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Transport Planning, Traffic Impact Assessments, Road Safety Audits, Expert Witness

23 March 2020

Reference: 190701.03FA

PMDL
17/124 Walker Street,
North Sydney,
NSW 2060 Australia
Attention: Kim Le Gras

TRAFFIC RESPONSE TO FAIRFIELD CITY COUNCIL FOR THE PROPOSED SAINTS PETER AND PAUL ASSYRIAN PRIMARY SCHOOL AT 17 - 19 KOSOVICH PLACE, CECIL PARK, 2178

Dear Kim,

Reference is made to your request to provide a response to the submission made by Fairfield Council regarding the proposed Saints Peter and Paul Assyrian Primary School at 17 - 19 Kosovich Place, Cecil Park, 2178. Fairfield Council's submission is provided in **Annexure A** for reference. The issues raised by Fairfield Council are summarised below and responded to in the following corresponding Sections.

1. The proposed modifications of the intersection of Wallgrove Road/Kosovich Place will be detrimental to traffic safety.
2. The assumed car occupancy of 1.85 children per vehicle is not sufficiently justified and the resulting traffic generation estimated is not accepted.
3. The proposed car parking and kiss and drop facilities are insufficient.
4. The proposed bus parking on Kosovich Place is not justified as it will not benefit other stakeholders.
5. Insufficient information has been provided with regards to the vehicles servicing the site.

1 Intersection Safety

It should be noted that extensive consultation with RMS is ongoing and that RMS accepts that a roundabout is not a viable treatment for this intersection due to the physical constraints present. The placement of school-zone signage will occur along Kosovich Place as agreed with RMS.

The proposed modifications to the intersection of Kosovich Place/Wallgrove Road include the following changes as shown on the plans reproduced in **Annexure B**:

- A 26.6m long auxiliary lane providing for the storage of vehicles waiting to turn right from Wallgrove Road into Kosovich Place:

- It is noted that this does not include the taper length of 18m.
- This length is the longest lane length that can be accommodated considering the proximity of the roundabout to the north and the narrow culvert across Ropes Creek.
- A 26.6 long lane is sufficient to accommodate the 98th percentile queue predicted by SIDRA analysis sensitivity testing and can accommodate two 12.5m long Heavy Rigid Vehicles.
- It should be noted that traffic exiting the roundabout travels significantly slower than the 80km/h speed restriction and deceleration facilities are not required. Southbound vehicles intending to enter Kosovich Place will not significantly accelerate after exiting the roundabout and will have ample room in which to brake safely for the right turn. As depicted in **Figure 1**, vehicles exiting the roundabout will have a clear vision of vehicles ahead intending to turn right into Kosovich Place.

