



Our reference: DA17/1092 ECM:
Contact: Robert Craig
Telephone: 4732 7593

23 February 2018

Cameron Nixon
Catholic Metropolitan Cemeteries Trust
c/- Urbis Pty Limited

Email to: cnixon@urbis.com.au

Dear Mr Nixon

Development Application No. 17/1092

**Staged Construction of Wallacia Memorial Park including Cemetery for 88,000 Burial Plots, Chapel & Related Crematorium & Function Rooms, Administration Building, Services Outbuilding, Parkland Areas, Internal Roads, Car Parking & Associated Landscaping & Site Servicing Works
13-15 Park Road Wallacia**

An assessment of your Development Application has identified the following key issues in relation to the proposal:

- The crematorium appears to be a dominant use in its own right and is a prohibited land use within the E3 Environmental Management zone.
- The function rooms are a prohibited land use within the E3 Environmental Management zone and given their removed location relative to other Stage 1 works do not appear to be an ancillary component.
- Insufficient information has been provided with regard to flooding impacts to enable an informed assessment about the suitability of the site for this proposal.
- The layout of various memorial styles will result in unacceptable visual impacts.
- Traffic modelling has not considered impacts on Greendale Road.

You are requested to consider your position in relation to these matters and meet with Council to discuss your intentions in relation to the proposal based on these matters.

In addition, the following matters and information requests will need to be satisfied should the preceding key issues be resolved.

1. Permissibility of aspects of the development

The refurbishment of the golf club to be used as an ancillary functions centre to the cemetery is proposed as part of the earlier stage works. Given the location and its distance from the main cemetery it is concluded that this is able to operate independently to the cemetery and is a prohibited land use.

2. Matters raised by the Sydney Western City Planning Panel

Planning issues seen as requiring specific attention include:

- a) Integration of the landscaping and design of the proposal with the adjacent Wallacia village taking into account its rural character.
- b) Impacts of the design on views available from the public domain noting specifically the approach adopted of concentrating the taller memorial structures around the circumference of the site with the lawn areas in the site's centre.
- c) The possibility of moving the taller memorial structures away from Park Road and the Western end of the site.
- d) Consideration of riparian and groundwater impacts.
- e) Attention to impacts on the feeder roads for the locality of funeral processions, and the need for any mitigating measures.
- f) Impacts of emissions from the crematoria.
- g) Council's concerns about permissibility should be addressed by a clear description of the proposed use(s) of the existing clubhouse building.

3. Request for information from Department of Primary Industries – Water

- a) A Flood Sensitivity Analysis for riparian vegetation planting. The development has proposed that the outer 50% of the vegetation riparian zone around watercourse 2 (Jerry's Creek) will be free of under story vegetation. The watercourse assessment further proposes that this area be retained as open space. This proposal does not meet the DPI Water Controlled Activity guidelines (CAA guidelines). It is unclear as to whether this area is offset elsewhere within the development.
- b) A Stormwater Management Plan
- c) A Vegetation Management Plan outlining the vegetation density within the vegetation riparian zone and determine the maximum vegetation density with consideration of offsite flood impacts.

Note: DPI Water require that offset vegetated riparian zones are provided in accordance with the CAA guidelines. Specifically, all proposed offset areas must be planted with fully structured riparian planting.

4. Engineering

Stormwater Drainage and Flooding

- a) The Stormwater Management Plan (SWMP) by Stormy Water Solutions as referred to on page 9 of the Warren Smith and Partners - Civil Engineering Services Report dated 20 October 2017 shall be submitted for review. Please note that a design report including a stormwater drainage plan for each basin and drainage system consistent with the computer modelling layout, a summary of the DRAINS modelling results, catchment plans, all assumptions and model parameters used shall be submitted with the Development Application.
- b) The Warren Smith and Partners - Civil Engineering Services Report dated 20 October 2017 – page 9 also makes reference to a RORBS model being used to calculate the required volume of the basins/tanks.



