Environment and Protection Authority (EPA)
- Relevant Community Councils

- Businesses and other stakeholders impacted by these works
- Adjacent residents and property owners.

If tenders have exceeded the available budget and alternate works are required Infrastructure, Finance and Capital Works shall be responsible for circulating the PSP and/or FSP reports to all the key stakeholders for comments and shall be responsible for responding to any issues raised by the stakeholders. Until they are formally agreed or endorsed.

Infrastructure, Finance and Capital Works shall prepare all materials for and assist Capital Works with undertaking any public consultations or public displays. For this project, subject to the Minister's approval, it is intended that consultation will be in the form of media releases and a letter drop is required.

Infrastructure, Finance and Capital Works shall liaise with and obtain the approval from all relevant asset owners or managers whose assets/responsibilities may be impacted by this project.

15. Communication

Capital Works will be responsible for providing responses to all ministerial, correspondence and requests that are directly related to the project.

Infrastructure, Finance and Capital Works shall provide the Capital Works Project Manager with assistance and obtain the most relevant and reliable information when requested. Due to the requirement of meeting specific time lines for this type of reporting, every effort must be made by Infrastructure, Finance and Capital Works to provide the level of detail required by the nominated time allocated by Capital Works.

From: Crichton, Andrew
To: Marshall, Ken; Gilles, Jennie; Hubbard, Benjamin
Subject: RE: Canberra Grammar [SEC=UNCLASSIFIED]
Date: Tuesday, 6 March 2018 9:41:28 AM
Attachments: Canberra Grammar - Action Plan.docx

Hi all,
I have updated the Canberra Grammar action plan to include bollards at the bottom of Alexander Street to prevent illegal parking. Can these works be included as part of one of the jobs?
I have also updated the 40km/h action item to complete, given this is due to be completed this week.
Please provide any feedback about the plan. Should we include indicative costs for any of the works?
Once I have incorporated your feedback, I will share the plan with Jim and then the school.
Thanks
Andrew

From: Crichton, Andrew
Sent: Tuesday, 27 February 2018 1:43 PM
To: Marshall, Ken <Ken.Marshall@act.gov.au>; Gilles, Jennie <Jennie.Gilles@act.gov.au>; Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>
Subject: RE: Canberra Grammar [SEC=UNCLASSIFIED]
Hi all,
Following the catch up yesterday afternoon I have developed a plan highlighting the issues and the actions we will follow up. Can you please review the plan and make any amendments, particularly if you think any of the action timeframes are unrealistic?
Thanks
Andrew
Andrew Crichton | Manager, Schools Program
T: (02) 6205 8457 | E: andrew.crichton@act.gov.au
Transport Canberra | Transport Canberra and City Services Directorate | ACT Government
496 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601 | act.gov.au

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From: Marshall, Ken
Sent: Friday, 23 February 2018 12:09 PM
To: Stravens, Helen <Helen.Stravens@act.gov.au>
Cc: Crichton, Andrew <Andrew.Crichton@act.gov.au>; Gilles, Jennie <Jennie.Gilles@act.gov.au>; Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>
Subject: FW: Canberra Grammar [SEC=UNCLASSIFIED]
Helen,
Could you arrange a quick coordination meeting on this with Andrew Jennie and Ben?
Ken Marshall | Director, Roads ACT
Phone 02 62 076588 | Email: ken.marshall@act.gov.au
Roads and Infrastructure, Roads ACT | Transport Canberra and City Services Directorate | ACT Government
496 Northbourne Avenue, Dickson ACT 2602 | Locked Bag 2000, Civic Square ACT 2608 | www.act.gov.au

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From: Crichton, Andrew
Sent: Thursday, 15 February 2018 11:44 AM
To: Marshall, Ken <Ken.Marshall@act.gov.au>
Cc: Corrigan, Jim <Jim.Corrigan@act.gov.au>
Subject: Canberra Grammar [SEC=UNCLASSIFIED]

Hi Ken,

Please find the report from Sellicks attached that was organised by Canberra Grammar. It includes proposed improvements for the Flinders Way/Mugga Way and Monaro Crescent/Mugga Way intersections and the potential costs. I have also included the designs for each intersection as separate attachments. It looks like the designs were led by the school's wishes, as they have included a signalised crossing and a pedestrian crossing in each of the designs.

I have also attached the design for the Flinders Way/Mugga Way intersection that was developed for TCCS by Gossips in 2015. These designs don't include an improvement like a roundabout, it proposes to fix up the footpath connections and install a refuge on Mugga Way.

Would you like me to engage Gossips to undertake the following?

- Develop designs for the footpath on Alexander Street
- Develop designs for the children's crossing on Monaro Crescent (additional crossing flags in the island)
- Develop designs to make improvements to the Flinders Way/Monaro Crescent intersection

The designs (and potentially works) can be funded through the Safer walking and cycling around schools BIF funding.

Please let me know how you would like to proceed with the Mugga Way/Flinders Way intersection. If Roads ACT is supportive of a roundabout at that location, should we have designs developed and start discussions with the school about whether they are willing to fund the works?

Thanks

Andrew

Andrew Crichton | Manager, Schools Program
T: (02) 6205 8457 | E: andrew.crichton@act.gov.au
Transport Canberra | Transport Canberra and City Services Directorate | ACT Government
496 Northbourne Ave, Dickson | GPO Box 158 Canberra ACT 2601 | act.gov.au

ACT Government
Transport Canberra and City Services

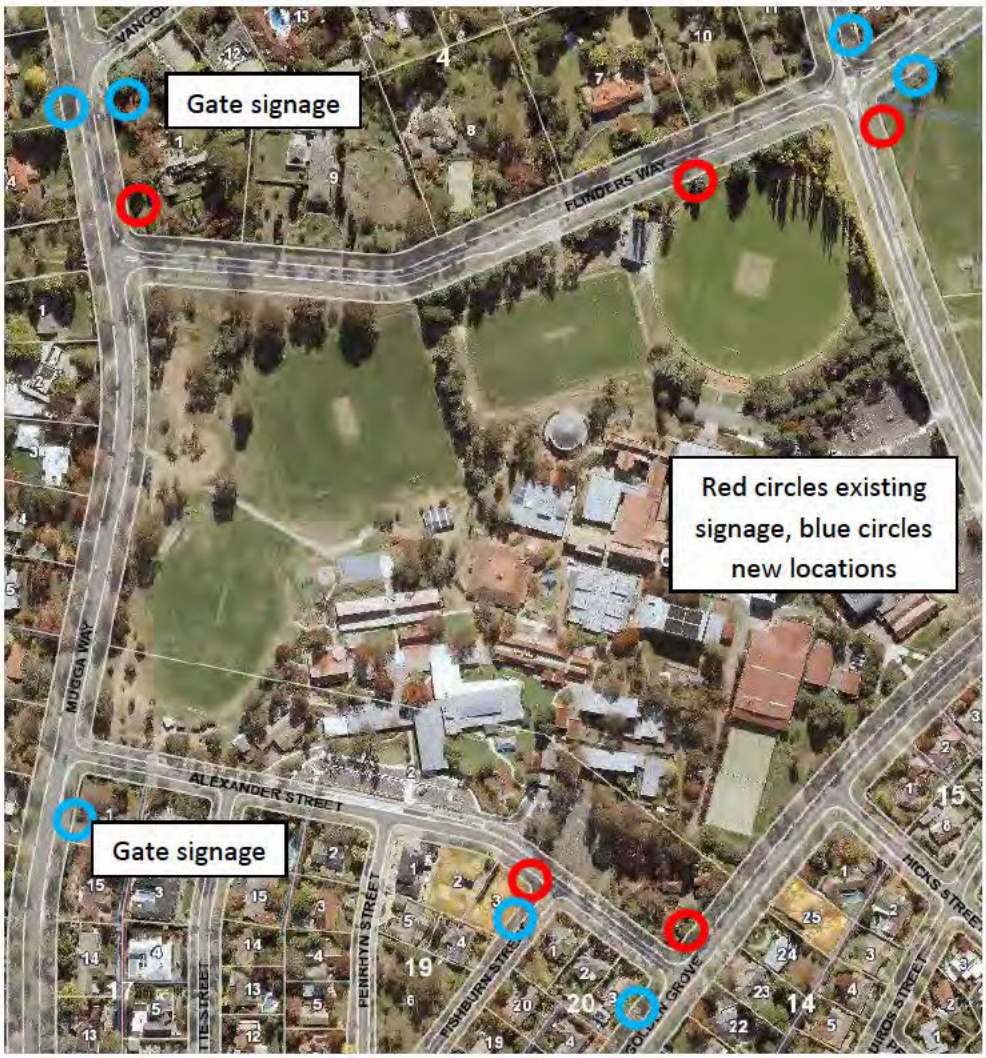
Canberra Grammar Action Plan

The Canberra Grammar School is a P-12 school in Red Hill with approximately 1500 students. The school has been very keen to make infrastructure improvements around the school to increase safety and access for pedestrians. Transport Canberra and City Services (TCCS) has been working with the school to review the local road environment, to see what improvements are warranted. The most recent meeting between TCCS and Canberra Grammar was on 15 February 2018.

Issues

Speed zone signage

The 40km/h speed zone signage does not currently cover the full perimeter of Canberra Grammar. The school has requested the school zone signage be relocated to cover the entire school boundary.



TCCS action	Timeframe
Move 40km/h signage to cover the school boundary	Complete

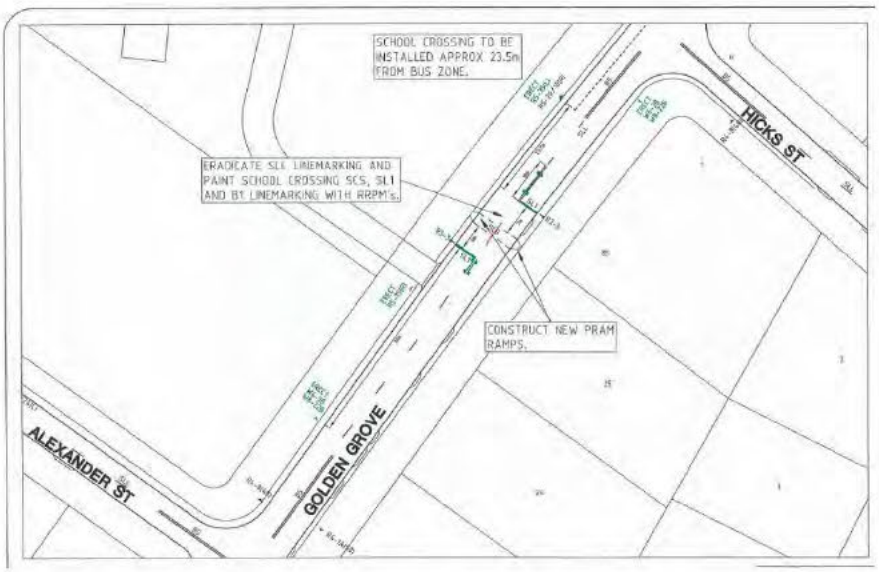
Alexander Street footpaths and bollards

There is currently no footpath along Alexander Street on the opposite side to the school. The section between Charlotte and Penrhyn Streets (blue line below), provides access to the children's crossing. Pedestrians are currently walking along Alexander Street and crossing away from the crossing because there is no footpath to provide access to the side streets (Charlotte and Penrhyn). Canberra Grammar has requested a footpath be considered to increase safety for pedestrians, particularly children. To increase safety for children walking up the school side of Alexander Street, bollards should be installed to prevent cars parking illegally and driving over the footpath.

TCCS actions	Timeframe
Engage consultants to design and build the section of footpath between Charlotte and Penrhyn Streets (blue section)	July 2018 (to build)
Develop designs to potentially extend the footpath to Fishburn Street (red section), pending the availability of funding	April/May 2018 (designs only)
Include the section of footpath between Fishburn Street and Golden Grove on the Footpath Upgrades Program for potential future works	Complete
Install bollards on Alexander St to prevent illegal parking	April 2018

Golden Grove children's crossing

Canberra Grammar has requested additional crossings to increase safety for students. Roads ACT has explained that crossings don't necessarily increase safety, they are designed to increase amenity in high pedestrian areas by providing priority to pedestrians. Counts were undertaken in 2017 at a number of locations around the school. The only additional location that currently warrants a crossing is on Golden Grove. TCCS has developed designs for a children's crossing on Golden Grove (see below), which have been shared with Canberra Grammar.



TCCS action	Timeframe
Install children's crossing on Golden Grove	March 2018

Monaro Crescent children's crossing

Canberra Grammar has requested a pedestrian crossing replaces the children's crossing on Monaro Crescent. Roads ACT organised pedestrian and traffic counts at this location in 2017 and the location did not meet the warrant for a pedestrian crossing. Roads ACT explained to the school that a pedestrian crossing does not make the crossing any safer for pedestrians and that the current infrastructure (which includes a refuge island and speed humps on the approach) provides sufficient amenity for safe pedestrian access. Roads ACT said some minor improvements can be made to the crossing to improve its visibility and accessibility for pedestrians.

TCCS action	Timeframe
Install crossing flags on the refuge island and move one of the crossing flags (opposite side of the road to the school) to provide easy and safe pedestrian access	April 2018

Mugga Way and Flinders Way intersection

Canberra Grammar would like to see a number of improvements made to the Mugga Way and Flinders Way intersection to slow traffic and improve pedestrian access. TCCS currently has designs to upgrade the intersection and provide better pedestrian access. The designs have not been delivered due to the cost, which requires capital funding rather than minor new works funding. The designs include a refuge island on Mugga Way, which will provide better pedestrian access and also help to slow traffic.

The current designs do not include better pedestrian access across Flinders Way or traffic calming measures on the left hand turn from Mugga Way into Flinders Way. TCCS will request updated designs to gain a clearer understanding about the scope and potential cost of these improvements.

TCCS action	Timeframe
Request updated designs that include better pedestrian access across Flinders Way and traffic calming around the Mugga Way to Flinders Way left hand turn	June 2018 (updated designs only)

Monaro Crescent and Flinders Way intersection

Canberra Grammar would like improved pedestrian access around the Monaro Crescent and Flinders Way intersection. These improvements may include better footpath connections and pram ramps. The school has also raised concerns about the shape of the roundabout and the speed at which motorists travel through the roundabout. Relocating the speed zone signage to the approaches of the roundabout will help to reduce speed prior to motorists entering the roundabout.

TCCS will engage a traffic engineer to develop designs to highlight potential improvements to this intersection. The designs will allow TCCS to gain a clear understanding about the likely cost to deliver any future works at this location.

TCCS action	Timeframe
Engage a traffic engineer to review the Monaro Crescent and Flinders Way intersection to see what improvements can be made to increase amenity for pedestrians and potentially slow motorists	June 2018 (designs only)

Alexander Street congestion

Canberra Grammar has raised concerns about the level of congestion on Alexander Street during the morning and afternoon peak, which can reduce safety for children. This issue is caused by the large number of parents that choose to drive their children to the drop off area on Alexander Street.

The school has suggested a third lane on Alexander Street might help to improve traffic flow by allowing cars to queue to enter the school driveway. This option will require substantial works, including the removal of a number of power poles. TCCS has advised the school that this option would be subject to the budget process and is unlikely to receive funding given the minimal benefit to the broader community.

TCCS has explained that the best way to reduce the congestion is to promote behavioural change within the school community, by encouraging more active travel and use of partway drop off locations around the school. The ACT Government offers a free program to support the school to achieve this, the Ride or Walk to School program.

TCCS has advised Canberra Grammar that they can investigate (through the development approval process) a second driveway (green line below) to the car park at the corner of Mugga Way and Alexander Street. A second driveway will potentially help to ease congestion by reducing the number of cars that need to turn into Alexander Street.

TCCS has also advised the school that Transport Canberra is willing to investigate an alternative location for buses to drop off and collect children around the perimeter of the school, which will remove the buses from Alexander Street. This will help to reduce congestion on the street and will also provide parents with an additional space (existing bus stop) to drop off and collect children.

Canberra Grammar actions	Timeframe
Join the Ride or Walk to School program to drive a culture change within the school community and encourage more walking and riding, which will help to reduce the congestion on Alexander Street	2018
Consider installing a second driveway to the car park at the corner of Mugga Way and Alexander Street	2018
In consultation with the TCCS Schools Program, consider alternative locations for school bus services to collect children to remove buses from Alexander Street during the peak periods, allowing parents to use the bus zone to drop off and collect children	2018

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Actions summary

Action	Responsibility	Timeframe	Status
Move 40km/h signage to cover the school boundary	TCCS	Complete	In progress
Engage consultants to design and build the section of footpath between Charlotte and Penrhyn Streets	TCCS	July 2018 (to build)	In progress
Develop designs to potentially extend the footpath along Alexander Street to Fishburn Street, pending the availability of funding	TCCS	April 2018 (designs only)	In progress
Add the section of footpath on Alexander Street between Fishburn Street and Golden Grove on the Footpath Upgrades Program for potential future works	TCCS	Complete	Complete
Install bollards on Alexander St to prevent illegal parking	TCCS	April 2018	In progress
Install a children's crossing on Golden Grove	TCCS	March 2018	In progress
Install crossing flags on the refuge island on the Monaro Crescent children's crossing and relocate one of the crossing flags (opposite side of the road to the school) to provide easy and safe pedestrian access	TCCS	April 2018	In progress
Request updated designs at the Mugga Way and Flinders Way intersection, which include traffic calming around the Mugga Way to Flinders Way left hand turn and better pedestrian access across Flinders Way	TCCS	June 2018 (updated designs only)	Pending
Engage a traffic engineer to review the Monaro Crescent and Flinders Way intersection to see what improvements can be made to increase amenity for pedestrians and potentially slow motorists	TCCS	June 2018 (designs only)	Pending
Join the Ride or Walk to School program to drive a culture change within the school community and encourage more walking and riding, which will help to reduce the congestion on Alexander Street	Canberra Grammar	2018	TBC
Consider installing a second driveway to the car park at the corner of Mugga Way and Alexander Street	Canberra Grammar	2018	TBC
In consultation with the TCCS Schools Program, consider alternative locations for school bus services to collect children to remove buses from Alexander Street during the peak periods, allowing parents to use the bus zone to drop off and collect children	Canberra Grammar	2018	TBC

EMAILED 13/3/18

Meegan Fitzharris MLA

Member for Yerrabi

Minister for Health and Wellbeing
Minister for Transport and City Services
Minister for Higher Education, Training and Research

[redacted]
Canberra Grammar School
[redacted]@cgs.act.edu.au

Dear [redacted]

Thank you for your letter of 31 January 2018 to Mr Shane Rattenbury MLA regarding road and footpath issues around Canberra Grammar School in Red Hill. I am responding to you as this matter falls within my portfolio responsibilities.

The ACT Government takes road safety very seriously, particularly around our schools. In recognition of this, the Transport Canberra and City Services (TCCS) Schools Program was developed to coordinate road safety concerns and increase active travel, so it is encouraging to hear that you have been working closely with this team.

I understand you met with officers from TCCS at the school on 15 February 2018 to discuss your concerns. Following this meeting a number of minor works are planned, including:

- extending the school zone signage to cover the school's border;
- installing a new children's crossing on Golden Grove;
- increasing the signage at the children's crossing on Monaro Crescent; and
- designing a new footpath at the children's crossing on Alexander Street.

TCCS will also investigate the Monaro Crescent/Flinders Way and Mugga Way/Flinders Way intersections to see what improvements are recommended at these locations.

I encourage you to continue working closely with the Schools Program team to improve safety around the school, which will also encourage more parents and children to use active travel modes to and from school.

Thank you for raising this matter. I trust the information provided is of assistance.

Yours sincerely

Meegan Fitzharris MLA
Minister for Transport and City Services
10/3/2018

AUSTRALIAN CAPITAL TERRITORY LEGISLATIVE ASSEMBLY
London Circuit, Canberra ACT 2601, Australia GPO Box 1020, Canberra ACT 2601, Australia
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@MeeganFitzMLA MeeganFitzharrisMLA

COPY

Andrew Barr MLA
Chief Minister

Member for Kurrajong

Treasurer
Minister for Economic Development
Minister for Tourism and Major Events

[redacted]
Canberra Grammar School
40 Monaro Crescent
RED HILL ACT 2603

Dear [redacted]

Thank you for your letter of 19 February 2018 regarding traffic conditions around Canberra Grammar School, Red Hill. I am advised that the Minister for Transport and City Services, Ms Meegan Fitzharris MLA has responded to your feedback.

The ACT Government takes road safety very seriously, particularly around schools, so it is pleasing you have been working closely with the Schools Program team in Transport Canberra and City Services (TCCS).

Following your meeting on 15 February 2018 with TCCS representatives, a number of minor works to improve safety are planned around the school. These works are expected to commence in the first half of 2018.

I encourage you to continue working closely with TCCS to see what other improvements can be delivered to promote active travel to and from the school.

Thank you for raising the matter. I trust the information is of assistance.

Yours sincerely

Andrew Barr MLA
Chief Minister

15 MAR 2018

AUSTRALIAN CAPITAL TERRITORY LEGISLATIVE ASSEMBLY
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ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)

ALEXANDER STREET FOOTPATH
REDHILL
SITE 1

COVER SHEET

DATE PLOTTED: 17 May 2018 5:23 PM BY : LEON RUECKER
CAD File: N:\Projects\505\PY\180090_ALEXANDER ST RED HILL FOOTPATH\Drawings\Build\STAGE 1\50518090-CI-1000-CS.dwg

50518090-CI-1000
Drawing Number

A
Revision

GENERAL NOTES

1. DESIGN LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM (AHD).
2. ALL CONSTRUCTION WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION AND THE TaMS STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS EDITION 1, REVISION 0.
3. ALL CONSTRUCTION WORK SHALL BE CO-ORDINATED WITH ADJACENT CONTRACTS.
4. SURFACES WHICH LIE OUTSIDE THE GENERAL LIMITS OF LANDSCAPING AND RESTORATION WHICH ARE DISTURBED DURING THE CONSTRUCTION OF THE WORKS SHALL BE RESTORED BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, TO AT LEAST THE PRE-CONSTRUCTION CONDITION. THESE SURFACES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, PAVEMENTS, GRASSING, ETC.
5. EXISTING SERVICES ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON SITE, THE CONTRACTOR SHALL CONTACT THE RELEVANT AUTHORITIES AND VERIFY THE LOCATION OF ALL UNDERGROUND SERVICES ON THE SITE AND OBTAIN NECESSARY CLEARANCES.
6. SOME EXISTING KERB LINES HAVE NOT SURVEYED AND ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON SITE, THE CONTRACTOR SHALL CONFIRM THE LOCATION OF THE EXISTING KERBS AND WHERE NECESSARY MATCH TO EXISTING - WHERE THE DISCREPANCY IS TOO GREAT THE DESIGNER IS TO BE NOTIFIED SO THAT THE PECCARY CHANGES TO THE DESIGN CAN BE MADE AT THE DISCRETION OF THE SUPERINTENDENT.
7. ALL DESIGN SUBGRADE VALUES MUST BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. RESULTS OF SUBGRADE TESTS MUST BE MADE AVAILABLE TO THE SUPERINTENDENT WITH 24HRS OF RECEIPT. IF THE CBR IS LESS THAN CURRENTLY NOTED, THEN A PAVEMENT RE-DESIGN WILL BE REQUIRED BEFORE PROCEEDING.
9. WHERE NEW WORK MATCHES INTO EXISTING INFRASTRUCTURE, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH, EVEN SURFACE, FREE FROM ABRUPT CHANGES IS ACHIEVED AND A CONTRUCTION JOINT HAS BEEN PROVIDED.
10. HOURS OF OPERATION = 7.00am TO 6.00pm, 6 DAYS A WEEK IN ACCORDANCE WITH THE ENVIRONMENT PROTECTION REGULATION 2005.
11. THE CONTRACTOR SHALL LIMIT MOVEMENT OF VEHICLES AND PLANT TO APPROVED PARKING AREAS AND ACCESS ROUTES ONLY.
12. MEASURES REQUIRED FOR CONFIRMING WITH THE ACT WATER POLLUTION ACT ARE SET OUT IN THE ACT STANDARD SPECIFICATION CLAUSE 2.03.

SEDIMENT AND EROSION CONTROL NOTES

1. THE MEASURES SHOWN ON THE DRAWING ARE CONCEPTUAL DESIGN GUIDELINES BASED ON "ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT", 2011. ALL EROSION AND SEDIMENT MEASURES SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT ONLY, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN, INSTALL AND MAINTAIN MEASURES IN ACCORDANCE WITH ENVIRONMENTAL PROTECTION AUTHORITY.
2. THE CONTRACTOR SHALL ENSURE THAT ADEQUATE MEASURES FOR THE SUPPRESSION OF DUST AND NOISE ARE TAKEN AT ALL TIMES DURING CONSTRUCTION WORK. KEEP ROAD PAVEMENTS, CYCLEPATHS AND FOOTPATHS CLEAR OF DIRT, MUD AND OTHER DEBRIS AT ALL TIMES.
3. INSTALL SILT FENCES AROUND ALL SUMPS AND MANHOLES AND MAINTAIN DURING ENTIRE CONSTRUCTION PERIOD.
4. STRAW BALES MUST BE PLACED AT SUITABLE INTERVALS ALONG SWALES & CUT-OFF DRAINS.
5. SILT FENCE SHALL BE PLACED AROUND ANY STOCKPILES IF REQUIRED.
6. SILT FENCE SHALL BE ADJUSTED AROUND STOCKPILES OR SPOIL AREAS IF REQUIRED.
7. PLACE STRAW BALES OR SANDBAGS AROUND DRAINAGE SUMPS AT LOW POINTS AND OTHER KEY DRAINAGE LOCATIONS AS REQUIRED.
8. INSTALL SILT FENCES AROUND ALL SUMPS AND MANHOLES AND MAINTAIN DURING ENTIRE CONSTRUCTION PERIOD UNTIL THE SITE IS FULLY GRASSED AND STABILISED.
9. THESE DRAWINGS TYPIFY ONLY EROSION CONTROL PRINCIPLES REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND SUBMIT DETAILS OF PROPOSED EROSION CONTROL MEASURES IN ACCORDANCE WITH SECTION 2.03 OF THE BASIC SPECIFICATION. IT CAN BE ANTICIPATED THAT ALL NECESSARY CONTROL MEASURES INCLUDED IN 2.03.1 WILL BE REQUIRED. THE CONTRACTOR SHALL PROVIDE DRAWING AND DETAILS TO THE ENVIRONMENT PROTECTION UNIT 'ENVIRONMENT A.C.T.' FOR APPROVAL PRIOR TO COMMENCING WORKS.
10. MEASURES REQUIRED FOR CONFIRMING WITH THE ACT WATER POLLUTION ACT ARE SET OUT IN THE ACT STANDARD SPECIFICATION CLAUSE 2.03.
11. POLLUTION CONTROL METHODS SHALL ALSO BE DESIGNED IN ACCORDANCE WITH THE "ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT", 2011.
12. ALL STRAW BALES TO BE WRAPPED IN GEOTEXTILE FABRIC.
13. KERBSIDE FILTER ROLLS TO BE REMOVED, CLEANED AND REINSTATED ON A WEEKLY BASIS AT A MINIMUM. TRAPPED SEDIMENT ABOUT SUMPS ALSO TO BE REMOVED. CLEANING IS ALSO TO TAKE PLACE IMMEDIATELY AFTER PERIODS OF RAINFALL DURING CONSTRUCTION.
14. THE SITE FOREMAN IS TO CONTACT ENVIRONMENT ACT (132281) TO ARRANGE A SITE INSPECTION AND ENDORSEMENT OF SEDIMENT AND EROSION CONTROL MEASURES PRIOR TO WORKS COMMENCING.
15. THE SITE FOREMAN WILL ENSURE CONTRACTORS ACCESS AND EXIT THE SITE USING ONLY ENVIRONMENT ACT APPROVED STABILISING ACCESS/EXIT POINTS AS DETAILED ON ENDORSED SEDIMENT AND EROSION CONTROL PLANS.

VERGE MANAGEMENT NOTES

1. THERE SHALL BE NO PARKING, SITE SHEDS/AMENITIES, BILLBOARDS OR STORAGE OF MATERIALS ON THE VERGE WITHOUT PRIOR APPROVAL FROM THE PUBLIC LAND USE COORDINATOR. PROTECT ALL GRASSLAND TREES AND SHRUBS OUTSIDE THE WORKS AREA FROM DAMAGE.
2. ANY WORKS THAT ALTER OR DISTURB GRASSED FLOODWAYS, VERGE AREAS, MEDIANS OR OTHER OPEN AREAS MUST BE REINSTATED TO EXISTING CONDITION BY THE PERSON(S) RESPONSIBLE FOR THE DISTURBANCE TO THE SATISFACTION OF THE PUBLIC LAND USE COORDINATOR AND PARKS AND TERRITORY SERVICES.
3. FENCING TO PROTECT EXISTING VERGE (REFER LEGEND)
   a) FENCING TO BE ERECTED ON COMMENCEMENT OF SITE WORK AND REMOVED ON COMPLETION OF VERGE RESTORATION.
   b) THE FENCE IS TO REMAIN CONTINUOUS THROUGHOUT THE PROJECT.

VERGE INFRASTRUCTURE AND RESTORATION NOTES

1. THE COORDINATOR SHALL, ON COMPLETION OF WORK, UNDERTAKE ANY VERGE RESTORATION TO ANY DAMAGED AREAS OF THE VERGE. DURING VERGE RESTORATION, TOPSOIL SHALL NOT BE REMOVED AND THE SOIL LEVEL SHALL NOT BE CHANGED WITHIN THE DRIP ZONE OF TREES OR AS OTHERWISE APPROVED AND UPON COMPLETION OF THE WORKS, VERGES SHALL HAVE ESTABLISHED APPROPRIATE GRASS COVER, eg DRYLAND GRASS.
2. IF THE STANDARD OF GRASS COVER ON THE VERGE NEEDS TO BE IMPROVED, THE FOLLOWING REQUIREMENTS SHALL APPLY:
   a) WITHIN THE ROOT ZONE OF TREES, LIGHTLY CULTIVATE THE SOIL IN ONE DIRECTION ONLY TO BETWEEN 0.025m TO 0.050m DEPTH (0.05m MAXIMUM TO MINIMISE DAMAGE TO TREE ROOTS) AVOID MAJOR ROOTS AND KEEP A MINIMUM OF 1.0m AWAY FROM TREE TRUNKS;
   b) OUTSIDE THE ROOT ZONE OF TREES NORMAL CULTIVATION PRACTICE APPLIES;
   c) ADD 'B TYPE' TOPSOIL AT 0.025m TO 0. 05m DEPTH, LEVEL THE TOPSOIL AND ADD NPK FERTILISER (EQUIVALENT TO MULTIGRO) AT 40g/m^2;
3. SOW SEED OF SUITABLE DROUGHT TOLERANT SPECIES AS SPECIFIED IN THE STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS. KEEP MOIST DURING ESTABLISHMENT; AND
4. ALL RESTORATION WORK SHALL CARRIED OUT BY APPROVED OPERATORS.

EXISTING TREES

1. REFER LANDSCAPE MANAGEMENT PLAN FOR ADDITIONAL NOTES.
2. ALL TREES LOCATED IN THE ROAD RESERVE, VERGE, PUBLIC OPEN SPACE AND ON UNLEASED TERRITORY LAND, SHALL BE RETAINED AND MUST REMAIN UNDAMAGED UNLESS MARKED FOR REMOVAL. THE COORDINATOR IS TO IDENTIFY ANY TREE THAT MAY BE AFFECTED BY THE WORKS AND PROVIDE APPROPRIATE PROTECTIVE MEASURES TO MINIMISE TREE DAMAGE.
3. UNLESS NOTED ON DRAWINGS, NO PRUNNING OF TREE BRANCES IS PERMITTED.
4. ALL OTHER AREAS OF TREE CANOPIES OUTSIDE DESIGNATED WORKING AREA, ARE NOT TO BE ALTERED OR REDUCED.
5. CROWNS AND APEX OF CANOPIES ARE NOT TO BE ALTERED OR REDUCED.
6. THE MAJORITY OF TREE ROOTS GROW IN THE TOP 0.3m OF SOIL. THESE FEEDER ROOTS ARE OFTEN VERY FINE ROOTS THAT PROVIDE THE TREE WITH WATER, OXYGEN AND NUTRIENTS. THESE ROOTS TYPICALLY GROW FROM THE TRUNK OF THE TREE TO WELL BEYOND ITS 'DRIP-LINE' (THE CANOPY EDGE).
   IF EXCAVATION WITHIN THE EXISTING TREE CANOPY ZONE IS REQUIRED, HYDROVAC WITHIN CANOPY ZONE, CLEAN OUT PRUNE AND SAW.
7. EXCAVATING THE DRIP ZONE OF A TREE DOES CONSIDERABLE DAMAGE TO ITS ROOT SYSTEM. IT CAN AFFECT TREE STABILITY AND TREE HEALTH TO SUCH AN EXTENT THAT IT WILL LEAD TO THE DECLINE AND POSSIBLE DEATH OF THE TREE OVER A PERIOD OF YEARS.
8. EXCAVATION WITHIN THE DRIP ZONE IS NOT PERMITTED UNLESS MARKED ON DRAWINGS.
9. WHERE EXCAVATION IS APPROVED, THE FOLLOWING MEASURES SHALL BE ADOPTED FOR TREE PROTECTION
   a) DO NOT SEVER LARGE ROOTS (0.3m DIAMETER) CLOSER THAN HALFWAY FROM THE DRIP-LINE TO THE TRUNK
   b) LOCATE THESE ROOTS BY HAND TRENCHING TO A DEPTH OF 0.3m BEFORE ANY MECHANICAL TRENCHING IS UNDERTAKEN
   c) CUT ALL ROOTS CLEANLY WITH EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PURPOSE OR BY SUITABLE
   d) PROTECT ROOTS EXPOSED FROM DESECRATION BY LIGHTLY WATERING OR COVERING WITH HESSIAN, WHICH MUST BE KEPT MOIST, AND
   e) MAINTAIN THE GOOD HEALTH OF THE TREES THAT HAVE HAD DISTURBANCE IN THEIR ROOT ZONE BY CONTINUAL WATERING. AT NO TIME SHALL THE DISTURBED AREA BE ALLOWED TO DRY OUT TO THE DETRIMENT OF THE TREES HEALTH.

NOISE

ENSURE ALL BUILDING WORK THAT GENERATES NOISE IS CONDUCTED WITHIN THE TIME PERIODS DETAILED IN SCHEDULE 2 OF THE ENVIRONMENTAL PROTECTION REGULATION 2005.

INDUSTRIAL, CITY AND TOWN CENTRE AREAS	MONDAY TO SATURDAY	SUNDAY AND PUBLIC HOLIDAYS
ANY OTHER AREA WHEN WORK COMPLETED WITHIN 2 WEEKS	6am TO 8pm	6am TO 8pm
ANY OTHER AREA WHEN WORK NOT COMPLETED WITHIN 2 WEEKS	7am TO 6pm	8am TO 8pm
BUILDING WORK DETAILS	7am TO 6pm	BUILDING WORK MUST NOT EXCEED NOISE STANDARD

IN ADDITION:
1. SCHEDULE NOISY ACTIVITIES FOR THE LEAST SENSITIVE TIMES OF THE DAY SUCH AS MID-MORNING AND MID AFTERNOON.
2. SELECT MACHINERY THAT PRODUCE LESS NOISE; AND
3. ENSURE MACHINERY IS WELL MAINTAINED.

