

Department of Planning and Environment
Social and Other Infrastructure Assessments
GPO Box 39
SYDNEY NSW 2001

By email: Aditi.Coomar@planning.nsw.gov.au

Attention: Aditi Coomar

Re: SSD 8865 – St Anthony of Padua Catholic School (Concept DA and Stage 1)

Liverpool City Council has reviewed the Environmental Impact Statement (EIS) and associated documentation for SSD 8865, and provides the following comments and recommended conditions of consent:

1. Acoustic Assessment

The Acoustic SSD DA Report (SSD 8865) St Anthony of Padua Catholic School Austral (Project No. 180123, Revision C) (referred to as 'Appendix S' hereon) prepared by JHA Consulting Engineers dated 01 November 2018 has been reviewed.

Council has concerns regarding the appropriateness of the assessment and information that has been provided.

Nearest Affected Receivers

Figure 2: Site layout of the proposed development and distances and Table 1: Nearest sensitive receivers surrounding the site location plus distances on page 7 of the report considers residents being affected from a number of noise sources, however not all noise sources. For example, noise sources such as the proposed Indoor Recreational Centre has been assessed, however the associated carpark that is likely to be utilised during the evening and possibly the night time periods (as defined in the NSW Noise Policy for Industry (NPfI), EPA, 2017) has not been assessed.

In addition, the nearest residential receivers identified appear to have been based on existing dwelling locations. No reference to the residential receivers to the east of the site has been considered. The adjacent zoning to the east is R3 – Medium Density Residential and two-storey townhouses/villas and the like should be considered in the acoustic assessment as being impacted by the development.

The site is surrounded by car parking that has not been adequately determined as possible noise sources that could contribute to noise pollution that will affect the residential receivers that surround the site.

Road Traffic Noise

Section 5 Noise impact and assessment and recommendations of Appendix S discusses the impacts of road traffic noise exposure to the residential receivers adjacent Edmondson Avenue and Fourth Avenue. Reference is made to a traffic impact report prepared by Colston Budd

Rogers & Kafes Pty Ltd that provided an analysis of the additional traffic for the proposed development for the year 2036 and also refers to the NSW Road Noise Policy (RNP) that states an increase of 2dB in relation to existing noise levels is anticipated to be significant with respect to traffic noise.

Table 14: Predicted noise level increase due to traffic movements from the proposed development predicts the development to be a 2dB increase on Fourth Avenue. However, the consultant notes the increase is less than the maximum allowable increase. Council considers 2dB as significant, and further consideration should have been made by the consultant. In addition, Tenth Avenue and Eleventh Avenue also provide major access points for car parking and these roads have not been considered in the assessment.

Outdoor Playgrounds

Section 5.4 Outdoor Playgrounds assesses the use of the playgrounds for recess, lunch and sport activities. The calculations for the predicted noise levels are based on:

- Students talking at 'normal' speech volume;
- For every two students only one will be speaking at any given time with a 'normal' voice; and
- A maximum number of 100 students will be at the same time on a playground.

Thus the calculations are based on 50 students talking 'normal' at 1m to be 72 dB(A), and if the nearest receiver is 34m away the noise level complies.

Council deems this scenario to be based on a best case scenario, not a worst case scenario, as indicated. It is considered inappropriate to assess outdoor activity noise levels for a school that is designed to accommodate 2480 students by using 50 students talking at 'normal' speech volume. As such, Council believes *Table 15's* criteria is only met because the assessment is insufficient.

Page 23 of the same report deems 1 child talking with a raised voice to produce an overall dB(A) of 74. It is difficult to understand how 50 children produce 72 dB(A) and 1 child with a raised voice produces 74 dB(A).

Child Care Centre

Association of Australasian Acoustic Consultants (AAAC) 'Guideline for Child Care Centre Acoustic Assessment' produced October 2013 is referenced as one of the relevant standards considers for the assessment of the Child Care Centre. However, *Section 5.7 Child care Centre* does not consider the document when discussing sound power levels the children will produce when in the playground. The consultant has not addressed play up to 2 hours (total) per day and play after 2 hours per day as specified in the guideline. Furthermore, the sound power levels provided for 10 children playing has not been implemented into this report's assessment. *Table 1 - effective Sound Power Levels for groups of 10 children playing* is based on age groups. 10 children aged 0-2 are predicted to produce between 77 to 80 dB(A) whereas 10 children aged 3 to 6 are predicted to produce 84 to 90 dB(A). The assessment with regards to the child care centre is inadequate.

It is also unclear if pre-school caters for children 0-6 years of age or 3-5 years of age only. This is relevant when assessing noise from the Child Care Centre.

Summary



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Council cannot support the proposal in its current state given the inadequacies of the acoustic report. Noise such as the use of the outdoor playgrounds and traffic cannot be easily attenuated. Solutions for such noise generating activities need to be considered during the design phase of a development.

Recommendations

Council recommends the following be implemented prior to issue of a construction certificate:

- A suitably qualified acoustic consultant review *Acoustic SSD DA Report (SSD 8865) St Anthony of Padua Catholic School Austral* (Project No. 180123, Revision C) prepared by JHA Consulting Engineers dated 01 November 2018 and provide commentary on the report's adequacy, with any recommendations to be actioned;
- Preparation of a Construction Noise and Vibration Management Plan that includes consideration for students and teachers that may be affected;
- Detailed assessment of proposed mechanical plants selected and recommendations for attenuation (if applicable); and
- Detailed assessment of Public Address, School Bell System and Tower Bell with recommendations for attenuation (if applicable).

Note: 'Suitably qualified acoustic consultant' means a consultant who possesses the qualifications to render them eligible for membership of the Australian Acoustical Society, Institution of Engineers Australia or the Association of Australasian Acoustical Consultants (AAAC) at the grade of member'.

Council recommends the following be implemented prior to the issue of an occupation certificate:

- Recommendations of revised Acoustic Report – A Compliance Certificate or other documentation deemed suitable demonstrating compliance with the following is to be submitted to the Principal Certifying Authority:
 - i. The buildings and surrounding structures have been constructed to meet the relevant noise criteria in accordance with the approved acoustic report; and
 - ii. All recommendations within the approved acoustic report have been adopted.
- Noise Management Plan – Separate Noise Management Plans and complaints' handling procedures shall be prepared for the Child Care Centre and the School in consultation with a suitably qualified and experienced acoustic consultant. The Noise Management Plan shall identify and implement strategies to minimise noise from the premises. The plan shall incorporate: methods for promoting noise awareness by staff; a complaint lodgement procedure to ensure that members of the public are able to report noise issues; and a plan for responding to noise complaints.

Council recommends the following conditions relating to use:



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- Unreasonable Noise and Vibration – The industry, including but not limited to the operation of vehicles, mechanical plant and equipment shall be conducted so as to avoid unreasonable noise or vibration and cause no interference to adjoining or nearby occupations. Special precautions must be taken to avoid nuisance in neighbouring areas, particularly from machinery, vehicles, warning sirens, public address systems and the like. In the event of a noise or vibration problem arising at the time, the person in charge of the premises shall when instructed by Council, cause to be carried out, an acoustic investigation by an appropriate acoustical consultant and submit the results to Council. If required by Council, the person in charge of the premises shall implement any or all of the recommendations of the consultant and any additional requirements to Liverpool City Council's satisfaction.
- Silent Alarm System – Any alarm installed on the site is to be "silent back to base" type.
- Noise – The use of the premises including music and other activities shall not give rise to any one or more of the following:
 - i. Transmission of vibration to any place of different occupancy greater than specified in AS 2670;
 - ii. An indoor sound pressure level in any place of different occupancy (and/ or public place) greater than 3dB(A) above the L90 background level or greater than 5db(A) at the boundary of any affected property in any octave band from 31.5Hz to 8,000 Hz centre frequencies inclusive between the hours of 7.00am to midnight daily and 0dB(A) above the L90 background between 12 midnight and 7.00 a.m. the following morning. However, when the L90 background levels in frequencies below 63 Hz are equal to or below the threshold of hearing, as specified by the equal loudness contours for octave bands of noise, this subclause does not apply to any such frequencies;
 - iii. During the period of 12 midnight to 7.00a.m. the use shall be inaudible in any habitable room of any residential premises; and
 - iv. The emission of an "offensive noise" as defined under the POEO Act.