Site specific analysis shall be undertaken using an appropriate computer model, Council's preferred model is DRAINS.

c) Further OSD Design details shall be provided addressing the following:

- i. OSD Systems are required to release water after the park storm event to provide capacity for future events. Therefore, any proposed OSD systems should not include any existing ponds, rainwater tanks, water retention basins or dams;
- ii. Detention storage areas is to be located at a level that is above the 1:5 ARI Flood level;
- iii. A maintenance program shall be prepared and included in the Stormwater Management Report;
- iv. A plan view, pit, swale, weir, outlet, section detail etc. for each detention basin proposed shall be shown on the stormwater drainage plans. Each section detail shall also include the existing creek level / outlet connection in the detail;
- v. The drainage line between pits 2/17 and 3/17 on stormwater drawing C6.03 is within/under the existing club house building. In this regard, an additional pit may be required to ensure that the pipe is clear of any existing structures;
- vi. The provision of rainwater tanks for rural outbuildings and structures must follow and be sized in accordance with clause 5.3 of Council's Stormwater Drainage Specification for building developments. Larger tanks are required to a maximum 90,000l for land zoned E3 or E4 in accordance with Section C3.8 of the DCP 2014.
- vii. All Water Sensitive Urban Design (WSUD) measures such as vegetated swales, bio retentions, rain gardens, stormwater quality devices etc. shall be shown on the stormwater drainage plans;
- viii. All vegetated swales shall be provided with reduced levels / invert levels to demonstrate that the system drains to their respective OSD basins;
- ix. The pre-existing and post development catchment plan for each OSD and drainage system shall be shown on the plans. The designer shall also demonstrate/include upstream/external stormwater catchments draining through the site and included as part of the OSD storage or considered as bypassing;
- x. The extent of the 1% AEP flood and any overland flow paths upstream of the OSD basins shall be shown on the stormwater drainage plans;
- xi. Erosion and sediment control plan shall be provided for the road and drainage works; and
- xii. It shall be demonstrated how existing soil type and associated constraints (e.g. salinity and poor percolation) have been considered in the drainage design. The designer shall also consider the recommendations outlined in the Preliminary Geotechnical Report prepared by Martens Consulting Engineers – October 2017.

Road Design

- a) All proposed roads shall be labelled (i.e. Road 1) and generally coincide with the Site Plans prepared by Ignite;
- b) A longitudinal section of the centreline of the internal roadways showing the chainages, reduced level of existing surface levels, and design level of the road, design grades, shall be provided on the plans;
- c) A typical cross-section of each road shall be provided on the plans;
- d) A detailed concept plan of the intersection treatment for the Road 1 (Entrance A - Main entry access) off Park Road shall be shown on the Civil drawings in accordance with the recommendations in the Traffic Impact Assessment prepared by The Transport Planning Partnership Pty Ltd dated 26 October 2017;
- e) A detailed concept plan of the driveway treatment for the Road 2 access off Park Road (Entrance B – Staff only access opposite existing workshop) shall be shown on the Civil drawings. Access details shall be in accordance with Council standard detail - SD1005;
- f) A detailed concept plan of the driveway treatment for the Road access off Park Road (fronting the club house) shall be shown on the civil drawings;
- g) A detailed concept plan of the driveway treatment for the Road access off Mulgoa Road (north west of the site) shall be shown on the civil drawings. Please note that the existing bus stop is within close proximity to the access point;
- h) Details of the proposed carpark modifications adjacent to the club house shall be provided. It is also unclear of what is proposed within the front setback of the club house and the parking arrangements;
- i) Traffic sign posts and pavement markings in accordance with AS 1742 – Manual of Uniform Traffic Control Devices are to be provided where required;
- j) Engineering drawings have shown existing trees in accordance with the survey plans. However, details of trees proposed for removal shall be clearly defined.

Note: Penrith City Council's Tree Preservation Order defines a tree as "a perennial plant with a self-supporting stem which has a girth of 300mm or more, measured at a distance 400mm above the ground and has a height in excess of 3.0m).

5. Environmental Waterways

WSUD Strategy

The information submitted with the development application should also include a WSUD Strategy which includes information on the following:

- a) WSUD Principles, Objectives and Targets;
- b) Site analysis which identifies any possible constraints for the implementation of WSUD;
- c) Details in the proposed WSUD measures including concept designs of the proposed measures;



- d) Details of proposed GPTs should also be included to ensure that the proposed devices are modelled appropriately in MUSIC and are suitable for use in the Penrith LGA.