DUST MANAGEMENT NOTES

1. WHERE BUILDING WORK GENERATES DUST, ALL REASONABLE AND PRACTICABLE MEASURES SHOULD BE TAKEN TO MINIMISE THAT DUST. THIS CAN OFTEN BE ACHIEVED BY:
   a) RETAIN EXISTING VEGETATION WHERE POSSIBLE;
   b) STRIPPING AREAS PROGRESSIVELY AND ONLY WHERE IT IS NECESSARY FOR WORKS TO OCCUR;
   c) EMPLOYING STABILISING METHODS SUCH AS MATTING, GRASSING OR MULCH;
   d) DAMPENING THE GROUND WITH A LIGHT WATER SPRAY (CONTACT ENVIRONMENT ACT FOR REQUIREMENTS DURING EXTREME DROUGHT CONDITIONS);
   e) ROUGHENING SURFACE OF EXPOSED SOIL;
   f) RESTRICTING VEHICLE MOVEMENTS;
   g) CONSTRUCTING WIND BREAKS SUCH AS WIND FENCES IN ACCORDANCE WITH THE BLUE BOOK.
2. A WATER CART OR SUFFICIENT WATER SPRAYS SHALL BE MADE AVAILABLE AT ALL TIMES IN ADVERSE CONDITIONS WHEN DUST CANNOT BE ADEQUATELY CONTROLLED WHEN WORKS AREA BEING UNDERTAKEN, WORKS WILL CEASE IN THESE AREAS UNTIL CONDITIONS IMPROVE.
3. THE CONTRACTOR IS TO CONTACT THE WATER RESOURCES UNIT TO OBTAIN AN EXEMPTION TO USE NON-POTABLE WATER FROM ON OR OFF THE SITE IF REQUIRED.

ACCESS AND MOBILITY

1. FOOTPATHS ARE TO HAVE A MAXIMUM LONGITUDINAL GRADE 5% AND A MAXIMUM CROSSECTIONAL GRADE 2% AND TACTILES PROVIDED AND INSTALLED IN ACCORDANCE WITH AS.1428 DESIGN FOR ACCESS AND MOBILITY.

LOCALITY PLAN

SCHEDULE OF DRAWINGS

DRAWING No.	DESCRIPTION
50518090-CI-1000	COVER SHEET
50518090-CI-1001	GENERATE NOTES, LEGEND, DRAWING LIST AND LOCALITY PLAN
50518090-CI-1005	SITE PLAN
50518090-CI-1010	GENERAL ARRANGMENT AND TYPICAL CROSS SECTIONS
50518090-CI-1015	PAVEMENT PLAN AND DETAILS
50518090-CI-1020	TEMPORARY TRAFFIC MANAGEMENT CONCEPT PLAN
50518090-CI-1025	CONCEPT EROSION, SEDIMENT CONTROL AND VERGE PROTECTION PLAN
50518090-CI-1026	CONCEPT EROSION, SEDIMENT CONTROL AND VERGE PROTECTION DETAILS AND NOTES

Rev.	Date	Description	Des.	Verif.	Appd.
A	2/05/2018	CLIENT REVIEW	PDJ	TL	JPS

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Transport Canberra and City Services

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Drawn	PDJ	Date
Checked	TL	Date
Designed	PDJ	Date
Verified	TL	Date
Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 1
Title: GENERATE NOTES, LEGEND, DRAWING LIST AND LOCALITY PLAN
Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: AHD | Scale: N/A | Size: A1
Drawing Number: 50518090-CI-1001 | Revision: A

0 10 20 30 40 50m
SCALE 1:500 @A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	2/05/2018	CLIENT REVIEW	PDJ	TL	JPS

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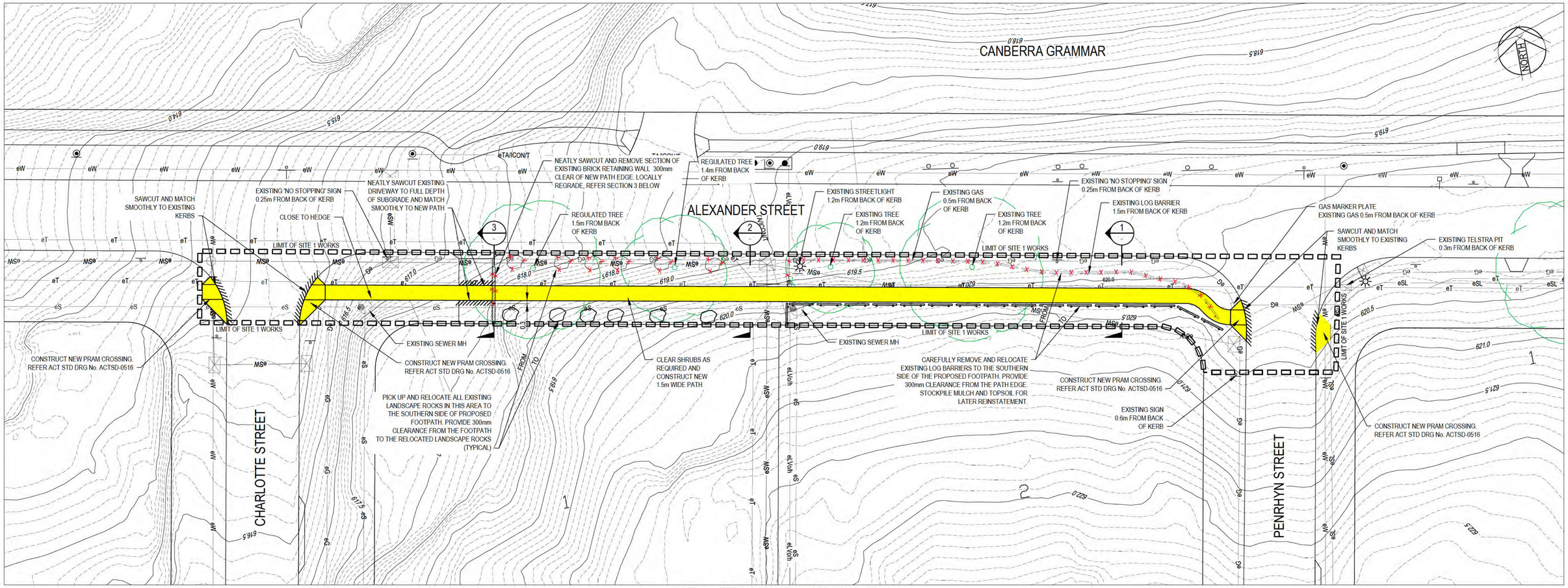
		Date
Drawn	PDJ	
Checked	TL	
Designed	PDJ	
Verified	TL	
Approved	JPS	

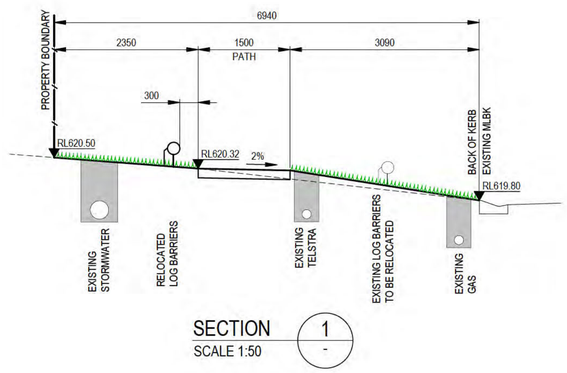
Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 1
Title: SITE PLAN
Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: AHD
Scale: 1:500
Size: A1
Drawing Number: 50518090-CI-1005
Revision: A

DATE PLOTTED: 17 May 2018 5:24 PM BY: - LEON RUECKER

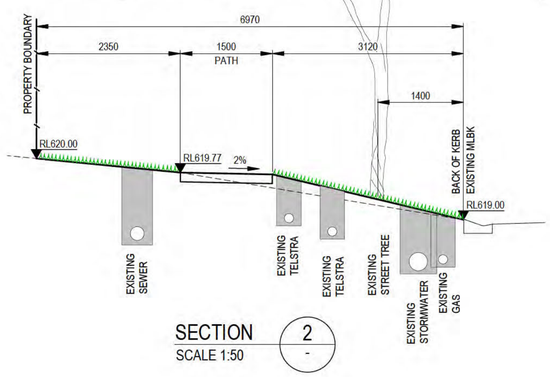


SITE 1 - GENERAL ARRANGEMENT PLAN

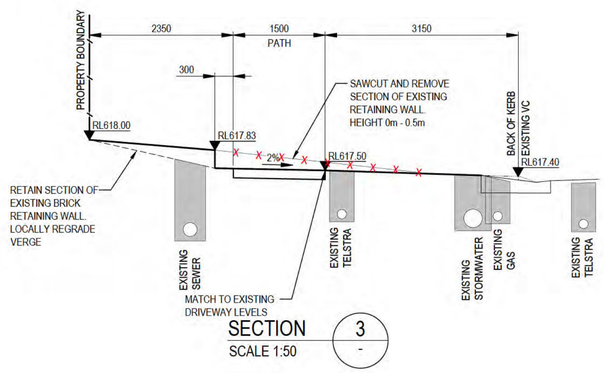
SCALE 1:200



SECTION 1
SCALE 1:50



SECTION 2
SCALE 1:50



SECTION 3
SCALE 1:50

NOTE:

EXISTING SERVICES ALIGNMENTS ARE GATHERED FROM DBYD. ON SITE LOCATION OF SERVICES IS TO BE UNDERTAKEN BY THE CONTRACTOR. ADJUSTMENT OF FOOTPATH ALIGNMENT IS TO BE APPROVED BY THE SUPERINTENDENT .

0 1 2 3 4 5m
SCALE 1:50 @A1

0 5 10 15 20m
SCALE 1:200 @A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	2/05/2018	CLIENT REVIEW	PDJ	TL	JPS

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Drawn	PDJ	Date
Checked	TL	Date
Designed	PDJ	Date
Verified	TL	Date
Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 1
Title: GENERAL ARRANGMENT AND TYPICAL CROSS SECTIONS
Status: PRELIMINARY
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Datum: AHD
Scale: AS SHOWN
Size: A1
Drawing Number: 50518090-CI-1010
Revision: A

XREFs: x-Base; x-TCD; x-Existing Services; x-Images; x-LIDAR-Contours
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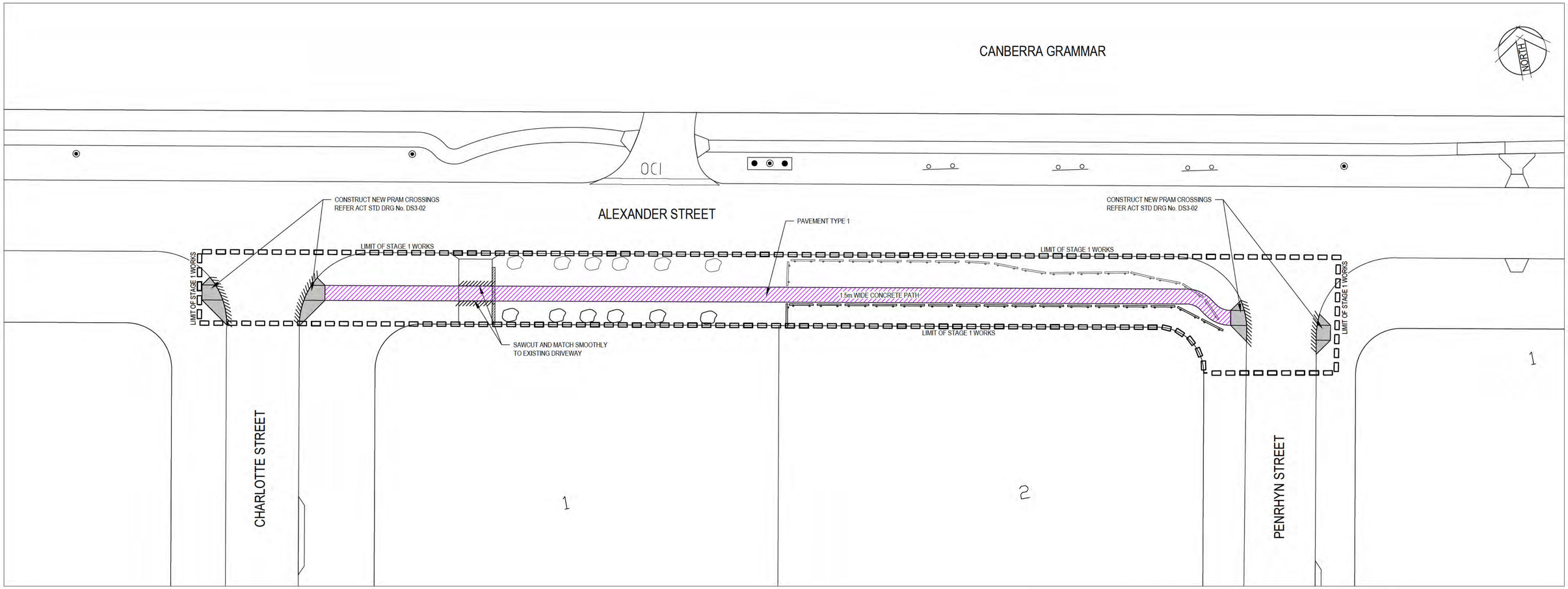

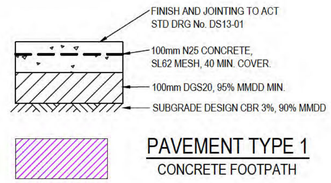

PAVEMENT TYPE 1
CONCRETE FOOTPATH

PAVEMENT NOTES

1. SUBGRADE CBR FOR PAVEMENT DESIGN HAS BEEN DETERMINED FROM LABORATORY SOAKED CBR TESTS ON REPRESENTATIVE SOIL SAMPLES. REFER GEOTECHNICAL CONSULTANT'S REPORT.
2. FOR ALL PAVEMENT TYPES COMPACT SUBGRADE., SELECT FILL, SUB-BASE AND BASE MATERIALS IN ACCORDANCE WITH THE ACT STANDARD SPECIFICATION OR AS SHOWN ON THE DRAWING, WHICH EVER IS GREATER.
3. ALL DESIGN SUBGRADE VALUES MUST BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. RESULTS OF SUBGRADE TESTS MUST BE MADE AVAILABLE TO THE PAD WITHIN 24 HRS OF RECEIPT. IF THE CBR IS LESS THAN CURRENTLY NOTED OR IP OR LL IS GREATER THAN 25% AND 50% RESPECTIVELY, THEN A PAVEMENT RE-DESIGN WILL BE REQUIRED BEFORE PROCEEDING.
5. SUBGRADE PREPARATION

a) REMOVE TOPSOIL, LARGE ROOTS AND UPPER LEACHED SOILS FROM ALL AREAS TO BE PAVED.

b) ANY HOLES CREATED BY REMOVAL OF ROOTS SHALL BE BACKFILLED.

c) PROOF ROLL ALL SUBGRADES IN THE PRESENCE OF THE PAD. THE PAD WILL ASSESS SUITABILITY OF SUBGRADE. ANY AREAS OF UNSUITABLE SUBGRADE SHALL BE EXCAVATED TO A DEPTH BELOW SUBGRADE LEVEL AS ADVISED BY PAD AND REPLACED WITH SELECT FILL COMPACTED TO 95% MMDD.

6. CUT SUBGRADE SHALL BE TESTED FOR CBR AT TOP OF SELECT FILL LAYERS SHOWN ON THE PAVEMENT PLAN. THE PAD WILL DETERMINE, BASED ON THE RESULTS, WHETHER THE SELECT FILL LAYER IS NEEDED. REFER SPECIFICATION FOR FURTHER DETAILS.
7. WET SOFT SILT/SAND AREAS, SUCH AS GULLY BASES IN DEEP FILL AREAS GREATER THAN 1.0m ARE TO COMPRISE A GEOFABRIC SEPARATION LAYER (BIDIM A64 OR APPROVED EQUIVALENT) OVERLAID BY A 500mm THICK DURABLE ROCK OR RECYCLED CONCRETE BRIDGING LAYER WITH NOMINAL PARTICLE SIZE 50mm TO 120mm.

0 5 10 15 20m
SCALE 1:200 @A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	17/05/2018	CLIENT REVIEW	LMR	TL	JPS

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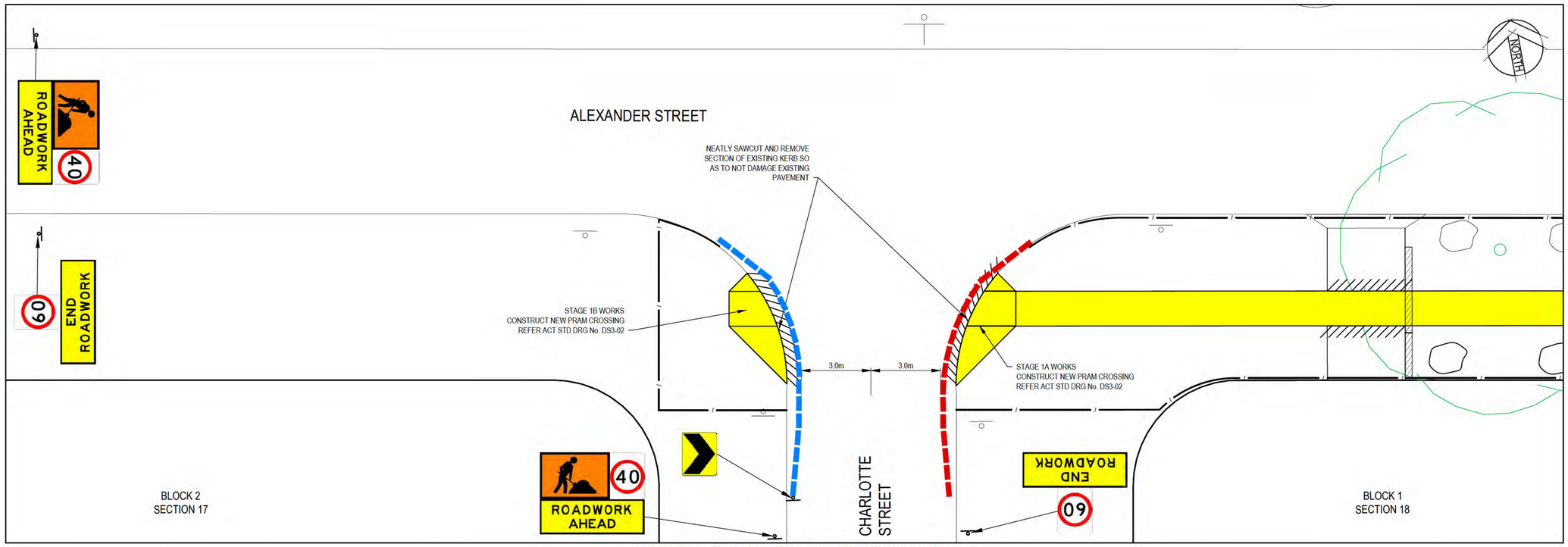
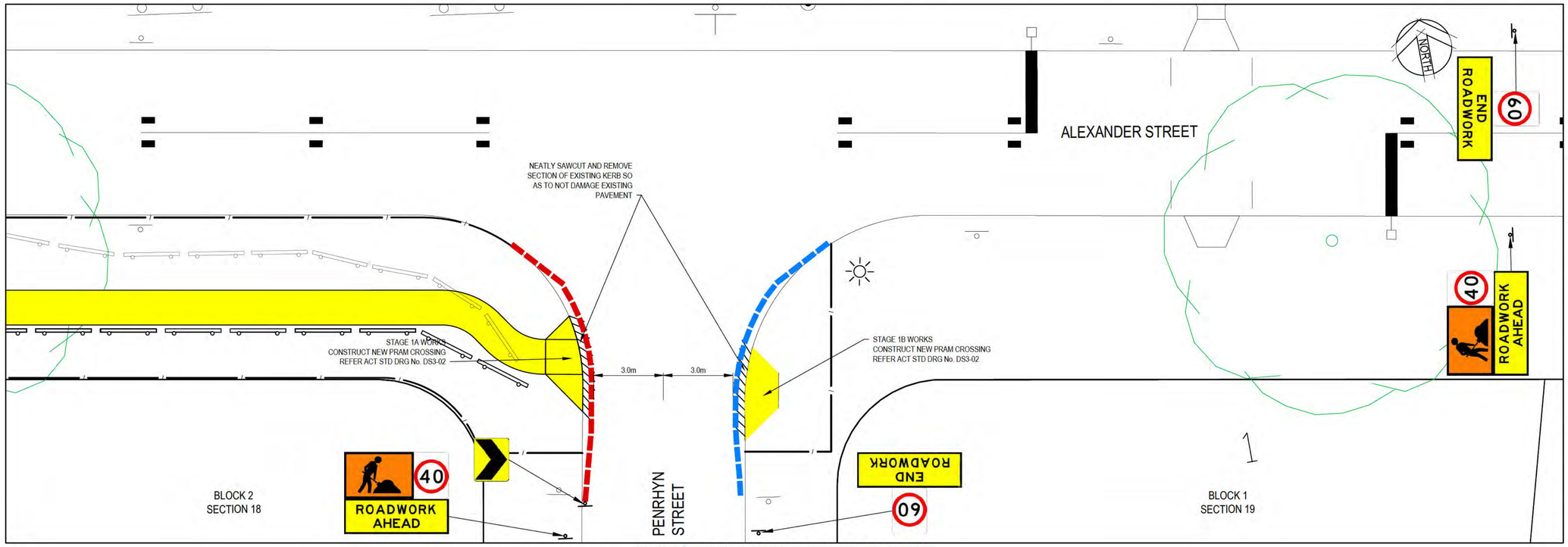
Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 1
Title: PAVEMENT PLAN
AND DETAILS
Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: AHD | Scale: 1:200 | Size: A1
Drawing Number: 50518090-CI-1015 | Revision: A



ALEXANDER ST / CHARLOTTE ST INTERSECTION

SCALE 1:100



ALEXANDER ST / PENHRYN ST INTERSECTION

SCALE 1:100

LEGEND

- EXTENT OF PATH WORKS
- WATER FILLED TRITON BARRIERS STAGE 1A WORKS
- WATER FILLED TRITON BARRIERS STAGE 1B WORKS
- SITE FENCE

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE SITE OF WORKS AND THE TRAFFIC MANAGEMENT WITHIN THE SITE AND SHALL KEEP ALL REQUIRED RECORDS AND UNDERTAKE ALL NECESSARY MAINTENANCE.
2. ALL TEMPORARY TRAFFIC MANAGEMENT (TTM) DEVICES SHALL BE IN ACCORDANCE WITH AS 1743 AND QA G10 TRAFFIC MANAGEMENT (ACT MODIFIED).
3. ALL EMPLOYEES ARE TO WEAR APPROPRIATE SAFETY AS DETAILED IN AS 1743 AND QA G10 TRAFFIC MANAGEMENT (ACT MODIFIED).
4. ALL SIGNS CONFLICTING WITH THIS TTM PLAN SHALL BE COVERED OR REMOVED DURING THE HOURS OF OPERATION.
5. ALL SIGNS ERECTED IN RELATION TO THIS TTM THAT ARE NOT REQUIRED OUTSIDE THE HOURS OF OPERATION SHALL BE COVERED.
6. ALL EMPLOYEES INVOLVED IN TTM TRAFFIC CONTROL, SETUP, MINOR MODIFICATIONS AND INSPECTIONS SHALL HAVE THE RELEVANT QUALIFICATIONS IN ACCORDANCE WITH CLAUSE 1.5.3 OF QA G10 TRAFFIC MANAGEMENT(ACT MODIFIED)
7. ALL TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE ERECTED AS PER THIS TTM AND IN CLEAR LINE OF SIGHT TO ALL ROAD USERS AND PEDESTRIANS. THEY SHALL NOT BE OBSCURED BY ANY VEGETATION, WORK PLANT OR PARKED VEHICLES. THEY SHALL NOT BE PLACED IN A MANNER THAT THEY WILL BECOME A HAZARD TO VEHICULAR TRAFFIC OR PEDESTRIANS.
8. ALL TRAFFIC LANES SHALL BE 3.0m MINIMUM.
9. ALL BOLLARDS SHALL BE PLACED AT 1.6m MAXIMUM SPACING AND PLACED 1.2m FROM THE KERB LINE TO FORM THE WORK SAFETY ZONE.
10. THE CONTRACTOR SHALL LIAISE WITH ANY ADJACENT PROJECT CONTRACTOR AND NOT PLACE ANY CONFLICTING TTM. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT OF ANY CONFLICTS IMMEDIATELY.
11. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.
12. EXISTING LINEMARKING TO BE ERADICATED AS SHOWN ON THE TCD DRAWINGS PRIOR TO CONSTRUCTION.
13. CO-ORDINATION BETWEEN LARGE DELIVERY VEHICLES AND THE CONTRACTOR IS REQUIRED.

0 1 2 4 6 8 10m

SCALE 1:100 @A1

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Designed LMR	Date
Verified TL	Date
Approved JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)

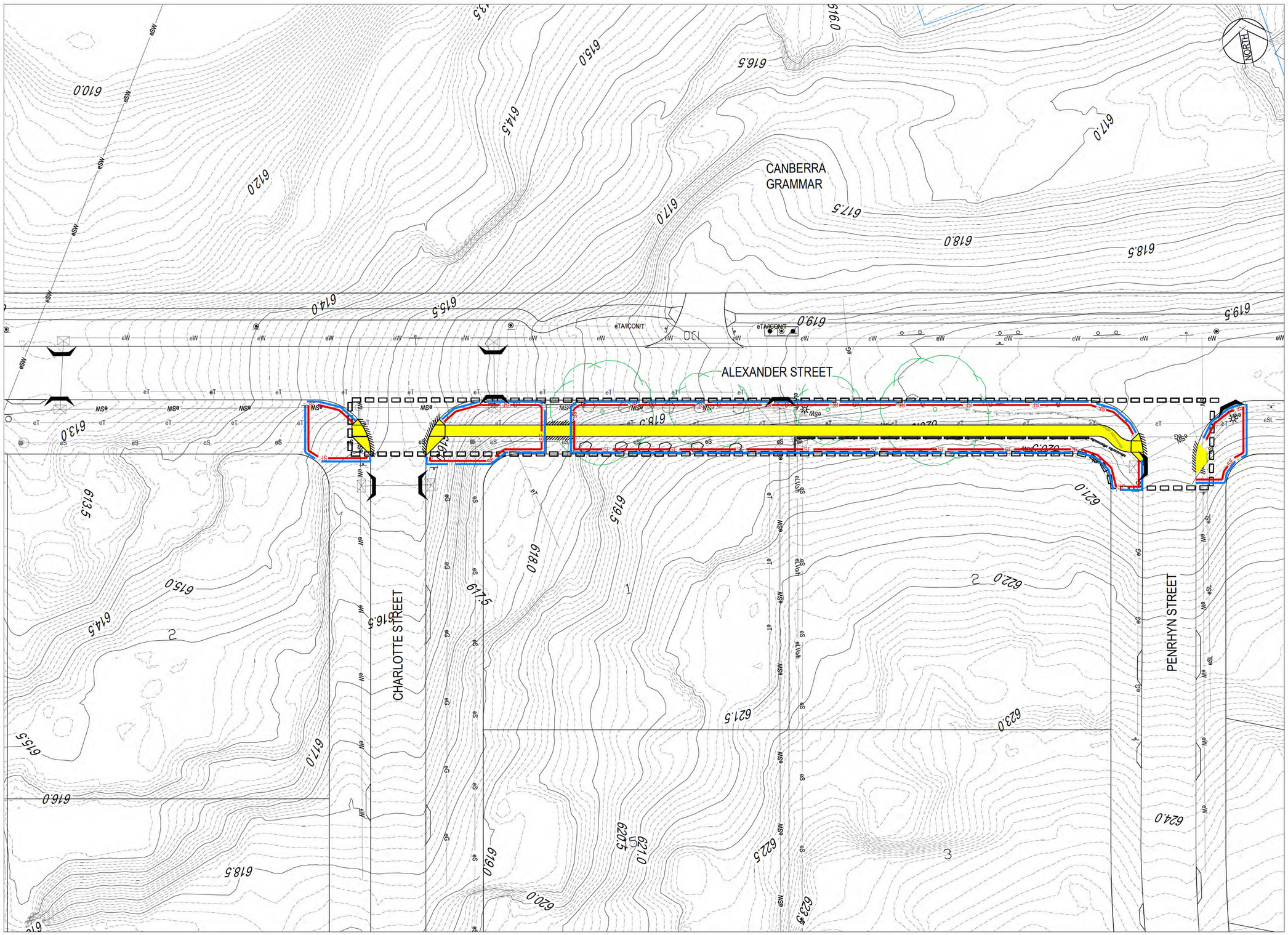
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 1

Title: TEMPORARY TRAFFIC MANAGEMENT
CONCEPT PLAN

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum		Scale	Size
AHD		1:100	A1

Drawing Number: 50518090-CI-1020
Revision: A



LEGEND

- STAGE BOUNDARY
- SILT FENCE REFER EPA GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT
- 1.8m HIGH TEMPORARY CHAIN MESH SITE FENCE
- SANDBAG KERB INLET SEDIMENT TRAP

0 5 10 15 20 25m

SCALE 1:250 @A1

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Checked	TL	
Designed	LMR	
Verified	TL	
Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)

Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 1

Title: CONCEPT EROSION, SEDIMENT CONTROL AND VERGE PROTECTION PLAN

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum		Scale	Size
AHD		1:250	A1

Drawing Number: 50518090-CI-1025
Revision: A

GENERAL NOTES

1. TOTAL SITE AREA = 410,406m²
2. EXISTING AVERAGE SITE GRADE = 1.9%
3. HOURS OF OPERATION = 7.00am TO 5.00pm, MONDAY TO FRIDAY. SATURDAY WORK TO BE APPROVED BY PRINCIPAL'S AUTHORISED PERSON (PAP)
4. NOMINATED PROJECT MANAGER/SUPERINTENDANT'S REPRESENTATIVE/SITE FOREMAN = TBC
5. ORIGIN OF IMPORTED SOIL:
   VENM FILL
   CANBERRA SAND AND GRAVEL
   CANBERRA CONCRETE RECYCLERS
   BORAL QUARRIES
   ACT RECYCLING
6. STORMWATER INLETS SHALL BE PREVENTED FROM ACCEPTING SEDIMENT THROUGH THE APPLICATION OF STRAW BALE DROP INLET SEDIMENT TRAPS.
7. BLOCK HYDRAULICS SERVICE TRENCHES TO BE BACKFILLED, GRASSED AND MULCHED WITHIN THE TIME SPECIFIED IN THE LICENSE.
8. THE CONTRACTOR SHALL PROGRAM WORKS SO THAT DISTURBED AREAS ARE PROGRESSIVELY RESTORED BY TEMPORARY GRASSING AND MULCHING ON AN AREA BY AREA BASIS DURING THE CONTRACT PERIOD.
9. THE CONTRACTOR SHALL LIMIT MOVEMENT OF VEHICLES AND PLANT TO APPROVED PARKING AREAS AND ACCESS ROUTES OR TO AREAS WHERE EXCAVATION OR FILL IS REQUIRED BY THE DRAWINGS. FINAL TRIMMING AT THE END OF CONTRACT IS PROHIBITED.
10. PLACE STRAW BALES OR SANDBAGS AROUND DRAINAGE SUMPS AT LOW POINTS AND OTHER KEY DRAINAGE LOCATIONS AS REQUIRED.
11. THESE DRAWINGS TYPIFY ONLY EROSION CONTROL PRINCIPLES REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND SUBMIT DETAILS OF PROPOSED EROSION CONTROL MEASURES IN ACCORDANCE WITH SECTION 2.03 OF THE BASIC SPECIFICATION. IT CAN BE ANTICIPATED THAT ALL NECESSARY CONTROL MEASURES INCLUDED IN 2.03.1 WILL BE REQUIRED.
12. MEASURES REQUIRED FOR CONFIRMING WITH THE A.C.T. WATER POLLUTION ACT ARE SET OUT IN THE ACT STANDARD SPECIFICATION CLAUSE 2.03.
13. POLLUTION CONTROL METHODS SHALL ALSO BE DESIGNED IN ACCORDANCE WITH THE "ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT", 2011.
14. INSTALL SILT FENCES AROUND ALL SUMPS AND MH'S AND MAINTAIN DURING ENTIRE CONSTRUCTION PERIOD UNTIL THE SITE IS FULLY GRASSED AND STABILISED.
15. SEDIMENT PONDS ARE TO BE LEFT IN PLACE UNTIL THE SITE IS FULLY GRASSED AND STABILISED.
16. ALL SUB SOIL DRAINS ARE TO BE CONNECTED TO DIVERSION DRAINS AND DISCHARGE INTO SEDIMENT PONDS.
17. ALL AREAS OF SITE BEYOND EARTHWORKS AND DRAINAGE WORK LIMITS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REINSTATED IMMEDIATELY AT CONTRACTOR'S EXPENSE.
18. PERMANENT STABILISATION OF SITE IS TO BE ESTABLISHED BEFORE COMPLETION CAN BE AUTHORISED.
19. ALL STRAW BALES TO BE WRAPPED IN GEOTEXTILE FABRIC.

EROSION CONTROL NOTES

1. THE MEASURES SHOWN ON THE DRAWING ARE CONCEPTUAL DESIGN GUIDELINES BASED ON "ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT", 2011. ALL EROSION AND SEDIMENT MEASURES SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT ONLY, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN, INSTALL AND MAINTAIN MEASURES IN ACCORDANCE WITH ENVIRONMENTAL PROTECTION AUTHORITY.
2. THE CONTRACTOR SHALL PROVIDE DRAWING AND DETAILS TO THE ENVIRONMENT PROTECTION UNIT 'ENVIRONMENT A.C.T.' FOR APPROVAL PRIOR TO COMMENCING WORKS.
3. THE CONTRACTOR SHALL ENSURE THAT ADEQUATE MEASURES FOR THE SUPPRESSION OF DUST AND NOISE ARE TAKEN AT ALL TIMES DURING CONSTRUCTION WORK. KEEP ROAD PAVEMENTS, CYCLEPATHS AND FOOTPATHS CLEAR OF DIRT, MUD AND OTHER DEBRIS AT ALL TIMES.
4. FOLLOWING CONSTRUCTION, PROVIDE FILTER ROLLS TO ALL NEW SUMPS UNTIL THE CATCHMENT AREAS ARE ESTABLISHED. PROVIDE FILTER ROLLS AND HAY BALE PROTECTION TO ALL EXISTING SUMPS AROUND THE CONSTRUCTION SITE.
5. STRAW BALES MUST BE PLACED AT SUITABLE INTERVALS ALONG SWALES & CUT-OFF DRAINS.
6. SILT FENCE SHALL BE PLACED AROUND ANY STOCKPILES.
7. SILT FENCE SHALL BE ADJUSTED AROUND STOCKPILES OR SPOIL AREAS IF REQUIRED.
8. PLACE STRAW BALES OR SANDBAGS AROUND DRAINAGE SUMPS AT LOW POINTS AND OTHER KEY DRAINAGE LOCATIONS AS REQUIRED.
9. INSTALL SILT FENCES AROUND ALL SUMPS AND MANHOLES AND MAINTAIN DURING ENTIRE CONSTRUCTION PERIOD UNTIL THE SITE IS FULLY GRASSED AND STABILISED.
10. SEDIMENT PONDS ARE TO BE LEFT IN PLACE UNTIL THE SITE IS FULLY GRASSED AND STABILISED.
11. THE SEDIMENT RETENTION POND SHALL BE MONITORED AND MAINTAINED ON A DAILY BASIS THROUGHOUT THE CONSTRUCTION PERIOD.
12. WATER SHALL BE CHEMICALLY DOSED WITH GYPSUM TO ACCELERATE THE SETTLEMENT OF SUSPENDED SOILS AND DISCHARGED WHEN IT IS ABOVE 20% OF THE PONDS FULL CAPACITY, AT A RATE OF 320MG PER CUBIC METER.

