

Attachment Booklet

1. Reasons for Refusal

2. Plans of the Proposal

**3. General Terms of Approval
(NSW Office of Water)**

4. Cumulative Impact Assessment

**5. Chronology of amendments to
planning controls**

1. Reasons for Refusal

Reasons for Refusal:

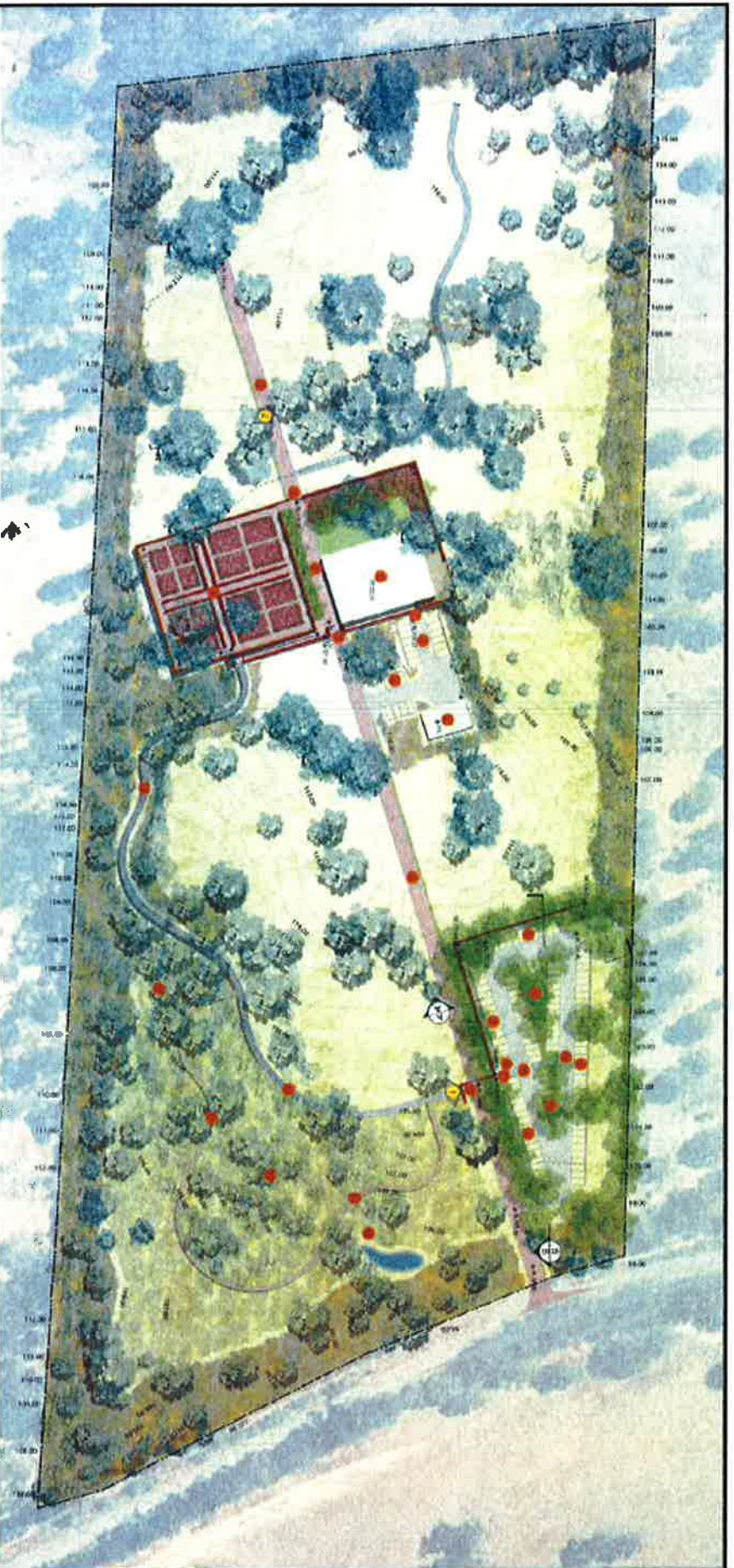
It is recommended that the development application be refused for the following reasons:

1. Pursuant to the provisions of S79C(1)(a)(i) of the Environmental Planning and Assessment Act 1979, the proposed development does not satisfy objective (c), of the RU1 – Primary Production zone. In this regard the proposal will result in the fragmentation and alienation of resource lands which are identified as future industrial lands” under the State Environmental Planning Policy (Sydney Region Growth Centres) 2006 - South West Growth Centre plan.
2. Pursuant to the provisions of S79C(1)(a)(i) of the Environmental Planning and Assessment Act 1979, the proposed development does not satisfy objective (d) of the RU1 – Primary Production zone. In this regard the proposal defers construction of associated buildings required for the site function normally as a cemetery. Council is therefore unable to assess potential land use and amenity conflicts.
3. Pursuant to the provisions of S79C(1)(a)(i) of the Environmental Planning and Assessment Act 1979, the proposed development does not satisfy objective (e) of the RU1 – Primary Production zone. In this regard the proposal will result in increased traffic volumes on Greendale Road will impact on the amenity of the locality and environmental capacity of the road to the extent that a cemetery with associated processions will cause unacceptable impacts upon local residents.
4. Pursuant to the provisions of S79C(1)(a)(iii) of the Environmental Planning and Assessment Act 1979, the proposed development does not satisfy all the requirements of Clause 9.13 – Cemeteries, Crematoriums and Funeral Chapels of Part 5 of Liverpool Development Control Plan 2008. In this regard, the application:
 - (i) Proposes a cemetery on a lot that does not have a minimum of 15 hectares of site area available for burial plots,
 - (ii) Does not demonstrate that the submitted Plan of Management will ensure satisfactory perpetual care of the site.
 - (ii) Proposes that part of the proposed effluent disposal area and over flow on-site parking is to be located within the landscape buffer zone.
5. Pursuant to the provisions of S79C(1)(b) of the Environmental Planning and Assessment Act 1979, the proposed staged nature of the development does not enable a proper assessment of the proposed buildings and structures as they are the subject of a future Development Application yet are considered integral to the cemetery operations and consequently Council is unable to consider all likely impacts upon the natural and built environment.
6. Pursuant to the provisions of S79C(1)(b) of the Environmental Planning and Assessment Act 1979, the design and restriction of onsite parking to the entrance of the site will result in unacceptable operational and accessibility impacts for visitors making it difficult to access facilities and potentially lead to congestion impacts on Greendale Road.
7. Pursuant to the provisions of S79C(1)(e) of the Environmental Planning and Assessment Act 1979, the proposal does not provide toilet facilities or any office/administration services for Stage 1 which provides for up to 19,212 plots and internments prior to Stage 2 commencing. The lack of essential support facilities in the interim period is not considered to be in the public interest.
8. Pursuant to the provisions of S79C(1)(e) of the Environmental Planning and Assessment Act 1979, the submissions received raise a number of valid concerns regarding the minimum site area, fragmentation of land within the locality and adverse traffic impacts on Greendale Road therefore the proposed development is not considered to be in the public interest.

2.Plans of the Proposal

master plan 04

41 Granddaddy Road, Bingley NSW

+ MCGREGOR
COXALL.