Music Modelling

- a) The modelling completed shall be revised to inform development of a stormwater treatment system and WSUD strategy for the development site. The design must meet the following environmental pollutant retention criteria:
 - i. 90% Gross Pollutants
 - ii. 85% Suspended solids
 - iii. 60% Phosphorus
 - iv. 45% Nitrogen, and
 - v. There are also requirements to meet water conservation and flow management targets (refer to WSUD Policy)
- b) The MUSIC model needs to include a report which clearly identifies catchment breakup, splitting of surface types and all other assumptions that have been made in the model. This must include detail down to the sub-catchment level. Electronic copies of the modelling are also to be submitted to Council for review.
- c) Modelling parameters for the determination of the size and configuration of WSUD elements must be in accordance with MUSIC Modelling Guidelines for New South Wales (eWater User Guide which is provided with the MUSIC Software (2011) and with the parameters developed for use in Penrith. Council has developed a range of parameters to be used in the Stormwater modelling which is available in Council's WSUD Technical Guidelines (available www.penrithcity.nsw.gov.au). You are encouraged to use MUSIClink which is available in the latest version of MUSIC as it allows the model to be prepared using Council's required parameters.

Concept Plans

The plans shall be prepared in accordance with Council's WSUD Technical Guidelines and include Cross-section details (showing filter depth, extended detention, media layers and sub-soil drainage detail etc.), basin sizing details and planting details (vegetation type and density). The type of device / treatment measures and location including details on access for maintenance must also be shown on the plan.

Operation and Maintenance

A Draft Operation and Maintenance manual should also be provided of for the proposed stormwater treatment measures. The manual should include details on the cleaning / maintenance requirements as well as provide an estimation on the annual and lifecycle costs associated with the proposed treatment measures.

Council's WSUD Technical Guidelines are available on Council's Website and were prepared to outline how to comply with the requirements of Council's WSUD policy and outline Council's requirements in relation to the contents of a WSUD Strategy and detail required for concept designs to be lodged with the

development application. The guidelines refer to resources which guide the development of suitable plans for submission with a development application.

Groundwater / Water Management

The recommendations provided in relation to the management of groundwater in the report prepared by Martens shall be completed prior to the approval being granted. Specifically, further assessment of groundwater condition be undertaken for contamination of the groundwater risk and management considerations, including:

- a) Detailed surveying of the groundwater well locations and levels to obtain more accurate groundwater data,
- b) Ensure groundwater monitoring period includes a minimum of 2-3 significant wet weather events and corresponding dry weather periods, and
- c) Detailed groundwater modelling (using MODFLOW) of the site to determine groundwater levels over the entire site.

Further information is required on the interactions between the ground water and proposed stormwater treatment measures as well as existing waterbodies and bores located within the vicinity of the proposed development including offsite.

6. Public Health

- a) Confirmation is required as to whether the premises is conducting body preparation and/or embalming if so, the location of the body preparation rooms and compliance under the Public Health Regulation, disposal of bodies. Should the bodies be prepared on site the following information is required:
 - i. location of hand wash basin supply of warm water and hands free
 - ii. construction and locations of slabs/tables and fittings to comply with smooth impervious and can be effectively cleaned
 - iii. location of one or more impervious containers, each fitted with an elbow operated or foot operated closed lid, for the reception and storage of solid waste arising from the preparation of bodies and storage of all screenings from floor drains
 - iv. floor drains location and materials of drains for the removal of body waste. waste licensing details for the removal/collection of the body fluids
- b) Confirmation that item 4 called mortuary is:
 - i. area for refrigeration of bodies or holding of unrefrigerated bodies (statement required)
 - ii. size of the mortuary big enough to hold adult bodies
- c) Body holding room
 - i. A statement confirming that the body is to be kept for no longer than 48 hours
 - ii. Information on disposal bins and waste services provided for body bags and clinical waste
 - iii. Plant room for ventilation and refrigeration compressors/fans/equipment



- d) Confirmation that all bodies will be buried no less than 900mm below the natural surface level of the soil where the body is buried. A statement to be provided that should 'shallow burial' be approved, compliance with NSW Health Policy Directive 'Shallow Burial' Document Number PD2013_045
- e) Confirmation that bodies to be placed in vaults are prepared off site (has been embalmed and hermetically enclosed)
- f) Confirmation bodies brought to the crematorium is cremated within 4 hours of the delivery. If body is placed in a holding room, statement confirming this is required
- g) Confirmation of registers for all activities (cremation, mortuary) to be created and kept on site
- h) Statement confirming compliance with clause 57 of the Public Health Regulation 2012 a person must, when carrying out any procedure on a body, comply with the guidelines specified in Part B of the Australian Guidelines for the Prevention and Control of Infection in Healthcare as published by the National Health and Medical Research Council.
- i) Lower level floor plan catering:
 - i. Compliance with AS4674-2004 Design Construction and Fit out of a food premises.
 - ii. The function of the 'kitchen on the lower level floor' Is the kitchen used for full food preparation or plating up only of food for the conference rooms. Additional details on the kitchen to show compliance with the Australian Standards based on its function/use
 - iii. Bar area specifically hand washing facilities; warm water common spout and hands free, slop sink for waste liquids, floor waste drainage or mop sink
 - iv. Cool room connected to sewer for the waste water from the condenser
- j) Ground floor plan:
 - i. Compliance with AS4674-2004 Design Construction and Fit out of a food premises for the kitchen and bar area. Details of the following are required:
 - ii. Hand washing facilities warm water common spout and hands free
 - iii. Staff toilets (including hand washing facilities)
 - iv. Fixtures fittings and equipment locations in the bar and kitchen including materials to be used; smooth impervious and can be effectively cleaned
 - v. Floor waste drainage locations or mop sink
 - vi. Exhaust system location and compliance with AS1668.1 & 1668.2
 - vii. Wash up areas (double bowl sink or dishwasher that is capable for sanitizing of equipment)
 - viii. Cool room connected to sewer for the waste water from the condenser