SITE COMPOUND NOTES

1. DIMENSIONS SHOWN ARE MINIMUM ONLY. THE CONTRACTOR SHALL CONSTRUCT THE FACILITY TO A SIZE THAT WILL PERFORM IN A MANNER WHICH SATISFIES THE REQUIREMENTS OF THE CONTRACT.
2. STABILISED CONSTRUCTION ENTRANCE/EXIT STONE - CRUSHED STONE 50mm TO 75mm NOMINAL SIZE ON HIGH STRENGTH GEOTEXTILE FABRIC.
3. WASHING DOWN OF WHEELS AND BODY SURFACES OF ALL VEHICLES AND PLANT LEAVING THE SITE TO PREVENT THE CARRIAGE OF SEDIMENT ONTO STREETS IS REQUIRED.
4. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ADJACENT ROADS AND STREETS. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE ENTRANCE WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEARANCE OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO ROADS MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
5. DIVERT RUNOFF AWAY FROM ACCESS POINT.

SEDIMENT RETENTION POND

1. THE SEDIMENT RETENTION POND SHALL BE FULLY MAINTAINED UNTIL THE DISTURBED CATCHMENT AREA IS PROTECTED AGAINST EROSION BY PERMANENT STABILISATION.
2. PROTECTION SHALL BE PROVIDED FOR THE FINAL LANDSCAPE WORKS UTILISING SILT CONTROL FENCING.
3. THE SEDIMENT RETENTION POND SHALL BE CLEANED OUT WHEN THE VOLUME REMAINING IS REDUCED BY SEDIMENTATION TO 90%
4. THE EMBANKMENT SHALL BE STABILISED WITH HESSIAN TEMPORARILY.
5. DISCHARGE FROM THE POND IS PERMITTED WHEN THE WATER HAS CLARIFIED TO BELOW 60MG/L (USUALLY WITHIN 24-36 HOURS).
6. ENVIRONMENT ACT TO BE ADVISED OF PROPOSED POND DISCHARGE PRIOR TO DISCHARGE.

DUST MANAGEMENT NOTES

WHERE BUILDING WORK GENERATES DUST, ALL REASONABLE AND PRACTICABLE MEASURES SHOULD BE TAKEN TO MINIMISE THAT DUST.
THIS CAN OFTEN BE ACHIEVED BY:
RETAIN EXISTING VEGETATION WHERE POSSIBLE;

1. STRIPPING AREAS PROGRESSIVELY AND ONLY WHERE IT IS NECESSARY FOR WORKS TO OCCUR;
2. EMPLOYING STABILISING METHODS SUCH AS MATTING, GRASSING OR MULCH;
3. DAMPENING THE GROUND WITH A LIGHT WATER SPRAY (CONTACT ENVIRONMENT ACT FOR REQUIREMENTS DURING EXTREME DROUGHT CONDITIONS);
4. ROUGHENING SURFACE OF EXPOSED SOIL;
5. COVERING STOCKPILES AND LOCATING THEM WHERE THEY ARE PROTECTED FROM THE WIND;
6. RESTRICTING VEHICLE MOVEMENTS;
7. COVERING THE LOAD WHEN TRANSPORTING MATERIAL;
8. CONSTRUCTING WIND BREAKS SUCH AS WIND FENCES IN ACCORDANCE WITH THE BLUE BOOK;
9. A WATER CART OR SUFFICIENT WATER SPRAYS SHALL BE MADE AVAILABLE AT ALL TIMES IN ADVERSE CONDITIONS WHEN DUST CANNOT BE ADEQUATELY CONTROLLED WHEN WORKS AREA BEING UNDERTAKEN, WORKS WILL CEASE IN THESE AREAS UNTIL CONDITIONS IMPROVE;
10. WATER SHALL BE APPLIED TO SUPPRESS DUST FROM OPEN EARTHWORKS AS WELL AS UNPROTECTED STOCKPILES;
11. AREAS OF COMPLETED EARTHWORKS SHALL BE PROGRESSIVELY REHABILITATED WITH DRYLAND GRASS AND FENCED OFF AS SOON AS PRACTICABLE TO PREVENT FURTHER EROSION;
12. THE CONTRACTOR IS TO CONTACT THE WATER RESOURCES UNIT TO OBTAIN AN EXEMPTION TO USE NON-POTABLE WATER FROM ON OR OFF THE SITE IF REQUIRED;

NOISE

ENSURE ALL BUILDING WORK THAT GENERATES NOISE IS CONDUCTED WITHIN THE TIME PERIODS DETAILED IN SCHEDULE 2 OF THE ENVIRONMENTA PROTECTION REGULATIONS 2005.

BUILDING WORK DETAILS	MONDAY TO SATURDAY	SUNDAY AND PUBLIC HOLIDAYS
INDUSTRIAL, CITY AND TOWN CENTRE AREAS	6AM TO 8PM	6AM TO 8PM
ANY OTHER AREA WHEN WORK COMPLETED WITHIN 2 WEEKS	7AM TO 6PM	8AM TO 8PM
ANY OTHER AREA WHEN WORK NOT COMPLETED WITHIN 2 WEEKS	7AM TO 6PM	BUILDING WORK MUST NOT EXCEED NOISE STANDARD

IN ADDITION:

1. SCHEDULE NOISY ACTIVITIES FOR THE LEAST SENSITIVE TIMES OF THE DAY SUCH AS MID-MORNING AND MID AFTERNOON.
2. SELECT MACHINERY THAT PRODUCE LESS NOISE; AND
3. ENSURE MACHINERY IS WELL MAINTAINED.

DISPOSAL OF SPOIL

BEFORE DISPOSAL OF SPOIL OFFSITE, THE FOLLOWING INFORMATION MUST BE PROVIDED TO ENVIRONMENT ACT:

1. WHERE THE SPOIL WILL ORIGINATE FROM;
2. WHO IS DISPOSING OF THE SPOIL;
3. WHERE THE SPOIL WILL BE TAKEN;
4. THE AMOUNT OF SPOIL TO BE TAKEN AWAY;
5. DESCRIPTION OF THE TYPE OF SPOIL TAKEN AWAY;
6. DETAILS OF HOW RECORDS WILL BE KEPT; AND
7. TIMEFRAME TO COMPLETE WORKS TO THE SATISFACTION OF ENVIRONMENT ACT.

SPOIL MAY BE TAKEN TO AN APPROVED LANDFILL SITE WITHOUT APPROVAL. HOWEVER, IF THE SPOIL IS TAKEN TO AN AREA OTHER THAN APPROVED LANDFILL SITE, ENSURE THE ACCEPTOR OF THE SPOIL IS AWARE OF THE REQUIREMENTS SETOUT IN SECTION 8.2 OF THE ENVIRONMENT PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT.

FIRE

BURNING OF WASTE MATERIALS ON THE SITE, SUCH AS PLASTICS, CHEMICALS OR WOOD THAT MAY BE PAINTED, CHEMICALLY TREATED OF CONTAMINATED WITH CHEMICALS IS ILLEGAL. A FIRE MAY BE PERMITTED FOR HEATING PURPOSES PROVIDED IT IS IN A BRAZER OR CONSTRUCTED FIREPLACE. ONLY SEASONED, UNTREATED TIMBER CAN BE BURNT FOR HEATING PURPOSES.

MAINTENANCE SCHEDULE

MONTHLY:

1. TURN OVER STABILISED CONSTRUCTION ENTRY MATERIAL AND REVIEW WHEN REQUIRED.

WEEKLY:

2. CHECK AND REINSTATE SILT CONTROL FENCES

DAILY:

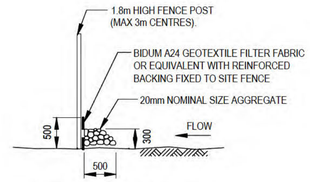
3. SWEEP AND REMOVE DIRT AND ANY OTHER BUILDING MATERIAL FROM GUTTERS, FOOTPATHS OR ROADWAYS ADJACENT TO THE SITE BY CLOSE OF BUSINESS AND OR PRIOR TO RAIN AND WHEN REQUIRED. ALL NECESSARY STEPS SHOULD BE TAKEN THAT ARE PRACTICAL AND REASONABLE TO MINIMISE DUST POLLUTION ON LAND DEVELOPMENT AND CONSTRUCTION SITE.

DURING/AFTER WET WEATHER:

4. LIMIT CONSTRUCTION VEHICLE ACCESS TO SITE DURING AND IMMEDIATELY FOLLOWING WET WEATHER.

SEDIMENT CONTROL NOTES

1. PROVIDE KERBSIDE FILTER ROLL TO EXISTING SUMPS WHERE INDICATED, REFER TO GIVEN DETAIL.
2. KERBSIDE FILTER ROLLS TO BE REMOVED, CLEANED AND REINSTATED ON A WEEKLY BASIS AT A MINIMUM. TRAPPED SEDIMENT ABOUT SUMPS ALSO TO BE REMOVED. CLEANING IS ALSO TO TAKE PLACE IMMEDIATELY AFTER PERIODS OF RAINFALL DURING CONSTRUCTION.
3. THE SITE FOREMAN IS TO CONTACT ENVIRONMENT ACT (132281) TO ARRANGE A SITE INSPECTION AND ENDORSEMENT OF SEDIMENT AND EROSION CONTROL MEASURES PRIOR TO WORKS COMMENCING.
4. THE SITE FOREMAN IS TO CONTACT ENVIRONMENT ACT (132281) TO DISCUSS ANY PROPOSED MAJOR CHANGES TO SEDIMENT AND EROSION CONTROLS ON SITE PRIOR TO IMPLEMENTING THE CHANGES.
5. THE SITE FOREMAN WILL ENSURE CONTRACTORS ACCESS AND EXIT THE SITE USING ONLY ENVIRONMENT ACT APPROVED STABILISING ACCESS/EXIT POINTS AS DETAILED ON ENDORSED SEDIMENT AND EROSION CONTROL PLANS.



SILT FENCE DETAIL
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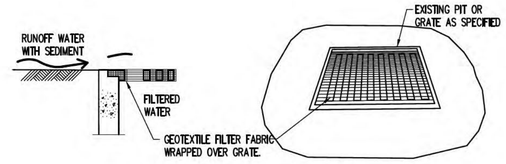

GEOTEXTILE PIT FILTER
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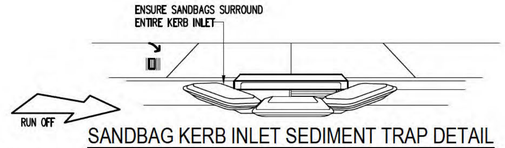
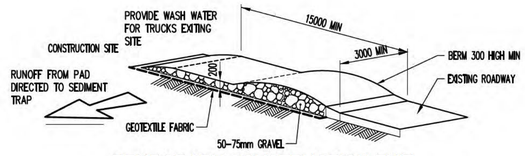


SANDBAG KERB INLET SEDIMENT TRAP DETAIL
NTS



TEMPORARY CONSTRUCTION EXIT
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Drawn	LMR	
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Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 2
Title: CONCEPT EROSION, SEDIMENT CONTROL AND VERGE PROTECTION DETAILS AND NOTES
Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: AHD
Scale: NTS
Size: A1
Drawing Number: 50518090-CI-2026
Revision: A

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ALEXANDER STREET FOOTPATH
REDHILL
SITE 2

COVER SHEET

DATE PLOTTED: 18 May 2018 10:41 AM BY : LEON RUECKER
CAD File: N:\Projects\505\FY18\090_ALEXANDER ST RED HILL FOOTPATH\Drawings\Build\STAGE 2\50518090-CI-2000-CS.dwg

50518090-CI-2000
Drawing Number

A
Revision

GENERAL NOTES

1. DESIGN LEVELS SHOWN ARE TO THE AUSTRALIAN HEIGHT DATUM (AHD).
2. ALL CONSTRUCTION WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION AND THE TaMS STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS EDITION 1, REVISION 0.
3. ALL CONSTRUCTION WORK SHALL BE CO-ORDINATED WITH ADJACENT CONTRACTS.
4. SURFACES WHICH LIE OUTSIDE THE GENERAL LIMITS OF LANDSCAPING AND RESTORATION WHICH ARE DISTURBED DURING THE CONSTRUCTION OF THE WORKS SHALL BE RESTORED BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE, TO AT LEAST THE PRE-CONSTRUCTION CONDITION. THESE SURFACES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, PAVEMENTS, GRASSING, ETC.
5. EXISTING SERVICES ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON SITE, THE CONTRACTOR SHALL CONTACT THE RELEVANT AUTHORITIES AND VERIFY THE LOCATION OF ALL UNDERGROUND SERVICES ON THE SITE AND OBTAIN NECESSARY CLEARANCES.
6. SOME EXISTING KERB LINES HAVE NOT SURVEYED AND ARE SHOWN IN THEIR APPROXIMATE LOCATION ONLY. PRIOR TO ANY DEMOLITION, EXCAVATION OR CONSTRUCTION ON SITE, THE CONTRACTOR SHALL CONFIRM THE LOCATION OF THE EXISTING KERBS AND WHERE NECESSARY MATCH TO EXISTING - WHERE THE DISCREPANCY IS TOO GREAT THE DESIGNER IS TO BE NOTIFIED SO THAT THE PECCARY CHANGES TO THE DESIGN CAN BE MADE AT THE DISCRETION OF THE SUPERINTENDENT.
7. ALL DESIGN SUBGRADE VALUES MUST BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
8. RESULTS OF SUBGRADE TESTS MUST BE MADE AVAILABLE TO THE SUPERINTENDENT WITH 24HRS OF RECEIPT. IF THE CBR IS LESS THAN CURRENTLY NOTED, THEN A PAVEMENT RE-DESIGN WILL BE REQUIRED BEFORE PROCEEDING.
9. WHERE NEW WORK MATCHES INTO EXISTING INFRASTRUCTURE, THE CONTRACTOR SHALL ENSURE THAT A SMOOTH, EVEN SURFACE, FREE FROM ABRUPT CHANGES IS ACHIEVED AND A CONTRUCTION JOINT HAS BEEN PROVIDED.
10. HOURS OF OPERATION = 7.00am TO 6.00pm, 6 DAYS A WEEK IN ACCORDANCE WITH THE ENVIRONMENT PROTECTION REGULATION 2005.
11. THE CONTRACTOR SHALL LIMIT MOVEMENT OF VEHICLES AND PLANT TO APPROVED PARKING AREAS AND ACCESS ROUTES ONLY.
12. MEASURES REQUIRED FOR CONFIRMING WITH THE ACT WATER POLLUTION ACT ARE SET OUT IN THE ACT STANDARD SPECIFICATION CLAUSE 2.03.

SEDIMENT AND EROSION CONTROL NOTES

1. THE MEASURES SHOWN ON THE DRAWING ARE CONCEPTUAL DESIGN GUIDELINES BASED ON "ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT", 2011. ALL EROSION AND SEDIMENT MEASURES SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT ONLY, AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN, INSTALL AND MAINTAIN MEASURES IN ACCORDANCE WITH ENVIRONMENTAL PROTECTION AUTHORITY.
2. THE CONTRACTOR SHALL ENSURE THAT ADEQUATE MEASURES FOR THE SUPPRESSION OF DUST AND NOISE ARE TAKEN AT ALL TIMES DURING CONSTRUCTION WORK. KEEP ROAD PAVEMENTS, CYCLEPATHS AND FOOTPATHS CLEAR OF DIRT, MUD AND OTHER DEBRIS AT ALL TIMES.
3. INSTALL SILT FENCES AROUND ALL SUMPS AND MANHOLES AND MAINTAIN DURING ENTIRE CONSTRUCTION PERIOD.
4. STRAW BALES MUST BE PLACED AT SUITABLE INTERVALS ALONG SWALES & CUT-OFF DRAINS.
5. SILT FENCE SHALL BE PLACED AROUND ANY STOCKPILES IF REQUIRED.
6. SILT FENCE SHALL BE ADJUSTED AROUND STOCKPILES OR SPOIL AREAS IF REQUIRED.
7. PLACE STRAW BALES OR SANDBAGS AROUND DRAINAGE SUMPS AT LOW POINTS AND OTHER KEY DRAINAGE LOCATIONS AS REQUIRED.
8. INSTALL SILT FENCES AROUND ALL SUMPS AND MANHOLES AND MAINTAIN DURING ENTIRE CONSTRUCTION PERIOD UNTIL THE SITE IS FULLY GRASSED AND STABILISED.
9. THESE DRAWINGS TYPIFY ONLY EROSION CONTROL PRINCIPLES REQUIRED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND SUBMIT DETAILS OF PROPOSED EROSION CONTROL MEASURES IN ACCORDANCE WITH SECTION 2.03 OF THE BASIC SPECIFICATION. IT CAN BE ANTICIPATED THAT ALL NECESSARY CONTROL MEASURES INCLUDED IN 2.03.1 WILL BE REQUIRED. THE CONTRACTOR SHALL PROVIDE DRAWING AND DETAILS TO THE ENVIRONMENT PROTECTION UNIT "ENVIRONMENT A.C.T." FOR APPROVAL PRIOR TO COMMENCING WORKS.
10. MEASURES REQUIRED FOR CONFIRMING WITH THE ACT WATER POLLUTION ACT ARE SET OUT IN THE ACT STANDARD SPECIFICATION CLAUSE 2.03.
11. POLLUTION CONTROL METHODS SHALL ALSO BE DESIGNED IN ACCORDANCE WITH THE "ENVIRONMENTAL PROTECTION GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT", 2011.
12. ALL STRAW BALES TO BE WRAPPED IN GEOTEXTILE FABRIC.
13. KERBSIDE FILTER ROLLS TO BE REMOVED, CLEANED AND REINSTATED ON A WEEKLY BASIS AT A MINIMUM. TRAPPED SEDIMENT ABOUT SUMPS ALSO TO BE REMOVED. CLEANING IS ALSO TO TAKE PLACE IMMEDIATELY AFTER PERIODS OF RAINFALL DURING CONSTRUCTION.
14. THE SITE FOREMAN IS TO CONTACT ENVIRONMENT ACT (132281) TO ARRANGE A SITE INSPECTION AND ENDORSEMENT OF SEDIMENT AND EROSION CONTROL MEASURES PRIOR TO WORKS COMMENCING.
15. THE SITE FOREMAN WILL ENSURE CONTRACTORS ACCESS AND EXIT THE SITE USING ONLY ENVIRONMENT ACT APPROVED STABILISING ACCESS/EXIT POINTS AS DETAILED ON ENDORSED SEDIMENT AND EROSION CONTROL PLANS.

VERGE MANAGEMENT NOTES

1. THERE SHALL BE NO PARKING, SITE SHEDS/AMENITIES, BILLBOARDS OR STORAGE OF MATERIALS ON THE VERGE WITHOUT PRIOR APPROVAL FROM THE PUBLIC LAND USE COORDINATOR. PROTECT ALL GRASSLAND TREES AND SHRUBS OUTSIDE THE WORKS AREA FROM DAMAGE.
2. ANY WORKS THAT ALTER OR DISTURB GRASSED FLOODWAYS, VERGE AREAS, MEDIANS OR OTHER OPEN AREAS MUST BE REINSTATED TO EXISTING CONDITION BY THE PERSON(S) RESPONSIBLE FOR THE DISTURBANCE TO THE SATISFACTION OF THE PUBLIC LAND USE COORDINATOR AND PARKS AND TERRITORY SERVICES.
3. FENCING TO PROTECT EXISTING VERGE (REFER LEGEND)
   a) FENCING TO BE ERECTED ON COMMENCEMENT OF SITE WORK AND REMOVED ON COMPLETION OF VERGE RESTORATION.
   b) THE FENCE IS TO REMAIN CONTINUOUS THROUGHOUT THE PROJECT.

VERGE INFRASTRUCTURE AND RESTORATION NOTES

1. THE COORDINATOR SHALL, ON COMPLETION OF WORK, UNDERTAKE ANY VERGE RESTORATION TO ANY DAMAGED AREAS OF THE VERGE. DURING VERGE RESTORATION, TOPSOIL SHALL NOT BE REMOVED AND THE SOIL LEVEL SHALL NOT BE CHANGED WITHIN THE DRIP ZONE OF TREES OR AS OTHERWISE APPROVED AND UPON COMPLETION OF THE WORKS, VERGES SHALL HAVE ESTABLISHED APPROPRIATE GRASS COVER, eg DRYLAND GRASS.
2. IF THE STANDARD OF GRASS COVER ON THE VERGE NEEDS TO BE IMPROVED, THE FOLLOWING REQUIREMENTS SHALL APPLY:
   a) WITHIN THE ROOT ZONE OF TREES, LIGHTLY CULTIVATE THE SOIL IN ONE DIRECTION ONLY TO BETWEEN 0.025m TO 0.050m DEPTH (0.05m MAXIMUM TO MINIMISE DAMAGE TO TREE ROOTS) AVOID MAJOR ROOTS AND KEEP A MINIMUM OF 1.0m AWAY FROM TREE TRUNKS;
   b) OUTSIDE THE ROOT ZONE OF TREES NORMAL CULTIVATION PRACTICE APPLIES;
   c) ADD 'B TYPE' TOPSOIL AT 0.025m TO 0. 05m DEPTH, LEVEL THE TOPSOIL AND ADD NPK FERTILISER (EQUIVALENT TO MULTIGRO) AT 40g/m^2;
3. SOW SEED OF SUITABLE DROUGHT TOLERANT SPECIES AS SPECIFIED IN THE STANDARD SPECIFICATION FOR URBAN INFRASTRUCTURE WORKS. KEEP MOIST DURING ESTABLISHMENT; AND
4. ALL RESTORATION WORK SHALL CARRIED OUT BY APPROVED OPERATORS.

EXISTING TREES

1. REFER LANDSCAPE MANAGEMENT PLAN FOR ADDITIONAL NOTES.
2. ALL TREES LOCATED IN THE ROAD RESERVE, VERGE, PUBLIC OPEN SPACE AND ON UNLEASED TERRITORY LAND, SHALL BE RETAINED AND MUST REMAIN UNDAMAGED UNLESS MARKED FOR REMOVAL. THE COORDINATOR IS TO IDENTIFY ANY TREE THAT MAY BE AFFECTED BY THE WORKS AND PROVIDE APPROPRIATE PROTECTIVE MEASURES TO MINIMISE TREE DAMAGE.
3. UNLESS NOTED ON DRAWINGS, NO PRUNNING OF TREE BRANCES IS PERMITTED.
4. ALL OTHER AREAS OF TREE CANOPIES OUTSIDE DESIGNATED WORKING AREA, ARE NOT TO BE ALTERED OR REDUCED.
5. CROWNS AND APEX OF CANOPIES ARE NOT TO BE ALTERED OR REDUCED.
6. THE MAJORITY OF TREE ROOTS GROW IN THE TOP 0.3m OF SOIL. THESE FEEDER ROOTS ARE OFTEN VERY FINE ROOTS THAT PROVIDE THE TREE WITH WATER, OXYGEN AND NUTRIENTS. THESE ROOTS TYPICALLY GROW FROM THE TRUNK OF THE TREE TO WELL BEYOND ITS 'DRIP-LINE' (THE CANOPY EDGE).
   IF EXCAVATION WITHIN THE EXISTING TREE CANOPY ZONE IS REQUIRED, HYDROVAC WITHIN CANOPY ZONE, CLEAN OUT PRUNE AND SAW.
7. EXCAVATING THE DRIP ZONE OF A TREE DOES CONSIDERABLE DAMAGE TO ITS ROOT SYSTEM. IT CAN AFFECT TREE STABILITY AND TREE HEALTH TO SUCH AN EXTENT THAT IT WILL LEAD TO THE DECLINE AND POSSIBLE DEATH OF THE TREE OVER A PERIOD OF YEARS.
8. EXCAVATION WITHIN THE DRIP ZONE IS NOT PERMITTED UNLESS MARKED ON DRAWINGS.
9. WHERE EXCAVATION IS APPROVED, THE FOLLOWING MEASURES SHALL BE ADOPTED FOR TREE PROTECTION
   a) DO NOT SEVER LARGE ROOTS (0.3m DIAMETER) CLOSER THAN HALFWAY FROM THE DRIP-LINE TO THE TRUNK
   b) LOCATE THESE ROOTS BY HAND TRENCHING TO A DEPTH OF 0.3m BEFORE ANY MECHANICAL TRENCHING IS UNDERTAKEN
   c) CUT ALL ROOTS CLEANLY WITH EQUIPMENT SPECIFICALLY DESIGNED FOR THIS PURPOSE OR BY SUITABLE
   d) PROTECT ROOTS EXPOSED FROM DESECRATION BY LIGHTLY WATERING OR COVERING WITH HESSIAN, WHICH MUST BE KEPT MOIST, AND
   e) MAINTAIN THE GOOD HEALTH OF THE TREES THAT HAVE HAD DISTURBANCE IN THEIR ROOT ZONE BY CONTINUAL WATERING. AT NO TIME SHALL THE DISTURBED AREA BE ALLOWED TO DRY OUT TO THE DETRIMENT OF THE TREES HEALTH.

NOISE

ENSURE ALL BUILDING WORK THAT GENERATES NOISE IS CONDUCTED WITHIN THE TIME PERIODS DETAILED IN SCHEDULE 2 OF THE ENVIRONMENTAL PROTECTION REGULATION 2005.

INDUSTRIAL, CITY AND TOWN CENTRE AREAS	MONDAY TO SATURDAY	SUNDAY AND PUBLIC HOLIDAYS
ANY OTHER AREA WHEN WORK COMPLETED WITHIN 2 WEEKS	6am TO 8pm	6am TO 8pm
ANY OTHER AREA WHEN WORK NOT COMPLETED WITHIN 2 WEEKS	7am TO 6pm	8am TO 8pm
BUILDING WORK DETAILS	7am TO 6pm	BUILDING WORK MUST NOT EXCEED NOISE STANDARD

IN ADDITION:
1. SCHEDULE NOISY ACTIVITIES FOR THE LEAST SENSITIVE TIMES OF THE DAY SUCH AS MID-MORNING AND MID AFTERNOON.
2. SELECT MACHINERY THAT PRODUCE LESS NOISE; AND
3. ENSURE MACHINERY IS WELL MAINTAINED.

DUST MANAGEMENT NOTES

1. WHERE BUILDING WORK GENERATES DUST, ALL REASONABLE AND PRACTICABLE MEASURES SHOULD BE TAKEN TO MINIMISE THAT DUST. THIS CAN OFTEN BE ACHIEVED BY:
   a) RETAIN EXISTING VEGETATION WHERE POSSIBLE;
   b) STRIPPING AREAS PROGRESSIVELY AND ONLY WHERE IT IS NECESSARY FOR WORKS TO OCCUR;
   c) EMPLOYING STABILISING METHODS SUCH AS MATTING, GRASSING OR MULCH;
   d) DAMPENING THE GROUND WITH A LIGHT WATER SPRAY (CONTACT ENVIRONMENT ACT FOR REQUIREMENTS DURING EXTREME DROUGHT CONDITIONS);
   e) ROUGHENING SURFACE OF EXPOSED SOIL;
   f) RESTRICTING VEHICLE MOVEMENTS;
   g) CONSTRUCTING WIND BREAKS SUCH AS WIND FENCES IN ACCORDANCE WITH THE BLUE BOOK.
2. A WATER CART OR SUFFICIENT WATER SPRAYS SHALL BE MADE AVAILABLE AT ALL TIMES IN ADVERSE CONDITIONS WHEN DUST CANNOT BE ADEQUATELY CONTROLLED WHEN WORKS AREA BEING UNDERTAKEN, WORKS WILL CEASE IN THESE AREAS UNTIL CONDITIONS IMPROVE.
3. THE CONTRACTOR IS TO CONTACT THE WATER RESOURCES UNIT TO OBTAIN AN EXEMPTION TO USE NON-POTABLE WATER FROM ON OR OFF THE SITE IF REQUIRED.

ACCESS AND MOBILITY

1. FOOTPATHS ARE TO HAVE A MAXIMUM LONGITUDINAL GRADE 5% AND A MAXIMUM CROSSECTIONAL GRADE 2% AND TACTILES PROVIDED AND INSTALLED IN ACCORDANCE WITH AS.1428 DESIGN FOR ACCESS AND MOBILITY.

LOCALITY PLAN

SCHEDULE OF DRAWINGS	
DRAWING No.	DESCRIPTION
50518090-CI-2000	COVER SHEET
50518090-CI-2001	GENERATE NOTES, LEGEND, DRAWING LIST AND LOCALITY PLAN
50518090-CI-2005	SITE PLAN
50518090-CI-2010	GENERAL ARRANGMENT PLAN
50518090-CI-2015	PAVEMENT PLAN AND DETAILS
50518090-CI-2020	TEMPORARY TRAFFIC MANAGEMENT CONCEPT PLAN
50518090-CI-2025	CONCEPT EROSION, SEDIMENT CONTROL AND VERGE PROTECTION PLAN
50518090-CI-2026	CONCEPT EROSION, SEDIMENT CONTROL AND VERGE PROTECTION DETAILS AND NOTES

Rev.	Date	Description	Des.	Verif.	Appd.
A	2/05/2018	CLIENT REVIEW	PDJ	TL	JPS

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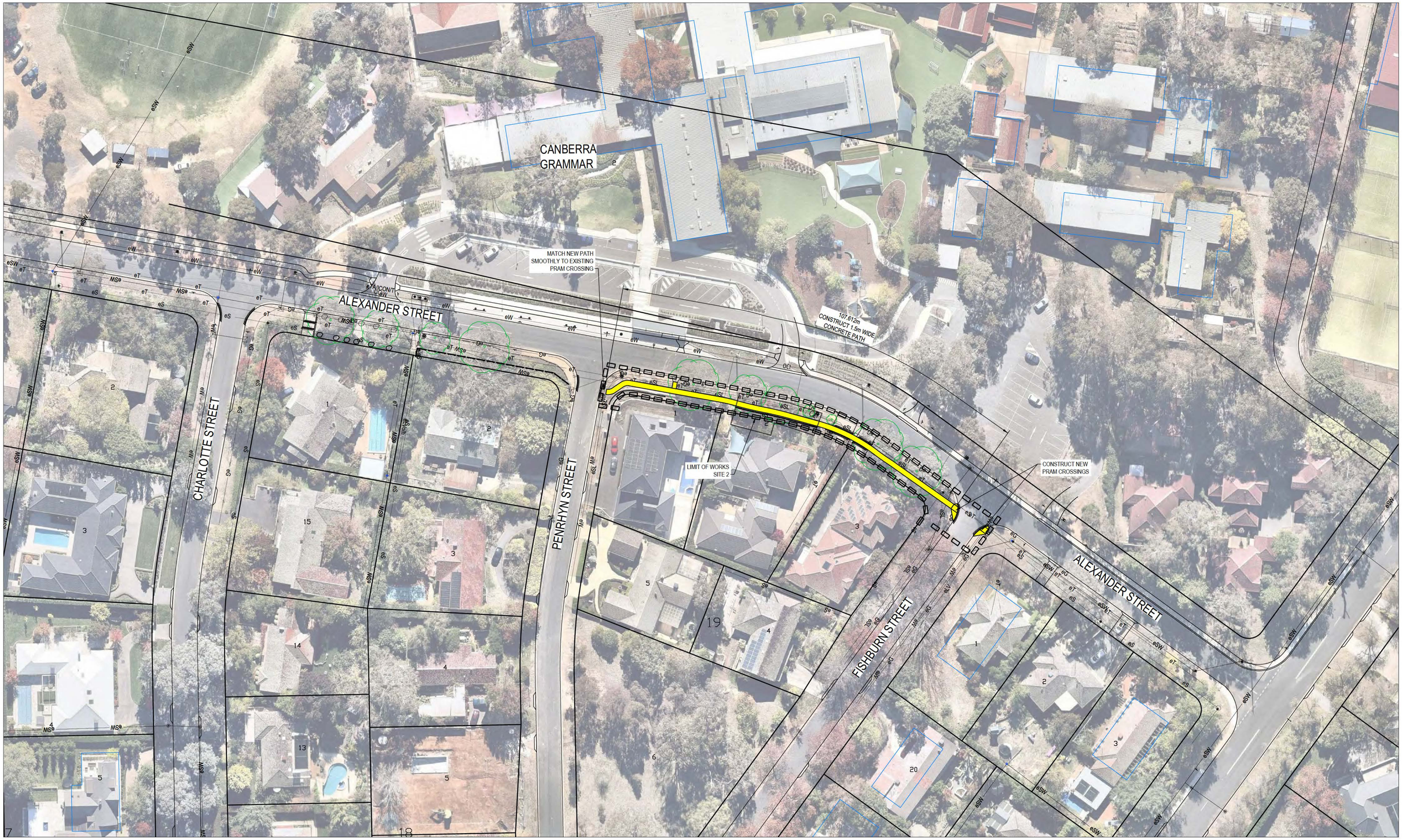
Drawn	PDJ	
Checked	TL	
Designed	PDJ	
Verified	TL	
Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 2
Title: GENERATE NOTES, LEGEND, DRAWING LIST AND LOCALITY PLAN
Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: AHD | Scale: N/A | Size: A1
Drawing Number: 50518090-CI-2001 | Revision: A



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SCALE 1:750 @A1

Rev.	Date	Description	Des.	Verif.	Appd
A	2/05/2018	CLIENT REVIEW	PDJ	TL	JPS

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Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)

Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 2

Title: SITE PLAN

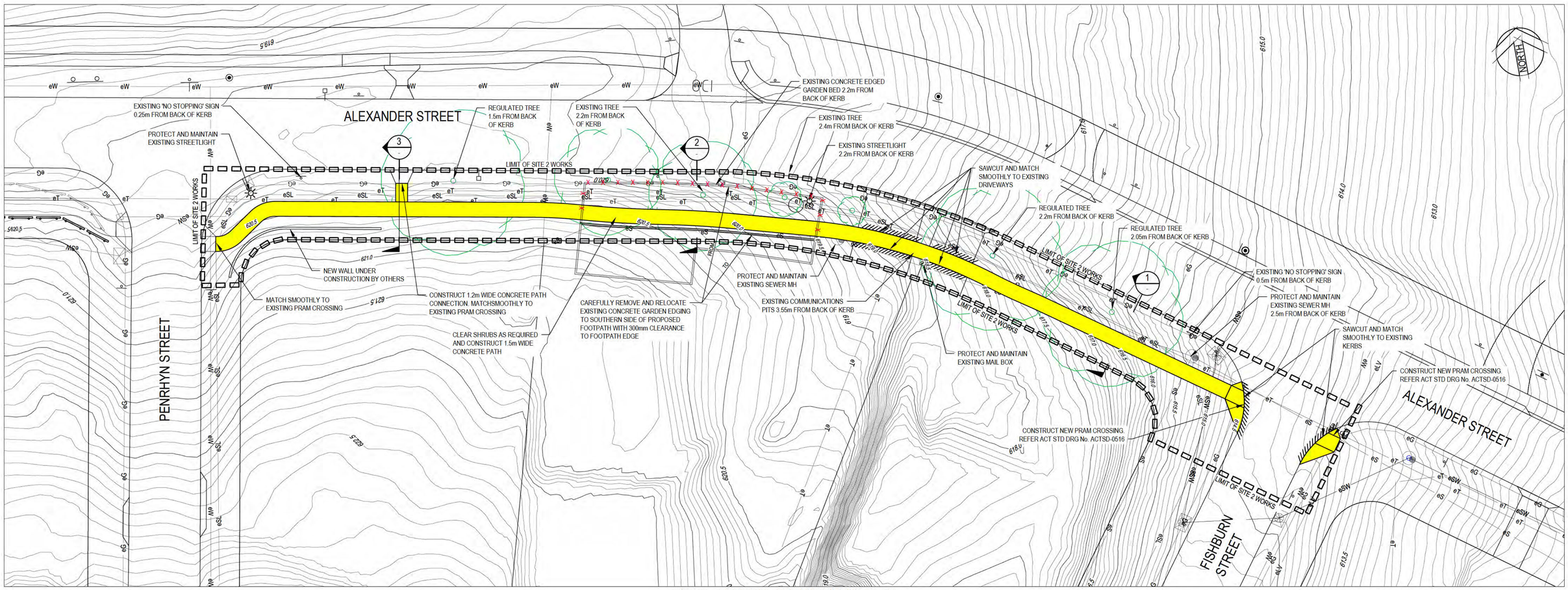
Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Scale	Size
AHD	1:750	A1

Drawing Number: 50518090-CI-2005

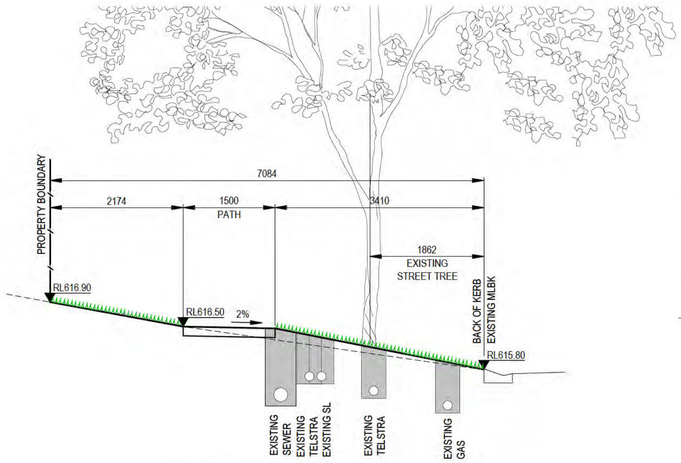
Revision: A

DATE PLOTTED: 18 May 2018 10:41 AM BY: - LEON RUECKER



SITE 2 - GENERAL ARRANGEMENT PLAN

SCALE 1:200



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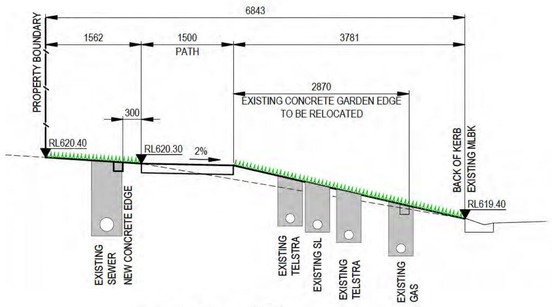

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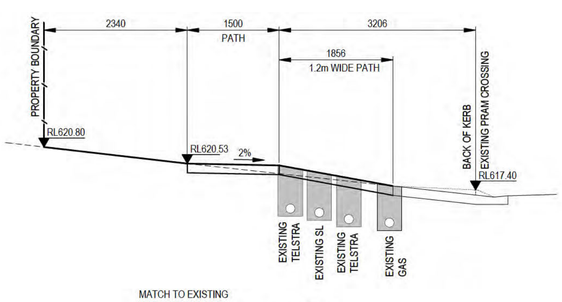

SECTION 3
SCALE 1:50

NOTE:

EXISTING SERVICES ALIGNMENTS ARE GATHERED FROM DBYD. ON SITE LOCATION OF SERVICES IS TO BE UNDERTAKEN BY THE CONTRACTOR. ADJUSTMENT OF FOOTPATH ALIGNMENT IS TO BE APPROVED BY THE SUPERINTENDENT .

0 1 2 3 4 5m
SCALE 1:50 @A1

0 5 10 15 20m
SCALE 1:200 @A1

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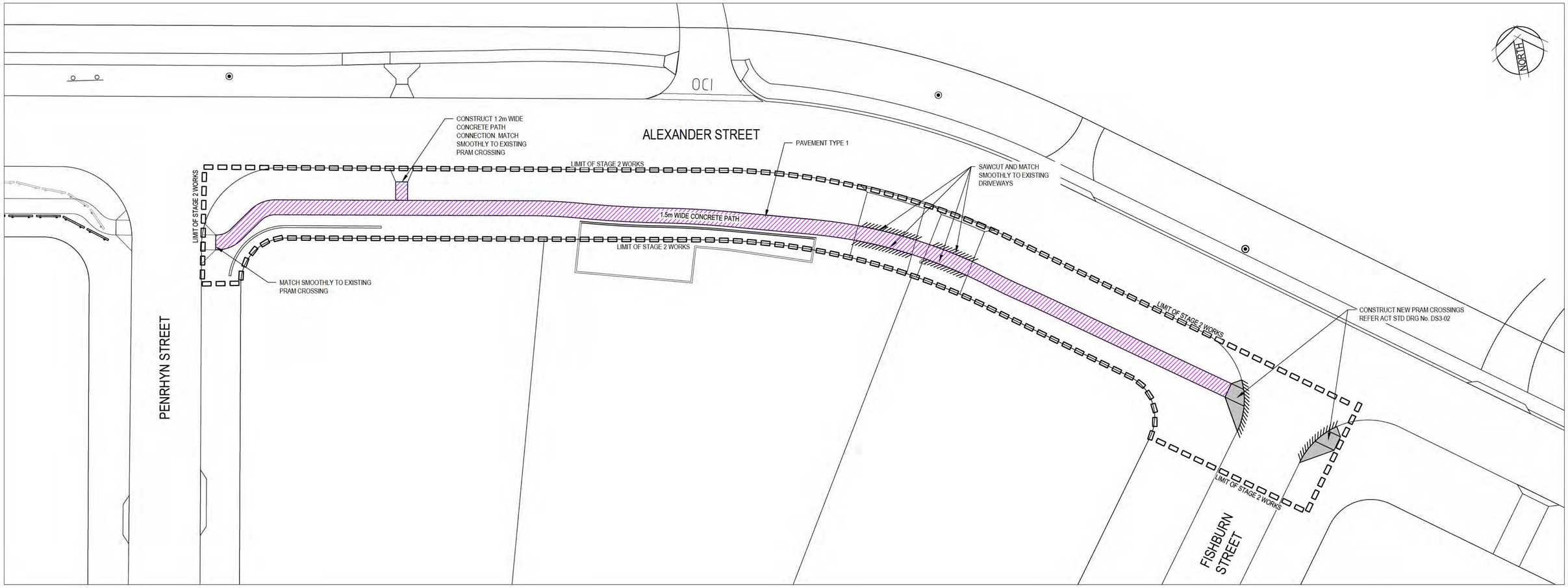
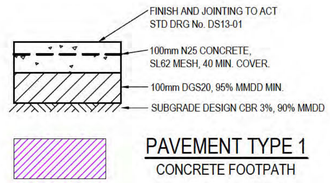
Checked TL	Date
Designed PDJ	Date
Verified TL	Date
Approved JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH REDHILL SITE 2
Title: GENERAL ARRANGMENT PLAN
Status: PRELIMINARY NOT TO BE USED FOR CONSTRUCTION PURPOSES
Datum: AHD | Scale: AS SHOWN | Size: A1
Drawing Number: 50518090-CI-2010 | Revision: A

XREFs: x-Base; x-TCD; x-Existing Services; x-LIDAR-Contours
CAD File: N:\Projects\50518090_ALEXANDER ST RED HILL FOOTPATH\Drawings\Build\STAGE 2\50518090-CI-2010-GA.dwg





PAVEMENT TYPE 1
CONCRETE FOOTPATH

PAVEMENT NOTES

1. SUBGRADE CBR FOR PAVEMENT DESIGN HAS BEEN DETERMINED FROM LABORATORY SOAKED CBR TESTS ON REPRESENTATIVE SOIL SAMPLES. REFER GEOTECHNICAL CONSULTANT'S REPORT.
2. FOR ALL PAVEMENT TYPES COMPACT SUBGRADE, SELECT FILL, SUB-BASE AND BASE MATERIALS IN ACCORDANCE. WITH THE ACT STANDARD SPECIFICATION OR AS SHOWN ON THE DRAWING, WHICH EVER IS GREATER.
3. ALL DESIGN SUBGRADE VALUES MUST BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. RESULTS OF SUBGRADE TESTS MUST BE MADE AVAILABLE TO THE PAD WITHIN 24 HRS OF RECEIPT. IF THE CBR IS LESS THAN CURRENTLY NOTED OR IP OR LL IS GREATER THAN 25% AND 50% RESPECTIVELY, THEN A PAVEMENT RE-DESIGN WILL BE REQUIRED BEFORE PROCEEDING.
5. SUBGRADE PREPARATION

a) REMOVE TOPSOIL, LARGE ROOTS AND UPPER LEACHED SOILS FROM ALL AREAS TO BE PAVED.

b) ANY HOLES CREATED BY REMOVAL OF ROOTS SHALL BE BACKFILLED.

c) PROOF ROLL ALL SUBGRADES IN THE PRESENCE OF THE PAD. THE PAD WILL ASSESS SUITABILITY OF SUBGRADE. ANY AREAS OF UNSUITABLE SUBGRADE SHALL BE EXCAVATED TO A DEPTH BELOW SUBGRADE LEVEL AS ADVISED BY PAD AND REPLACED WITH SELECT FILL COMPACTED TO 95% MMDD.

6. CUT SUBGRADE SHALL BE TESTED FOR CBR AT TOP OF SELECT FILL LAYERS SHOWN ON THE PAVEMENT PLAN. THE PAD WILL DETERMINE, BASED ON THE RESULTS, WHETHER THE SELECT FILL LAYER IS NEEDED. REFER SPECIFICATION FOR FURTHER DETAILS.
7. WET SOFT SILT/SAND AREAS, SUCH AS GULLY BASES IN DEEP FILL AREAS GREATER THAN 1.0m ARE TO COMPRISE A GEOFABRIC SEPARATION LAYER (BIDIM A64 OR APPROVED EQUIVALENT) OVERLAID BY A 500mm THICK DURABLE ROCK OR RECYCLED CONCRETE BRIDGING LAYER WITH NOMINAL PARTICLE SIZE 50mm TO 120mm.

0 5 10 15 20m
SCALE 1:200 @A1

Rev.	Date	Description	Des.	Verif.	Appd.
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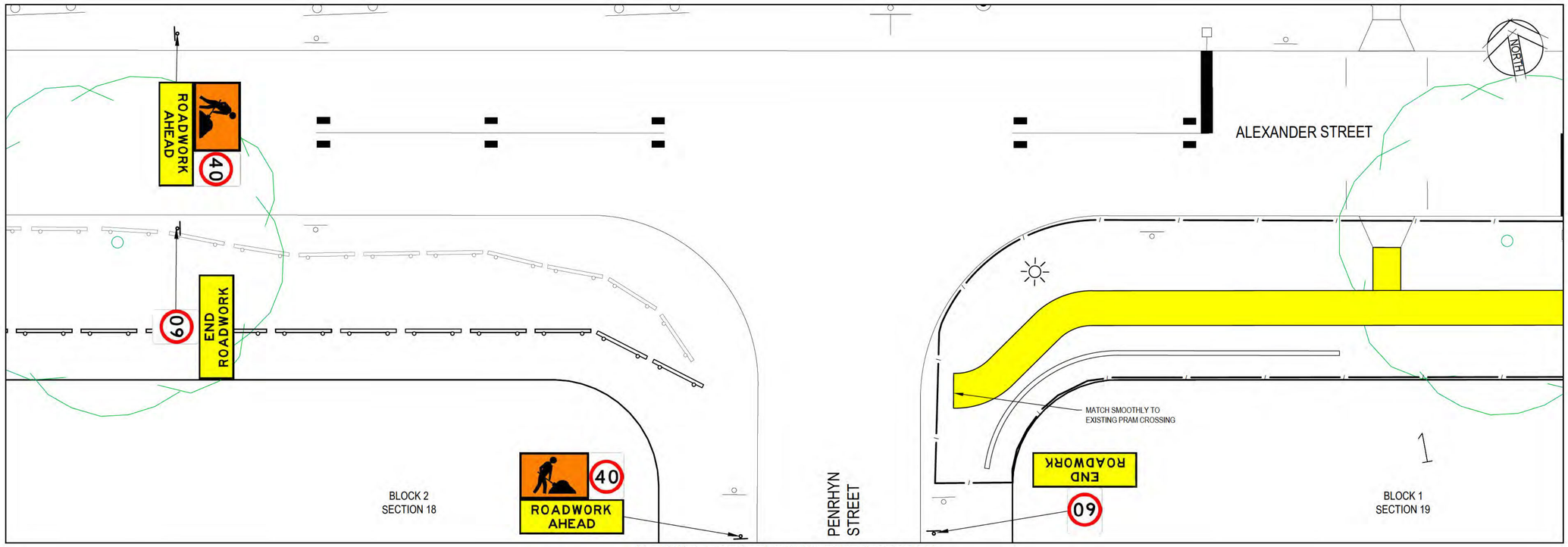
Verified	TL	
Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)
Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 2
Title: PAVEMENT PLAN AND DETAILS

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

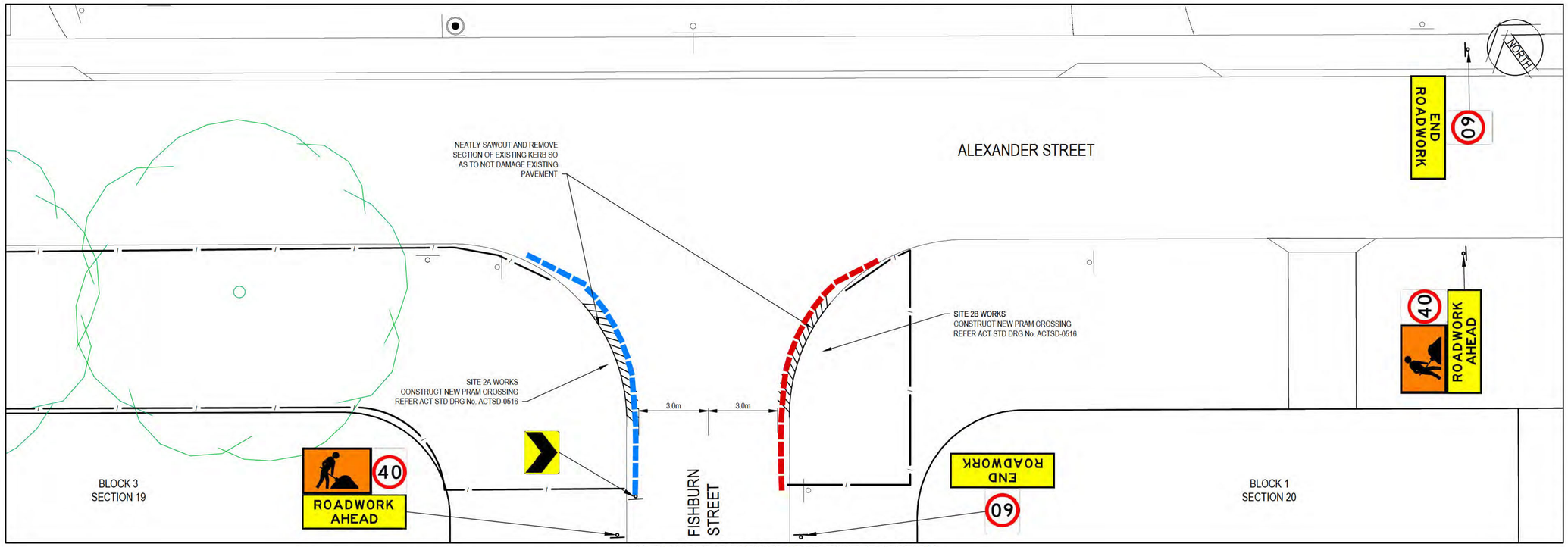
Datum	Scale	Size
AHD	1:200	A1

Drawing Number: 50518090-CI-2015
Revision: A



ALEXANDER ST / PENRHYN ST INTERSECTION

SCALE 1:100



ALEXANDER ST / FISHBURN ST INTERSECTION

SCALE 1:100

LEGEND

- EXTENT OF PATH WORKS
- WATER FILLED TRITON BARRIERS SITE 2B WORKS
- WATER FILLED TRITON BARRIERS SITE 2A WORKS
- SITE FENCE

NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR THE SITE OF WORKS AND THE TRAFFIC MANAGEMENT WITHIN THE SITE AND SHALL KEEP ALL REQUIRED RECORDS AND UNDERTAKE ALL NECESSARY MAINTENANCE.
2. ALL TEMPORARY TRAFFIC MANAGEMENT (TTM) DEVICES SHALL BE IN ACCORDANCE WITH AS 1743 AND QA G10 TRAFFIC MANAGEMENT (ACT MODIFIED).
3. ALL EMPLOYEES ARE TO WEAR APPROPRIATE SAFETY AS DETAILED IN AS 1743 AND QA G10 TRAFFIC MANAGEMENT (ACT MODIFIED).
4. ALL SIGNS CONFLICTING WITH THIS TTM PLAN SHALL BE COVERED OR REMOVED DURING THE HOURS OF OPERATION.
5. ALL SIGNS ERECTED IN RELATION TO THIS TTM THAT ARE NOT REQUIRED OUTSIDE THE HOURS OF OPERATION SHALL BE COVERED.
6. ALL EMPLOYEES INVOLVED IN TTM TRAFFIC CONTROL, SETUP, MINOR MODIFICATIONS AND INSPECTIONS SHALL HAVE THE RELEVANT QUALIFICATIONS IN ACCORDANCE WITH CLAUSE 1.5.3 OF QA G10 TRAFFIC MANAGEMENT(ACT MODIFIED)
7. ALL TRAFFIC CONTROL SIGNS AND DEVICES SHALL BE ERECTED AS PER THIS TTM AND IN CLEAR LINE OF SIGHT TO ALL ROAD USERS AND PEDESTRIANS. THEY SHALL NOT BE OBSCURED BY ANY VEGETATION, WORK PLANT OR PARKED VEHICLES. THEY SHALL NOT BE PLACED IN A MANNER THAT THEY WILL BECOME A HAZARD TO VEHICULAR TRAFFIC OR PEDESTRIANS.
8. ALL TRAFFIC LANES SHALL BE 3.0m MINIMUM.
9. ALL BOLLARDS SHALL BE PLACED AT 1.6m MAXIMUM SPACING AND PLACED 1.2m FROM THE KERB LINE TO FORM THE WORK SAFETY ZONE.
10. THE CONTRACTOR SHALL LIAISE WITH ANY ADJACENT PROJECT CONTRACTOR AND NOT PLACE ANY CONFLICTING TTM. THE CONTRACTOR SHALL NOTIFY THE SUPERINTENDENT OF ANY CONFLICTS IMMEDIATELY.
11. ACCESS FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.
12. EXISTING LINEMARKING TO BE ERADICATED AS SHOWN ON THE TCD DRAWINGS PRIOR TO CONSTRUCTION.
13. CO-ORDINATION BETWEEN LARGE DELIVERY VEHICLES AND THE CONTRACTOR IS REQUIRED.

0 1 2 4 6 8 10m

SCALE 1:100 @A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	17/05/2018	CLIENT REVIEW	LMR	TL	JPS

ACT Government
Transport Canberra and City Services

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Checked	TL	Date
Designed	LMR	Date
Verified	TL	Date
Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)

Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 2

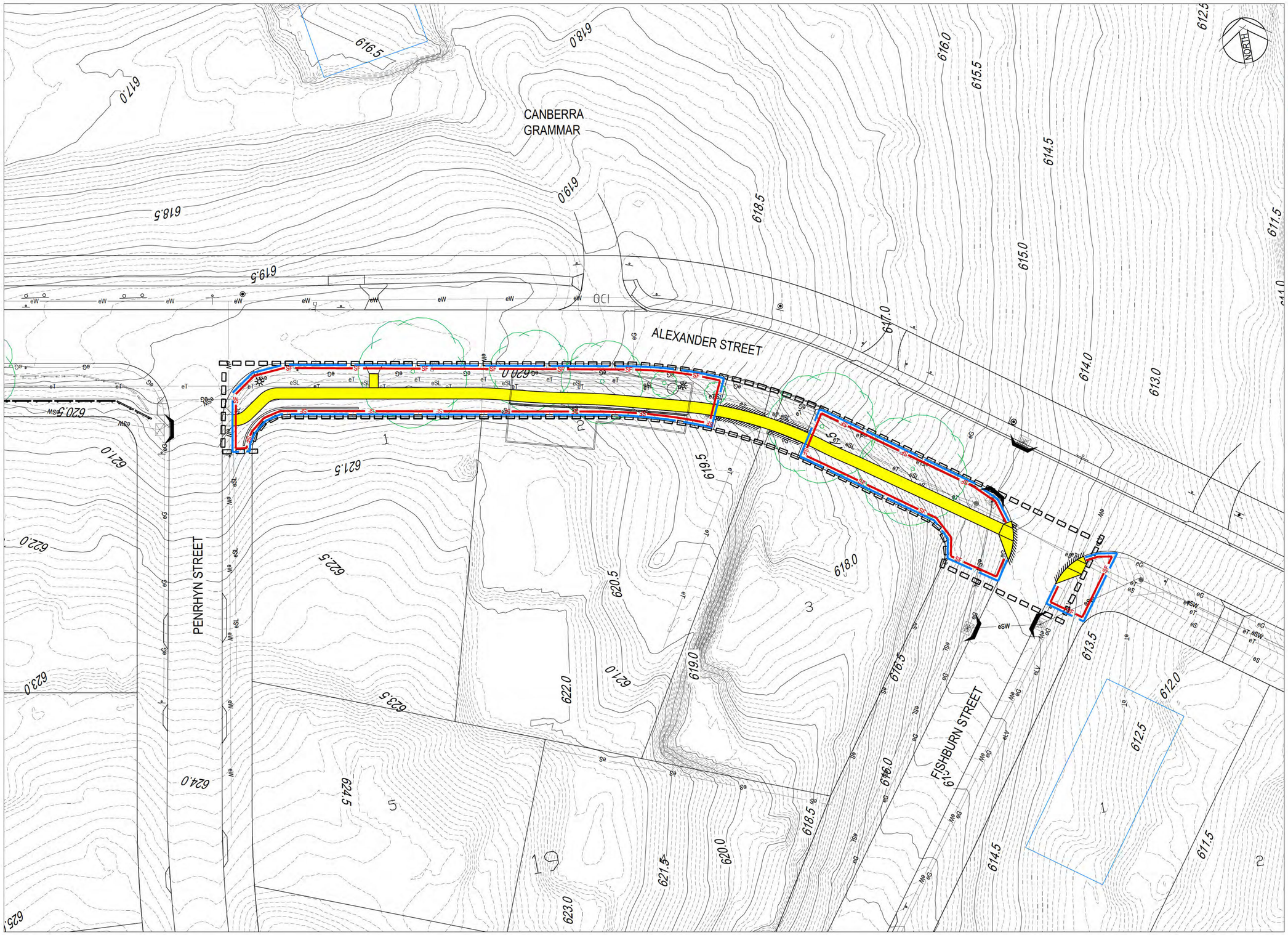
Title: TEMPORARY TRAFFIC MANAGEMENT
CONCEPT PLAN

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum		Scale	Size
AHD		1:100	A1

Drawing Number: 50518090-CI-2020

Revision: A



LEGEND

- STAGE BOUNDARY
- SILT FENCE REFER EPA GUIDELINES FOR CONSTRUCTION AND LAND DEVELOPMENT IN THE ACT
- 1.8m HIGH TEMPORARY CHAIN MESH SITE FENCE
- SANDBAG KERB INLET SEDIMENT TRAP

0 5 10 15 20 25m

SCALE 1:250 @A1

Rev.	Date	Description	Des.	Verif.	Appd.
A	17/05/2018	CLIENT REVIEW	LMR	TL	JPS

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		Date
Drawn	LMR	
Checked	TL	
Designed	LMR	
Verified	TL	
Approved	JPS	

Client: ROADS ACT (TRANSPORT CANBERRA AND CITY SERVICES)

Project: ALEXANDER STREET FOOTPATH
REDHILL
SITE 2

Title: CONCEPT EROSION, SEDIMENT CONTROL AND VERGE PROTECTION PLAN

Status: PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum		Scale	Size
AHD		1:250	A1

Drawing Number: 50518090-CI-2025
Revision: A

Mick Gentleman MLA

Member for Brindabella

Manager of Government Business
Minister for Police and Emergency Services
Minister for the Environment and Heritage
Minister for Planning and Land Management
Minister for Urban Renewal

[redacted]

Dear [redacted]

Thank you for your email of 7 June 2018 to the Chief Minister, Mr Andrew Barr MLA regarding road safety at Canberra Grammar School, Red Hill. I am responding as this matter falls within my portfolio responsibilities as acting Minister for Transport and City Services.

The ACT Government takes road safety and residents' amenity seriously and encourages all road users to share responsibility for road safety.

Transport Canberra and City Services (TCCS) is working with the Canberra Grammar School to provide a solution that will allow parking on the northern side of Alexander Street. However, currently parking in this location is not allowed.

TCCS is delivering a package of measures to make active travel easier to Canberra Grammar School. This has included a new school crossing on Golden Grove, improvements to the existing crossing on Monaro Crescent and an additional footpath on Alexander Street is also being considered.

The School Coordinator from the Active Travel Office within TCCS is in regular contact with Canberra Grammar School and nearby residents about the traffic safety on Alexander Street, parking and traffic impacts from school traffic. TCCS will continue to work with the school to improve the congestion caused by school time traffic.

Thank you for raising this matter. I trust the information provided is of assistance.

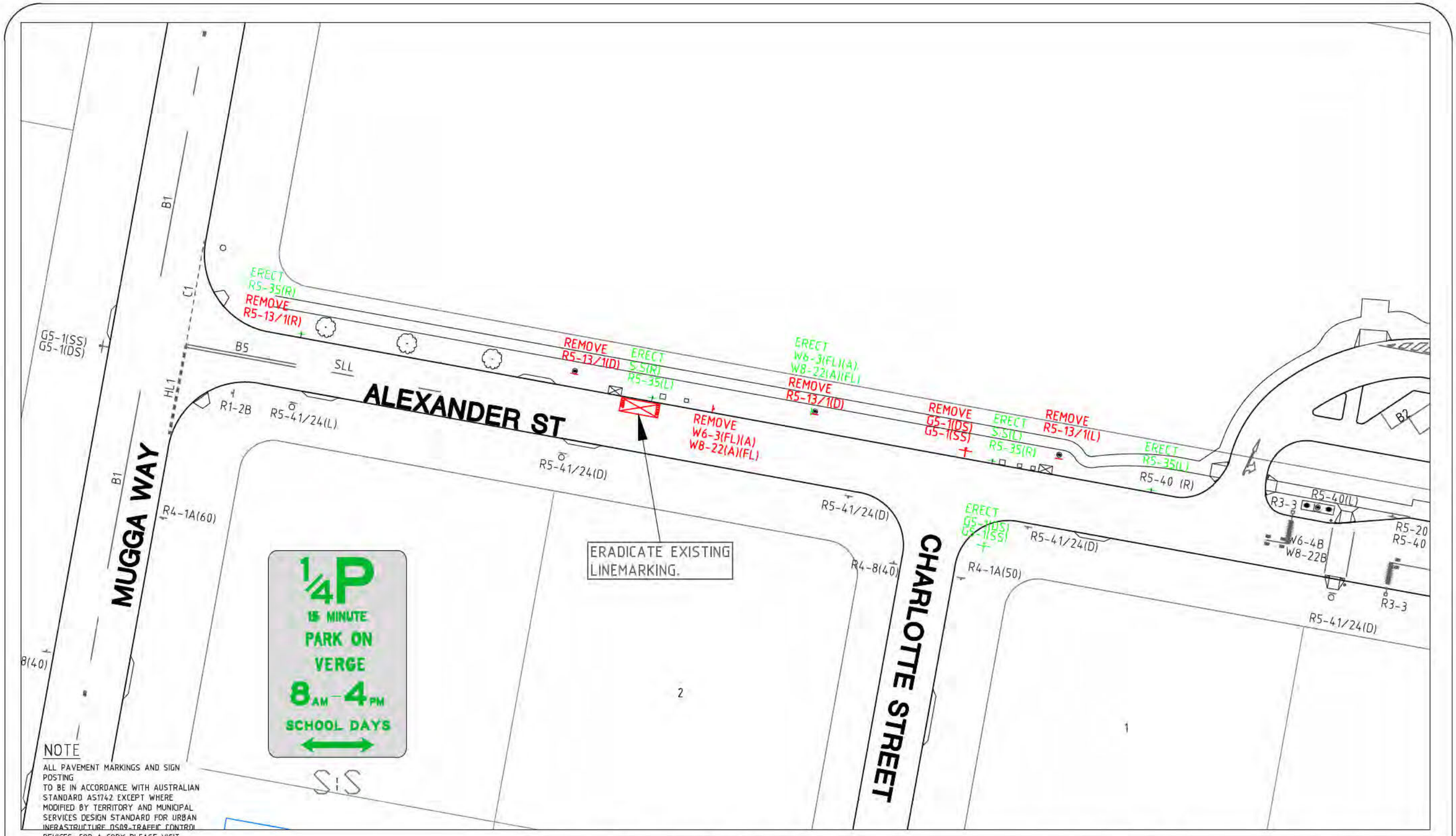
Yours sincerely

Mick Gentleman MLA
Acting Minister for Transport and City Services
23/7/18

AUSTRALIAN CAPITAL TERRITORY LEGISLATIVE ASSEMBLY
London Circuit, Canberra ACT 2601, Australia
Phone +61 2 6205 0218
GPO Box 1020, Canberra ACT 2601, Australia
Email gentleman@act.gov.au

@GENTLEMANMick MickGentleman

School Name	Street	Suburb	Between A	And	Speed Limt	Survey Date	Towards	8 Hrs Volume	8 Hrs Mean	8 Hrs 85th	16 Hrs Volume	16 Hrs Mean	16 Hrs 85th	Towards B	8 Hrs Volume1	8 Hrs Mean1	8 Hrs 85th1	16 Hrs Volume1	16 Hrs Mean1	16 Hrs 85th1
Canberra Grammar School	Golden Grove	Red Hill	Alexander Street	Hicks Street	40/50	01/08/2019	Alexander Street	445	37.9	45.6	350	45.3	54.0	Hicks Street	765	36.2	43.4	434	42.0	53.2
Canberra Grammar School	Mugga Way	Red Hill	Alexander Street	Flinders Way	40/50	03/05/2018	Alexander Street	1502	39.1	44.8	864	53.2	60.0	Flinders Way	2276	40.6	46.4	1446	54.1	60.5



NOTE

ALL PAVEMENT MARKINGS AND SIGN POSTING
TO BE IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1742 EXCEPT WHERE MODIFIED BY TERRITORY AND MUNICIPAL SERVICES DESIGN STANDARD FOR URBAN INFRASTRUCTURE DS09-TRAFFIC CONTROL DEVICES. FOR A COPY PLEASE VISIT http://www.tams.act.gov.au/__data/assets/pdf_file/0003/34698/Ref-11_TAMS_Drafting_Standard.pdfALL SIGNAGE INSTALLED ON ELP's TO BE POSITIONED TO AVOID COVERING THE ELP ASSET NUMBER.
ALL LINEMARKING TO BE WATERBORNE PAINT UNLESS NOTED OTHERWISE. LLM DENOTES LONG LIFE MATERIAL SUCH AS THERMOPLASTIC; COLD APPLIED PLASTIC CEMENT BASED PRODUCTS CAPABLE OF HAVING QUARTZ APPLIED.
ALL REDUNDANT AND/OR CONFLICTING LINEMARKING TO BE ERADICATED.

N

LEGEND

- ERADICATE LINEMARKING, SIGNS AND REMOVE KERB/CONCRETE.
- EXISTING LINEMARKING, SIGNS KERB AND CONCRETE.
- APPLY NEW LINEMARKING
- INSTALL NEW KERB, CONCRETE
- ERECT R5-35 — ERECT NEW SIGN

NO	AMENDMENTS	APPROVED	DATE

SIGNS TO BE ERECTED				
R5-35	NO STOPPING	L,R		2,2
S:S	15 MINUTE-PARK ON VERGE 8AM-4PM SCHOOL DAYS	L,R		1,1
W6-3(FL)	CHILDREN(FL)		A	1
W8-22(FL)	CROSSING AHEAD(FL)		A	1
G5-1(DS)	CHARLOTTE ST(DS)			1
G5-1(DS)	ALEXANDER ST(DS)			1
SIGNS TO BE REMOVED OR RELOCATED				
W6-3(FL)	CHILDREN(FL)		A	1
W8-22(FL)	CROSSING AHEAD(FL)		A	1
G5-1(DS)	CHARLOTTE ST(DS)			1
G5-1(SS)	ALEXANDER ST(SS)			1

SIGN	DESCRIPTION	HAND	SIZE	NO. OF
R5-13/1	5 MINUTE-7.30AM-6PM MON-FRI PUB HOL EXCEPTED	L,D,R		1,2,1

GRID NUMBER G370 — MAP NUMBER 1060672
DOCUMENT STATUS APPROVED
PROJECT OFFICER BH
DRAFTED JM
ACTION DATE 13-09-2018
DATE PLOTTED 13-09-2018
SCALE NTS
DOCUMENT NUMBER TC-618583
SHEET No 1/1 — REVISION

ACT GOVERNMENT

Authorised pursuant to Part 5 of Road Transport (Safety and Traffic Management) ACT 1999
Authorising Signature

ACT Government
Transport Canberra and City Services

RED HILL
Alexander Street
Traffic Control Devices

TCCS Advisory Note

Canberra Grammar School

ACT Government
Transport Canberra and City Services

ADVISORY NOTE

Minister for Transport

Subject	Canberra Grammar School infrastructure improvements
Critical Date	Routine
Director-General	18/10/18
Deputy Director-General, Transport Canberra	17/10/18
Deputy Director-General, City Services	11.10.18
Executive Director, City Operations	11/10/18
Director, Governance and Business Solutions	11/10/18
Director, Place Coordination and Planning	9/10/18

Minister's question/s:
Nil. This advisory note is to update you on active travel and road safety improvements planned near the Canberra Grammar School.