The method of measurement of vibration in (i) and sound levels in (ii), (iii) and (iv) shall be carried out in accordance with AS 2973 for vibration measurements, AS 1055 for outdoor sound level measurements, and AS 2107 for indoor sound level measurements.

- Mechanical Plant – Noise associated with the use of the premises, including mechanical plant and equipment, shall not give rise to any one or more of the following:
 - i. Transmission of vibration to any place of different occupancy greater than specified in AS 2670;
 - ii. An indoor sound pressure level in any place of different occupancy (and/ or public place) greater than 3dB(A) above the L90 background level or greater than 5db(A) at the boundary of any affected property in any octave band from 31.5Hz to 8,000 Hz centre frequencies inclusive between the hours of 7.00a.m to 10.00p.m daily and 0dB(A) above the L90 background between 10.00pm and 7.00 a.m. the following morning. However, when the L90 background levels in frequencies below 63 Hz are equal to or below the threshold of hearing, as specified by the equal loudness contours for octave bands of noise, this subclause does not apply to any such frequencies; and

- iii. The emission of an "offensive noise" as defined under the POEO Act.

The method of measurement of vibration in (i) and sound levels in (ii) and (iii) shall be carried out in accordance with AS 2973 for vibration measurements, AS 1055 for outdoor sound level measurements, and AS 2107 for indoor sound level measurements.

2. Contamination

The following reports have been reviewed by Council's Environmental Health and City Environment teams:

- *Report to Catholic Education Office Sydney on Stage 1 Environmental Site Assessment (The Assessment) for Proposed School – Due Diligence at 135, 135A, 145, 155, 165 Tenth and 140, 160, 170 Eleventh Avenue, Austral NSW (Ref: E27556KrptRev30 prepared by Environmental Investigation Services dated 21 April 2016;*
- *Hazardous Materials Management Survey Hazmat Surveys – Austral (Job No. JN00090) prepared by EHO Consulting Pty Ltd dated 6 April 2018;*
- *Supplementary Asbestos Contamination Assessment Lot 1 and 2 in DP 1232692, Lot 810, portion of Lot 811, Lot 840, Lot 841 and Lot 842 in (Report No. 6930-ER-1-1) prepared by Alliance Geotechnical Pty Ltd dated 18 July 2018; and*
- *Remedial Action Plan (RAP) for Lot 1 and 2 in DP1232692, Portion of Lot 811, Lot 839, Lot 840, Lot 841, and Lot 842 in DP 2475 (Report No. 6930-ER-1-3) prepared by Alliance Geotechnical Pty Ltd dated 18 July 2018.*

Stage 1 – Preliminary Investigation

The Stage 1 Environmental Site Assessment complies with a number of the requirements required for a Stage 2 detailed investigation as specified in the *Guidelines for Consultants Reporting on Contaminated Sites* produced by the Office of Environment and Heritage, August 2011. However, the assessment in Section 10.5 *Data Gaps* specifies that *due to the preliminary nature of the investigation the following data gaps remain:*

- *Inaccessible areas (Beneath the building in the south-east section of the site) have not been investigated; and*
- *The extent of asbestos contamination across the site has not been fully characterised at this stage.*

Taking into consideration the *Managing Land Contamination: Planning Guidelines (The Guideline)* produced by Department of Urban Affairs and Planning and the Environment Protection Authority dated 1998, a Stage 2 – detailed investigation is required to be conducted as part of a remediation proposal with the objective being to define the nature, extent and degree of contamination; and to obtain sufficient information to develop a remedial action plan.

The Guideline also stipulates that the objective of a Stage 3 – remedial action plan is to set objectives and document the process to remediate the site.

The Stage 2 – detailed investigation and the Stage 3 – remedial action plan are independent of one another and given an adequate stage 2 – detailed investigation has not been provided, the Remedial Action Plan submitted cannot be sufficient and will require amendment.

A Stage 2 – detailed investigation will be required to identify the actual extent and degree of contamination so that volumes of waste likely to be remediated can be identified and the RAP be prepared in compliance with the relevant guidelines.

In addition, the assessment notes in section 13 *Conclusions* that an Asbestos Management Plan (AMP) be prepared for the site and the proposed construction works. This plan has not been submitted and should be required. The recommended conditions provided below require an Asbestos Removal Control Plan in accordance with the *Code of Practice How to Safely Remove Asbestos* produced by SafeWork NSW dated September 2016.

Remedial Action Plan (RAP)

6.4 *Preferred Remediation Option* states that *the client's preferred remedial option for the site is excavation and offsite disposal (with consideration given to further assessment works to refine the extent of remedial works).*

Please note that Liverpool City Council has maintained that offsite disposal is the most acceptable form of remediation and that onsite containment is not permissible. Given the client's preference is for removal of contaminants offsite, Council will provide within the recommended conditions that no onsite containment be permitted.

Section 6.5.5 *Remediation Works* states that within the Areas of Concern (AEC) that contain asbestos impacted soils that are classed as bonded, consideration will be given to onsite treatment. Specific details on what onsite treatment will be undertaken is required. Whether that be hand picking or raking should be specified.

Section 6.5.4 *Demolition* notes a hazardous building materials survey is to be undertaken of the structures on site and that if hazardous materials are found a clearance certificate be obtained from a suitably experienced occupational hygienist, prior to the demolition works of the structures commencing. However the *Hazardous Materials Management Survey Hazmat Surveys – Austral* (Job No. JN00090) prepared by EHO Consulting Pty Ltd dated 6 April 2018 does not require the services of an occupational hygienist despite findings of hazardous materials.

In addition, despite the findings of friable and bonded asbestos, the RAP does not include the need for an Occupational Hygienist to be present during the remediation of such hazardous materials, nor does the RAP stipulate any air monitoring to occur while the remediation is occurring. Air monitoring is mandatory for all friable asbestos.

Compliance with the *Code of Practice How to Safely Remove Asbestos* produced by SafeWork NSW dated September 2016 is required to be demonstrated in the RAP or an adequate Asbestos Removal Control Plan in accordance with the *Code of Practice How to Safely Remove Asbestos* should be provided.

Discrepancies between EIS and RAP

The Environmental Impact Statement (SSD 8865) (EIS) (Job Code SA7200), prepared by Urbis date signed 2 November 2018 states *once remediated, a site validation report will be prepared by a certified NSW Site Auditor*. This requirement or recommendation has not been reflected in the stage 1 assessment provided, nor the RAP.

Given the scale of the development and the data gaps that are still present, it would be prudent to appoint a site auditor. The site auditor will assist the planning authority by verifying whether

the information adheres to relevant standards, procedures and guidelines. As specified in the *Managing Land Contamination: Planning Guidelines (The Guideline)* produced by Department of Urban Affairs and Planning and the Environment Protection Authority dated 1998, *engaging a site auditor can also provide greater certainty about the information the planning authority is basing its decision, particularly where sensitive uses are proposed on land that may be contaminated and a statement about suitability of the site is required.*

Recommendations

Council recommends the following be implemented prior to issue of a construction certificate:

- Construction Environmental Management Plan – Prior to issue of a construction certificate, a Construction Environmental Management Plan (CEMP) for the development must be provided to the Principal Certifying Authority for approval. The environmental site management measures must remain in place and be maintained throughout the period of the development. The CEMP must address all environmental aspects of the development's construction phases, and include, where relevant, but not be limited to, the following:
 1. Asbestos Management Plan;
 2. Project Contact Information;
 3. Site Security Details;
 4. Timing and Sequencing Information;
 5. Site Soil and Water Management Plan;
 6. Noise and Vibration Control Plan;
 7. Dust Control Plan;
 8. Air Monitoring;
 9. Odour Control Plan;
 10. Health and Safety Plan;
 11. Waste Management Plan;
 12. Incident management Contingency; and
 13. Unexpected Finds Protocol.