- k) Must comply with AS4674-2004 Design Construction and Fit out of a Food Premises in relation structure being smooth impervious, fitted with a hose tap connected to a water supply, graded and drained to a waste disposal system.

7. Biodiversity

- a) An amended Tree Assessment report shall be submitted rectifying all the discrepancies between the tables and the maps.
- b) A 'weed' species shall be prioritised for removal above the removal of an native species. There are instances where privet is retained instead of natives.
- c) Additional consideration is to be given to the retention of the following trees: T133, T238, T244, T247, T784, T876, T877, and all habitat trees/hollow-bearing trees. The trees in the patch of Cumberland Plain Woodland that falls within the APZ area of the Chapel should also be reconsidered. As stated in the Flora and Fauna Assessment Report, it is unlikely that clearing will be required for the APZ as they already generally meet the IPA requirements. No native trees should be cleared without a clear and demonstrated need and unless all alternatives have been considered.
- d) A Vegetation Management Plan is to be prepared for the site. The VMP is to be jointly prepared by a Landscape Architect and an Ecological Consultant or Bush Regenerator with theoretical and practical experience in bushland restoration and management on the Cumberland Plain (a Certificate IV in Conservation and Land Management or equivalent is required as a minimum). It is to be informed by both the Flora and Fauna Assessment Report and the Landscape Masterplan. The VMP is to:
 - i. be consistent with relevant environmental legislation and policies, including, but not limited to, the NSW Biodiversity Conservation Act 2016, the Biosecurity Act 2016 the Water Management Act 2002, the Rural Fires Act 1997 as well as the federal Environment Protection and Biodiversity Conservation Act 1999, and guidelines such as the Rural Fire Services Planning for Bushfire Protection 2006 and Recovering Bushland on the Cumberland Plain: Best practice guidelines for the management and restoration of bushland (DEC, 2005).
 - ii. Identify and map the various vegetation management zones across the site and the primary objectives for each zone.
 - iii. A detailed plan that clearly outlines how vegetation should be protected and managed in each zone both during construction/establishment of the development and the ongoing future management of the vegetation over the life of the development.
 - iv. In areas identified as Cumberland Plain Woodland and River Flat Eucalypt Forest, the focus is to be on best practice bush regeneration methods and habitat improvement and augmentation.
 - v. Specify a plant species list to be used on site with a clear focus on species from the Cumberland Plain. This is to align with the Landscape Plan, which should also have a planting palette that is dominated by species native to western Sydney.
 - vi. The VMP is to identify potential future impacts on the vegetation from the development and road, including access, weed

encroachment, pest animals, stormwater etc, and is to outline how these impacts will be managed in the long term.

- vii. Project tasks should be defined and described, including a schedule detailing the sequence and duration of works necessary for the initial 5 years of the implementation of the VMP.
- viii. Costings for the initial 5 years of implementation of all components and stages of the work including materials, labour, watering, maintenance, monitoring and reporting should be included.
- ix. Processes for monitoring and review, including a method of performance evaluation should be identified. This should include replacing plant losses, addressing deficiencies, problems, climatic conditions and successful completion of works.