Transport Canberra and City Services (TCCS) response:
The Canberra Grammar School has been advocating for improved active travel infrastructure around the school.

A number of improvements have been made or are planned to be made (refer to map on page 3) to increase safety and improve amenity for pedestrians. The improvements that have already been delivered include:

- the extension of school zones to cover the entire school boundary to ensure all road crossings are within the school zone. The school zone signage previously did not cover the whole school perimeter;
- additional school zone signage on Mugga Way to include signs on both sides of the road to improve visibility of the school zone;
- a new children's crossing on Golden Grove;
- additional crossing flags at the existing children's crossing on Monaro Crescent;

- installation of a smiley face speed detection footing on Mugga Way, so the smiley face signs can be rotated to this site on a periodic basis; and

- Flinders Way and Monaro Crescent are due to be resealed over the coming months. The reseal is scheduled during the December/January holidays to reduce the impact on the school.

Following the reseal, a number of additional works are being considered to improve pedestrian access to the school. The proposed works include, a new refuge island and footpath improvements at the Flinders Way and Mugga Way intersection and a new pedestrian refuge at the mid-block on Flinders Way.

In addition to these active travel infrastructure improvements, on verge parking is being formalised along Alexander Street to increase parking capacity for the school. On street parking along Mugga Way is also being considered, to help reduce congestion in Alexander Street.

TCCS also plans to construct a section of footpath on Alexander Street to provide safer access to the children's crossing. Local residents have raised a range of concerns about this and a consultation process with local residents will be undertaken by the school.

TCCS will continue working closely with the school to identify and deliver active travel infrastructure improvements. A brief has been provided to your office regarding the expansion of the Active Streets program (B18/268) and Canberra Grammar is on the list of potential schools to be included over the next four years. This will provide further opportunities to work with the school to improve infrastructure and promote active travel.

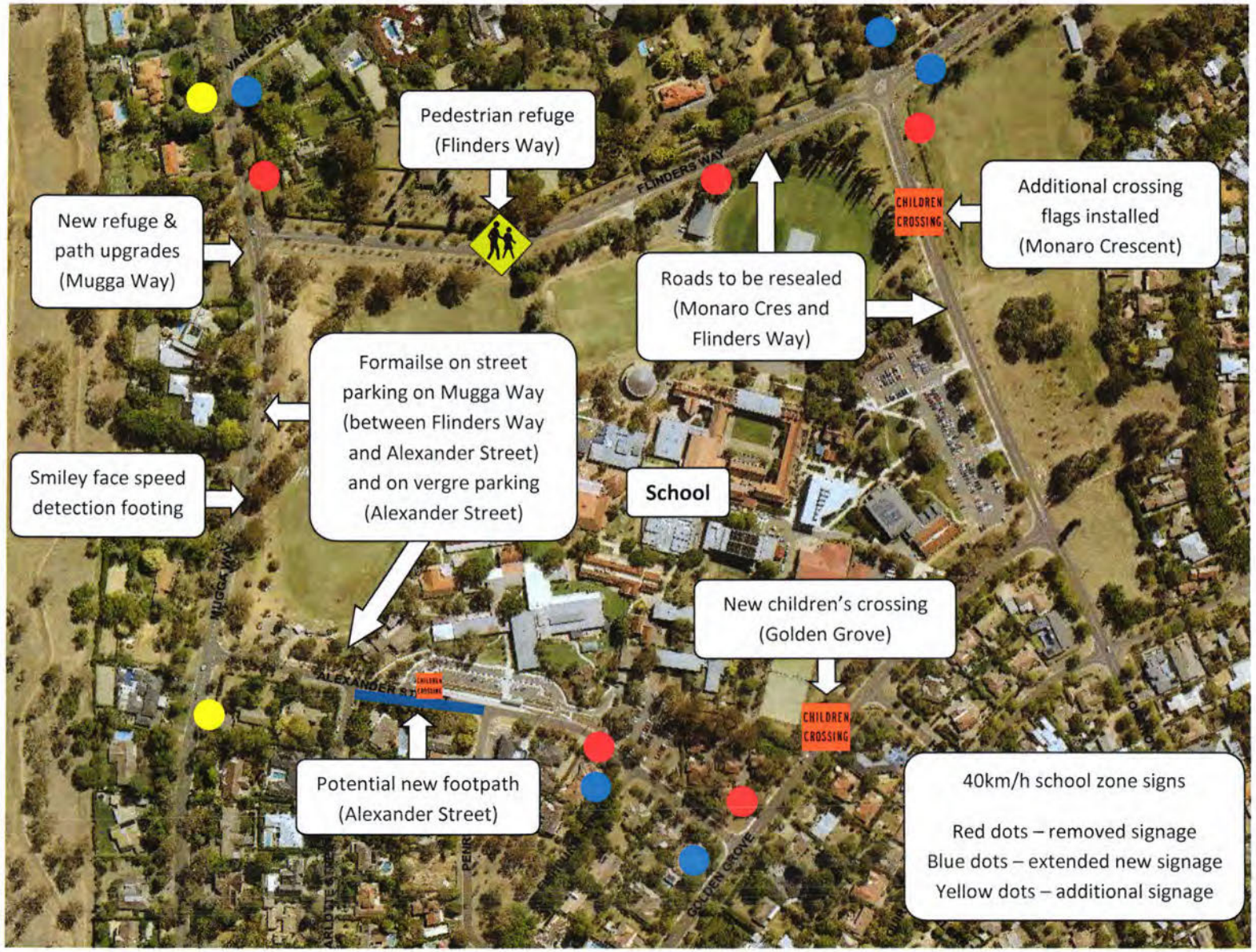
You may wish to provide a copy of this advisory note to Ministers Steel, Berry and Rattenbury noting links to their respective portfolios of roads, city services, education and road safety.

Yes, please cc. Ministers.

Noted / Please Discuss

Meegan Fitzharris MLA
Minister for Transport

24/10/18



ACT Government
Transport Canberra and City Services

The Resident
Charlotte Street
RED HILL

RE: Temporary Parking Restrictions along Charlotte Street, Red Hill – C18-38-1

Dear Resident,

I refer to the 2018 consultations undertaken associated with parking restrictions along Charlotte Street, Red Hill, reference C18-38.

Based on the varied responses received by the residents and Roads ACT liaison with Canberra Grammar School regarding the current construction of a car park at the school, Roads ACT has developed a practical approach to parking amenity in Charlotte Street which aims to improve the overall safety for all road users.

Accordingly, Roads ACT will implement the following:

Apply ***"No Parking 8 am to 9.30 am; 2.30 pm to 4.00 pm Monday to Friday SCHOOL DAYS"*** on the odd house number side of the street.

At the final completion of the school's car park, Roads ACT will review the parking arrangements in the whole precinct.

For further information please contact Mr Anthony Webb on 6205 1058 or by email: Anthony.Webb@act.gov.au.

Yours sincerely

Ms Snezana Dimitrovska
Planning and Investigations Officer
Traffic Management and Safety
Roads ACT

February 2019.

ACT Government

Transport Canberra and City Services

Advisory Note Cover Sheet

SUBJECT: Canberra Grammar School infrastructure improvements
TRIM NUMBER: AN19/71
MINISTER: Fitzharris, Meegan MLA
CRITICAL DATE:
CRITICAL REASON:
CONTACT OFFICER: Geoffory Davidson

COMMENTS:

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.....

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ADVISORY NOTE

Minister for Transport

TRIM No: AN19/71

Subject	Canberra Grammar School infrastructure improvements
Critical Date	In the normal course of business
Director-General	..../...../.....
Deputy Director-General, City Services	..... JC 26/3/19
Executive Group Manager, City Operations	.... 2/3/19
Executive Branch Manager, Place Coordination and Planning	..... GD 13/3/19

Minister's question/s:

To update you on active travel and road safety improvements being delivered near the Canberra Grammar School.

Transport Canberra and City Services (TCCS) response:

Advice was previously provided to you (AN18/252) about proposed active travel and road safety improvements near Canberra Grammar School. A number of improvements will be delivered around the school this year.

Some of the improvements are being delivered by the school (mainly car park improvements) while others are being delivered by Transport Canberra and City Services (TCCS).

The letter at Attachment A was provided to local residents on Thursday 21 February 2019 to inform them about the works along with a map highlighting the improvements at Attachment B.

One of the changes requested by the school – moving the centreline on Mugga Way to provide a parking lane on the school side of the road – raised concerns for residents on Mugga Way who would lose on street parking on their side of the road. TCCS has spoken with the concerned residents and the school and all parties have agreed to not move the centreline on Mugga Way at this point in time, given the school has built additional onsite parking nearby.

TCCS previously undertook a consultation with local residents on Alexander Street and some of the adjoining streets (Charlotte and Penrhyn Streets) on plans to construct a new footpath to improve access to the children's crossing on Alexander Street. The consultation was met by strong opposition from the local residents, primarily due to traffic management in the area and illegal parking in the streets near the school.

Since the initial consultation, the school has built additional onsite car parking and on street parking will be provided on Flinders Way adjacent to the school ovals. These works are expected to be

delivered prior to the April school holidays. In addition, Roads ACT is planning to provide parking restrictions on one side of Charlotte and Penrhyn Streets to reduce congestion and prevent teachers from parking in side streets all day. Parking Operations were also asked to monitor the area to restrict illegal parking on the verges.

Following the infrastructure improvements, including the car park expansion by Canberra Grammar, TCCS plans to revisit the proposed path and undertake further consultation with residents as part of the consultation regarding new parking restrictions in Charlotte and Penrhyn Streets. You will be briefed prior to this being undertaken.

You may wish to provide a copy of this advisory note to Ministers Steel, Berry and Rattenbury - noting links to their respective portfolios of roads, city services, education and road safety.

Noted / Please Discuss

Meegan Fitzharris MLA
Minister for Transport

cc: Minister Berry, Steel & Rattenbury.

ROAD AND PATH IMPROVEMENTS RED HILL

FEBRUARY 2019

ACT Government

Dear Resident,

Roads ACT, which is part of Transport Canberra and City Services, is responsible for providing safe and accessible roads and footpaths throughout the ACT.

Ongoing concerns have been raised about the safety of children accessing the Canberra Grammar School. TCCS is planning to deliver a number of improvements in Red Hill over the coming months to make it safer and easier for children to access the school, and for local residents to use the local roads and footpaths. The proposed changes include:

- a new refuge island and footpath improvements at the intersection of Mugga Way and Flinders Way
- a new refuge island on Flinders Way
- adjustment of the centreline on Mugga Way to provide on street parking on the school side and still maintain the two way traffic flow
- a solid centreline on Alexander Street.

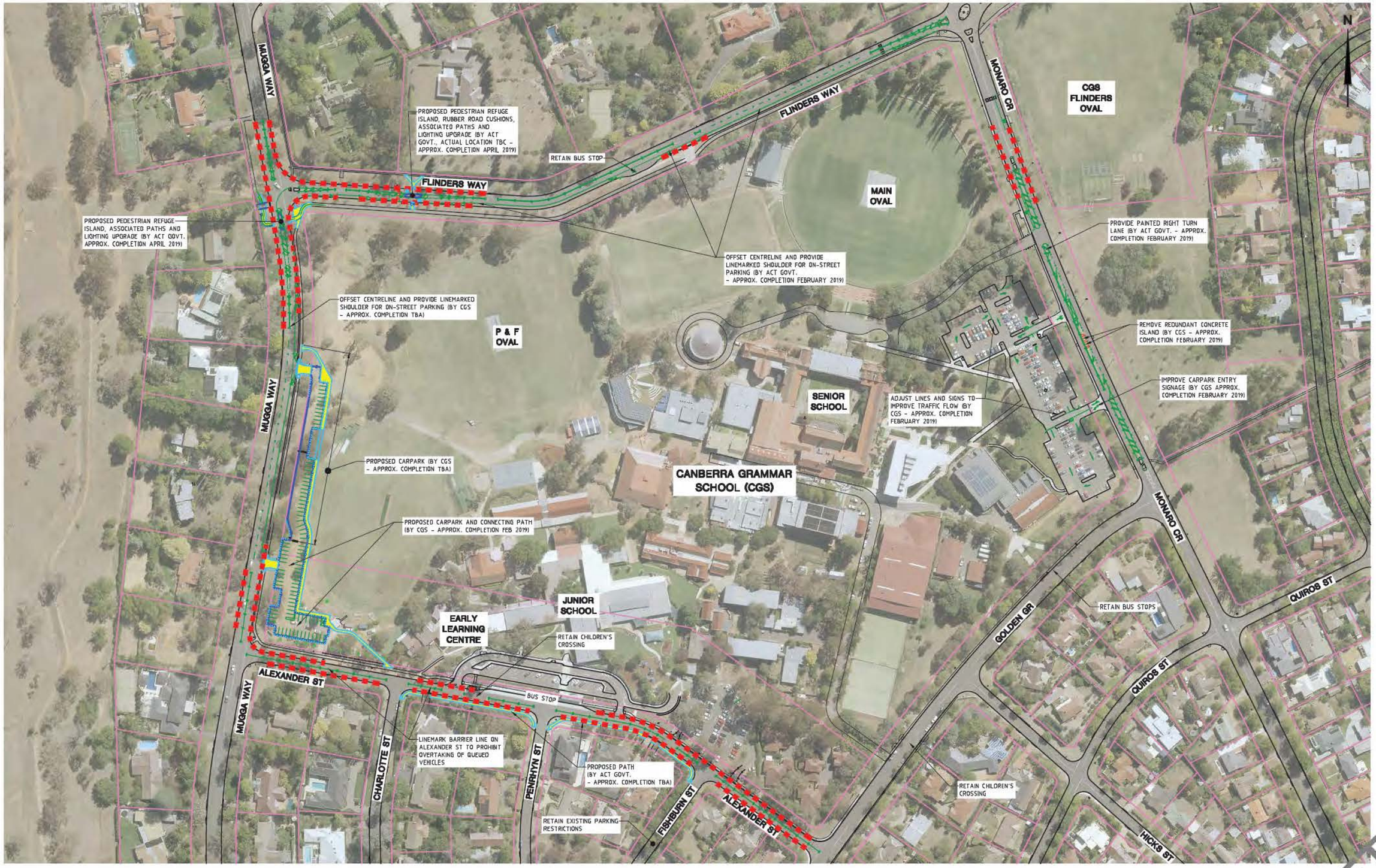
In addition to these improvements, the Canberra Grammar School is also planning a number of improvements related to parking and accessibility.

The enclosed map highlights the location of the works. Should you have any questions relating to these works, please contact the Manager, Schools Program, Mr Andrew Crichton (6205 8457 or Andrew.Crichton@act.gov.au).

Yours sincerely,

P 23597

Snezana Dimitrovska
Planning and Investigations Officer
Traffic Management and Safety
Roads ACT



LEGEND

- PROPOSED NEW LINEMARKING
- PROPOSED PATH
- PROPOSED PEDESTRIAN REFUGE ISLAND
- PROPOSED NO STOPPING ZONES

AMENDMENTS		
AMENDMENT	APPROVAL	DATE

DRAWING STAGE - LATEST DATE INDICATES DRAWING STATUS

Conceptual Design: 30/01/19	Final Sketch Plan: --/--/--	Final Design: --/--/--
For tendering purposes only: --/--/--	Issued for construction: --/--/--	W.A.E.: --/--/--

Scale

0m 25m 50m 75m 100m

SCALE: A1 1:1250, A3 1:2500

Design Agent

R.D. Gossip Pty Ltd
Consulting Engineers
2 Lawry Pl., Macquarie, ACT 2614
Ph: 02 6251 6313

Designed by	MG
Drawn by	RM
Checked by	RD
Approved by	MG

Client

Project Officer: Mike Iiff
Project Number: TBA

Canberra Grammar School
AN INDEPENDENT ANGLICAN SCHOOL

Project

CANBERRA GRAMMAR SCHOOL PARKING IMPROVEMENTS

Scale	Date
AS SHOWN	30/01/19

Drawing Title

CONSULTATION PLAN

Drg. No.	Sheet	Revision
RG 16025	100	0

DRAFT

ACT Government

FLINDERS WAY, RED HILL

SAFE SYSTEMS INFRASTRUCTURE ASSESSMENT

TRANSPORT CANBERRA AND CITY SERVICES

FINAL

RG19010-2 / 0

21 AUGUST 2019

Consulting Engineers

FLINDERS WAY, RED HILL

SAFE SYSTEMS INFRASTRUCTURE ASSESSMENT

Prepared for Transport Canberra and City Services

Document Register

Revision	Date	Details	Author	Verifier	Approver
Draft	4/06/19	Draft	RD	MG	MG
Draft 2	25/07/19	Revised draft	RD	MG	MG
0	21/08/19	Final	RD	MG	MG

R D Gossip Pty Ltd
2 Lawry Place
Macquarie ACT 2614
Australia
Telephone: +61 2 6251 6313
Email: robert@rdgossip.com.au

TABLE OF CONTENTS

LIST OF TABLES

1. SUMMARY

Project Name:	Flinders Way – Safe System Infrastructure Assessment
Assessment for:	Transport Canberra and City Services
Telephone:	(02) 6205 3208
Project Officer	Jayanthy Vikneson
Assessors:	[redacted] Senior Traffic Engineer [redacted] Senior Designer
Meetings:	No meetings with Roads ACT were undertaken as part of this assessment
Site Inspections:	Tuesday 12 March 2019 between 8:30 am – 9:30 am Thursday 14 March 2019 between: • 2:30 pm – 3:45 pm (School PM pickup period), and • 5:00 pm – 6:00 pm. Wednesday 24 July 2019 between 7:45 m – 8:45 am to inspect the recent works on Flinders Way.
Site Description	Two way two lane Major Collector Road. Existing 60 km/h speed limit with sections of the roads within a 40 km/h school zone and 40 km/h High Pedestrian Activity speed zone. Urban road with driveway access, a school (primary and secondary), child care centre and local shops.
Assessment and Design Options	The assessment was undertaken on the following road sections of Flinders Way for the different options per section: • School zone section (Mugga Way to the east of Monaro Crescent); o Current configuration; o Design option – speed cushions moved closer to the Flinders Way/ Monaro Crescent roundabout; • Outside school zone (East of Monaro Crescent to Murray Crescent); o Current configuration; o Design option: ▪ Offset centreline between Monaro Crescent and La Perouse Street; ▪ Marked parking shoulder for entire length; ▪ Clearing vegetation on the north west corner of the Flinders Way/ La Perouse Street intersection • 40 km/h High Pedestrian Activity speed zone (Murray Crescent to Manuka Circle); o Current configuration, and o Design option – install kerb blisters at the wombat crossings

The Safe System Matrix scores for the existing conditions and the score that would be achieved if the identified design options were to be incorporated are provided in **Table 1-1**.

Table 1-1 Safe System Matrix scores

Option	Score
School zone section (Mugga Way to the east of Monaro Crescent)	
Current configuration	98.5/448
Design Option	76.5/448
Outside school zone (East of Monaro Crescent to Murray Crescent)	
Current configuration	150/448
Design option	121.5/448
40 km/h High Pedestrian Activity speed zone (Murray Crescent to Manuka Circle)	
Current configuration	79/448
Design Option	55/448

1.1 Conclusion

The design of the proposed options can be undertaken to align with Safe System principles.

The installation of the treatments associated with Design Option would provide benefit to the safety of Flinders Way.

It is recommended that the following be undertaken:

- Remove the existing speed cushions on all approaches to the Flinders Way/ Monaro Crescent roundabout and install them closer to the roundabout as part of future maintenance programmes;
- Provide an offset centreline between Monaro Crescent and La Perouse Street;
- Provide a marked parking shoulder between Monaro Crescent and Murray Crescent;
- Clear the vegetation on the north west corner of the Flinders Way/ La Perouse Street intersection, and
- Install kerb blisters at the wombat crossings in the Group Centre to be undertaken as part of future programmes.

2. ASSESSMENT DETAILS

2.1 Assessment Scope

The purpose of this Safe Systems Assessment is to assess existing conditions against proposed infrastructure so it aligns with the Safe Systems principles and the objectives to eliminate collisions that result in fatal and serious injuries.

2.2 Assessment Team

The following team members involved with this project:

- [redacted] R D Gossip Pty Ltd Senior Traffic Engineer (Lead Road Safety Auditor)
- [redacted] R D Gossip Pty Ltd Senior Designer (Leve 2 Road Safety Auditor)

2.3 Meeting and Site Inspections

2.3.1 Meetings

No meetings were held between RDG and Roads ACT as part of this assessment.

2.3.2 Site Inspections

Site inspections were undertaken during the following periods:

- Tuesday 12 March 2019 between 8:30 am – 9:30 am (AM inspection);
- Thursday 14 March 2019 between:
    - 2:30 pm – 3:45 pm (School PM pickup period), and
    - 5:00 pm – 6:00 pm (PM inspection).

A summary of the key observations are listed below for the respective periods.

2.3.2.1 General Comments

- No linemarking was installed for the resealed sections of Flinders Way, with several rubber speed cushions missing;
- Some of the existing rubber cushions have flattened components that enable vehicles to straddle without having to reduce speed.
- The alignment of the Flinders Way and Monaro Crescent roundabout does not provide adequate deflection to encourage approaching vehicles to decrease their speed.
- The sight distance for the southbound approach of La Perouse Street is obstructed by vegetation within the road reserve.
- The proximity of parking to the wombat crossings does not comply with the Australian Standard. Delivery vehicles in loading zones, especially vans and trucks block the sight distance.

2.3.2.2 AM Inspection (8:30 am – 9:30 am)

- Some school drop off activities occurred on Flinders Way (Mugga Way and Monaro Crescent) on both sides of the road. This included the use of the indented bus bay.
- The majority of the road users appeared to abide to the speed limit. However, there were drivers that were observed travelling to and from the school (same vehicles) that appeared to exceed the speed limit, particularly within the 40 km/h school zone. It is expected that these drivers were associated with school drop off activities due to their movements.

- There was a high demand for parking on the eastern side of Flinders Way, with several vehicles observed doing U-turns in the midblocks.
- There were some pedestrian and cyclist activity on the path network, with several cyclists on the road. One cyclist was observed behaving erratically at the roundabout with Murray Crescent.
- The majority of pedestrians and cyclists were observed mainly crossing the road at locations where kerb ramps or pedestrians crossings are provided. Several crossed Flinders Way within the school zone (dropped off on the northern side of the road) or near the oval (recreation walkers/ joggers).
- Reversing manoeuvres from the Manuka Veterinary Hospital created some concern, with an eastbound vehicle observed overtaking a reversing vehicle while a westbound vehicle was approaching.
- There was some delay on Flinders Way at the intersection with Mugga Way. This was particularly associated with the right turn out of Flinders Way due to vehicles approaching from both directions on Mugga Way.

2.3.2.3 School PM (pickup period) Inspection (2:30 pm – 3:45 pm)

- Before school ended, multiple vehicles on Flinders Way appeared to exceed the 40 km/h school zone speed limit. While students were present the majority of the vehicles appeared to abide to the 40 km/h speed restriction.
- Multiple vehicles were observed driving over the temporary stick on marker “flaps” from the reseal as no linemarking has yet been provided. This occurred along the road section that has been resealed and not linemarked.
- Several vehicles were observed following slower vehicles providing inadequate gaps. This included within the school zone (including when undertaking pilot runs).
- Some drivers turned from La Perouse Street into Flinders Way without accounting for gap acceptance.
- Several vehicles were parked on the verges on both sides of Flinders Way near the access to the CGS maintenance driveway and the indented bus stop.
- A CGS maintenance vehicle was observed driving on the main community route path. No pedestrians or cyclists were present at that time.
- Multiple cyclists and pedestrian were observed on the paths, with crossing activities at the intersections with Monaro Crescent and Mugga Way.
- Several “near misses” where observed at the roundabout with Monaro Crescent, predominately associated with the Flinders Way eastbound movement and both directions on Monaro Crescent.
- A vehicle was observed performing a U-turn over a wombat crossing (raised pedestrian crossing (zebra)) at Manuka Shops.
- Several vehicles were observed parked outside marked bays and over the wombat crossing at Manuka Shops.
- There was after school sport on around the school that may have reduced the vehicular demand.

2.3.2.4 PM Inspection (5:00 pm – 6:00 pm)

- Similar conditions to the AM and school peak periods, except a lower number of vehicles on Flinders Way between Monaro Crescent and Mugga Way and reduced parking demand between Murray Crescent and La Perouse Street.
- There was high activity at Manuka Shops.
- Parking at the wombat crossings was similar to the school PM period inspection.
- There was some congestion at the intersection of Flinders Way and Franklin Street.

2.3.2.5 Additional Site Inspection

Another site inspection was undertaken on Wednesday 24 July 2019 to inspect the completed maintenance works and installation of the refuge island on Flinders Way near Mugga Way. The damaged and missing rubber speed cushions were replaced and the centre linemarking installed at the time of the inspection.

3. PROJECT CONTEXT AND DESCRIPTION

3.1 Existing Conditions

3.1.1 Road Description

Flinders Way, Red Hill, is a Major Collector road in the ACT road hierarchy with a speed limit of 60 km/h along the majority of its' length. It has a 40 km/h school zone servicing Canberra Grammar School between Mugga Way and east of Monaro Crescent and a 40 km/h High Pedestrian Activity speed zone from Murray Crescent to Manuka Circle.

It is circa 1.7 km in length and circa 9 m wide.

The road currently has the following traffic calming devices:

- Rubber speed cushions:
    - Circa 40 m south of Murray Crescent roundabout;
    - Circa 60 m north of La Perouse Street intersection;
    - Circa 70 m south of La Perouse Street intersection;
    - Circa 60 m east of Monaro Crescent roundabout;
    - Circa 50 m west of Monaro Crescent roundabout;
    - Circa 80 m east of Mugga Way intersection;
- Wombat crossings;
    - Southern side of Franklin Street;
    - Intersection at Palmerston Lane;
    - Northern side of Bougainville Street
- Roundabouts with:
    - Murray Crescent, and
    - Monaro Crescent.

Parking is permitted along Flinders Way, with the majority parallel parking on the southern/ eastern side of the road. There are 90 degree parking spaces on the eastern side of the road between Bougainville Street and Murray Crescent.

3.1.2 Traffic Volume and Speed Data

Traffic volume and speed data were collected on Flinders Way between Murray Crescent and La Perouse Street (November 2018). The results are provided in **Table 3-1**.

Table 3-1 Speed and Traffic Volumes

Towards	Survey Start Date	Weekday Average (vpd)	Weekday Average Speed Km/hr	Weekday 85 %ile Speed Km/hr
Murray Crescent (NB)	7/11/2018	3,275	45.3	51.8
La Perouse Street (SB)		2,417	44.7	52.2

The data indicates that circa 5,700 vehicles per day on Flinders Way. The traffic volumes are within the Major Collector road classification range of 3,000 to 6,000 daily vehicles.

Speed data indicates that the average and 85th percentile motorist travels below the 60 km/h posted speed limit. The speed data is also consistent with information collected after the installation of the rubber speed cushions (date unknown). Note that the comparison speed data that was collected before the installation of the rubber speed cushions indicated a higher average with the 85th percentile speed above the 60 km/h speed limit. No data was collected within the school zone or the 40 km/h High Pedestrian Activity speed zone.

3.1.3 Collision History

In the five year period from 1 January 2013 to 31 December 2017, a total of 118 collisions occurred on Flinders Way, excluding collisions at the intersections with Manuka Circle (57 collisions) and with Mugga Way (12 collisions).

There were no collisions which resulted in a fatality. 8 collisions resulted in injuries requiring medical treatment.

- 41 collisions occurred at intersections and 77 collisions occurred in midblock sections;
- An injury occurred on the midblock between Palmerston Lane and Bougainville Street from a collision between a northbound vehicle and a pedestrian (RUM Code 2);
- An injury occurred on the midblock between Murray Crescent and La Perouse Street when a northbound vehicle left the road to the right and collided with an object (RUM Code 703);
- An injury occurred at the intersection of Flinders Way and La Perouse Street from a collision between a westbound vehicle travelling straight and a southbound vehicle turning right (RUM Code 102);
- An injury occurred at the midblock between La Perouse Street and Durville Crescent from a head on collision between a southbound vehicle and a northbound vehicle on the wrong side of the road (RUM Code 201);
- Two injuries occurred in two separate collisions within the roundabout of Flinders Way and Monaro Crescent between vehicles travelling straight (northbound and westbound vehicles, southbound and eastbound vehicles) (RUM Code 101);
- An injury occurred on the midblock between Monaro Crescent and Mugga Way from a collision on the path between an eastbound vehicle and a pedestrian (RUM Code 8);
- An injury occurred on the midblock between Monaro Crescent and Mugga Way where a rear end collision occurred between westbound vehicles (RUM Code 301);
- The most frequent midblock collisions involved manoeuvring or parking related collisions with 46 (RUM Code 40 and 60 series);
- 24 collisions occurred in the midblock between Murray Crescent and La Perouse Street;
- The most frequent intersection collisions involved collisions between vehicles turning/ travelling through the intersection 29 (RUM Code 10 and 20 series), and
- 26 collisions occurred in the intersection of Flinders Way and Monaro Crescent.

3.1.3.1 Lighting lux levels

- Lighting along Flinders Way varies depending on the location (limited lighting between Mugga Way and Monaro Crescent), with some LED luminaries installed.
- The majority of Flinders Way achieves the 3.5 Lux (minimum) lighting between light columns required for the installation of traffic calming devices. However, there are several midblock locations that did not achieve this requirement (typically 2.5 Lux or lower). Circa 25 Lux was recorded under non LED luminaries.
- Some of the lights on Flinders Way was not working at the time of the inspection.

3.1.4 Context of Assessment

Table 3-2 Project Context

Austroads AP-R509-16 Prompts	Comments
What is the reason for the **project**? Is there specific crash type risk? Is it addressing specific issues such as poor speed limit compliance, road access, congestion, future traffic growth, freight movement, amenity concerns from the community, maintenance/asset renewal, etc.	• The project aims to improve safety for all users of Flinders Way.
What is the **function** of the road? Consider location, roadside land use, area type, speed limit, intersection type, presence of parking, public transport services and vehicle flows. What traffic features exist nearby (e.g. upstream and downstream)? What alternative routes exist?	• The road provides a connection from Canberra Avenue to Mugga Way and access to the provided facilities. • The street is a mix of residential, commercial, educational and recreational use • The speed limit is 60 km/h with a 40 km/h school zone and 40 km/h High Pedestrian Activity speed zone on part of the roads. • Except for the roundabouts, the intersections are priority controlled (Give Way or Stop) with priority to Flinders Way. • Parking controls are provided around Manuka Shops.
What is the **speed** environment? What is the current speed limit? Has it changed recently? Is it similar to other roads of this type? How does it compare to Safe System speeds? What is the acceptability of lowering the speed limit at this location?	• Roads are 60 km/h with a 40 km/h school zone and a 40 km/h High Pedestrian Activity speed zone. • Potential consideration to reduce the speed limit to 50 km/h to align with the residential nature of the road and the recreational facilities.
What **road users** are present? Consider the presence of elderly pedestrians, school children and cyclists. Also note what facilities are available to vulnerable road users (e.g. signalised crossings, bicycle lanes, school speed limits, etc.)	• Majority of the road users are expected to be passenger vehicles. • Pedestrian activity is generated by the schools and local shops, including the use of the community path on the eastern side of the road. • Wombat crossings are provided at Manuka Shops and island slots through the roundabouts islands. • No bicycle lanes are provided.

Austroads AP-R509-16 Prompts	Comments
What is the **vehicle** composition? Consider the presence of heavy vehicles (and what type), motorcyclists and other vehicles using the roadway.	• It is expected that at least 95% of vehicles would be passenger sized vehicles (including utes). • Circa 4% would be heavy vehicles including buses • Circa 1% would be motorcycles.

3.2 Improvement Treatments

3.2.1 Design Considerations

The following needs to be considered as part of the selection of the proposed treatments:

- Devices should be visible for approaching road users from 73 m at 60 km/h and 55 m at 50 km/h (not accounting for corrections due to grade).
- Lighting – 3.5 Lux is required within 3 m of the device.

Based on the site inspections, road geometry and observations and the review of the traffic volume, speed and collision data, the following options could be considered.

3.2.1.1 Speed reduction to 50 km/h

A speed reduction has been requested by the Griffith/Narrabundah Community Association Inc. (correspondence dated 1 February 2018).

The 85th percentile motorist travels below the 60 km/h posted speed limit (circa 52 km/h) with the average motorist travelling at circa 45 km/h. This is assisted by the existing rubber speed cushions and would require the rubber speed cushions to remain to maintain this conformance.

A reduction to the posted speed limit to 50 km/h would align with the 85th percentile speed. It would also align with the roadside environment. A 50 km/h speed limit on Flinders Way is justified through the following:

- There are multiple driveways on Flinders Way;
- Deter rat running through the suburb;
- Improve the comfort for the motorists, particularly sections where parallel parking reduces the width of the carriageway;
- Assist in deterring antisocial behaviour, and
- Decreases stopping distance and sight distance requirements for vehicles travelling at the reduced speed, improving safety for all road users.

Based on the road width and number of property accesses, the speed reduction is considered appropriate for Flinders Way.

Note that changing the posted speed limit from 60 km/h to 50 km/h will not influence the SSA scoring due to the recorded 85th percentile speed.

3.2.1.2 Traffic lane width reduction

The current pavement markings provide an offset centreline between Murray Crescent and La Perouse Street and between Monaro Crescent and Mugga Way (drawing number RG 16025 dated 21 January 2019). Additionally, the section between Monaro Crescent and Mugga Way has a marked parking

shoulder on the southern side of the road for school activities (pick up/ set down, sport and other school events). The centreline between La Perouse Street and Monaro Crescent is in the centre of the road.

The continuation of an offset centreline on Flinders Way between La Perouse Street and Monaro Crescent would provide consistency for the length of road. In addition to the offset centreline, a marked parking shoulder should be provided between Monaro and Murray Crescents. This would visually provide the boundaries of the carriageway and assist with encouraging road users to conform to the speed limit.

3.2.1.3 Improvement to intersections

Flinders Way/ Monaro Crescent Roundabout

The current Flinders Way/ Monaro Crescent roundabout does not provide adequate deflection on the approaches, particularly for the Flinders Way eastbound and the Monaro Crescent northbound approaches. This is due to the design of the oval shaped central island.

