



Camden Council

Attachments

Ordinary Council Meeting
22 April 2014

Camden Civic Centre
Oxley Street
Camden



ORDINARY COUNCIL

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Briefing paper - Emerald Hills Planning Proposal

The purpose of this briefing paper is to further address the issues of the Raby Road Corridor and Biobanking.

Raby Road Corridor

In relation to the submission from Transport for NSW which makes reference in their general comments to a 43 metre (6 lanes) wide corridor, the following should be noted by way of background:

- The comment is offered as advisory only as the road is not a state road and therefore Council is the relevant road authority;
- The 43 metre requirement for a transit boulevard is drawn from the South West Growth Centre Road Network Strategy. This document was revised in 2011 and has remained unadopted and not public. Council is advised that a review is being considered;
- The Growth Centres DCP, which is relevant here given Raby Road is included in the SIC and the tail within the growth centre boundary, requires 29.4 metres for a transit boulevard;
- By way of comparison, recent detailed work on Rickard Road has indicated the required corridor in this circumstance transitions from a 4 lane 22m wide corridor to a maximum 6 lane 35 metre wide corridor;
- There are significant existing constraints which would make the provision of a 43 metre wide corridor extremely difficult including the severe topography along the length of the road. Raby Road is only funded by the SIC to Thunderbolt Drive, however beyond that the existing road corridor is limited to 4 lanes as a result of the development of the adjacent Kearns and Eschol Park and then further limited to 2 lanes as it crosses the M31;
- The draft VPA being negotiated between the state government and the proponent includes a proposal to upgrade Raby Road to 29.4 metres for the full length of their site from the intersection with Camden Valley Way to the canal, which is a total length of 700 metres. The state government have written to the proponent (cc'ing Council) indicating that they concur with the offer and acknowledge that subsequent Development Applications will be lodged for the works and that further comments will be provided at that stage. Importantly, they have not required widening to 43 metres in this agreement.
- Traffic modeling undertaken as part of the rezoning indicates the required configurations at the access intersection. This has been catered for in the design of Raby Road at 29.4m and is reflected in the proposed SP2 land which will accommodate the road widening required for this development.
- TfNSW have verbally indicated that their comments are advisory only, that a 43 metre corridor may not be achievable due to the significant existing constraints outlined above, and that they are willing to participate in a working group to resolve the issues associated with both Raby Road and St Andrews Road. Further, they have indicated their preparedness for the rezoning to proceed. Despite several requests, TfNSW have not been prepared to confirm this position in writing.

Council officers agree with the status as a transit boulevard but don't believe the 43 metres is either necessary or achievable given the circumstances. Even if a wider corridor was determined to be required, it can't be assumed that all of the land is to be facilitated on the Emerald Hills side of the road. The developer is dedicating 9.3m – 12.3m of land on the Emerald Hills side of Raby Road via a State VPA as part of the Raby Road upgrade works. Negotiations would need to occur with a number of other landowners. To impose a 43 metre wide corridor on the Emerald Hills development in isolation is neither justified nor reasonable.

The issues of road width for both Raby Road and St Andrew's Road and the associated role and function are critical issues to be resolved but need to be considered in the context of the broader strategic road network. Council officers have, for some time, requested a working group be established, similar to a successful recent process undertaken for Rickard Road. TfNSW has indicated its willingness to participate in such a process. Council officers will continue to advocate this issue as a matter of urgency.

In addition to Emerald Hills, there are 2 other rezonings that are currently progressing towards public exhibition which will also be impacted upon by this issue, including determining appropriate access arrangements. Collectively, the 3 rezonings provide for a range of housing options to be provided in the short to medium term. These include:

- Emerald Hills 1280 lots – 200 – 600m2 with some larger lots of between 1000 – 4000m2
- Chambers 260 lots – 450 – 2000m2 + lots
- 121 Raby Road 32 lots – 4000m2 lots

Bio Banking

BioBanking is a mechanism for assessing, minimising and offsetting the impacts of development on biodiversity. It balances the needs of landowners and developers with the need to maintain biodiversity.

It has four main parts

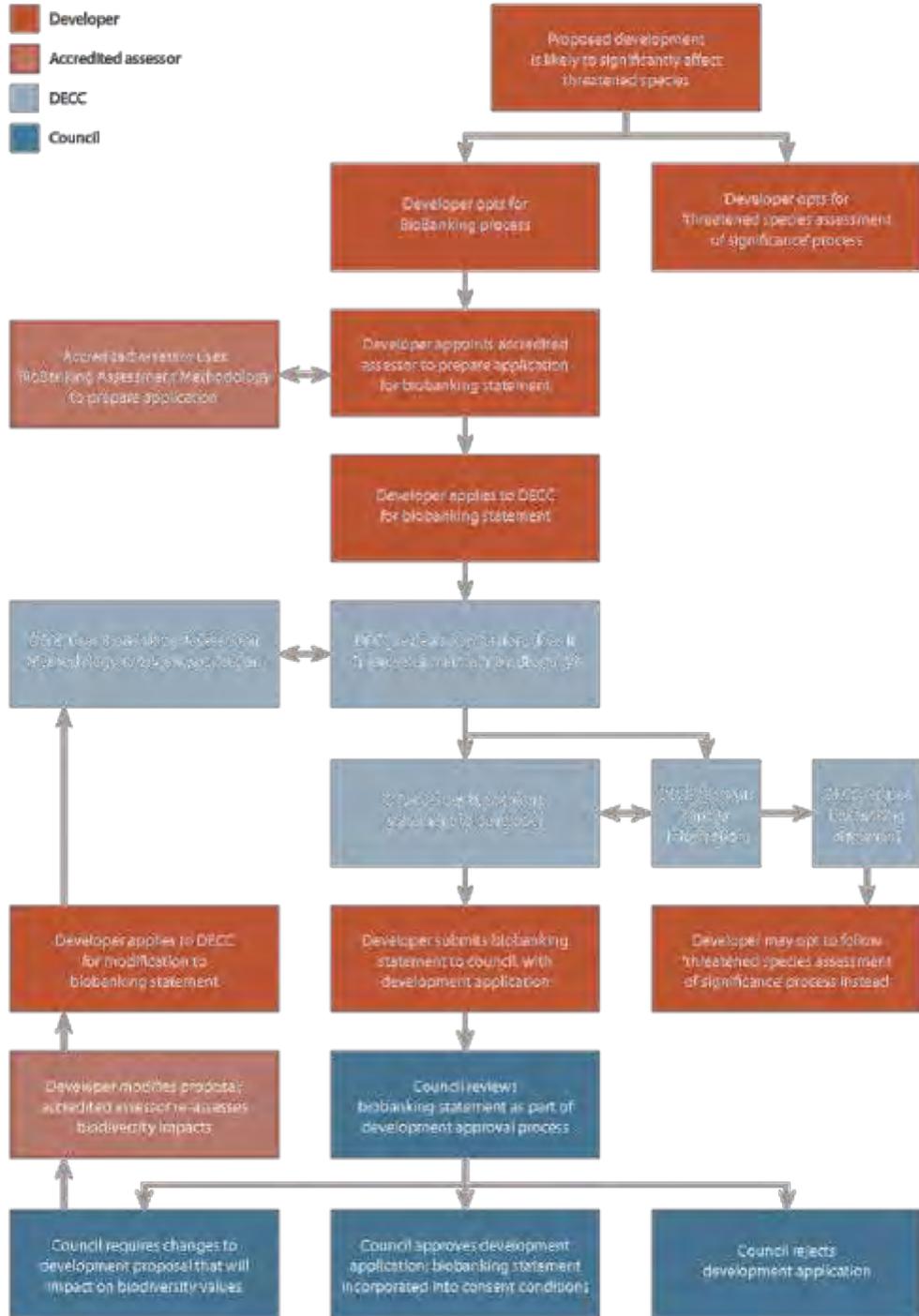
- an assessment process – called the BioBanking Assessment Methodology – used to assess biodiversity values at a site
- biobanking agreements between DECC and landowners who will conserve biodiversity on their land (biobank sites)
- biobanking statements issued by DECC to developers, relating to development sites
- a system of 'biodiversity credits' which can be bought and sold. The trading of these credits is how biodiversity impacts are offset from one site to another, i.e. from a development site to a biobank site.

When biodiversity credits are first sold (or first retired if they haven't been sold before) the Total Fund Deposit must be deposited into the Biobanking Fund Trust (administered by the NSW Office of Environment and Heritage). The Total Fund Deposit is the net present value of all management actions and other recurring costs (worked out using the biodiversity credits pricing spreadsheet) and is specified in each biobanking agreement.

The fund provides annual payments to the landowner to enable them to carry out the management actions described in their biobanking agreement. The agreement also includes the payment schedule.

The following flow chart comes from the Biobanking handbook for Local Government and describes biobanking as it relates to the development application process.

BioBanking in the development application process



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It is important to note that Council does not have a role in the negotiation or implementation of Biodiversity agreements. These are agreements between the state government and the developer which typically occur at the development applications stage as part of the approval of vegetation removal. In this instance, the developer has been proactive, with Council's assistance, in the early preparation and negotiation of the biodiversity assessment and subsequent biodiversity agreement.

Council could, if it so chooses, become the owner of bio banking sites in its role as the local public authority. This is not however, being proposed at this time.

Planning and Infrastructure have indicated that they are satisfied with the E2 zoning proposed in Emerald Hills as providing sufficient protection for the planning proposal to proceed. P & I further advise, bio offsetting is a matter that is able to be resolved prior to development consent.

It is also important to note that the legislation does not stipulate the location for the vegetation offset to be provided.

Attachment 1



ORDINARY COUNCIL

ORD03

SUBJECT: EMERALD HILLS REZONING
FROM: Acting Director Governance
TRIM #: 14/29147
PREVIOUS ITEMS: ORD03 - Emerald Hills rezoning - Ordinary Council - 22 October 2013

PURPOSE OF REPORT

The purpose of this report is to provide Council with an update following the public exhibition of the Emerald Hills planning package, and to seek a Council resolution to:

- endorse the planning package which includes the amended Indicative Layout Plan (ILP), Camden LEP 2010 map amendments, Camden DCP 2011 amendments, Voluntary Planning Agreement, amended Planning Proposal and supporting documentation;
- forward the planning package to Planning and Infrastructure so that the planning proposal can be made;
- enter into the Emerald Hills Voluntary Planning Agreement; and
- adopt the amendments to Camden DCP 2011 for the Emerald Hills site.

BACKGROUND

The Emerald Hills site is bound by Camden Valley Way, Raby Road, St Andrews Road and the Sydney Water Upper Canal. The total area of the site is 151.1 hectares and the land is currently zoned RU2 Rural Landscape under the Camden LEP 2010. A location plan of the site is provided as **Figure 1 in this report**.

The Emerald Hills rezoning proposes to create 1,280 residential lots with approximately 4,100 residents, and proposes to rezone the land from the existing RU2 Rural Landscape zone to a combination of R2 Low Density Residential, B2 Local Centre, E2 Environmental Conservation and SP2 Infrastructure zones.

A key component of the rezoning is the retention of over 20 hectares of remnant Cumberland Plain Woodland (CPW) at the north-eastern corner of the site. The CPW will be zoned E2 Environmental Conservation and the proponent intends that this land will become a Biobanking site.

At the meeting of 14 February 2012, Council considered a report on a planning proposal to rezone the land for urban purposes. Council subsequently resolved to:

- i. *Support the Planning Proposal to amend the Camden Local Environmental Plan 2010 as outlined in this report;*
- ii. *Forward the Planning Proposal to the Department of Planning and Infrastructure for Gateway Determination*
- iii. *Upon receipt of a favourable Gateway Determination:*
 - a. *Obtain written agreement from the proponent to fund all the costs associated with the planning proposal,*
 - b. *Consult relevant Public Authorities in accordance with the terms of the Gateway Determination;*

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Attachment 2

- iv. Subject to (iii (a)) above and following the conclusion of further studies and technical advice, prepare a further report to Council prior to the public exhibition period.

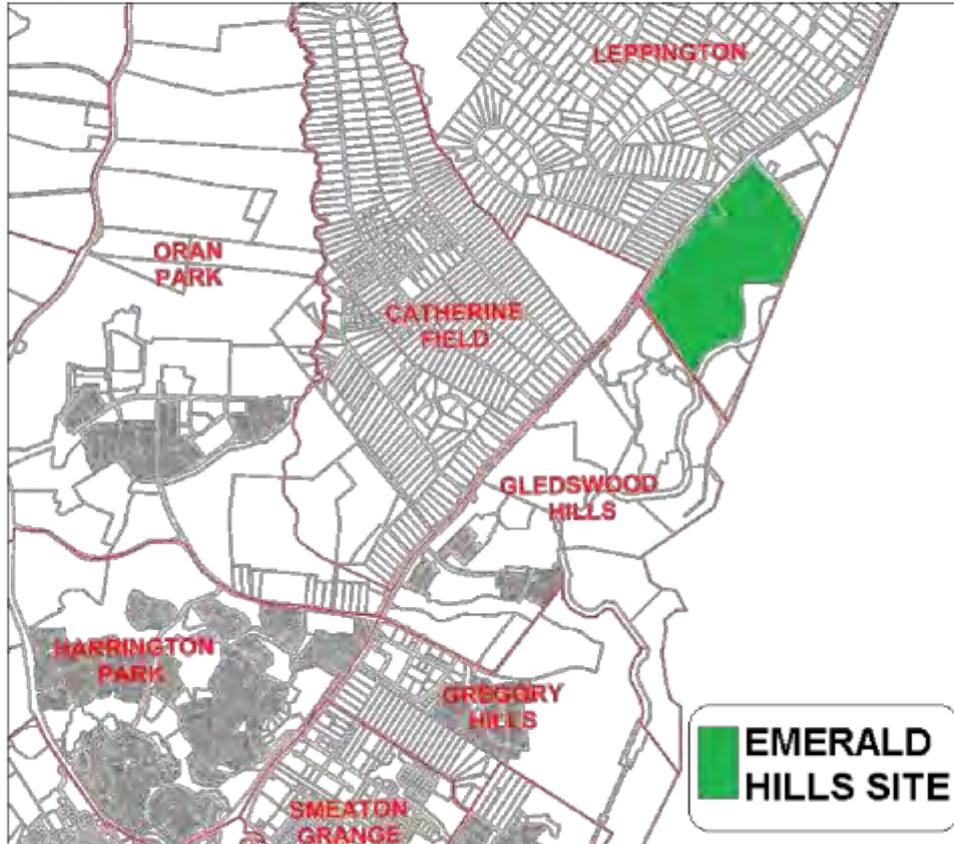


Figure 1 – Location plan for Emerald Hills site

Council received a Gateway Determination from Planning and Infrastructure on 8 July 2012 which advised that the Planning Proposal may proceed. Following the receipt of the Gateway Determination, officers obtained written agreement from the proponents to fund all of the costs associated with the planning proposal and prepared a detailed project plan and probity plan to guide the planning process.

The Emerald Hills rezoning was workshopped with Council on 8 October 2013 and a subsequent report was considered at the meeting of 22 October 2013, where Council resolved to endorse the planning package for Emerald Hills and to proceed to public exhibition and state agency consultation.

Following the public exhibition and state agency consultation period, a follow-up workshop was held with Council on 11 March 2014 to provide an update regarding the submissions received during the exhibition period, and to review the amended land zoning and dwelling density provisions contained in the amended planning package.



MAIN REPORT

Exhibition period and submissions

The Emerald Hills planning package was exhibited from 30 October to 27 November 2013, and in accordance with the Council resolution and Gateway Determination, state agencies were also provided with the opportunity to comment. A total of thirteen submissions were received including ten state agency submissions, one submission from Campbelltown Council, and two resident submissions. The content of the submissions and detailed responses and actions to all submissions are **tabled in Attachment 1 to this report**. Four of the more substantial agency submissions are discussed in greater detail below.

Transport for NSW (TfNSW) inclusive of RMS

Issue

TfNSW requested that a 43m road reservation be provided to accommodate future road widening of Raby Road to a 'transit boulevard' standard, which includes four travel lanes and two bus lanes (six lanes in total).

Response

The draft ILP and Land Acquisition Map for Emerald Hills sets aside land to facilitate a 29.4m road reservation width for Raby Road. This includes a widening of the existing road reservation by 9.3m to 12.3m into the Emerald Hills site. This width is consistent with the approved road width of Gregory Hills Drive which also has 'transit boulevard' status.

The topographical constraints and existing land holdings along Raby Road present significant challenges to achieving a road reservation width of 43m to facilitate the future construction of a six lane 'transit boulevard'. A 29.4m road reservation with four travel lanes is considered to be a more appropriate outcome. TfNSW understands this issue and has advised that the planning proposal may proceed, with Council officers to participate in a future working group with TfNSW and RMS regarding Raby Road.

Issue

TfNSW requested that St Andrews Road be provided with a 35m road reservation to accommodate a future sub-arterial road.

Response

The existing road reservation at St Andrews Road is sufficient to accommodate a four lane road with narrow verges. Further widening of St Andrews Road is constrained by the residential land to the north (which was rezoned via the East Leppington rezoning) and the Cumberland Plain Woodland (CPW) which is proposed to be zoned E2 Environmental Conservation under the Emerald Hills rezoning, and is intended to be Biobanked as part of the biodiversity offset strategy for Emerald Hills.

TfNSW have noted the constraints associated with St Andrews Road and have advised that a review of the South West Growth Centre Road Network Strategy will commence shortly. Council officers will participate in a future working group with TfNSW and RMS to determine the most appropriate outcome for St Andrews Road. TfNSW has advised

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that the planning proposal may proceed prior to the resolution of the road reservation width for St Andrews Road.

Office of Environment and Heritage (OEH)

Issue

OEH requested that greater certainty be provided regarding the protection of the CPW at the north-eastern corner of the site, and that clarification be provided regarding the method of offsetting the removal of the CPW scattered across the remainder of the site.

Response

The planning proposal intends to zone the CPW land as E2 Environmental Conservation. This zoning provides for the fundamental protection of this land by restricting the permissible uses on the land, and by preventing any future development that is not related to the conservation of the land.

Planning and Infrastructure has advised that applying an E2 Environmental Conservation zoning to the land provides a sufficient level of protection for the land to enable the planning proposal to proceed. Planning and Infrastructure further advised that biodiversity offsetting is a matter which can be resolved prior to development consent being granted on the Emerald Hills site.

It is also noted that the proponent intends to lodge a Biobanking Application with OEH to enable the CPW land to become a Biobanking Site under the *Threatened Species Conservation Act 1995*. This will provide certainty regarding the enhancement and maintenance of the CPW land into the future, and will also establish the site's role in meeting the necessary biodiversity offset credits to permit the removal of the scattered CPW across the remainder of the site.

To inform the proposed Biobanking Agreement, the proponent commissioned the preparation of a Biodiversity Certification Assessment Report (BCAR) to identify the number of biodiversity credits required to offset the proposed CPW removal. The BCAR report has been reviewed by OEH and Council officers and is supported in principle. The BCAR is included in the suite of specialist studies referenced later in this report.

The BCAR identifies that the proponent must enter into a Biobanking Agreement with the OEH for the 20.27 hectares of CPW located within the E2 Environmental Conservation zoned land at Emerald Hills, as well as acquiring off-site credits. To achieve this, the proponent has acquired land at The Oaks which contains a significant amount of CPW. The BCAR also identifies that it is necessary to Biobank both of these sites in order to generate sufficient overall credits to offset the proposed CPW removal on the Emerald Hills site.

The proposed Biobanking Agreements will need to be finalised prior to granting of development consent for any works which require the removal of CPW on the site, as the proponent will need to demonstrate compliance with the *Threatened Species Conservation Act 1995* via future development applications on the site

Department of Education and Communities (DEC)

Issue

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DEC provided criteria which needed to be considered in determining the appropriateness of future school sites, including the size of the site, accessibility, traffic management, car parking, and adequate road frontage for bus access.

Response

Council officers and the proponent met with DEC officers to review the proposed primary school site at Emerald Hills. As a result of this meeting, the ILP was amended by reconfiguring the school and double playing field sites to allow pedestrian and vehicular access to be improved. The road hierarchy diagram shown at Figure C70 in the draft DCP controls for Emerald Hills was amended to indicate the provision of a roundabout at the front of the school site which provides shared vehicular access to both the school site and adjacent double playing fields. The roundabout will be constructed at the proponent's cost as part of the internal road network under the draft Emerald Hills VPA. Following these changes, DEC has advised Council in writing that it is now satisfied with the proposed school site.

Heritage Council of NSW

Issue

The Heritage Council of NSW reiterated the previous comments and associated requirements received during the pre-exhibition agency consultation, including the submission of a photographic archival record, the preparation of a heritage interpretation strategy, and the commencement of an Aboriginal Cultural Heritage Assessment (ACHA).

Response

The background of the Emerald Hills site is that it housed the former St Andrews Home for Boys which was established in 1934 and used in various capacities until 1987. The buildings on the site were never listed as items of local, state or national heritage significance.

Council granted development consent on 17 February 2011 to demolish the existing buildings on the site, with demolition commencing on 11 April 2012. The demolition was suspended in July 2012 due to a Gateway Determination condition which required heritage assessment of the site to be undertaken. This assessment was finalised in late February 2013 and a detailed review was undertaken in consultation with the Heritage Branch of the Office of Environment & Heritage. In light of the partial demolition of the buildings on the site, and the recent State Heritage Listing of 'Tocal' (located in the Dungog Shire) which is considered to be a better and more complete example of the architectural style featured in the buildings of the St Andrews Home for Boys, it was considered appropriate that the remaining buildings be demolished following the preparation of an archival photographic record. Subsequently, an archival photographic record was prepared and the demolition of the buildings was completed in June/July 2013.

In response to the Heritage Council's comments, the proponent has edited the archival photographic record by digitally lightening the photographs to improve legibility. The draft DCP controls for Emerald Hills includes specific controls relating to Aboriginal and European heritage which require the preparation of a heritage interpretation strategy prior to the lodgement of development applications for the proposed public open space in the vicinity of the former school site.



Amended planning package

The exhibited planning package has been updated to reflect the matters discussed throughout this report, along with minor corrections and amendments. The amended planning package comprises the following documents:

- Amended planning proposal which includes proposed amendments to the Camden LEP 2010 which **is included as Attachment 2 to this report;**
- Draft amendment to Camden DCP 2011 for Emerald Hills which **is included as Attachment 3 to this report;**
- Draft Indicative Layout Plan which **is shown at Figure 3 in this report;**
- Draft VPA which **is provided under separate cover as Attachment 4 to this report; and**
- Specialist Studies which due to their physical size, have been **provided to Councillors in electronic format via CD under separate cover.**

The amendments to the planning package are discussed below.

Indicative Layout Plan

The Indicative Layout Plan (ILP) for Emerald Hills has been amended as follows:

- The environmental conservation land has been shown in brown which provides greater contrast against the adjacent low density residential land. This amendment **is indicated by the number '1' on both the exhibited and amended ILPs;**
- Following consultation with DEC, the proposed primary school site (shown pink on the ILP) has been amended so that the location of the shared vehicular access to both the school site and double playing fields is now shown in grey. This amendment **is indicated by the number '2' on both the exhibited and amended ILPs; and**
- The proposed cul-de-sac within the development have been amended by showing a round turning head instead of a square turning head. This is a visual change on the ILP only and has no material impact upon the actual road network design.

The exhibited ILP **is shown at Figure 2 below** and the amended ILP **is shown at Figure 3 on the following page.**



Figure 2 –exhibited Emerald Hills ILP (November 2013)

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Attachment 2



Figure 3 – amended Emerald Hills ILP (March 2014)

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Dwelling density controls and zoning

The draft planning proposal and draft Emerald Hills DCP controls have been amended in response to Councillor comments at the workshop of 8 October 2013 and the subsequent Council meeting on 22 October 2013. The amendments provide certainty regarding the land zoning, location of different lot sizes and types, and the proposed residential density at Emerald Hills.

Land zoning via planning proposal

The planning proposal was exhibited with a R1 General Residential zoning applying to the residential component of the Emerald Hills site. The intention of this land zoning was to maintain consistency with the land zoning applied in similar urban release areas in the Camden LGA. The R1 General Residential zone permits a wide range of residential and non-residential land uses subject to development consent, including dwelling houses, attached dwellings, semi-detached dwellings, multi dwelling housing and residential flat buildings. The exhibited Land zoning Map is shown at Figure 4 below.

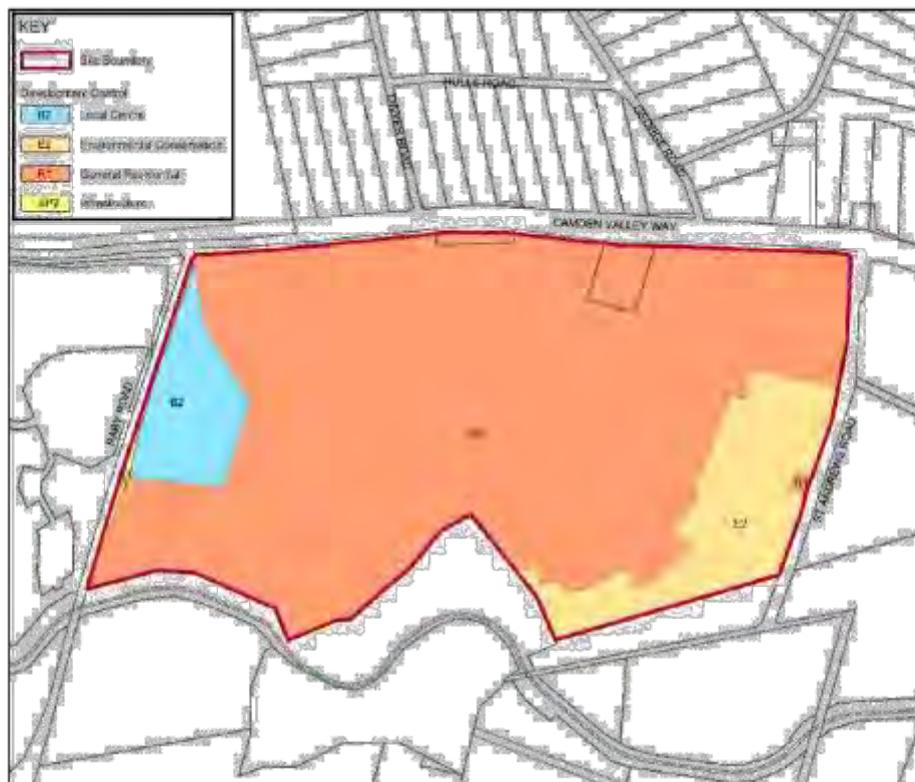


Figure 4 – Exhibited draft Land Zoning Map with R1 General Residential

Following the exhibition of the Emerald Hills planning package, Council officers and the developer have reviewed the intended future land uses on the Emerald Hills site. The developer has confirmed that they have no intention of developing residential flat buildings, multi dwelling housing, attached dwellings and semi-detached dwellings at Emerald Hills. As a result, alternative zoning options for the residential component of Emerald Hills were investigated.



The R2 Low Density Residential zone only permits dwelling houses and dual occupancies with development consent, whilst all other forms of residential development are prohibited in this zone. This is consistent with the developer's intentions for Emerald Hills and facilitates a low density urban outcome. Accordingly, the R2 Low Density Residential zone is considered to be the most appropriate residential zoning for Emerald Hills.

The amended Land Zoning Map is shown at Figure 5 below.

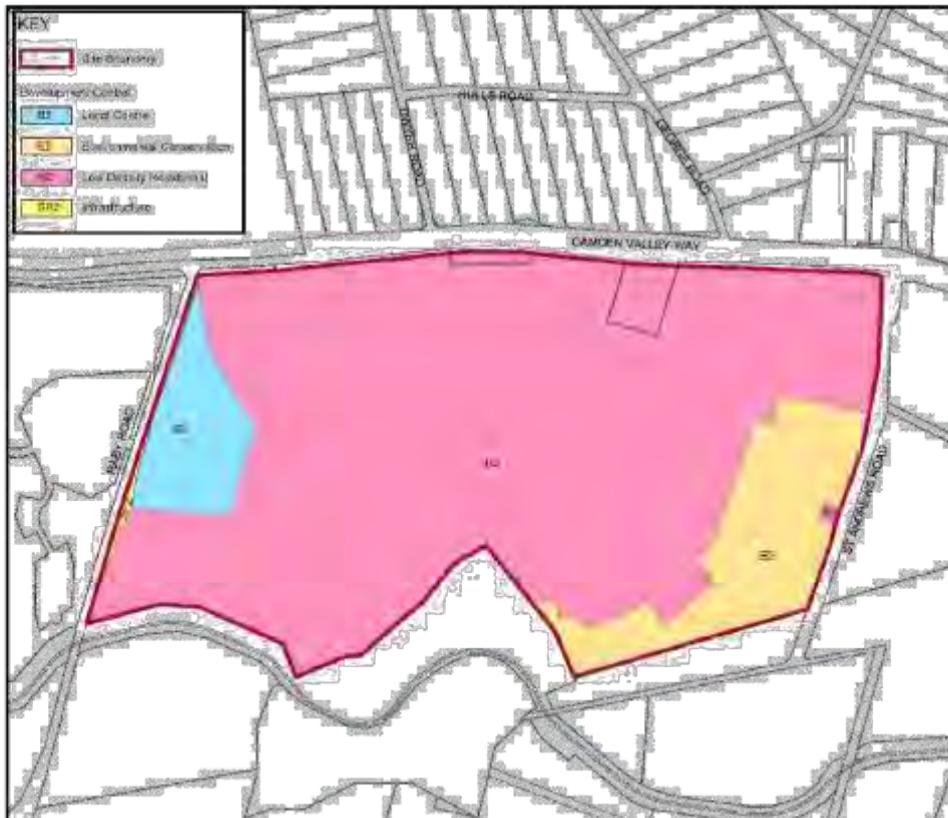


Figure 5 – Amended draft Land Zoning Map with R2 Low Density Residential

Exhibition homes as an Additional Permitted Use

Amending the zoning from R1 General Residential to R2 Low Density Residential results in exhibition homes becoming a prohibited land use in Emerald Hills, as exhibition homes are prohibited in the R2 General Residential zone under the Camden LEP 2010. The proponent has advised that they intend to incorporate exhibition homes into the first stage of development at the southern corner of the site fronting Raby Road. To enable this to occur, the planning proposal has been updated to include an amendment to Schedule 1 (Additional Permitted Uses) of Camden LEP 2010 which permits exhibition homes on part of the Emerald Hills site, and the Additional Permitted Uses map will be updated to show the subject land with a heavy blue outline. The draft Additional Permitted Uses map is shown at Figure 6 below.



Figure 6 – draft Additional Permitted Uses Map

The amendment to the Land Zoning Map is considered to be minor given that the R2 Low Density Residential zone will continue to facilitate the development of dwelling houses and dual occupancies at Emerald Hills. These development types are in-keeping with the intended low density urban environment envisaged by Council and the proponents, and will continue to deliver a maximum of 1280 dwellings as noted in the exhibited planning package.

The amendments to the planning proposal do not require re-exhibition as there are no significant changes to the principles and objectives of the exhibited planning proposal.

Amendments to draft Emerald Hills DCP controls regarding dwelling density

The draft Emerald Hills DCP controls have been amended to correlate with the change in zoning from R1 General Residential to R2 Low Density Residential, and to provide greater certainty regarding the maximum dwelling density to be delivered on the site. The amendments to the DCP associated with dwelling density are summarised as follows:

- a) Re-wording several objectives and controls to reinforce the low-density nature of Emerald Hills;
- b) A dwelling density cap of 1280 dwellings and 15 dwellings per hectare;
- c) A dwelling density map which shows the land included in the dwelling density calculations shaded pink, along with the possible locations of smaller residential lots at Emerald Hills hatched red; and



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Attachment 2

- d) A list of the range of lot sizes which will be provided to achieve the dwelling density prescribed under the DCP, including:
- Smaller lot housing (single or two storey detached, semi-detached or zero lot line dwellings) on 220-300m² lots in areas of high amenity as shown hatched red on the Dwelling Density Map;
 - Conventional low density housing lots of between 300-600m² which allow for single or two storey detached dwellings; and
 - Large lots of between 1,000 and 4,000+ m² which are located where attention to landscape visual character, environmental protection, and management of bushfire hazard and noise impact is required.

The locations for smaller residential lots on the dwelling density map have been chosen because of their proximity to the local centre, school, active and passive open space areas, environmental conservation land and bus routes.

The dwelling density map is shown at Figure 7 below.



Figure 7 – Dwelling Density Map

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Other planning proposal amendments

Height of Buildings Map

The exhibited Height of Buildings Map proposed a maximum height of 12.5m for the local centre, 15.5m for residential flat buildings, 8.5m for buildings on the visually prominent ridgeline, and 9.5m for the remainder of the site. The exhibited Height of Buildings Map is shown at Figure 8 below.



Figure 8 – Exhibited Height of Buildings Map

The notation regarding a 15.5m height limit for residential flat buildings has been deleted from the legend of the Height of Buildings Map as the change in zoning from R1 General Residential to R2 Low Density Residential means that residential flat buildings are now prohibited.

The proposed height limit of 8.5m along the ridgeline has been replaced with a height limit of 9.5m which is consistent with the rest of the R2 Low Density zoned land. This amendment has occurred as a result of detailed design work undertaken by the proponent which demonstrates that the ridgeline can be lowered by 3m during the bulk earthworks on the site, rather than 2m as per the exhibited planning proposal. The additional 1m of excavation means that the 1m reduction in building height in this part of the site is no longer required. Section C12.12 of the draft DCP chapter provides a specific control requiring the excavation of the ridgeline by 3m.

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This amendment achieves consistency with the recommendations of the Visual Impact Assessment prepared for the Emerald Hills proposal by maintaining an overall height reduction of future development on the ridgeline by 3m.

An omission in the exhibited Height of Buildings Map has been corrected via the addition of a 9.5m height limit to the portion of R2 General Residential zoned land fronting St Andrews Road. This piece of R2 General Residential zoned land requires a maximum building height limit given that it may accommodate a future dwelling house as part of the ownership of the E2 Environmental Conservation land as discussed later in this report.