The CEMP must be kept on site for the duration of the works and must be made available to Council Officers upon request.

- Asbestos Removal Control Plan – An adequate Asbestos Removal Plan is to be prepared and adhered to throughout the remediation works. The Asbestos Removal Control Plan is to be prepared in accordance with the *Code of Practice How to Safely Remove Asbestos* produced by SafeWork NSW dated September 2016.
- Stage 2 – Detailed Investigation – A Stage 2 – Detailed Site Investigation is required. The relevant assessment is to be undertaken by a suitably qualified and experienced contaminated land consultant to address the data gaps presented in the *Report to Catholic Education Office Sydney on Stage 1 Environmental Site Assessment (The Assessment) for Proposed School – Due Diligence at 135, 135A, 145, 155, 165 Tenth and 140, 160, 170 Eleventh Avenue, Austral NSW (Ref: E27556KrptRev30 prepared by Environmental Investigation Services dated 21 April 2016.* The Stage 2 – Detailed Investigation is to be undertaken in compliance with NEPM 1999 and the report is to be prepared in accordance with *Guidelines for Consultants Reporting on Contaminated Sites* produced by the Office of Environment and Heritage August 2011. As a result of the findings associated with the detailed assessment the *Remedial Action Plan (RAP)* for

Lot 1 and 2 in DP1232692, Portion of Lot 811, Lot 839, Lot 840, Lot 841, and Lot 842 in DP 2475 (Report No. 6930-ER-1-3) prepared by Alliance Geotechnical Pty Ltd dated 18 July 2018 is to be amended/ revised accordingly.

- Site Contamination – Site Auditor Required – The Stage 1 – Preliminary investigation, Remedial Action Plan and any subsequent contamination assessments submitted with the application that have been prepared by the suitably qualified contamination consultant must be reviewed by a site auditor accredited by the NSW EPA pursuant to Part 4 Site Audits of the *Contaminated Land Management Act, 1997*.

Council recommends the following be implemented during construction:

- Demolition of Septic Tanks and Effluent Disposal Areas – Any existing subsurface effluent disposal area is to be demolished and back filled with Virgin Excavated Natural Material (VENM). Any septic tank, collection well or aerated wastewater treatment system is to be removed or reused in accordance with NSW Health Advisory Note 3 – Destruction, Removal or Reuse of Septic Tanks, Collection Wells and Aerated Wastewater Treatment Systems and other Sewage Management Facilities.
- Importation of Fill – Filling material must be limited to the following:
 1. Virgin excavated natural material (VENM)
 2. Excavated natural material (ENM) certified as such in accordance with Protection of the Environment Operations (Waste) Regulation 2014; and/or
 3. Material subject to a Waste Exemption under Clause 91 and 92 Protection of the Environment Operations (Waste) Regulation 2014 and recognised by the NSW Environment Protection Authority as being “fit for purpose” with respect to the development subject of this application.

Certificates proving that the material imported is ENM or VENM must be provided to the Principal Certifying Authority prior to filling. Certificates are to be provided to Council officers if and when requested.

Fill imported on to the site must be compatible with the existing soil characteristic for site drainage purposes.

- Record Keeping of Imported Fill – Records of the following accepted waste derived fill material must be submitted to the Principal Certifying Authority at the completion of earth works:
 1. The course (including the address and owner of the source site), nature and quantity of all incoming loads including the date, the name of the carrier, and the vehicle registration;
 2. Documentation confirming the results of the waste classification assessment carried out on the fill material used in the development; and
 3. The results of any chemical testing undertaken on fill material.
- Air Quality – Dust screens shall be erected and maintained in good repair around the perimeter of the subject land during land clearing, demolition, and construction works.

Where operations involve excavation, filling or grading of land, or removal of vegetation, including ground cover, dust is to be suppressed by regular watering until such time as the soil is stabilised to prevent airborne dust transport. Where wind velocity exceeds five knots the Principal Certifying Authority may direct that such work is not to proceed.

All vehicles involved in the delivery, demolition or construction process departing from the property shall have their loads fully covered before entering the public roadway.

- Site Operations – Building operations such as brick cutting, mixing mortar and the washing of tools, paint brushes, form-work, concrete trucks and the like shall not be performed on the public footway or any other locations which may lead to water pollution.
- Truck Movements – The loading and unloading of all vehicles associated with the development must be undertaken within the property boundary of the premises subject to this consent.

Measures must be implemented to prevent tracking of sediment by vehicles onto roads.

Vehicle loads must be covered when entering and exiting the site with material.

- Contamination – The development, including all civil works and demolition must comply with the requirements of the Contaminated Land Management Act 1997, State Environmental Planning Policy No. 55 – Remediation of Land and Managing Land Contamination – Planning Guidelines (Planning NSW/EPA 1998).
- Site Remediation Works – The site must be remediated in accordance with:
 1. Remedial Action Plan (RAP) for Lot 1 and 2 in DP1232692, Portion of Lot 811, Lot 839, Lot 840, Lot 841, and Lot 842 in DP 2475 (Report No. 6930-ER-1-3) prepared by Alliance Geotechnical Pty Ltd dated 18 July 2018 and any subsequent approved Remedial Action Plans;
 2. State Environmental planning Policy No. 55 – Remediation of Land;
 3. National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM, 1999 as amended 2013); and
 4. The guidelines in force under the Contaminated Land Management Act 1997.

The applicant must engage an appropriately qualified and experienced environmental consultant to supervise all aspects of site remediation and validation works in accordance with the approved Remedial Action Plan.

Council recommends the following be implemented prior to the issue of an Occupation Certificate:

- Regulated Systems – Regulated systems installed, such as air-handling systems, heated water systems and cooling water systems, must comply with the Public Health Act and Public Health (Microbial Control) Regulation thereunder, including AS3666.1:2011 & AS1668.

The PCA is to ensure a Liverpool City Council approved registration form is completed and submitted to the Council with any relevant fee for the system.



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- Validation report – Prior to issue of the occupation certificate a detailed Validation report must be submitted to Council and the Principal Certifying Authority. The Report must be prepared in accordance with:
 - NSW Contaminated Land Planning Guidelines (1998);
 - Relevant EPA guidelines, noting in particular the NSW OEH (2011) Guidelines for Consultants Reporting on Contaminated Sites; and
 - National Environmental Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).

The Validation Report must be prepared by an appropriately qualified and certified environmental consultant. The front cover of the report must include details of the consultant's certification.

The Validation report must verify that the land is suitable for the purposed use(s), and that the remediation and validation of the site has been undertaken in accordance with the *Remedial Action Plan for Lot 1 and 2 in DP1232692, Portion of Lot 811, Lot 839, Lot 840, Lot 841, and Lot 842 in DP 2475 (Report No. 6930-ER-1-3) prepared by Alliance Geotechnical Pty Ltd dated 18 July 2018* or any subsequent approved Remedial Action Plans.

The appointed Site Auditor is to review the validation report and provide the relevant Site Audit Statement.