BRINGELLY MEMORIAL GARDENS

cross section visitor car park

0 5.0 10.0 15.0 M

landscape section A-A 05
41 Grenville Road, Bringelly NSW

Masterplan 2011
1:2000 0.2M

McCREGOR
COXALL
Landscape Architecture
111-113 The Arcade, Sydney NSW 1588 01 9550 9999
www.mcgregorcoxall.com.au

Cumberland Plain Woodland Conservation Zone - Restricted access

Control Axis

Bioswale

Retaining wall with high quality finish
Path at grade

Visitor parking bays - permeable surface

Vehicular access - bitumen

Visitor parking bays - permeable surface

Car Park Drainage Swales with Pit and Pipe
connection to site storage tank

Visitor parking bays - permeable surface

Vehicular access - bitumen

Visitor parking bays - permeable surface

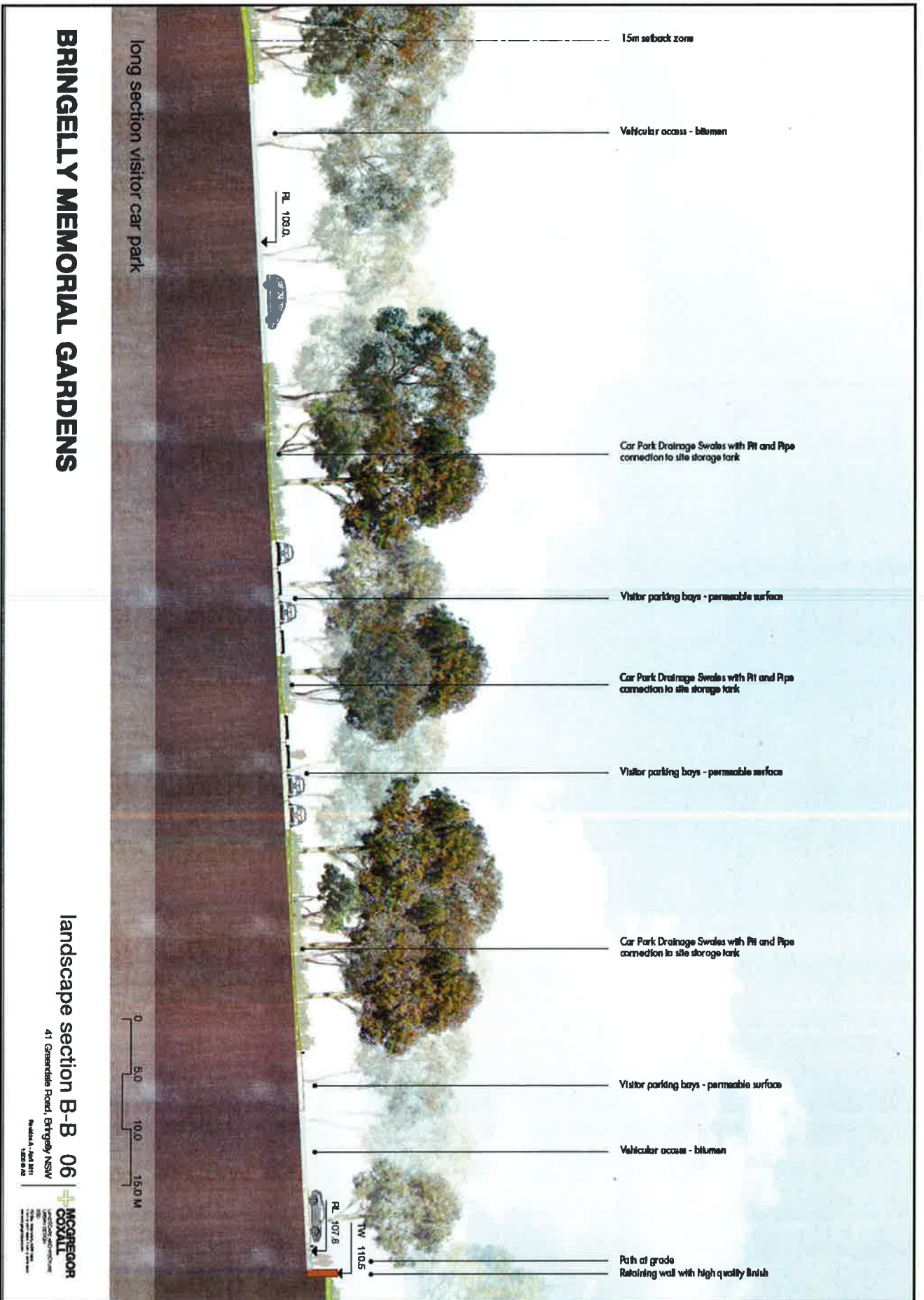
Overflow parking bays - native grasses, periodical
slashing

Overflow parking access - native grasses, periodical
slashing

15m setback zone

3m wide x 1m high berm for screening purposes.
Extent of berm subject to ecological appropriateness.

Site boundary - security and rabbit proof fence





View 01 - site entry with stage 02 raised walkway



View 02 - open woodland with burial plots from main access

3. General Terms of Approval (NSW Office of Water)



**Office
of Water**

Received by

8 - JUL 2011

Archives & Record

Contact: Mohammed Ismail
Phone: 02 8838 7535
Fax: 02 9895 7501
Email: mohammed.ismail@water.nsw.gov.au

The General Manager
Liverpool City Council
Locked Bag 7064
LIVERPOOL BC NSW 1871

Our ref: 10 ERM2011/0639
File No: 9054268
Your Ref: DA2011/394

Attention: Natalie Stewart

6 July 2011

Dear Natalie

**Re: Proposed Development / Controlled Activity Approval
41 Greendale Road Bringelly Lot 5 DP252040 – Re-Advertising of amended
proposal site for cementery**

I refer to your letter dated 14 June 2011, concerning an amendment of plans for an Integrated Development Application (DA394/2011) proposal for the subject property.

GTA were sent to the Council, letter dated 12 January 2011. These conditions do not need to be changed due to the submitted amended plans.

Further information on Controlled Activity Approvals under the *Water Management Act 2000* can be obtained from the NSW Office of Water's website
<http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>

Please direct any questions or correspondence to Mohammed Ismail,
mohammed.ismail@water.nsw.gov.au.

Yours sincerely

Mohammed Ismail
Licensing Officer - CAA
NSW Office of Water - Licensing South



Office of Water

The General Manager
Liverpool City Council
Locked Bag 7064
LIVERPOOL BC NSW 1871

Received by

14 JAN 2011

Archives & Records

Contact: Mohammed Ismail
Phone: 02 9895 7978
Fax: 02 9895 7501
Email: mohammed.ismail@water.nsw.gov.au

Our ref: 10 ERM2010/0530
Our file: 9054268
Your ref: Pre DA Advice

Attention: Danielle woods

12 January 2011

Dear Danielle

**Re: Integrated Development Referral – General Terms of Approval
Pre DA Advice - Advice on watercourse on site for a proposed cemetery,
41 Greendale Road, Bringelly**

I refer to your recent letter regarding an Integrated Development Application (DA) proposal for the subject property. Attached, please find the NSW Office of Water's General Terms of Approval (GTA) for 'works' requiring a Controlled Activity Approval under the *Water Management Act 2000* (WMA), as detailed in the subject DA.

Please note Council's statutory obligations under section 91A(3) of the *Environmental Planning and Assessment Act, 1979* (EPAA) which requires a consent, granted by a consent authority, to be consistent with the GTA proposed to be granted by the approval body.

If the proposed development is approved by Council, the NSW Office of Water requests that these GTA be included (in their entirety) in Council's development consent. Please also note the following:

- The NSW Office of Water should be notified if any plans or documents are amended and these amendments significantly change the proposed development or result in additional 'works' on waterfront land (ie in or within 40 metres from top of highest bank of a watercourse, foreshore, or lake). Once notified, the NSW Office of Water will ascertain if the amended plans require review or variation/s to the GTA. This requirement applies even if the proposed 'works' are part of Council's proposed consent conditions and the 'works' do not appear in the original documentation.
- The NSW Office of Water should be notified if Council receives an application to modify the consent conditions. **Failure to notify may render the consent invalid.**
- The NSW Office of Water requests notification of any legal challenge to the consent.

Under Section 91A(6) of the EPAA, Council must provide the NSW Office of Water with a copy of any determination/s including refusals.

As a controlled activity (ie the 'works') cannot commence before the applicant applies for and obtains a Controlled Activity Approval, the NSW Office of Water recommends that the following condition be included in the development consent:

"The Construction Certificate will not be issued over any part of the site requiring a Controlled Activity Approval until a copy of the Approval has been provided to Council".

The attached GTA are not the Controlled Activity Approval. The applicant must apply (to the NSW Office of Water) for a Controlled Activity Approval **after consent** has been issued by Council **and before** the commencement of any 'works' on waterfront land.

Finalisation of a Controlled Activity Approval can take up to 8 weeks from the date the NSW Office of Water receives all documentation (to its satisfaction). Applicants must complete and submit (to the undersigned) an application form together with any required plans, documents, the appropriate fee and security (ie bond, if applicable) and proof of Council's development consent.

Application forms for the Controlled Activity Approval are available from the undersigned or from the NSW Office of Water's website

<http://www.water.nsw.gov.au/Water-Licensing/Approvals/Controlled-activities/default.aspx>

The NSW Office of Water requests that Council provide a copy of this letter to the applicant.