The amended Height of Buildings Map is shown at Figure 9 below.



Figure 9 – Amended Height of Buildings Map

Ownership of E2 Environmental Conservation land

The planning package currently proposes that the E2 Environmental Conservation land will be held in private ownership, with the land being subdivided into two lots of approximately 10 hectares each. A small parcel of R2 Low Density Residential zoned land of approximately 1500m² is provided within each of the 10 hectare lots to allow the construction of a single dwelling house, along with appropriate bushfire asset protection zones. The future owners of the 10 hectare lots will become the beneficiaries of the future Biobanking Agreement which will apply to the land, and will be responsible for applying funds received towards the conservation and maintenance of the E2 zoned land.



As an alternative, the developer and landowner have indicated that they are willing to consider dedicating the E2 zoned land to Council. Under this option, Council would become the beneficiary of the Biobanking Agreement funding and Council would be required to perform the conservation and maintenance works for the land. Council officers are currently investigating the financial implications for Council and the likely Biobanking funding to be generated via the Biobanking Agreement.

As a result of this work, should it be considered appropriate for Council to consider ownership of this land, a further report would be brought to Council at that time.

Voluntary Planning Agreement

As a result of undertaking detailed design work to inform future development applications on the Emerald Hills site, the developer has requested the following amendments to the draft VPA. The amended Draft VPA including the staging maps is **provided under separate cover as Attachment 4 to this report**

Amendment to the land area for OS1, OS2, TL1 and TL2

The developer has advised that the draft VPA contains minor discrepancies regarding the land area for OS1 and OS2 (open space land) and TL1 and TL2 (transmission line easement land) as follows:

Item Reference	Original size	Amended size	Difference
OS1	24,560m ²	25,711m ²	1,151m ²
OS2	22,600m ²	24,060m ²	1,460m ²
TL1	23,950m ²	25,013m ²	1,063m ²

The amended land area for OS1 and OS2 results in a net increase of 2,611m² of embellished passive open space, and the amended land area for TL1 results in a net increase of 1,063m² of transmission line easement land. This results in additional embellished open space and transmission line easement land of 3,674m² for the future residents of Emerald Hills at no up-front capital cost to Council.

The draft VPA has been assessed against Council's policies regarding the dedication of riparian and transmission easement land. It is considered that the dedication of this land to Council will provide a net community benefit as it will increase the amount of embellished open space land within the Emerald Hills development.

Amendment to the contribution value of embellishment works

The developer has reviewed the cost of undertaking the proposed embellishment works throughout the VPA and proposes the following amendments to the contribution value of the items below:

Item Reference	Original contribution value	Amended contribution value	Difference
OVAL	\$1,596,600	\$1,646,600	\$50,000
OS2	\$1,372,635	\$1,554,938	\$182,303
OS4	\$606,500	\$626,500	\$20,000



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The increased embellishment costs for the double playing fields (OVAL) reflects a construction cost of \$200,000 for the proposed seating and shade structure, rather than \$150,000 as per the exhibited draft VPA.

The increased embellishment costs for the passive open space in Stage 2 (OS2) reflects the provision of a toilet facility (which is proposed to be relocated from OS1 as discussed below) at a cost of \$100,000, plus the additional embellishment costs resulting from the extra 1,640m² land area to be provided as part of OS2.

The increased embellishment cost for the passive open space in Stage 3 (OS4) relates to the provision of \$20,000 of public art in accordance with a future Heritage Interpretation Strategy relating to the former St Andrews School for Boys which stood on the site.

Amendment to staging map for Stage 1

The developer has requested the amendment of the staging plan to delay the provisions of some of the Stage 1 works until Stage 2. These works include the double playing fields, playground/skate equipment, and a 360m² combined community facility and amenities building at a total construction cost of \$2,862,400.

An assessment has indicated that these facilities are not required until Stages 1 and 2 are fully developed and 407 lots have been provided.

The developer has also requested the relocation of the proposed sheltered picnic area and toilet block from OS1 to OS2. This will ensure that the facilities are not constructed on the visually prominent hilltop which forms part of OS1 (as recommended by the Visual Impact Assessment), and will instead be constructed at OS2 which is not visible from outside the Emerald Hills site.

Council officers are satisfied that the amended VPA staging plan will continue to deliver high-quality and timely recreation and social infrastructure for the future residents of Emerald Hills.

Summary of amended VPA

The amendments proposed result in a total increase in the value of the VPA of \$700,785.

The increase in the contribution value of the VPA is a result of good-will from the landowner and developer, and reflects their dedication and vision in seeking to provide a high quality community for the future residents of the Emerald Hills development. The amended draft Emerald Hills Voluntary Planning Agreement (VPA) represents an offer from the developer to provide \$47.8 million in infrastructure, land dedication and monetary contributions, including:

- A double sports playing field which includes an integrated multi-purpose community hall and amenities building of approximately 360m²;
- 14.1 hectares of local parks, playgrounds, fitness stations and dog-off-leash areas;
- 3,677 linear metres of shared pedestrian and cycle path networks;
- Four bus shelters;
- 7.6 hectares of embellished riparian and electricity easement corridors which will be maintained for five years by the developer;
- A comprehensive water cycle management strategy for the entire site;

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- Monetary contributions towards the district cultural facilities at Leppington North; and
- Monetary contributions towards Council's costs in administering the agreement.

FINANCIAL IMPLICATIONS

There are no direct financial implications for Council other than standard servicing requirements.

CONCLUSION

The Emerald Hills planning package was exhibited for 28 days and a total of thirteen submissions were received. The planning package has been amended to address the matters raised in these submissions where relevant.

The ILP, DCP and LEP controls have been amended to provide certainty regarding the dwelling density at Emerald Hills for both Council and the future landowners at Emerald Hills.

The amended draft VPA will ensure the timely and efficient provision of infrastructure to support the needs of future residents, and includes an additional \$700,785 in works, land dedication and monetary contributions over the exhibited draft VPA.

The Emerald Hills planning package is now ready to be forwarded to Planning and Infrastructure so that the plan can be made.

The Emerald Hills VPA can be entered into when the Council receives advice that the making of the plan is imminent.

The draft amendment to Camden DCP requires adoption following the publishing of the amendment to Camden LEP 2010 for Emerald Hills. Given the different timing of the Planning Proposal and DCP adoption processes, the draft DCP amendment cannot be adopted until the publishing of the LEP amendment. In accordance with *Environmental Planning and Assessment Act 1979* and its regulations, Council can endorse the proposed amendments to the DCP pending the publishing of the associated LEP amendment. Council may then grant delegations to the General Manager to adopt the DCP following the publishing of the LEP amendment. In this regard, this report also seeks to grant delegations to the General Manager for the adoption of the DCP following the publishing of the LEP amendment.

RECOMMENDED

That Council:

- endorse the amended planning package for Emerald Hills which includes the amended planning proposal, draft amendment to the Camden LEP 2010 and associated maps, draft amendment to the Camden DCP 2011, draft Indicative Layout Plan, draft Voluntary Planning Agreement including the explanatory note and attachments, and the suite of supporting documents and specialist studies;**
- forward the amended planning package for Emerald Hills to Planning and Infrastructure so that the planning proposal can be made;**

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-
- iii. execute the Emerald Hills Voluntary Planning Agreement pursuant to Council's Power of Attorney granted on 27 August 2013, Minute Number ORD215/13, or by affixing the Common Seal of Council;
 - iv. notify the Minister of Planning and provide a copy of the Emerald Hills VPA in accordance with the Environmental Planning and Assessment Act and the Regulations;
 - v. grant delegations to the General Manager to adopt the proposed amendments to the Camden DCP 2011 upon the gazettal of the planning proposal;
 - vi. following the adoption of the amendment to the Camden DCP 2011 and in accordance with Clause 21 of the *Environmental Planning and Assessment Regulation 2000*, place a notification in the local newspaper notifying the public of its decision to adopt the proposed amendments to the Camden DCP 2011; and
 - vii. notify all agencies and persons who made a submission during the exhibition period of the outcome.

ATTACHMENTS

1. Attachment 1 Summary of submissions to Emerald Hills exhibition
2. Attachment 2 Emerald Hills Planning Proposal FINAL
3. Attachment 3 Draft Emerald Hills DCP controls March 2014
4. Attachment 4 Draft Emerald Hills VPA March 2014 FINAL



EMERALD HILLS PLANNING PROPOSAL

Amendment to Camden LEP 2010

Emerald Hills, 1100 – 1150 Camden Valley Way, Leppington

Lot 10 DP 1173819 (formerly Lot 2 in DP 650698)

Lot 10 DP 1161557 (formerly Lot B in DP 418632)

Lot 1 in DP 301830

20 March 2014

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APPENDICES

- A- Achievement of State Plan 2021 Goals and Strategies.
- B- Achievement of Metropolitan Plan 2036 Strategic Directions, Objectives and Actions.
- C- Achievement of Metropolitan Plan Sustainability Criteria.
- D- Emerald Hills Planning Report
- E- Existing and Proposed LEP Amendment Maps
- F- Copy of Gateway Determination issued 7 July 2012
- G- Table of compliance with conditions of Gateway Determination
- H- Copy of submissions to the exhibition of the Emerald Hills planning package.

EMERALD HILLS PLANNING PROPOSAL

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Attachment 3

History of Emerald Hills Planning Proposal

The Emerald Hills Planning Proposal was received by Camden Council in late 2011.

At the meeting of 14 February 2012, Council considered a report on the planning proposal and resolved to forward the planning proposal to the DP&I to seek a Gateway Determination.

A Gateway Determination was issued on 7 July 2012. A copy of the Gateway Determination is included as Attachment F to this planning proposal.

A detailed planning report was undertaken by Whelan InSites to assist Council in the preparation of the suite of planning documents and to address statutory matters and the requirements and conditions of the Gateway Determination. The planning report is included as Attachment D. Particular reference is made to the following components of the planning report as they address matters of relevance to the planning proposal and the conditions of the Gateway Determination:

- Part 3 – Strategic and Statutory Planning Frameworks
- Part 4 – Gateway Determination (includes an assessment against the fifteen conditions issued with the Gateway Determination)
- Part 5 – Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No.2 – 1997)
- Part 6 – Specialist Investigations (includes a summary of key outcomes from the specialist studies undertaken during the planning phase)

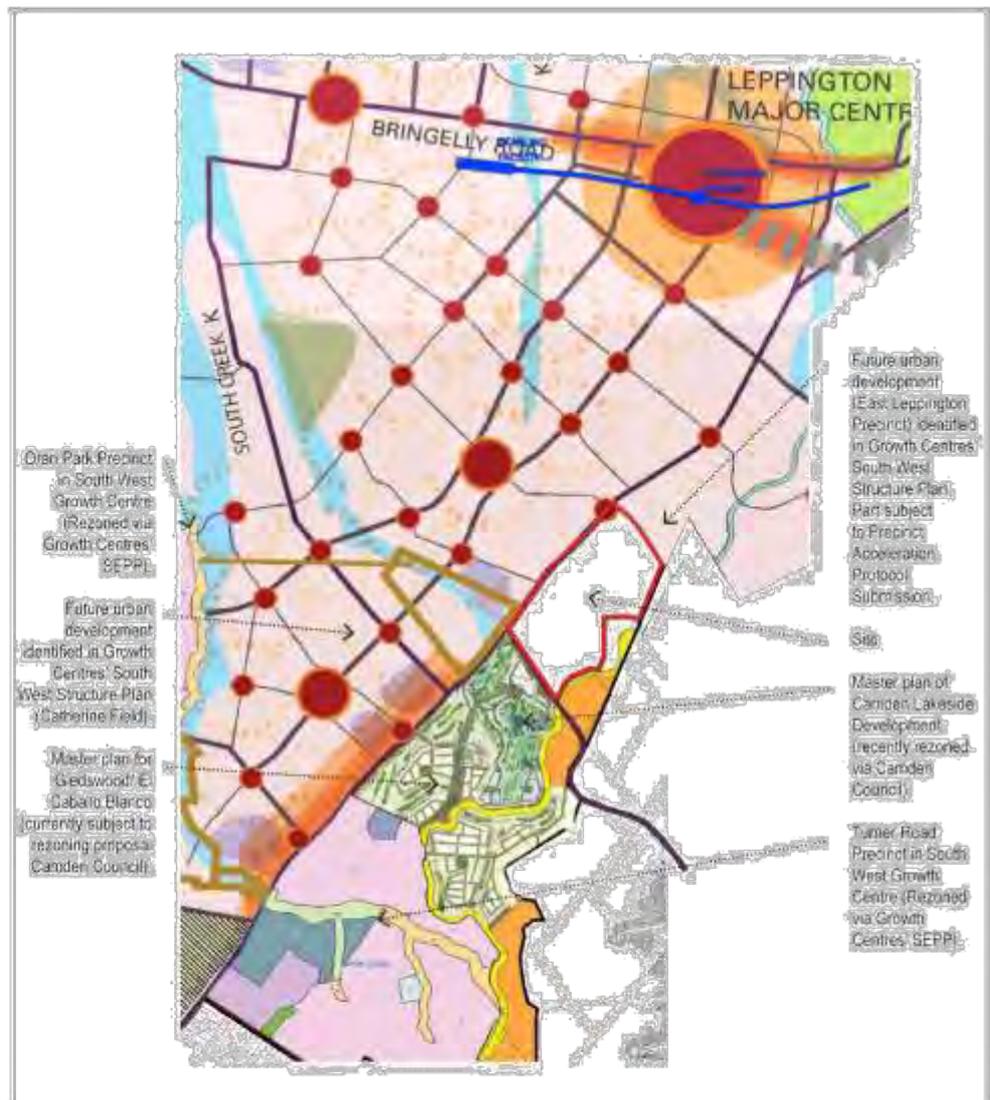
An extract from Part 4 of the planning report is included as Appendix G to this planning proposal to demonstrate how the planning proposal has satisfied the requirements of the Gateway Determination.

The original planning proposal has been amended as of 26 March 2014 to reflect the outcomes of the planning process and the public exhibition of the planning package.

Executive Summary

Emerald Hills comprises 151 hectares of land at No. 1100 – 1150 Camden Valley Way in Leppington. It is located 3.2 kilometres from the Leppington Town Centre. It adjoins the South West Growth Centre and lands subject to recent rezoning for urban purposes on Camden Valley Way, Leppington.

It is located in the heart of a committed development corridor in the Camden Local Government Area in South Western Sydney that is being transformed by new residential communities, infrastructure construction and employment precincts.



Map showing location of site and the proposed urban development surrounding the site

There is significant unmet demand for new housing in the Sydney Metropolitan Area. The property is generally cleared, unconstrained and unencumbered and preliminary planning suggests that it can deliver approximately 1200 dwellings. This yield will meet the 15 dwellings per hectare benchmark density sought by Government. Evolving market preferences that indicate greater acceptance of smaller lots suggest that there is potential scope to achieve a higher density than this benchmark.

Importantly, the property has extensive frontage to Camden Valley Way and Raby Road. Both roads are proposed to be upgraded. Recently, ramps to the Hume Highway / M5 were added to Raby Road to enable direct northbound access onto the M5/M7. The ramps are 5 kilometres from Emerald Hills.

Thus the site can easily be serviced by existing road and bus based public transport and is located only 3.2 kilometres from the new Leppington Station, when construction finishes in 2016. It can also be efficiently serviced by sewer, water and power.

With these foundations it presents a new opportunity to augment the supply of affordable housing in South West Sydney. It also provides a new opportunity to assist in the funding of infrastructure and income via rates to contribute to ongoing maintenance of community assets.

Development of the site can be served by a full range of education, community, recreation and retail and commercial services (and associated local employment) within existing neighbouring centres and the future Leppington Town Centre. Adoption of contemporary technologies and design can ensure water quality objectives and other environmental considerations can be met.

In this context, the current rural zoning of the property is an anomaly. The zoning is clearly not the highest and best use for the land. Furthermore, the property remains the only land on the eastern side of Camden Valley Way not identified, or zoned, for urban development in the future.

There is significant strategic support for the proposed rezoning of the property to urban purposes. Specifically:

- The Strategic Directions of the Metropolitan Plan for Sydney 2036 and the Draft South West Sub-regional Strategy both recognise that an adequate supply of land for residential purposes is required to meet Sydney's growth. Sites for new homes should be within 30 minutes by public transport to jobs and services in a major centre and should be located where there is available or planned public transport capacity. The location of the site meets these directions; and
- Both Strategies apply the Sustainability Criteria of the Metropolitan Strategy 2005 to test the appropriateness of locations for new urban development. The proposed rezoning of the property is assessed against the criteria and found to achieve the criteria in all respects.
- In recognition of the opportunity, Emerald Hills Estate has embarked on a Gateway Rezoning Proposal to amend the zoning of the property to enable urban development. A Planning Proposal report has been prepared in accordance with the Department of Planning's Guidelines and is supported by a positive assessment of the proposal against the Sustainability Criteria in the Metropolitan Strategy 2005. The ability of the property to achieve State Government objectives and deliver significant public benefits with minimal environmental and economic impacts is the genesis of the draft

LEP amendment contained in this Planning Proposal and support for the rezoning proposal is requested.

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Attachment 3

Introduction

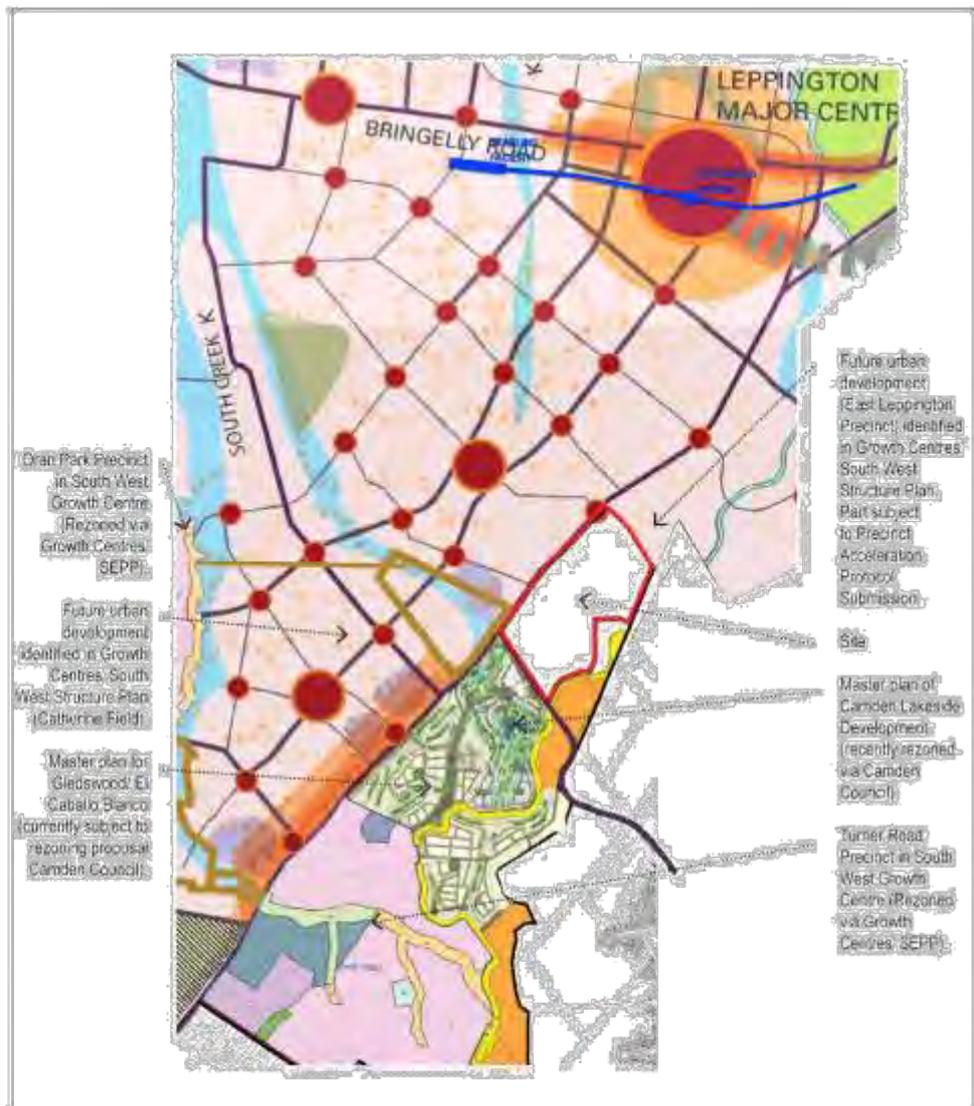
Background

Emerald Hills, No. 1100 - 1150 Camden Valley Way, is located in the suburb of Leppington in the Camden Local Government Area in south west Sydney. A small part of the site in the north east corner is also located within the Campbelltown LGA. However it does not form part of this proposal.



The Emerald Hills site on Camden Valley Way in the Camden LGA

Emerald Hills is located 3.2 kilometres from the future Leppington Town Centre. It lies on the eastern edge of the South Creek Valley on Camden Valley Way in Leppington. It is located in the heart of a committed development corridor in the Camden Local Government Area in South Western Sydney that is being transformed by new residential communities, infrastructure construction and employment precincts. The lands to the north and west of the site are located in the South West Growth Centre and are earmarked to be rezoned for urban development in the near future. Land to the south has recently been rezoned for urban development and subdivision development applications have been approved to commence development.



Map showing proposed urban development surrounding site

It has extensive frontage to Camden Valley Way (1.7 km) and Raby Road (0.85 km). Camden Valley Way is subject to proposals for its upgrading by the RTA in the near future. Raby Road is also proposed to be upgraded as part of the development of the South West Growth Centre. Recently, ramps to the Hume Highway / M5 were added to Raby Road to enable direct northbound access onto the M5/M7. The ramps are 5 kilometres from Emerald Hills.

The property is generally cleared, unconstrained and unencumbered. Preliminary planning suggests that the site can deliver approximately 1280 dwellings. This target will meet the 15 dwellings per hectare benchmark density sought by Government. The density promotes sustainable development underwritten by a viable and convenient public transport service. Evidence from recent market preferences from sales at nearby Oran Park and Gregory Hills indicate that smaller lots are enjoying greater acceptance. The proposed dwelling density of 15 dwellings per hectare includes the provision of smaller lot housing product on 220-300m² lots.

Thus the site will provide new opportunities for, and additional supply of, affordable housing in South West Sydney. It also provides new opportunities to assist in funding of infrastructure and income via rates to contribute to ongoing maintenance of infrastructure.

However, with its remarkable position, elevation and distinctive landscape character, the site can not only increase supply of housing but also increase the choice in housing types and living environments available to households in South West Sydney.

Development of the site can be served by a full range of education, community, recreation and retail and commercial services (and associated local employment) within existing neighbouring centres and the future Leppington town Centre. Adoption of contemporary technologies and design can ensure water quality objectives and other environmental considerations can be met.

The site can easily be serviced by existing road and bus based public transport and is located only 3.2 kilometres from the new Leppington Station, when construction finishes in 2016. It can efficiently be serviced by sewer, water and power. Construction of the upgrading of Camden Valley Way from a two lane rural road to a four lane highway is to commence shortly.

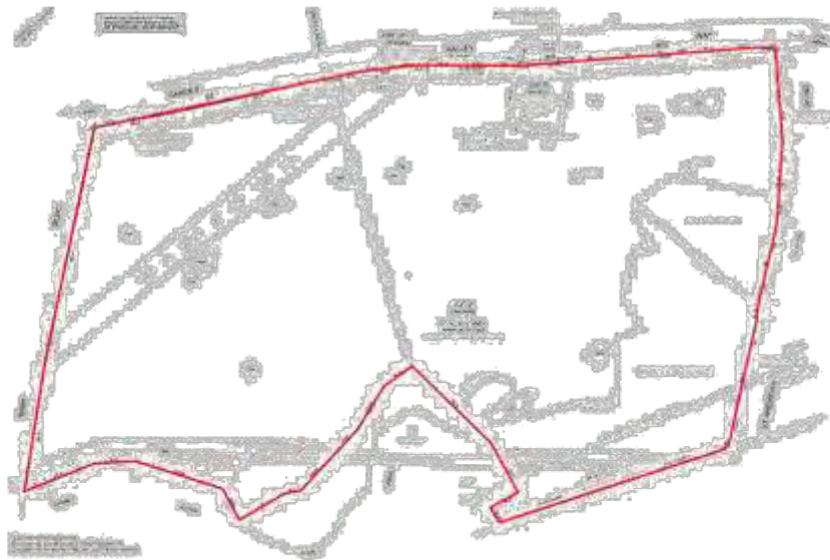
In this context, the current rural zoning of the property is an anomaly. The zoning is clearly not the highest and best use for the land. Furthermore, the property remains the only land addressing, and on the eastern side of, Camden Valley Way not identified, or zoned for urban development in the future.

Therefore it is a leading candidate for rezoning to urban purposes.

Site Details

Emerald Hills Estate is a Partnership comprising the Directors of D&AI Pty Ltd that owns the land.

The Site comprises an irregularly shaped rectangular parcel of land generally situated along a SW to NE alignment. It has a total area of 151.1 ha and is bounded by Camden Valley Way to the west, Raby Road to the south and St Andrews Road to the north (much of which is an unmade road comprising a gravel track). The eastern side of the site generally follows the alignment of the water canal owned by Sydney Water Corporation. The easternmost portion of the site which falls within the Campbelltown LGA is excluded from this planning proposal.



Copy of Survey and Aerial View of Site Looking North East

It is legally described as:

- Lot 10 DP 1173819 (formerly Lot 2 in DP 650698)
- Lot 10 DP 1161557 (formerly Lot B in DP 418632)
- Lot 1 in DP 301830

The survey plan indicates a number of existing easements on the title including two aligned roughly along the eastern boundary for a 132kV electrical transmission line and a gas pipeline and a major 60 metre wide easement for a 330 kV Transgrid power line that crosses the south west corner of the site, which must be considered in any master planning. There is an opportunity to realign the 132kV easement with the gas pipeline easement.

The landowners have undertaken a number of studies:

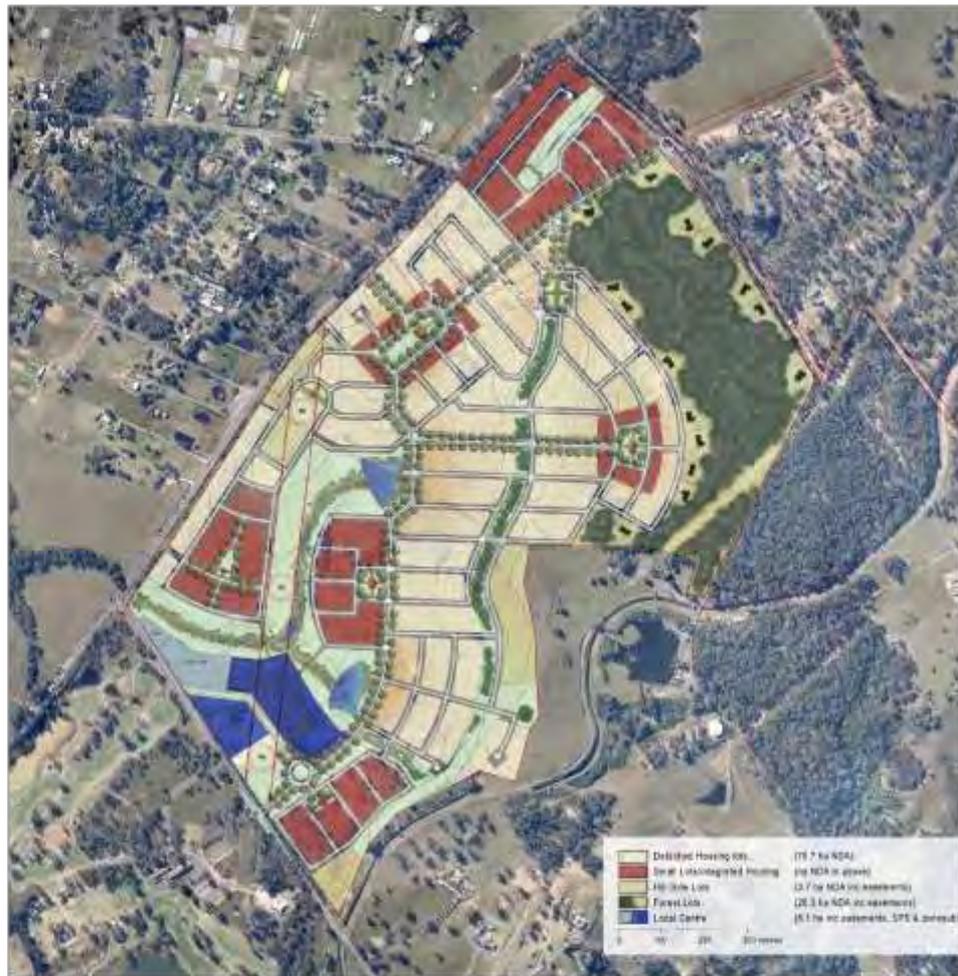
- Ecological investigation confirms the presence of Cumberland Plain Woodland on site in the north east corner. It will need to be protected;
- Lean Lackenby and Heyward investigation confirms that infrastructure connections may be available;
- Creek corridors and classifications have been mapped;
- The RTA is to upgrade Camden Valley Way in stages. It will improve the road access and provide a new bus based public transport corridor adjoining site;
- Camden Council investigations as part of preparation of its new LEP 2010 show no heritage or significant flooding;
- Some Bushfire Hazard is expected at the Cumberland Plain woodland interface;
- There is no known contamination and none expected.

Generally the site is cleared and unencumbered, with good access and proximity to services and facilities.

Existing use is a working farm and previously it also included the St Andrews Home for Boys.

Development Vision - 2011

The development vision for Emerald Hills comprises an integrated residential development of nine mini neighbourhoods oriented around parkland with a local shopping centre and encircled by public open space. It provides for a mix of dwellings and includes retention of large areas of land for environmental protection, riparian corridor improvement and landscape protection. The development vision dated 2011 is included below, and the draft Indicative Layout Plan derived from the planning process follows.



The Urban Design Vision for the Site – taken from 2011 pre-Gateway planning proposal

Draft Indicative Layout Plan

Planning principles facilitate the development of the Draft Indicative Layout Plan. Derived from NSW planning legislation, specialist studies and best practice guidelines the following planning principles have been utilised in the evolution of the Draft Indicative Layout Plan:

Public Domain

- Facilitation of an active public domain for the use as an outdoor living space where individuals and communities are encouraged to interact;
- Encouragement of a strong neighbourhood character around the school, playing fields, neighbourhood centre and integrated walking trails; and
- Walking trails that promote inter community interaction with adjoining residential developments;

Natural Environment

- Integration of the natural environment with residential development;
- Local and neighbourhood parks take advantage of and retain the key landscape and environmental features of the Precinct, including view corridors, high points, the riparian corridor and existing vegetation;
- Facilitate the protection and enhancement of the riparian corridor through the development of pride in the community vision; and
- Retain prominent Cumberland Plain Woodland in two large Biobanked private lots (each with a dedicated area of R2 Low Density Residential land attached to facilitate a single dwelling house) to assist in the retention and enhancement of this endangered ecological community.

Land use

- Develop a mixture of low density housing opportunities within the site including a range of lot sizes, with smaller lot product in close proximity to services; and
- Define the local centre as a focal point of the community.

Transport

- Create clear definition between collector roads and local streets to facilitate safe and quiet neighbourhoods;
- Develop a clear hierarchy of roads with optimal connectivity to ensure efficient movement of pedestrians and vehicles throughout the development precinct;
- Develop the local road network to respond directly to the topography of the site, facilitate optimal WSUD and enhance the landscape context; and
- Promote walking and cycling by providing safe connections throughout the development precinct.

Overview of the Draft ILP

Neighbourhood Design

- The site's character is capitalised upon by proposing a series of residential neighbourhoods immersed within the landform, open spaces and the pathway network;
- Distinctive neighbourhoods are established and visually and structurally contained predominantly by landform. Each neighbourhood therefore has the potential to offer and exhibit their own distinctive character and sense of place; and
- View corridors to, and the presence of, prominent local natural features are celebrated within the road and local open space network and intended to distract and orient views away from the energy transmission power lines.

Land Use

- A local centre comprising retail, sports fields and primary school in the south west corner of the site provides possibilities for residents to walk or cycle to a small range of facilities. It is located at the most convenient point of the site to capitalise on connectivity with the existing and future development to the south and is thus better located to service its host catchment. The economic benefit that may be generated by a location adjoining and exposed to Raby Road facilitates the viability and effectiveness of servicing the households within the catchment. The location adjoining the creek also provides the opportunity to establish a distinctive high quality public domain;
- A variety of dwelling forms is proposed in appropriate locations which either reinforce the scenic values of the site or contribute to the accessibility, vitality and character of the local centre, the amenity offered by open spaces and the viability of public transport. Smaller residential lots are located around areas within the site exhibiting high amenity such as the local centre (to capitalise on access to retail and commercial facilities and the community 'hub' role that the centre will offer) and open space and riparian corridors (to capitalise on the attractive aspect and passive recreation function that these areas will offer). The housing forms comprise:
 - Transitional large lots of between 1,000sqm and 4000sqm in area where attention to landscape visual character and environmental protection and management of bushfire hazard and noise impact is required. The lots provide for low density residential development that permits the private management and rehabilitation of vegetation interface areas, protection of prominent scenic areas, and the management of bushfire asset protection zones;
 - Conventional low density housing lots of between 300-600 sqm shall allow for single or two storey detached dwellings; and
 - Smaller lot housing (single or two storey detached, semi-detached or zero lot line dwellings) on 220-300 sqm lots in areas of high amenity.
- An indicative dwelling yield within the site of 1280 dwellings which, when assessed against the potential net developable area (NDA) of the site (approximately 78 hectares) achieves a minimum density of 15 dwellings per hectare, which may contribute to supporting the provision of bus based public transport.