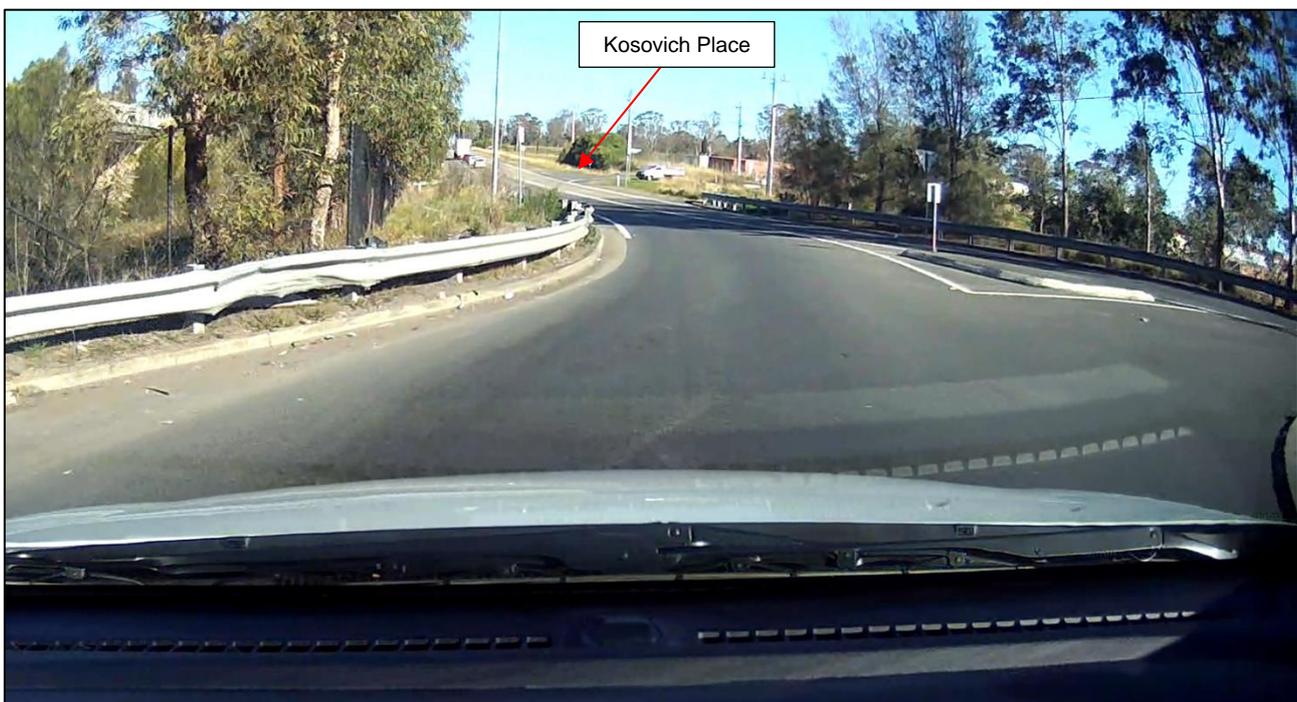


FIGURE 1: DRIVERS VIEWPOINT – EXITING THE ROUNDABOUT SOUTHBOUND

- A 100m long (including taper) auxiliary lane providing for the deceleration of vehicles turning left into Kosovich Place.
- “No Right Turn” and “Left Only” signage, complemented by a concrete island, restricting right turns out of Kosovich Place.
- Lane and shoulder widths generally matching the existing geometry of Wallgrove Road;
- All intersection turns designed to accommodate a 12.5m long Heavy Rigid Vehicle.

For the purposes of illustration, the existing intersection treatment is depicted in **Figure 2** and the proposed in **Figure 3**. The proposed changes will significantly improve the safety of the intersection by:

- Restricting right turns from Kosovich Place into Wallgrove Road, which is presently an unsafe movement during peak times;

- Addition of deceleration facilities for the left turn into Kosovich Place from Wallgrove Road, significantly reducing or eliminating the existing risk of rear-end collisions involving vehicles making this turn;
- Addition of storage facilities for the right turn into Kosovich Place from Wallgrove Road, significantly reducing the existing risk of rear-end collisions and side-on collisions involving vehicles making this turn.

In view of the above, it is incorrect to assert that the proposal will detrimentally impact the traffic safety at the Kosovich Place/Wallgrove Road intersection, as the intersection will be significantly safer post-upgrade. Any negative traffic safety implications related to the additional school traffic are outweighed by the significant upgrade works proposed.