There is not enough width on the approaches to the roundabout to provide deflection on the approaches without reconstructing the road alignment. An option to reconstruct the central island to a 40 mm high annulus with raised kerb protecting the light column may assist with providing the deflection within the intersection.

Alternatively, rubber speed cushions could be installed on all approaches to the roundabout closer than the currently installed devices as part of future maintenance programmes to slow vehicles just prior to entering the roundabout.

Due to the number of collisions at this roundabout, corrections to the central island or the installation of vertical deflection devices closer to the roundabout is considered appropriate.

Flinders Way/ La Perouse Street Intersection

Visibility at the Flinders Way/ La Perouse Street intersection is impacted by vegetation on the northern side of the intersection and the northbound La Perouse Street approach gradient in combination with on-street parking.

Removing the vegetation on the north western corner of the intersection and extend the parking restriction away from the intersection should be undertaken.

3.2.1.4 Pedestrian crossing improvements

Several pedestrians were observed crossing the road at typical locations (i.e. intersections). Several were observed crossing at midblock locations, particularly with the school zone. As part of the implemented improvement works on Flinders Way between Monaro Crescent and Mugga Way (drawing number RG 16025 dated 21 January 2019), a refuge island has been constructed to the east of Mugga Way. This will assist with removing pedestrian movements near the intersection.

The proximity of the parking areas to the wombat crossings at Manuka Shops does not comply with the standard and create visibility issues. The parking/ loading zones should be removed or kerb extensions provided to improve pedestrians/ cyclists visibility. Given the high demand at Manuka Shops for parking, kerb extensions are considered appropriate for this location.

3.2.1.5 Traffic Calming – Deflection Devices

Vertical deflection devices are currently used on Flinders Way with rubber cushions outside the group centre and wombat crossings at Manuka Shops. A comparison between speeds and accidents on

Flinders Way pre and post installation indicates their installation was beneficial with the reduction in speed and number of accidents.

Vertical deflection devices can be designed to accommodate all types of vehicles, with the option to install either rubber cushions or asphalt humps. Asphalt humps have a better forecasted lifecycle and installation cost than rubber cushions and have been recently installed in several suburbs. Although the current profile of the asphalt humps are easier traversed than rubber cushions, they are not as effective for speed reduction.

Rubber cushions are installed in groups of three along Flinders Way between Mugga Way and Murray Crescent with widths ranging between 1.6 m to 2.2 m (1.9 m to 2.2 m used as a central cushion). The cushions that align with the traffic lane are between 1.6 m and 1.8 m wide with an offset from the kerb up to 1.4 m. The width of the trafficked cushions are less than the typical 1.9 m wide rubber cushions that are currently used at other locations in the ACT. This is due to Flinders Way being one of the first roads in the ACT that rubber cushions were used. Some of the rubber cushions on Flinders Way have been recently replaced. The 1.9 m wide rubber cushions reduce the ability for vehicles to straddle the cushion and improve their effectiveness.

The existing speed cushion configuration is effective in speed and accident reduction and therefore should remain. The rubber cushions should be replaced with minimum 1.9 m wide rubber cushions as part of the maintenance program including amending the offset from the kerb to a maximum of 1.2 m to align with other streets in the ACT.

3.2.2 Assessment Options

The assessment was undertaken on the following road sections of Flinders Way for the following:

- School zone section (Mugga Way to the east of Monaro Crescent);
    - Current configuration;
    - Design option – speed cushions moved closer to the Flinders Way/ Monaro Crescent roundabout;
- Outside school zone (East of Monaro Crescent to Murray Crescent);
    - Current configuration;
    - Design option:
        - Offset centreline between Monaro Crescent and La Perouse Street;
        - Marked parking shoulder for entire length;
        - Clearing vegetation on the north west corner of the Flinders Way/ La Perouse Street intersection
- 40 km/h High Pedestrian Activity speed zone (Murray Crescent to Manuka Circle);
    - Current configuration, and
    - Design Option – install kerb blisters at the wombat crossings

Note, the installation of 1.9 m wide rubber speed cushions and change in posted speed limit have not been assessed as these factors would not change the scoring based on current provisions.

The assessment of this road was based on the worst case scenario for the road section. This includes the assessment of the posted speed limit outside of the operation of the school zone and the road geometry.

4. ASSESSMENT OF DESIGN OPTIONS

4.1 Assessment Summary

The Safe System Assessment (SSA) Matrix scoring was based on the Austroads Safe System Assessment Framework Table 4.4 Safe System matrix scoring system (refer Appendix 1).

The SSA scores for the existing conditions and the proposed design options are shown in **Table 4-1**. The scores for each crash type are shown in **Figure 4-1**, **Figure 4-2** and **Figure 4-3**. The detailed assessments are presented in **Section 0**.

Table 4-1 SSA Matrix Scores for the Project

Option	Score
School zone section (Mugga Way to the east of Monaro Crescent)	
Current configuration	98.5/448
Design Option	76.5/448
Outside school zone (East of Monaro Crescent to Murray Crescent)	
Current configuration	150/448
Design option	121.5/448
40 km/h High Pedestrian Activity speed zone (Murray Crescent to Manuka Circle)	
Current configuration	79/448
Design Option	55/448

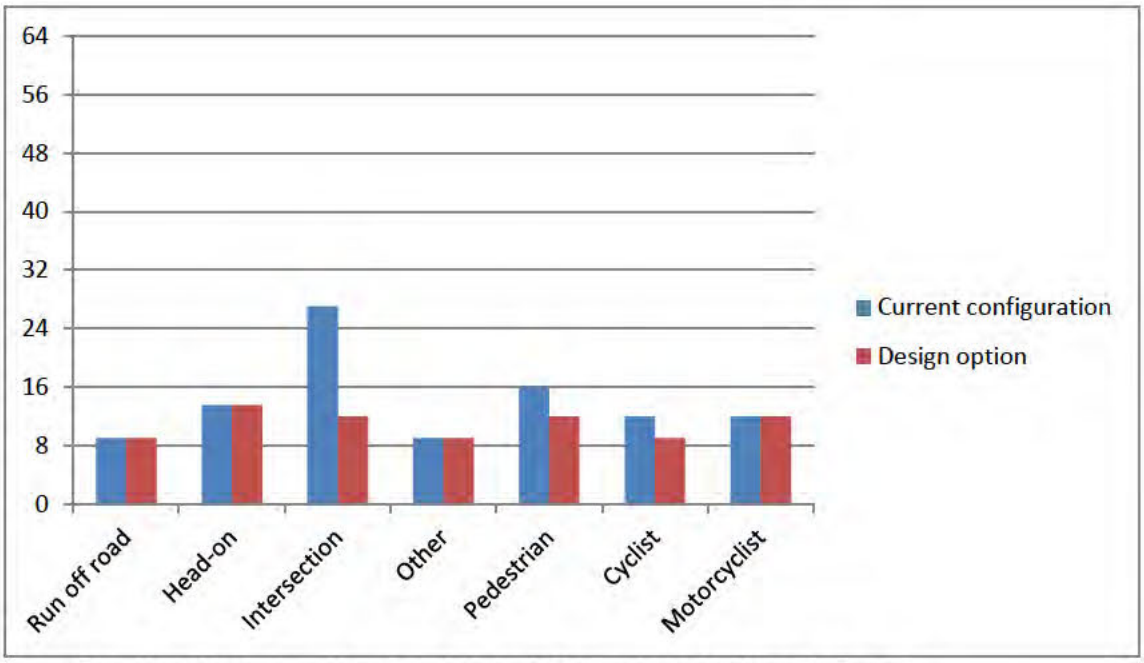


Figure 4-1 Flinders Way school zone section SSA Scores for Crash Types

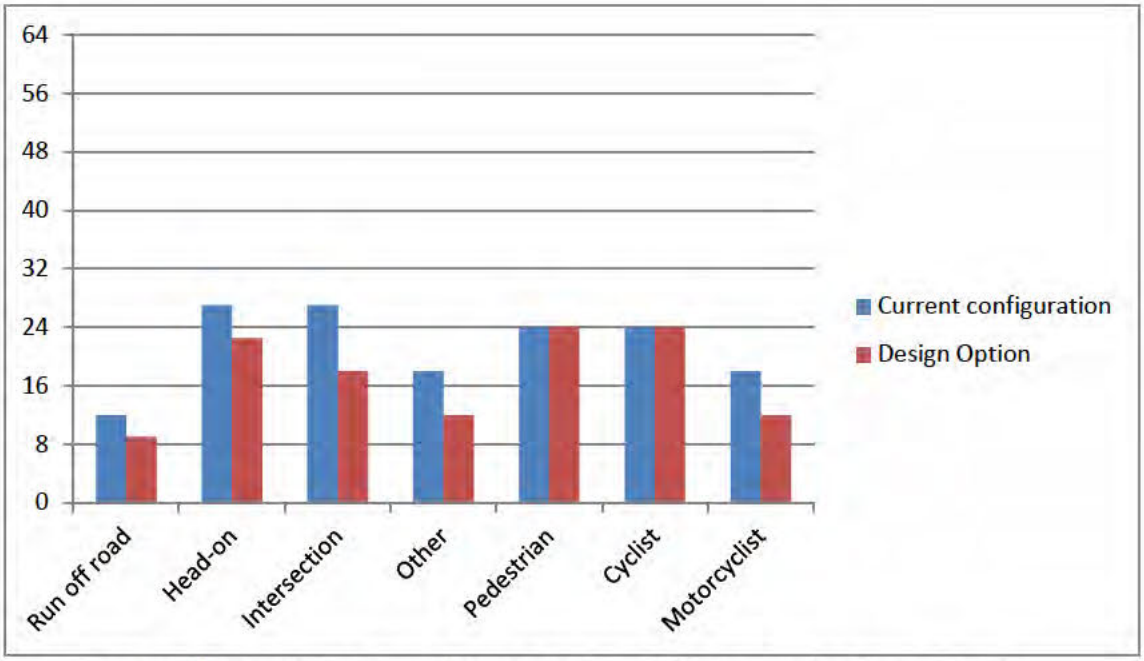


Figure 4-2 Flinders Way outside school zone section SSA Scores for Crash Types

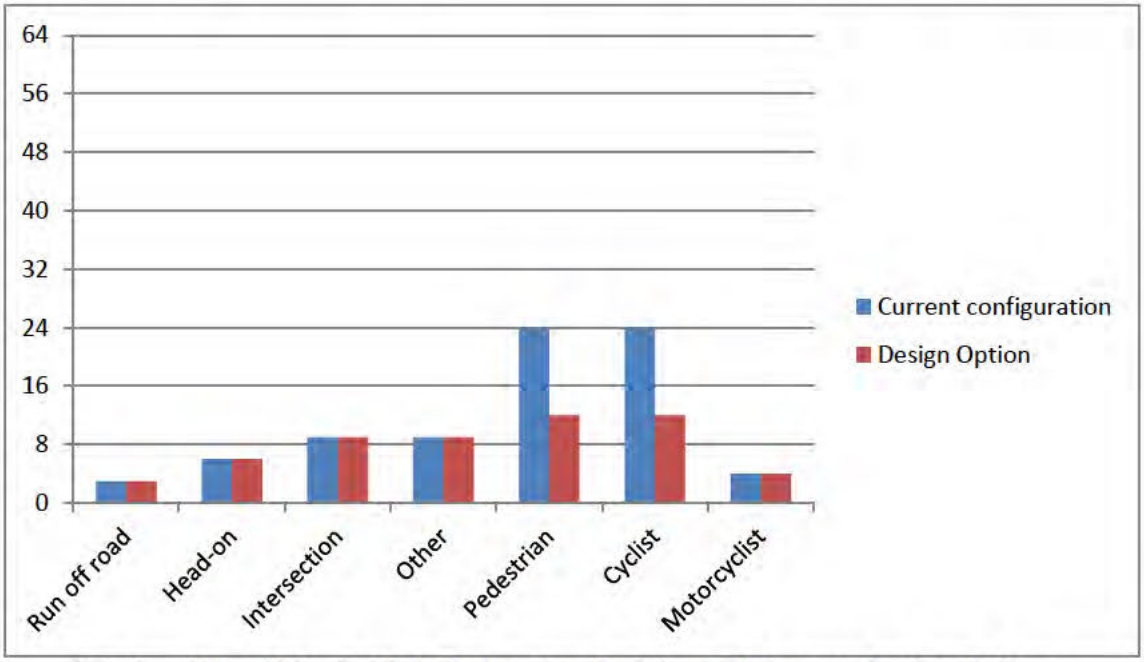


Figure 4-3 Flinders Way 40 km/h High Pedestrian Activity SSA Scores for Crash Types

4.2 Safe System Assessment Matrices

The columns of the Safe System matrix show the crash types that represent the main crash and road user types that contribute to death and serious injury.

As scores vary along routes and between intersections, an average score is taken for the project as a whole. Detailed matrix assessments were undertaken to determine the overall scores.

Reference is made to *AP-R509-16 Table 4.2* which is used to quantify the risk rating scores, with *AP-R509-16 Table 4.4* used as a scoring index.

Table 4-2 Safe System Assessment Matrix – Flinders Way School Zone Section Current Conditions

	Run-off road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclists
Exposure Comments:	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day Crash types: Rear end, manoeuvring	Pedestrian volumes are expected to be very high based on visual observations (>100 units/ day).	Cyclist volumes are expected to be very high based on visual observations (>100 units/ day).	For motorcyclist crash types, AADT is estimated between 10 and 50 vehicles per day
Score:	3/4	3/4	3/4	3/4	4/4	4/4	2/4
Likelihood Comments:	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Some roadside hazards close to the lane. Factors that **decrease** the likelihood include: • Straight alignment. • Good delineation.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Road is undivided. • Vehicles straddling central rubber speed cushions. Factors that **decrease** the likelihood include: • Straight alignment. • Good delineation.	Factors that **increase** the likelihood include: • Controlled by give way signs. • Poor roundabout deflection and visibility. • Delay at the intersection with Mugga Way. • Drivers not leaving adequate gap acceptance. Factors that **decrease** the likelihood include: • Lower speed during school hours.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Drivers not leaving adequate gap acceptance. • Driveways along Flinders Way. • High demand for parking. Factors that **decrease** the likelihood include: • Straight alignment. • Good delineation. • Provision of designated parking bays.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Schools generate high pedestrian activity. • Facilities at crossing locations at intersections. Factors that **decrease** the likelihood include: • Refuge island near the intersection with Mugga Way. • Parking on school side reducing pedestrian crossing movements.	Factors that **increase** the likelihood include: • No on-road cycle lane. • Facilities at crossing locations at intersections. • On street parking and driveways. Factors that **decrease** the likelihood include: • Community path on the southern side of road suitable for cyclists. • Refuge island near the intersection with Mugga Way.	Factors that **increase** the likelihood include: • Visibility at the roundabout. • On street parking and driveways. Factors that **decrease** the likelihood include: • Low number. • Good delineation.
Score:	1.5/4	1.5/4	3/4	1.5/4	2/4	1.5/4	2/4
Severity Comments:	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Trees and non-frangible, structures located in the clear zone. Factors that **decrease** the severity include: • Additional speed reduction during school hours.	Factors that **increase** the severity include: • Road is undivided. Factors that **decrease** the severity include: • Additional speed reduction during school hours.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Right angle collisions. Factors that **decrease** the severity include: • Additional speed reduction during school hours.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h) for rear end and manoeuvring collisions. Factors that **decrease** the severity include: • Additional speed reduction during school hours.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • Additional speed reduction during school hours. • Speed cushions at refuge island.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • Additional speed reduction during school hours. • Speed cushions at refuge island.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • Additional speed reduction during school hours.
Score:	2/4	3/4	3/4	2/4	2/4	2/4	3/4
Product	9/64	13.5/64	27/64	9/64	16/64	12/64	12/64
						TOTAL	**98.5/448**

Below is the legend for the following option tables:

- Black text — Common factor between this plan and the existing conditions
- ~~Strikethrough~~ — Factor that is removed or significantly diminished between the existing conditions and this option
- *Blue italic text* — New or significantly altered in this option compared to the existing conditions

Table 4-3 Safe System Assessment Matrix – Flinders Way School Zone Section Design Option

	Run-off road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclists
Exposure Comments:	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day Crash types: Rear end, manoeuvring	Pedestrian volumes are expected to be very high based on visual observations (>100 units/ day).	Cyclist volumes are expected to be very high based on visual observations (>100 units/ day).	For motorcyclist crash types, AADT is estimated between 10 and 50 vehicles per day
Score:	3/4	3/4	3/4	3/4	4/4	4/4	2/4
Likelihood Comments:	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Some roadside hazards close to the lane. Factors that **decrease** the likelihood include: • Straight alignment. • Good delineation.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Road is undivided. • Vehicles straddling central rubber speed cushions. Factors that **decrease** the likelihood include: • Straight alignment. • Good delineation.	Factors that **increase** the likelihood include: • Controlled by give way signs. • Poor roundabout deflection and visibility. • Delay at the intersection with Mugga Way. • Drivers not leaving adequate gap acceptance. Factors that **decrease** the likelihood include: • Lower speed during school hours. • *Reduction of entry speed at the roundabout.*	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Drivers not leaving adequate gap acceptance. • Driveways along Flinders Way. • High demand for parking. Factors that **decrease** the likelihood include: • Straight alignment. • Good delineation. • Provision of designated parking bays.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Schools generate high pedestrian activity. • Facilities at crossing locations at intersections. Factors that **decrease** the likelihood include: • Refuge island near the intersection with Mugga Way. • Parking on school side reducing pedestrian crossing movements.	Factors that **increase** the likelihood include: • No on-road cycle lane. • Facilities at crossing locations at intersections. • On street parking and driveways. Factors that **decrease** the likelihood include: • Community path on the southern side of road suitable for cyclists. • Refuge island near the intersection with Mugga Way.	Factors that **increase** the likelihood include: • Visibility at the roundabout. • On street parking and driveways. Factors that **decrease** the likelihood include: • Low number. • Good delineation.
Score:	1.5/4	1.5/4	2/4	1.5/4	2/4	1.5/4	2/4
Severity Comments:	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Trees and non-frangible, structures located in the clear zone. Factors that **decrease** the severity include: • Additional speed reduction during school hours.	Factors that **increase** the severity include: • Road is undivided. Factors that **decrease** the severity include: • Additional speed reduction during school hours.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Right angle collisions. Factors that **decrease** the severity include: • Additional speed reduction during school hours. • *Reduced entry speed into the roundabout.*	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h) for rear end and manoeuvring collisions. Factors that **decrease** the severity include: • Additional speed reduction during school hours.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • Additional speed reduction during school hours. • Speed cushions at refuge island. • *Speed cushions closer to crossing location at roundabout.*	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • Additional speed reduction during school hours. • Speed cushions at refuge island. • *Speed cushions closer to crossing location at roundabout.*	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • Additional speed reduction during school hours.
Score:	2/4	3/4	2/4	2/4	*1.5*/4	*1.5*/4	3/4
Product	9/64	13.5/64	*12*/64	9/64	*12*/64	*9*/64	12/64
						TOTAL	***76.5*/448**

Table 4-4 Safe System Assessment Matrix – Flinders Way Outside school zone Current Conditions

	Run-off road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclists
Exposure Comments:	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day Crash types: Rear end, manoeuvring	Pedestrian volumes are expected to be very high based on visual observations (>100 units/ day).	Cyclist volumes are expected to be very high based on visual observations (>100 units/ day).	For motorcyclist crash types, AADT is estimated between 10 and 50 vehicles per day
Score:	3/4	3/4	3/4	3/4	4/4	4/4	2/4
Likelihood Comments:	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Uncontrolled intersections meaning that vehicles are likely to run off the road avoiding a vehicle entering or exiting the side road. • Some roadside hazards close to the lane. Factors that **decrease** the likelihood include: • Acceptable lighting (visible alignment). • Straight alignment.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Road is undivided. • Pavement condition on the edge of the road. • Vehicles straddling central rubber speed cushions. Factors that **decrease** the likelihood include: • Straight alignment. • Acceptable lighting.	Factors that **increase** the likelihood include: • Controlled by give way signs. • Poor visibility at intersections. • Alignment and speed of intersections. • Drivers not leaving adequate gap acceptance. Factors that **decrease** the likelihood include: • None.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Drivers not leaving adequate gap acceptance. • Driveways along Flinders Way. • High demand for parking. Factors that **decrease** the likelihood include: • Straight alignment. • Acceptable lighting.	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Nearby schools and shops generate high pedestrian activity. • Facilities at crossing locations at intersections. Factors that **decrease** the likelihood include: • None.	Factors that **increase** the likelihood include: • No cycle lane. • Condition of the edge of the road. • Facilities at crossing locations at intersections. • On street parking and driveways. Factors that **decrease** the likelihood include: • Community path on the southern side of road suitable for cyclists.	Factors that **increase** the likelihood include: • Visibility at intersections. • Condition of the edge of the road. • On street parking and driveways. Factors that **decrease** the likelihood include: • Low number.
Score:	2/4	3/4	3/4	3/4	2/4	2/4	3/4
Severity Comments:	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Trees and non-frangible, structures located in the clear zone. Factors that **decrease** the severity include: • Existing rubber speed cushions reducing kinetic energy.	Factors that **increase** the severity include: • Road is undivided. Factors that **decrease** the severity include: • Existing rubber speed cushions reducing kinetic energy.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Right angle collisions. Factors that **decrease** the severity include: • None.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h) for rear end and manoeuvring collisions. Factors that **decrease** the severity include: • Existing rubber speed cushions reducing kinetic energy.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • None.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • None.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • None.
Score:	2/4	3/4	3/4	2/4	3/4	3/4	3/4
Product	12/64	27/64	27/64	18/64	24/64	24/64	18/64
						TOTAL	**150/448**

Below is the legend for the following option tables:

- Black text — Common factor between this plan and the existing conditions
- ~~Strikethrough~~ — Factor that is removed or significantly diminished between the existing conditions and this option
- *Blue italic text* — New or significantly altered in this option compared to the existing conditions

Table 4-5 Safe System Assessment Matrix – Flinders Way Outside school zone Design Option

	Run-off road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclists
Exposure Comments:	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day Crash types: Rear end, manoeuvring	Pedestrian volumes are expected to be very high based on visual observations (>100 units/ day).	Cyclist volumes are expected to be very high based on visual observations (>100 units/ day).	For motorcyclist crash types, AADT is estimated between 10 and 50 vehicles per day
Score:	3/4	3/4	3/4	3/4	4/4	4/4	2/4
Likelihood Comments:	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Uncontrolled intersections meaning that vehicles are likely to run off the road avoiding a vehicle entering or exiting the side road. • Some roadside hazards close to the lane. Factors that **decrease** the likelihood include: • Acceptable lighting (visible alignment). • Straight alignment. • *Improved delineation.*	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Road is undivided. • Pavement condition on the edge of the road. • Vehicles straddling central rubber speed cushions. Factors that **decrease** the likelihood include: • Straight alignment. • Acceptable lighting. • *Improved delineation.*	Factors that **increase** the likelihood include: • Controlled by give way signs. • ~~Poor visibility at intersections.~~ • Alignment and speed of intersections. • Drivers not leaving adequate gap acceptance. Factors that **decrease** the likelihood include: • None. • *Improved delineation.* • *Improved visibility at La Perouse Street.*	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Drivers not leaving adequate gap acceptance. • Driveways along Flinders Way. • High demand for parking. Factors that **decrease** the likelihood include: • Straight alignment. • Acceptable lighting. • *Improved delineation.* • *Provision of designated parking bays.*	Factors that **increase** the likelihood include: • Moderate 85th percentile speeds (circa 52 km/h). • Nearby schools and shops generate high pedestrian activity. • Facilities at crossing locations at intersections. Factors that **decrease** the likelihood include: • None.	Factors that **increase** the likelihood include: • No cycle lane. • Condition of the edge of the road. • Facilities at crossing locations at intersections. • On street parking and driveways. Factors that **decrease** the likelihood include: • Community path on the southern side of road suitable for cyclists.	Factors that **increase** the likelihood include: • Visibility at intersections. • Condition of the edge of the road. • On street parking and driveways. Factors that **decrease** the likelihood include: • Low number. • *Improved delineation.*
Score:	*1.5*/4	*2.5*/4	*2*/4	*2*/4	2/4	2/4	*2*/4
Severity Comments:	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Trees and non-frangible, structures located in the clear zone. Factors that **decrease** the severity include: • Existing rubber speed cushions reducing kinetic energy.	Factors that **increase** the severity include: • Road is undivided. Factors that **decrease** the severity include: • Existing rubber speed cushions reducing kinetic energy.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). • Right angle collisions. Factors that **decrease** the severity include: • None.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h) for rear end and manoeuvring collisions. Factors that **decrease** the severity include: • Existing rubber speed cushions reducing kinetic energy.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • None.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • None.	Factors that **increase** the severity include: • Moderate 85th percentile speeds (circa 52 km/h). Factors that **decrease** the severity include: • None.
Score:	2/4	3/4	3/4	2/4	3/4	3/4	3/4
Product	*9*/64	*22.5*/64	*18*/64	*12*/64	24/64	24/64	*12*/64
						TOTAL	***121.5*/448**

Table 4-6 Safe System Assessment Matrix – Flinders Way Group Centre Current Conditions

	Run-off road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclists
Exposure Comments:	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day Crash types: Rear end, manoeuvring	Pedestrian volumes are expected to be very high based on visual observations (>100 units/ day).	Cyclist volumes are expected to be very high based on visual observations (>100 units/ day).	For motorcyclist crash types, AADT is estimated between 10 and 50 vehicles per day
Score:	3/4	3/4	3/4	3/4	4/4	4/4	2/4
Likelihood Comments:	Factors that **increase** the likelihood include: • Uncontrolled intersections meaning that vehicles are likely to run off the road avoiding a vehicle entering or exiting the side road. • Some roadside hazards close to the lane. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Acceptable lighting (visible alignment). • Straight alignment. • Short length	Factors that **increase** the likelihood include: • Road is undivided. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Straight alignment. • Acceptable lighting.	Factors that **increase** the likelihood include: • Controlled by give way signs. • Size of pavement at the intersection with Franklin Street. • Drivers not leaving adequate gap acceptance. • Multiple distractions. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less.	Factors that **increase** the likelihood include: • Drivers not leaving adequate gap acceptance. • Multiple distractions. • High demand for parking. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Straight alignment. • Acceptable lighting.	Factors that **increase** the likelihood include: • Vehicles parking on or too close to wombat crossing impacting visibility. • High pedestrian activity. • Pedestrian not using designated crossing locations. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Provision of wombat crossings.	Factors that **increase** the likelihood include: • No cycle lane. • Vehicles parking on or too close to wombat crossing impacting visibility. • Cyclist using wombat crossing at speeds greater than 10 km/h. • On street parking and driveways. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Provision of wombat crossings.	Factors that **increase** the likelihood include: • Visibility at intersections. • Condition of the edge of the road. • On street parking and driveways. Factors that **decrease** the likelihood include: • Low number.
Score:	1/4	2/4	3/4	3/4	3/4	3/4	2/4
Severity Comments:	Factors that **increase** the severity include: • Trees and non-frangible, structures located in the clear zone. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • Road is undivided. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • Right angle collisions. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Wombat crossings reducing kinetic energy.
Score:	1/4	1/4	1/4	1/4	2/4	2/4	1/4
Product	3/64	6/64	9/64	9/64	24/64	24/64	4/64
						TOTAL	**79/448**

Below is the legend for the following option tables:

- Black text — Common factor between this plan and the existing conditions
- ~~Strikethrough~~ — Factor that is removed or significantly diminished between the existing conditions and this option
- *Blue italic text* — New or significantly altered in this option compared to the existing conditions

Table 4-7 Safe System Assessment Matrix – Flinders Way Group Centre Design Option

	Run-off road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclists
Exposure Comments:	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day	AADT is between 5,000 and 10,000 veh/day Crash types: Rear end, manoeuvring	Pedestrian volumes are expected to be very high based on visual observations (>100 units/ day).	Cyclist volumes are expected to be very high based on visual observations (>100 units/ day).	For motorcyclist crash types, AADT is estimated between 10 and 50 vehicles per day
Score:	3/4	3/4	3/4	3/4	4/4	4/4	2/4
Likelihood Comments:	Factors that **increase** the likelihood include: • Uncontrolled intersections meaning that vehicles are likely to run off the road avoiding a vehicle entering or exiting the side road. • Some roadside hazards close to the lane. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Acceptable lighting (visible alignment). • Straight alignment. • Short length	Factors that **increase** the likelihood include: • Road is undivided. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Straight alignment. • Acceptable lighting.	Factors that **increase** the likelihood include: • Controlled by give way signs. • Size of pavement at the intersection with Franklin Street. • Drivers not leaving adequate gap acceptance. • Multiple distractions. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less.	Factors that **increase** the likelihood include: • Drivers not leaving adequate gap acceptance. • Multiple distractions. • High demand for parking. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Straight alignment. • Acceptable lighting.	Factors that **increase** the likelihood include: • ~~Vehicles parking on or too close to wombat crossing impacting visibility.~~ • High pedestrian activity. • Pedestrian not using designated crossing locations. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Provision of wombat crossings. • *Improved visibility at wombat crossings.*	Factors that **increase** the likelihood include: • No cycle lane. • ~~Vehicles parking on or too close to wombat crossing impacting visibility.~~ • Cyclist using wombat crossing at speeds greater than 10 km/h. • On street parking and driveways. Factors that **decrease** the likelihood include: • Assumed operating speed at 40 km/h or less. • Provision of wombat crossings. • *Improved visibility at wombat crossings.*	Factors that **increase** the likelihood include: • Visibility at intersections. • Condition of the edge of the road. • On street parking and driveways. Factors that **decrease** the likelihood include: • Low number.
Score:	1/4	2/4	3/4	3/4	*1.5*/4	*1.5*/4	2/4
Severity Comments:	Factors that **increase** the severity include: • Trees and non-frangible, structures located in the clear zone. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • Road is undivided. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • Right angle collisions. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Assumed operating speed at 40 km/h or less. • Wombat crossings reducing kinetic energy.	Factors that **increase** the severity include: • None. Factors that **decrease** the severity include: • Wombat crossings reducing kinetic energy.
Score:	1/4	1/4	1/4	1/4	2/4	2/4	1/4
Product	3/64	6/64	9/64	9/64	*12*/64	*12*/64	4/64
						TOTAL	***55*/448**

4.3 Safer Vehicles, People and Post-Crash Care

Table 4-8 provides a general high level overview of additional safe systems components associated with the assessed roads.

Table 4-8 Additional Safe System Component

Pillar	Prompt	Comment
Road User	Are road users likely to be alert and compliant, or are there factors that might influence this?	• Potential for inexperienced drivers due to the secondary school, older drivers due to the age of the area, and international drivers (embassy/ consulates). Treatments associated with the Design Option would assist with providing guidance to road users. • Potential that there could be an objection from older drivers regarding the vehicle deflection devices due to driver discomfort.
	What are the expected compliance and enforcement levels (alcohol/drugs, speed, road rules, and driving hours) and what is the likelihood of driver fatigue? Can enforcement of these issues be conducted safety?	• There is potential for road users to use this road when travelling from an event/ club, etc. home and may be under the influence. This would occur network wide and should be addressed accordingly.
	Are there special road uses (e.g. entertainment precincts, elderly, children, on-road activities), distraction by environmental factors (e.g. commerce, tourism), or risk-taking behaviours?	• Likely higher than average inexperienced drivers (associated with the senior school), aged drivers (aged care facility) and international drivers. • School aged children crossing the road away from designated crossing location. Emphasis on educating children to use the children's crossings should be undertaken.
Vehicle	What level of alignment is there with the ideal of safer vehicles?	• There is nothing to indicate this project contravenes the ideals of safer vehicles.
	Are there factors which might attract large numbers of unsafe vehicles? Is the percentage of heavy vehicles too high for the proposed/existing road design?	• The distribution of vehicle types will likely remain. • Younger drivers attending the school could result in the use of older vehicles (inexpensive) with fewer safety features, or vehicles that are not correctly maintained.
	Are there enforcement resources in the area to detect non-roadworthy, overloaded or unregistered vehicles and thus remove them from the network? Can enforcement of these issues be conducted safety?	• Inspections of vehicle roadworthy are undertaken network wide. Potential to undertake additional reviews network wide at locations where compliance could be an issue (i.e. schools). Additionally, schools should provide guidance and requirements regarding the vehicles parked on their sites. • Nothing constrains enforcement.
	Has vehicle breakdown been catered for?	• The provision of a parking lane may be used to accommodate broken down vehicles.
Post-crash care	Are there issues that might influence safe and efficient post-crash care in the event of a severe injury?	• No identified issues.
	Do emergency and medical services operate as efficiently and rapidly as possible?	• Emergency services are in close proximity. It is assumed that there would be an efficient post-crash response and care.
	Are other road users and emergency response teams protected during a crash event? Are drivers provided the correct information to address travelling speeds on the approach and adjacent to the incident? Is there reliable information available via radio, VMS etc.?	• Opportunity to close the road where the event occurred with minimal impact to road users. • A detour of road users could be implemented depending on the location of the event.
	Is there provision for e-safety (i.e. safety systems based on modern information and communication technologies, C-ITS)?	• Not applicable for this location due to the road side environment

5. CONCLUSION

The design of the proposed options can be undertaken to align with Safe System principles.

The installation of the treatments associated with Design Option would provide benefit to the safety of Flinders Way.

It is recommended that the following be undertaken:

- Remove the existing speed cushions on all approaches to the Flinders Way/ Monaro Crescent roundabout and install them closer to the roundabout as part of future maintenance programmes;
- Provide an offset centreline between Monaro Crescent and La Perouse Street;
- Provide a marked parking shoulder between Monaro Crescent and Murray Crescent;
- Clear the vegetation on the north west corner of the Flinders Way/ La Perouse Street intersection, and
- Install kerb blisters at the wombat crossings in the Group Centre to be undertaken as part of future programmes.