Traffic and Access

- A legible interconnected 'grid pattern' of walkable streets which seeks to address site topography and encourage walking and cycling as well as provide a choice of alternate routes for vehicles. The road network includes:
 - The adoption of a local grid pattern that reflects and responds to landform where best it can with minimal modification;
 - The provision of a major local collector road that is located parallel to Camden Valley Way and incorporates distinctive entries into the site from Camden Valley Way. St Andrews Road and Raby Road facilitating vehicle access. Road character and route is designed to minimise attractiveness for 'rat-running' and through traffic seeking to avoid the Camden Valley Way / Raby Road intersection; and

- Local roads addressing frontages to public open space to avoid the provision of rear fences and contributing to protecting and enhancing the character of the site.
- The potential for a bus route and bus stops located along a major local collector road that links the local centre with any potential routes beyond the site to the Leppington Town Centre and railway station.
- A permeable local road network within the majority of the urban part of the site that would ensure dwellings are located within a 400 metres/5 minutes walking catchment of the bus route and 250 metres of public open space.
- A simple hierarchy of road design and character comprising:
 - The collector road with a minimum width to provide for the provision of two parking lanes, two traffic lanes and a landscaped median strip. Footpaths and street trees should be provided within the verge; and
 - Local roads incorporating street tree planting;
- A flexible and connected pedestrian and cycle pathway network that utilises open space corridors in order to can respond to the constraints that will be imposed on the plan as detailed civil and environmental design proceeds.

Open Space and Environment

- Preservation of the existing remnant vegetation in the northern part of the site with a reconfiguration of the urban / vegetation interface by dedication in private ownership and re-vegetation.
- The provision of local neighbourhood parks located within a 250 metres or 5 minutes walking catchment.
- The adoption of non-traditional environmental management techniques to support environmental protection in concert with the provision of public open space and stormwater management in urban development by:
 - The rehabilitation of riparian corridors, which will be integrated into the stormwater management system which, with the adoption of water quality detention ponds and bioswales in public open spaces, will provide the mechanism to ensure that water exiting the site will have no downstream environmental impact;
 - The provision and use of public open space to capitalise on vegetation protection and rehabilitation; and
 - Creating streets as green corridors, which by careful selection of street tree species will also play a role in environmental enhancement.

Landscape and Visual Protection and Enhancement

- The western lee side of the elevated ridgeline is kept free from development to provide opportunities to re-vegetate this visually prominent part of the site, provide opportunities for publicly accessible views of the district to the west and to effectively accommodate the slope constraints exhibited by landform in this location;
- View axes at the entries to the site of the prominent hills to the south east of the site are secured through location of roads to provide opportunities for public enjoyment and appreciation of the locality's landform, contributing to the establishment of a distinctive sense of place and character to the area; and
- The low lying part of the site accommodates water quality protection basins and the riparian corridor.
- Promotion of streetscape character along Camden Valley through re-establishment of streetscape vegetation and minimisation of noise walls.

Draft Indicative Layout Plan Design

The indicative layout plan provides for a village centre including 10,000sqm of retail space, a primary school and approximately 1280 lots in a 10 year timeframe. The proposal includes the protection of endemic flora and fauna through the integration of urban development within the natural landscape and bushland to provide a high amenity living environment for future residents.

The proposed development incorporates parks and reserves that are connected through walking trails, cycle ways and public transport routes as well as providing similar access to facilities external to the site. It is envisaged that the provision of walking trails and cycle ways will further facilitate a lesser need for the day to day reliance on the motor vehicle.

Features of the Draft Indicative Layout Plan include:

- Provides a range of housing choices with smaller lot housing located in areas of high amenity;
 - Average lot size of 450sqm range; and
 - Larger lot sizes bridging across the eastern ridge.
- Provides a neighbourhood centre;
 - Located adjacent to Raby Road, the primary entrance into the site;
 - Linked with pedestrian and cycle routes throughout the precinct; and
 - Provides for up to 10,000sqm of retail and additional office or business premise space.
- Protects the Environment;
 - Protection and enhancement of the natural features of the site including the visual character of the ridgeline and the riparian corridors; and
 - Existing native vegetation, including areas of Cumberland Plain Woodland retained and Biobanked in future.
- Provides for accessible open space
 - Designed to ensure that every lot is within 400m safe walking distance of public open space; and
 - Public open space enhances through the retention of natural landscape features, flora and fauna.
- Provision of school facility;
- Integrated walking and cycling network;
 - On and off road cycling opportunities in a safe environment to provide access on within the present;
 - Cycling and walking connections to adjoining growth centre precincts to encourage the combination of transport methods daily;
 - Off road pedestrian footpaths; and
 - Pedestrian walking paths facilitating interaction with the natural environment in the riparian zones, public parks and the fringes of the development area.
- Road network;
 - Clear hierarchy of road infrastructure;
 - Road design that incorporates that natural features of the landscape to optimise amenity to residents and visitors; and
 - Design for connectivity with through road access on the majority of residential and collector roads.
- Public transport;

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- o Potential bus routes concentrated on collector roads;
- o Bus stop proposed to be located within 400m of all dwellings in the precinct to discouraged the use of the motor vehicle, especially for school trips; and
- o Utilisation of existing bus routes around the site.



Draft Indicative Layout Plan (taken from draft amendment to Camden DCP 2011) dated March 2014

The proposed urban development is consistent with the form, density and character being supported in other neighbouring greenfield land releases such as Oran Park and Turner Road in South West Sydney.

The Vision is described in detail in the report that accompanies this Planning Proposal. Key elements comprise:

- A Plan that adopts, as a guide, the Growth Centres Development Code to inform the layout of land uses and character and configuration of access, public transport service, and the configuration and preservation of areas with environmental value;
- An indicative yield of 1280 dwellings and a minimum density of 15 dwellings per hectare net developable area (NDA as defined in the Code); and
- Neighbourhood retail focussed in a local centre to serve residents.

Master planning indicates that the development vision can be achieved without offending the environmental and landscape values of the area. It can also be achieved whilst minimising amenity impacts (traffic, access to services etc.). Traffic and access issues can be addressed by providing direct access to Camden Valley Way via Raby Road and St Andrews Road.

The proposed release of the land for urban development satisfies State Government housing supply and metropolitan planning objectives with regard to appropriately located and serviced land for new housing.

It is these opportunities to achieve State Government objectives and deliver a significant public benefit (cost effective supply of serviceable land for housing) with minimal environmental impacts that are the genesis of the draft LEP contained in this planning proposal.

Part 1 - Objectives or Intended Outcomes

The intended outcome of this proposal is the development of a large parcel of land on the east side of Camden Valley Way for a mix of residential, retail, open space and environmental protection purposes.

The objectives of the development are:

- To satisfy State Government objectives in the Metropolitan Plan for Sydney 2036 to locate the majority of new housing within walking catchments of centres and enable residential growth in areas where there is good public transport service;
- To satisfy State Government priorities in the NSW State Plan to increase housing supply; and
- To achieve compliance with the NSW State Government's current Sustainability Criteria contained in the 2005 Metropolitan Strategy (Table G2), pending their replacement with new criteria in accordance with the Delivery Plan in the Metropolitan Plan 2036 (Action I 6.4).

Part 2 - Explanation of Provisions

The site is currently zoned RU2 Rural Landscape zone under the Camden LEP 2010.

The objectives of the RU2 Rural Landscape zone are:

- To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- To maintain the rural landscape character of the land.
- To provide for a range of compatible land uses, including extensive agriculture.
- To protect and enhance areas of scenic value by minimising development and providing visual contrast to nearby urban development.
- To maintain the visual amenity of prominent ridgelines.
- To permit non-agricultural uses which support the primary production purposes of the zone.

The zone is limited in terms of the range of permissible land uses and subdivision that may take place. Urban subdivision and development is prohibited in the zone.

None of the existing planning controls facilitate the achievement of the objectives and outcomes listed in Part 1 of this proposal.

Intended provisions of the amended planning proposal

The amended Planning Proposal seeks to amend the LEP for the site based on the draft Indicative Layout Plan as follows:

1. Rezones the site as follows (as indicated on the proposed amendment to the LZN map included in Appendix E):
 - Residential areas to be zoned 'R2 Low Density Residential';
 - The Cumberland Plain Woodland conservation area to be zoned 'E2 Environmental Conservation';
 - The local centre to be zoned 'B1 Neighbourhood Centre';
 - The Raby Road road widening land to be zoned 'SP2 Infrastructure';
2. Introduces a Schedule 1 Additional Permitted Use to Camden LEP 2010 which permits 'exhibition homes' on the land fronting Raby Road as shown on edged heavy blue on the draft Additional Permitted Uses Map; and
3. Introduces a floor space control clause that specifies a maximum floor space of 10,000 sqm gross floor area for retail premises (excluding food and drink premises) for buildings in the land zoned B1 Neighbourhood Centre within the proposed amendment to Camden DCP 2011; and
4. Amends the Lot Size Map as indicated on the proposed amendment to the LSZ map included in Appendix E by:
 - applying a minimum lot size of 220 sqm over the land proposed to be zoned R2 Low Density Residential; and
 - applying a minimum lot size of 2 hectares to the land within the E2 zoned land in the north east corner of the site.
5. Amends the Height of Buildings Map as indicated on the proposed amendment to the HOB map included in Appendix E by:
 - applying a maximum height of 9.5 metres across the site for dwellings; and
 - applying a maximum height of 12.5 metres in the local centre site

The residential height limits are consistent with those adopted in the adjacent Camden LGA Growth Centre Precincts.
6. Amends the Urban Release Areas Map as indicated in the proposed amendment to the URA map included in Appendix E by mapping the Emerald Hills site in blue so that Part 6 of the Camden LEP applies to the land.
7. Create a new Land Reservation Acquisition map sheet LRA_016 and show the land fronting the northern side of Raby Road as per the proposed LRA map detail in Appendix E.

Appendix E of this planning proposal contains the existing Camden LEP 2010 maps applying the Emerald Hills site, the exhibited LEP amendment maps, and the final proposed

amendment maps under this planning proposal. The maps are numbered and described as follows:

- 1A Existing Land Zoning Map LZN_016
- 1B Exhibited draft amendment to LZN_016 as it relates to the Emerald Hills site – SUPERSEDED
- 1C Amended Proposed amendment to LZN_016 as it relates to the Emerald Hills site for gazettal
- 2A Existing Lot Size Map LSZ_016
- 2B Exhibited and proposed amendment to LSZ_016 as it relates to the Emerald Hills site for gazettal
- 3A Existing Height of Buildings Map HOB_016
- 3B Exhibited draft amendment to HOB_016 as it relates to the Emerald Hills site – SUPERSEDED
- 3C Amended Proposed amendment to HOB_016 as it relates to the Emerald Hills site for gazettal
- 4A Existing Urban Release Area Map URA_016
- 4B Proposed amendment to URA_016 as it relates to the Emerald Hills site
- 5A Proposed detail on new Land Reservation Acquisition MAP LRA_016 to be created by planning proposal (there is no existing LRA_016 map)
- 6A Proposed amendment to APU_016 as it relates to the Emerald Hills site

It is noted that Planning and Infrastructure will be provided with hard copies and electronic copies of the above LEP amendment maps in the Standard Instrument format to enable the planning proposal to be made.

How do the intended provisions of the amended planning proposal vary from the exhibited planning proposal?

Land Zoning Map

The planning proposal was exhibited with a R1 General Residential zoning applying to the residential component of the Emerald Hills site as per **Map 1B Exhibited draft amendment to LZN_016 as it relates to the Emerald Hills site – SUPERSEDED** in Appendix E.

The intention of this land zoning was to maintain consistency with the land zoning applied in similar urban release areas in the Camden LGA. The R1 General Residential zone permits a wide range of residential and non-residential land uses subject to development consent, including dwelling houses, attached dwellings, semi-detached dwellings, multi dwelling housing and residential flat buildings.

Following the exhibition of the Emerald Hills planning package, Council officers and the developer have reviewed the intended future land uses on the Emerald Hills site. The developer has confirmed that they have no intention of developing residential flat buildings,

multi dwelling housing, attached dwellings and semi-detached dwellings at Emerald Hills. As a result, alternative zoning options for the residential component of Emerald Hills were investigated.

The R2 Low Density Residential zone only permits dwelling houses and dual occupancies with development consent, whilst all other forms of residential development are prohibited in this zone. This is consistent with the developer's intentions for Emerald Hills and facilitates a low density urban outcome. Accordingly, the R2 Low Density Residential zone is considered to be the most appropriate residential zoning for Emerald Hills. The change in zoning is reflected in **Map 1C Amended Proposed amendment to LZN_016 as it relates to the Emerald Hills site for gazettal** in Appendix E.

The amendment to the Land Zoning Map is considered to be minor given that the R2 Low Density Residential zone will continue to facilitate the development of dwelling houses and dual occupancies at Emerald Hills. These development types are in-keeping with the intended low density urban environment envisaged by Council and the proponents, and will continue to deliver a maximum of 1280 dwellings as noted in the exhibited planning package.

Exhibition Homes as an Additional Permitted Use

Amending the zoning from R1 General Residential to R2 Low Density Residential results in exhibition homes becoming a prohibited land use in Emerald Hills, as exhibition homes are prohibited in the R2 General Residential zone under the Camden LEP 2010. The proponent has advised that they intend to incorporate exhibition homes into the first stage of development at the southern corner of the site fronting Raby Road. To enable this to occur, the planning proposal has been updated to include an amendment to Schedule 1 (Additional Permitted Uses) of Camden LEP 2010 which permits exhibition homes on part of the Emerald Hills site, and the Additional Permitted Uses map will be updated to show the subject land with a heavy blue outline as per **Map 6A Proposed amendment to APU_016 as it relates to the Emerald Hills site** in Appendix E.

Height of Buildings Map

The exhibited Height of Buildings Map proposed a maximum height of 12.5m for the local centre, 15.5m for residential flat buildings, 8.5m for buildings on the visually prominent ridgeline, and 9.5m for the remainder of the site, as per **Map 3B Exhibited draft amendment to HOB_016 as it relates to the Emerald Hills site – SUPERSEDED** in Appendix E.

The notation regarding a 15.5m height limit for residential flat buildings has been deleted from the legend of the Height of Buildings Map as the change in zoning from R1 General Residential to R2 Low Density Residential means that residential flat buildings are now prohibited.

The proposed height limit of 8.5m along the ridgeline has been replaced with a height limit of 9.5m which is consistent with the rest of the R2 Low Density zoned land. This amendment has occurred as a result of detailed design work undertaken by the proponent which demonstrates that the ridgeline can be lowered by 3m during the bulk earthworks on the site, rather than 2m as per the exhibited planning proposal. The additional 1m of excavation means that the 1m reduction in building height in this part of the site is no longer required. Section C12.12 of the draft Emerald Hills DCP chapter provides a specific control requiring the excavation of the ridgeline by 3m.

This amendment achieves consistency with the recommendations of the Visual Impact Assessment prepared for the Emerald Hills proposal by maintaining an overall height reduction of future development on the ridgeline by 3m.

An omission in the exhibited Height of Buildings Map has been corrected via the addition of a 9.5m height limit to the portion of R2 General Residential zoned land fronting St Andrews Road. This piece of R2 General Residential zoned land requires a maximum building height limit given that it may accommodate a future dwelling house as part of the ownership of the E2 Environmental Conservation land as discussed later in this report.

The amended height of buildings map is included at **Map 3C Amended Proposed amendment to HOB_016 as it relates to the Emerald Hills site for gazettal** in Appendix E.

Do the amendments to the intended provisions of the planning proposal require re-exhibition?

The amendments to the planning proposal do not require re-exhibition as there are no significant changes to the principles and objectives of the exhibited planning proposal.

Part 3 – Justification

Section A – Need for the planning proposal

1. Is The Planning Proposal a Result of any Strategic Study or Report?

The proposal itself has not been the result of a specific strategic study or report. However the existing zoning of the site does not reflect a number of State Government strategic initiatives that will impact on the potential future use of the site, and the planning proposal responds to these initiatives. These strategies are discussed in Section B below.

2. Is The Planning Proposal The Best Means of Achieving The Objectives or Intended Outcomes, or is There a Better Way?

Yes. The planning proposal is the most appropriate method to enable development applications to be submitted for development within the site. Other methods investigated will not achieve the intended result that is sought.

Other options identified:

- (i) A site specific provision enabled by inclusion of the site in Schedule 1 of Camden LEP 2010

This option was considered. However, due the geographical size of the area and the precedent such an approach would set, the approach advocated in the Planning Proposal was considered to be the most appropriate method.

- (ii) A Planning Proposal to amend the boundaries of the South West Growth Centre shown in the maps of State Environmental Planning Policy (Sydney Region Growth Centres) 2006

This option was not considered viable. The amending process would have been significant, and would have exceeded generally accepted parameters for the consideration of such matters.

(iii) Await a review of the Growth Centre Boundaries in the future.

This option was considered. However, the process whereby the landowner awaits a review at an unknown time introduces too much uncertainty in terms of timeframe and outcome. The uncertainty jeopardise the opportunity for the achievement of the objectives identified in Part 1 above in the short term.

Rather, it is considered that the progress of this Planning Proposal is the most suitable mechanism to achieve the objectives in Part 1.

3. Will The Net Community Benefit Outweigh The Cost of Implementation and Administering The Planning Proposal?

Yes. The outcome of the Planning Proposal will be an increase in the supply of new housing in the Camden LGA. New residents will be able to support existing and proposed public investment in public transport, road and service infrastructure.

Residents will also support the Government's recent commitment to commence, and invest public monies in, the Leppington Town Centre by increasing the number of households within the Centre's catchment.

The increased demand on new infrastructure generated by the additional population is negligible and can be achieved without costly augmentation of existing services, or provision of new services. Rather it will facilitate the viability of, and supports the investment in, infrastructure in the locality.

Thus the net community benefit is considered to far outweigh the cost of implementing the proposal.

Section B – Relationship to Strategic Planning Framework

4. Is The Planning Proposal Consistent with the Objectives and Actions Contained Within the Applicable Regional or Sub-Regional Strategy (Including The Sydney Metropolitan Strategy and Exhibited Draft Strategies)?

Yes. There are a number of State Government Strategies and Policies that provide the strategic context for the development of the Precinct. They comprise:

1. The NSW State Plan; and
2. The Metropolitan Plan for Sydney 2036 (The new 'Metro Strategy'); and
3. The Draft Subregional Strategies

The NSW State Plan

The NSW State Plan 2021 was recently released. It replaces the previous Plan of 2010 as "the NSW Government's strategic business plan, setting priorities for action and guiding resource allocation" (p.2). The rezoning and development of the site is consistent with many of the 32 goals in the five strategies of the Plan; particularly with regard to improving the NSW economy, growing patronage on public transport, and placing downward pressure on the cost of living. This is detailed in Appendix 1.

The Metropolitan Plan for Sydney 2036

The Metropolitan Plan for Sydney 2036 was released on 16 December 2010. It comprises the "new" Metropolitan Strategy for Sydney and replaces the previous "City of Cities – a Plan for Sydney's Future" prepared in 2005 (Metropolitan Strategy 2005).

Of relevance to the Proposal:

Its policy settings reinforce the targets of the State Plan including the enabling of residential and employment growth in areas where there is available or planned public transport capacity;

It advises that the current sustainability criteria (contained within the Metropolitan Strategy 2005) will be replaced with new criteria to help assess land release options outside the Growth Centres during the annual land supply assessment. Government will consult stakeholders on the new criteria before they are adopted. The criteria will aim to:

- maintain the integrity of urban containment;
- achieve efficient use of land and cost effective development;
- ensure the continuity of significant rural and resource activities;
- avoid use of biodiversity rich land and high risk areas; and.
- provide certainty about delivery of dwellings in the short term.

The rezoning and development of the site contributes to the achievement of a number of the Plan's strategic directions and objectives. This is detailed in Appendix 2. Rezoning and Development is also consistent with the current sustainability criteria as summarised in the table in Appendix 3.

Draft South West Subregional Strategy

The site is located in the Draft "South West Subregional Strategy."The aim of the Subregional Strategy is to translate the objectives of the NSW Government's Metropolitan Strategy 2005 and State Plan to the local level.

The Draft Strategy remains a draft document and will be superseded/updated by new investigations required as part of the Metropolitan Plan 2036. Notwithstanding this, it remains today the only document that provides any published advice on State Government objectives at a local level.

Of relevance to this proposal, the Subregional Strategy:

- Seeks to ensure adequate supplies of land and sites for residential development and applies the Sustainability Criteria of the Metropolitan Strategy 2005 for new urban development; and
- Seeks to focus residential development around centres, town centres, villages and neighbourhood centres.

In summary, the Strategy seeks increased housing supply in the subregion on well-located sites. The Planning Proposal is consistent with the Strategy as it can contribute to the achievement of all of these goals.

5. Is The Planning Proposal Consistent with The Local Council's Community Strategic Plan, or Other Local Strategic Plan?

Yes. There is one relevant principal Strategic Plan:

The Camden Residential Strategy 2008.

The Camden Residential Strategy 2008 aims to "guide the form and character of housing in Camden into the future" (p.7). It supersedes the Residential Strategy for Camden, undertaken in 1997. The 2008 Strategy outlines the challenges facing Camden today and in the future and responds to these challenges by identifying a "New Model for Change" and presenting a series of recommendations to implement the approach.

The proposed rezoning and development of the site advocated in the Urban Design Vision achieves the recommendations of the Strategy and is consistent with The Strategy's intent as illustrated in the table below.

Strategy Recommendation	Comment on Planning Proposal
That Council further promote, in appropriate locations, alternative and affordable housing forms.	The development proposed in the rezoning of the site achieves this recommendation by offering the potential for a range of housing types appropriately located within walking distance of a local centre, open space and public transport. Furthermore, by increasing supply and choice of housing, affordability is assisted via improvements to the housing demand and supply equation.
That Council include within its development control framework appropriate locational criteria for housing redevelopment as outlined in this Strategy.	The proximity of the site to public transport, the Leppington Town Centre and existing and future employment and commercial areas satisfies locational criteria.
That Council consider the inclusion of appropriate adaptable housing controls in the Camden DCP 2006.	Development in the site would comply with the controls in the Camden DCP.
That Council explore appropriate mechanisms for any necessary upgrading of public domain areas adjoining redevelopment sites.	The Urban Design Vision seeks the development of high quality public domain areas and the proponent of the Planning Proposal would support such endeavours.
That Council investigate alternative methods, for the provision of alternative and affordable housing.	As noted above, by increasing supply, the proposed rezoning facilitates affordable housing.

Strategy Recommendation	Comment on Planning Proposal
<p>That Council adopt the new model for housing change as outlined in this Strategy, by:</p> <p>Supporting housing diversity through a review of planning controls;</p> <p>Supporting a greater distribution of diverse housing in appropriate locations through a review of LEP and DCP controls;</p> <p>Supporting fine-grained planning of existing residential areas, where re development is proposed, by requiring site-specific controls to be developed in accordance with the locational criteria;</p> <p>Supporting improved local character as a result of housing redevelopment, by the development of high quality housing and landscaping controls and the development of appropriate mechanisms for the funding of public domain improvements.</p>	<p>The Urban Design Vision supports these recommendations through the design approach advocated for master planning and public domain establishment.</p> <p>In particular, the careful placement of open space areas and revegetation of prominent hillsides is intended to preserve and improve the recognised character of Camden along the Camden Valley Way streetscape and from further afield at vantage points that offer views to the ridgeline.</p>
<p>That Council encourage mixed use development, including residential-commercial development, within town centres.</p>	<p>While not providing for vertical mixed use development, the Urban Design Vision seeks a mix of uses by the placing of higher density residential with retail and commercial uses in close proximity (within comfortable walking distance).</p>
<p>That Council encourage a range of housing opportunities for seniors, from independent living in retirement villages through to nursing homes, in appropriate locations.</p>	<p>These housing forms could be accommodated within the development of the site, and are not excluded by the Urban Design Vision.</p>
<p>That Council, when considering any applications for rezoning of land to permit rural residential or large-lot residential development, have regard to the on-going viability of Camden's rural landscapes and economy.</p>	<p>The Urban Design Vision seeks a density of a minimum of 15 dwellings per hectare to satisfy Government Sustainability Criteria. As part of this approach it seeks to preserve the landscape and visual character of the environs of the site, due to its visually prominent location (elevated character and frontage to major arterial roads).</p>

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6. Is The Planning Proposal Consistent with Applicable State Environmental Planning Policies?

The following State Environmental Planning Policies are relevant to the planning proposal:

SEPP	Requirement	Planning Proposal	Consistent
No. 19 - Bushland in Urban Areas	The making of LEPs must consider the aims of the Policy, and give priority to retaining bushland, unless it is satisfied that significant environmental, economic or social benefits will arise which outweigh the value of the bushland	The planning proposal is consistent with SEPP 19 by seeking to reserve remnant vegetation, riparian corridors and associated areas of environmental significance.	Yes
No.55 – Remediation of Land	Introduces state-wide planning controls for the remediation of contaminated land. If the land is unsuitable, remediation must take place before the land is developed. Clause 6 of the SEPP requires consideration of contamination in any change in use that may permit residential use.	The known history of the use of the lands in the site suggests that they have not contained any activities that would have generated any unreasonable contamination that cannot be readily remediated.	Yes
No. 65 – Design Quality of Residential Flat Development	This Policy aims to improve the design quality of residential flat development in New South Wales.	Not applicable as residential flat buildings are not permitted in the R2 General Residential zone.	Yes
(BASIX)2004	Aims to encourage sustainable residential development. SEPP relates to certain kinds of residential development which must be accompanied by a list of commitments by the applicant as to the manner in which development must be carried out.	Detailed compliance with BASIX will be demonstrated at the time of making an application for development consent.	Yes
(Exempt and Complying Development Codes) 2008	The Exempt and Complying SEPP applies to the site and permits development of minor environmental significance without the need for development consent. The SEPP lists developments that are exempt development and do not require consent and some developments which are complying development for	The provisions of the SEPP in permitting developments of minor environmental significance without the need for development consent will be considered in future development of the site.	

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SEPP	Requirement	Planning Proposal	Consistent
	the purposes of the EP&A Act.		
(Housing for Seniors or People with a Disability) 2004	The SEPP aims to increase the supply and diversity of residences suitable for seniors or people with a disability while making efficient use of existing infrastructure and services.	Any future applications for seniors' housing projects on the site will be made with consideration of the provisions of the SEPP. Criteria and standards relating to such developments will be addressed in the relevant development application.	
(Affordable Rental Housing) 2009	The SEPP facilitates the delivery of new affordable rental housing by providing incentives by way of expanded zoning permissibility, floor space ratio bonuses and non-discretionary development standards. It also facilitates an expanded role for not-for profit- providers of affordable rental housing.	Any future applications for affordable housing projects on the site will be made with consideration of the provisions of the SEPP.	
(Infrastructure) 2007	The relevant matters for consideration include the requirement to address traffic impact and acoustic impact	Detailed compliance with the SEPP will be demonstrated at the time of making an application for development consent. In particular, the impact from noise generated by traffic on Camden Valley Way will be required to be addressed in detailed subdivision and building design.	Yes
Sydney Region Growth Centres 2006	The lands to which the policy applies do not encompass the site. However the neighbouring South West Growth Centre has an influence on the development within the site, which can contribute to the achievement of the SEPP's aims.	The SEPP does not apply to the site. However development within the site can contribute to the SEPP's aim of: "(d) to enable the establishment of vibrant, sustainable and liveable neighbourhoods that provide for community well-being and high quality local amenity."	Yes

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7. Is The Planning Proposal Consistent with Applicable Ministerial Directions (S.117 Directions)?

The S.117 Directions that are relevant to a Planning Proposal lodged under the LEP Gateway are:

S.117 Direction	Contents	Planning Proposal	Consistent
3.1 Residential Zones	Planning proposals must broaden the choice of building types in the housing market, make more efficient use of infrastructure and services, reduce consumption of land on the fringe, and are of good design.	The Planning Proposal provides a new opportunity for increased housing choice, efficient use of infrastructure and services, reduces consumption of land on the fringe by seeking higher residential densities, and can provide good urban design to improve the locality.	Yes
3.4 Integrating land use and transport	Planning proposals must be consistent with DUAP publications "Improving Transport Choice" and "The Right Place for Business and Services".	The Planning Proposal is consistent with these documents in providing an opportunity for development of a new community in close proximity to the Leppington Town Centre in an area well served by existing infrastructure, transport and services.	Yes
4.1 Acid Sulphate Soils	The relevant planning authority must consider the Acid Sulphate Soils Planning Guidelines adopted by the Director-General of the Department of Planning when preparing a planning proposal that applies to any land identified on the Acid Sulphate Soil Risk Maps prepared by the Department of Natural Resources.	The elevated character of the site and its landform is such that it is considered that there will be a low probability of the presence of acid sulphate soils. Detailed investigation will be undertaken at the time of making an application for development consent.	Yes
4.3 Flood Prone Land	LEP provisions to ensure that development on flood prone land is commensurate with flood hazard and includes consideration of the potential flood impacts both on and off the subject land.	Only a minor part of the site in the creek corridor is understood to be flood affected. Development is located away from this area and would have no impact on hydrological regimes.	Yes
4.4 Planning for Bushfire Protection	The objectives of this direction are to protect from bush fire hazards, by discouraging the Establishment of incompatible land uses in bush fire prone areas, and encourage sound management of bush fire prone areas.	The configuration of land uses, roads and access in the Urban Design Vision considers bushfire hazard and protection from bushfire events.	Yes

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6.2 Reserving Land for Public Purposes	Planning proposals (where relevant) are to facilitate the provision of public services and facilities by reserving land for public purposes.	The Proposal does not reduce the area of land reserved for public purposes. Rather, it improves the use of and access to this land adjoining and within the site.	Yes
6.3 Site Specific Provisions	The objective of this direction is to discourage unnecessarily restrictive site specific planning controls.	The proposed LEP zoning, height and FSR standards are not considered to be particularly restrictive and therefore are consistent with this Direction.	Yes
7.1 Implementation of the Metropolitan Plan for Sydney 2036	The objective of this direction is to give legal effect to the vision, transport and land use strategy, policies, outcomes and actions contained in the Metropolitan Plan for Sydney 2036.	The Planning Proposal is considered to be consistent with the Plan as described in Part 3B above.	Yes

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Section C – Environmental, social and economic impact

8. Is There any Likelihood That Critical Habitat or Threatened Species, Populations or Ecological Communities, or Their Habitats, Will Be Adversely Affected as a Result of The Proposal?

Ecological investigation confirms the presence of Cumberland Plain Woodland on site in the north east corner. Given the modified character of the remainder of the site, and the proposal to preserve and protect the vegetation that has been identified by consultants as having environmental value, it is considered that there is no critical habitat, and no threatened species, populations or ecological communities or their habitats on the lands that will be adversely affected as a result of the proposal. Refer to Part 6.11 of Appendix D - Planning Report for further information.

9. Are There any Other Likely Environmental Effects as a Result of The Planning Proposal and How are They Proposed to be Managed?

The proposed development of the precinct in accordance with the Vision will require consideration of the following potential environmental impacts:

- noise;
- access, traffic and parking;
- visual impact;
- built character;
- streetscape and public domain;
- safety and security; and
- environmental protection.

The specialist studies undertaken during the rezoning process have indicated that the above impacts are manageable. In particular:

Noise: subdivision and building design will ensure that the noise standards for internal rooms are achieved, particularly for dwellings adjoining Camden Valley Way. Refer to Part 6.5 of Appendix D - Planning Report for further information.

Access, Traffic and Parking: Access to the site will be achieved via upgraded intersections to Camden Valley Way and Raby Road already identified and/or agreed. These roads are planned to be upgraded as part of the development of the Growth Centre and the additional traffic generated by the increase in housing in the site is considered to be negligible and manageable. Refer to Part 6.14 of Appendix D - Planning Report for further information.

Visual: The layout of roadways within the site will celebrate and promote local landmarks, recreation and amenity features and elevated land. These considerations will contribute to a development with high visual quality. Where land is elevated along the ridgeline a woodland corridor is proposed in order to retain a green treed canopy along the edge of both the site (for internal local views) and South Creek Valley (for more distant views). Refer to Part 6.9 of Appendix D - Planning Report for further information.

Built Character: Building guidelines to be incorporated within a site specific part of Camden DCP 2010 will provide the mechanism to promote buildings with architectural character;

Streetscape and Public Domain: Attention to streetscape public domain works (trees, noise attenuation measures, relationship to open space design and siting etc.), particularly along Camden Valley Way to address noise, and internally to promote a high level of neighbourhood amenity, will reinforce the visual contribution of the site to the character of the Camden LGA;

Safety and Security: Subdivision and building design (guided in the site specific DCP) will adopt the principles of Crime Prevention Through Environmental Design (CPTED), particularly with regard to the layout and design of roads, parks and other public domain areas, as well as the non-residential buildings within the local neighbourhood centre; and

Environmental Protection: All areas with recognised environmental value (existing woodland areas and riparian corridors) are proposed to be protected via a Biobanking Agreement and kept free from development. Protection will comprise a mix of measures already adopted and used in the Growth Centre including physical rehabilitation and improvement of key areas and preservation by the application of appropriate zones and subdivision controls. Refer to Part 6.10 and 6.11 of Appendix D - Planning Report for further information.

A thorough assessment of the environmental impacts will be undertaken in accordance with S.97C of the Environmental Planning and Assessment Act following lodgement of the development applications for subdivisions and development, should the proposal be supported and published.

10. How Has The Planning Proposal Adequately Addressed any Social and Economic Effects?

A successful planning proposal will:

- Satisfy demand for increased housing supply and housing choice in Metropolitan Sydney (and resulting construction multiplier effects) providing positive social and economic benefits;
- Facilitate the integration of land use and transport satisfying sustainability criteria; and
- Facilitate monetary contributions and works in kind public benefits achieved through a Voluntary Planning Agreement, thus providing positive social and economic benefits.

In accordance with recognised planning strategies, the proposal will provide convenient access to public transport and encourage walking and cycling. It will thereby reduce dependence on private vehicles, provide opportunities for healthy lifestyles and enhance and provide improved access by the community to public open space and recreation facilities in the Camden LGA.