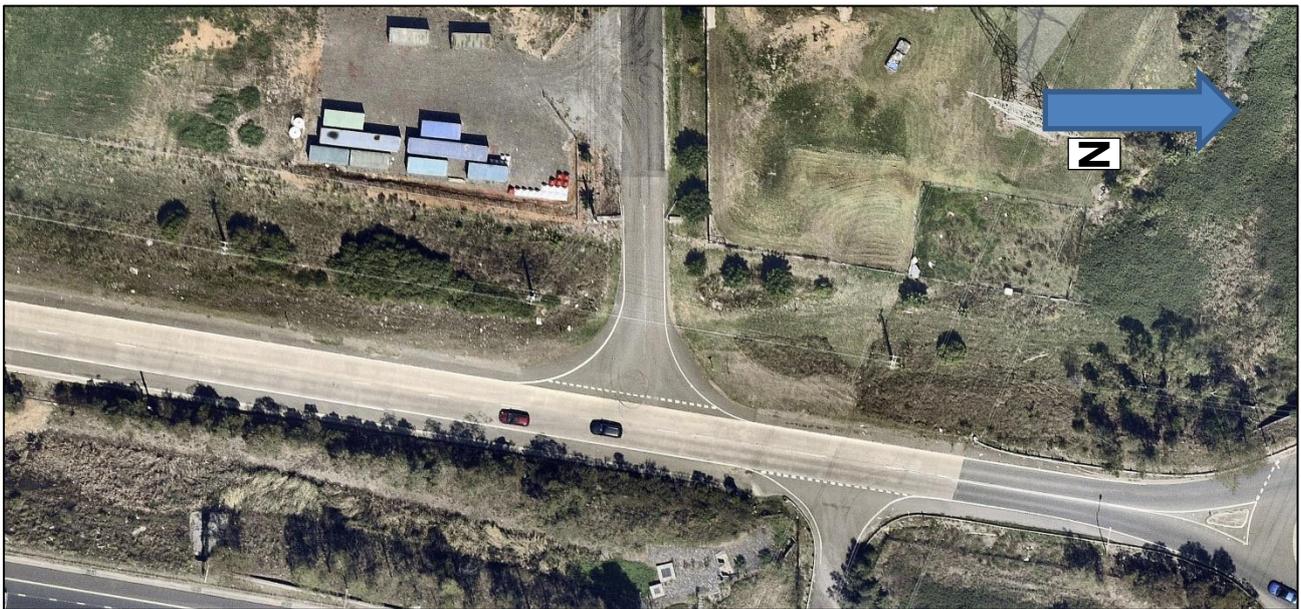


FIGURE 2: EXISTING INTERSECTION LAYOUT



FIGURE 3: PROPOSED INTERSECTION LAYOUT

2 Assumed Car Occupancy

The car occupancy of 1.85 students per vehicle is based on data provided by the St Hurmizd Assyrian School regarding the number of siblings that each student has at the school. The St Hurmizd School caters to the same community and a significant proportion of the initial population of the school will be comprised of students moving from St Hurmizd to the proposed school. It is therefore likely that the number of siblings each child has at the school will remain similar to the St Hurmizd School. The 1.85 students per vehicle assumes that no students walk or catch public transport as applied to the “Stage 1” population of 210 students.

With regards to the “Final Development” scale of 630 students, it has been assumed that 20% of these students will catch the bus, with a 1.85 car occupancy rate applied to the remainder. A 20% uptake of school bus services is typical for primary schools, with a higher rate of bus usage usually observed for children in years 3 – 6 or for students in years K – 2 with older siblings. In this case, the proposed bus service will be shared with the St Narsai Assyrian Christian College, which the proposed school will feed. There will, therefore, be a higher than usual proportion of students with siblings catching the bus and it is expected that the 20% bus usage assumed will be easily achieved.

Based on the above, the assumed traffic generation of the site is reasonable.

3 Car Parking

The Fairfield City Council DCP provides the following guidelines for the provision of car parking for Schools:

1 space per employee plus 1 space per 10 students in Year 12 (where applicable)

The proposed school includes a total of 35 staff, with no Year 12 students to be on-site. The parking requirement for the proposed school is therefore 35 spaces. A total of 37 spaces are provided for use by staff, with an additional two (2) allocated for disabled visitors. Surplus to the requirements of the DCP, a total of 30 kiss and drop spaces are proposed to cater to the drop-off and pick-up operations of the school. On this basis, it is unclear under what pretences Fairfield City Council regards to the proposal to have a “limited number of pick-up/drop-off spaces”, as the proposal far exceeds the requirements of the FCC DCP which *does not require the provision of any kiss and drop facilities*.

The Traffic and Parking Impact Assessment by M^CLaren Traffic Engineering submitted with the application provides a robust analysis of the requirements of the school in terms of kiss and drop facilities, with the results demonstrating that the 30 spaces will be sufficient to serve the needs of the school without overflow into Kosovich Place. The 39 spaces in the car park were not included in this analysis and are not needed to provide for sufficient car parking for parents during drop-off and pick-up times.

With regards to the proposed usage of the school’s parking by the adjacent Church, it is emphasised that this will occur outside of school operational hours only. With this in mind, the use of the school’s on-site parking will substantially reduce the chance that parking associated with the Church will overflow onto the street, without any negative ramifications.

4 Bus Parking

The proposed bus parking along Kosovich Place is to be used by a state-operated school bus service. Discussions with Transit Systems the present provider of school bus services in the area indicate that the most cost-efficient option is to modify the existing state-funded bus route servicing St Narsai Assyrian Christian College to include the proposed school.

Transit Systems indicated that it would not accept on-site facilities, as entering and leaving the site would unacceptably delay the service. In view of this, the proposal includes an indented on-street facility which will provide sufficient width to cater for buses whilst maintaining two-way passing along Kosovich Place.

It is noted that the Fairfield City Council DCP does not require that bus facilities be provided on-site for schools and it is unclear on what basis this requirement is suggested.

5 Site Servicing

Swept path testing has been undertaken to demonstrate the circulation of a 12.5m long Heavy Rigid Vehicle through the site and is attached in **Annexure C**.

The occasional loading operations will be undertaken in the staff car park adjacent to the Bin Store outside of peak drop-off and pick-up hours.

Please contact the undersigned should you require further information or assistance.