3. Traffic

Council's Transport and Traffic team has reviewed the EIS along with the Transport and Accessibility Impact Assessment Report prepared by Colston Budd Rogers & Kafes Pty Ltd. Traffic impact assessment of the proposal has been carried out in accordance with the Roads and Maritime Services (RMS) Guide to Traffic Generating Developments, with reference to Council's DCP and AS 2890.

The critical traffic issues assessed includes:

- Adequacy of the off-street parking provision;
- Suitability of vehicular access arrangements;
- Internal circulation and servicing arrangements; and
- Traffic impact of the proposed development including review of existing traffic conditions adjacent to the proposed development site.

Traffic Generation and Impact

The accompanying DA traffic report outlines that proposed school is expected to generate approximately 1,500 vehicles per hour (two-way). This volume is higher than the traffic generation potential identified during the precinct planning stage.

The traffic generation potential is generally consistent with the traffic generation rates specified in an RMS Assessment Analysis of Traffic Generation Rates of Schools.

The DA traffic report does not provide details of vehicular trip generation rates used for estimation of the traffic generation, traffic distribution and assignment assumption. Details of traffic generation, distribution and assignment on the road network close to the development site are to be provided to Council to assist in the determination of access arrangements and the proposed signalised intersection layouts.

Traffic Impact on the Surrounding Road Network

It is noted that the development site has frontages to the three adjacent streets, i.e. Eleventh Avenue, Fourth Avenue and Tenth Avenue. The expected increase in the traffic flows will require sections of the three roads to be widened to four lanes (to accommodate single traffic lanes in each direction, with kerb side parking bays).

While Council supports the proposed road widening of the three roads, details and extent of the road widening are required to enable a detailed assessment of the proposed road works.

Traffic Impact on adjacent intersections and proposed treatments

Four new traffic signals are proposed at the following locations:

- Edmondson Avenue/Eleventh Avenue intersection
- Edmondson Avenue/Tenth Avenue intersection
- Fourth Avenue/Eleventh Avenue intersection
- Fourth Avenue/Tenth Avenue intersection

Intersection performance analysis is to be carried out for the above signalised intersection to determine the required intersection geometric layouts. An electronic copy of SIDRA models is to be submitted to Council for review.

Traffic modelling is also required to determine appropriate intersection treatments at the proposed access(s) off Eleventh Avenue, Fourth Avenue and Tenth Avenue.

Access arrangement

The proposed vehicular access(s) are off the three roads fronting the development site, i.e. Eleventh Avenue, Fourth Avenue and Tenth Avenue.

Both Fourth Avenue and Tenth Avenue are collector roads, while Eleventh Avenue is a local road. It is expected that these roads will carry high traffic volumes when the precinct is fully developed.

Council raises the following concerns about the proposed access(s):

- No intersection treatments are proposed at the entry and exit driveways.
- Both Fourth Avenue and Tenth Avenue are collector roads, which are expected to carry high traffic volume once the precinct is fully developed. The proposed access(s) off these roads should be restricted to left in/left out only with a raised central island.
- Three proposed access(s) off Eleventh Avenue are located in a close proximity to each other. Concern is raised to the potential vehicular conflicts enter into and exit the driveways.

DCP road layouts

It is noted that the proponent has proposed to modify the DCP road layouts with the removal of a number of local roads. Justification for the proposed road changes, demonstrating that the revised road network would be consistent with the adjacent DCP road network are to be provided.

Consultation is required to adjacent land owners for the proposed changes to the DCP road network.

Car parking Provision and Design

The DA includes:

- 317 car parking spaces and 143 set-down/pick-up spaces
- 13 bus bays

The development is required to provide a total of 273 parking spaces in accordance with Liverpool Growth Centre Precincts Development Control Plan.

A total of 317 car parking spaces and 143 set-down/pick-up spaces are provided on the site. The car parking provision meets the DCP requirements. However, the car parking provision for the pick and set down requires significant on street parking, queuing stage and efficient management to reduce traffic congestion.

This requires a detailed Operational Traffic and Parking Management Plan, as outlined below.

In addition, it is unclear how traffic flow circulation will be directed within the proposed car parks. In this regard, a detailed parking signage and line marking plan is to be submitted to Council which illustrates directional signs, vehicular circulation pavement marking, entry/exit access(s) and intersection treatments on the surrounding roads.

Operational Traffic and Parking Management Plan

Prior to the occupation of agreed student populations, to ensure appropriate traffic and parking management, an operational traffic management plan is to be prepared by a qualified partitioner and submitted to Council for endorsement and implemented to Council's satisfaction.

The Traffic Management Plan is to be modified to include:

1. The management of school buses.
2. The management of school pick-up and drop-off zones within the school which may include pedestrian supervision during the peak periods.
3. Capacity of each identified zone.
4. Traffic and pedestrian movements to/from the drop-off and pick-up zones to minimise pedestrian and vehicular conflicts.
5. Safe and efficient off-street car park management.
6. Traffic and parking signage and control plan for the street frontage of the development site.
7. Parent education process to minimise traffic conflicts within and along the school frontages.

A detailed Operational Traffic Management Plan (OTMP), including staggered hours, car parking control and management is to be submitted for approval with regular reviews and updates by a committee or school council, and notification to Council as required. The OTMP is to be designed for different stages of the development.

Staged Implementation of Required Traffic Management Works

A schedule traffic management works, forecast student enrolments and time line for delivery of required works, is to be prepared and submitted to Council for review and included in the Concept Consent as Commitments for staged implementation of required traffic management works

Referral to the RMS

Due to the scale and nature of the application, referral to the RMS and TfNSW are required. In addition, the proposed traffic signals at the following intersections require RMS approval under the Section 87 of Roads Act 1993.

- Edmondson Avenue/Eleventh Avenue intersection
- Edmondson Avenue/Tenth Avenue intersection
- Fourth Avenue/Eleventh Avenue intersection
- Fourth Avenue/Tenth Avenue intersection

The applicant is to prepare and submit warrant assessment reports in accordance with RMS traffic signal warrant assessment template as shown in Appendix A.

Roads upgrading

It is noted that the developer proposes to upgrade the following surrounding roads to four-lane roads along the frontage of the development.

- Eleventh Avenue
- Tenth Avenue
- Fourth Avenue

Strategic concept designs of the proposed road upgrades including intersection treatments, Category 'P4' street lighting (including underground cabling and the use of LED lights), footpath paving, landscaping are to be submitted to Council for review and approval.

The design are to take the following requirement into consideration:

- As Fourth Avenue is an existing bus route, the minimum width of kerbside lanes is to be 3.5m including gutter.
- The widening of Eleventh Avenue and Tenth Avenue shall be between Edmondson Avenue and Fourth Avenue.
- Council is currently preparing a strategic concept design for Edmondson Avenue upgrade between Bringelly Road and Fifteenth Avenue. A meeting is to be held with Council to agree on the scope and funding arrangement for the proposed intersection treatment at Edmondson Avenue/Eleventh Avenue and Edmondson Avenue/Tenth

Avenue.

Council notes that road widening may necessitate land acquisition from private properties to facilitate four-lane roads between Fourth and Edmondson Avenue on both Tenth and Eleventh Avenue. Council has serious concerns regarding the likelihood of this being delivered by the proponent, and requests that the proponent meet with Council to discuss potential road layouts, and that this matter be resolved to the satisfaction of Council before development approval is granted.

Bus Zones and Service Bay

The transport report (Page 12) indicates that four bus bays are proposed on Tenth Avenue. The landscape master plan also shows that four bus bays are proposed on Fourth Avenue. It is noted that the proposed bays on Eleventh Avenue are in close proximity to the proposed signalised intersection of Fourth Avenue/Eleventh Avenue. The proposed geometric layout of the intersection is to be provided to Council for review.

Prior to the construction certificate, details of bus bays (i.e. bay dimension and bus zone signage) should be provided to Council for approval.