Section D – State and Commonwealth interests

11. Is There Adequate Public Infrastructure for the Planning Proposal?

Public Infrastructure encompasses:

- Public transport;
- Civil Infrastructure (sewer, stormwater, power, potable water, gas);
- Emergency Services;
- Road Access; and
- Satisfactory Arrangements for Urban Release Areas

Public Transport: Currently existing services are underutilised and level of service reflects the low patronage. However, as the South West Growth Centre progresses, particularly the neighbouring suburbs of Oran Park and Gregory Hills (and their respective employment centres) in the short term, and the Leppington Town Centre and Railway Station to the north in the longer term, public transport networks servicing the Camden LGA will improve to meet the new demands placed upon them by new residents and activities. In this context development of the site can capitalise on (and assist justification in) Government investment in improvements in transport infrastructure.

Civil Infrastructure: All civil infrastructure networks can serve the site as discussed in the Infrastructure Servicing and Delivery Plan prepared during the planning phase. The proposed development within the site can connect to these networks. Augmentation of services will require resolution via further discussion with relevant agencies and corporations.

Emergency Services: Existing fire and police emergency services are located in Narellan and can effectively service the site.

Road Access: The site is bound on all three sides by roads and the upgrading of Camden Valley Way is to commence in the near future. Amendments and improvements to the existing and approved intersections to accommodate the increased volumes of traffic accessing and egressing the site are expected. This will require liaison with, and concurrence of, the RTA.

Satisfactory Arrangements for Urban Release Areas: The Camden LEP 2010 Urban Release Areas Map (URA) will be amended to require the developer to make contributions towards State Infrastructure prior to the development of the site.

In addition, a draft Voluntary Planning Agreement with a total contribution value of \$47.7 million is being placed on public exhibition as part of the planning package for Emerald Hills. The VPA provides all of the works and land dedication required by the Emerald Hills development, as well as monetary contributions towards district and regional facilities at Leppington North.

12. What are The Views of State and Commonwealth Public Authorities Consulted in Accordance with The Gateway Determination?

Council consulted with the following State and Federal public authorities during the preparation of the planning package prior to the commencement of exhibition:

- Office of Environment and Heritage
- NSW Heritage Council
- The Federal Department of Sustainability, Environment, Water Population and Communities
- Office of Water
- Department of Education and Communities
- Transport for NSW
- Sydney Water
- Telstra
- Transgrid
- Jemena
- Adjoining LGAs

The following State public authorities provided significant input into the preparation of the planning package as follows:

Office of Environment and Heritage – focused on the desire to deliver a development which aims to secure, conserve and actively manage remnant Cumberland Plain Woodland on the site via an appropriate zoning, Biobanking, Biocertification and appropriate land ownership and subdivision.

NSW Heritage Council – advised that archival photographic recording needed to be undertaken prior to demolition of the structures on the site.

Department of Education and Communities – provided criteria for determining a suitable location for the proposed school site.

Council then consulted with the following State and Federal public authorities during the public exhibition of the planning package which occurred from 30 October to 27 November 2014:

- Office of Environment and Heritage
- The Federal Department of Sustainability, Environment, Water Population and Communities
- Office of Water
- Department of Education and Communities

- Transport for NSW
- Sydney Water
- Telstra
- Transgrid
- Jemena
- Fire and Rescue NSW
- NSW Police Force
- NSW Rural Fire service
- Sydney Catchment Authority
- NSW Health – South Western Sydney Local Health District
- Adjoining LGAs

The views of these Public Authorities are tabled in Appendix G.

Part 4 – Community Consultation

The Gateway Determination issued on 7 July 2012 sets out public exhibition period of 28 days for this planning proposal.

At the meeting of 22 October 2013, Council resolved to adopt the planning package for the purpose of public exhibition and agency consultation. The planning package was subsequently exhibited and notified from 30 October 2013 to 27 November 2013 via newspaper advertisements in local newspapers, Council's website and at the Camden and Narellan Customer Service Centres and Camden and Narellan Libraries. Adjoining neighbours were also notified via mail. The State and Federal agencies identified on pages 37 and 38 of the planning proposal were notified by mail and provided with the opportunity to comment.

A total of thirteen submissions were received including ten state agency submissions, one submission from Campbelltown Council, and two resident submissions. The content of the submissions, responses and actions are tabled in Appendix H.

Part 2 - Explanation of Provisions provides a commentary on the post-exhibition and post-consultation changes which have been made to the planning proposal.

Appendix 1: Achievement of State Plan 2021 Goals and Strategies

Strategy and Goal	Contribution to Achievement	Comment
Rebuild the Economy		
Improve the performance of the NSW economy	Yes	Rezoning in accordance with this planning proposal will be the catalyst for significant investment by the private sector in development and construction. Construction that responds to the rezoning of the site will provide access to increased locally based employment and potential 'on-the-job' and apprenticeship training opportunities. Furthermore, there will be enhanced investment and economic benefits achieved by the multiplier effects of the injection of wages into the economy and the increased business confidence and certainty that may emerge in undertaking investment in South West Sydney and the Camden LGA.
Rebuild state finances		
Drive economic growth in regional NSW		
Increase the competitiveness of doing business in NSW		
Place downward pressure on the cost of living		
Strengthen the NSW skill base		
Quality services		
Reduce travel times	Yes	Due to the close proximity of the Leppington Town Centre, and siting of higher density residential environments adjoining a proposed local centre within the site, trip generation and travel times for access to local and wider services will be reduced. The attractiveness and viability of public transport that serves the Leppington Centre for local trips due to the diminished need to commute out of the area to gain access to services and employment will also be enhanced.
Grow patronage on public transport by making it a more attractive choice		
Improve customer experience with transport services		
Improve road safety		
Keep people healthy and out of hospital	Yes	Rezoning of the site provides greater opportunities for active, healthy lifestyles by the promotion of healthy planning principles in urban design.
Provide world class clinical services with timely access and effective infrastructure	n/a	
Better protect the most vulnerable members of our community and break the cycle		

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Strategy and Goals	Contribution to Achievement	Statement
of disadvantage		
Increase opportunities for people with a disability by providing supports that meet their individual needs and realise their potential	n/a	
Improve education and learning outcomes for all students		No impact.
Prevent and reduce the level of crime	Yes	Contemporary urban design will incorporate 'Crime Prevention Through Environmental Design' (CPTED) design principles offering improved performance in reducing the propensity for crime.
Prevent and reduce the level of re-offending		
Improve community confidence in the justice system		No impact.
Renovate infrastructure		
Invest in critical infrastructure	Yes	Development undertaken in response to the rezoning in this planning proposal will: Result in more efficient use of existing infrastructure; and Justify and support Government investment in road and public transport infrastructure, and other costs to investments to support planned urban growth in the Camden LGA and South West Growth Centre.
Build liveable centres	Yes	Increased patronage in the catchment of the Leppington Town Centre will encourage a wide range of conveniently accessible, locally based services, reducing travel times, enhancing personal and household quality of life and improving the functionality and attractiveness of urban areas.
Secure potable water supplies	Yes	Contemporary development will incorporate water saving and other 'green building' measures.
Strengthen our Local Environment and Communities		
Protect our natural environment	Yes	Contemporary urban design will incorporate measures that seek to protect areas with recognised environmental value.

EMERALD HILLS PLANNING PROPOSAL

Strategy and Outcome	Contribution to Achievement	Comment
Increase opportunities for people to look after Their own neighbourhoods and environments	Yes	Development undertaken in response to the rezoning in this planning proposal will provide greater opportunities for social interaction and community pride by providing a range of local meeting places focused on open space and local neighbourhood centre.
Make it easier for people to be involved in their communities		
Increase opportunities for seniors in NSW to fully participate in community life		
Fostering opportunity and partnership with Aboriginal people		Will not hinder achievement of goal.
Enhance cultural, creative, sporting and recreation opportunities	Yes	Development undertaken in response to the rezoning in this planning proposal will provide greater opportunities for social interaction and community pride by provision of a range of passive recreation opportunities.
Ensure NSW is ready to deal with major emergencies or natural disasters		Will not hinder achievement of goal.
Restore Accountability to Government		
Restore confidence and integrity in the planning system	Yes	The Gateway Rezoning Process is a transparent and accountable process. Emerald Hills Estate has been liaising with both Camden Council and the NSW State Government prior to the lodgement of the proposal.
Restore trust in State and Local Government as a service provider		
Improve government transparency by increasing access to Government information		
Involve the community in decision-making on Government policy, services and projects	Yes	The rezoning proposal, should it receive preliminary support by Council and the State Government will be placed on public exhibition for community comment prior to any decision being. Community comments will be considered in the assessment of the rezoning proposal.

Appendix 2: Achievement of Metropolitan Plan 2036 Strategic Directions, Objectives and Actions

Strategic Directions, Objectives and Related Actions	Contribution to Achievement	Comment
C: Transport for a Connected City		
Objective C2: To Build on Sydney's strengths by further integrating transport and land use planning and decision – making to support increased public transport mode share.	Yes	The density of development proposed, coupled with the proximity of the Leppington Town Centre (3.2 km from the site) will enhance the attractiveness and viability of public transport that serves the centre for local trips.
D: Housing Sydney's Population		
Objective D1: To ensure an adequate supply of land and sites for residential development.	Yes	The dwelling target for the South West Subregion is 155,000 dwellings, of which only 83,000 are identified within the South West Growth Centre. The development of the site will provide an additional well located opportunity to assist in the achievement of the target.
Objective D3: To improve housing affordability.	Yes	The proposal meets this objective by providing for the development of lands for new housing, therefore increasing supply and providing the mechanism for improved affordability by reducing the scarcity of land and proving greater competition between land and housing developers that provides greater potential to lower prices or restrain price increases.
E: Growing Sydney's Economy		
Objective E4: To provide for a broad range of local employment types in dispersed locations.		The construction sector is a major provider of jobs. Development will provide employment opportunities in the housing and construction industries in South West Sydney. The local neighbourhood centre will also provide jobs in the retail sector.
F: Balancing Land Use on the City Fringe		
Objective F1: To contain Sydney's urban footprint.	Yes	The proposal essentially represents an infill rezoning opportunity of a well serviced site adjoining lands identified for future urban development and anew rail based town centre. It will not result in any outward

EMERALD HILLS PLANNING PROPOSAL

Strategic Directions, Objectives and Relevant Actions	Contribution to Sustainability	Comment
		expansion of the urban footprint.
Objective F2: To maintain and protect agricultural activities and resource lands.	Yes	The land is an unconnected pocket of rural zoned land distant from other larger rural areas. As the South West Growth Centre develops its isolation will magnify. The land has no known resource value.
G: Tackling Climate Change and Protecting Sydney's Natural Environment		
Objective G1: To reduce Sydney's greenhouse gas emissions.	Yes	Rezoning improves the viability of public transport as a convenient alternative to car use, reducing trip generation and private car's contribution to greenhouse gas production.
Objective G6: To protect Sydney's unique diversity of plants and animals.	Yes	Areas with recognised environmental value (riparian zones and Cumberland Plain Woodland areas) within the site will be protected and enhanced by the proposed appropriate application of environmental conservation zones
H: Achieving Equity, Liveability and Social Inclusion		
Objective H3: To provide healthy, safe and inclusive places based on active transport.		Rezoning of the site provides greater opportunities for active, healthy lifestyles by the promotion of greater use of public transport and walking due to an improved concentration of homes and locally based range of services.

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Appendix 3: Achievement of Metropolitan Plan Sustainability Criteria

Table G2 Threshold Sustainability Criteria for Listing of Site on MDP	Measurable Explanation of Criteria	Comment
<p>1 Infrastructure Provision</p> <p>Mechanisms in place to ensure utilities, transport, open space and communication are provided in a timely and efficient way.</p>	<p>Development is consistent with any relevant residential development strategy, subregional strategy, regional infrastructure plan and Metropolitan Strategy.</p> <p>The provision of infrastructure (utilities, transport, open space, and communications) is costed and economically feasible based on Government methodology for determining infrastructure contribution.</p> <p>Preparedness to enter into development agreement.</p>	<p>The proposal will provide 1,200 dwellings and jobs in construction, services and the local centre that will support the housing and employment targets of the Sydney Metropolitan Strategy.</p> <p>It will also promote intensification around centres, by locating a new community close to the Leppington Town Centre and Railway Station, thus integrating land use and transport generally.</p> <p>Only minor augmentation of existing infrastructure services will be required, which will be cost effective and economically feasible.</p> <p>The Proponent is prepared to enter into a Voluntary Planning Agreement to deliver agreed public benefits and works.</p>
<p>2 Access</p> <p>Accessible transport options for efficient and sustainable travel between homes, jobs, services and recreation to be existing or provide.</p>	<ul style="list-style-type: none"> • Accessibility of the area by public transport and appropriate road access in terms of: <ul style="list-style-type: none"> Location/land use; to existing networks and related activity centres. Network: the areas potential to be serviced by economically efficient public transport services. Catchment: the area's ability to contain, or form part of the larger urban area which contains adequate transport services. Capacity for land use/transport patterns to make a positive contribution to achievement of travel and vehicle use goals. 	<p>The development site is located 3.2 kilometres from the new Leppington Railway Station, which will offer regular services to Parramatta and Central Sydney.</p> <p>Bus services will be re-oriented towards the public transport interchange adjacent to the station when it commences operation in 2016 enabling bus access to surrounding suburbs and centres.</p> <p>Comprehensive pedestrian access is provided across the site to link homes with the local centre, bus routes on roads adjoining the site (as well as any that may be located within the site) and the Leppington and Narellan town centres.</p> <p>The location of the site adjacent to public transport services will support the viability of such services.</p> <p>Development within the site will contribute to the new centre at Leppington, thereby supporting</p>

Table G2 Threshold Sustainability Criteria for Listing of Site on MDP	Measurable Explanation of Criteria	Comment
	<ul style="list-style-type: none"> No net negative impact on performance of existing subregional road, bus, rail, ferry and freight network. 	the viability of public transport services within that centre.
<p>3 Housing Diversity</p> <p>Provide a range of housing choices to ensure a broad population can be housed.</p>	<ul style="list-style-type: none"> Contributes to the geographic market spread of housing supply, including any government targets established for aged, disabled or affordable housing. 	<p>As noted above, the proposal will contribute towards the achievement of Sydney Metropolitan housing targets,</p> <p>Increase the variety of housing types available in the Camden LGA and South West Sydney generally and facilitate the increase the supply of affordable housing.</p>
<p>4 Employment Lands</p> <p>Provide regional/local employment opportunities to support Sydney's role in the global economy.</p>	<ul style="list-style-type: none"> Maintain or improve the existing level of subregional employment self-containment. Meets subregional employment capacity targets: <p>Employment related land is provided in appropriately zoned areas.</p>	As noted above, the proposal will provide 1,200 dwellings and an 8 hectare local centre. Activity will provide associated jobs in construction, services and the local centre that will support the employment targets of the Sydney Metropolitan Strategy.
<p>5 Avoidance of Risk</p> <p>Land use conflicts, and risk to human health and life, avoided.</p>	<p>Available safe evacuation route (Flood and Bushfire).</p> <p>No residential development within 1:100 floodplain.</p> <p>Avoidance of physically constrained land: high slope; highly erodible.</p> <p>Avoidance of land use conflicts with adjacent, existing or future land use and rural activities as planned under regional strategy.</p>	<p>Land on the majority of the site is not bushfire prone and the connected pattern of roads advocated in the urban design concept will offer choice and safety in evacuation routes.</p> <p>A small part of the site in the South West corner where the creek meets Camden Valley Way is understood to be subject to minor flooding.</p> <p>The proposal will not cause significant flood impacts on other properties.</p> <p>The urban design vision does not advocate development on land that is constrained by slope.</p> <p>Residential uses along Camden Valley Way and Raby Road will incorporate building layouts and construction details to enable sufficient mitigation for noise impacts on the site and that the relevant noise criteria can be achieved.</p>

Table G2 Threshold Sustainability Criteria for Listing of Site on MDP	Measurable Explanation of Criteria	Comment
		Any noise walls required along roads will be designed and obscured by landscape treatment to minimise visual impact.
6 Natural Resources Natural resource limits not exceeded/ environmental footprint minimised.	Demand for water does not place unacceptable pressure on infrastructure capacity to supply water and on environmental flows. Demonstrates most efficient/suitable use of land. Avoids identified significant agricultural land. Avoids impacts on productive resource lands; extractive industries, coal, gas and other mining, and quarrying. Demand for energy does not place unacceptable pressure on infrastructure capacity to supply energy; requires demonstration of efficient and sustainable supply solution.	Preliminary investigations provided by Lean Lackenby and Heyward consultants confirm that the site can be viably serviced as: Potable water is available on all road frontages of the site and a water main currently passes through the site linking the reservoir at the Ingleburn Dam with the elevated water reservoir in Catherine Field; There are a number of scenario options to available to provide a sewerage service to the site. A feasible scenario comprises draining the site into the south west corner from where it is transported by rising main along Raby Road to connect with Sydney Water's trunk main at Kearns; and The presence of the transmission lines enable a cost effective connection to. A zone substation will be required within proximity of, or possibly within, the site. Dwellings on the site will be constructed in accordance with BASIX requirements for the reduction of the consumption of energy and water. The proposal involves the development of presently underutilised land for the provision of housing and retail space. The site is suitable for development being close to existing community services and public transport. The site adjoins future urban land and will not be impacted by agricultural activity; An efficient use of land will be affected through the provision of medium density residential development on the site. Development will not result in adverse impacts to agricultural land or natural resources.
7 Environmental	Consistent with Government approved Regional	Areas of Cumberland Plain Woodland (CPW) on the site are consistent with the listing of CPW as

Table G2 Threshold Sustainability Criteria for Listing of Site on MDP	Measurable Explanation of Criteria	Comment
<p>Protection</p> <p>Protect and enhance biodiversity, air quality, heritage, and waterway health.</p>	<p>Conservation Plan (if available).</p> <p>Maintains or improves areas of regionally significant terrestrial and aquatic biodiversity (as mapped and agreed by DEC and DPI). This includes regionally significant vegetation communities; critical habitat; threatened species; populations; ecological communities and their habitats.</p> <p>Maintain or improve existing environmental condition for air quality.</p> <p>Maintain or improve existing environmental condition for water quality and quantity.</p> <p>Consistent with community water quality objectives for recreational water use and river health (DEC and CMA).</p> <p>Consistent with catchment and stormwater management planning (CMA and local council).</p> <p>Protects areas of Aboriginal cultural heritage value (as agreed by DEC).</p>	<p>a Critically Endangered Ecological Community under the NSW Threatened Species Conservation Act 1995). The most intact areas will be retained on the site.</p> <p>Targeted planting of appropriate species will be undertaken so as to improve their ecological condition.</p> <p>The proposal will comply with any relevant statutory requirements for water quality.</p>
<p>8 Quality and Equity in Services</p> <p>Quality health, education, legal, recreational, cultural and community development and other government services are</p>	<ul style="list-style-type: none"> • Available and accessible services. <ul style="list-style-type: none"> > Do adequate services exist? > Are they at capacity or is some available? > Has Government planned and budgeted to further service provision? 	<ul style="list-style-type: none"> • <i>The site can be serviced with electricity, gas, water, telecommunications and electricity, subject to further consultation with utilities providers and any required upgrades.</i>

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Table G2 Threshold Sustainability Criteria for Listing of Site on MDP	Measurable Explanation of Criteria	Comment
accessible.	<ul style="list-style-type: none"> Developer funding for required service upgrade/access is available. 	

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Appendix D: Emerald Hills Planning Report

Note: Due to the size of the Emerald Hills Planning Report, it is provided as a separate document. Please refer to the suite of supporting documents provided to Councillors under separate cover.

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**Appendix E: Existing and Proposed LEP Amendment
Maps**

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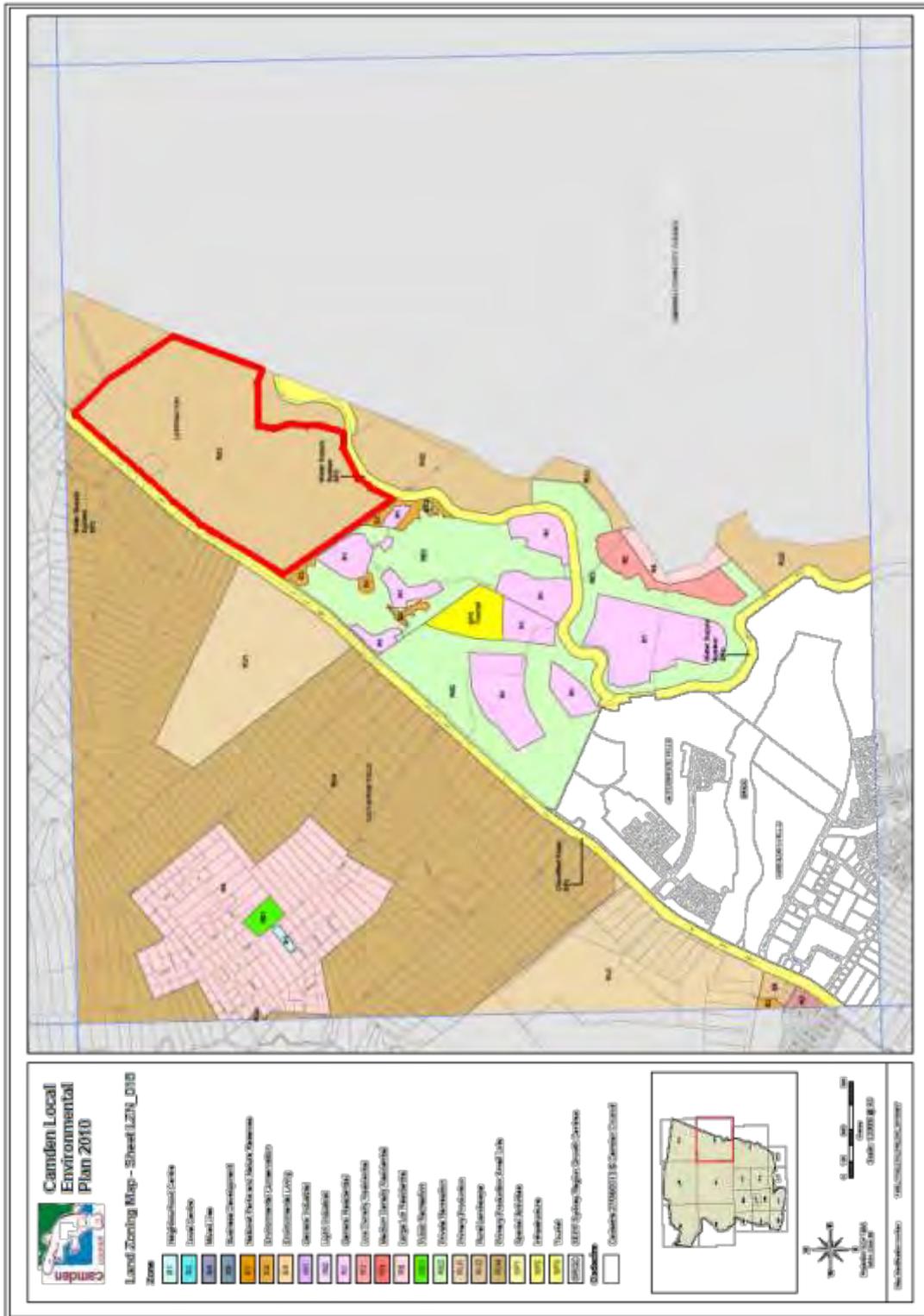
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APPENDIX E to EMERALD HILLS PLANNING PROPOSAL

The maps contained in this appendix are the existing Camden LEP 2010 Maps applying to the Emerald Hills site (map tile no. ***_016) and proposed amendments to each map as it relates to the Emerald Hills site.

The maps are ordered as follows:

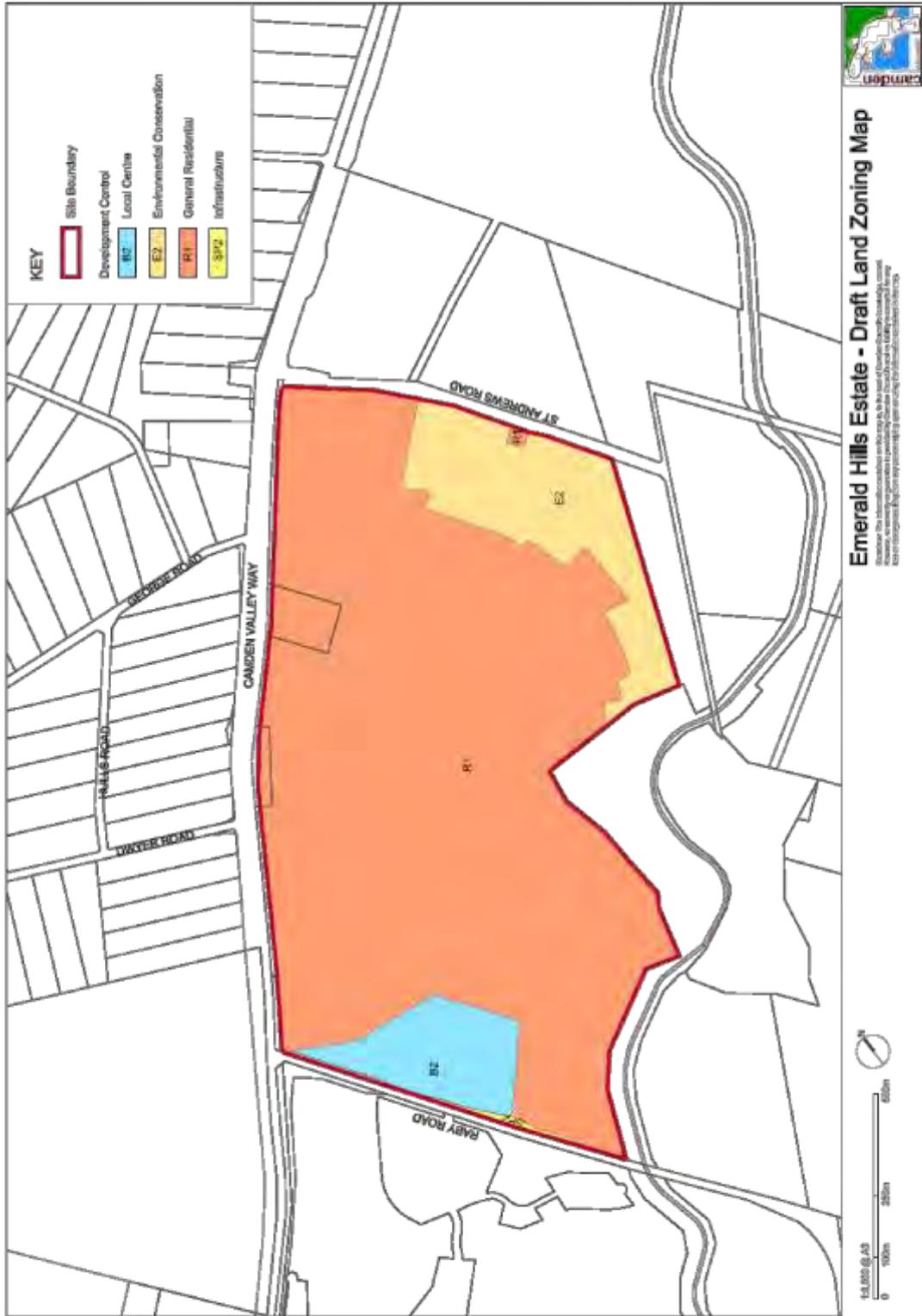
- 1A Existing Land Zoning Map LZN_016
- 1B Exhibited draft amendment to LZN_016 as it relates to the Emerald Hills site – SUPERSEDED
- 1C Amended Proposed amendment to LZN_016 as it relates to the Emerald Hills site for gazettal
- 2A Existing Lot Size Map LSZ_016
- 2B Exhibited and proposed amendment to LSZ_016 as it relates to the Emerald Hills site for gazettal
- 3A Existing Height of Buildings Map HOB_016
- 3B Exhibited draft amendment to HOB_016 as it relates to the Emerald Hills site – SUPERSEDED
- 3C Amended Proposed amendment to HOB_016 as it relates to the Emerald Hills site for gazettal
- 4A Existing Urban Release Area Map URA_016
- 4B Proposed amendment to URA_016 as it relates to the Emerald Hills site
- 5A Proposed detail on new Land Reservation Acquisition MAP LRA_016 to be created by planning proposal (there is no existing LRA_016 map)
- 6A Proposed amendment to APU_016 as it relates to the Emerald Hills site

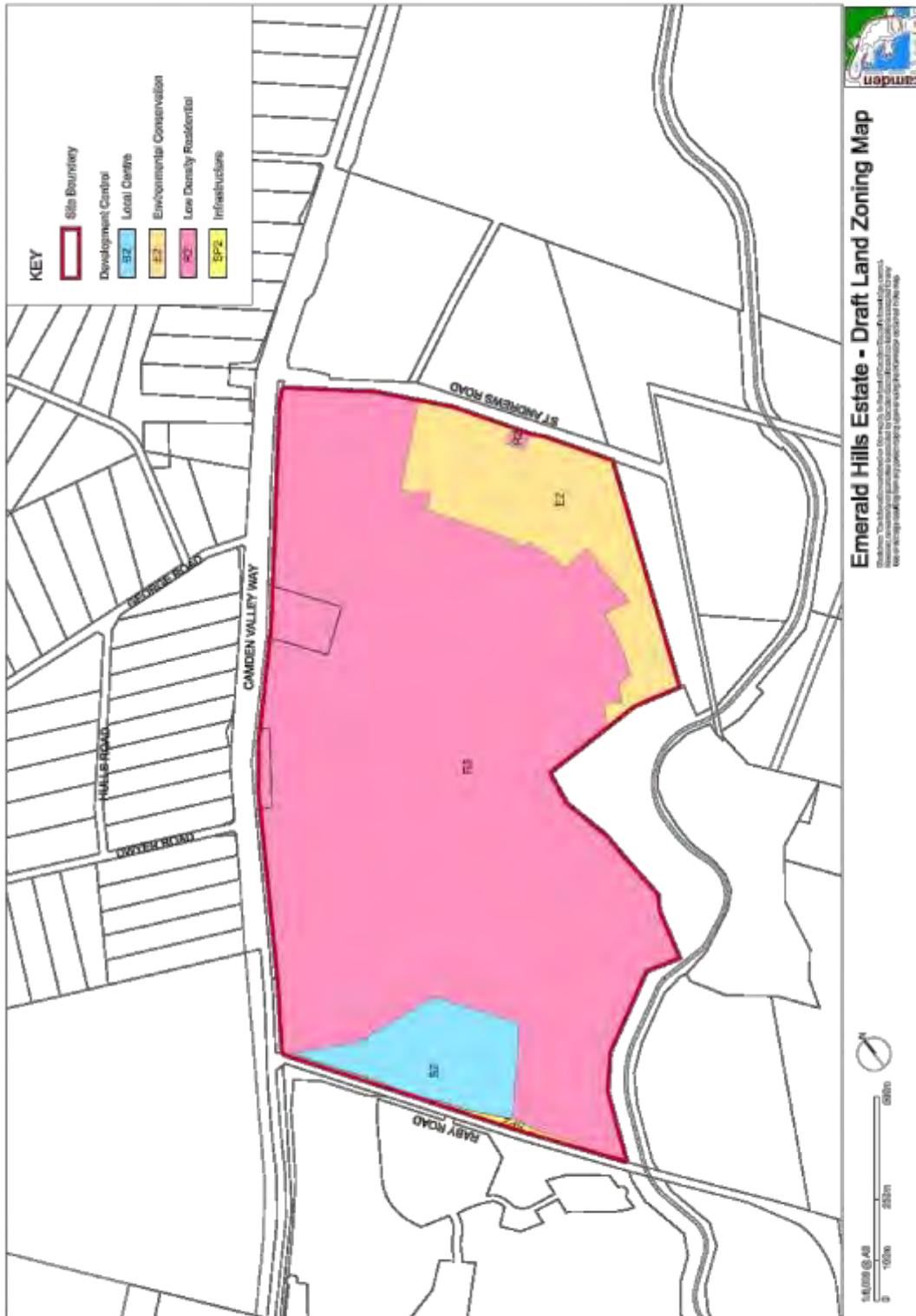


1A Existing Land Zoning Map LZN_016

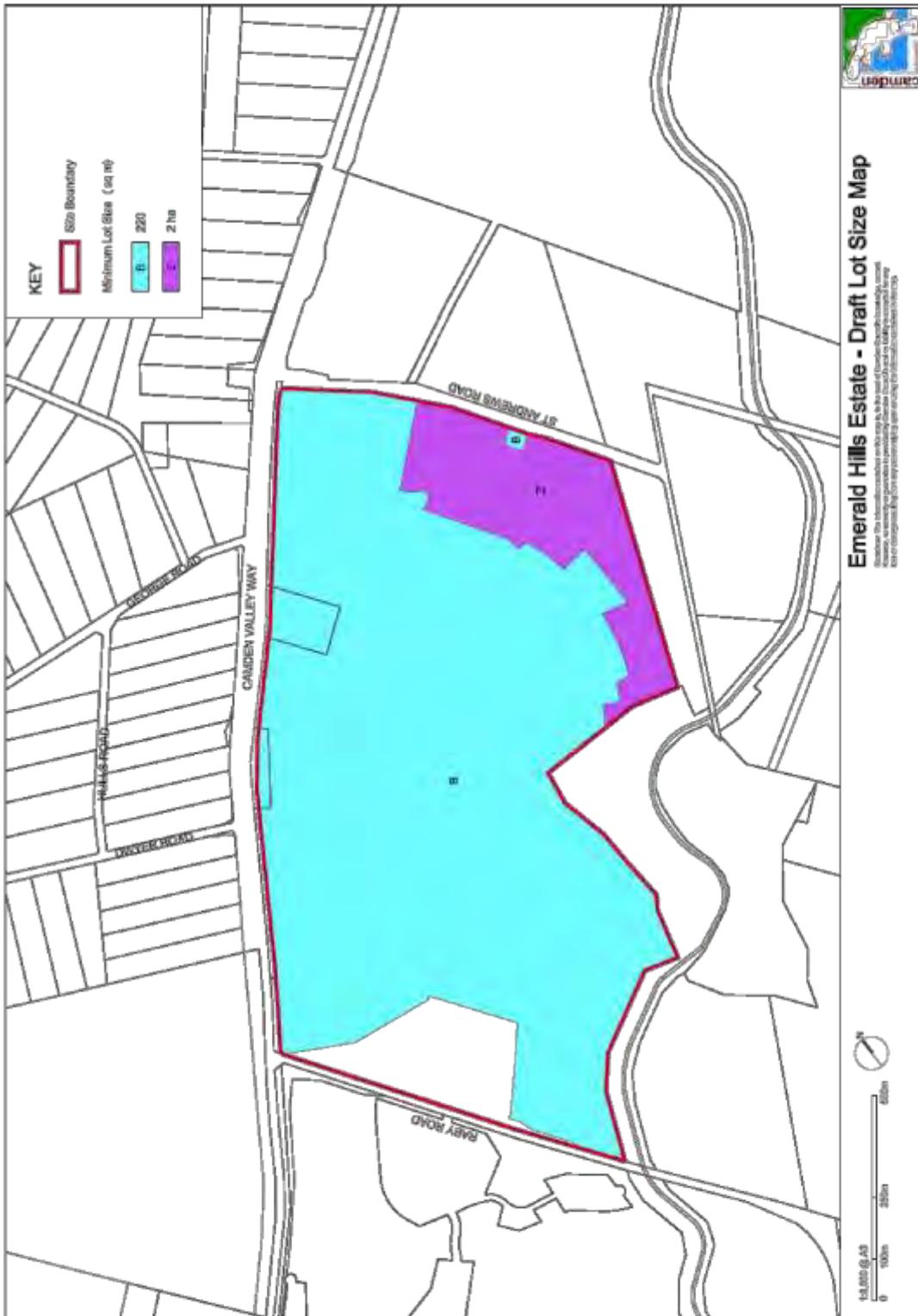
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1C Amended LZN_016 as it relates to the Emerald Hills site for gazettal