APPENDIX 1 SAFE SYSTEM MATRIX SCORING SYSTEM

Table A-1 Safe System Matrix Scoring System

Road user exposure	Crash likelihood	Crash severity
0 = there is no exposure to a certain crash type. This might mean there is no side flow or intersecting roads, no cyclists, no pedestrians, or motorcyclists).	0 = there is only minimal chance that a given crash type can occur for an individual road user given the infrastructure in place. Only extreme behaviour or substantial vehicle failure could lead to a crash. This may mean, for example, that two traffic streams do not cross at grade, or that pedestrians do not cross the road.	0 = should a crash occur, there is only minimal chance that it will result in a fatality or serious injury to the relevant road user involved. This might mean that kinetic energies transferred during the crash are low enough not to cause a fatal or serious injury (FSI), or that excessive kinetic energies are effectively redirected/dissipated before being transferred to the road user. Users may refer to Safe System-critical impact speeds for different crash types, while considering impact angles, and types of roadside hazards/barriers present.
1 = volumes of vehicles that may be involved in a particular crash type are particularly low, and therefore exposure is low. For run-of-road, head-on, intersection and 'other' crash types, AADT is < 1 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are < 10 units per day.	1 = it is highly unlikely that a given crash type will occur.	1 = should a crash occur, it is highly unlikely that it will result in a fatality or serious injury to any road user involved. Kinetic energies must be fairly low during a crash, or the majority is effectively dissipated before reaching the road user.
2 = volumes of vehicles that may be involved in a particular crash type are moderate, and therefore exposure is moderate. For run-of-road, head-on, intersection and 'other' crash types, AADT is between 1 000 and 5 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are 10–50 units per day.	2 = it is unlikely that a given crash type will occur.	2 = should a crash occur, it is unlikely that it will result in a fatality or serious injury to any road user involved. Kinetic energies are moderate, and the majority of the time they are effectively dissipated before reaching the road user.
3 = volumes of vehicles that may be involved in a particular crash type are high, and therefore exposure is high. For run-of-road, head-on, intersection and 'other' crash types, AADT is between 5 000 and 10 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are 50–100 units per day.	3 = it is likely that a given crash type will occur.	3 = should a crash occur, it is likely that it will result in a fatality or serious injury to any road user involved. Kinetic energies are moderate, but are not effectively dissipated and therefore may or may not result in an FSI.

Road user exposure	Crash likelihood	Crash severity
4 = volumes of vehicles that may be involved in a particular crash type are very high, or the road is very long, and therefore exposure is very high. For run-of-road, head-on, intersection and 'other' crash types, AADT is > 10 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are > 100 units per day.	4 = the likelihood of individual road user errors leading to a crash is high given the infrastructure in place (e.g. high approach speed to a sharp curve, priority movement control, filtering right turn across several opposing lanes, high speed).	4 = should a crash occur, it is highly likely that it will result in a fatality or serious injury to any road user involved. Kinetic energies are high enough to cause an FSI crash, and it is unlikely that the forces will be dissipated before reaching the road user.

APPENDIX 2 CONCEPT SKETCH OF OPTION

Flinders Way Safe Systems Infrastructure Assessment- Design Option

N

FORREST

ST CHRISTOPHERS SCHOOL

MANUKA SHOPS

BLISTER

CANBERRA AV

MURRAY CR

FLINDERS WAY

MURRAY CR

MORESBY ST

DURVILLE CR

LA PEROUSE ST

CAPTAIN COOK CR

GRIFFITH

VANCOUVER ST

AUSTIN ST

PRE-SCHOOL

LA PEROUSE ST

FLINDERS WAY

CANBERRA GRAMMAR SCHOOL

MONARO CR

MUGGA WAY

ALEXANDER ST

RED HILL

LEGEND

- Marking parking shoulder
- Offset centreline
- Install 1.9m wide rubber speed cushions closer to the roundabout as part of the maintenance programme
- Kerb extensions at wombat crossings as part of future programme
- Vegetation removal

APPENDIX 3 OPTION PRELIMINARY COSTING

	Description	Estimated Costs (Excl. GST)
Vertical Deflection Devices	Rubber cushions on four approaches with the Flinders Way/ Monaro Crescent roundabout.	$48,000.00 ($12,000 per cushion location)
Pavement marking	Circa 850 m marked shoulder and 350 m offset centreline.	$2,000
Kerb blisters	Kerb blisters at the side of the wombat crossings (12 blisters)	$50,000
	Total	***$100,000.00* (excl. GST)***

Note:

* A review of services has not been undertaken and the impact of work on existing services is unknown. Estimated costs are indicative only and exclude relocation of services.

From: Potapowicz, Pawel
To: Kim, David
Cc: Vikneson, Jayanthy
Subject: FW: Alexander Street children"s crossing [SEC=UNCLASSIFIED]
Date: Monday, 4 November 2019 1:37:35 PM
Attachments: image001.png
Alexander St crossing.docx

Hi David
In your next priority, could you investigate these suggestions and look at the required clearances to see if the proposed suggestions are feasible.
Pros and Cons for the relocation of the crossing.
Let me know if you would like to discuss further.
Thank you
pawel

From: Pincombe, Neil
Sent: Monday, 4 November 2019 10:15 AM
To: Potapowicz, Pawel <Pawel.Potapowicz@act.gov.au>
Subject: FW: Alexander Street children's crossing

UNCLASSIFIED

Morning,
Do you mind if your team assists with this request (maybe include David)?
Regards,
Neil

From: Crichton, Andrew <Andrew.Crichton@act.gov.au>
Sent: Friday, 1 November 2019 5:15 PM
To: Hubbard, Benjamin <Benjamin.Hubbard@act.gov.au>; Pincombe, Neil <Neil.Pincombe@act.gov.au>
Cc: Davidson, Geoffrey <Geoffrey.Davidson@act.gov.au>
Subject: Alexander Street children's crossing

UNCLASSIFIED

Hi Ben/Neil,
A child was struck at the children's crossing on Alexander Street (Canberra Grammar) earlier this week. It has reignited the conversation about the safety of that crossing, both the location and the lack of path on one side of the road.
Given the path on the other side of the road wasn't supported previously by local residents and the fact the crossing location is also a concern, can we look at moving the crossing? Is the attached location potentially more suitable?
If the crossing is more suitable (e.g. a path on both sides) we can potentially look to move their school crossing supervisor to this crossing rather than the one on Monaro Crescent.
We need to brief up to the Min's office, so any advice will be appreciated.
Thanks
Andrew
Andrew Crichton | Director, Schools Program
T: (02) 6205 8457 | E: andrew.crichton@act.gov.au
Development Coordination Branch | Transport Canberra and City Services Directorate | ACT Government
490 Northbourne Ave DICKSON ACT 2602 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

Connected services for the people of Canberra

ACT Government
Transport Canberra and City Services

Brief – Relocation of the existing children's crossing on Alexander Street

Subject

Relocation of the children's crossing on Alexander Street in Red Hill.

Background:

1. A child was struck at the children's crossing on Alexander Street (Canberra Grammar School) on Monday 28 Oct 2019. This incident has raised concerns about the safety of the crossing in terms of its location.
2. This crash is the first reported incident on this children's crossing, since the installation of the crossing in April 2016.
3. Given the description of the crash by the motorist, there may have been illegally parked vehicles that had obstructed the cyclist's view of the approaching vehicle.
4. Active Travel seeks comments from Roads ACT regarding the potential relocation of the school crossing with proposed locations on the street.
5. The existing children's crossing has no formal footpath at the southern end of Alexander Street.
6. Please see Appendix A for the proposed locations (i.e. *Location 1 and 2*) from Active Travel.

Issues

If TCCS relocates the existing pedestrian crossing to one of the proposed locations, the following issues will be raised:

1. *Location 1* is not compliant with the Australian Standard (AS1742.10), due to the conflict points from two driveways of the residential houses and the informal driveway into the new school carpark. As per the standard, there should be at least 10~20m clearance from a school crossing.

2. The current location of the children's crossing is centrally placed. Relocation to the west may require additional crossing at the eastern end of Alexander Street.

3. Relocation of the existing crossing to *Location 2* is possible subject to the following:
   a. Relocation of the crossing would potentially require construction of footpath linking to the school crossing.
   b. Relocation of the crossing would require changes to the exit arrangement of the new school carpark.
   c. Removal of the kerb sided parking between Charlotte Street and the informal carpark exit.

ACT Government
Transport Canberra and City Services

Recommendations

1. Removal of the existing children's crossing is not recommended.
2. Roads ACT proposes installation of two speed cushions in the locations as described in Appendix B.
3. Provide formal footpath west and east of the current children's crossing in order to encourage students not to cycle on the road.
4. Canberra Grammar School needs to seek approval to formalise carpark access and repair damage to the footpath.
5. In order to prevent from further damage to the footpath, the exit should be closed off.
6. Additional enforcement of the current parking / 'No Stopping' restrictions in the vicinity of the children's crossing.
7. School to provide education on appropriate use of the parking facilities around the school.

Appendix A

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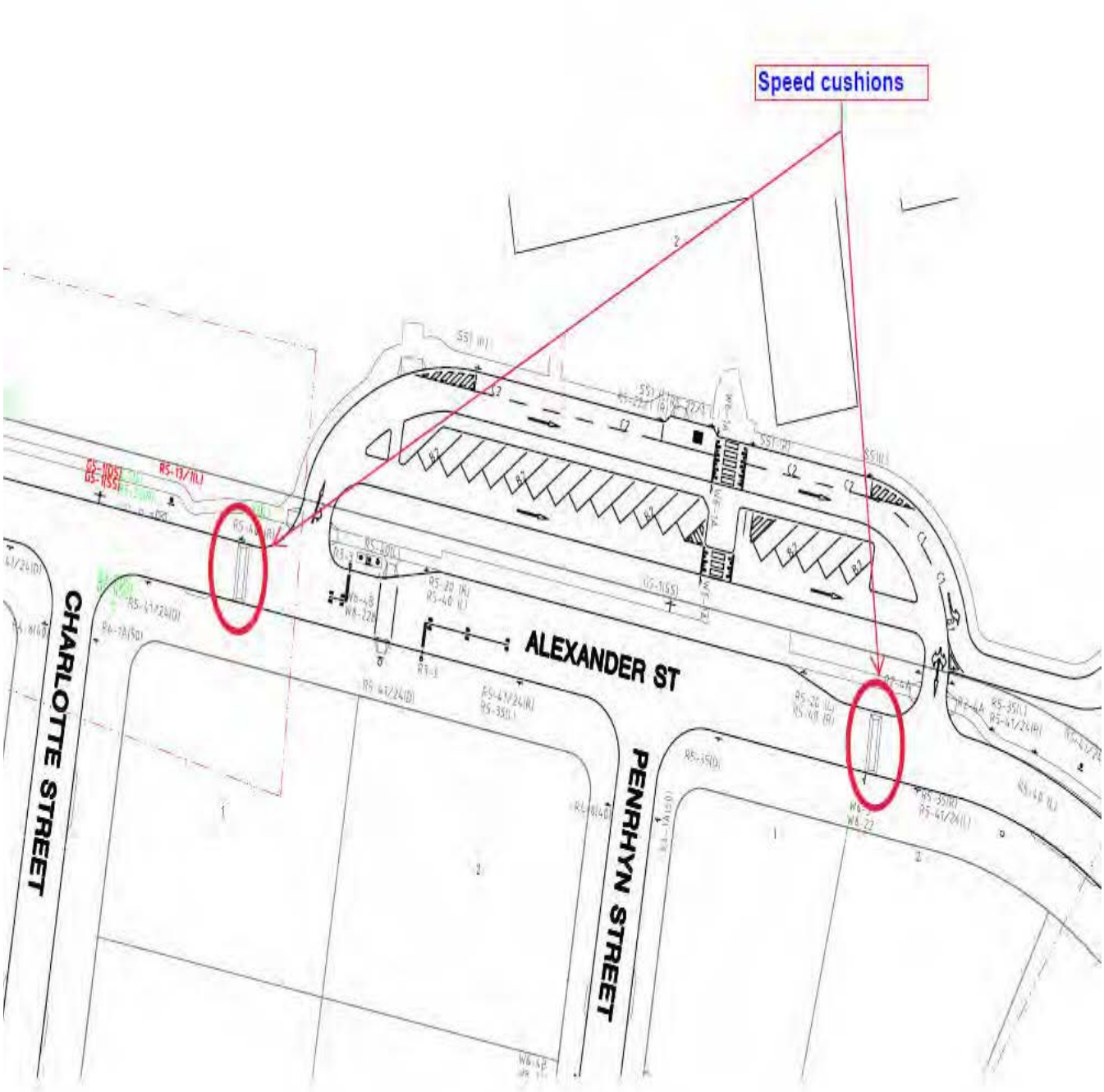
Transport Canberra and City Services

Appendix B



From: Kennedy, Karen on behalf of TCCS_DLO
To: TCCS_Ministerial
Cc: Crichton, Andrew
Subject: REQUEST FOR DOT POINTS PLS - Request for meeting RE Canberra Grammar Road Safety
Date: Wednesday, 6 November 2019 4:40:12 PM
Attachments: image001.jpg

UNCLASSIFIED

Hi MSU,
Could TCCS please prepare some dot points in relation to the request below.
Thanks
KK

Karen Kennedy | Directorate Liaison Officer
T - 6205 2790 | E - **TCCS.DLO@act.gov.au**
Office of Minister Steel MLA
Office of Minister Berry MLA
Transport Canberra and City Services I ACT Government
GPO Box 158 Canberra ACT 2601|www.act.gov.au

From: Niall, Sarah <Sarah.Niall@act.gov.au>
Sent: Wednesday, 6 November 2019 4:25 PM
To: TCCS_DLO <TCCS.DLO@act.gov.au>
Cc: Crichton, Andrew <Andrew.Crichton@act.gov.au>; Froehlich, Hanna <Hanna.Froehlich@act.gov.au>
Subject: FW: Request for meeting RE Canberra Grammar Road Safety

Hi all
Could you please provide me with an update on the safety concerns that have been raised by Canberra Grammar School P & C.
I understand that there have already been some discussions about this issue earlier in the week but an update would be helpful to know where to know next.
Just a few dot points will be fine.
Cheers
Sarah

From: [redacted]
Sent: Wednesday, 30 October 2019 3:13 PM
To: STEEL <STEEL@act.gov.au>
Cc: Crichton, Andrew <Andrew.Crichton@act.gov.au>; [redacted] >; [redacted]@cgs.act.edu.au>
Subject: Request for meeting RE Canberra Grammar Road Safety

Dear Minister Steele,
I am a parent at Canberra Grammar School and for a couple of years I have volunteered to be the P&F's representative for traffic and road safety matters. I have been in fairly regular communication with Andrew Crichton from ACT Transport and our Head [redacted] regarding the below issues.
On Monday this week, a student was hit by a car while riding his bike across the crossing recently installed on Alexander St. For those familiar with the school, this was bound to happen given the frequent cars overtaking the drive through queues, that block both directions of traffic, directly on top of the school crossing. I am aware of other accidents involving cars, on one occasion even a bus, in the exact same location as Monday's incident. This crossing is poorly designed and sited and needs to be urgently reviewed before another child is hurt. In my view the location of the crossing is one of the least safe places to cross that particular street. Fortunately I hear the boy is

now recovering at home and it is very lucky he wasn't worse off.
Our school is an island and we have four busy roads surrounding it. The two busiest of the four, do not have a school crossing. Students play chicken with cars twice a day as there is rarely a break in the traffic at peak times. Our school remains in urgent need of better infrastructure that recognises the volume of traffic using nearby streets as a thoroughfare between Woden and Civic each day.
There have been recent upgrades, some still underway, for which I am very grateful for. Things are moving in the right direction. However Monday's incident highlights that there is more to be done and I request that safer school crossings be urgently installed, that are appropriately sited and easier for driver's to see.
Could you please contact me at your earliest convenience to discuss this matter further and explain what action will be taken. I expect the P&F would welcome you coming to our next meeting to hear the concerns of parents directly. If you would be willing to attend, please let me know and I will happily arrange it.
Kind Regards,

[redacted]

ACT Government
Transport Canberra and City Services

Dot Point Request

Requested by: Minister's Office

Business Unit: Place Coordination and Planning

Subject: Canberra Grammar Road Safety

Reference number: DLO19/458

Due: ASAP

Issues: Can TCCS please provide me with an update on the safety concerns that have been raised by Canberra Grammar School P & C.

TCCS Response

- The Canberra Grammar School has been advocating for improved active travel infrastructure around the school for a number of years.
- TCCS has been working closely with the school to deliver improvements that support walking or riding to school. The recent improvements have included a new children's crossing, two new refuge islands, improved footpath connections, extended school zones and a smiley face speed detection sign.
- The school still has concerns about the children's crossing on Alexander Street. These concerns have been heightened following an incident at the crossing on 31 October in which a child was struck by a vehicle. The child was off school for the remainder of the week, but thankfully was not seriously injured in the incident.
- There are limited suitable locations for a children's crossing on Alexander Street with a hill crest, driveways, a bus stop and a number of side streets. It was placed in its current location a few years ago after the school made changes to the school carpark and bus bay.
- The school's primary concerns with the crossing are the lack of footpath on the opposite side of the road to the school (children are required to walk on a steep verge or the road) and its location adjacent to the school carpark entrance.
- TCCS developed designs to build a path in 2018, however it didn't progress past the consultation stage due to strong objection from local residents, particularly the two residents that would be impacted by the removal of hedging and a section of retaining wall.
- Following the incident, TCCS is reviewing the location of the crossing to see if there is a more suitable location on the street.
- A brief is currently being prepared for Minister Steel to provide more detail about these issues and seek agreement of the next steps.

ACT Government
Transport Canberra and City Services

Action Officer: Andrew Crichton (x58457)

Director:
Date:

Assessment Report Community Path
Alexander Street, Redhill

Location: Alexander Street, Redhill
Reference: **MINISTERIAL**
Assessed by: Jotish Roy

The request is for installation of the community path on Alexander St between Mugga Way to Charlotte St and Fishburn St to Golden Grove. Please note, installation of the community path on Alexander St between Charlotte St and Fishburn St had been assessed previously and design work done from Cardno Pty Ltd. Alexander St is classified as a local access road.

Proposed footpath is 185m long and 2.0m wide concrete.

Photos

Figure 1: Aerial view

Figure 2: Aerial view

Figure 3: Aerial view

ACTive Travel Practitioners Tool

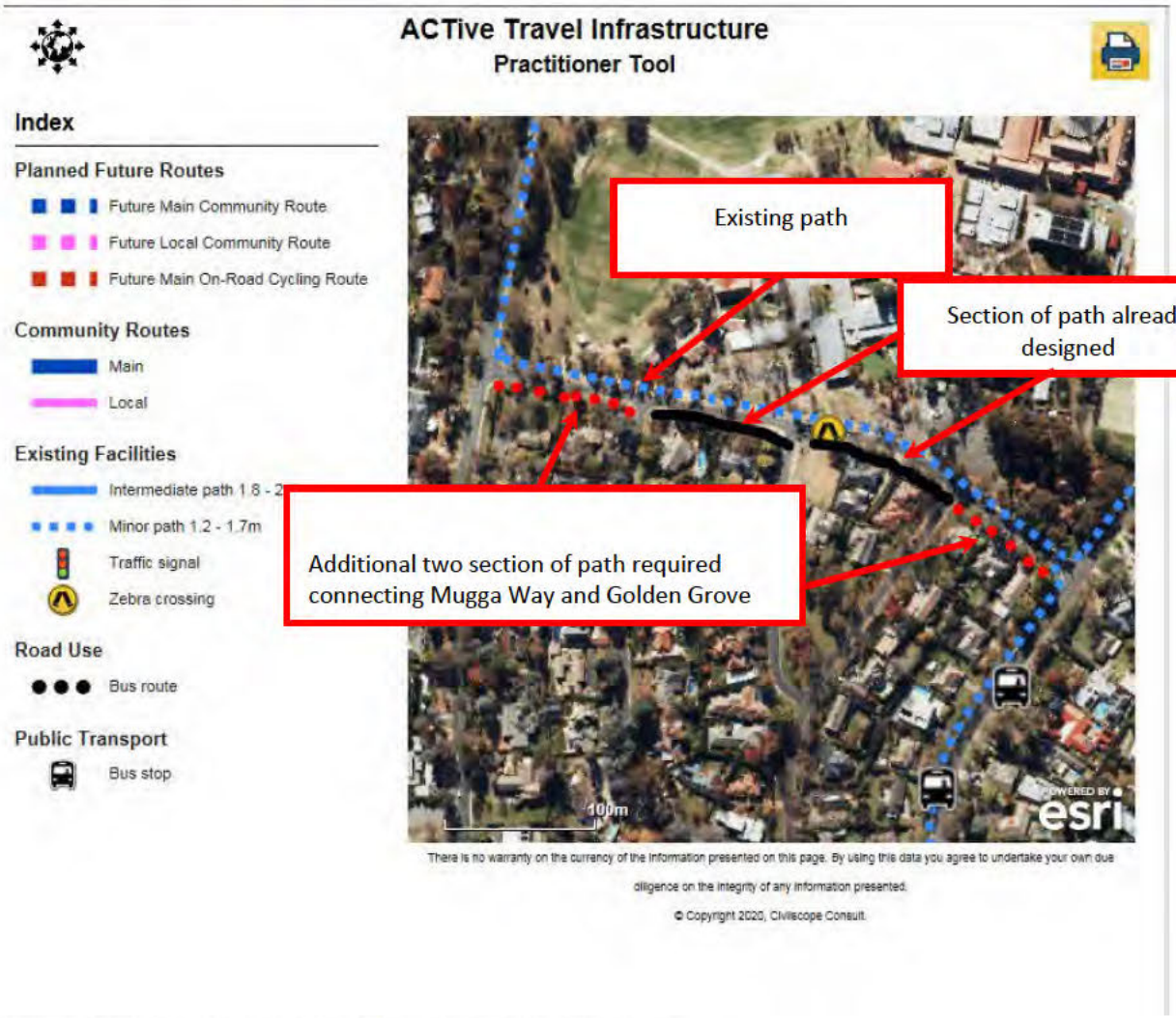


Figure 4: Location of existing and future Active Travel facilities

The proposed path improvement would provide better connectivity between access paths.

Public Transport

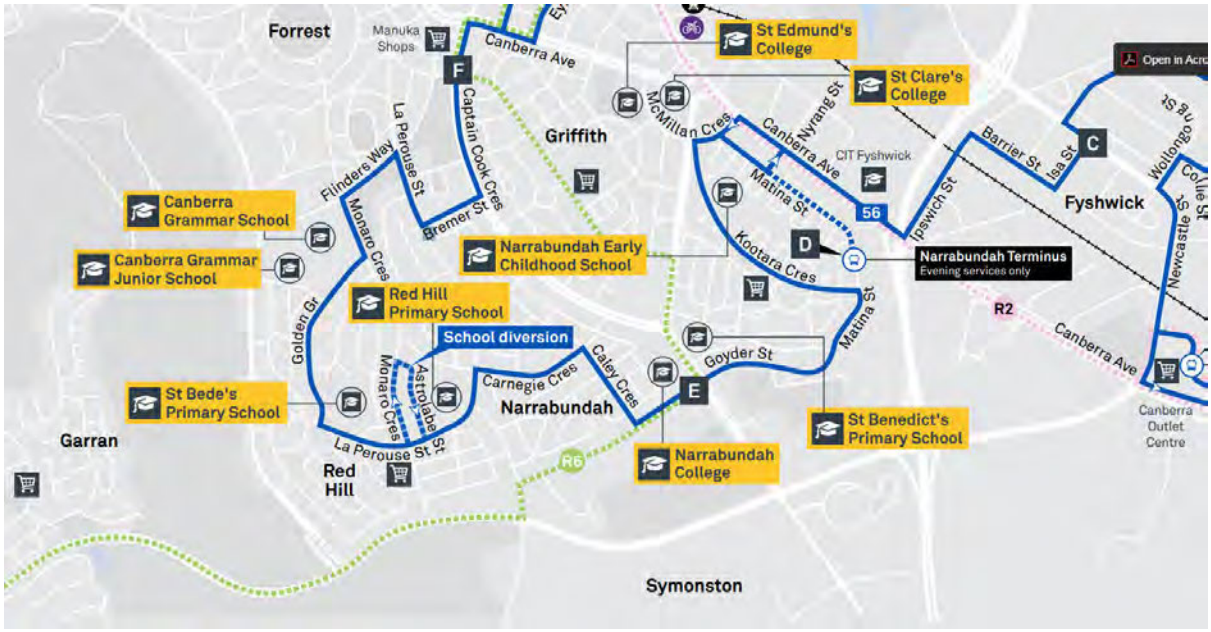


Figure 5: Bus Map – Weekdays (Source: TC Maps)

TC local bus services 56 runs along proposed development area.

Community Interest

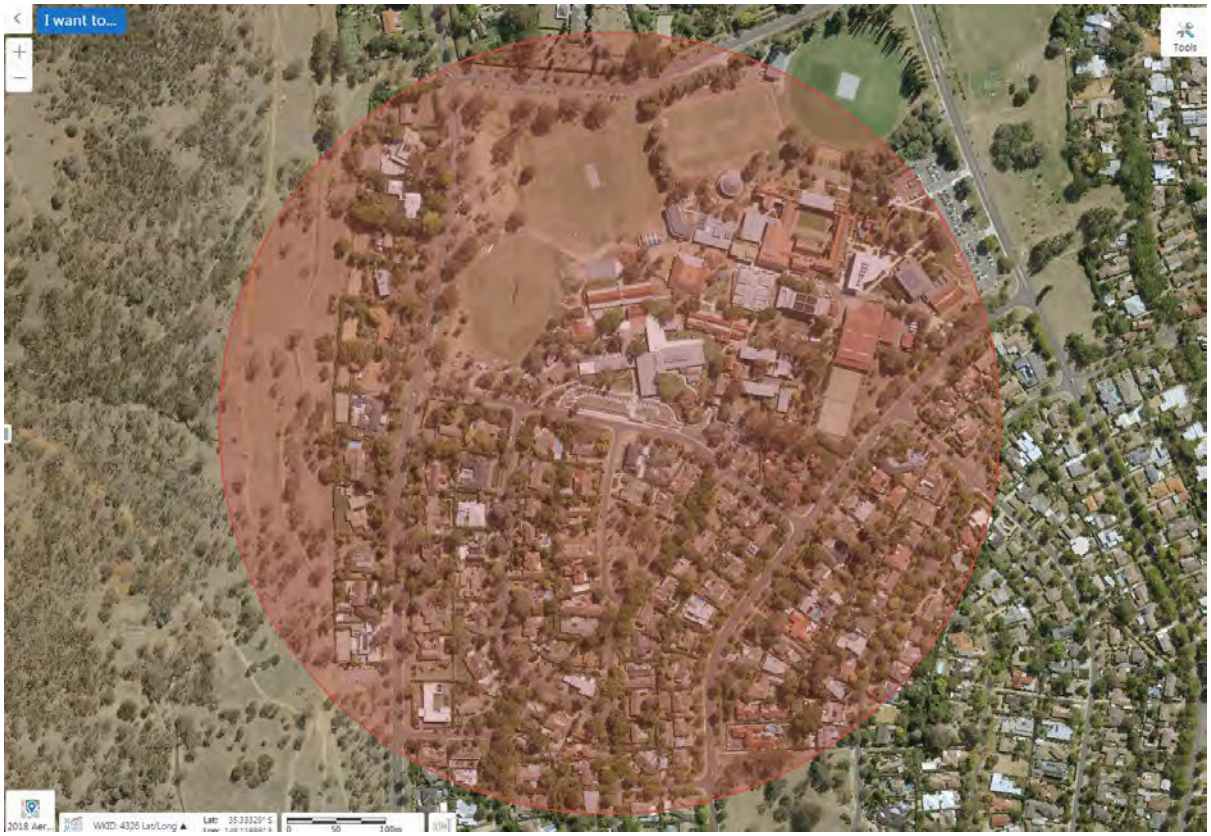


Figure 6: Community Assessment ACTMAPi

Within the 400m buffer zone, the following community resources are found:

- Oval
- Penrhym Park
- CGS Chapel
- Canberra Grammar School
- Bluebell A1 Quilting
- Tennis Courts
- Tim Murray Theatre

GIS Map

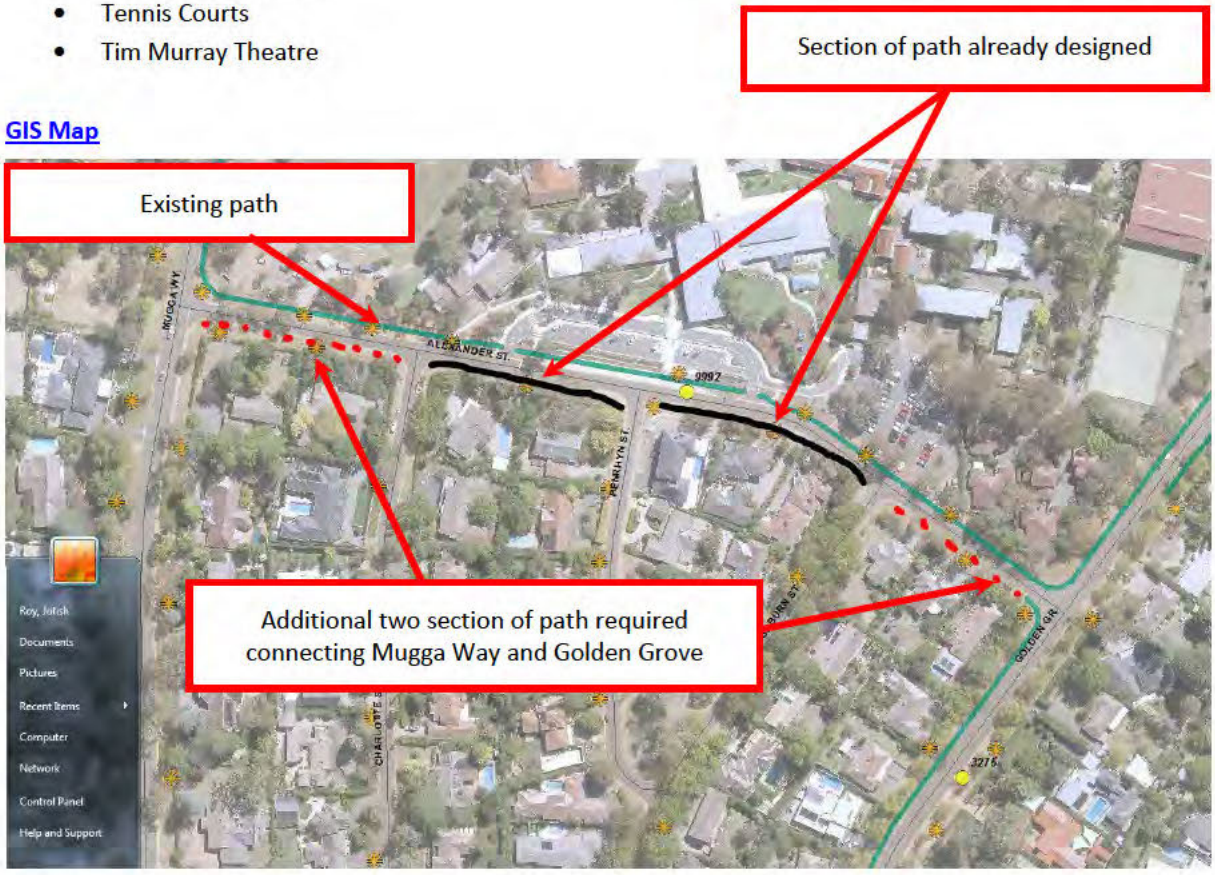


Figure 7: Proposed community path improvement in RED DOTTED LINES, Current community paths in SOLID BLUE LINES (based on GIS asset information)

Summary

Community Resources:

Within the 400m buffer zone, the following community resources are found:

- Oval
- Penrhym Park
- CGS Chapel
- Canberra Grammar School
- Bluebell A1 Quilting
- Tennis Courts
- Tim Murray Theatre

Public Transport:
TC local bus services 56 runs along proposed development area.

Safety:
Existing streetlights are available along the proposed route. The route is considered safe for promotion.

Desire line:
The lightly trafficked desire line can be seen from the street view.

Additional comments:
Trees and other types of vegetation are observed in Google street view.

Ranking:
67 out of 448 as at 21 February 2020

From: Davidson, Geoffrey
To: Playford, Alison; Corrigan, Jim; McHugh, Ben; Marshall, Ken
Cc: TCCS_DLO; Bowdery, John
Subject: FOR NOTING - EMAIL to MO on Alexander Street children"s crossing
Date: Monday, 17 February 2020 4:03:43 PM
Attachments: Brief - Alexander Street - Red Hill.docx
image001.png

UNOFFICIAL

FYI.

- The attached report was prepared by Roads ACT after a previous pedestrian-MV crash in Oct 2019.
- The report recommends speed cushions on Alexander St near the children's crossing, formal footpath on Alexander St and enforcement and education.
- Friday's pedestrian-MV crash was at the intersection of Alexander St and Charlotte Street.
- Andrew is preparing a QTB and a map which shows the improvements delivered by TCCS and CGS previously and location of Friday's crash.
- Next steps, as agreed by Min in a previous brief, is community consultation on the additional measures recommended by Roads ACT in the attached report.

Note that Hanna sent me a text asking if she could speak to Andrew on this matter. Andrew's email below is a result of that phone call.
Geoff

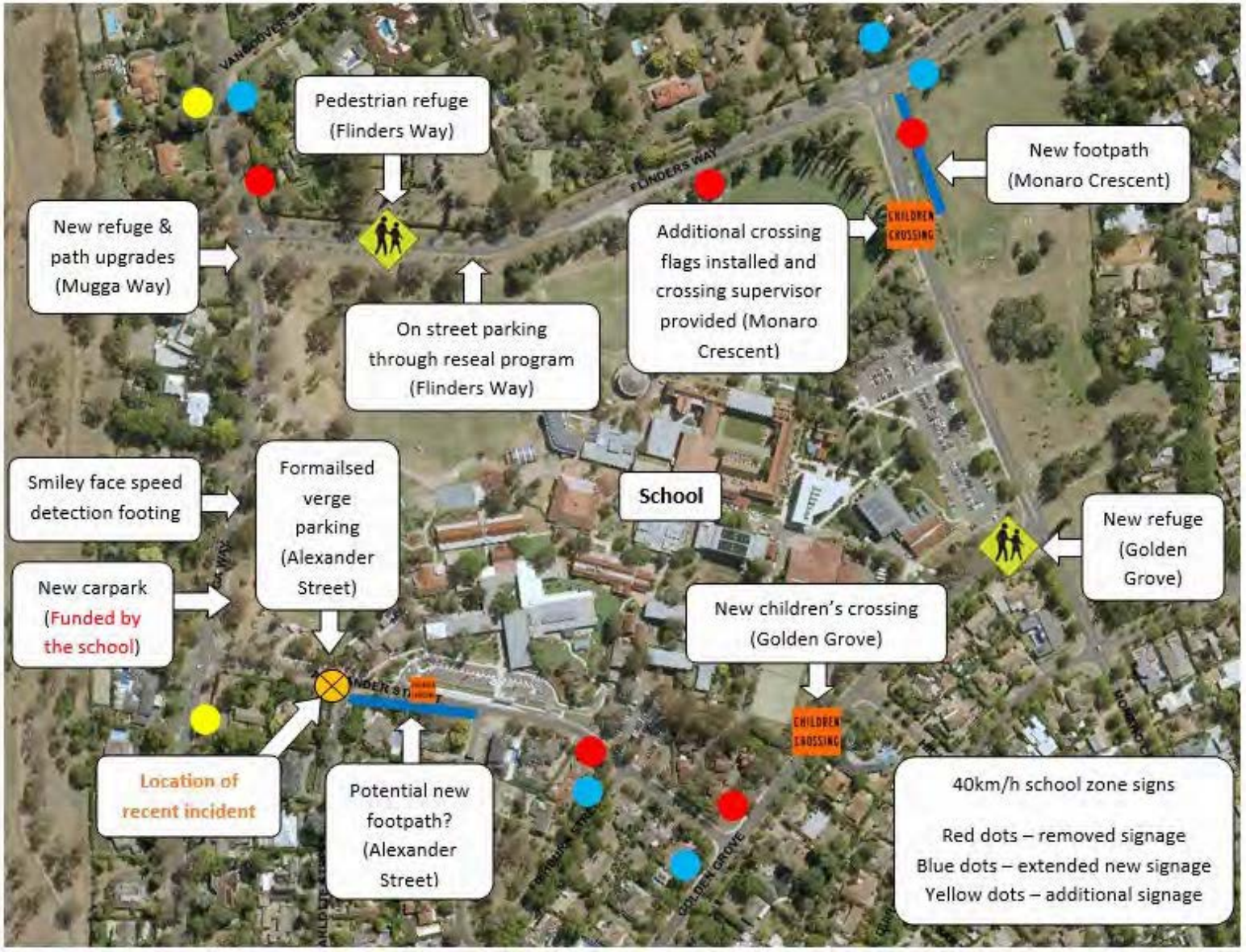
From: Crichton, Andrew <Andrew.Crichton@act.gov.au>
Sent: Monday, 17 February 2020 3:24 PM
To: Froehlich, Hanna <Hanna.Froehlich@act.gov.au>
Cc: Davidson, Geoffrey <Geoffrey.Davidson@act.gov.au>
Subject: Alexander Street children's crossing

UNOFFICIAL

Hi Hanna,
As discussed, here is the report Roads ACT provided following their site investigation on Alexander Street last year.
Please let me know if you would like further information.
Kind regards
Andrew

Andrew Crichton | Director, Schools Program
T: (02) 6205 8457 | E: andrew.crichton@act.gov.au
Development Coordination Branch | Transport Canberra and City Services Directorate | ACT Government
490 Northbourne Ave DICKSON ACT 2602 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

Connected services for the people of Canberra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Potential new footpath? (Alexander Street)
40km/h school zone signs
Red dots – removed signage
Blue dots – extended new signage
Yellow dots – additional signage
FLINDERS WAY
CHILDREN CROSSING
GOLDEN GROVE

ACT Government
Transport Canberra and City Services

Brief – Relocation of the existing children's crossing on Alexander Street

Subject

Relocation of the children's crossing on Alexander Street in Red Hill.