The swept path analysis of a bus entering into and exiting the bays is to be submitted to Council for review.

Bus Route

The proposed bus routes around the school are to be confirmed with TfNSW and bus operators. Details are to be submitted to Council for review.

Pedestrian and cycling facilities

Pedestrian/cycling crossing facilities are to be provided at or near the proposed pedestrian and cyclist entry and exit access(s).

Raised 'Wombat Crossing' facilities are to be installed across all internal and external crossing points where and when warranted.

Details of interim pedestrian and cycling crossing facilities are to be provided to Council if the warrants for the marked foot crossing(s) are not met.

Details of cycling routes and crossings on the surrounding roads including ramps to shared paths are to be provided to Council.

Proposed level of bicycle parking is lower than envisaged in Council's DCP, informed by the Liverpool Bike Plan 2018-2023, which indicates one bicycle parking spot for every 10 students and one spot for every 10 staff. This would mean 268 spaces, rather than the proposed 150. The proposal has stated there is room for more bicycle parking if required. Council recommends that cycling infrastructure be provided in accordance with the intent of the Bike Plan.

School zones

In accordance with RMS requirements, 40km/hr 'School Zones' are required along sections of the three roads fronting the development site, i.e. Eleventh Avenue, Tenth Avenue and Fourth Avenue.



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Prior to the occupation of agreed student populations, applications are to be submitted to the RMS for installation of an RMS approved school zone.

Workplace travel plan

A workplace travel plan is to be prepared in accordance with TfNSW Travel Plan toolkit and template. Details of documents and supporting resources can be found at the following site:

<https://www.mysydney.nsw.gov.au/travelchoices/tdm>

Summary

Council requests the following traffic-related additional information to be submitted to Council for review prior to the determination of the application:

- a. Details of traffic generation, distribution and assignment based on school catchment area are to be provided to Council to assist in the determination of extents and scope of the proposed road upgrades, intersection treatments at the development access points as well as the proposed signalised intersection layouts.
- b. Intersection treatments at proposed at the entry and exit driveways. Both Fourth Avenue and Tenth Avenue are collector roads, which are expected to carry high traffic volume once the precinct is fully developed. The proposed access(s) off these roads should be restricted to left in/left out only with a raised central island.

Three proposed access(s) off Eleventh Avenue are located in a close proximity to each other. Concern is raised to the potential vehicular conflicts enter into and exit the driveways

- c. A detailed parking signage and line marking plan is to be submitted to Council which illustrates directional signs, vehicular circulation pavement marking, entry/exit access(s) and intersection treatments on the surrounding roads.
- d. Details of all bus bays (i.e. bay dimension and bus zone signage) including swept path analysis of a bus entering into and exiting the bays is to be submitted to Council for review.

The proposed bays on Eleventh Avenue are in close proximity to the proposed signalised intersection of Fourth Avenue/Eleventh Avenue. The design is to ensure that the location does not affect traffic movements at the intersection.

- e. Staged Implementation of Required Traffic Management Works - A schedule traffic management works, forecast student enrolments and time line for delivery of required works, is to be prepared and submitted to Council for review and included in the Concept Consent as Commitments for stage implementation of required traffic management works.
- f. Details of cycling routes and crossings on the surrounding roads including ramps to shared paths.
- g. Strategic concept designs of the proposed road upgrades including the intersection treatments prepared in accordance with Austroads Design Guide and Council requirements. In particular, as Fourth Avenue is a bus route, the minimum width of kerbside lanes is to be 3.5 m including gutter.

- h. The DA includes the removal of a number of local roads, justification is to be provided demonstrating that the revised road network would be consistent with the adjacent DCP road network. Consultation is also required with adjacent land owners for the proposed changes to the DCP road network.

It is suggested a meeting be held between Council and the proponent to discuss the above matters as well as agree to the funding arrangement and provision of the required staged upgrading works.

4. Engineering matters

Council's engineering staff have reviewed the application and plans by the following:

Company	Job No./Drawing No.	Title	Revision /Issue	Date
Warren Smith & Partners		Civil Engineering Services	02	20 July 2018
Warren Smith & Partners	5914000 / C1.01	COVER SHEET	2	20 July 2018
Warren Smith & Partners	5914000 / C1.02	SPECIFICATION NOTES	2	19 July 2018
Warren Smith & Partners	5914000 / C2.01	SEDIMENT AND EROSION CONTROL PLAN	2	19 July 2018
Warren Smith & Partners	5914000 / C2.02	SEDIMENT AND EROSION CONTROL DETAILS	2	19 July 2018
Warren Smith & Partners	5914000 / C5.01	OFF SITEWORKS PLAN	2	19 July 2018
Warren Smith & Partners	5914000 / C5.02	ROAD TYPICAL SECTIONS	2	19 July 2018
Warren Smith & Partners	5914000 / C6.01	STORMWATER LAYOUT PLAN	2	19 July 2018
Warren Smith & Partners	5914000 / C6.02	STORMWATER PIT SCHEDULE SHEET 1	2	19 July 2018
Warren Smith & Partners	5914000 / C6.03	STORMWATER PIT SCHEDULE SHEET 2	2	19 July 2018
Warren Smith & Partners	5914000 / C6.04	OSD TANK 1 PLAN	2	19 July 2018
Warren Smith & Partners	5914000 / C6.05	OSD TANK 1 SECTIONS	2	19 July 2018
Warren Smith & Partners	5914000 / C6.06	STORMWATER DRAINAGE DETAILS	2	19 July 2018
Warren Smith & Partners	5914000 / C6.07	STORMWATER 360 TREATMENT DEVICE DETAILS	2	19 July 2018
Colton Budd Rogers & Kafes Pty Ltd		Transport and Accessibility Impact Assessment	2	October 2018

Council requests that all roadworks, drainage works and dedications required to effect the consented development shall be undertaken at no cost to Liverpool City Council.

It is noted that the Appendix G Civil Plans provided conflict with the Appendix Q Transport Plan. The proposed four-lane road section from the Transport Plan in Figures 5, 6 and 7 are to apply, and the Civil Works plans should be updated to reflect this.

Recommendations:

Council recommends the following be implemented prior to issue of a construction certificate:

- A final plan of subdivision shall show the dedication to Council of a road widening on Eleventh, Tenth and Fourth Avenue and 6m x 6m splay corners on Fourth and Tenth Avenues and Fourth and Eleventh Avenues.
- All retaining walls shall be of masonry construction and must be wholly within the property boundary, including footings and agricultural drainage lines. Construction of retaining walls or associated drainage works along common boundaries shall not compromise the structural integrity of any existing structures.

Where a retaining wall exceeds 600mm in height, the wall shall be designed by a practicing structural engineer and a construction certificate must be obtained prior to commencement of works on the retaining wall.

- Prior to the issue of a Construction Certificate for building or subdivision works the Certifying Authority shall ensure that a S138 Roads Act application, including the payment of application and inspection fees, has been lodged with Liverpool City Council (being the Roads Authority under the Roads Act), for the provision of half road construction including associated drainage in Eleventh Avenue, Fourth Avenue and Tenth Avenue. This shall also include but not limited to intersection treatment works as specified by Council's Traffic and Transport department.

Engineering plans are to be prepared in accordance with the development consent, Liverpool City Council's Design Guidelines and Construction Specification for Civil Works, Austroad Guidelines and best engineering practice.

Note: Where Liverpool City Council is the Certifying Authority for the development the Roads Act approval for the above works may be issued concurrently with the Construction Certificate.