Yours faithfully
McLaren Traffic Engineering



Tom Steal
Senior Traffic Engineer
BE Civil AMAITPM MIEAust
RMS Accredited Level 1 Road Safety Auditor
RMS Accredited Work Zone Traffic Management Plan Designer and Inspector



**ANNEXURE A: FCC RESPONSE TO SUBMISSION
(8 SHEETS)**



In reply please quote: 18/07415
Your Ref: SSD 9210

Contact: Kerren Ven on 9725 0643

01 October 2019

Director of Social Infrastructure Assessments
NSW Department of Planning, Industry & Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Scott Hay

Dear Sir/Madam,

**RESPONSE TO SUBMISSIONS - PROPOSED SAINTS PETER AND PAUL
ASSYRIAN PRIMARY SCHOOL AT 17-19 KOSOCIVH PLACE, CECIL PARK**

Reference is made to the Department of Planning, Industry and Environment correspondence dated 13 August 2019 regarding the response to submissions (RTS) for the proposed Saints Peter and Paul Assyrian Primary School in Cecil.

Council officers concerns remain in regard to the proposed degree of site development, potential contamination, flooding and traffic/parking impacts and consider that the documentation submitted in RTS is insufficient in addressing these concerns. Detailed feedback to the proponent's response is attached in this letter.

Based on the information submitted by the proponent, Fairfield City Council maintains its objections to the application in its current form.

Yours faithfully

Kerren Ven
STRATEGIC PLANNER



FAIRFIELD CITY COUNCIL SUBMISSION TO RESPONSE TO SUBMISSIONS FOR SSD-9210

Proposed Development

The Saints Peter and Paul Assyrian Primary School at 17-19 Kosovich Place, Cecil Park is proposed to be constructed in six stages with the eventual capacity to accommodate 665 students (K-6) and staff.

Key components of the proposed educational facility include:

- Site preparation works for site infrastructure to service the school including bulk earthworks and soil remediation,
- Construction of a two-storey school comprising of 21 classrooms, library, canteen, multi-purpose hall, administration offices and staff facilities,
- Outdoor open space areas including a civic heart, sport court and sports field,
- 30 car parking for kiss-and-ride drop off and 37 parking spaces for staff with 2 accessible parking spaces, and
- Associated landscaping.

Basis for Council's Objections

Council raises major concern as a result of the scale of the development. It is considered to impact on the amenity of the surrounding area in terms of noise, traffic and parking generation. The subject site is also affected by site contamination and flood affectation that have not been resolved under the RTS.

Given the history of the adjoining Church at 32-40 Kosovich Place, Cecil Park as previously mentioned in Council's original submission, the Church has been taken into consideration as part of Council's assessment. The proposed increase to the approved number of attendees on site from 80 to 595 was refused by the Land and Environment Court due to the adverse impacts on the amenity of nearby residents as a result of the Church unable to accommodate traffic and on-street parking generation, onsite sewerage treatment system and management to minimise the church activities.

Council internal departments have reviewed the proponent's Response to Submission alongside the Environmental Impact Statement (EIS), and have found that information provided is insufficient for Council to support the proposal as detailed below.

A. Planning

The subject site is zoned RU4 Primary Production Small Lots. The proponent has not adequately demonstrated how the development is sympathetic to the rural environment, and how the development is of minimal risk from natural and man-made hazards.

Site Locality

It is understood that the proposed primary school is associated with the adjoining Church and will deliver new educational facilities to meet the demand in Western Sydney. The 2016 ABS Census states reveal that the total population density in Cecil Park is 848 residents. In addition, the total population of primary students aged from 5-11 years in the Cecil Park is 61 ([Community Profile ID](#)). Furthermore, a search of primary schools within a 4km radius of the subject site reveal 8 primary schools within the Cecil Park area as shown in Figure 1 below. This provides an indication of the demand of primary schools within the area is low.

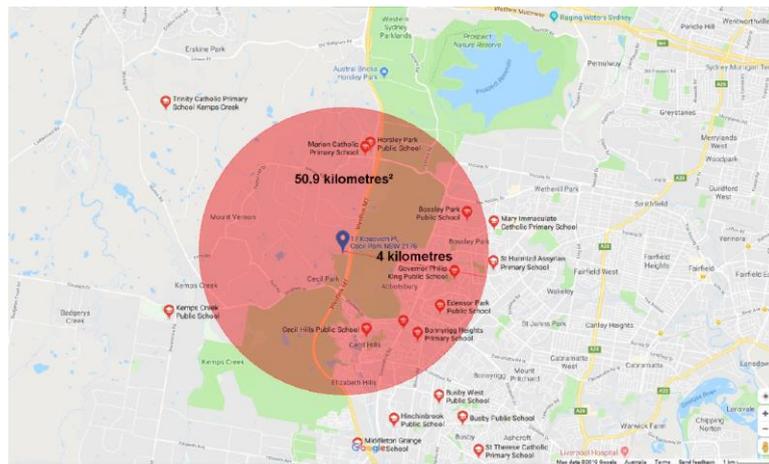


Figure 1 – Primary schools within a 4km radius of 17-19 Kosovich Place, Cecil Park (Google Maps)