Yours Sincerely



Mohammed Ismail
Licensing Officer - CAA
NSW Office of Water - Licensing South



**Office
of Water**

General Terms of Approval – for works requiring a Controlled Activity Approval under the Water Management Act 2000

Our Reference		10 ERM2010/0530	File No:	9054268
Site Address		41 Greendale Road, Bringelly		
DA Number		Pre DA Advice		
LGA		Liverpool City Council		
Number	Condition			
Plans, standards and guidelines				
1	These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to Pre DA Advice and provided by Council: Any amendments or modifications to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified the NSW Office of Water must be notified to determine if any variations to these GTA will be required.			
2	Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from the NSW Office of Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the river identified.			
3	The consent holder must prepare or commission the preparation of: (i) Vegetation Management Plan (ii) Erosion and Sediment Control Plan (iii) Soil and Water Management Plan			
4	All plans must be prepared by a suitably qualified person and submitted to the NSW Office of Water for approval prior to any controlled activity commencing. The following plans must be prepared in accordance with the NSW Office of Water guidelines located at www.water.nsw.gov.au website. (i) Vegetation Management Plans (ii) Riparian Corridors (iii) In-stream works (iv) Outlet structures			
5	The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to the NSW Office of Water.			
Rehabilitation and maintenance				
6	The consent holder must carry out a maintenance period of two (2) years after practical completion of all controlled activities, rehabilitation and vegetation management in accordance with a plan approved by the NSW Office of Water.			

Our Reference	10 ERM2010/0530	File No:	9054268
7	The consent holder must reinstate waterfront land affected by the carrying out of any controlled activity in accordance with a plan or design approved by the NSW Office of Water.		
Reporting requirements			
8	The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the NSW Office of Water as required.		
Security deposits			
9	The consent holder must provide a security deposit (bank guarantee or cash bond) - equal to the sum of the cost of complying with the obligations under any approval - to the NSW Office of Water as and when required.		
10	The consent holder must ensure that any bridge, causeway, culvert or crossing does not obstruct water flow and direction, is the same width as the river or sufficiently wide to maintain water circulation, with no significant water level difference between either side of the structure other than in accordance with a plan approved by the NSW Office of Water.		
Disposal			
14	The consent holder must ensure that no materials or cleared vegetation that may (i) obstruct flow, (ii) wash into the water body, or (iii) cause damage to river banks; are left on waterfront land other than in accordance with a plan approved by the NSW Office of Water.		
Drainage and Stormwater			
15	The consent holder is to ensure that all drainage works (i) capture and convey runoffs, discharges and flood flows to low flow water level in accordance with a plan approved by the NSW Office of Water; and (ii) do not obstruct the flow of water other than in accordance with a plan approved by the NSW Office of Water.		
16	The consent holder must stabilise drain discharge points to prevent erosion in accordance with a plan approved by the NSW Office of Water.		
Erosion control			
17	The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by the NSW Office of Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.		
Excavation			
18	The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by the NSW Office of Water.		
19	The consent holder must ensure that any excavation does not result in (i) diversion of any river (ii) bed or bank instability or (iii) damage to native vegetation within the area where a controlled activity has been authorised, other than in accordance with a plan approved by the NSW Office of Water.		
River bed and bank protection			
20	The consent holder must clearly mark (with stakes using a GPS or peg out survey), protect and maintain a riparian corridor with a width of 10 metres measured horizontally landward from the highest bank of the river for the length of the site directly affected by the controlled activity in accordance with a plan approved by the NSW Office of Water.		
21	The consent holder must establish a riparian corridor along the Creek in accordance with a plan approved by the NSW Office of Water.		
END OF CONDITIONS			

4. Cumulative Impact Assessment

LIVERPOOL CITY COUNCIL

CITY PLANNING REPORT

ORDINARY MEETING

17/10/2011

ITEM NO:	PLAN 02	FILE NO:	
SUBJECT:	CEMETERIES AND CREMATORIUM WITHIN GREENDALE AND BRINGELLY - CUMULATIVE TRAFFIC IMPACTS AND RU1 PRIMARY PRODUCTION ZONE OBJECTIVES		
COMMUNITY STRATEGIC PLAN REFERENCE:	THE COMMUNITY IS SUPPORTED BY A WELL MANAGED AND RESPONSIVE COUNCIL		

EXECUTIVE SUMMARY:

At its meeting of 15 June 2011, Council considered a report into DA1133/2011 being for development of a 71,000 plot cemetery at 321 Greendale Road, Bringelly. In receiving this report, Council sought to consider its position on the application despite not being the determining authority for that application. Council at that meeting resolved to undertake a study of the cumulative impact of the operation of all currently proposed cemeteries and/or crematoriums on:

- a. The performance and condition of the local road network and the ability of the network to accommodate the impact.
- b. The attainment of the objectives of the RU1 Primary Production zone.

This report seeks to provide the outcome and report on the recommendations as a consequence of these investigations. It is recommended that Council receives and notes the report.

DETAILED REPORT:

Status of Development Applications

Liverpool City Council has received three applications for cemeteries and one application for a crematorium within the Greendale/Bringelly area over the past two years. The applications received propose developments at the following locations and are illustrated in Figure 1:



Figure 1: Location of cemetery/crematorium applications

The status and nature of these applications is provided in the table below.

ADDRESS	DEVELOPMENT	STATUS
31 Greendale Road, Bringelly	Cemetery with a capacity of 6150 burial plots	Considered by IHAP at the meeting of 29 September 2011. To be determined within the agenda of this meeting.
41 Greendale Road, Bringelly	Cemetery with a capacity of 44, 312 plots/internments	Currently under assessment
321 Greendale Road, Greendale	Cemetery with a capacity of 70,000 plots	Currently under assessment. Waiting on additional information and amendments to the proposal as resolved by the JRRP.
992 Greendale Road, Greendale	Crematorium with a capacity for 10,000 receptacles	Approved by the JRPP

All the applications are currently undergoing assessment with the exception of 992 Greendale Road, Greendale, which was approved by the Joint Regional Planning Panel (JRPP) at its meeting of 28 April 2011. It is noted that the cemetery application at 321 Greendale Road was recently considered by the JRRP, who deferred the determination of the application pending amendments to the proposal and the submission of additional information.

A subsequent report into the application for 31 Greendale Road, Bringelly is within the agenda for this meeting.

To ensure that the cumulative impacts of the applications were appropriately accounted for, Council at its meeting of 15 June 2011 resolved to undertake a study of the cumulative impact of the operation of all currently proposed cemeteries and/or crematoriums on:

- a. The performance and condition of the local road network and the ability of the network to accommodate the impact.
- b. The attainment of the objectives of the RU1 Primary Production zone.

This report seeks to provide the outcome and detail any recommendations as a result of these investigations.

Permissibility

A "cemetery" is defined by Liverpool Local Environmental Plan 2008 (LLEP 2008) as "a building or place for the interment of deceased persons or their ashes."

A "crematorium" means a building in which deceased persons or pets are cremated, whether or not it contains an associated building for conducting memorial services.

Both uses are a permissible with consent in the RU1 – Primary Production zone of LLEP 2008, and are subject to controls within the Liverpool Development Control Plan 2008 (LDCP 2008).

Liverpool's current planning controls namely the LLEP 2008 and LDCP 2008 clearly establish that in some circumstances cemeteries could be an acceptable land use within the rural context, this however relies on a number of site characteristics and design outcomes being achieved and relevant zone objectives being complied with.

It is noted that at the previous Council meeting 23 September 2011, Council resolved to make changes to the LLEP 2008 which may alter this situation into the future.

Zone objectives - RU1 Primary Production zone

The objectives of the RU1 - Primary Production zone are prescribed by Clause 2.3 of LLEP 2008 as follows:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To encourage diversity in primary industry enterprises and systems appropriate for the area.
- To minimise the fragmentation and alienation of resource lands.
- To minimise conflict between land uses within the zone and land uses within adjoining zones.
- To ensure that development does not unreasonably increase the demand for public services or public facilities.
- To ensure that development does not hinder the development or operation of an airport on Commonwealth land in Badgerys Creek.
- To preserve bushland, wildlife corridors and natural habitat.

Both commentary and recommendations on how development applications for cemeteries/crematoriums are to demonstrate that they are consistent with the objectives of the RU1 - Primary Production zone are detailed below.

Encourage sustainable primary industry production by maintaining and enhancing the natural resource base and encourage diversity in primary industry enterprises and systems appropriate for the area.