- Prior to the issue of a Construction Certificate the Certifying Authority shall ensure that the proposed roads have been designed in accordance with Liverpool City Council's Design Guidelines and Construction Specification for Civil Works and the following criteria:

Road No.	Road Reserve Width	Carriageway Width	Verge	Footpath	ESA
Fourth Avenue	25.25m	6.75m (half road)	4.50m and variable	2.50m	2x10 ⁶
Fourth Avenue	25.25m	9.75m Bus Bay section	4.50m	2.50m	2x10 ⁶

Tenth Avenue	23m	7.0m (half road)	4.50m	2.50m	2x10 ⁶
Eleventh Avenue	24m	13.0m 16.0m (Bus Bay section)	3.50m (north) 4.50m (south – school side)	1.50m (north) 2.50m (south – school side)	2x10 ⁶

- A Stage 3 (detailed design) Road Safety Audit (RSA) shall be undertaken on the proposed roadworks by an accredited auditor who is independent of the design consultant. A copy of the RSA shall accompany the design plans submitted with the Construction Certificate or Roads Act application.
- A stormwater drainage system shall be provided generally in accordance with the concept plan/s lodged for development approval, prepared by Warren Smith & Partners, reference number 5914000, Drawing No.C6.01, Issue 2, Dated: 19.07.18.
 - a) The proposed development and stormwater drainage system shall be designed to ensure that stormwater runoff from upstream properties is conveyed through the site without adverse impact on the development or adjoining properties.
 - b) Engineering plans and supporting calculations for the stormwater drainage system are to be prepared by a suitably qualified engineer and shall accompany the application for a Construction Certificate. The plan shall indicate the method of disposal of all stormwater and must include rainwater tanks, existing ground levels, finish surface levels and sizes of all pipes.
 - c) Prior to the issue of a Construction Certificate the Certifying Authority shall ensure that the stormwater drainage system has been designed in accordance with Liverpool City Council's Design Guidelines and Construction Specification for Civil Works.
- Prior to the issue of a Construction Certificate the Certifying Authority shall ensure that details of a stormwater pre-treatment system have been provided on the stormwater plans and that the design meets pollutant retention criteria in accordance with Council's Development Control Plan.

The Construction Certificate must be supported by:

- Specification & installation details of the stormwater pre-treatment system
- The approval of an operation and maintenance manual/ schedule for the stormwater pre-treatment system

A copy of the approved operation and maintenance manual/schedule shall be submitted to Liverpool City Council with notification of the Construction Certificate issue.

- Prior to the issue of a Construction Certificate the Certifying Authority shall ensure that vehicular access, circulation, manoeuvring, pedestrian and parking areas associated with

the subject development are in accordance with AS 2890.1, AS2890.2, AS2890.6 and Liverpool City Council's Development Control Plan.

- Prior to the issue of any Construction Certificate a performance bond is to be lodged with Liverpool City Council for road construction and associated drainage works on Fourth, Tenth and Eleventh Avenues.

The value of the bond shall be determined in accordance with Liverpool City Council's Bond Policy. The bond will be administered in accordance with this policy.

Note: Contact Council's **Land Development Section** for further information relating to bond requirements.

- Prior to the issue of a Construction Certificate the Certifying Authority shall ensure that all bus stops have been designed in accordance with the requirements of the Disability Discrimination Act 2002 (DDA), Disability Standards for Accessible Public Transport (DSAPT) and the Guidelines for assessing compliance of bus stops with the Disability Standards for Accessible Public Transport 2002.
- Prior to the Commencement of Works a dilapidation report of all infrastructure fronting the development in Fourth Avenue, Tenth Avenue and Eleventh Avenue is to be submitted to Liverpool City Council. The report is to include, but not limited to, the road pavement, kerb and gutter, footpath, services and street trees and is to extend 50m either side of the development.

Council recommends the following be implemented prior to the commencement of works:

- Prior to commencement of works sediment and erosion control measures shall be installed in accordance with the approved Construction Certificate and to ensure compliance with the Protection of the Environment Operations Act 1997 and Landcom's publication "Managing Urban Stormwater – Soils and Construction (2004)" – also known as "The Blue Book".

The erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised.

- Prior to commencement of works a Traffic Control Plan including details for pedestrian management, shall be prepared in accordance with AS1742.3 "Traffic Control Devices for Works on Roads" and the Roads and Traffic Authority's publication "Traffic Control at Worksites" and certified by an appropriately accredited Roads and Traffic Authority Traffic Controller.

Traffic control measures shall be implemented during the construction phase of the development in accordance with the certified plan. A copy of the plan shall be available on site at all times.

Note: A copy of the Traffic Control Plan shall accompany the Notice of Commencement to Liverpool City Council.

Council recommends the following be implemented during construction:

- Erosion and sediment control measures shall remain in place and be maintained until all disturbed areas have been rehabilitated and stabilised.
- Street lighting is to be provided for all new and existing streets within the proposed subdivision to Liverpool City Council's standards.
- The developer shall submit a Public Lighting Design Brief to Council for approval for the provision of street lighting on all new public roads dedicated to Council. A street lighting design plan must be prepared by an accredited service provider for approval prior to construction. All street lighting must comply with the electricity service provider Street Lighting Policy and illumination requirements and Council's Street Lighting policy.

All cost associated with the installation of street lighting shall be borne by the developer.

- Prior to the connection of private drainage to Council's drainage system, an inspection is to be carried out by Liverpool City Council's Land Development Engineering Unit. A fee will be charged in accordance with Council's adopted Fees and Charges, and is to be paid prior to the inspection.
- All earthworks shall be undertaken in accordance with AS 3798 and Liverpool City Council's Design Guidelines and Construction Specification for Civil Works.

The level of testing shall be determined by the Geotechnical Testing Authority/
Superintendent in consultation with the Principal Certifying Authority.

Council recommends the following prior to the issue of an Occupation Certificate:

- Prior to the issue of an Occupation Certificate, the Principal Certifying Authority shall ensure that all works associated with a S138 Roads Act approval or S68 Local Government Act approval have been inspected and signed off by Liverpool City Council.
- Prior to the issue of an Occupation Certificate the following compliance documentation shall be submitted to the Principal Certifying Authority. A copy of the following documentation shall be provided to Council where Council is not the Principal Certifying Authority:
 - a) Work as Executed (WAE) drawings of all civil works. The WAE drawings shall be marked in red on copies of the stamped Construction Certificate drawings signed, certified and dated by a registered surveyor or the design engineer. The Work as Executed drawings shall be prepared in accordance with Council's Design Guidelines. Electronic copies of the WAE shall be provided in DWG format and PDF format to Council along with two hard copies of the WAE plans.
 - b) The WAE drawings shall clearly indicate the 1% Annual Exceedance Probability flood lines (local and mainstream flooding).
 - c) The WAE drawings shall be accompanied by plans indicating the depth of fill for the entire development site. The plans must show, by various shadings or cross hatchings, the depth of any fill within 0.3m depth ranges.

- d) CCTV footage in DVD format to Council's requirements and a report in "SEWRAT" format for all drainage within future public roads and public land. Inspections are to be carried out in accordance with the Conduit Inspection Reporting Code of Australia WSA 05-2006. Any damage that is identified is to be rectified in consultation with Liverpool City Council.
 - e) Surveyor's Certificate certifying that all pipes and services are located wholly within the property or within appropriate easements and that no services encroach boundaries.
 - f) Documentation for all road pavement materials used demonstrating compliance with Council Design Guidelines and Construction Specification.
 - g) A Geotechnical Report certifying that all earthworks and road formation have been completed in accordance with AS3798 and Council's Design Guidelines and Construction specifications. The report shall include:
 - Compaction reports for road pavement construction;
 - Compaction reports for bulk earthworks and lot regrading; and
 - Statement of Compliance.
 - h) Structural Engineer's construction certification of all structures.
- Prior to the issue of an Occupation Certificate the Principal Certifying Authority shall ensure that the:
 - a) On-site detention system/s
 - b) Stormwater pre-treatment system/s
 - Have been satisfactorily completed in accordance with the approved Construction Certificate and the requirements of this consent.
 - Have met the design intent with regard to any construction variations to the approved design.
 - Any remedial works required to been undertaken have been satisfactorily completed.