Bulk, scale, and Built Design of the development

The development proposes a variation to exceed the permissible height limit by 3.8 metres and 4.4m cut and fill difference to the eastern portion to the site to create a uniform roofline due to the topographical sloping. The built design of the primary school is not in keeping with the rural landscape the surrounding area as reflected under the provisions of the Fairfield LEP 2013 and non-compliance with the Fairfield Citywide DCP 2013.

The proponent responded that the landscaped treatment to the eastern portion of the site to soften the development is kept the rural character of the area. Given the large volume of hardstand area and retaining walls on the subject site, the development is not considered sympathetic to the rural character of the area.

Location of open play area for Kindergarten students

Council does not consider the location open play area for Kindergarten appropriate within the front setback of the site. It is not suitable for children to be exposed within the front setback in view from Kosovich Place more susceptible of noise and distraction from the public therefore unacceptable in its current form.

B. Traffic and Transport

The development is situated in a rural cul-de-sac setting. The traffic generation and vehicle access arrangement will detrimentally impact the neighbouring properties and local road network based on the operation of the final development to accommodate the number of staff and students. In relation to traffic and transport, the following concerns have not been adequately addressed by the application.

The proposed auxiliary right-turn lane on Wallgrove Road into Kosovich Place and 'No Right Turn' restriction from Kosovich Place into Wallgrove Road is considered a safety hazard for motorists at the intersection and to school children. RMS recommend that a roundabout be proposed at the intersection to improve the safety of turning traffic at Kosovich Place/ Wallgrove Road; it will also benefit the safety of the road network by reducing the approach speed by motorists.

It should be noted that the proponent must consult with RMS regarding placing 'School Zone' signage.

Off-street parking

It is estimated that the traffic generation of the final development will generate 579 trips during the morning and afternoon peak based off the occupancy rate similar to St Hermizd Primary School. St Hermizd is within an urban setting and therefore the occupancy rates need to be justified as the proposal is situated in a rural cul-de-sac setting adjoining an arterial road.

The proponent responded that installation of a right turn bay at Wallgrove Road onto Kosovich Place, 'No Right Turn' at Kosovich Place onto Wallgrove Road, and 30 pick-up/drop-off car spaces will reduce the traffic impact onto Kosovich Place. Given the limited number of pick-up/drop-off spaces to accommodate the final development, the traffic mitigation measures proposed are considered unacceptable as it will likely impact on-street parking and the local rural road network.

In addition, the 37 car parking spaces for staff will result in conflict between parents/carers using those spaces. The overall off-street parking for the primary school is non-compliant with the car-parking rate in the Fairfield Citywide DCP 2013 and should be considered as part of the application.

It is understood that the school parking will be utilised during church events adjoining the site based on the association and history of overflow on-street parking. The proposed parking for the school should also consider the impact of overflow of parking for the adjoining Church.

Site servicing vehicles

Bus services are proposed at the bus bay/zone on Kosovich Place via 'piggy-back' off the existing bus services for St Narsai Assyrian Christian Collage. Given the bus services for St Narsai Assyrian Christian Collage are privately operated, the bus service will not benefit other stakeholders therefore the bus bay/zone must be providing within the boundary of the subject site.

A heavy rigid vehicle for loading / deliveries and waste operations will also service the site. Swept path for heavy rigid vehicles enter/ exiting the site and onto Kosovich Place must be provided to ensure servicing vehicles are able to manoeuvre in a suitable manner. The proponent has only provided swept paths for B85 vehicles within the car parking area therefore unable to assess the application. It is noted that the plans also do not depict a designated loading area for servicing vehicles.

C. Catchment Management

The proponent has not submitted further information to adequately address part 18 Flooding of the Secretary's Environmental Assessment Requirements (SEARs). Council's TUFLOW model has been established as part of the Rural Area Flood Study (2013). It has not been relied on to model the existing and proposed scenarios for the subject site therefore the information provided remains deficient to address Council's flooding concerns.

D. Development Engineering

The proponent has not provided further information and conclude that the information provided is insufficient for Council to consider the proposal as detailed further below.