2B Proposed amendment to LSZ_016 as it relates to the Emerald Hills site (NOTE: light blue colour used to provide contrast against white background. For the avoidance of doubt, the proposed Lot Size shown in blue is B – 220)



3A Existing Height of Buildings Map HOB_016



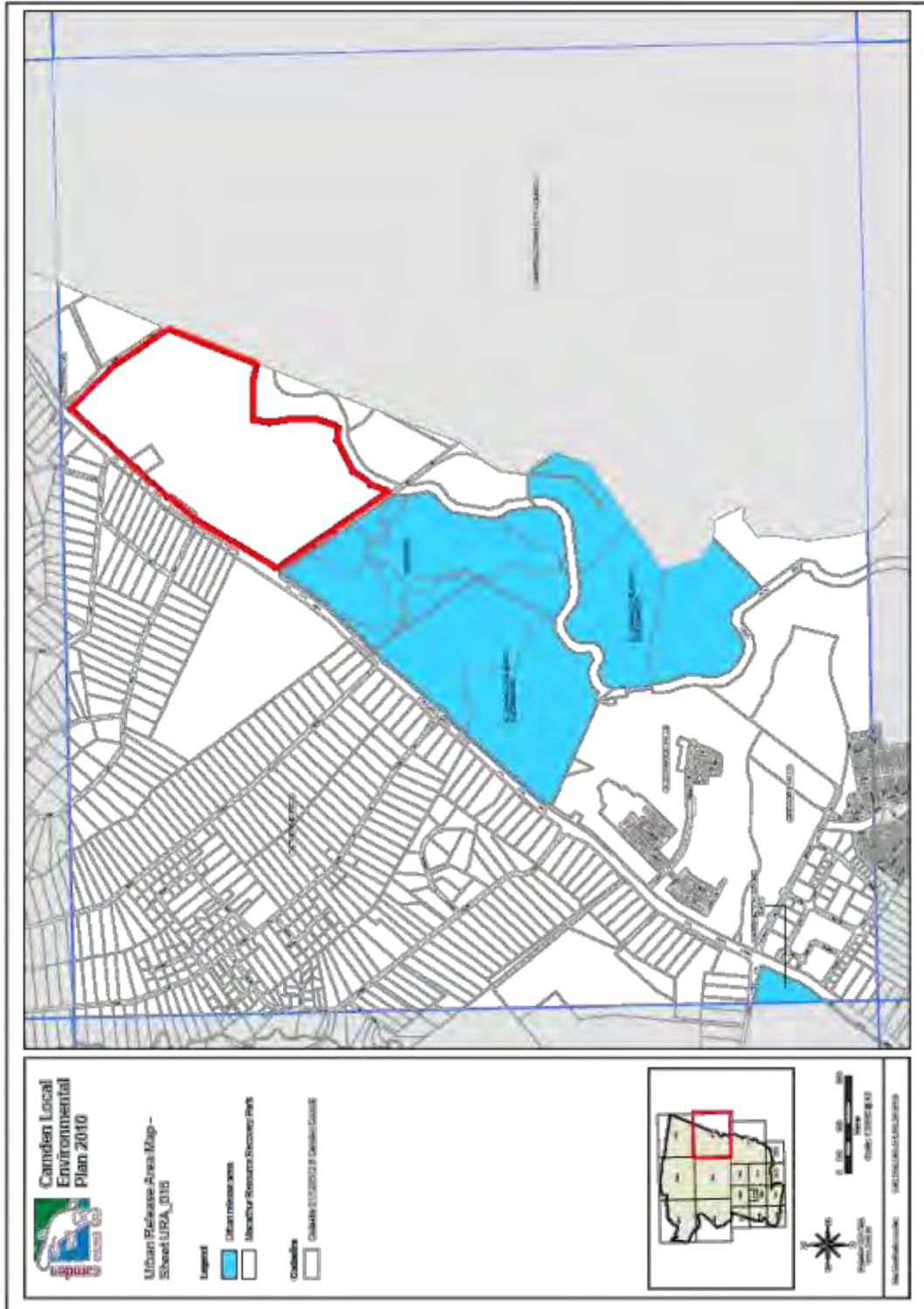
3B Exhibited amendment to HOB_016 as it relates to the Emerald Hills site (refer to Appendix 5 cover sheet for notation regarding proposed 15.5m height limit for residential flat buildings) – SUPERSEDED

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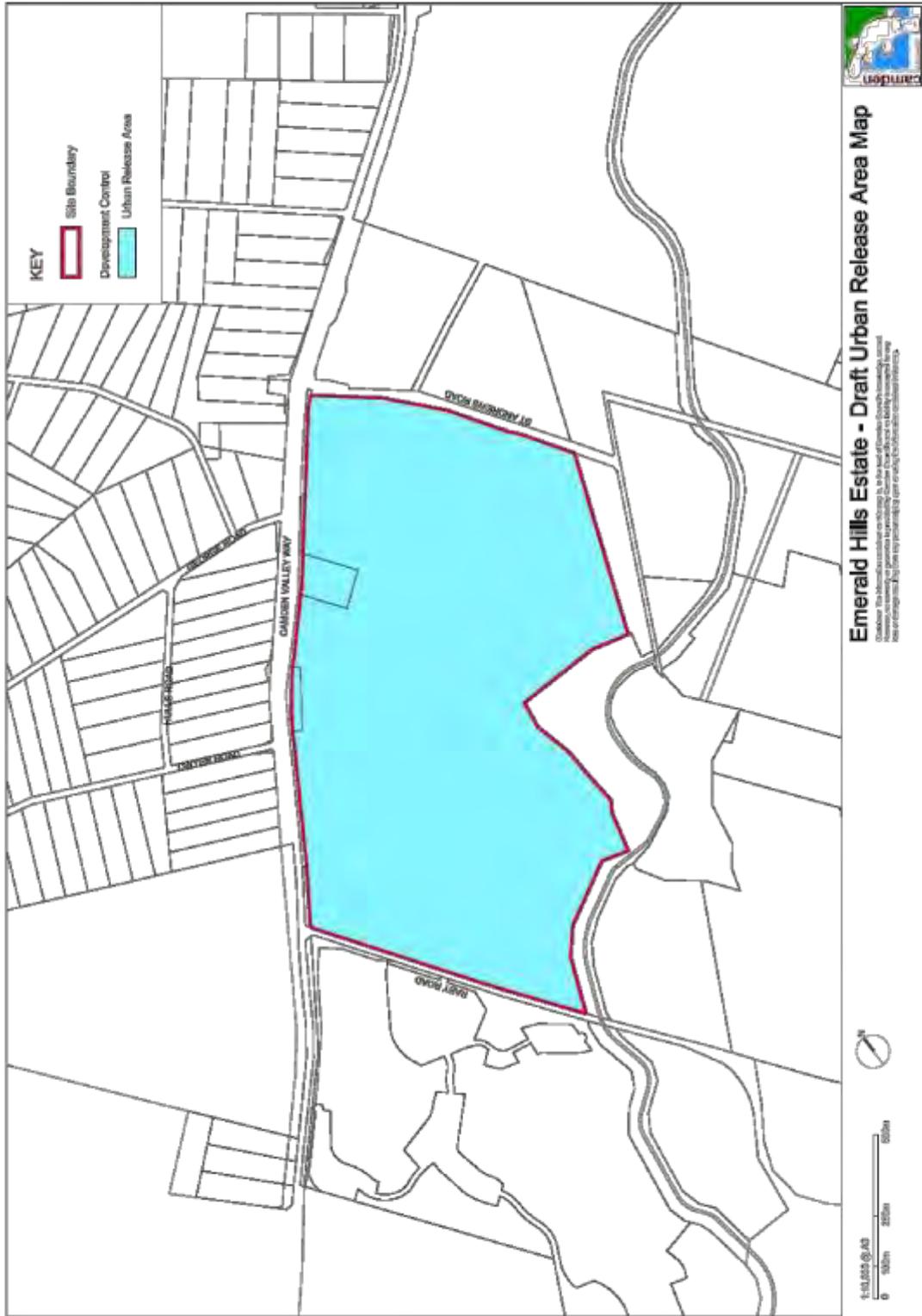
3C Amended HOB_016 as it relates to the Emerald Hills site for gazettal



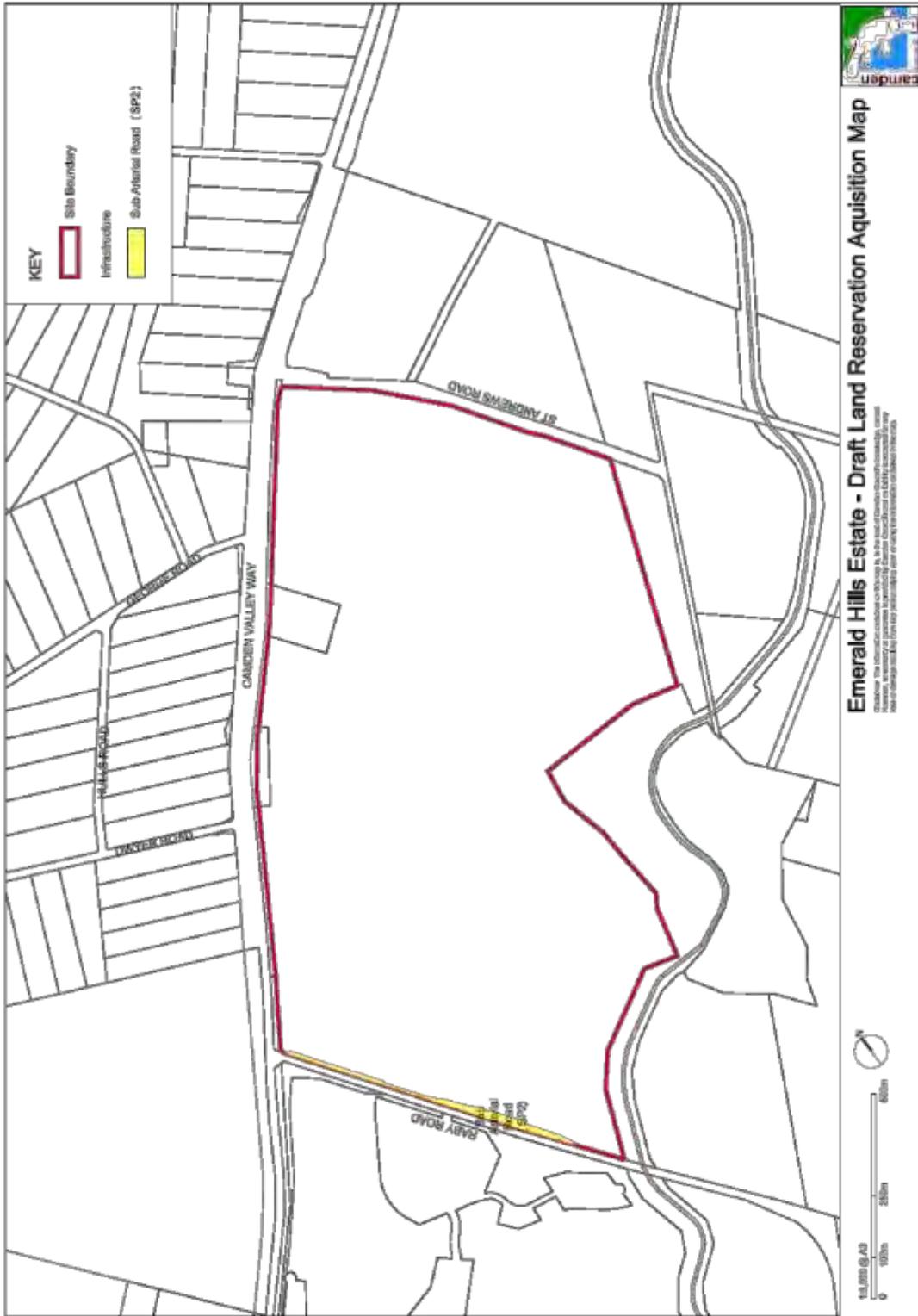
4A Existing Urban Release Area Map URA_016

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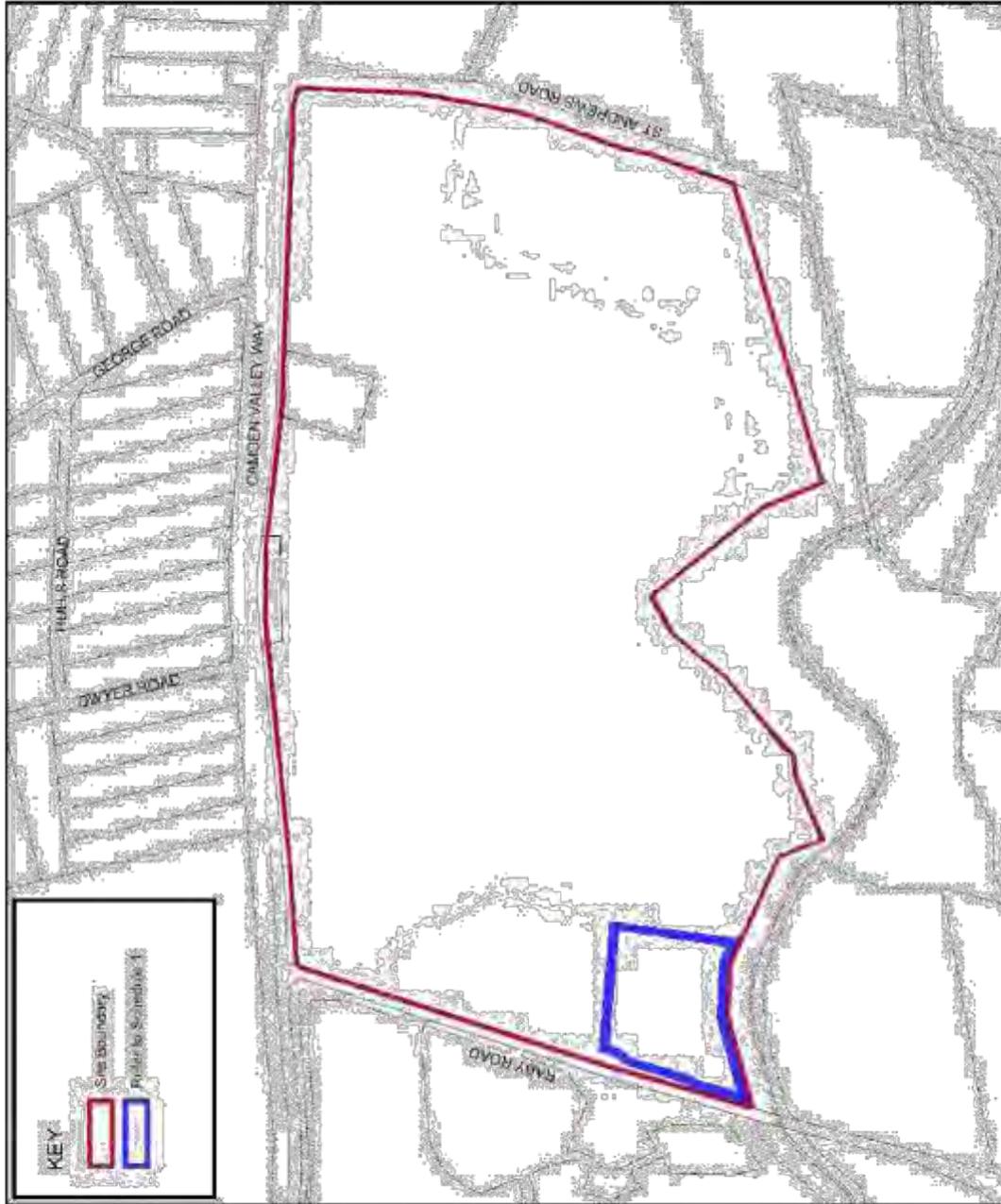
4B Proposed amendment to URA_016 as it relates to the Emerald Hills site



5A Proposed detail on new Land Reservation Acquisition MAP LRA_016 to be created by planning proposal (there is no existing LRA_016 map)

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6A Proposed amendment to Additional Permitted Uses Map APU_016 relating to a Schedule 1 Additional Permitted Use for Exhibition Homes

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Appendix F: Copy of Gateway Determination issued 7 July 2012

Attachment 3



Contact: Peter Goth
 Phone: (02) 9873 8593
 Fax: (02) 9873 8599
 Email: Peter.Goth@planning.nsw.gov.au
 Postal: Locked Bag 5020, Parramatta NSW 2124

Mr Greg Wright
 General Manager
 Camden Council
 PO Box 183
 CAMDEN NSW 2570

Our ref: PP_2012_CAMDE_006_00 (12/04280)
 Your ref: DX25807

Dear Mr Wright,

Planning Proposal to rezone rural land at 'Emerald Hills', Leppington, for urban development.

I am writing in response to your Council's letter dated 29 February 2012 requesting a Gateway Determination under section 56 of the Environmental Planning and Assessment Act 1979 ("EP&A Act") in respect of the planning proposal to amend the Camden Local Environmental Plan 2010 to rezone rural land at 'Emerald Hills', Leppington, for urban development.

As delegate of the Minister for Planning and Infrastructure, I have now determined that the planning proposal should proceed subject to the conditions in the attached Gateway Determination.

The following amendments are to be made to the planning proposal, prior to public exhibition to clarify the subject land to which the planning proposal applies:

- the maps and property description for the subject land is to be clarified (i.e. the whole or part of lots 1 DP 301830 and 2 DP 650698) and the proposal amended to rectify any errors; and
- the maps and property description for the subject land be revised to ensure that land within Campbelltown Local Government Area is not included within the proposed rezoning and amendment to the Camden LEP 2010.

In accordance with the requirements of S117 Direction 1.1 Business and Industrial Zones, S117 Direction 3.4 Integrating land Use and 6.3 Site Specific Provisions, Council is to ensure that sufficient information is placed on public exhibition to show how the planning proposal responds to and justifies:

- applying the B1 Neighbourhood Business Zone given the proposed 10,000m² maximum floor space area for retail uses; and
- the potential cumulative impact of traffic and transport associated with the development of the site on the surrounding road network.

The additional information for public exhibition must address the requirements of the above listed S117 Directions. Further, it must have regard to the existing and planned centres (local and major) in the vicinity of the site located within the South-West Growth Centre. The information must also consider and respond to the findings from the East Leppington Precinct Centres Viability Study. Where necessary, the planning proposal is to be amended to reflect this analysis prior to exhibition.

In light of comments received by the Department from the Heritage Branch of the Office of Environment and Heritage regarding the Sydney Water Supply Upper Canal, (which adjoins the site and is listed on the State Heritage Register), the following must be addressed prior to exhibition commencing:

- information relating to flora and fauna investigations showing:
 - any potential affects on adjoining land; and
 - an assessment of the quality of vegetation and the method of protecting the Cumberland Plain Woodland (CPW) to ensure the ongoing protection and management of the CPW.

The planning proposal is to be amended to reflect the desired approach, if appropriate.
- consultation with the following agencies:
 - the Director General of the Office of Environment and Heritage under Section 34A of the Environmental Planning and Assessment Act 1979;
 - the Federal Department of Sustainability, Environment, Water, Population and Communities in relation to the CPW; and
 - the Office of Water (in relation to the riparian areas and provide details on the proposed E4 Environmental Living zone; and
- in accordance with the requirements of S117 Direction 2.1 Environment Protection zones, Council is to amend the planning proposal to reflect the outcomes of the Flora and Fauna Study and public authority consultation, and address the consistency of the revised planning proposal with the Local Planning Direction.

In accordance with S117 Direction 2.3 Heritage Conservation, Council is to provide a suitable assessment of the heritage significance of the former school buildings and the CPW located on and adjacent to the site. Council is to consult with the Office of Environment and Heritage and incorporate any comments into the planning proposal, demonstrating consistency with the S117 Direction.

As has been noted the subject site adjoins the South-West Growth Centre on the eastern side of Camden Valley Way and is therefore likely to generate a need for the provision of state public infrastructure. Accordingly, the subject land is to be mapped as an urban release area under Camden LEP 2010 for the purposes of including satisfactory arrangements for the provision of infrastructure.

Council is required to produce an Infrastructure Servicing and Delivery Plan for the site to assist in determining any additional infrastructure requirements or levies. The plan should confirm the delivery, timing, location and funding of infrastructure. In preparing this plan, Council is to consult with the following public agencies:

- Department of Education and Communities
- Office of Environment and Heritage
- Fire and Rescue NSW
- NSW Police Force
- NSW Rural Fire Service
- Transport for NSW – RailCorp
- Transport for NSW - Roads and Maritime Services
- Sydney Water
- Telstra
- Transgrid
- Adjoining LGAs

The Servicing and Delivery Plan is to accompany the planning proposal for the purposes of public exhibition. In addition, Council is to map the subject land as an urban release area under Camden LEP 2010 for the purposes of including satisfactory arrangements for the provision of infrastructure. Council is to amend the planning proposal accordingly prior to the commencement of public exhibition.

It has been noted that Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepoon River (No. 2 – 1997) applies to the proposal and, among other things, requires Council to give consideration to the need for a Total Water Cycle Management Study or Plan. Council is to demonstrate how these requirements have been considered as part of the public exhibition material.

In accordance with the requirements of S117 Direction 4.3 Flood Prone Land, Council must undertake a flood assessment for the site, along with a stormwater and drainage assessment. The planning proposal is to be amended to reflect any findings from both of these studies, if necessary, prior to public exhibition.

Council is to consult with the Commissioner of the NSW Rural Fire Service prior to undertaking community consultation and take into account any comments made as per the requirements of S117 Direction 4.4 Planning for Bushfire Protection.

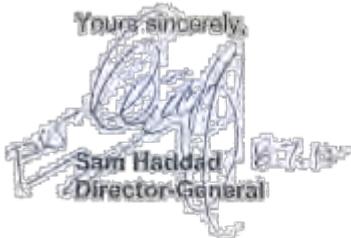
I have also agreed that the planning proposal's inconsistencies with S117 Directions 1.2 Rural Zones, 6.2 Reserving Land for Public Purposes and 7.1 Implementation of the Metropolitan Plan for Sydney 2038 are of minor significance. No further approval is required in relation to these Directions.

The amending Local Environmental Plan (LEP) is to be finalised within 24 months of the week following the date of the Gateway Determination. Council should aim to commence the exhibition of the Planning Proposal as soon as possible following consultation with the relevant agencies and providers. Council's request for the Department to draft and finalise the LEP should be made six (6) weeks prior to the projected publication date.

The State Government is committed to reducing the time taken to complete LEPs by tailoring the steps in the process to the complexity of the proposal and by providing clear and publicly available justification for each plan at an early stage. In order to meet these commitments, the Minister may take action under s54(2)(d) of the EP&A Act if the time frames outlined in this determination are not met.

Should you have any queries in regard to this matter, please contact Peter Goh of the Regional Office of the Department on 02 9873 8593.

Yours sincerely,


Sam Haddad
Director-General



Gateway Determination

Planning Proposal (Department Ref: PP_2012_CAMDE_006_00): to rezone rural land at 'Emerald Hills', Leppington, for urban development.

I, the Director General, Department of Planning and Infrastructure as delegate of the Minister for Planning and Infrastructure, have determined under section 56(2) of the EP&A Act that an amendment to the Camden Local Environmental Plan 2010 to rezone rural land at 'Emerald Hills', Leppington, for urban development should proceed subject to the following conditions:

1. The following amendments are to be made to the planning proposal, prior to public exhibition to clarify the subject land to which the planning proposal applies:
 - the maps and property description for the subject land is to be clarified (i.e. the whole or part of lots 1 DP 301830 and 2 DP 650698). The proposal is to be amended to rectify any errors;
 - the maps and property description for the subject land be revised to ensure that land within Campbelltown Local Government Area is not included within the proposed rezoning and amendment to Camden LEP 2010;
2. In accordance with the requirements of S117 Direction 1.1 Business and Industrial Zones, 3.4 Integrating land Use and Transport and 6.3 Site Specific Provisions, Council is to ensure that sufficient information is placed on public exhibition to show how the planning proposal responds to and justifies:
 - applying the B1 Neighbourhood Business Zone given the proposed 10,00m² maximum floor space area for retail uses; and
 - the potential cumulative impact of traffic and transport associated with the development of the site on the surrounding road network.

The additional information needs to address the requirements of the above listed S117 Directions. Further, it needs to have regard to the existing and planned centres (local and major) in the vicinity of the site located within the South-West Growth Centre. The information needs to also consider and respond to the findings from the East Leppington Precinct Centres Viability Study. Where necessary, the planning proposal is to be amended to reflect this analysis prior to exhibition.
3. In regards to the proximity of the subject land to the adjoining Sydney Water Supply Upper Canal, Council is to address the following prior to exhibition commencing:
 - information relating to flora and fauna investigations showing:
 - any potential affects on adjoining land; and
 - an assessment of the quality of vegetation and the method of protecting the Cumberland Plain Woodland.

The planning proposal is to be amended to reflect the agreed approach; and
 - consultation with the public agencies identified under Condition 13.
4. In accordance with the requirements of S117 Direction 2.1 Environment Protection Zones, Council is to amend the planning proposal to reflect the outcomes of the flora and fauna investigations and public authority consultation and address the consistency of the revised planning proposal with the Local Planning Direction.

Camden PP_2012_CAMDE_006_00 (12/04280)



5. As per the requirements of S117 Direction 2.3 Heritage Conservation, Council is to provide a suitable assessment of the heritage significance of the former school buildings on the subject land. Council is to consult with the Office of Environment and Heritage. Any required changes to the planning proposal are to be carried out prior to public exhibition.
6. Prior to public exhibition, Council is to map the subject land as an urban release area under Camden LEP 2010 for the purposes of including satisfactory arrangements for the provision of infrastructure.
7. Council is to produce an Infrastructure Servicing and Delivery Plan for the site to assist in determining any additional infrastructure requirements or levies.
8. Upon completion of the Infrastructure Servicing and Delivery Plan for the subject site, consistency with S117 Direction 3.1 Residential Zones needs to be demonstrated and the planning proposal amended accordingly, if appropriate.
9. As per the requirements of S117 Direction 4.3 Flood Prone Land, Council needs to undertake a flood assessment for the site, along with a stormwater and drainage assessment. The planning proposal is to be amended to reflect any findings from both of these assessments, prior to public exhibition, if appropriate.
10. In accordance with the requirements of S117 Direction 4.4 Planning for Bushfire Protection, Council is to consult with the Commissioner of the NSW Rural Fire Service prior to undertaking community consultation and take into account any comments made.
11. Council is to address the requirements of the Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No. 2 – 1997).
12. Community consultation is required under sections 56(2)(c) and 57 of the Environmental Planning and Assessment Act 1979 ("EP&A Act") as follows:
 - (a) the planning proposal must be made publicly available for **28 days**; and
 - (b) the relevant planning authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 4.5 of *A Guide to Preparing LEPs (Department of Planning 2009)*.
13. Consultation is required with the following public authorities under section 56(2)(d) of the EP&A Act:
 - Department of Education and Communities
 - Office of Environment and Heritage
 - Fire and Rescue NSW
 - NSW Police Force
 - NSW Rural Fire Service
 - Transport for NSW – RailCorp
 - Transport for NSW - Roads and Maritime Services
 - Sydney Water
 - Telstra
 - Transgrid
 - Adjoining LGAs

Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material. Each public authority is to be given at least 21 days to

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comment on the proposal, or to indicate that they will require additional time to comment on the proposal. Public authorities may request additional information or additional matters to be addressed in the planning proposal.

14. A public hearing is not required to be held into the matter by any person or body under section 56(2)(e) of the EP&A Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).
15. The timeframe for completing the LEP is to be **24 months** from the week following the date of the Gateway determination.

Dated

7th day of

July

2012.

A handwritten signature in black ink that reads 'S Haddad'.