Commentary

The intent of the above objectives are to promote the use of rural land for sustainable primary industry production. The RU1 - Primary Production permits agricultural uses and primary industry with development consent and that a number of non-agricultural uses are also permitted in the zone including cemeteries, health care consulting rooms and community facilities.

An extract from the land use zoning table is provided below:

Agriculture; Airstrips; Animal boarding or training establishments; Bed and breakfast accommodation; Building identification signs; Business identification signs; Cemeteries; Community facilities; Crematoria; Dual occupancies; Dwelling houses; Environmental facilities; Extractive industries; Farm buildings; Farm stay accommodation; Flood mitigation works; Forestry; Hazardous storage establishments; Health consulting rooms; Helipads; Heliports; Home businesses; Home industries; Landscaping material supplies; Open cut mining; Offensive storage establishments; Plant nurseries; Recreation areas; Recreation facilities (outdoor); Roads; Roadside stalls; Rural industries; Veterinary hospitals; Water recreation structures

While it is not the intention of the objective to retail every lot in the RU1 zone for agriculture or primary production uses nor does the zoning objectives prescribe that agriculture is the only suitable land use for RU1, in the assessment of development applications for cemeteries/crematoriums consideration needs to be given to the impact (if any) each of the development application would have on existing and future and for primary production/industry and agricultural developments.

In application of this specific zone objective, consideration needs to be given to the likely future character of the area given that both 31 and 41 Greendale Road are located within the South West Growth Centre. It is noted that more than 75 percent of Bringelly is located within the South West Growth Centre. Figure 2 below illustrates the extent of the South West Growth Centre boundaries.



Figure 2: Land within Bringelly located within the SW Growth Centre

Recommendation

Liverpool's current planning controls provide no buffer or separation distances between cemeteries/crematoriums and agricultural developments. In the absence of controls or other statutory guidelines it is considered that a precautionary approach be adopted to protect and retain agricultural land for future agricultural uses/rural uses, particularly the adjoining land located within Greendale where individual properties are of sufficient size to facilitate viable agricultural developments.

The Rural Land Study prepared by Don Fox identifies that there are many allotments along Greendale Road which are larger than 10 hectares would be of an adequate size which could economically be used for small scale rural land uses such as hydroponics and horticulture. The Study identifies that there is significant land within this locality which should remain available for primary production.

It is further recommended that all current development applications that are within proximity to existing agricultural developments be accompanied by appropriate environmental studies to ensure that there are no environmental impacts which may impact on the existing lawful agricultural developments in the locality. This is to include air quality (odour and emissions) and surface water quality reports.

Minimise the fragmentation and alienation of resource land.

Commentary

It is considered that intent of the above objective is to ensure that viable resource land is not fragmented through inappropriate subdivision and alienated by inappropriate development.

It is considered that each of the developments for either cemeteries and/or crematoriums will alienate their subject sites from being used in the future as either primary production or agricultural uses. However in the assessment of each development application, consideration needs to be given to whether the development would alienate adjoining

lands from being used for agricultural and primary production purposes as well as extractive industries.

Recommendation

Liverpool's current planning controls provide no buffer or separation distances between cemeteries/crematoriums, agricultural developments and extractive industries. In the absence of controls or other statutory guidelines it is considered that a precautionary approach be adopted to protect and retain valuable resource land.

It is noted that the land within Bringelly ranges in area between two hectares to 10 hectares and that the use of these size properties for extractive industries would be limited given the required setbacks, buffer zones and other statutory requirements for these type of land uses.

The Rural Land Study prepared by Don Fox identifies that there are large amounts of land available within the Greendale/Bringelly locality which have clay and shale deposits. This type of deposits aided by the significant demand of building materials which are likely to be required to supply development of the south west and north west growth centres, is likely to see an increase in demand for the establishment of new quarries in the next 25 years.

However, adjoining land located within Greendale, are of sufficient size to facilitate viable agricultural developments and resource production. Land size within Greendale is generally over 20 hectares with some larger land parcels located to the north of Greendale Road.

In order to ensure adequate consideration is given to the specific objective for development applications located within Greendale, it is recommended that all current development applications be referred to the Department of Primary Industry for consideration.

Minimise land use conflict between land uses within the zone and land uses within adjoining zones

Commentary

It is considered that the intent of the above objective is to ensure that the development is compatible with the amenity of the area, thus minimising the potential for land use conflict. In regards to amenity, consideration has been given to the scale, bulk, design height, sitting and landscaping of cemeteries/crematorium and how they are consistent with the rural character of the locality.

In consideration as to whether the scale, bulk, design and height of the development is appropriate consideration needs to be given to the compatibility of the development with the rural landscape character of the locality.

It is considered that the rural character within the wider locality incorporating each of the development applications consists of larger lots with very little built form. The majority of the lots within the locality are in their natural setting with scattered vegetation where natural features such as the topography, watercourses, remnant strands of vegetation and dams dominate the landscape.

Characteristics and features of cemeteries/crematoriums have potential to impact adversely on the rural character of the locality unless it is carefully integrated into the site and is sensitively designed. The impact on the rural character of the locality can also be minimised by ensuring developments for cemeteries/crematoriums comply with the minimum size requirements contained within LDCP 2008 which will ensure adequate setbacks and visual buffers are provided.

It is considered that the following characteristics and features of cemeteries/crematorium have potential to impact adversely on rural character:

- Density/grouping of burial plots;
- Design of memorial plaques/headstones and burial plots;
- Colours and materials of memorial plaques/headstones;
- Fencing including front fencing;
- Hard surface areas such as internal roads and car parking areas.

Recommendation

In consideration of the characteristics and features of cemeteries/crematorium which have the potential to impact on rural character and amenity the following recommendations are to be considered in the assessment of all current development applications.

Feature	Description
Internal roads	Proposal should adopt a curvilinear road pattern within the subject site that is responsive to the topography of the site and natural features of the site such as existing strands of vegetation.
Vegetation	Vegetation within the front setback is to be retained. This will assist in facilitating the visual integration of the development into the rural landscape. Existing vegetation surrounding watercourses, gullies and creek lines are to be retained.
Boundaries	Property boundaries should be dominated by vegetation endemic to the locality such as Cumberland Plain Woodlands. Fencing along side and rear boundaries should be relatively low in height and be rural in character. This is to include clear linear fencing such as post and rail, picket or post and wire. Entries to the development site should be visually reinforced and simple in character. Visually appropriate treatments include entrance created by vegetation, gateway entrance constructed of brick, masonry or timber.
Ancillary buildings such as amenities, office areas	Single storey buildings are preferable. Additional vegetation should integrate new buildings into the landscape. Buildings can be visible but will be highly integrated.
Density/grouping of burial plots	Grouping of burial plots are to be integrated with the natural features of the site including the topography and existing trees and vegetation.

Design of memorial plaques/headstones	<p>The memorial plaques and headstones are to be low lying are should not be visually intrusive.</p> <p>Memorial plaques on the outer areas of the site where there is greater potential for visual impacts are to be flat and integrated with the topography of the site.</p> <p>Headstones could be used within the central areas of the site where there is greater separation distances from adjoining properties and the street. Headstones could be limited to a height of 0.5m in height.</p>
Colours and materials of memorial plaques	<p>Appropriate materials for headstones/memorial plaques include slate, sandstone, sandstone bricks. A combination of these materials could be used.</p> <p>Appropriate colours that optimise visual integration include deep browns, earthen or neutral shades.</p>
Skyline	Views to the skyline should be retained. Additional built elements must be built below the major skyline.

The following pictures illustrate the use of appropriate materials for headstones which have also been integrated into the landscape design.



Headstones made from sandstone and integrated with landscaping



Memorial plaques which are flat on the ground



Memorial plaques which are integrated with existing trees

The following pictures illustrate how an existing cemetery has been integrated with existing vegetation in a rural zone.



Roads located to retain existing vegetation



Memorial plaques integrated with existing vegetation



Headstones which are larger and more visually dominate located centrally within the site with existing vegetation retained along the boundaries

In addition to the above, it is considered that all current development applications be accompanied by a comprehensive visual analysis of the locality. Each current application is also to be accompanied by detailed section plans for both the street frontage of the site as well as within the site which represents existing contour levels.

To ensure that development does not unreasonable increase the demand for public services or public facilities

Comment

In relation to the above objective, it is considered that the intent is to ensure that any new development does not create an unreasonable demand for public services. Public services are taken to include physical infrastructure such as roads, sewer and drainage.