Flooding

The proposed 'recreation portion of the site' is situated within partly high, medium, low and partly no risk mainstream flood precinct that forms as part of the school therefore is considered as 'Sensitive Uses and Facilities, and must address Chapter 11 – Flood Risk Management of the Fairfield Citywide DCP 2013. Furthermore, the proposal has not relied on Council's established TUFLOW model as part of the Rural Area Flood Study (2013) and must approach Council Catchment Branch to undertake the modelling. In this regard, Council is unable to conduct a further assessment until Council's flooding concerns have been addressed.

Kerb, Gutter, and Stormwater Drainage

The proposal involves road widening onto Kosovich Place to allow buses to enter and exit in a two-way direction with upgrades to kerb and gutter and associated drainage. The site is within the rural region of the Fairfield LGA that has no kerbs, table drains used in road reserves or easements over properties. The proposal is committed to road kerb and gutter and drainage upgrades however inadequate information is submitted on where the drainage system would be connected and

where will the drainage be discharged.

In addition, no plans have been provided detailing the typical road cross-section, including one with the bus bay and associated road stormwater drainage. The plans must depict piped drainage system under the kerb and gutter including kerb inlet pits, discharge points for the road and treatment of the stormwater to stop erosion for Council to further consider the proposal.

Restriction on the Use of Land

The proposed development is situated on both Lot 2320 and 2321 DP 1223137. Lot 2321 is subject to a Restriction on the Use of Land in effect upon restriction on the title until unauthorised fill, potential contamination and flooding issues have been determined and resolved. It is acknowledged that Lot 2320 is not burdened however, Council is not in the position to support the application in its current form until confident that the land is suitable for the proposed use or remediation until the flooding concerns and contamination issues have been resolved for the final development.

E. Environmental Management

Council Environmental Management Branch have reviewed the proponent's response to site contamination and noise impact, and note that the information was not satisfactorily addressed as detailed below.

Site Contamination

Historical images of the approximate 3ha subject site show significant filling on site between 1995 and 1999 (see figures 2 & 3) thus considered an Area of Environmental Concern (AEC).



Figure 2 – 1995 Historical Image Council's Enlighten System showing creek system



Figure 3 – 1999 Historical Image Council's Enlighten system showing filling of creek system

The AEC requires at least 40 sample point for a 3ha site in accordance with Contaminated Sites- Sampling Design Guideline NSW EPA (1995), however the current Detailed Site Investigation (DSI) prepared by Martens Consulting Engineers, dated July 2018, ref P1705798JR01V03 shows only 24 sample points. The current DSI should be conducted in a systematic targeted approach as the previous DSI by SESL in 2015.

The current DSI both identify the Asbestos Containing Material in a specific area and should have utilised additional sampling points in its sampling regime to target this AEC for site characterisation; an updated Remediation Action Plan taken into account of the results in the DSI. In saying that, Council is unable to conduct an assessed until a detailed site investigation with required sampling has been conducted for a valid site characterisation for review.

Noise Impact

The updated Noise Assessment prepared by SLR Consulting Australia Pty Ltd, dated 24 April 2019, ref 610.171101-R01-V4.0 does not adequately address the noise impact for the overall development in accordance with the relevant Australian Standards and regulation guidelines. The Noise Assessment must include noise impact to all sensitive receivers, and the accumulative effect of differing noise producing scenarios that include but not limited to:

- Patrons, public and private vehicles at drop offs,
- People entering and exiting vehicles the carpark and surrounding areas,
- Traffic generation onto surrounding roads including private and public transport,
- Events that may potentially occur associated with adjoining Saints Peter and Paul Park Church
- Noise from the school bell, PA system, school children in outdoor play areas, mechanical plant associated with the site, waste collection and maintenance activities,
- Noise from after-house extra-curricular activities i.e arts and music, school meetings, sporting events,
- Construction noise, etc.

F. Community Health

Council requested that the proponent engage an independent wastewater treatment consultant to conduct a peer review of the Wastewater Assessment submitted as part of the original SSD, prepared by Martens Consulting Engineers dated September 2018, Ref: P1705798JR05V03.

The proponent response has no objection to conduct a peer review of the wastewater treatment and management system of the proposed development however, no documentation is provided for Council comment on the matter thus insufficient.

Conclusion

Based on the information received from the proponent's response to submissions, the proponent has not adequately addressed Council's previous concerns to the proposal. The proposed scale of the development is considered to exceed the capacity of the site and result in unacceptable impacts on the amenity of the adjoining properties and surrounding road network. In this regard, Council does not support the proposed development in its current form.