Details of the approved and constructed system/s shall be provided as part of the Works-As-Executed drawings.

- Prior to the issue of an Occupation Certificate a restriction as to user and positive covenant relating to the:
 - a) On-site detention system/s
 - b) Stormwater pre-treatment system/s

Shall be registered on the title of the property. The restriction as to user and positive covenant shall be in Liverpool City Council's standard wording as detailed in Liverpool City Council's Design and Construction Guidelines and Construction Specification for Civil Works.
- Prior to the issue of an Occupation Certificate, any damage to Council infrastructure not identified in the dilapidation report, as a result of the development shall be rectified at no cost to Liverpool City Council.

Any rectification works within Fourth Avenue, Tenth Avenue and Eleventh Avenue will require a Roads Act application. The application is to be submitted and approved by Liverpool City Council prior to such works commencing.

- A maintenance bond in the form of a bank Guarantee or cash bond (\$TBA), shall be lodged with Council prior to the issue of an Occupation Certificate. The bond shall cover maintenance and any damage to roads, drainage lines, public reserves or other council property or works required as a result of work not in accordance with Council's standards, and /or development consent conditions. The bond will be held by Council for a minimum period of 12 months from the date of Council acceptance of final works.

Advisory note:

- a) Before any excavation work starts, contractors and others should phone "Dial Before You Dig" service to access plans/information for underground pipes and cables.
www.1100.com.au
- b) The cost of any necessary adjustments to utility mains and services shall be borne by the applicant.
- c) Care shall be taken by the applicant and the applicant's agents to prevent any damage to adjoining properties. The applicant or applicant's agents may be liable to pay compensation to any adjoining owner if, due to construction works, damage is caused to such an adjoining property.

5. Public Benefit Offer

Council has reviewed the Public Benefit Offer (Appendix EE), which the proponent intends to use as the basis for a Voluntary Planning Agreement (VPA). In regards to the Terms of Offer contained in the Public Benefit Offering, Council notes the following:

- a) Council is agreeable to the proponent constructing the half width portion of Eleventh Avenue, with costs able to be offset against item LR37 in the Liverpool Contributions Plan 2014 - Austral and Leppington North (October 2014). Any cost above that listed for item LR37 will not be offset against total Section 7.11 charges.
- b) Council does not believe that construction of road widening on Fourth, Tenth and Eleventh Avenue should be part of a Public Benefit Offer, rather this should be a condition of consent under Section 4.17 of the *Environmental Planning and Assessment Act 1979*, as these are upgrades required due to the increased burden on the road network caused by the development, and not a public benefit. As these works are not listed in the Contributions Plan, they are unable to be offset against Section 7.11 charges and should be provided wholly at the proponent's cost. Council recommends that road widening along Tenth Avenue and Eleventh Avenue is conditioned to be provided by the proponent between Fourth Avenue and Edmondson Avenue, and not just the section of the road fronting the development site.
- c) Council does not believe the construction of traffic signals at Fourth and Eleventh Avenue should be part of a Public Benefit Offer, rather this should be a condition of consent under Section 4.17 of the *Environmental Planning and Assessment Act 1979*, for the reasons stated above. Costs can be offset against item IN10 in the Liverpool Contributions Plan 2014 - Austral and Leppington North (October 2014). Any cost above that stipulated for item IN10 will not be offset against Section 7.11 charges.



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- d) Council does not believe the construction of traffic signals at Fourth and Tenth Avenue should be part of a Public Benefit Offer, rather this should be a condition of consent under Section 4.17 of the *Environmental Planning and Assessment Act 1979*, for the reasons stated above. Costs can be offset against item IN11 in the Liverpool Contributions Plan 2014 - Austral and Leppington North (October 2014). Any cost above that stipulated for item IN11 will not be offset against Section 7.11 charges.
- e) Construction of traffic signals at Edmondson Avenue and Eleventh Avenue should be a condition of consent under Section 4.17 of the *Environmental Planning and Assessment Act 1979*, for the reasons stated above. As these works are not listed in the Contributions Plan, they are unable to be offset against Section 7.11 charges. It is noted, however, that Edmondson Avenue is listed as a 'Road with State Infrastructure Contribution Funding' in the Liverpool Contributions Plan 2014 - Austral and Leppington North (October 2014), and the proponent should discuss funding and delivery of this upgrade with the Department of Planning and Environment.
- f) Item '1(e)' of the Terms of Offer has been repeated in '1(f)'. It is assumed that this item is meant to state 'Construction of traffic signals at Edmondson Avenue and Tenth Avenue; value to be agreed with Council.' The construction of traffic signals at Edmondson Avenue and Tenth Avenue should be a condition of consent under Section 4.17 of the *Environmental Planning and Assessment Act 1979*, for the reasons stated above. As these works are not listed in the Contributions Plan, they are unable to be offset against Section 7.11 charges. It is noted that Edmondson Avenue is listed as a 'Road with State Infrastructure Contribution Funding' in the Liverpool Contributions Plan 2014 - Austral and Leppington North (October 2014), and that the intersection of Edmondson Avenue and Tenth Avenue is listed as a signalised intersection. The proponent should discuss funding and delivery of this upgrade with the Department of Planning and Environment.
- g) Excision and dedication of land for the purpose of road widening should be a condition of consent under Section 4.17 of the *Environmental Planning and Assessment Act 1979*, for the reasons stated above. This is not listed in the Contributions Plan, and as such cannot be offset against Section 7.11 charges. Council believes the proponent should be responsible for all land acquisition necessary for road widening along the entire stretch of Tenth and Eleventh Avenue between Fourth Avenue and Edmondson Avenue, not just the land fronting the proponent's development site.

Summary

Council is amenable to the proponent delivering the above items, however Council believes items b, c, d, e, f, and g should be conditions of consent under Section 4.17 of the *Environmental Planning and Assessment Act 1979* and funded by the proponent, as the upgrades, rather than being characterised as a public benefit, are necessary to manage the burden to the transport network caused by the proposed development, as detailed in EIS Appendix Q – Transport Report at Sections 3.3, 3.46 and 3.47.

Where an item is listed in the relevant Contributions Plan, Council will discount the item cost from total Section 7.11 charges levied. However, if an item is not listed, Council does not agree to discount the cost of providing a proposed item from total Section 7.11 charges. Where the cost of delivery of an item exceeds that apportioned in the Contributions Plan, Council will not provide further discount than that stated. Funding and delivery of items that are noted as State Infrastructure Contributions should be discussed with the Department of Planning and Environment, and not form part of a VPA with Council.



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Recommendations

While Council remains open to entering into a VPA with the proponent, it is Council's opinion that the remaining works proposed as part of the Public Benefit Offering (namely item 1(a)), would more appropriately be delivered as a Works in Kind Agreement. The Public Benefit Offering states that the value of works will be determined in agreement with Council. As part of Council's Works In Kind policy, it is the proponent's obligation to engage a suitably qualified practising Quantity Surveyor, Civil Engineer or Surveyor to estimate the value of the works. It is advised that the proponent provide a written application for Works In Kind for the half width section of Eleventh Avenue, as set out in Council's Development Contributions Land Dedication and Works In Kind Policy.

6. Flooding

The proposed development site is located within Kemps Creek catchment. The site of the school is affected by overland flooding and a number of overland flow paths run across the site. An overland flood study was undertaken by GRC Hydro Pty Ltd to assess the impacts of the proposed development (Ref: Project Number: 170041; St Anthony of Padua, Masterplan – Flood Assessment, dated: 24 July 2018). However, the flood study by GRC Hydro is not acceptable for the following reasons:

- There is significant variations in the flood maps of GRC Hydro study as compared to flood maps from Council's overland flood study and overland flood study by Costin Roe Consulting Pty Ltd (done under previous application, DA-465/2016).
- GRC Hydro flood study did not considered necessary changes in the land surfaces of the site that will be carried out as a part of the proposed development.