Recommendation

Road Infrastructure

Commentary in relation to road infrastructure is detailed later in this report.

Drainage

To ensure that all current development applications do not create unreasonable demand on Council's drainage infrastructure all development applications are required to be accompanied by a detailed stormwater concept plan that has been prepared in accordance with Council's guidelines.

Sewer/Waste Water Treatment

Both Greendale and Bringelly do not have access to sewer and therefore each current development application is to be accompanied by a comprehensive waste water report which is to detail methods of waste water treatment for the development.

The waste water treatment reports are to be prepared in conjunction with NSW Health Guidelines and adopt the required setbacks and separation distances as contained within LDCP 2008.

To preserve bushland, wildlife corridors and natural habitat

Comment

The intent of the above objective is to preserve bushland, wildlife corridors and natural habitat on the site and within the rural zone.

Recommendation

It is recommended for current development applications which are identified as containing Environmentally Significant Land that a comprehensive Flora and Fauna Assessment be submitted. Given the nature of the use and potential impacts on existing flora and fauna, a Vegetation Management Plan be submitted at development application stage.

The Vegetation Management Plan is to be prepared in accordance with LDCP 2008 Part 11.1 and NSW Office of Environment and Heritage publication "Recovering Bushland on the Cumberland Plain".

Local Road Network

In regard to the local road network, a number of pieces of work have been undertaken to date. A traffic report has been submitted in support of each application for a cemetery and crematorium which has been received (992, 321, 41 and 31 Greendale Road Greendale /Bringelly). The applicant for No.41 Greendale Road, being the most recent application, has been requested to assess its cumulative impact relative to the other earlier applications. In addition, and in response to Council's resolution of 15 June 2011, Council has commissioned an independent report which reviewed the following aspects of these applications:

- Traffic Generation,
- Access Design (Frontage Road),
- Internal Road Design,
- Parking Requirements and
- Parking supply.

The Roads and Traffic Authority have been asked for comment and have advised that the proposals will not have a significant impact on the classified road network.

Proposed Cemetery site in Greendale Road	No. of burial plots	Typical peak hourly generation (based upon a maximum of 2 services per hour at any on-site crematorium and chapel) at 100% capacity (50% inbound & 50% outbound)	Estimated "worst case" peak hourly generation (e.g. Mothers' Day weekend) at 100% capacity (50% inbound & 50% outbound)
No. 992 Greendale Road	10,000	66 vehicle trips / hr	300 vehicle trips / hr
No. 321 Greendale Road	70,000 (but limited to 25,000 on a life-cycle visitation rate)	165 vehicle trips / hr	750 vehicle trips / hr

No. 31 Greendale Road	6,150	40 vehicle trips / hr	185 vehicle trips / hr
Cumulative Traffic east of 31 Greendale Road, Bringelly (based on 80% of traffic approaching / departing these sites from / to the east)		217 (i.e. 271 x 0.8)	988 (i.e. 1235 x 0.8)

Based on the above table, Council's Independent Traffic Engineer advised that the existing level of service (LoS) is presently "A", representing good conditions due to the recorded peak hourly flow of 80 vehicles per hour (two way). Over a 30 year time horizon with a typical Sydney average growth rate of 2% p.a., the background traffic increase equates to a base flow of 145 vehicles per hour, which still represents LoS "A" conditions.

This is however calculated off a low starting base and does not take into account the substantial development that is planned to occur in the South West Growth Centre during that time frame. Given the planned development in this area, by 2040 Greendale Road (just west of The Northern Road) is likely to have similar traffic flows to that experienced on Bringelly Road at Leppington in 2011. This is due to the similar development patterns that are expected in 2040 ie, location on a main collector road, at the interface of rural and urban zonings. Bringelly Road at Leppington currently experiences 510 vehicles per hour which represents a LoS "C" condition for a typical day.

When this scenario is combined with the additional 217 vehicles per hour to the estimated Yr 2040, the LoS remains "C" conditions for a typical day. Should any of the applications not go ahead, the resultant traffic impact would be a lesser and the level of service is likely to remain "C".

It is noted that the worst case scenario and special event days can be considered, however should not be the determining basis of assessment.

In summary the reporting finds that factoring the growth expected as a result of the South West Growth Centre in addition to the vehicle movements generated by these developments (assuming they were all approved) the base LoS on Greendale Road would be Condition "C". This level is a reasonable and acceptable level of performance.

Despite the technical and numerical assessment undertaken by the traffic engineers, Greendale Road presents as a scenic rural road and serves a number of rural residential properties in addition to the sub arterial function (albeit to a limited catchment). The increased number of vehicle movements along Greendale Road that would result from these applications, would however impact on the environmental amenity of existing homes along the road corridor.

It should be noted that any traffic generating development in this area will create a significant increase to traffic numbers and perception due to the low current traffic volumes.

Conclusion

The suburbs of Greendale and Bringelly are typical of rural neighbourhoods on the City fringe. These suburbs have a mixture of agriculture from hobby farming and livestock grazing to more intensive and extensive forms of agriculture. In addition the area is has a strong rural-residential character in some areas due to the subdivision patterns, and dotted communities centred around townships.

It is considered that there is potential for cemetery and crematorium applications to be contrary to the zone objectives of the RU1 - Primary Production zone unless careful consideration is given at the development application stage to ensure that each development is complimentary to and consistent with the rural landscape.

In addition, as Sydney continues to grow and develop, pressure on the retention of viable agricultural land also increases. This has seen land available for primary production in the Sydney basin steadily decline.

On this basis, it is considered that the recommendations contained within this report be utilised in the consideration of the remaining cemetery applications that have not yet been determined. These recommendations address the potential visual impacts associated with cemeteries, land use conflict and the retention of viable agricultural land.

Greendale Road performs a sub-arterial function, but also serves as a local road to many residents. The road is adequate to serve this function and is currently performing at Level of Service A due to the low traffic volumes. Traffic volumes will grow over time and in line with that, road performance will decrease. It is anticipated that by 2040 the Level of Service will be "C". When the additional traffic generated by the developments currently proposed at 992, 321, 41 and 31 Greendale Road Greendale /Bringelly is taken into account the Level of Service remains at "C".

This does not mean that the additional traffic volume will not be noticeable; it means however that the road performance does not drop considerably as a result of these applications and performance remains acceptable. It is considered however that traffic volumes will impact on the amenity of the locality.

FINANCIAL IMPLICATIONS:

There are no financial implications as a result of this report.

RECOMMENDATION:

That Council utilises the information contained within this report in the consideration of cemetery and crematorium development applications particularly noting the following:

1. Adopt a precautionary approach to protect and retain agricultural land for future agricultural uses/rural uses particularly where individual properties are of sufficient size to facilitate viable agricultural developments.
2. Development applications are to be accompanied by environmental studies to evaluate the environmental impact on the existing lawful agricultural developments

in the locality this is to include air quality (odour and emissions) and surface water quality reports.

3. Development applications within areas that do not have access to sewer are to be accompanied by a comprehensive waste water report.
4. Development applications are to be accompanied by a detailed stormwater concept plan prepared in accordance with Council's guidelines to ensure there is no unreasonable demand on Council's drainage infrastructure.
5. That appropriate design controls are imposed to minimise land use conflicts.

SIGNED BY:

Milan Marecic
Director
City Planning

Attachment: McLaren Traffic Engineering Report (cumulative summary report)

M^CLAREN TRAFFIC ENGINEERING

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

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27 July 2010

2010/74.L01 CM/sm

Liverpool City Council
1 Hoxton Park Road
LIVERPOOL NSW 2170
Attention: Ms. Danielle Woods
Dear Danielle,

**PRELIMINARY REVIEW OF TRAFFIC REPORTS OF
FOUR (4) CEMETERY / CREMATORIUM DA'S**

Further to your request, the undersigned has undertaken a preliminary review of the lodged traffic reports, and has undertaken detailed site inspections of the four (4) cemetery / crematorium DA's at the following locations:

1. 992 Greendale Road, Greendale;
2. 321 Greendale Road, Greendale;
3. 31 Greendale Road, Bringelly; and
4. 630 Twelfth Avenue, Rossmore.

The detailed site location maps for each of the above are presented as Annexure A, B, C & D respectively.

1. Scale of Development

The proposed scale of development for each site is listed below.