Background:

1. A child was struck at the children's crossing on Alexander Street (Canberra Grammar School) on Monday 28 Oct 2019. This incident has raised concerns about the safety of the crossing in terms of its location.
2. This crash is the first reported incident on this children's crossing, since the installation of the crossing in April 2016.
3. Given the description of the crash by the motorist, there may have been illegally parked vehicles that had obstructed the cyclist's view of the approaching vehicle.
4. Active Travel seeks comments from Roads ACT regarding the potential relocation of the school crossing with proposed locations on the street.
5. The existing children's crossing has no formal footpath at the southern end of Alexander Street.
6. Please see Appendix A for the proposed locations (i.e. *Location 1 and 2*) from Active Travel.

Issues

If TCCS relocates the existing pedestrian crossing to one of the proposed locations, the following issues will be raised:

1. *Location 1* is not compliant with the Australian Standard (AS1742.10), due to the conflict points from two driveways of the residential houses and the informal driveway into the new school carpark. As per the standard, there should be at least 10~20m clearance from a school crossing.

2. The current location of the children's crossing is centrally placed. Relocation to the west may require additional crossing at the eastern end of Alexander Street.

3. Relocation of the existing crossing to *Location 2* is possible subject to the following:
   a. Relocation of the crossing would potentially require construction of footpath linking to the school crossing.
   b. Relocation of the crossing would require changes to the exit arrangement of the new school carpark.
   c. Removal of the kerb sided parking between Charlotte Street and the informal carpark exit.

ACT Government
Transport Canberra and City Services

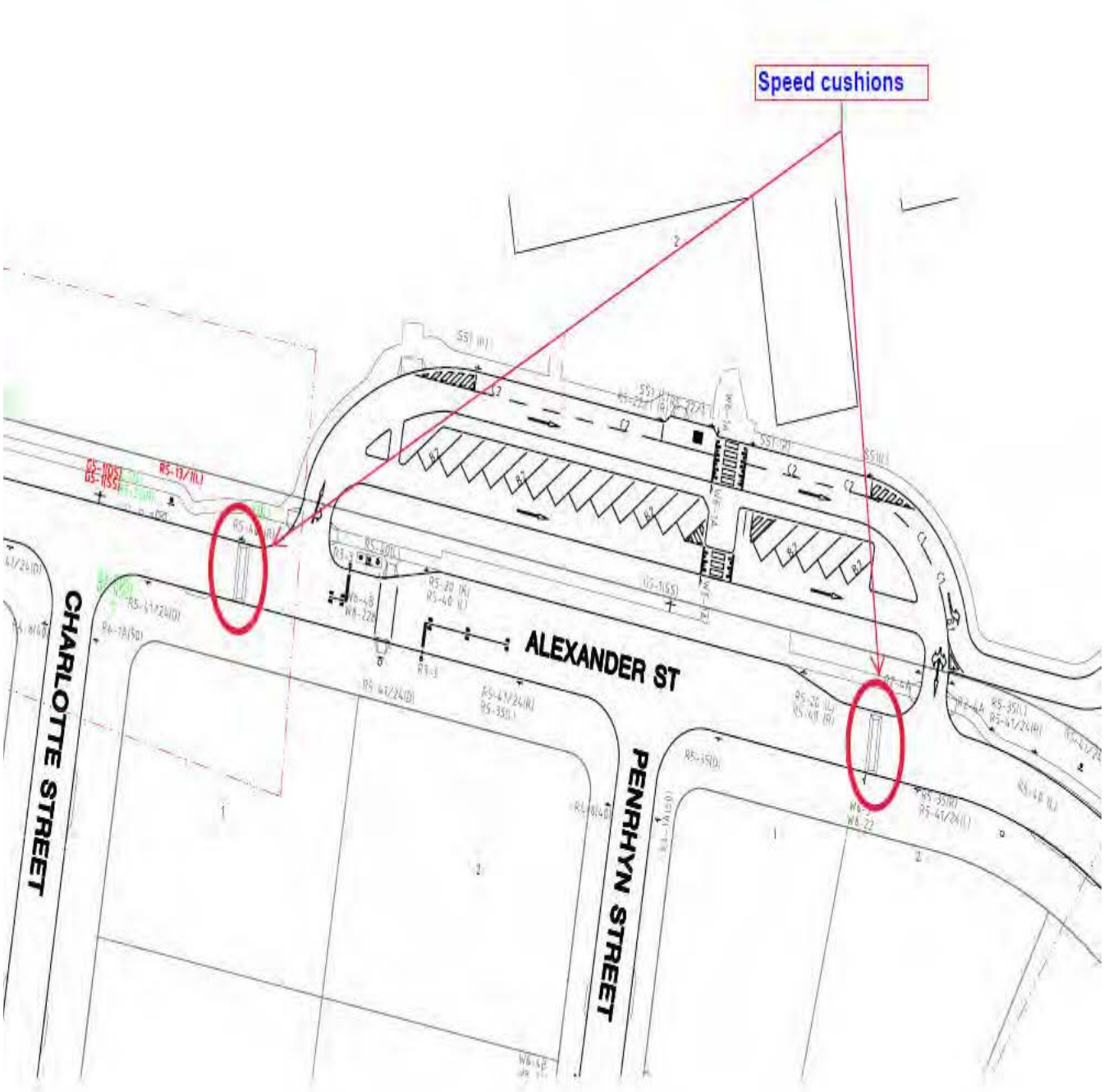
Recommendations

1. Removal of the existing children's crossing is not recommended.
2. Roads ACT proposes installation of two speed cushions in the locations as described in Appendix B.
3. Provide formal footpath west and east of the current children's crossing in order to encourage students not to cycle on the road.
4. Canberra Grammar School needs to seek approval to formalise carpark access and repair damage to the footpath.
5. In order to prevent from further damage to the footpath, the exit should be closed off.
6. Additional enforcement of the current parking / 'No Stopping' restrictions in the vicinity of the children's crossing.
7. School to provide education on appropriate use of the parking facilities around the school.

Appendix A

ACT Government
Transport Canberra and City Services

Appendix B



QUESTION TIME BRIEF

Portfolio/s: City Services

ISSUE: CANBERRA GRAMMER SCHOOL INCIDENT

Talking Points

TCCS School Safety Program

- Transport Canberra and City Services' (TCCS) School Safety Program works closely with schools to identify and address safety concerns.
- Officers from the School Safety Program within TCCS undertake regular site visits to meet with schools, parents and the community to investigate traffic management concerns and provide a coordinated response that includes a combination of education, engineering and enforcement support.

Incident at Canberra Grammar School – 14 February 2020

- On Friday, 14 February 2020, a 12 year old student was struck by a vehicle on Alexander Street at Canberra Grammar School.
- In December 2019, I wrote to Head of School, [redacted], about pedestrian safety on Alexander Street. This followed an earlier incident involving a pedestrian at the children's crossing on Alexander Street. I advised [redacted] that TCCS was planning to undertake community consultation on measures to improve road safety at Alexander Street including traffic calming and a new footpath.
- I have asked TCCS to commence the community consultation as soon as possible and that it involve the school community and local residents.
- The Government has delivered several improvements around the school in recent years to improve pedestrian safety including new footpath connections, new refuge islands, a school crossing supervisor, a new children's crossing, increased warning signage and new line marking.
- The school has also made a number of improvements in recent years to manage traffic around the school, including two additional onsite carparks and a pick up and set down facility.
- Whenever accidents like this occur, we're reminded about the vulnerability of children as road users. I encourage all motorists to park responsibly and drive safely in school zones and all areas where kids and other vulnerable road users are present.

Background Information

- A 12 year old student from the Canberra Grammar School was struck by a vehicle on Alexander Street in Red Hill on Friday 14 February 2020 at approximately 3:30pm.
- The incident occurred to the west of the children's crossing on Alexander Street. It is believed the child was riding a skateboard across Alexander Street when struck by a motorist.

Cleared as complete and accurate:	18/02/2020	
Cleared by:	Deputy Director-General	Ext: 75819
Information Officer name:	Jim Corrigan	
Contact Officer name:	Ken Marshall A/g EGM City Ops	Ext: 76588
Lead Directorate:	Transport Canberra and City Services	

- A map showing the improvements already delivered at Canberra Grammar School is at Attachment A.
- Roads ACT undertook an investigation on Alexander Street in November 2019 following an incident at the children's crossing. Their recommendations included providing a footpath connection to the crossing and speed humps on both approaches to the crossing. These recommendations will be considered as part of the future consultation with the school and local residents.

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Cleared by:	Deputy Director-General	Ext: 75819
Information Officer name:	Jim Corrigan	
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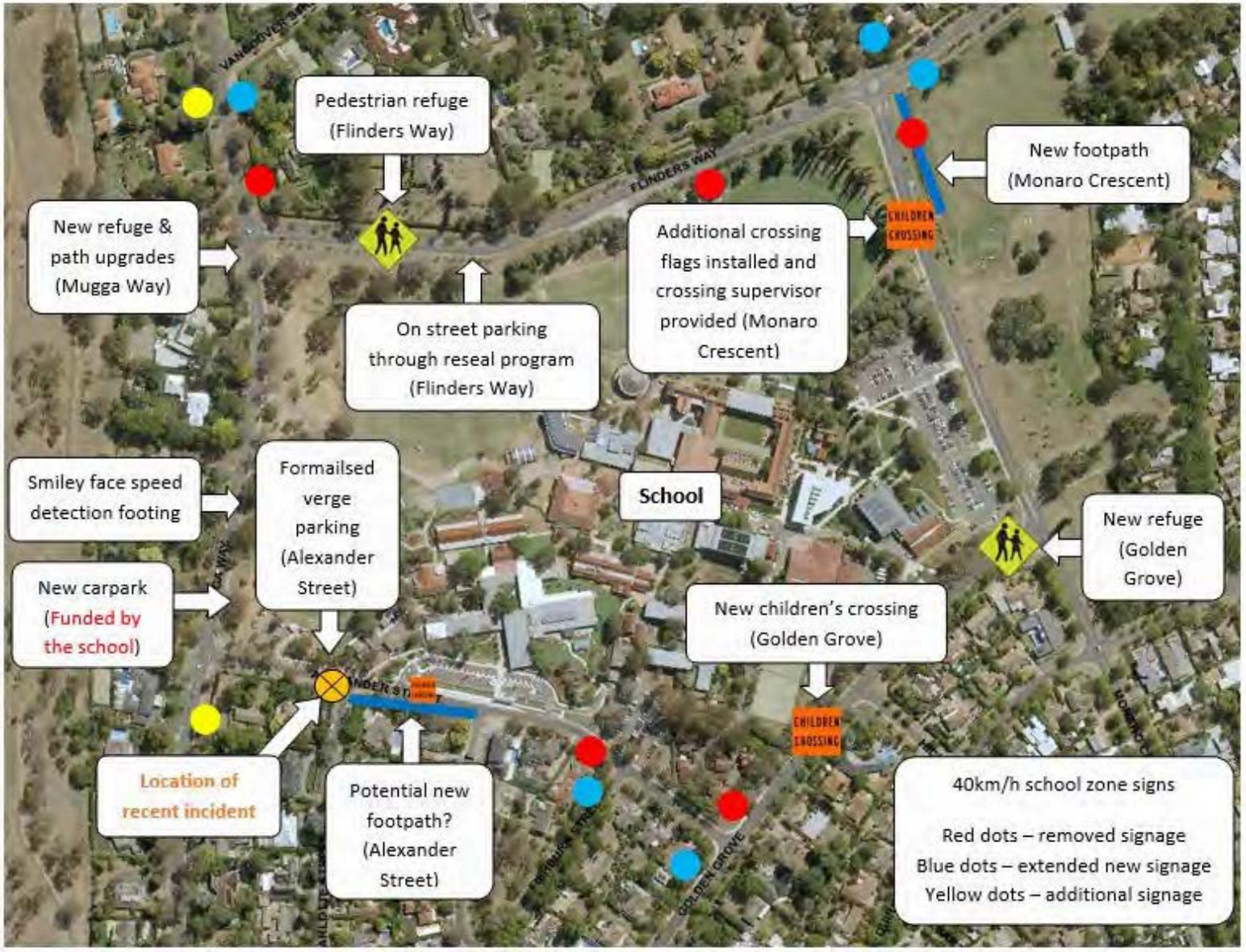
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brief request - Notepad

File Edit Format View Help

From: Brozic, Liana
Sent: Wednesday, 26 February 2020 12:07 PM
To: Brozic, Liana
Subject: brief request

UNCLASSIFIED

As per action item from CS meeting on 24.02

Item 3 - Alexander Street - MO confirmed that TCCS should proceed with options to install speed cushions and start the work on the path connection (kerb side). TCCS please prepare a brief with timelines, identify how this will be funded and provide numbers on how many children use this crossing (if possible)

MINISTERIAL BRIEF

Transport Canberra and City Services

UNCLASSIFIED

To:	Minister for Roads and Active Travel	**Tracking No.: S2020/3573**
Date:	04/03/2020	
From:	Executive Branch Manager, Place Coordination	
Through	Director-General, Transport Canberra and City Services Deputy Director-General, City Services	
Subject:	Alexander Street improvements (Canberra Grammar School)	
Critical Date:	13/03/2020	
Critical Reason:	To notify residents that a footpath will be constructed on Alexander Street	

Recommendations

That you:

1. Agree that TCCS send the attached letter to residents in Alexander, Charlotte and Penrhyn streets to inform them about the path to be constructed on Alexander Street; and

Agreed / Not Agreed / Please Discuss

2. Note that TCCS will investigate traffic calming measures and engage a consultant to develop a traffic management plan.

Noted / Please Discuss

Chris Steel MLA ..../...../.....

Minister's Office Feedback

Background

1. The Head of Canberra Grammar School, [redacted], wrote to you last month asking for road safety improvements on Alexander Street following two recent pedestrian incidents involving students.

2. Your response advised that the ACT Government will soon commence construction of a path along the southern verge of Alexander Street (opposite the children's crossing) between Charlotte Street and Penrhyn Street and that TCCS will investigate other traffic calming measures and undertake a traffic study.

3. As an interim measure, Canberra Grammar School offered to cover the cost of a school crossing supervisor for the children's crossing on Alexander Street.

Issues

Footpath connection

4. TCCS has drafted the letter at Attachment A to inform residents in Alexander Street, Charlotte Street and Penrhyn Street that a footpath will be constructed on the southern side of Alexander Street between Charlotte Street and Penrhyn Street.

5. The footpath will be constructed using the Active Streets for Schools program budget.

6. TCCS will endeavour to deliver the footpath as soon as possible, taking into consideration the likely impacts on school travel and the availability of contractors to deliver the works. TCCS will also consult the school about preferred timing.

School crossing supervisor

7. A school crossing supervisor commenced at the children's crossing on Alexander Street on Monday 2 March 2020. TCCS accepted the school's offer to cover the cost of the supervisor.

8. The children's crossing on Alexander Street did not receive a crossing supervisor when the program commenced in 2018 because other crossings had higher pedestrian and traffic volumes. When data was collected in 2017, the pedestrian and traffic volumes at the Alexander Street crossing were:

    - 357 vehicles and 16 pedestrians between 8:00am and 9:15am; and
    - 213 vehicles and 26 pedestrians between 2:30pm and 3:45pm.

9. However, noting the two recent pedestrian incidents, Canberra Grammar School and TCCS agree that a school crossing supervisor is an appropriate immediate measure. The crossing supervisor will help to safely manage pedestrians and traffic and to assist driver awareness of potential hazard for pedestrians.

Education and enforcement

10. TCCS has provided the school with educational resources to promote safe driving and parking behaviours around the school.

11. TCCS asked Parking Operations and ACT Policing to provide an additional enforcement presence around the school. Parking Operations attended with police on Monday 2 March 2020 to educate motorists about safe behaviours and they followed

up with another visit on Thursday 5 March 2020. Canberra Grammar School was supportive of this approach.

Traffic management plan

12. TCCS will engage a traffic engineer to develop a traffic management plan for the school. The consultant will be asked to develop a plan that has strategies for the school to better manage and reduce traffic in the area.

13. The consultant will also be asked to assess the current environment and suggest potential improvements in the area to increase safety, for example restricting certain traffic movements or providing traffic calming devices like speed humps.

14. The consultant will be engaged as soon as possible, and you will be briefed on the outcome of this study. TCCS will work closely with Canberra Grammar School in the scoping of the study.

Financial Implications

15. The cost to construct the footpath is estimated at $100,000, subject to the preferred alignment, due to the complexities associated with the steep verge and street trees.

16. The footpath will be delivered through the Active Streets for Schools program.

17. A traffic management plan for the school will cost approximately $20,000. This will be funded by the School Safety Program.

Consultation

Internal

18. Roads ACT (Traffic Management and Safety team) has been consulted and will provide advice about potential treatments.

19. Infrastructure Delivery will deliver the footpath and have been advised this will be included as part of the works to be delivered through Active Streets.

20. The Communications team has provided advice and assistance to draft the letter for residents.

21. The Active Travel Office is being kept informed.

Cross Directorate

22. TCCS met with staff from the Chief Minister Treasury and Economic Development Directorate to discuss parking behaviours around the Canberra Grammar School and to arrange an increased education and enforcement presence. Parking Operations coordinated their response with ACT Policing.

External

23. TCCS has been keeping the Canberra Grammar School informed about the approach outlined in this brief.

24. The Association of Parents and Friends of ACT Schools (APFACTS) has been notified about the approach to increase safety for students in Alexander Street. APFACTS is a

representative body for parents and carers of students attending catholic and independent schools.

25. Residents will be informed that a path will be constructed. Additional advice will be provided with specific details about the works prior to construction commencing.

Work Health and Safety

26. Work health and safety will be considered when delivering works around the school and construction will be scheduled to minimise the impact on the school community.

Benefits/Sensitivities

27. A new footpath will increase safety for children and their families who access the Canberra Grammar School.

28. Local residents, particularly the residents directly impacted by the path on their verge, may continue to oppose the footpath. Previous concerns from residents included the impact of the path on existing trees and hedges and increased traffic on local streets as a result of more parents dropping their kids on local streets to use the new path.

Communications, media and engagement implications

29. The TCCS communications team will keep your office informed about the feedback received following the letterbox drop and the proposed construction timeframes.

Signatory Name:	Geoffrey Davidson	Phone:	x59799
Action Officer:	Andrew Crichton	Phone:	x58457

Attachments

Attachment	Title
Attachment A	Alexander Street resident letter

FOOTPATH ON ALEXANDER STREET, RED HILL

ACT Government

MARCH 2020

Dear resident,

Consultation with households in this area was undertaken in 2018 about improvements on Alexander Street to increase safety for children travelling to and from school including a proposal for a new path.

The ACT Government has responded to the feedback provided, increasing enforcement in the area and delivering improvements around the school including new path connections, refuge islands and additional on-street parking to assist with traffic management. We have also been working with Canberra Grammar School to educate the school community on driving safely in school zones and parking safely around the school.

Following two recent pedestrian incidents on Alexander Street, we will soon start construction of a footpath along the street's southern verge, between Charlotte Street and Penrhyn Street.

There are two possible alignments for the path, adjacent to the road or behind the street trees. Please see the map over the page. If you have a preferred alignment, or have any questions on the project, please contact me on 6257 8457 or at Andrew.Crichton@act.gov.au by 31 March 2020.

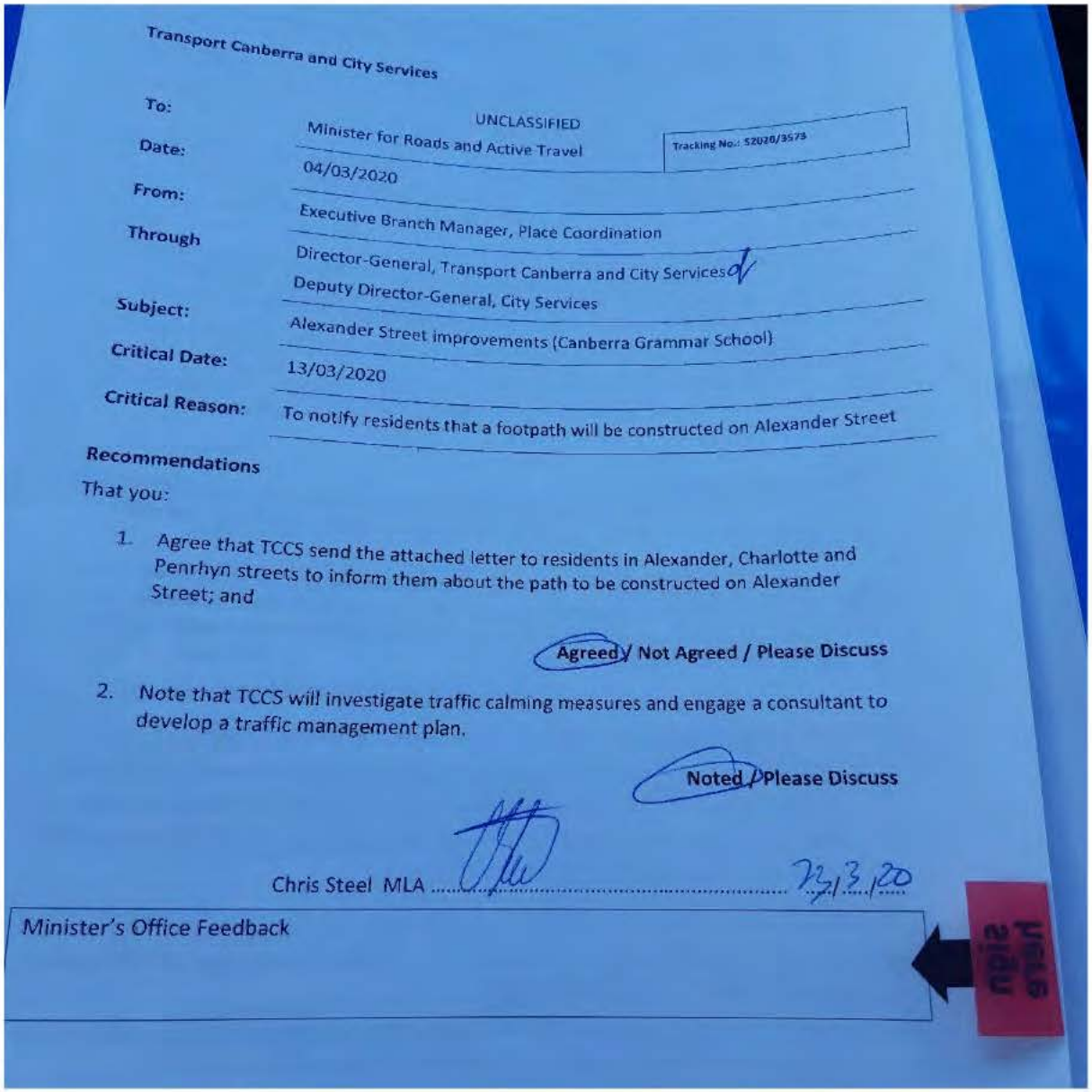
In coming months, we will also commission a traffic study to understand what other measures may be required to ensure the safety of all road and path users. This may include strategies to better manage traffic or traffic calming treatments like speed humps.

In addition, the school is funding a school crossing supervisor at the children's crossing on Alexander Street. This is being trialled to support children accessing the school and to promote safe driving behaviours in Alexander Street.

Yours sincerely

Andrew Crichton
Director, School Safety Program
Transport Canberra and City Services


ALEXANDER STREET
CHARLOTTE STREET
PENRHYN STREET
Footpath alignment options – along Alexander Street or behind the street trees



Transport Canberra and City Services

UNCLASSIFIED

To:	Minister for Roads and Active Travel
Date:	04/03/2020
From:	Executive Branch Manager, Place Coordination
Through	Director-General, Transport Canberra and City Services Deputy Director-General, City Services
Subject:	Alexander Street improvements (Canberra Grammar School)
Critical Date:	13/03/2020
Critical Reason:	To notify residents that a footpath will be constructed on Alexander Street

Tracking No.: S2020/3573

Recommendations

That you:

1. Agree that TCCS send the attached letter to residents in Alexander, Charlotte and Penrhyn streets to inform them about the path to be constructed on Alexander Street; and

Agreed / Not Agreed / Please Discuss

2. Note that TCCS will investigate traffic calming measures and engage a consultant to develop a traffic management plan.

Noted / Please Discuss

Chris Steel MLA 23/3/20

Minister's Office Feedback

Hard copy 2 min

QUESTION TIME BRIEF

Portfolio/s: Roads and Active Travel

ISSUE: CANBERRA GRAMMAR SCHOOL INCIDENT

Talking Points

School Safety Program

- Transport Canberra and City Services' (TCCS) School Safety Program works closely with schools to identify and address safety concerns.
- Officers from the School Safety Program within TCCS undertake regular site visits to meet with schools, parents and the community to investigate traffic management concerns and provide a coordinated response that includes a combination of education, engineering and enforcement support.

Incident at Canberra Grammar School – 14 February 2020

- On Friday, 14 February 2020, a 12 year old student was struck by a vehicle on Alexander Street at Canberra Grammar School.
- In December 2019, I wrote to Head of School, [redacted], about pedestrian safety on Alexander Street. This followed an earlier incident involving a pedestrian at the children's crossing on Alexander Street. I advised [redacted] that TCCS was investigating measures to improve road safety on Alexander Street including traffic calming and a new footpath.
- I have asked TCCS to advise residents and the school about the proposed improvements in the area and to commence the delivery of improvements as soon as possible.
- Following the incident, TCCS arranged for a school crossing supervisor to manage the children's crossing on Alexander Street as a trial arrangement and for Parking Operations and Police to have an increased presence to educate motorists about safe parking and driving behaviours.
- The Government has delivered several improvements around the school in recent years to improve pedestrian safety including new footpath connections, new refuge islands, a school crossing supervisor, a new children's crossing, increased warning signage and new line marking.
- The school has also made a number of improvements in recent years to manage traffic around the school, including two additional onsite carparks and a pick up and set down facility.
- Whenever accidents like this occur, we're reminded about the vulnerability of children as road users. I encourage all motorists to park responsibly and drive safely in school zones and all areas where kids and other vulnerable road users are present.

Background Information

Cleared as complete and accurate:	25/03/2020	
Cleared by:	Deputy Director-General	Ext: 75819
Information Officer name:	Jim Corrigan	
Contact Officer name:	Ken Marshall A/g EGM City Ops	Ext: 76588
Lead Directorate:	Transport Canberra and City Services	

QUESTION TIME BRIEF

- A 12 year old student from the Canberra Grammar School was struck by a vehicle on Alexander Street in Red Hill on Friday 14 February 2020 at approximately 3:30pm.
- The incident occurred to the west of the children's crossing on Alexander Street.
- A map showing the improvements already delivered at Canberra Grammar School is at Attachment A.
- Roads ACT undertook an investigation on Alexander Street in November 2019 following an incident at the children's crossing. Their recommendations included providing a footpath connection to the crossing and speed humps on both approaches to the crossing. These recommendations will be considered as part of the future consultation with the school and local residents.

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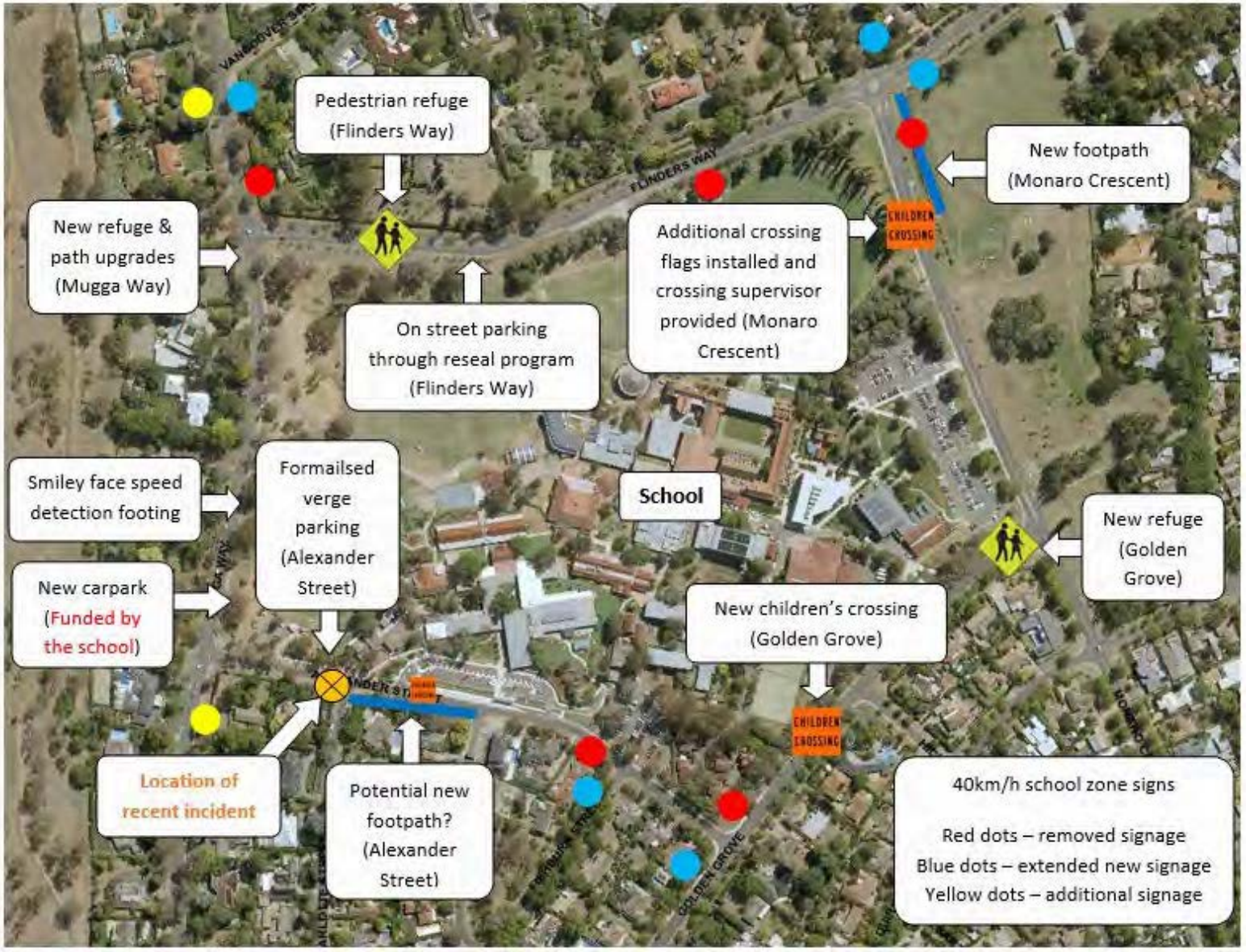
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QUESTION TIME BRIEF

ISSUE: School Traffic Management

Talking Points

TCCS School Safety Program

- Transport Canberra and City Services' (TCCS) School Safety Program works closely with schools to identify and address safety concerns.
- The School Safety Program undertakes regular site visits to meet with schools, parents and the community to investigate traffic management concerns and provide a coordinated response that includes a combination of education, engineering and enforcement support.

School support in response to COVID-19

- To support schools with traffic management during the COVID-19 pandemic, TCCS has developed a webpage that includes a list of schools and downloadable/online maps promoting part-way points. The maps encourage alternative drop off and pick up points to reduce traffic in school carparks and along school frontages.
- Schools that normally have high public transport or large traffic volumes have been prioritised in the first instance, with all other schools to have maps developed following the priority schools.
- A 'principal's toolkit' is also being developed, which will contain a range of resources and communications materials, including newsletter and social media content targeted at school communities. The toolkit will be distributed directly to schools.
- The School Crossing Supervisor program is continuing to be delivered to support children and increase safety around schools. Crossing supervisors are being encouraged to practice physical distancing behaviours.
- The Ride or Walk to School and Active Streets for Schools programs are also still being delivered to provide support to schools to promote walking or riding to school.
- TCCS is working closely with the Education Directorate to provide direct support to schools, which includes on-site inspections and dedicated educational resources to address specific areas of concern.

Safety at Canberra Grammar School

- Following an incident on Alexander Street on 14 February 2020, in which a 12-year-old student was struck by a vehicle outside Canberra Grammar School, TCCS continues working closely with the school to address safety concerns.
- To reduce the number of vehicles accessing Alexander Street, TCCS is supporting the school to formalise a second driveway entrance into one of the school carparks. TCCS is also looking to provide additional pick up and set down spaces on the opposite side of the school.

Cleared as complete and accurate:	15/06/2020	
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- A school crossing supervisor has been provided at the children's crossing on Alexander Street. The school already had one government funded supervisor covering the crossing on Monaro Crescent, so the school is paying for the additional supervisor.
- TCCS has engaged a traffic engineer to consider what additional improvements are required on Alexander Street to increase safety, which may include additional footpaths or traffic calming measures like speed humps.