Sam Haddad
Director-General
Delegate of the Minister for Planning and
Infrastructure

Attachment 3

EMERALD HILLS PLANNING PROPOSAL

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Attachment 3

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EMERALD HILLS PLANNING PROPOSAL

Appendix G: Table of compliance with conditions of Gateway Determination

Attachment 3

Conditions	Comments
<p>1. The following amendments are to be made to the planning proposal, prior to public exhibition to clarify the subject land to which the planning proposal applies:</p> <ul style="list-style-type: none"> • the maps and property description for the subject land is to be clarified (i.e. the whole or part of lots 1 DP 301830 and 2 DP 650698). The proposal is to be amended to rectify any errors; • the maps and property description for the subject land be revised to ensure that land within Campbelltown Local Government Area is not included within the proposed rezoning and amendment to Camden LEP 2010. 	<p>The site is legally described as:</p> <ul style="list-style-type: none"> • Lot 10 DP 1161557 (formerly Part Lot B in DP418632); • Lot 1 in DP301830; and • Lot 10 DP 1173819 (formerly Part Lot 2 in DP 650698). <p>No part of the site that is located within Campbelltown Local Government Area is included within the currently proposed rezoning as shown in Figure 2.2 of the WhelanInSites planning report.</p>
<p>2. In accordance with the requirements of S117 Direction 1.1 Business and Industrial Zones, 3.4 Integrating land Use and Transport and 6.3 Site Specific Provisions, Council is to ensure that sufficient information is placed on public exhibition to show how the planning proposal responds to and justifies:</p> <ul style="list-style-type: none"> • applying the B1 Neighbourhood Business Zone given the proposed 10,00m² maximum floor space area for retail uses; and 	<p>A Retail Need and Economic Impact Statement prepared by Deep End Services 24 October 2012 provides an assessment of the proposed centre. It is discussed in Section 6.2 of the WhelanInSites planning report.</p> <p>It notes that adverse impacts arising from the proposed supermarket centre at Emerald Hills are well below the level considered likely to threaten the viability of a centre. The highest impact is on Eagle Vale Marketplace which is currently trading well above the industry average for a centre of its type.</p> <p>It further notes that other planned centres in the surrounding region will fulfil their intended roles as locations for local daily convenience and weekly grocery shopping, with higher-order functions located in Leppington, Oran Park and other designated Town and Village centres. The introduction of a new centre at Emerald Hills will not adversely affect the ability for these centres to develop as planned.</p> <p>The study recommends that, consistent with the intended role of the centre in the wider activity centre as a location for supermarket-based neighbourhood shopping, that the B2 Local Centre zone is the most suitable zone to apply to the site of the centre in order to facilitate the potential range of uses that are envisaged to occur.</p> <p>Council has had a peer review of the study undertaken by Hill PDA and is satisfied that the most appropriate</p>

Condition	Comment
<ul style="list-style-type: none"> the potential cumulative impact of traffic and transport associated with the development of the site on the surrounding road network. <p>The additional information needs to address the requirements of the above listed S117 Directions. Further, it needs to have regard to the existing and planned centres (local and major) in the vicinity of the site located within the South-West Growth Centre. The information needs to also consider and respond to the findings from the East Leppington Precinct Centres Viability Study. Where necessary, the planning proposal is to be amended to reflect this analysis prior to exhibition.</p>	<p>planning controls to apply to the site are a B2 Local Centre zone, with a cap of 10,000 sqm of 'retail premise' uses excluding 'food and drink premises.'</p> <p>A Traffic Assessment was completed in May 2013 by Cardno. The Traffic assessment was commissioned as a result of the requirements of the Department of Planning and Infrastructure (DP&I) Gateway Determination and is discussed in section 6.14 of the WhelanInSites planning report.</p>
<p>3. In regards to the proximity of the subject land to the adjoining Sydney Water Supply Upper Canal, Council is to address the following prior to exhibition commencing:</p> <ul style="list-style-type: none"> information relating to flora and fauna investigations showing: <ul style="list-style-type: none"> > any potential effects on adjoining land; and > an assessment of the quality of vegetation and the method of protecting the Cumberland Plain Woodland. <p>The planning proposal is to be amended to reflect the agreed approach; and consultation with the public agencies identified under Condition 13.</p>	<p>A portion of the eastern boundary of the site subject of this proposal is shared with the Sydney Catchment Authority's Upper Canal. No part of the land proposed to be rezoned is within the Upper Canal and as such, no works are proposed within the Upper Canal corridor.</p> <p>Erosion and sediment control measures, dust mitigation measures, waste management measures and environmental management measures will be installed and required during the development process to ensure that any impacts on adjoining properties, including the Upper Canal, is mitigated.</p> <p>A riparian assessment was conducted by Ecological Australia as part of the Emerald Hills Estate - Preliminary Constraints Analysis. This analysis specifically details an assessment of the ecology and riparian Issues on the site.</p> <p>The biodiversity assessment was conducted by Ecological Australia as part of the Emerald Hills Estate - Preliminary Constraints Analysis includes a detailed analysis and assessment of the biodiversity of the site. This includes assessment of specific flora and fauna found on the site,</p>

Condition	Comment
	<p>as well as an assessment of the significance of the Cumberland Plain Woodland and Alluvial Woodland communities.</p> <p>The Emerald Hills Estate - Preliminary Constraints Analysis is discussed in Section 6.10 and 6.11 of the WhelanInSites planning report.</p>
<p>4. In accordance with the requirements of S 117 Direction 2.1 Environment Protection Zones, Council is to amend the planning proposal to reflect the outcomes of the flora and fauna investigations and public authority consultation and address the consistency of the revised planning proposal with the Local Planning Direction.</p>	<p>Following discussions with the Office of Environment and Heritage the Planning Proposal has been amended to expand the size of the proposed E2 Environmental Conservation Zone to encompass all of the area of the intact vegetation in the north east corner of the site. The proponent has offered to enter into a biobanking agreement to provide a funding mechanism to maintain and improve the vegetation in perpetuity.</p> <p>This is consistent with Direction 2 as the change in zoning from RU2 Rural Landscape to E2 Environmental Conservation improves, and does not reduce, the environmental protection standards.</p> <p>The Office of Environment and Heritage has advised of its support to the proposed approach.</p>
<p>5. As per the requirements of S117 Direction 2.3 Heritage Conservation, Council is to provide a suitable assessment of the heritage significance of the former school buildings on the subject land. Council is to consult with the Office of Environment and Heritage. Any required changes to the planning proposal are to be carried out prior to public exhibition.</p>	<p>A Historical Heritage Assessment was completed in January 2013 by AHMS with specific attention to the St Andrew's Home for Boys, 1100-1150 Camden Valley Way, Leppington, which is located within the confines of the Emerald Hills Estate. The Historical Heritage Assessment, completed by AHMS Pty Ltd, provides a suitable assessment of the former school buildings on the Emerald Hills Estate and is discussed further in part 6.8 of this report. A draft ACHA and archival photographic record of the previous buildings on the site have also been undertaken.</p>
<p>6. Prior to public exhibition, Council is to map the subject land as an urban release area under Camden LEP 2010 for the purposes of including satisfactory arrangements for the provision of infrastructure.</p>	<p>Part 9 of this report contains the proposed mapping changes to the Camden Local Environmental Plan 2010, including designation of the site as an urban release area. This map has been derived from servicing requirements of the site and allocation of public open space areas.</p>
<p>7. Council is to produce an Infrastructure Servicing and Delivery Plan for the site to assist in determining any additional infrastructure requirements or levies.</p>	<p>A Servicing and Delivery Plan was prepared by Cardno in May 2013. The details of this plan are described further in Part 8 of the WhelanInSites planning report and the Servicing and Delivery Plan is provided under separate cover as an attachment to the planning proposal.</p>
<p>8. Upon completion of the Infrastructure Servicing and Delivery</p>	<p>The Planning Proposal provides a new opportunity for</p>

Condition	Comment
Plan for the subject site, consistency with S 117 Direction 3.1 Residential Zones needs to be demonstrated and the planning proposal amended accordingly, if appropriate.	increased housing choice, efficient use of infrastructure and services, reduces consumption of land on the fringe by seeking higher residential densities, and can provide good urban design to improve the locality.
9. As per the requirements of S117 Direction 4.3 Flood Prone Land, Council needs to undertake a flood assessment for the site, along with a stormwater and drainage assessment. The planning proposal is to be amended to reflect any findings from both of these assessments, prior to public exhibition, if appropriate.	A Water Cycle Management Report for the Emerald Hills Estate was also prepared by Cardno in August 2013. The Water Cycle Management Report considers the flood and stormwater behaviour in the Emerald Hills site in order to identify appropriate flood extents. A strategy for stormwater quantity and quality management follows the Water Sensitive Urban Design (WSUD) principles. The Water Cycle Management Report is discussed in Sections 6.10 and 6.11 of the WhelanInSites planning report.
10. In accordance with the requirements of S 117 Direction 4.4 Planning for Bushfire Protection, Council is to consult with the Commissioner of the NSW Rural Fire Service prior to undertaking community consultation and take into account any comments made.	A Bushfire Assessment Report has been prepared in response to the requirements of the Department of Planning and Infrastructure (DP&I) Gateway Determination. The Bushfire Assessment Report, dated June 2013, was prepared by Ecological Australia Pty Ltd and aims to identify the potential bushfire constraints to any future development of the Emerald Hills Estate. Discussed further in Part 6.12 of the WhelanInSites planning report. Ecological Australia Pty Ltd has consulted with the RFS that has confirmed that it is acceptable.
11. Council is to address the requirements of the Sydney Regional Environmental Plan No. 20 - Hawkesbury-Nepean River (No. 2-1997).	The aim of <i>Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No.2 - 1997)</i> is to protect the environment of the Hawkesbury-Nepean River system by ensuring that the impacts of future land uses are considered in a regional context. The provisions of the <i>Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River (No.2 - 1997)</i> are addressed in Part 5 of the WhelanInSites planning report.
12. Community consultation is required under sections 56(2)(c) and 57 of the Environmental Planning and Assessment Act 1979 ("EP&A Act") as follows: (a) the planning proposal must be made publicly available for 28 days; and (b) the relevant planning authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must	The planning package was exhibited and notified from 30 October 2013 to 27 November 2013 via newspaper advertisements in local newspapers, Council's website and at the Camden and Narellan Customer Service Centres and Camden and Narellan Libraries. Adjoining neighbours were also notified via mail. The State and Federal agencies identified on pages 37 and 38 of the planning proposal were notified by mail and provided with the opportunity to comment. The exhibition was undertaken in accordance with 4.5 of <i>A Guide to Preparing LEPs (Department of Planning 2009)</i> .

Conditions	Comments
<p>be made publicly available along with planning proposals as identified in section 4.5 of <i>A Guide to Preparing LEPs (Department of Planning 2009)</i>.</p>	
<p>13. Consultation is required with the following public authorities under section 56(2)(d) of the EP&A Act:</p> <ul style="list-style-type: none"> • Department of Education and Communities • Office of Environment and Heritage • Fire and Rescue NSW • NSW Police Force • NSW Rural Fire Service • Transport for NSW –RailCorp • Transport for NSW - Roads and Maritime Services • Sydney Water • Telstra • Transgrid • Adjoining LGAs <p>Each public authority is to be provided with a copy of the planning proposal and any relevant supporting material. Each public authority is to be given at least 21 days to comment on the proposal, or to indicate that they will require additional time to comment on the proposal. Public authorities may request additional information or additional matters to be addressed in the planning proposal.</p>	<ul style="list-style-type: none"> • Refer to Emerald Hills Social Planning Report prepared by Elton Consulting, dated 6 May 2013. • Refer to the Aboriginal Heritage Preliminary Assessment, dated February 2013 and the Historical Heritage Assessment, dated January 2013 prepared by Archaeological & Heritage Management Solutions Pty Ltd. • Refer to Emerald Hills Estate - Preliminary Constraints Analysis prepared by Ecological Australia Pty Ltd, April 2013. • Refer to Emerald Hills Social Planning Report prepared by Elton Consulting, dated 6 May 2013. • Refer to Emerald Hills Social Planning Report prepared by Elton Consulting, dated 6 May 2013. • Refer to Bushfire Assessment Report prepared by Ecological Australia Pty Ltd, June 2013. • Refer to the Traffic Assessment Prepared by Cardno, dated May 2013. • Refer to the Traffic Assessment Prepared by Cardno, dated May 2013. • Refer to Water Cycle Management Report prepared by Cardno, dated May 2013 • Refer to Infrastructure Delivery Plan prepared by Cardno, Dated May 2013 • Refer to Infrastructure Delivery Plan prepared by Cardno, Dated May 2013 • Proponent and Council has met with representatives of Campbelltown City Council, the relevant adjoining Council to discuss the proposal. No objections have been raised. <p>Noted.</p>
<p>14. A public hearing is not required to be held into the matter by any person or body under section 56(2)(e) of the EP&A Act. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).</p>	<p>Noted</p>
<p>15. The timeframe for completing the LEP is to be 24 months from the week following the date of the Gateway determination.</p>	<p>Noted</p>

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EMERALD HILLS PLANNING PROPOSAL

Appendix H: Copy of submission to the exhibition of the Emerald Hills planning package.

Attachment 3



Draft Amendments to Camden Development Control Plan 2011 Emerald Hills Rezoning

This document outlines the draft amendments to Camden Development Control Plan 2011 (the DCP) in relation to the Emerald Hills planning proposal.

The draft amendments contained within this document will be inserted into the relevant sections or chapters of the DCP.

Throughout this document are headings which are ***ITALICISED AND HIGHLIGHTED IN GREY***. These headings explain which section of the DCP is to be amended by inserting the text, tables and figures below.

Please refer to Council's website at www.camden.nsw.gov.au or the Customer Service Counters at the Camden and Narellan offices to view a complete version of the current DCP.

Amend Part C Table of Contents as follows:

In Part C Residential Subdivision add:

C12 EMERALD HILLS

C12.1 INTRODUCTION	8
C12.2 SUBDIVISION DESIGN	11
C12.3 STREET, PEDESTRIAN AND CYCLE NETWORK	13
C12.4 BULK EARTHWORKS AND RETAINING WALLS.....	17
C12.5 OPEN SPACE, PUBLIC DOMAIN AND FENCING.....	18
C12.6 VEGETATION CONSERVATION	20
C12.7 SCHOOL AND COMMUNITIES FACILITIES PRECINCT	22
C12.8 ACOUSTIC AMENITY.....	23
C12.9 STORMWATER MANAGEMENT	24
C12.10 BUSHFIRE RISK MANAGEMENT	24
C12.11 LARGE LOT RESIDENTIAL AREA	26
C12.12 STAGES 7 AND 8 RESIDENTIAL AREA.....	26
C12.13 ABORIGINAL AND EUROPEAN HERITAGE.....	28

Amend Part C – Figures by adding:

Figure C68	Emerald Hills Indicative Master Plan
Figure C69	Locations of Smaller Lot Housing Near Areas of High Amenity
Figure C70	Emerald Hills Road Hierarchy and Bus Route
Figure C71	Emerald Hills Pedestrian and Cycle Paths
Figure C72	Emerald Hills Typical Access Street
Figure C73	Emerald Hills Typical Local Road
Figure C74	Emerald Hills Typical Collector Road
Figure C75	Emerald Hills Typical Collector Road with Median
Figure C76	Emerald Hills Typical Collector Road with Median and Bus Set down
Figure C77	Emerald Hills Typical Entry / Exit Collector Road
Figure C78	Local Open Space
Figure C79	Environmental Conservation Area
Figure C80	School and Communities Facilities Precinct
Figure C81	Indicative Bushfire Asset Protection Zones
Figure C82	Scenic Character Protection Area

Amend Part D Table of Contents as follows:

In Part D2.3 Site Specific Controls for Residential Accommodation add:

D2.3.10 EMERALD HILLS 29

Amend Part D – Tables by adding:

Table D17A Summary of residential accommodation controls - Emerald Hills

Amend Part D Table of Contents as follows:

In Part D3 Commercial and Retail Development add:

D3.10 EMERALD HILLS – B2 LOCAL CENTRE 30

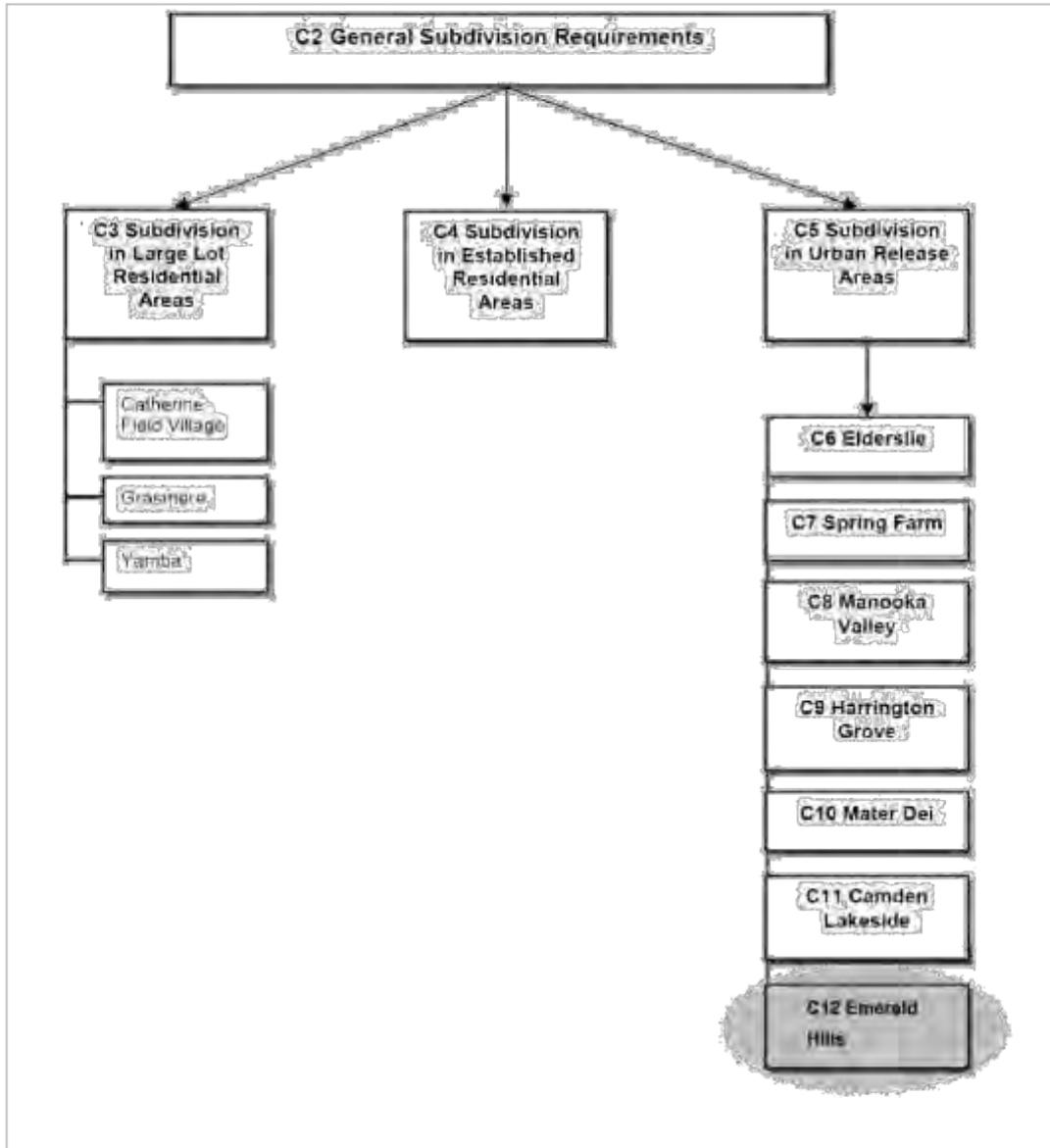
Amend Part D – Figures by adding:

Figure D59 Site Planning Principles for Emerald Hills Centre

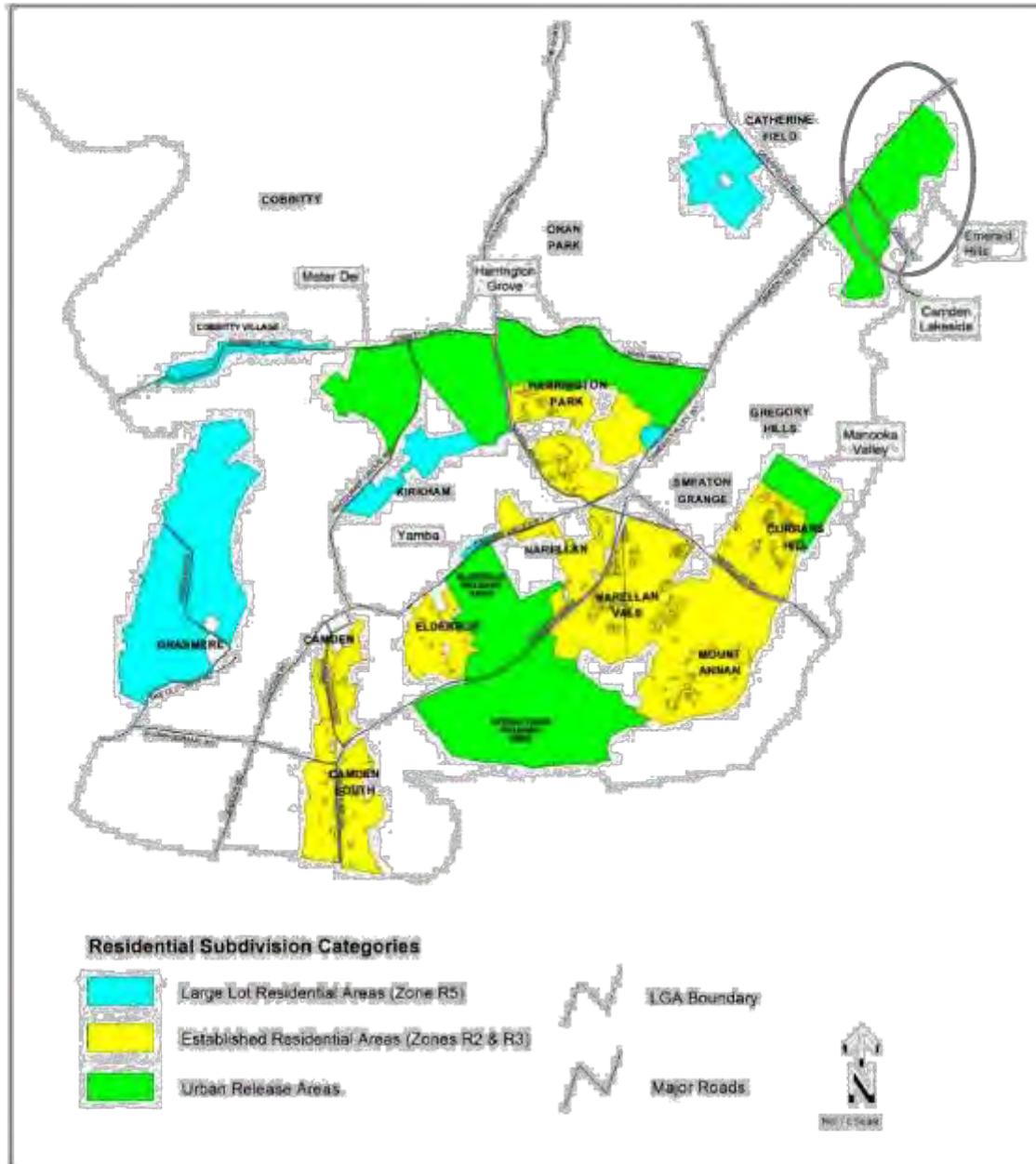
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Attachment 4

Amend flow chart in Figure C1 by inclusion of new 'Chapter C12 Emerald Hills' as follows:



Amend map in Figure C2 by inclusion of Emerald Hills site as follows:



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Attachment 4

Amend list in Part C5 by inclusion of Emerald Hills site as follows:**How to use this part**

The following subsections establish general objectives and controls to all urban release areas:

- C5.1 Neighbourhood Amenity and Subdivision Design.
- C5.2 Street Network and Design.
- C5.3 Pedestrian and Cycle Network.
- C5.4 Public Transport Network.
- C5.5 Parks and Open Space.
- C5.6 Community Infrastructure.
- C5.7 Provision of Adequate Community Infrastructure and Facilities.

The following sections provide locality-specific objectives and controls which relate to specific urban release areas:

- C6 Elderslie.
- C7 Spring Farm.
- C8 Manooka Valley.
- C9 Harrington Grove.
- C10 Mater Dei.
- C11 Camden Lakeside
- **C12 Emerald Hills**

Amend list in Part C5.4 by inclusion of Emerald Hills site as follows:

Controls

1. Bus routes are to be provided generally in accordance with each new release area shown in chapters C6, C7, C8, C9, C10, C11 and C12

Introduce New Chapter 'C12 Emerald Hills' as follows:

C12 EMERALD HILLS

C12.1 Introduction

Emerald Hills provides an opportunity to create a residential precinct distinguished by a balanced mix of sustainable land uses and liveable neighbourhoods, within the context of the employment, commercial activities and community services available within the Camden LGA, South West Growth Centre and the future Leppington Town Centre and railway station.

Development will consist of predominantly low density homes supported by local retail, commercial and community uses with associated employment opportunities. Development will be located within landscaped and natural settings and the character of the place will be derived from the integration of its high scenic values established by its distinctive creeks, hills and ridge top with new public domain areas. Emerald Hills will be highly accessible to pedestrians and urban design will minimise conflicts with vehicles. Development will provide safe and convenient pedestrian and cycle linkages to other areas within the site and surrounding places.

Homes on smaller housing sites will be located in areas of high amenity which are within walking distance of proposed bus routes, parks and playgrounds. The neighbourhood centre, sports oval and proposed primary school site will establish a vibrant community hub that meets the day to day needs of residents.

Stormwater management shall be ecologically sustainable by using water quality control measures, which will relate strongly to the creek line corridors. Similarly, Emerald Hills will retain large areas of woodlands and rehabilitate new open space areas to enhance the contribution of the site to the prominent scenic quality of the edges of South Creek Valley.

Emerald Hills Planning Principles

- A site character founded upon a series of residential neighbourhoods immersed within the landform, open spaces and the pathway network;
- Enhancement of view corridors to prominent local natural features that are celebrated within the road and local open space network to promote sense of place and way finding;
- Establishment of a local centre linked to recreation facilities and possibly a primary school that provides possibilities for residents to walk or cycle to a range of facilities. The location of the centre adjoining the creek provides the opportunity to establish a distinctive high quality public domain;
- Provision of opportunities for a variety of dwelling forms in appropriate locations which either reinforce the scenic values of the site or contribute to the accessibility, vitality and character of the local centre, the amenity offered by open spaces and the viability of public transport;
- Configuration of a legible interconnected 'grid pattern' of walkable streets which seeks to address site topography and encourage walking and cycling as well as provide a choice of alternate routes for vehicles;
- The potential for a bus route and bus stops located along a local collector road that links all residential areas with the local centre and with any potential routes beyond the site to the Leppington Town Centre and railway station;
- The preservation of the existing remnant vegetation in the north eastern part of the site;
- The provision of a hierarchy of open spaces commencing with preservation of the prominent ridge and hilltops and concluding in small local parks all located within a 5 minutes walking catchment;

- The adoption of environmental management techniques to support environmental protection in concert with the provision of public open space and stormwater management in urban development;
- The rehabilitation of riparian corridors, which will be integrated into the stormwater management system to provide the mechanism to ensure that water quality is enhanced.

Design Structure

An indicative master plan for Emerald Hills is shown in Figure C68. The proposed entry points to the development are off Raby Road, Camden Valley Way and St Andrews Road. The entries will provide direct access to the residential precincts, community and recreation facilities, major and minor public open spaces and the local centre.

A north-south oriented collector road will provide an important vehicular, pedestrian and bicycle link between the northern and southern parts of the development.

A circular dual use cycle/pedestrian path that extends to connections outside the site is also proposed within linear parklands and roads to not only link spaces and places within Emerald Hills, but also establish opportunities for fitness and recreation.

The riparian corridors and open spaces will incorporate water bodies, watercourses and tree planting as well as water quality and stormwater management measures.

A key feature of Emerald Hills is the approach to environmental and scenic protection. The large area of vegetation in the north east corner will generally be preserved and the prominent ridge and hilltops will be celebrated within the public open space network.

Relationship to other Plans

The Emerald Hills indicative master plan is based on the following technical and environmental studies:

- AHMS, February 2013, Historical Heritage Assessment;
- AHMS, February 2013, Aboriginal Heritage Preliminary Assessment;
- Cardno, May 2013, Infrastructure Servicing and Delivery Plan;
- Cardno, May 2013, Traffic Assessment;
- Cardno, May 2013, Water Cycle Management Report and addendums August & September;
- Deep End Services, 24 October 2012, Emerald Hills Retail and Economic Impact;
- Douglas and Partners, March 2013, Preliminary Contamination Assessment;
- Douglas and Partners, June 2013, Salinity Report;
- Douglas and Partners, August 2013, Geotechnical Assessment;
- Eco Logical Australia, September 2013, Biodiversity Certification Assessment Report;
- Eco Logical Australia, June 2013, Bushfire Assessment;
- Eco Logical Australia, April 2013, Preliminary Constraints Analysis Ecology and Riparian Issues Assessment;
- Elton Consulting, May 2013, Social Planning Report;
- Hill PDA, March 2013, Emerald Hills Retail Need and Economic Impact Assessment – Peer Review;
- SLR, April 2013, Odour Impact Assessment;
- SLR, September 2013, Residential Precinct Acoustic Assessment.

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Figure C68 Indicative Master Plan

C12.2 Subdivision Design

Objectives

1. Establish a framework for the provision of a diversity of predominantly low density dwelling types.
2. Maximise amenity of residential lots by providing maximum frontage and access to open space, including play areas, parks, ridge tops and creeks.
3. Facilitate attractive streetscapes which maximise opportunities to establish a sense of place, promote pedestrian activity and encourage safety and casual surveillance of public spaces.
4. Establish an urban structure which will facilitate the protection and enhancement of the scenic quality of the landscape.
5. Maximise amenity of residential lots by ensuring suitable noise attenuation measures adjacent to Camden Valley Way and Raby Road subject to maintaining visual connectivity between Emerald Hills and adjoining major roads.
6. Establish an urban structure which will allow for the protection and management of important vegetation.
7. Maximise the use of public transport, walking and cycling trips to, from and within the site.

Controls

1. The subdivision pattern for Emerald Hills shall generally follow the indicative master plan shown in Figure C68.
2. Subdivision shall provide for a diversity of lot sizes and types in appropriate locations which either reinforce the scenic values of the site, or contribute to the accessibility, vitality and character of the local centre, the amenity offered by open spaces and the viability of public transport. This may include larger groupings of smaller lots in the locations shown hatched red in Figure C69.
3. The maximum dwelling density at Emerald Hills shall be 15 dwellings per hectare measured across the whole of the shaded area shown as 'net developable area' in Figure C69
4. The maximum dwelling density shall be achieved via residential subdivision which includes the following lot sizes and dwelling types:
 - Smaller lot housing (single or two storey detached, semi-detached or zero lot line dwellings) on 220-300m² lots in areas of high amenity as shown hatched red in Figure C69,
 - Conventional low density housing lots of between 300-600m² shall allow for single or two storey detached dwellings, and
 - Large lots of between 1,000 and 4,000+ m² shall be located where attention to landscape visual character, environmental protection, and management of bushfire hazard and noise impact is required.

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Attachment 4



Figure C69 Locations of Smaller Lot Housing Near Areas of High Amenity

C12.3 Street, Pedestrian and Cycle Network

Objectives

1. A legible interconnected 'grid pattern' of walkable streets which seeks to address site topography and encourage walking and cycling as well as provide a choice of alternate routes for vehicles.
2. The provision of a major local collector road that is located parallel to Camden Valley Way and incorporates distinctive entries into the site from Camden Valley Way, St Andrews Road and Raby Road facilitating vehicle access. Road character and route shall be designed to minimise 'rat-running' and through traffic seeking to avoid the Camden Valley Way / Raby Road intersection.
3. Local roads addressing frontages to public open space to avoid the provision of rear fences and contributing to protecting and enhancing the character of the site.
4. A road network distinguished by well-vegetated, attractive streetscapes which are not dominated by driveways and garages.
5. A bus route and bus stops located along a major local collector road that links the local centre with any potential routes beyond the site to the Leppington Town Centre and railway station.
6. A permeable local road network within the majority of the urban part of the site that would ensure dwellings are located within a 400 metres/5 minutes walking catchment of the bus route and public open space.
7. A simple hierarchy of road design and character comprising a collector road and local roads.
8. Provision of a variety of street tree planting with formal and informal spacing that will help create a special character within the streets incorporating verges which are sustainably landscaped with trees, shrubs and groundcovers that have low water and nutrient demands. Plant species selection and layout should minimise ongoing water and maintenance requirements.
9. A flexible and connected pedestrian and cycle pathway network that utilises open space corridors.

Controls

1. The street, pedestrian and cycle and public transport networks are to be designed and constructed generally in accordance with Figures C70, C71 and C72– C77 and landscaped accordingly.
2. The design and construction of the collector road in accordance with Figures C75, C76 and C77 shall provide north-south pedestrian and cycle connectivity through the Emerald Hills development to East Leppington at the north and Camden Lakeside to the south.
3. Root guards shall be used around all street trees to minimise damage to road pavements and footpaths.

Note: Refer to Council's Engineering Construction Specifications for road construction.

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Attachment 4



Figure C70 Emerald Hills Road Hierarchy and Bus Route



Figure C71 Emerald Hills Pedestrian and Cycle Paths

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Attachment 4

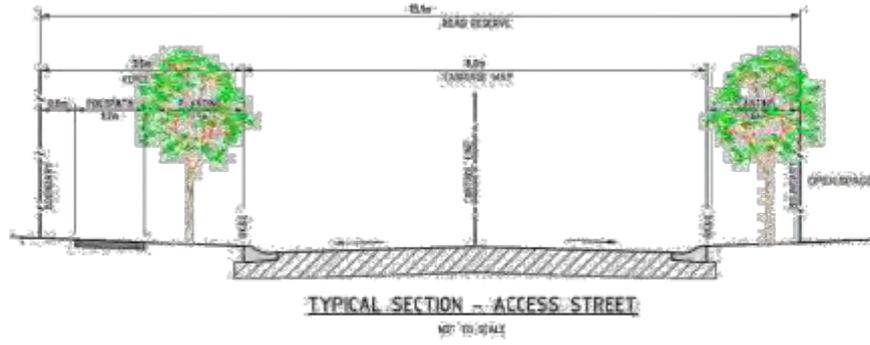


Figure C72 Emerald Hills Typical Access Street

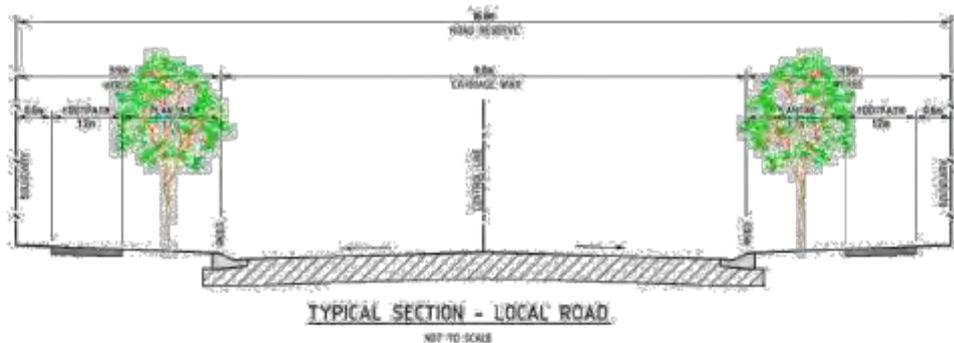


Figure C73 Emerald Hills Typical Local Road

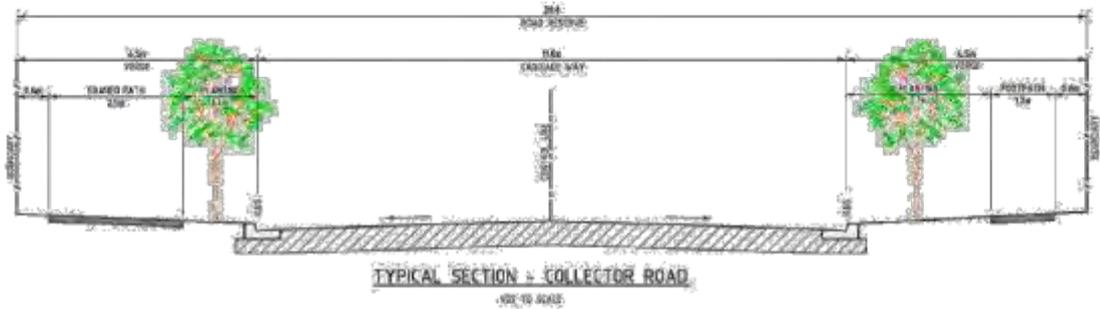


Figure C74 Emerald Hills Typical Collector Road



Figure C75 Emerald Hills Typical Collector Road with Median

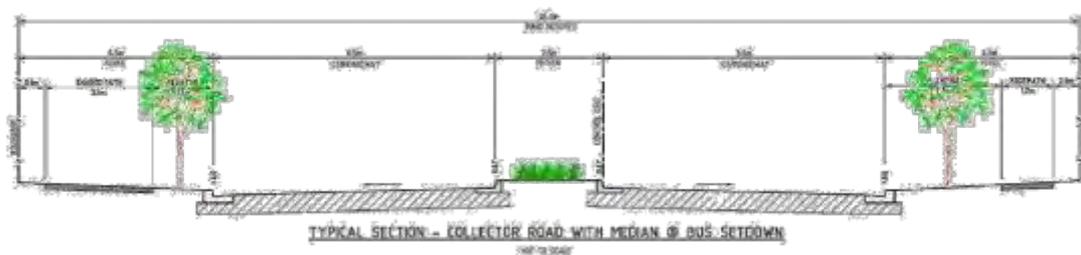


Figure C76 Emerald Hills Typical Collector Road with Median and Bus Set down



Figure C77 Emerald Hills Typical Entry / Exit Collector Road

C12.4 Bulk Earthworks and Retaining Walls

Objectives

1. To allow manipulation of the natural landform whilst preserving distinctive scenic features.
2. Management of landform manipulation to ensure conditions suitable for development are achieved.