1.1 992 Greendale Road, Greendale

- No of plots
- 148 on-site car parking spaces for crematorium area;
- 45 on-site car parking spaces for temple hall and dorms;
- 200 seat temple/hall;
- 10 to 12 crematorium staff, 5 to 8 temple staff;
- 4 to 6 ceremonies per day;
- 8 to 10 deceased body arrivals per day; and
- Total site area ~19.5 hectares (~195,000m² +).



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1.2 321 Greendale Road, Greendale

- Estimated 70,000 plots;
- 770 on-site kerbside parking spaces;
- Jewish organisation & synagogue building (125m²);
- Muslim organisation & mosque building (125m²);
- Christian organisation & chapel building (125m²);
- Hindu organisation & temple building (125m²);
- Buddhist organisation & temple building (125m²);
- Mausoleum (300m²);
- Caretakers shed & loading dock (500m²);
- Florist (80m²);
- Café (80m²);
- Offices (100m²);
- Crematory (200m²);
- Existing use: 1 dwelling house and a granny flat;
- Total site area...?

1.3 31 Greendale Road, Bringilly

- 6,150 burial plots;
- 110 on-site car parking spaces, including 5 disabled spaces;
- Caretaker's residence;
- Office;
- Storage and amenities;
- 8.00am to 5.00pm operating times, 7 days a week;
- Prayer ceremonies to take place off-site;
- Existing use: 1 single storey residential dwelling; and
- Total site area 10.12 ha (101,200m²).

1.4 630 Twelfth Avenue, Rossmore

- 3,300 burial plots;
- 83 on-site car parking spaces, including 1 disabled space;
- Approximately 3 staff members at any given time;
- 9.00am to 6.00pm operating times, 7 days a week;
- 1 office;
- 1 function/prayer room;
- Storage and amenities
- Existing use: 1 single storey residential dwelling; and
- Total site area approximately 20,000m².

2. Preliminary Review Comments of Development

The following aspects of each development were reviewed:

- A. Traffic Generation;
- B. Access Design (Frontage Road);
- C. Internal Road Design;
- D. Parking Requirements; and
- E. Parking Supply.

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2.1 992 Greendale Road, Greendale

2.1.1 Traffic Generation

Concern is raised with the traffic generation analysis conducted by *URaP-TTW Consulting Engineers* (URP) in the February 2000 report, which apart from being outdated is significantly deficient with regard to detailed analysis. The brief report does not address a worst case assessment for the proposed driveway locations.

It is noted that the proposal includes two driveways from Greendale Road, both of the proposed driveways are restricted in terms of prevailing sight distances when due regard is given to the alignment (both horizontally and vertically) of the frontage road. The frontage road is best described as a meandering road in rolling terrain.

URP's traffic assessment assumes a peak hour traffic generation figure with no sound basis to support the assumptions.

Our research indicated that numerous services tend to occur in both the morning (10am to noon) and afternoon (12.30pm to 3.30pm) periods depending upon the number of service facilities (i.e. chapels, temples etc). The URP report states that 4 to 6 ceremonies per day are proposed to occur. Our research at another cemetery (Northern Suburbs Crematorium, Delhi Road, North Ryde) indicates that when 4 services are held within 90 minutes (1.5 hours) of one another a peak hourly traffic generation of around 300vph would occur. The URP report assesses 150 peak hour vehicle trips, which is 50% lower than our expected worst case outcome.

It is usual practice to consider the effects of a worst case traffic generation outcome that may occur at some other time of the day or week.

To this end cemeteries and crematoriums usually generate peak traffic activity associated with services held on-site either in chapels or at grave sites. In addition to this is the traffic associated with mourners attending grave sites on special days of the year (such as Mothers Day, Fathers Day, Anzac Day, Christmas etc).

For the proposed development that includes a separate vehicle access to a 200 seat temple / hall with no detailed assessment of this driveway.

The likely attendances at services (or gatherings at the temple / hall) coupled with the car occupancy rate (assuming all mourners travel by private vehicles to and from the site) needs to be established via surveys at a similar development. No adequate surveys of a similar site have been undertaken (with number of services & patronage for those services identified), nor has any worst case traffic generation assessment been undertaken linked to an identified number of services held.

Without adequate external traffic generation analysis the subject development should be rejected. A further review of the driveway access design could occur once adequate detailed traffic analysis is provided that responds to the concerns raised.

2.1.2 Access Design (Frontage Road)

Access is proposed in two locations off Greendale Road. The URP assessment of the proposed driveways is extremely poor given the restricted sight lines, rolling terrain, nearby crests, meandering horizontal alignment and rural environment of Greendale Road.

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The access design from the frontage road is highly relevant based upon a worst case traffic generation assessment. The RTA's "Road Design Guide" and 2005 AUSTRROADS "Guide to Traffic Engineering Practice - Part 5: Intersections at Grade" publications should be sourced in the frontage access design analysis. Factors that need to be considered for the driveway access design are as follows:

- Road environment class (urban or rural).
- Driver reaction time to respond to changed conditions, vehicles slowing to enter premises and to vehicles emerging from driveways.
- Prevailing sight distances.
- Speed limit and operating speed if this is higher than posted speed limit.
- Swept path tests of the DESIGN vehicle and any oversized vehicles expected.

A passing lane (i.e. "CHR" treatment under the RTA's "Road Design Guide") for vehicles around right turn entry traffic is expected to be the minimum treatment for both access driveways, given the sight line restrictions. A left turn deceleration lane is also expected for both driveways. However, it is recommended that the northern driveway interface with Greendale Road should be rejected given the adverse terrain and impacts upon the adjacent property driveway.

2.1.3 Internal Road Design

The Internal access road design should allow for the efficient movement of traffic and allow additional kerbside (parallel) parking opportunities to maximise casual visits to individual plots. A statement of compliance with regard to the road width for the intended speed limit plus the opportunity / quantity of additional casual parking should be provided by the applicant's traffic engineer.

2.1.4 Parking Requirements

Whilst the applicant has provided information on the parking requirements for staff and visitors associated with various buildings on the site, no supportive information has been provided by the applicant's traffic engineer with regard to, *inter alia*, the following:

- Temporary parking at entry reception directory.
- Detailed assessment of proposed parking supply with respect to compliance with AS2890.1-2004 & AS2890.6-2009.
- Detailed compliance of traffic flow lane width, internal speed limit and measures (or management plan) to control traffic speed.

It is noted that the URP report identifies on-site parking for "Long Vehicles" plus "Minibus/Bus parking" without identifying the lengths of these vehicles. This should be provided by the applicant.

2.1.5 Parking Supply

The on-site parking supply should be identified with an allocation plan that identifies the following:

- Staff parking locations & parking space dimensions.
- Visitor / short term parking locations & parking space dimensions.
- Disabled parking locations & parking space dimensions.
- Hearse parking / standing locations & dimensions.
- Service vehicle parking locations during service activities (e.g. landscape vehicles) and locations for overnight storage (if intended).

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2.2 321 Greendale Road, Greendale

2.2.1 Traffic Generation

Concern is raised with the traffic generation analysis conducted by *Varga Traffic Planning Pty Ltd* (VTP) in the 4 March 2010 report, which does not address a worst case assessment for the proposed driveway location. VTP considers only the peak arrival and departure of staff associated with the site and its impact during the weekday 7.30am to 8.30am and 5.00pm to 6.00pm periods only.

We note that a supplementary assessment was provided by VTP on 19 April 2010, however that assessment does not identify the number of services that were conducted on the comparison sites and is therefore of little assistance. The focus on the 8-9am and 5-6pm and ignores the peak traffic generation times that occurs between 9am through to 1pm.

For example the Forest Lawn survey identified a peak hourly traffic generation of 143 vehicles per hour for the period from 11.45am to 12.45pm, compared with the much lower volumes of 20 vehicles for the 8-9am period and 37 vehicles per hour for the 5-6pm period. Also it is evident that during the 9.15am to 10.15am period a significant entry flow of 104 vehicles (with 17 leaving) occurred. This significant entry flow will potentially have adverse traffic safety and traffic flow efficiency impacts if the access driveway from Greendale Road is not adequately designed.

Similar arguments arise if the Pine Grove surveys are considered in detail (e.g. 54 vehicle trips per hour (vtp) for 8-9am; 50 vtp for 5-6pm; 376 vtp for the 12.30-1.30pm periods).