**ANNEXURE B: PROPOSED INTERSECTION TREATMENT
(2 SHEETS)**



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CLIENT / Project:
 Saint Peter & Assyrian Primary School

Project Address:
 Kosovich Place, Cecil Park

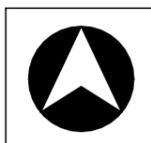
Project No: 2018/106

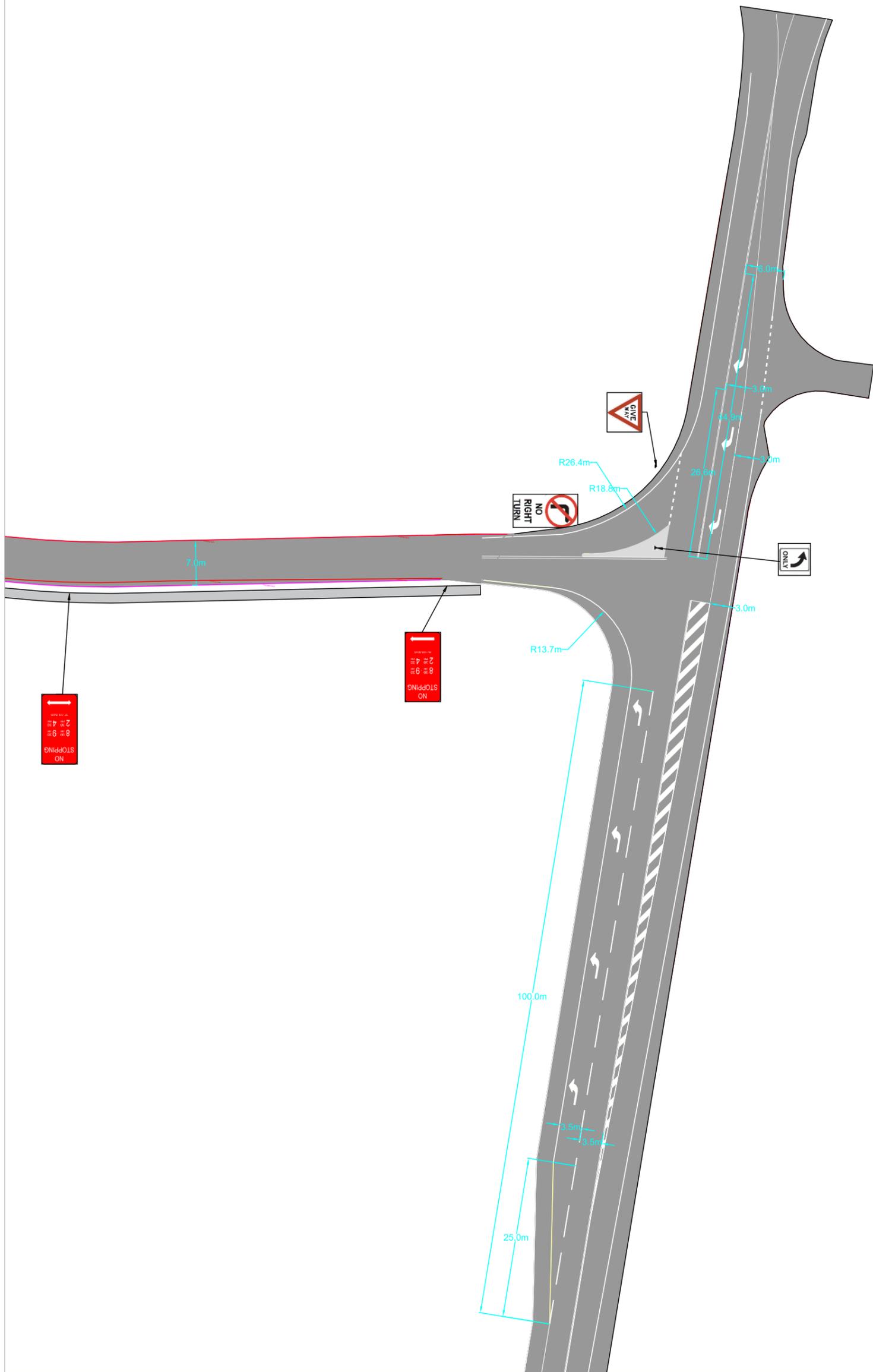
Dwg Name: Kosovich Place/Wallgrove Road Intersection Concept
Dwg No: 2018-106-04B

Revision	Date	Details
A	12/07/2018	
B	20/07/2018	Storage length and road width shown
C	05/02/2020	Left Turn Decel Added

Notes:
 CONCEPT PLAN ONLY.
 NOT FOR CONSTRUCTION.