8. Environmental Management

Acoustic

- a) Further information shall be provided on the operating hours of the clubhouse including delivery times of goods and services associated with the operation and maintenance of the clubhouse;
- b) Clarification is needed indicating that the distance the noise meter was located from the most affected sensitive noise receiver (INP states if this is more than 30m from the residence, the logger should be located at the most affected point within 30 m of the residence);
- c) While a statement indicating sound mitigation measures will be implemented for the furnaces (and number of) and mechanical plant, further acoustic information and compliance with NSW INP and POEO Act 1997 will be will need to be provided once the specific brand of furnace has been decided. Location of flue will also need to be provided;
- d) Noise level predictions have been provided for 1 furnace from 7am-6pm, however the development states that 2 furnaces will be operating on a worst case scenario of 24 hours a day 365 days/year. Further detailed assessment needs to be provided on source noise levels of the furnace and equipment mechanical plant for day, evening and night;
- e) Further detailed assessment needs to be provided on accumulative operational noise impact from building services equipment day, evening and night; noting that evening background noise 29dBA at the most sensitive receiver allows for maximum noise output of 34dBA;
- f) No information has been provided on noise sources from mechanical equipment operating from the kitchen or catering area. Further detailed assessment needs to be provided on the operational noise impact on residence from the cool room compressor fans and exhaust fans for day, evening and night.



Wastewater

- a) Further information on sediment control for washing of vehicles needs to be provided. Identification of areas where trucks are to be hosed down and location of storm water drains to be identified. Sediment erosion control measures need to be detailed around areas where pollution could occur from liquid waste;
- b) Specific details of how waste water is to be disposed of needs to be supplied.

Operational Waste

- a) Further information is required on liquid, clinical or hazardous waste relating to the body preparation prior to burying or cremating needs to be identified with nominated waste facility stipulated.

Land contamination

- a) The presence of hotspots of pesticides, herbicides and fertilisers contaminants in the soil need to be identified through further testing.
- b) While the report states that the type of contamination of potential areas of environmental concern (PAEC) associated with these areas is low to medium hazard rating (level 1 to 2), it is agreed that further intrusive investigation is carried out to determine the extent of each PAEC and identify any further potential contamination of concern.
- c) Salinity has been identified through the DIPNR, 2002 'Salinity Potential in Western Sydney' as having 'moderate salinity potential'. Further investigation on salinity levels are required due to the evidence of scalding and indicator vegetation on historical mapping.
- d) Further detailed site investigation (DSI) should be undertaken including intrusive investigation, sampling analysis and assessment to determine land use suitability focusing on the identified PAEC. DSI should follow the requirements of the National Protection Authority (NSW EPA) Guidelines:
 - i. Guidelines for the NSW Site Auditor Scheme 3rd Edition (EPA 2017)
 - ii. Guidelines for Consultant reporting on Contaminated Land Sites (EOH 2011)
 - iii. Sampling Design Guidelines (EPA 1995)
 - iv. Other Guidelines made or approved by the EPA that are relevant to the site such as Australian Standards or guidance on a specific issue.
- e) It is recommended that a hydrological risks assessment is carried out. The risk assessment will be based upon data and knowledge gained from the desktop assessment and the intrusive site investigation. The scope of the risk assessment required will be dependent on site specific factors such as intended annual burial rate, the local vulnerability of groundwater and the scale of the site proposed.

Geotech report

Detailed plans of the burials be provided indicating the layout of the burial plots. The following must be take into consideration (practice guides cemeteries burials and the water environment):

- a) Burial plots should be at least 250 m away from a borehole, spring or well used for the supply of drinking water.
- b) Burial plots should be at least 50 m away from all other boreholes, springs or wells.
- c) Burial plots should be at least 50 m away from a river or wetland
- d) Burial plots should be at least 10 m away from field drains (this also includes old agricultural drainage systems no longer in use as they can act as preferential pathways).
- e) If bedrock is encountered in the trial pit, that area of the site should not be used for burials.
- f) The area of the site is not suitable for burial if there is standing water at the bottom of the burial pit when first dug.

9. Landscape Strategy

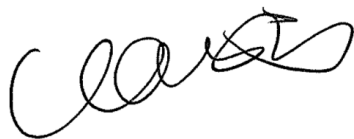
The location of different monuments raises concerns given that 'high headstones' are generally located in areas close to Park Road and visible from the rural village. The visual impact would be vastly reduced where smaller monuments are located to the perimeter of the site to the south and west.

Please be advised that the application has been referred to Referral Bodies/other sections of Council for comment and the application is currently on exhibition until 28 February 2018.

Additional information or further amendments may be requested on receipt of their advice and conclusion of exhibition period. Prior to providing a response, please seek confirmation from Council that all relevant information has been requested as additional information could require further revision upon receipt of outstanding referral comments.

Should you have any further queries on this matter, please contact Robert Craig, Principal Planner on (02) 4732 7593.

Yours sincerely,



Clare Aslanis
Senior Environmental Planner