Controls

1. Development Applications are to provide accurate site surveys prepared by a qualified surveyor to provide a clear and accurate representation of the contours of the land.
2. Retaining walls at the subdivisional works stage of development are permitted to reduce the need for cut and fill at the dwelling construction stage.
3. Proposals requiring significant moving and filling of earth will be considered if it contributes to the overall quality of the development and the urban design outcomes for the area.
4. Development Applications are to illustrate bulk earthworks and retaining walls and provide justification for proposed changes to land levels.
5. The maximum height of a retaining wall is 1.5 metres.
6. Any wall with a height of 1.5m or greater requires lodgement of a Development Application.
7. In instances where a retaining wall greater than 1.5 metres in height is required, a second retaining wall is permitted providing the retaining wall structure incorporates a step of 1 metre in width, with

the second retaining wall being limited to 1 metre in height (i.e. first wall a maximum of 1.5 metres and second retaining wall is a maximum of 1 metre).

8. Retaining walls are to be constructed of masonry materials.
9. Compaction of filled areas is to be 98% standard compaction and in accordance with AS 3798-1990 in accordance with engineering standards and a compaction certificate is to be submitted to Council.
10. Earth moved from areas containing noxious weed material must be disposed of at an approved waste management facility, and transported in compliance with the Noxious Weed Act 1993.

C12.5 Open Space, Public Domain and Fencing

Objectives

1. Ensure that open space is of appropriate quality and quantity to meet the recreational and social needs of the community.
2. Ensure an attractive public domain and streetscapes are established that contribute to the visual quality of the site.
3. Provide the framework for the protection and enhancement of remnant vegetation and riparian corridors within the public domain.
4. Provide for the establishment of local parks and other open spaces which contribute to the sense of place.
5. Utilise open space for Water Sensitive Urban Design and stormwater management.
6. Promote plant species selection and design which will minimise ongoing water and maintenance requirements.
7. Provide appropriate fencing between the Emerald Hills site and adjacent Sydney Water Upper Canal land.

Controls

1. Local open space shall generally be located in accordance with Figure C78.
2. Estate fencing shall be erected in locations to separate public domain areas from residential development.
3. Estate fencing is to be constructed of consistent high quality materials and finishes and is to form part of the subdivisional works for the site.
4. The location of estate fencing is identified in a Development Application and is to be constructed in accordance with a Landscaping Plan.
5. Estate fencing is limited to a maximum height of 1.8m above ground level.
6. Estate fencing is not to be removed or altered in finish, shape or form of the fence.
7. Appropriate fencing to prevent public access to the Sydney Water Upper Canal land shall be provided.



Figure C78 Local Open Space

ORD01

Attachment 4

C12.6 Vegetation Conservation**Objectives**

1. Ensure the protection and enhancement of existing significant trees and significant remnant vegetation.
2. Facilitate the implementation of an agreed conservation management plan for Emerald Hills.

Controls

1. The proponent of the Emerald Hills development is to enter into a Biobanking Agreement with the Office of Environment and Heritage for the land identified as 'Environmental Conservation' in Figure C79. This will ensure that the environmental conservation land is appropriately protected, enhanced and managed to ensure its long term viability, and to help achieve the necessary biodiversity offset credits to facilitate development of the site.

NOTE: The Biodiversity Certification Assessment Report undertaken by Eco Logical Australia dated 12 September 2013 identifies the Biobanking of the environmental conservation land as a critical component in facilitating the future development of the site.

C12.7 School and Communities Facilities Precinct

Objectives

1. Control the interface between the school, sports oval and adjacent land uses.
2. Establish an appropriate physical separation between facilities, roads, dwellings and other activities within adjacent land areas.
3. Define the extent of the landscape curtilage which surrounds the school.
4. Facilitate the appropriate physical separation between the recreational facilities and surrounding activities.
5. Establish site circulation, visual amenity and environmental management principles which apply to the School and Community Facilities Precinct.
6. Facilitate pedestrian and bicycle access to the Precinct.

Controls

1. Development will generally be located in accordance with the principles in Figure C80.
2. A multi-purpose community room of approximately 170m² floor space is to be provided within the amenities building of approximately 360m² which is attached to the recreation oval.



Figure C80 School and Communities Facilities Precinct

C12.8 Acoustic Amenity

Objectives

1. Establish an urban character which protects and enhances short and long views within the landscape, whilst allowing for the development of individual lots.
2. Mitigate noise effects from Camden Valley Way and Raby Road to ensure internal areas are not adversely affected by noise.

Controls

1. Lots immediately adjacent to Camden Valley Way shall adopt the indicative layout shown in Figure C68 which will help achieve the external noise criteria.

C12.9 Stormwater Management

Objectives

1. Provide the framework for the protection and enhancement of water quality and management of stormwater within the Site.

Control

1. The design and performance of the stormwater management system infrastructure must have regard to the Water Sensitive Urban Design measures contained within the Cardno, May 2013, Water Cycle Management Report and addendum reports dated June 2013.

C12.10 Bushfire Risk Management

Objectives

1. Provide the framework for the protection of property and vegetation from bushfire hazard within the Site.

Controls

1. Subject to detailed design at development application stage, the indicative location and widths of Asset Protection Zones are to be provided in accordance with figure C81 and;
 - (a) are to be located wholly within the Precinct.
 - (b) may incorporate roads and flood prone land.
 - (c) may be used for open space and recreation within private lots subject to appropriate fuel management.
 - (d) are to be maintained in accordance with the Planning for Bushfire Protection (NSW RFS).
 - (e) may incorporate private residential land, but only within the building setback (no dwellings are to be located within the APZ).
 - (f) are not to burden public land.
 - (g) are to be generally bounded by a perimeter fire trail/road that is linked to the public road system at regular intervals in accordance with Bushfire Protection.
 - (h) may be allowed within the outer 50% of the VRZ but any encroachment into the riparian corridor requires offsets to be provided.
2. Buildings adjacent to APZs are to be constructed in accordance with the requirements of Appendix 3 of Bushfire Protection and Australian Standard 3959 - Construction of Building in Bushfire-prone Areas.
3. Where an allotment fronts and partially incorporates an APZ it shall have an appropriate depth to accommodate a dwelling with private open space and the minimum required APZ. The APZ will be identified through a Section 88b instrument.
4. Temporary APZs, identified through a Section 88b instrument, may be required where development is proposed on allotments next to undeveloped land. Once the adjacent stage of development is undertaken, the temporary APZ will no longer be required and shall cease.



Figure C81 Indicative Bushfire Asset Protection Zones

C12.11 Large Lots within Environmental Conservation

Objectives

1. To preserve significant vegetation, whilst facilitating the provision of appropriate development as a mechanism to own and manage the vegetation.

Controls

1. Identify building envelopes through a Section 88b instrument, located to respect and be sympathetic to the natural environment and significance of the vegetation.
2. Provide adequate bush fire management measures.
3. Manage vegetation in accordance with a Conservation Management Plan

C12.12 Scenic Character Protection Area

Objectives

1. To protect the scenic character of the Scenic Hills Area to the east of the site.

Controls

1. This clause applies to lots and dwellings generally in the area indicated in Figure C82.
2. Dwelling materials and colours shall adopt darker, recessive toned colours and non-reflective surfaces for both wall and roof cladding.
3. Utility structures shall adopt recessive toned, non-reflective surfaces.
4. Bulk earthworks shall seek to reduce the height of the northern ridgeline (shown dotted orange in Figure C82) by a minimum of 3m.
5. Road verge/street tree planting shall adopt hardy dark-leaved evergreen trees with good canopy cover.
6. The ridgeline reserve shall be planted out with tall locally indigenous woodland species (to blend with woodland canopies in the Scenic Hills), planted across the entire width of the reserve.
7. Street lights shall have hoods or other appropriate design treatment to minimise light spill in order to reduce ambient light haze as much as possible.



Figure C82 Scenic Character Protection Area

C12.13 Aboriginal and European Heritage

Background

The Emerald Hills site, like surrounding areas, has a history of Aboriginal occupation, European settlement and agricultural purposes. The St Andrews Home for Boys was established in 1934 on site and was used in various capacities until 1987. These buildings were not heritage listed and have been lawfully demolished. However, it became apparent during the rezoning process that they are considered by architectural groups to be an important example of the Sydney School of Architecture, designed by Phillip Cox. It is appropriate that the architecture and various previous uses of the site are interpreted within the new Emerald Hills residential development.

The following documents were prepared to inform the rezoning of the Emerald Hills site, and should be referred to as part of the preparation of the Heritage Interpretation Strategy as outlined below:

- *Historical Heritage Assessment: St Andrew's Home for Boys, 1100-1150 Camden Valley Way, Leppington*, prepared by AHMS (Final Report), dated February 2013.
- *Aboriginal Heritage Preliminary Assessment: Emerald Hills Estate, Leppington*, prepared by AHMS (Final Report), dated February 2013.
- *Photographic Archival Record: St Andrews boys Home (Burnside) Leppington*, prepared by Inspire Urban Design and Planning, dated 4 February 2013.

Objectives

1. To ensure that the Aboriginal and European land uses and the Sydney School of Architecture style of the former St Andrews' Boys Home (now demolished) are interpreted and incorporated where possible into the public domain of Emerald Hills.

Controls

1. A Heritage Interpretation Strategy shall be prepared by a suitably qualified and experienced heritage consultant which identifies the key stories associated with the site, its varying owners, associations and evolving users over time. Some examples of key people would include Thurawal, Dharug and Gundungurra Aboriginal peoples, the Cubbitch Barta clan, early colonial settlers and farming families such as those of Cordeaux, Edwards, Ward, Gaudry, Kable, Chisholm, Moore, William and Florence Price, the Presbyterian/Uniting Church/Burnside Homes (St Andrews School for Boys) and architects Philip Cox and Ian McKay.
2. The Heritage Interpretation Strategy must be submitted for Council approval as part of the Development Application for the park shown in C68 in the site of the former St Andrews School site. It should include an implementation plan with prioritised actions that identify specific locations and recommended means of interpretation that will be integrated into the park. These might include structures, artworks, plaques, sculptures, installations, street tree selection and treatment, landscaping which is themed on past uses, open space designs and treatments, and place names.

The following publications may assist in preparing the Interpretation Strategy:

- *Historical Heritage Assessment: St Andrew's Home for Boys, 1100-1150 Camden Valley Way, Leppington*, prepared by AHMS (Final Report), dated February 2013.
- *Aboriginal Heritage Preliminary Assessment: Emerald Hills Estate, Leppington*, prepared by AHMS (Final Report), dated February 2013.

- *Interpreting Heritage Places and Items*

<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/NSWHeritageOfficeGuidelinesinfointerpreting.pdf>

- *Heritage Interpretation Policy*

<http://www.environment.nsw.gov.au/resources/heritagebranch/heritage/interpretationpolicy.pdf>

Introduce New Chapter 'D2.3.10 Emerald Hills' as follows:

D2.3.10 Emerald Hills

Note: The controls listed below (table D17A) are specific to the Emerald Hills area. They must be read in conjunction with the controls in section D2.1 and D2.2 of this DCP. In the event of any inconsistency, the controls included in this subsection will take precedence.

Table D17A Summary of residential accommodation controls – Emerald Hills

SETBACKS	
Front setback (min)	4.5m
Secondary street setback (min)	1m
Side setback (min)	0.9m or 0m where nominated zero lot line on lot development plan
Rear setback ground floor (min)	4m
Rear setback first floor (min)	6m
Garage setback (min)	1m behind principal building line and 5.5m from front boundary; third garage to be set back an additional 1m.
Architectural element front setback encroachment (max)	1.5m
Rear lane setback (min)	2.5m
Public reserve setback (min)	3m
HEIGHT	
As per LEP 2010 and subsection D.2.1.3 of this DCP	
PRIVATE OPEN SPACE, LANDSCAPING AND SITE COVERAGE	
Site coverage (max) – lots <450m ²	Single storey development - 60%
	Two storey development – 50% ground floor, 30% upper floor
Site coverage (max) – lots >450m ²	Single storey development - 50%
	Two storey development – 50% ground floor, 30% upper floor
Landscaped area (min)	30%
Private open space (min)	20%
Principal private open space (PPOS) (min)	24m ² with a minimum dimension 4m
Gradient of PPOS (max)	1:10
Solar access to PPOS (min)	3 hours between 9.00am and 3.00pm on 21 June.
GARAGE DESIGN	
Garage door width (max) – lots 7-15m wide	60% of front elevation width
Garage door width (max) – lots greater than 15m wide	50% of front elevation width

Introduce New Chapter 'D3.10 Emerald Hills B2 Local Centre' as follows:

D3.10 Emerald Hills – B2 Local Centre

Background

The Emerald Hills Centre will form part of the Emerald Hills Urban Release Area.

Controls

D3.10.1 Maximum Floor Area

1. The centre will have a maximum lettable floor area of 10,000m² for 'retail premises' excluding 'food and drink premises'.

D3.10.2 Layout and Design

1. Development shall be in accordance with the site planning principles contained in the master plan for the Centre in Figure D.59. Development applications for the purposes of remediation, earthworks, drainage, environmental landscape works and other minor works that, in the opinion of Council, do not predetermine an outcome on the land covered by the B2 Local Centre zone boundaries in LEP 2010 may be accepted.

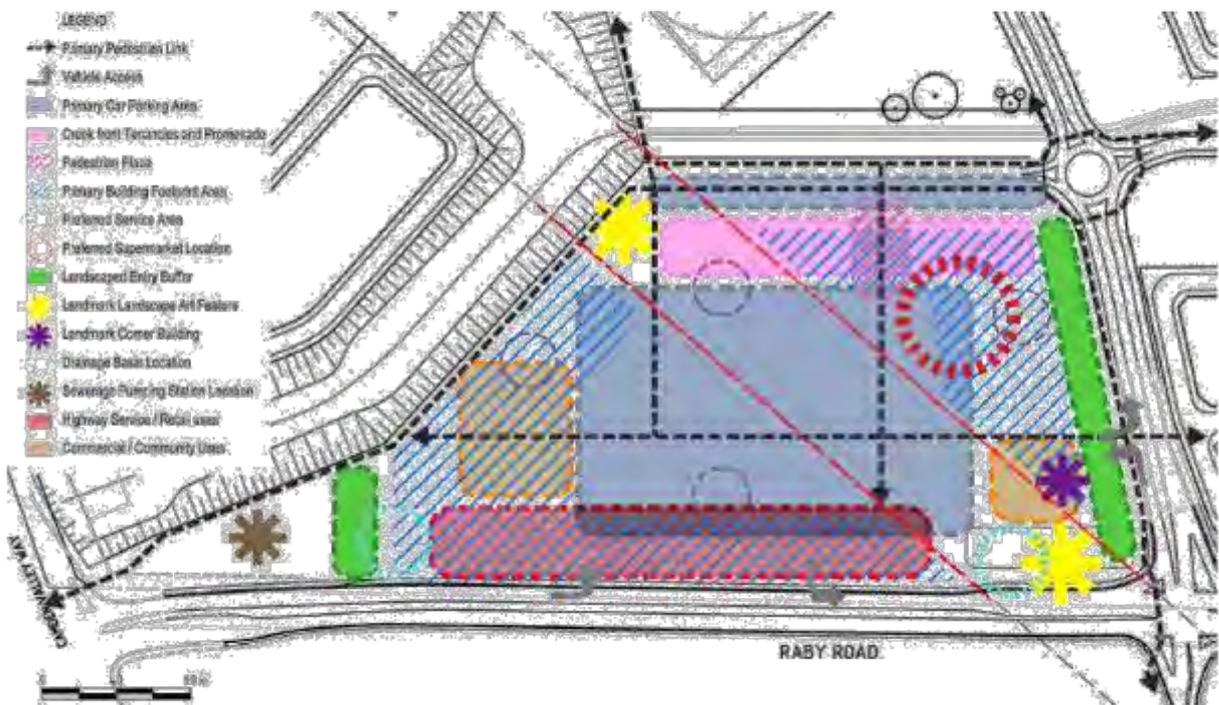


Figure D59 Site Planning Principles for Emerald Hills Centre

2. The development shall be designed to provide access and exposure to Raby Road and Riley's Creek adjoining the centre site whilst incorporating a vibrant and active focal point in the form of a civic square, plaza or main street.
3. In addition to any relevant controls for the centre, residential buildings within the centre are subject to the controls contained in Chapter D2 of this DCP as relevant.
4. Vehicle access and/or car parking facilities will not be approved if within 30 metres of a Transmission Line structure without adequate precautions provided to protect the structure from any accidental damage.

D3.10.3 Built Form and Appearance

1. Subject to compliance with the building height limits contained in Camden LEP 2010, development within the centre should have a range of building heights up to a maximum of three storeys.
2. Important buildings may be designed as landmark buildings which exhibit high quality design, and should be sited at visually prominent locations such as corners and entries.
3. Buildings are to be visible from and have a presence to street frontages. Where buildings are not proposed to be built to the street frontage, setbacks are to be minimised. Buildings are also to be designed and located to take advantage of proximity to open space areas, including the adjoining riparian corridor.
4. Blank walls visible from principal streets and the public domain are to be minimised.
5. The centre should exhibit a character which is in keeping with nearby significant landscape elements, the presence of which should be promoted as urban design features.
6. Building location form, land uses and activities and landscaping should be designed and sited to minimise the visual impact of the power lines that traverse the centre site.
7. Retail/commercial/residential buildings built to the alignment of internal streets and pedestrian areas shall incorporate awnings/verandahs over the footpath areas, irrespective of whether building walls contain windows, doors or other openings.
8. Any building two storeys in height or greater shall include a verandah or balcony terrace at level 1 above ground level to any internal street or pedestrian area. They shall be accessible for use as open space/balcony from the upper level.
9. All mixed use buildings should be able to function as part residential use with potential for a mix of retail, business, or residential at first level directly accessible and visible from the ground level.
10. The design of buildings should provide flexibility to enable the use of various parts of the building to change over time as necessitated by demand.
11. The centre shall be provided with parking that provides convenient access, but that is located in a manner that does not dominate adjoining public domain areas, riparian corridors and streetscapes.
12. Building walls, windows, entries, car parks, loading areas and service docks shall be designed to enable maximum casual surveillance to be achieved to promote safety and security in the public domain.

ORD01

Attachment 5



Deed

**Emerald Hills
Planning Agreement**

Under s93F of the *Environmental Planning and Assessment Act 1979*

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development
Company Pty Ltd (trading as Emerald Hills Estate)**

D&AI Pty Ltd

[Insert Date]

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Attachment 6

Emerald Hills Planning Agreement**Camden Council****Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)****D&AI Pty Ltd****Emerald Hills
Planning Agreement****Table of Contents**

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Camden Council
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(trading as Emerald Hills Estate)
D&AI Pty Ltd

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Attachment 6

Emerald Hills Planning Agreement**Camden Council****Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)****D&AI Pty Ltd**

Emerald Hills Planning Agreement**Summary Sheet****Council:****Name:** Camden Council**Address:** 37 John Street, Camden NSW 2570**Telephone:** (02) 4654 7777**Facsimile:** (02) 4564 7829**Email:** mail@camden.nsw.gov.au**Representative:** The General Manager**Developer:****Name:** Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd (
trading as Emerald Hills Estate)**Address:** PO Box 373 Narellan NSW 2567**Telephone:** (02) 4774 6000**Facsimile:** (02) 4774 9932**Email:** smcmahon@macarthurdevelopments.com.au**Representative:** Stephen McMahon**Landowner:****Name:** D&AI Pty Ltd**Address:** PO Box 373 Narellan NSW 2567**Telephone:** (02) 4774 6000**Facsimile:** (02) 4774 9932**Email:** dhazlett@cambrae.com.au or arnold@vastedevelopments.com.au**Representative:** David Hazlett, Arnold Vitocco

Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Land:

See definition of *Land* in clause 1.1.

Development:

See definition of *Development* in clause 1.1.

Development Contributions:

See Part 2 and Schedule 1.

Application of s94, s94A and s94EF of the Act:

See clause 8.

Security:

See Parts 4 and 5.

Registration:

See clause 30.

Restriction on dealings:

See clause 31.

Dispute Resolution:

See Part 3.

Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)****D&AI Pty Ltd**

Emerald Hills Planning AgreementUnder s93F of the *Environmental Planning and Assessment Act 1979***Parties****Camden Council** ABN 31 117 341 764 of 37 John Street, Camden NSW 2570
(Council)

and

**Hazcorp Developments Pty Ltd and Taurus Development
Company Pty Ltd (trading as Emerald Hills Estate)** ABN 78 608 138
379 of PO Box 373 Narellan NSW 2567 (Developer)

and

D&AI Pty Ltd ABN 96 136 122 220 of PO Box 373 Narellan NSW 2567
(Landowner)**Background**

- A The Landowner is the owner of the Land.
- B The Developer is prepared to make Development Contributions in connection with the carrying out of the Development in accordance with this Deed.

Operative provisions**Part 1 - Preliminary****1 Interpretation**

- 1.1 In this Deed the following definitions apply:
- Act** means the *Environmental Planning and Assessment Act 1979* (NSW).
- Deed** means this Deed and includes any schedules, annexures and appendices to this Deed.
- Approval** includes approval, consent, licence, permission or the like.

Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Authority means the Commonwealth or New South Wales government, a Minister of the Crown, a government department, a public authority established by or under any Act, a council or county council constituted under the LG Act, or a person or body exercising functions under any Act including a commission, panel, court, tribunal and the like.

Bank Guarantee means an irrevocable and unconditional undertaking without any expiry or end date in favour of the Council to pay an amount or amounts of money to the Council on demand issued by:

- (a) one of the following trading banks:
- (i) Australia and New Zealand Banking Group Limited,
 - (ii) Commonwealth Bank of Australia,
 - (iii) Macquarie Bank Limited,
 - (iv) National Australia Bank Limited,
 - (v) St George Bank Limited,
 - (v) Westpac Banking Corporation, or
- (b) any other financial institution approved by the Council in its absolute discretion.

Claim includes a claim, demand, remedy, suit, injury, damage, loss, Cost, liability, action, proceeding or right of action.

Construction Certificate has the same meaning as in the Act.

Contribution Value means the \$ amount agreed between the Parties as the value of a Development Contribution made under this Deed as set out in Column 7 of Schedule 1.

Cost means a cost, charge, expense, outgoing, payment, fee and other expenditure of any nature.

Defect means anything that adversely affects, or is likely to adversely affect, the appearance, structural integrity, functionality or use or enjoyment of a Work or any part of a Work.

Defects Liability Period means the period of 1 year commencing on the day immediately after a Work is completed for the purposes of this Deed.

Development means the development of the Land for urban purposes generally in accordance with the Plans involving subdivision into up to 1280 Final Lots, establishment of a road, utilities and stormwater management network, provision of open space, recreation areas and community facilities, preservation of areas of ecologically endangered woodland, construction of commercial and retail floorspace, and the construction of dwellings.

Development Application has the same meaning as in the Act.

Development Consent has the same meaning as in the Act.

Development Contribution means a monetary contribution, the dedication of land free of cost, the carrying out of work, or the provision of any other material public benefit, or any combination of them, to be used for, or applied towards a public purpose, but does not include any Security or other benefit provided by a Party to the Council to secure the enforcement of that Party's obligations under this Deed for the purposes of s93F(3)(g) of the Act.

Emerald Hills Planning Agreement**Camden Council****Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)****D&AI Pty Ltd**

Dispute means a dispute or difference between the Parties under or in relation to this Deed.

Equipment means any equipment, apparatus, vehicle or other equipment or thing to be used by or on behalf of the Developer in connection with the performance of its obligations under this Deed.

Final Lot means a lot created in the Development for separate residential occupation and disposition or a lot of a kind or created for a purpose that is otherwise agreed by the Parties, not being a lot created by a subdivision of the Land:

- (a) that is to be dedicated or otherwise transferred to the Council, or
- (b) on which is situated a dwelling-house that was in existence on the date of this Deed.

GST has the same meaning as in the GST Law.

GST Law has the same meaning as in *A New Tax System (Goods and Services Tax) Act 1999* (Cth) and any other Act or regulation relating to the imposition or administration of the GST.

Indicative Layout Plan means sheet 1 of the Plans.

Instrument Change means the amendment of the *Camden Local Environmental Plan 2010* to rezone the Land for urban purposes.

Item means a Development Contribution specified in Column 1 of Schedule 1.

Just Terms Act means the *Land Acquisition (Just Terms Compensation) Act 1991*.

Land means all of the land in the Emerald Hills Estate that is within the area of the Council as shown on the Masterplan and comprising Lot 10 DP 1173819, Lot 10 DP 1161557 and Lot 1 in DP 301830.

LG Act means the *Local Government Act 1993*.

Maintain, in relation to a Work, means keep in a good state of repair and working order, and includes repair of any damage to the Work whether as a result of adverse weather, other act of God or otherwise.

Maintenance Period for a Work means the period of years specified in Column 8 of Schedule 1 in respect of that Item of Work.

Party means a party to this Deed.

Plan of Management means a plan of management within the meaning of s36 of the LG Act.

Plans means the suite of plans contained in Schedule 2.

Principal Certifying Authority has the same meaning as in the Act.

Rectification Notice means a notice in writing:

- (a) identifying the nature and extent of a Defect,
- (b) specifying the works or actions that are required to Rectify the Defect,
- (c) specifying the date by which or the period within which the Defect is to be rectified.

Rectify means rectify, remedy or correct.

Emerald Hills Planning Agreement**Camden Council****Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)****D&AI Pty Ltd**

Regulation means the *Environmental Planning and Assessment Regulation 2000*.

Security means a Bank Guarantee, or a bond or other form of security to the satisfaction of the Council indexed annually in accordance with the annual movements in the Consumer Price Index (All Groups Sydney) published by the Australian Bureau of Statistics on and from the date of this Deed.

Stage means a stage of the Development approved by a Development Consent or otherwise approved in writing by the Council for the purposes of this Deed, and generally as shown in the Plans.

Stage 1 Plan, Stage 2 Plan, Stages 3-6 Plan, Stages 7-8 Plan and Stages 9-11 Plan mean each of the plans so headed in Schedule 2.

Subdivision Certificate means a subdivision certificate within the meaning of the Act or a strata certificate within the meaning of the *Strata Schemes (Freehold Development) Act 1973* or in any other case, any other form of certificate which, on registration, authorises the creation of a new lot.

Vegetation Management Plan means a plan that contains provisions relating to the establishment and maintenance of land.

Work means the physical result of any building, engineering or construction work in, on, over or under land.

- 1.2 In the interpretation of this Deed, the following provisions apply unless the context otherwise requires:
- 1.2.1 Headings are inserted for convenience only and do not affect the interpretation of this Deed.
- 1.2.2 A reference in this Deed to a business day means a day other than a Saturday or Sunday on which banks are open for business generally in Sydney.
- 1.2.3 If the day on which any act, matter or thing is to be done under this Deed is not a business day, the act, matter or thing must be done on the next business day.
- 1.2.4 A reference in this Deed to dollars or \$ means Australian dollars and all amounts payable under this Deed are payable in Australian dollars.
- 1.2.5 A reference in this Deed to a \$ value relating to a Development Contribution is a reference to the value exclusive of GST.
- 1.2.6 A reference in this Deed to any law, legislation or legislative provision includes any statutory modification, amendment or re-enactment, and any subordinate legislation or regulations issued under that legislation or legislative provision.
- 1.2.7 A reference in this Deed to any agreement, deed or document is to that agreement, deed or document as amended, novated, supplemented or replaced.
- 1.2.8 A reference to a clause, part, schedule or attachment is a reference to a clause, part, schedule or attachment of or to this Deed.
- 1.2.9 An expression importing a natural person includes any company, trust, partnership, joint venture, association, body corporate or governmental agency.

Emerald Hills Planning Agreement**Camden Council****Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)****D&AI Pty Ltd**

- 1.2.10 Where a word or phrase is given a defined meaning, another part of speech or other grammatical form in respect of that word or phrase has a corresponding meaning.
- 1.2.11 A word which denotes the singular denotes the plural, a word which denotes the plural denotes the singular, and a reference to any gender denotes the other genders.
- 1.2.12 References to the word 'include' or 'including' are to be construed without limitation.
- 1.2.13 A reference to this Deed includes the agreement recorded in this Deed.
- 1.2.14 A reference to a Party to this Deed includes a reference to the servants, agents and contractors of the Party, the Party's successors and assigns.
- 1.2.15 A reference to 'dedicate' or 'dedication' in relation to land is a reference to dedicate or dedication free of cost.
- 1.2.16 Any schedules, appendices and attachments form part of this Deed.
- 1.2.17 Notes appearing in this Deed are operative provisions of this Deed.

2 Status of this Deed

- 2.1 This Deed is a planning agreement within the meaning of s93F(1) of the Act and is entered into in connection with the Instrument Change and the making of a Development Application for the Development.

3 Commencement

- 3.1 This Deed takes effect on the date when all Parties have executed one counterpart of this Deed.
- 3.2 The Party who executes this Deed last is to insert on the front page the date they did so and provide a copy of the fully executed and dated Deed to any other person who is a Party.

4 Application of this Deed

- 4.1 This Deed applies to the Land and to the Development.

5 Warranties

- 5.1 The Parties warrant to each other that they:
- 5.1.1 have full capacity to enter into this Deed, and
- 5.1.2 are able to fully comply with their obligations under this Deed.

6 Further agreements

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- 6.1 The Parties may, at any time and from time to time, enter into agreements relating to the subject-matter of this Deed that are not inconsistent with this Deed for the purpose of implementing this Deed.

7 Surrender of right of appeal, etc.

- 7.1 The Developer or the Landowner are not to commence or maintain, or to cause or procure the commencement or maintenance, of any proceedings in any court or tribunal or similar body appealing against, or questioning the validity of this Deed, or an Approval relating to the Development in so far as the subject-matter of the proceedings relates to this Deed.

8 Application of s94, s94A and s94EF of the Act to the Development

- 8.1 This Deed excludes the application of s94 of the Act to the Development, subject to clause 8.4.
- 8.2 This Deed excludes the application of s94A of the Act to the Development, subject to clause 8.4.
- 8.3 This Deed does not exclude the application of s94EF of the Act to the Development.
- 8.4 For the avoidance of doubt, clauses 8.1 and 8.2 do not exclude the application of s94 or s94A of the Act to the development of dwellings, commercial and retail floorspace or any other development on the Final Lots although the benefits provided under this Deed referable to a Final Lot may be taken into consideration in determining a development contribution under section 94 of the Act in respect of development on that Final Lot.

Part 2 – Development Contributions**9 Provision of Development Contributions**

- 9.1 The Developer is to make Development Contributions to the Council in accordance with Schedule 1, any other provision of this Deed relating to the making of Development Contributions and otherwise to the satisfaction of the Council.
- 9.2 Any Contribution Value specified in this Deed in relation to a Development Contribution does not serve to define the extent of the Developer's obligation to make the Development Contribution.
- 9.3 The Council is to apply each Development Contribution made by the Developer under this Deed towards the public purpose for which it is made and otherwise in accordance with this Deed.
- 9.4 Despite clause 9.2, the Council may apply a Development Contribution made under this Deed towards a public purpose other than the public purpose specified in this Deed if the Council reasonably considers that the public

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interest would be better served by applying the Development Contribution towards that other purpose rather than the purpose so specified.

- 9.5 The Landowner is under no obligation to make Development Contributions under clause 9.1 (other than Items 18 to 26) except if the Landowner, participates in the carrying out of the Development to any extent. If so, the Landowner shall be taken to have the same obligations as the Developer.
- 9.6 A monetary Development Contribution specified in column 7 of Schedule 1 is to be indexed from the date of this Deed to the date of payment in accordance with the quarterly movements of the Consumer Price Index (All Groups Sydney) published by the Australian Bureau of Statistics.

10 Payment of monetary Development Contributions

- 10.1 A monetary Development Contribution is made for the purposes of this Deed when the Council receives the full amount of the contribution payable under this Deed in cash or by unendorsed bank cheque or by the deposit by means of electronic funds transfer of cleared funds into a bank account nominated by the Council.

11 Dedication of land

- 11.1 A Development Contribution comprising the dedication of land is made for the purposes of this Deed when:
- 11.1.1 a deposited plan is registered in the register of plans held with the Registrar-General that dedicates land as a public road (including a temporary public road) under the *Roads Act 1993* or creates a public reserve or drainage reserve under the *LG Act*, or
- 11.1.2 the Council is given:
- (a) an instrument in registrable form under the *Real Property Act 1900* duly executed by the Landowner as transferor that is effective to transfer the title to the land to the Council when executed by the Council as transferee and registered,
 - (b) the written consent to the registration of the transfer of any person whose consent is required to that registration, and
 - (c) a written undertaking from any person holding the certificate of title to the production of the certificate of title for the purposes of registration of the transfer.
- 11.2 The Landowner is to do all things reasonably necessary to enable registration of the instrument of transfer to occur.
- 11.3 The Landowner is to ensure that land dedicated to the Council under this Deed is free of all encumbrances and affectations (whether registered or unregistered and including without limitation any charge or liability for rates, taxes and charges) except as otherwise agreed in writing by the Council.
- 11.4 If, having used all reasonable endeavours, the Landowner cannot ensure that land to be dedicated to the Council under this Deed is free from all encumbrances and affectations, the Landowner or Developer may request that Council agree to accept the land subject to those encumbrances and

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affectations, but the Council may withhold its agreement in its absolute discretion.

- 11.5 Despite any other provision of this Deed, if the Developer is required to dedicate land to the Council on which the Developer is also required to carry out a Work under this Deed, the Landowner is to comply with clause 11.1.2 not later than 28 days after the Work is completed for the purposes of this Deed.