Tested Using:
 * ZWCAD 2019
 * Autoturn 10.2





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CLIENT / Project:
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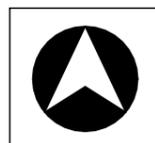
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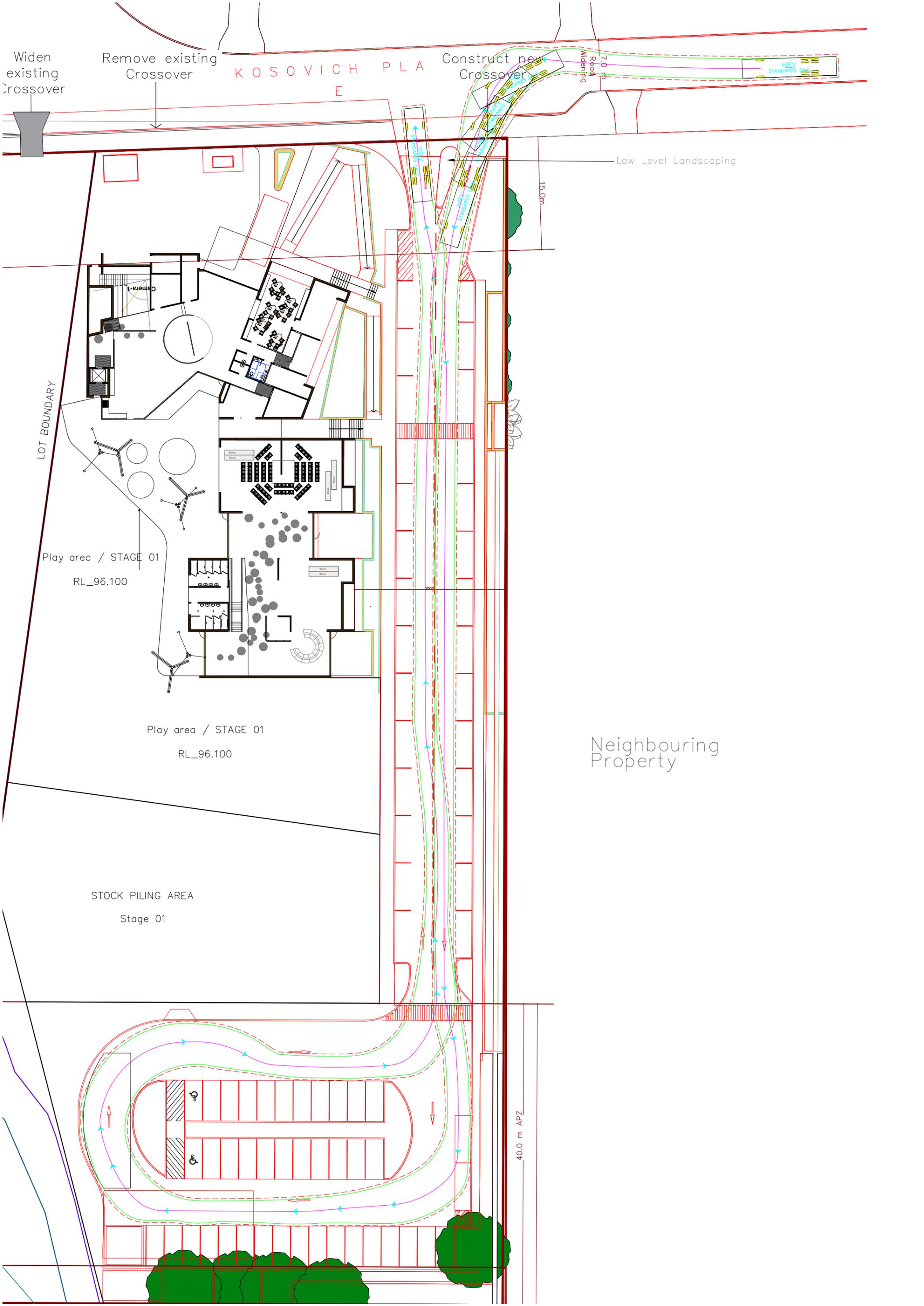
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**ANNEXURE C: SWEEP PATH TESTING
(1 SHEET)**



Widen existing Crossover
Remove existing Crossover

KOSOVICH PLA

Construct new Crossover

Road Widening

7.0 m

HRV STANDARDS (AW)

Low Level Landscaping

LOT BOUNDARY

Play area / STAGE 01
RL_96.100

Play area / STAGE 01
RL_96.100

STOCK PILING AREA
Stage 01

Neighbouring Property

40.0 m APZ