Our research indicated that numerous services tend to occur in both the morning (10am to noon) and afternoon (12.30pm to 3.30pm) periods depending upon the number of service facilities (i.e. chapels, temples etc). Further, at times when services are held not all mourners can be accommodated by individual facilities and often stand outside. Our research at another cemetery (Northern Suburbs Crematorium, Delhi Road, North Ryde) indicates that when 4 services are held within 90 minutes (1.5 hours) of one another a peak hourly traffic generation of around 300vtp would occur.

It is usual practice to consider the effects of a worst case traffic generation outcome that may occur at some other time of the day or week.

To this end cemeteries and crematoriums usually generate peak traffic activity associated with services held on-site either in chapels or at grave sites. In addition to this is the traffic associated with mourners attending grave sites on special days of the year (such as Mothers Day, Fathers Day, Anzac Day, Christmas etc).

For the proposed development that includes five (5) places of worship / gathering (i.e. 2 temples, 1 chapel, 1 mosque and 1 synagogue) the likely attendances at services coupled with the car occupancy rate (assuming all mourners travel by private vehicles to and from the site) needs to be established via surveys at a similar development. No adequate surveys of a similar site have been undertaken (with number of services & patronage for those services identified), nor has any worst case traffic generation assessment been undertaken linked to an identified number of services held.

Without adequate external traffic generation analysis the subject development should be rejected. A further review of the driveway access design could occur once adequate detailed traffic analysis is provided that responds to the concerns raised.

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2.2.2 Access Design (Frontage Road)

The access design from the frontage road is highly relevant based upon a worst case traffic generation assessment. The RTA's *"Road Design Guide"* and 2005 AUSTRROADS *"Guide to Traffic Engineering Practice - Part 5: Intersections at Grade"* publications should be sourced in the frontage access design analysis. Factors that need to be considered for the driveway access design are as follows:

- Road environment class (urban or rural).
- Driver reaction time to respond to changed conditions, vehicles slowing to enter premises and to vehicles emerging from driveways.
- Prevailing sight distances
- Speed limit and operating speed if this is higher than posted speed limit.
- Swept path tests of the DESIGN vehicle and any oversized vehicles expected.

A passing lane (i.e. "CHR" treatment under the RTA's *"Road Design Guide"*) for vehicles around right turn entry traffic is expected, given the sight line restrictions. A left turn deceleration lane is also expected.

2.2.3 Internal Road Design

The internal access road design should allow for the efficient movement of traffic and allow additional kerbside (parallel) parking opportunities to maximise casual visits to individual plots. A statement of compliance with regard to the road width for the intended speed limit plus the opportunity / quantity of additional casual parking should be provided by the applicant's traffic engineer.

2.2.4 Parking Requirements

Whilst the applicant has provided information on the parking requirements for staff and visitors associated with various buildings on the site, no supportive information has been provided by the applicant's traffic engineer with regard to, *inter alia*, the following:

- Temporary parking at entry reception directory.
- Detailed assessment of proposed parking supply with respect to compliance with AS2890.1-2004 & AS2890.6-2009.
- Detailed compliance of traffic flow lane width, internal speed limit and measures (or management plan) to control traffic speed.

2.2.5 Parking Supply

The on-site parking supply should be identified with an allocation plan that identifies the following:

- Staff parking locations & parking space dimensions.
- Visitor / short term parking locations & parking space dimensions.
- Disabled parking locations & parking space dimensions.
- Hearse parking / standing locations & dimensions.
- Service vehicle parking locations during service activities (e.g. landscape vehicles) and locations for overnight storage (if intended).
- Swept path tests of the DESIGN vehicle and any oversized vehicles expected.

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2.3 31 Greendale Road, Bringley

2.3.1 Traffic Generation

The *Hemanote Consultants* (HC) November 2009 traffic report states that *"the site is to be used for the burial of deceased members of the Muslim community, where all prayer ceremonies to take place off-site at mosques."*

Given that no ceremonies will be held on-site, the previous level of detailed assessment associated with on-site services (as identified for the other two sites on Greendale Road) is not necessary, however the DA does propose 110 on-site parking spaces. The question therefore arises as to why so many parking spaces are proposed. Comparisons with other cemeteries on the number of parking spaces is not considered to be an appropriate method as the other sites chosen for this comparison allow for on-site ceremonies.

If no ceremonies are intended to be held on-site then the applicant should identify why 110 parking spaces are provided. It may be as a result of a convoy of cars proceeding to the site from an off-site ceremony.

Further detailed analysis from the applicant's consultant should therefore be requested to consider the impacts of a procession / convoy of vehicles entering the site from Greendale Road and the impact of that outcome on the design of vehicular access that ensures a passing lane for vehicles along Greendale Road around right turn entering traffic.

In addition, the applicant's traffic engineer should be advised that the posted speed limit at the frontage of the site is 80km/h not 60km/h as stated on page 30 of the HC November 2009 report.

2.3.2 Access Design (Frontage Road)

The access design from the frontage road is highly relevant based upon a worst case traffic generation assessment. The RTA's *"Road Design Guide"* and 2005 AUSTRROADS *"Guide to Traffic Engineering Practice - Part 5: Intersections at Grade"* publications should be sourced in the frontage access design analysis. Factors that need to be considered for the driveway access design are as follows:

- Road environment class (urban or rural).
- Driver reaction time to respond to changed conditions, vehicles slowing to enter premises and to vehicles emerging from driveways.
- Prevailing sight distances
- Speed limit and operating speed if this is higher than posted speed limit.
- Swept path tests of the DESIGN vehicle and any oversized vehicles expected.

A passing lane (i.e. a "BAR", "AUR" or "CHR" treatment under the RTA's *"Road Design Guide"*) for vehicles around right turn entry traffic is expected. A left turn deceleration lane is also expected.

2.3.3 Internal Road Design

The internal access road design should allow for the efficient movement of traffic and allow additional kerbside (parallel) parking opportunities to maximise casual visits to individual plots. A statement of compliance with regard to the road width for the intended speed limit plus the opportunity / quantity of additional casual parking should be provided by the applicant's traffic engineer. The first 50m from the entry gate should be restricted by *"No Stopping"* signage rather than the *"No Parking"* signage suggested by HC.

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2.3.4 Parking Requirements

Whilst the applicant has identified a parking quantum that needs further supportive information, no supportive information has been provided by the applicant's traffic engineer with regard to, *inter alia*, the following:

- Detailed assessment of proposed parking supply with respect to compliance with AS2890.1-2004 & AS2890.6-2009.
- Detailed compliance of traffic flow lane width, internal speed limit and measures (or management plan) to control traffic speed.

2.3.5 Parking Supply

The on-site parking supply should be identified with an allocation plan that identifies the following:

- Staff parking locations & parking space dimensions.
- Visitor / short term parking locations & parking space dimensions.
- Disabled parking locations & parking space dimensions.
- Hears parking / standing locations & dimensions.
- Service vehicle parking locations during service activities (e.g. landscape vehicles) and locations for overnight storage (if intended).
- Swept path tests of the DESIGN vehicle and any oversized vehicles expected.

2.4 630 Twelfth Avenue, Rossmore**2.4.1 Traffic Generation**

The *Hemanote Consultants* (HC) December 2009 traffic report states that there will be 3,300 burial plots, a function/prayer room, office/amenities and 83 on-site parking spaces.

No details are provided with respect to the size / area of the proposed function/prayer room and its likely use in terms of patronage levels for ceremonies or other gatherings. This detail should be provided in order to assess the likely traffic generation associated with the proposed function/prayer room. Other than this use, the 3,300 burial plots and office/amenity uses on the site are not expected to give rise to adverse traffic and parking consequences either within or external to the site.

2.4.2 Access Design (Frontage Road)

The proposed driveway access design, as identified in the HC report is considered acceptable.

2.4.3 Internal Road Design

The proposed driveway internal road design, as identified in the HC report is considered acceptable, subject to swept path diagrams provided for two way traffic at the 90 degree bends within the internal road system. Internal traffic management (in terms of line marking, regulatory signage and devices) would assist in creating an orderly development.

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2.4.4 Parking Requirements

Whilst the applicant has identified a parking quantum that needs further supportive information, particularly in regard to whether additional on-site parking is needed for the proposed function/prayer room, no supportive information has been provided by the applicant's traffic engineer with regard to, *inter alia*, the following:

- Detailed assessment of proposed parking supply with respect to compliance with AS2890.1-2004 & AS2890.6-2009.
- Detailed compliance of traffic flow lane width, internal speed limit and measures (or management plan) to control traffic speed.