Council recommends the following be implemented prior to issue of a construction certificate:

- The applicant is requested to amend the flood study and submit additional information addressing the following issues:
 - As per Council policy, Probable Maximum Flood (PMF) is the flood planning level for the proposed school development and therefore the overland flood impact assessment shall be undertaken considering up to the PMF storm event.
 - The post-development TUFLOW model shall consider all future developments at the school site including all earthworks, building and other development footprints. The model boundary shall be sufficiently extended outside the school site to include all upstream flows running through the site and to avoid any boundary effect.
 - The modelling shall be undertaken for 1% AEP and PMF storm events. A hydrological model shall be developed for the site and the critical storm events for the 1% AEP and PMF events shall be determined from the hydrological model.
 - Updated overland flood study report shall be submitted to Council and the flood study shall confirm that the proposed development will not have any adverse flooding impact in the vicinity. The overland flood study report shall include catchment map, hydrologic and hydraulic assessments, pre and post development Digital Elevation Model (DEM), pre and post development flood

depth and velocity maps, flood depth and velocity difference maps for 1% AEP and PMF events and post-development PMF and 1% AEP flood level contours.

- Electronic copies of hydrological and TUFLOW models shall be submitted to Council.
- All TUFLOW modelling files shall be submitted preserving relevant subfolders so that pre and post-development model simulations can be undertaken, if needed. Along with other files, the TUFLOW modelling files shall include TUFLOW Control Files (.tcf); geometry files (.tgc); boundary files (.tbc); boundary condition databases/input time-series data.
- TUFLOW simulations shall generate “Check Files” for both pre and post-development scenarios. TUFLOW modelling files shall include all files generated during the model simulations including “Check” subfolder containing all “Check Files”, TUFLOW log files and messages layers and GIS Workspaces.
- TUFLOW result files obtained from both pre and post-development simulations for 1% AEP and PMF events shall be submitted to Council. The result files shall contain maximum water level (h), flood depth (d), velocity (v) and unit flow (q). TUFLOW results shall be supplied in xmdf or dat format.
- All building floor levels shall be no lower than the Probable Maximum Flood.
- The structure shall be constructed from flood compatible building components below the Probable Maximum Flood.
- An engineer’s report shall be required to certify that the structure can withstand the forces of floodwater including debris and buoyancy up to and including the Probable Maximum Flood.
- A flood evacuation plan shall be developed and maintained, including suitable warning systems, signage and exits, to ensure the safe evacuation of people during floods up to and including the Probable Maximum Flood.

7. Social impact

The EIS and Social Impact Assessment (SIA) has been considered by Council’s Community Planning team, and the following issues are noted:

Shared facilities

The SIA states that the proponent is working with Council to deliver facilities that can be shared with the wider community. Council strongly supports joint-use partnerships for the proposed facilities at the site, and encourages further detail to be developed. It is also supportive of the suggested sharing of a school bus service with the Austral Public School as a measure to encourage using public transport and also to increase social cohesion by creating genuine interaction opportunities. Council requires a tangible commitment to be made by the proponent, and looks forward to the establishment of a vision and commitment for shared facilities.

Access to Education and Inclusivity

For purposes of explaining the social context and socio-economic benchmarking, the proponent uses a 3km radius. When it comes to attracting enrolment from the surrounding areas, given the subject school’s popularity and the overall increased demand for Catholic Schools in Sydney, it is believed that the current suggested catchment is understated. This is also reinforced by the fact that the immediate vicinity is relatively socio-economically disadvantaged, as also



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acknowledged the proponent. Currently, the proposal does not include an Enrolment Management Plan, which would be helpful to improve equity in regards to socio-economic and cultural backgrounds of new enrolling students, and in regards to identifying a priority enrolment area.

In order to identify socio-economic disadvantage at any given area, household income is a useful measure that can provide a brief picture for the local context, however it can be misleading as it does not include variables such as household composition and age in its calculations. In the submitted SIA, it is stated that the identified study area (3km radius) has an average household income of \$1682 per week, which is lower compared to the average for Liverpool LGA and Greater Sydney, which are \$1807 and \$1750 p/w, respectively. A more accurate indicator of the economic resources available to a standardised household is equivalised household income. The identified study area has an equivalised household income of approximately \$1500 p/w, which is significantly lower than the projections made in the SIA and further underlines the disadvantage experienced in the community. These figures are likely reflective of the precinct's high elderly population, given the proximity of nearby retirement villages.

Council's Social Justice Policy is a key policy relevant to the school expansion in regards to issues such as access to education, inclusivity and anti-discrimination, which is currently not referred to in the document prepared by the applicant.

8. Food premises

Council has concerns regarding the proposed café. While SEPP (Educational Establishments and Child Care Facilities) 2017 allows development without consent at schools for "a kiosk, cafeteria or bookshop for students and staff that is not more than 1 storey high", the EIS notes that a proposed café is expected to also service the public. While a café servicing the student and staff population could be considered ancillary development, Council has concerns characterising a public-facing café as ancillary development to the school, and questions its permissibility.

As there are limited facilities currently in the area, a public serving café has the potential to become a traffic generating development.

If the café is to be permitted, Council recommends the following be implemented prior to issue of a construction certificate:

- Food Premises Construction – To ensure compliance with the relevant standards and requirements, the following details are to be submitted to the Principal Certifying Authority for approval:
 1. Plans, to scale, demonstrating the proposed floor layout as well as associated works is in compliance with:
 - (i) AS4674-2004 – Design, construction and fit-out of food premises;
 - (ii) Food Standards Code (Australia); and
 - (iii) Building Code of Australia.
 2. Proposed/alterd mechanical ventilation system/s (Building Code of Australia & Australian Standard 1668 Part 1 & 2).

Council recommends the following be implemented prior to issue of an occupation certificate:

- Notification of Food Business – The food business is required to notify Liverpool City Council of the food business details. The PCA is to ensure a Liverpool City Council approved registration form is completed and submitted to the Council with any relevant fee.
- Food premises – Mechanical Ventilation Certificate – Certification that the mechanical ventilation system has been installed and is operating in accordance with the relevant standards associated with ventilation and acoustics shall be provided to the Principal Certifying Authority.

9. Urban Heat Island

There is significant removal of trees and decreased albedo from the development's buildings. The previous SEARs indicated that the proponent would demonstrate how the development would reduce its contribution to the urban heat island effect, however there is insufficient detail on how this will be achieved.

For example, the Liverpool City Council Growth Centre Precincts DCP requires roofing and paving materials and colours to minimise the retention of heat from the sun. Council is concerned the black roofing material selected would unnecessarily increase the urban heat island effect.

Council recommends the following be implemented prior to issue of a construction certificate:

The proponent is to amend the materials and finishes of the development to be consistent with 4.1.3 Sustainable building design control 8 of the DCP: 'Roof and paving materials and colours are to minimise the retention of heat from the sun.' This should include providing detail on the proposed cool roof material with a high solar reflective index noted in the ESD report, such as the solar reflectivity of such material and its Building Code of Australia classification, and any pertinent lifecycle considerations. Council suggests that any roofing material should meet the criteria for being classified Light (solar absorptance < 0.4) or Medium (solar absorptance < 0.6), as specified in the Building Code of Australia.

Should you have any questions regarding this letter, please contact Cameron Jewell, Strategic Planner, on (02) 8711 7862.

Yours sincerely,



Ian Stendara
Executive Planner