2.4.5 Parking Supply

The on-site parking supply should be identified with an allocation plan that identifies the following:

- Staff parking locations & parking space dimensions.
- Visitor / short term parking locations & parking space dimensions.
- Disabled parking locations & parking space dimensions.
- Hearse parking / standing locations & dimensions.
- Service vehicle parking locations during service activities (e.g. landscape vehicles) and locations for overnight storage (if intended).
- Swept path tests of the DESIGN vehicle and any oversized vehicles expected.

We trust the foregoing suits your needs at present and we ask that you contact the undersigned should you require further information or assistance.

Yours faithfully

M^CLAREN TRAFFIC ENGINEERING

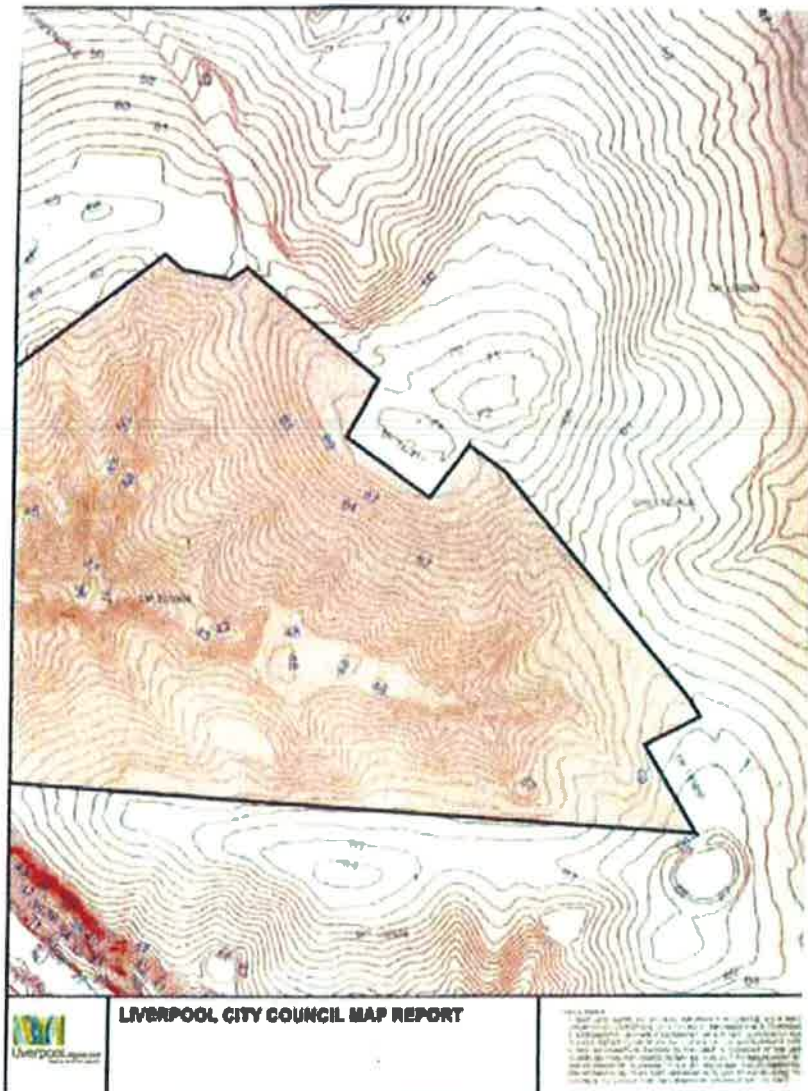


Craig M^CLaren
Director

BE Civil, Graduate Diploma (Transport Eng) MAITPM MITE (1985)
RTA Accredited Level 3 Road Safety Auditor (1988)
Traffic Control Plan Certifier (Red Card) (2009)
Qualified Traffic Engineer (1985)

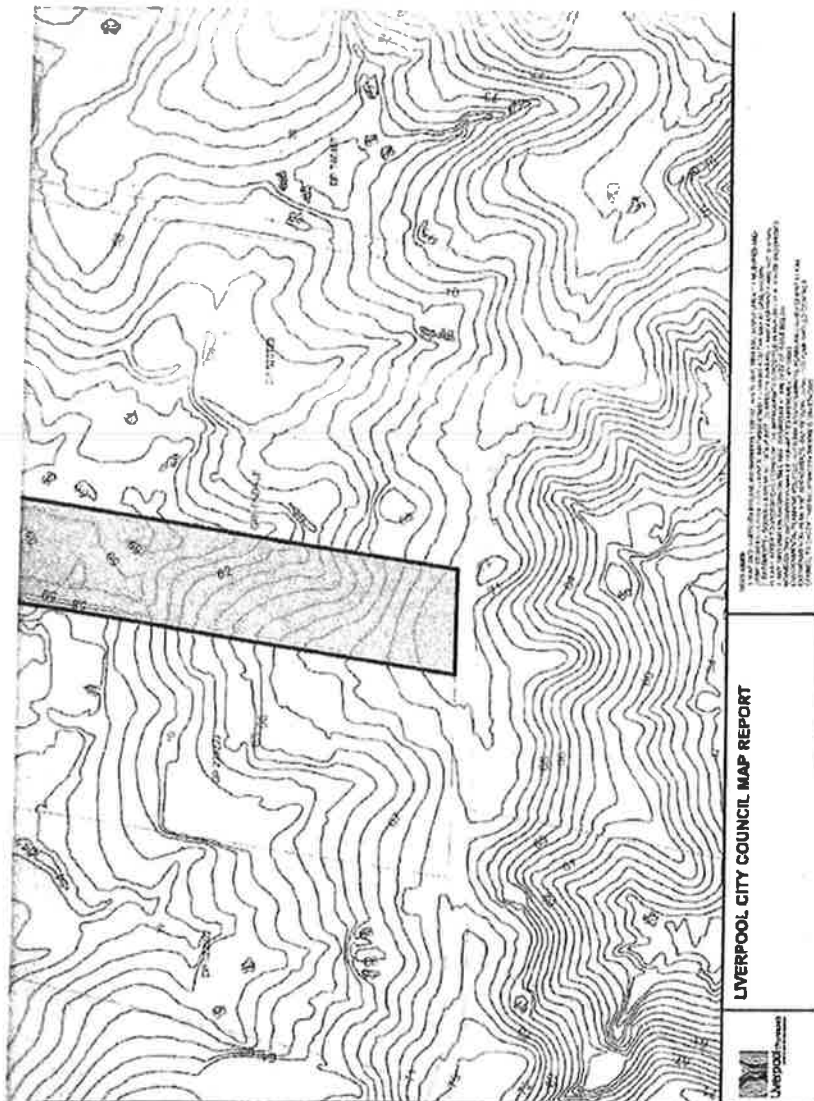
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ANNEXURE A: 992 GREENDALE ROAD, GREENDALE SITE LOCATION MAP



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ANNEXURE B: 321 GREENDALE ROAD, GREENDALE SITE LOCATION MAP



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ANNEXURE C: 31 GREENDALE ROAD, BRINGELLY SITE LOCATION MAP



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ANNEXURE D: 630 TWELFTH AVENUE, ROSSMORE SITE LOCATION MAP



5. Chronology of amendments to planning controls

Chronology of amendments to planning controls

DATE	ACTION
Wednesday 29 September – Thursday 28 October 2010	<p>Exhibition of Liverpool Development Control Plan 2008 (Draft Amendment No. 5) – Rural Land Uses.</p> <p>The DCP amendment was exhibited with a minimum 10ha lot size for cemeteries.</p>
29 September 2010	<p>Pre DA meeting was held with Acting Manager Statutory Planning for cemetery proposal at 41 Greendale Road, Bringelly.</p> <p>Correspondence issued 25 October 2010 (attached).</p>
22 October 2010	DA394/2011 was lodged.
29 November 2010	<p>Council resolved to adopt changes to Liverpool Development Control Plan 2008 (Rural Land Uses):</p> <p>The DCP amendment as adopted by Council had a minimum 15ha lot size for cemeteries.</p>
8 December 2010	Amendments to Liverpool Development Control Plan 2008 (Draft Amendment No.5) – Rural Land Uses came into force.