12 Carrying out of Work

- 12.1 Without limiting any other provision of this Deed, any Work that is required to be carried out by the Developer under this Deed is to be carried out in accordance with any design or specification specified or approved by the Council, any relevant Approval and any other applicable law.
- 12.2 The Developer at its own cost, is to comply with any reasonable direction given to it by the Council to prepare or modify a design or specification relating to a Work that the Developer is required to carry out under this Deed.
- 12.3 Notwithstanding the generality of clause 12.1 or clause 13.1, prior to commencing a Work for which a Maintenance Period applies, the Developer must provide, and the Council must have earlier approved:
- 12.3.1 a draft Plan of Management for the land on which the Work is to be carried out; and
- 12.3.2 a suitable maintenance regime for the Work, and costings, prepared by a suitably qualified person, for the carrying out of the maintenance regime.

13 Approval of design of Works

- 13.1 Council must approve the design and specifications for each Work unless otherwise agreed in writing by the Council in relation to any particular Work.
- 13.2 Prior to commencing design of a Work, the Developer must request that the Council provide the Developer with its requirements for the location (generally in accordance with the Plans), design, materials and specifications for the provision of the Work.
- 13.3 When requesting Council's requirements under clause 13.2 the Developer may provide a proposal, including preliminary concept designs to assist Council in preparing its requirements.
- 13.4 Once the Developer receives the Council's requirements for the Work under clause 13.2, the Developer is to provide the initial design for the Work to Council for the Council's approval.
- 13.5 The initial design for the Work is to include or be accompanied by such information as is required for the making of a Development Application for the Work including:
- 13.5.1 a draft Plan of Management for the land on which the Work is to be located on its dedication to the Council, if that land will be classified as community land within the meaning of the LG Act; and

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- 13.5.2 a draft Vegetation Management Plan for the land on which the Work is to be located, if the Council has advised the Developer that a Vegetation Management Plan is required,
- 13.5.3 a detailed maintenance regime for the Work, and detailed costings, prepared by a suitably qualified person, for the carrying out of the maintenance regime.
- 13.6 The Council is to advise the Developer in writing whether it approves of the initial design of the Work within 2 months of receiving the initial design from the Developer.
- 13.7 The Developer will make any change to the initial design for the Work required by the Council.
- 13.8 The Developer is not to lodge any Development Application for a Work unless the Council has first approved the initial design for the Work and provided its written certification that the Development Application is consistent with the approved initial design of the Work.
- 13.9 The Council is to provide the written certification referred to in clause 13.8 within 14 days of being provided with a copy of the proposed Development Application by the Developer, unless the Council forms the view that the proposed Development Application is not consistent with the approved initial design of the Work.
- 13.10 A Development Application for Work is to be accompanied by the written certification referred to in clause 13.9 when lodged with the Council, as the consent authority.
- 13.11 The Developer is to bear all costs associated with obtaining the Council's approval to the initial design of a Work in Schedule 1 of this Deed under this clause.
- 13.12 Following Development Consent being issued for a Work, the Developer shall work with Council in the preparation of the detailed design for it and submit the detailed design to the Council for its approval.
- 13.13 The Developer is not to lodge any application for a Construction Certificate for a Work, with any Principal Certifying Authority, unless the Council has first approved the detailed design for the Work, and provided its written certification that the application for a Construction Certificate is consistent with the approved detailed design of the Work.
- 13.14 The Council is to provide the written certification referred to in Clause 13.13 within 14 days of being provided with a copy of the application for a Construction Certificate by the Developer, unless the Council forms the view that the application is not consistent with the approved detailed design of the Work.
- 13.15 Council's written certification outlined in clause 13.14 shall specify any particular milestones of construction of a Work and if so, the Developer is to provide the Council with a minimum of 24 hours notice prior to commencing a particular milestone and allow the Council access to the relevant land to inspect the Work.
- 13.16 An application for a Construction Certificate for a Work is to be accompanied by the written certification referred to in clause 13.14 when lodged with the Council, as the consent authority.

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- 13.17 For the avoidance of doubt, nothing in the clause as fettering the Council's discretion, as consent authority, in determining any Development Application for the Work.

14 Variation to Work

- 14.1 The design or specification of any Work that is required to be carried out by the Developer under this Deed may be varied by agreement in writing between the Parties, acting reasonably, without the necessity for an amendment to this Deed
- 14.2 Without limiting clause 14.1, the Developer may make a written request to the Council to approve a variation to the design or specification of a Work in order to enable it to comply with the requirements of any Authority imposed in connection with any Approval relating to the carrying out of the Work.
- 14.3 The Council is not to unreasonably delay or withhold its approval to a request made by the Developer under clause 14.2.
- 14.4 The Council, acting reasonably, may from time to time give a written direction to the Developer requiring it to vary the design or specification of a Work before the Work is carried out in a specified manner and submit the variation to the Council for approval.
- 14.5 The Developer is to comply promptly with a direction referred to in clause 14.4 at its own cost.

15 Deferral of Work

- 15.1 Notwithstanding any other provision of this Deed, if the Developer forms the view at any time, that it is unable to make a Development Contribution comprising a Work by the time specified in column 6 of Schedule 1, then:
- 15.1.1 the Developer must provide written notice to the Council to that effect;
- 15.1.2 the Developer must provide the Council with Security in an amount being 100% of the value of the uncompleted part of the Work (calculated with reference to and not exceeding the Contribution Value of the Work) before the date on which the application for the relevant Subdivision Certificate is made;
- 15.1.3 the Developer must provide to Council, for Council's approval, a revised completion date for the Work;
- 15.1.4 Council can approve, or not approve a revised completion date in its discretion, and if the Council does not approve the Developer's revised completion date for the Work, the Council and Developer must negotiate in good faith and agree upon a revised completion date for the Work; and
- 15.1.5 the time for completion of the Work under this Deed will be taken to be the revised completion date approved by the Council under clause 14.1.4.
- 15.2 If the Developer complies with clause 15.1, then it will not be considered to be in breach of this Deed as a result of a failure to complete a Work by the time for completion of the Work specified in Column 6 of Schedule 2.

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- 15.3 If the Work is not completed by the revised date for completion of the Work agreed under clause 15.1.4, then the Council may call on the Security to meet any of its reasonable costs incurred under this Deed in respect of the failure to complete the Work by the revised date for completion.
- 15.4 The Developer is to ensure that the Security held by the Council at all times equals the amount of the Security as indexed.

16 Access to the Land

- 16.1 The Landowner and the Developer are to permit the Council, its officers, employees, agents and contractors to enter the Land or any other land at any time, upon giving reasonable prior notice, in order to inspect, examine or test any Work or to remedy any breach by the Developer relating to the carrying out of a Work.
- 16.2 The Council is to permit the Developer to enter and occupy any land owned or controlled by the Council for the purpose of enabling the Developer to carry out any Work under this Deed that is required to be carried out on such land or to perform any other obligation imposed on the Developer by or under this Deed.

17 Council's obligations relating to Work

- 17.1 The Council is not to unreasonably delay, hinder or otherwise interfere with the performance by the Developer of its obligations under this Deed, and is to use its reasonable endeavours to ensure third parties unrelated to the Developer do not unreasonably delay, hinder or otherwise interfere with the performance of those obligations.

18 Protection of people, property & utilities

- 18.1 The Developer and the Landowner are to ensure to the fullest extent reasonably practicable in relation to the performance of their obligations under this Deed that:
- 18.1.1 all necessary measures are taken to protect people and property,
- 18.1.2 unnecessary interference with the passage of people and vehicles is avoided, and
- 18.1.3 nuisances and unreasonable noise and disturbances are prevented.
- 18.2 Without limiting clause 18.1, the Developer is not to obstruct, interfere with, impair or damage any public road, public footpath, public cycleway or other public thoroughfare, or any pipe, conduit, drain, watercourse or other public utility or service on any land except as authorised in writing by the Council or any relevant Authority.

19 Repair of damage

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- 19.1 The Developer is to Maintain any Work required to be carried out by the Developer under this Deed until the Work is completed for the purposes of this Deed or such later time as agreed between the Parties.
- 19.2 The Developer is to carry out its obligation under clause 19.1 at its own cost and to the satisfaction of the Council.

20 Completion of Work

- 20.1 The Developer is to give the Council written notice of the date on which it will complete Work required to be carried out under this Deed.
- 20.2 The Council is to inspect the Work the subject of the notice referred to in clause 20.1 within 14 days of the date specified in the notice for completion of the Work.
- 20.3 Work required to be carried out by the Developer under this Deed, is completed for the purposes of this Deed when the Council, acting reasonably, gives a written notice to the Developer to that effect.
- 20.4 If the Council is the owner of the land on which Work the subject of a notice referred to in clause 20.1.3 is issued, the Council assumes responsibility for the Work upon the issuing of the notice, but if it is not the owner at that time, it assumes that responsibility when it later becomes the owner.
- 20.5 Before the Council gives the Developer a notice referred to in clause 20.3, it may give the Developer a written direction to complete, rectify or repair any specified part of the Work as soon as practicable to the reasonable satisfaction of the Council.
- 20.6 The Developer, at its own cost, is to promptly comply with a direction referred to in clause 20.5.
- 20.7 The Developer will Maintain any Item for which a Maintenance Period is specified, during that Maintenance Period.

21 Rectification of defects

- 21.1 The Council may give the Developer a Rectification Notice during the Defects Liability Period.
- 21.2 The Developer, at its own cost, is to comply with a Rectification Notice according to its terms and to the reasonable satisfaction of the Council.
- 21.3 The Council is to do such things as are reasonably necessary to enable the Developer to comply with a Rectification Notice that has been given to it under clause 21.1.

22 Works-As-Executed-Plan

- 22.1 No later than 60 days after Work is completed for the purposes of this Deed, the Developer is to submit to the Council a full works-as-executed-plan in respect of the Work.

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- 22.2 The Developer, warrants that it is the copyright owner in the plan referred to in clause 22.1, and gives the Council a non-exclusive licence to use the copyright in the plans for the purposes of this Deed.

23 Removal of Equipment

- 23.1 When Work on any Council owned or controlled land is completed for the purposes of this Deed, the Developer, without delay, is to:
- 23.1.1 remove any Equipment from the land and make good any damage or disturbance to the land as a result of that removal, and
- 23.1.2 leave the land in a neat and tidy state, clean and free of rubbish.

Part 3 – Dispute Resolution

24 Dispute resolution – expert determination

- 24.1 This clause applies to a Dispute between any of the Parties to this Deed concerning a matter arising in connection with this Deed that can be determined by an appropriately qualified expert if:
- 24.1.1 the Parties to the Dispute agree that it can be so determined, or
- 24.1.2 the Chief Executive Officer of the professional body that represents persons who appear to have the relevant expertise to determine the Dispute gives a written opinion that the Dispute can be determined by a member of that body.
- 24.2 A Dispute to which this clause applies is taken to arise if one Party gives another Party a notice in writing specifying particulars of the Dispute.
- 24.3 If a notice is given under clause 24.2, the Parties are to meet within 14 days of the notice in an attempt to resolve the Dispute.
- 24.4 If the Dispute is not resolved within a further 28 days, the Dispute is to be referred to the President of the NSW Law Society to appoint an expert for expert determination.
- 24.5 The expert determination is binding on the Parties except in the case of fraud or misfeasance by the expert.
- 24.6 Each Party is to bear its own costs arising from or in connection with the appointment of the expert and the expert determination.
- 24.7 The Parties are to share equally the costs of the President, the expert, and the expert determination.

25 Dispute Resolution - mediation

- 25.1 This clause applies to any Dispute arising in connection with this Deed other than a Dispute to which clause 24 applies.

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- 25.2 Such a Dispute is taken to arise if one Party gives another Party a notice in writing specifying particulars of the Dispute.
- 25.3 If a notice is given under clause 25.2, the Parties are to meet within 14 days of the notice in an attempt to resolve the Dispute.
- 25.4 If the Dispute is not resolved within a further 28 days, the Parties are to mediate the Dispute in accordance with the Mediation Rules of the Law Society of New South Wales published from time to time and are to request the President of the Law Society to select a mediator.
- 25.5 If the Dispute is not resolved by mediation within a further 28 days, or such longer period as may be necessary to allow any mediation process which has been commenced to be completed, then the Parties may exercise their legal rights in relation to the Dispute, including by the commencement of legal proceedings in a court of competent jurisdiction in New South Wales.
- 25.6 Each Party is to bear its own costs arising from or in connection with the appointment of a mediator and the mediation.
- 25.7 The Parties are to share equally the costs of the President, the mediator, and the mediation.

Part 4 - Enforcement

26 Security for performance of obligations

- 26.1 In this clause 26 the following definitions apply.

Final Lot Subdivision Certificate means a Subdivision Certificate that:

- (a) authorises the registration of a plan of subdivision or strata plan which, on registration, will create Final Lots; and
- (b) is able to be issued because a Development Consent for the Development granted after the date of this Deed is in force with respect to the proposed subdivision.

Security Amount means:

- (a) Security to the value of:
 - (i) \$TSCV divided by the Final Lots Per Stage for the relevant Stage in respect of which a Final Lot Subdivision Certificate is being sought, then multiplied by the number of Final Lots in that Stage for which Final Lot Subdivision Certificates have been issued or are sought; or
- (b) Security to the value of such other amount as the Developer and the Council agree in writing.

TSCV means the sum of the Contribution Values of the Items of Works (other than Item 29) which are to be located within the Stage in respect of which a Final Lot Subdivision Certificate is being sought, other than those Items within the Stage that have been completed in accordance with this Deed and are the responsibility of the Council.

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- (a) In respect of Stage 1 - 240 lots.
- (b) in respect of Stage 2 - 167 lots
- (c) in respect of Stage 3 - 98 lots.
- (d) in respects of Stage 4 - 111 lots.
- (e) in respect of Stage 5 - 109 lots.
- (f) in respect of Stage 6 - 62 lots.
- (g) in respect of Stage 7 - 104 lots.
- (h) in respect of Stage 8 - 108 lots.
- (i) in respect of Stage 9 - 94 lots.
- (j) in respect of Stage 10 - 90 lots.
- (k) in respect of Stage 11 - 97 lots.

- 26.2 Prior to the issuing of any Final Lot Subdivision Certificate in respect of a Stage, the Developer is to provide the Council with a Security for the difference between the value of Security Amount and the Security already held by Council (if any) in respect of that Stage.
- 26.3 The Council, in its absolute discretion and despite clause 16, may refuse to allow the Developer to enter, occupy or use any land owned or controlled by the Council or refuse to provide the Developer with any plant, equipment, facilities or assistance relating to the carrying out the Development if the Developer has not provided the Security to the Council in accordance with this Deed.
- 26.4 The Council may call-up and apply the Security in accordance with clause 28 to remedy any breach of this Deed notwithstanding any other remedy it may have under this Deed, under any Act or otherwise at law or in equity.
- 26.5 The Council is to release and return the Security provided in respect of a Stage, or any unused part of it to the Developer within 14 days of the Developer and Landowner completing all of their obligations under this Deed in respect of that Stage.
- 26.6 The Developer may at any time provide the Council with a replacement Security.
- 26.7 On receipt of a replacement Security, the Council is to release and return the Security that has been replaced to the Developer.
- 26.8 If the Council calls-up the Security or any portion of it, it may, by written notice to the Developer, require the Developer to provide a further or replacement Security to ensure that the amount of Security held by the Council equals the amount it is entitled to hold under this Deed.
- 26.9 The Developer is to ensure that the Security provided to the Council is at all times maintained to the full current indexed value.

27 Acquisition of land required to be dedicated

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- 27.1 If the Landowner does not dedicate land required to be dedicated under this Deed at the time at which it is required to be dedicated, the Landowner consents to the Council compulsorily acquiring the land for compensation in the amount of \$1 without having to follow the pre-acquisition procedure under the Just Terms Act.
- 27.2 The Council is to only acquire land pursuant to clause 27.1 if it considers it reasonable to do so having regard to the circumstances surrounding the failure by the Landowner to dedicate the land required to be dedicated under this Deed.
- 27.3 Clause 27.1 constitutes an agreement for the purposes of s30 of the Just Terms Act.
- 27.4 If, as a result of the acquisition referred to in clause 27.1, the Council is required to pay compensation to any person other than the Landowner, the Landowner and the Developer are to reimburse the Council that amount, upon a written request being made by the Council, or the Council can call on any Security provided under clause 26.
- 27.5 The Landowner and the Developer indemnify and keep indemnified the Council against all Claims made against the Council as a result of any acquisition by the Council of the whole or any part of the land concerned except if, and to the extent that, the Claim arises because of the Council's negligence or default.
- 27.6 The Landowner and the Developer are to promptly do all things necessary, and consents to the Council doing all things necessary, to give effect to this clause 27, including without limitation:
- 27.6.1 signing any documents or forms.
- 27.6.2 giving land owner's consent for lodgement of any Development Application.
- 27.6.3 producing certificates of title to the Registrar-General under the *Real Property Act 1900*, and
- 27.6.4 paying the Council's costs arising under this clause 27.

28 Breach of obligations

- 28.1 If the Council reasonably considers that the Landowner or Developer is in breach of any obligation under this Deed, it may give a written notice to the Party it considers to be in breach:
- 28.1.1 specifying the nature and extent of the breach,
- 28.1.2 requiring that Party to:
- (a) rectify the breach if it reasonably considers it is capable of rectification, or
- (b) pay compensation to the reasonable satisfaction of the Council in lieu of rectifying the breach if it reasonably considers the breach is not capable of rectification,
- 28.1.3 specifying the period within which the breach is to be rectified or compensation paid, being a period that is reasonable in the circumstances.

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- 28.2 If the Landowner or Developer fails to fully comply with a notice issued to it and referred to in clause 28.1, the Council may, without further notice to that Party or the Developer, call-up the Security provided by the Developer under this Deed and apply it to remedy the breach.
- 28.3 If the Developer fails to comply with a notice given under clause 28.1 relating to the carrying out of Work under this Deed, the Council may step-in and remedy the breach and may enter, occupy and use any land owned or controlled by the Landowner or Developer and any Equipment on such land for that purpose.
- 28.4 Any costs incurred by the Council in remedying a breach in accordance with clause 28.2 or clause 28.3 may be recovered by the Council by either or a combination of the following means:
- 28.4.1 by calling-up and applying the Security provided by the Developer under this Deed, or
- 28.4.2 as a debt due in a court of competent jurisdiction.
- 28.5 For the purpose of clause 28.4, the Council's costs of remedying a breach the subject of a notice given under clause 28.1 include, but are not limited to:
- 28.5.1 the costs of the Council's servants, agents and contractors reasonably incurred for that purpose,
- 28.5.2 all fees and charges necessarily or reasonably incurred by the Council in remedying the breach, and
- 28.5.3 all legal costs and expenses reasonably incurred by the Council, by reason of the breach.
- 28.6 Nothing in this clause 28 prevents the Council from exercising any rights it may have at law or in equity in relation to a breach of this Deed by the Landowner or Developer, including but not limited to seeking relief in an appropriate court.

29 Enforcement in a court of competent jurisdiction

- 29.1 Without limiting any other provision of this Deed, the Parties may enforce this Deed in any court of competent jurisdiction.
- 29.2 For the avoidance of doubt, nothing in this Deed prevents:
- 29.2.1 a Party from bringing proceedings in the Land and Environment Court to enforce any aspect of this Deed or any matter to which this Deed relates, or
- 29.2.2 the Council from exercising any function under the Act or any other Act or law relating to the enforcement of any aspect of this Deed or any matter to which this Deed relates.

Part 5 – Registration & Restriction on Dealings**30 Registration of this Deed**

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- 30.1 The Parties agree to register this Deed for the purposes of s93H(1) of the Act.
- 30.2 On execution, the Landowner and the Developer are to provide to the Council in registrable form:
- 30.2.1 an instrument requesting registration of this Deed on the title to the Land duly executed by the Landowner, and
- 30.2.2 the written irrevocable consent of each person referred to in s93H(1) of the Act to that registration.
- 30.3 The Landowner and the Developer are to do such other things as are reasonably necessary to enable registration of this Deed to occur.
- 30.4 The Parties are to do such things as are reasonably necessary to remove any notation relating to this Deed from the title to the Land:
- 30.4.1 in so far as the part of the Land concerned is a Final Lot,
- 30.4.2 in relation to any other part of the Land, once the Developer and Landowner have completed its obligations under this Deed to the reasonable satisfaction of the Council or this Deed is terminated or otherwise comes to an end for any other reason.

31 Restriction on dealings

- 31.1 The Landowner and the Developer are not to:
- 31.1.1 sell or transfer the Land, other than a Final Lot, or
- 31.1.2 assign their rights or obligations under this Deed, or novate this Deed, to any person unless:
- 31.1.3 they have, at no cost to the Council, first procured the execution by the person to whom the Land or part is to be sold or transferred or the Landowner's or Developer's rights or obligations under this Deed are to be assigned or novated, of a deed in favour of the Council on terms reasonably satisfactory to the Council, and
- 31.1.4 the Council has given written notice to the Landowner and Developer stating that it reasonably considers that the purchaser, transferee, assignee or novatee, is reasonably capable of performing its obligations under this Deed, and
- 31.1.5 the Landowner and Developer are not in breach of this Deed, and
- 31.1.6 the Council otherwise consents to the transfer, assignment or novation, such consent not to be unreasonably withheld.
- 31.2 Clause 31.1 does not apply in relation to any sale or transfer of the Land if this Deed is registered on the title to the Land at the time of the sale.

Part 6 – Indemnities & Insurance**32 Risk**

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- 32.1 The Developer and the Landowner perform their obligations under this Deed at their own risk and at their own cost.

33 Release

- 33.1 The Developer and the Landowner release the Council from any Claim they may have against the Council arising in connection with the performance of the Developer's obligations under this Deed except if, and to the extent that, the Claim arises because of the Council's negligence or default.

34 Indemnity

- 34.1 The Developer indemnifies the Council from and against all Claims that may be sustained, suffered, recovered or made against the Council arising in connection with the performance of the Landowner or the Developer's obligations under this Deed except if, and to the extent that, the Claim arises because of the Council's negligence or default.

35 Insurance

- 35.1 The Developer is to take out and keep current to the satisfaction of the Council the following insurances in relation to Work required to be carried out by the Developer under this Deed up until the Work is taken to have been completed and the responsibility of the Council in accordance with this Deed:
- 35.1.1 contract works insurance, noting the Council as an interested party, for the full replacement value of the Works (including the cost of demolition and removal of debris, consultants' fees and authorities' fees), to cover the Developer's liability in respect of damage to or destruction of the Works,
 - 35.1.2 public liability insurance for at least \$20,000,000.00 for a single occurrence, which covers the Council, the Developer, the Landowner and any subcontractor of the Developer, for liability to any third party,
 - 35.1.3 workers compensation insurance as required by law, and
 - 35.1.4 any other insurance required by law.
- 35.2 If the Developer fails to comply with clause 35.1, the Council may effect and keep in force such insurances and pay such premiums as may be necessary for that purpose and the amount so paid shall be a debt due from the Developer to the Council and may be recovered by the Council as it deems appropriate including:
- 35.2.1 by calling upon the Security provided by the Developer to the Council under this Deed, or
 - 35.2.2 recovery as a debt due in a court of competent jurisdiction.
- 35.3 The Developer is not to commence to carry out any Work unless it has first provided to the Council satisfactory written evidence of all of the insurances specified in clause 35.1.

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Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Part 7 – Other Provisions**36 Annual report by Developer**

- 36.1 The Developer is to provide to the Council by not later than each anniversary of the date on which this Deed is entered into a report detailing the performance of its obligations under this Deed.
- 36.2 The report referred to is to be in such a form and to address such matters as required by the Council from time to time.

37 Review of Deed

- 37.1 The Parties agree to review this Deed annually, and otherwise if either Party is of the opinion that any change of circumstance has occurred, or is imminent, that materially affects the operation of this Deed.
- 37.2 For the purposes of clause 37.1, the relevant changes include (but are not limited to) any change to a law that restricts or prohibits or enables the Council or any other planning authority to restrict or prohibit any aspect of the Development.
- 37.3 For the purposes of addressing any matter arising from a review of this Deed referred to in clause 37.1, the Parties are to use all reasonable endeavours to agree on and implement appropriate amendments to this Deed.
- 37.4 If this Deed becomes illegal, unenforceable or invalid as a result of any change to a law, the Parties agree to do all things necessary to ensure that an enforceable agreement of the same or similar effect to this Deed is entered into.
- 37.5 A failure by a Party to agree to take action requested by the other Party as a consequence of a review referred to in clause 37.1 (but not 37.4) is not a Dispute for the purposes of this Deed and is not a breach of this Deed.

38 Notices

- 38.1 Any notice, consent, information, application or request that is to or may be given or made to a Party under this Deed is only given or made if it is in writing and sent in one of the following ways:
- 38.1.1 delivered or posted to that Party at its address set out in the Summary Sheet,
- 38.1.2 faxed to that Party at its fax number set out in the Summary Sheet, or
- 38.1.3 emailed to that Party at its email address set out in the Summary Sheet.
- 38.2 If a Party gives the other Party 3 business days' notice of a change of its address, fax number or email, any notice, consent, information, application or request is only given or made by that other Party if it is delivered, posted, faxed or emailed to the latest address or fax number.

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- 38.3 Any notice, consent, information, application or request is to be treated as given or made if it is:
- 38.3.1 delivered, when it is left at the relevant address,
 - 38.3.2 sent by post, 2 business days after it is posted,
 - 38.3.3 sent by fax, as soon as the sender receives from the sender's fax machine a report of an error free transmission to the correct fax number, or
 - 38.3.4 sent by email and the sender does not receive a delivery failure message from the sender's internet service provider within a period of 24 hours of the email being sent.
- 38.4 If any notice, consent, information, application or request is delivered, or an error free transmission report in relation to it is received, on a day that is not a business day, or if on a business day, after 5pm on that day in the place of the Party to whom it is sent, it is to be treated as having been given or made at the beginning of the next business day.

39 Approvals and Consent

- 39.1 Except as otherwise set out in this Deed, and subject to any statutory obligations, a Party may give or withhold an approval or consent to be given under this Deed in that Party's absolute discretion and subject to any conditions determined by the Party.
- 39.2 A Party is not obliged to give its reasons for giving or withholding consent or for giving consent subject to conditions.

40 Costs

- 40.1 The Developer is to pay to the Council the Council's costs of preparing, negotiating, executing and stamping this Deed, and any document related to this Deed within 7 days of a written demand by the Council for such payment.
- 40.2 The Developer is also to pay to the Council the Council's reasonable costs of enforcing this Deed within 7 days of a written demand by the Council for such payment.

41 Entire Deed

- 41.1 This Deed contains everything to which the Parties have agreed in relation to the matters it deals with.
- 41.2 No Party can rely on an earlier document, or anything said or done by another Party, or by a director, officer, agent or employee of that Party, before this Deed was executed, except as permitted by law.

42 Further Acts

Emerald Hills Planning Agreement**Camden Council****Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)****D&AI Pty Ltd**

- 42.1 Each Party must promptly execute all documents and do all things that another Party from time to time reasonably requests to effect, perfect or complete this Deed and all transactions incidental to it.

43 Governing Law and Jurisdiction

- 43.1 This Deed is governed by the law of New South Wales.
- 43.2 The Parties submit to the non-exclusive jurisdiction of its courts and courts of appeal from them.
- 43.3 The Parties are not to object to the exercise of jurisdiction by those courts on any basis.

44 Joint and Individual Liability and Benefits

- 44.1 Except as otherwise set out in this Deed:
- 44.1.1 any agreement, covenant, representation or warranty under this Deed by 2 or more persons binds them jointly and each of them individually, and
- 44.1.2 any benefit in favour of 2 or more persons is for the benefit of them jointly and each of them individually.

45 No Fetter

- 45.1 Nothing in this Deed shall be construed as requiring Council to do anything that would cause it to be in breach of any of its obligations at law, and without limitation, nothing shall be construed as limiting or fettering in any way the exercise of any statutory discretion or duty.

46 Illegality

- 46.1 If this Deed or any part of it becomes illegal, unenforceable or invalid as a result of any change to a law, the Parties are to co-operate and do all things necessary to ensure that an enforceable agreement of the same or similar effect to this Deed is entered into.

47 Severability

- 47.1 If a clause or part of a clause of this Deed can be read in a way that makes it illegal, unenforceable or invalid, but can also be read in a way that makes it legal, enforceable and valid, it must be read in the latter way.
- 47.2 If any clause or part of a clause is illegal, unenforceable or invalid, that clause or part is to be treated as removed from this Deed, but the rest of this Deed is not affected.

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D&AI Pty Ltd

48 Amendment

- 48.1 No amendment of this Deed will be of any force or effect unless it is in writing and signed by the Parties to this Deed in accordance with clause 25D of the Regulation.

49 Waiver

- 49.1 The fact that a Party fails to do, or delays in doing, something the Party is entitled to do under this Deed, does not amount to a waiver of any obligation of, or breach of obligation by, another Party.
- 49.2 A waiver by a Party is only effective if it is in writing.
- 49.3 A written waiver by a Party is only effective in relation to the particular obligation or breach in respect of which it is given. It is not to be taken as an implied waiver of any other obligation or breach or as an implied waiver of that obligation or breach in relation to any other occasion.

50 GST

- 50.1 In this clause:

Adjustment Note, Consideration, GST, GST Group, Margin Scheme, Money, Supply and Tax Invoice have the meaning given by the GST Law.

GST Amount means in relation to a Taxable Supply the amount of GST payable in respect of the Taxable Supply.

GST Law has the meaning given by the *A New Tax System (Goods and Services Tax) Act 1999* (Cth).

Input Tax Credit has the meaning given by the GST Law and a reference to an Input Tax Credit entitlement of a party includes an Input Tax Credit for an acquisition made by that party but to which another member of the same GST Group is entitled under the GST Law.

Taxable Supply has the meaning given by the GST Law excluding (except where expressly agreed otherwise) a supply in respect of which the supplier chooses to apply the Margin Scheme in working out the amount of GST on that supply.

- 50.2 Subject to clause 50.4, if GST is payable on a Taxable Supply made under, by reference to or in connection with this Deed, the Party providing the Consideration for that Taxable Supply must also pay the GST Amount as additional Consideration.
- 50.3 Clause 50.2 does not apply to the extent that the Consideration for the Taxable Supply is expressly stated in this Deed to be GST inclusive.
- 50.4 No additional amount shall be payable by the Council under clause 51.2 unless, and only to the extent that, the Council (acting reasonably and in accordance with the GST Law) determines that it is entitled to an Input Tax Credit for its acquisition of the Taxable Supply giving rise to the liability to pay GST.

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(trading as Emerald Hills Estate)****D&AI Pty Ltd**

- 50.5 If there are Supplies for Consideration which is not Consideration expressed as an amount of Money under this Deed by one Party to the other Party that are not subject to Division 82 of the *A New Tax System (Goods and Services Tax) Act 1999*, the Parties agree:
- 50.5.1 to negotiate in good faith to agree the GST inclusive market value of those Supplies prior to issuing Tax Invoices in respect of those Supplies;
- 50.5.2 that any amounts payable by the Parties in accordance with clause 50.2 (as limited by clause 50.4) to each other in respect of those Supplies will be set off against each other to the extent that they are equivalent in amount.
- 50.6 No payment of any amount pursuant to this clause 50, and no payment of the GST Amount where the Consideration for the Taxable Supply is expressly agreed to be GST inclusive, is required until the supplier has provided a Tax Invoice or Adjustment Note as the case may be to the recipient.
- 50.7 Any reference in the calculation of Consideration or of any indemnity, reimbursement or similar amount to a cost, expense or other liability incurred by a party, must exclude the amount of any Input Tax Credit entitlement of that party in relation to the relevant cost, expense or other liability.
- 50.8 This clause continues to apply after expiration or termination of this Deed.

51 Explanatory Note

- 51.1 The Appendix contains the Explanatory Note relating to this Deed required by clause 25E of the Regulation.
- 51.2 Pursuant to clause 25E(7) of the Regulation, the Parties agree that the Explanatory Note is not to be used to assist in construing this Planning Deed.

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D&AI Pty Ltd

Schedule 1

(Clause 9)

Development Contributions

Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
Carrying Out of Work							
1	1	OS1	Passive open space and recreation	<p>Embellishment of approximately 25,711 sqm of passive open space at locations that are generally consistent with the areas identified as 'OS1' on the Stage 1 Plan and that is otherwise generally in accordance with the specification for Item OS1 detailed below:</p> <ul style="list-style-type: none"> Landscaping and informal "kick" around area to the requirements of Council. Dog-off-leash area which may be located partially or wholly within TL1. Bubblers in conjunction with the picnic and dog-off- 	Prior to the issue of a Subdivision Certificate for the creation of the 240 th Final Lot within the Development.	<p>(25,711 sqm x \$59,64/sqm + \$20,000 furniture</p> <p>\$1,553,404</p>	1 year

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D&AI Pty Ltd**

Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
2	1	TL1	Transmission Line Easement Open Space Embellishment	leash areas. Embellishment of approximately 25,013 sqm of transmission line easement land within the areas identified as 'TL1' on Stage 1 Plan and that is otherwise in accordance with the specification for Item TL1 as outlined below: <ul style="list-style-type: none"> Dog off Leash area similar in standard to Council's facility at River Road, Elderslie including bench seats, shelters, fencing, parking facilities, bins and dog play equipment 	Prior to the issue of a Subdivision Certificate for the creation of the 240 th Final Lot within the Development.	\$1,491,775	5 years
3	1	Dual Use Path	Active open space and recreation	Pedestrian and cycle footpath of 1,940 metres in length and 2.5 metres wide (4,850 sqm) in locations generally consistent with those marked "Dual Use Path" on the Stage 1 Plan and otherwise in accordance with Council's Engineering Design Specifications.	Prior to the issue of a Subdivision Certificate for the creation of the 240 th Final Lot within the Development.	(4,850sqm x \$90/sqm) \$436,500	1 year
4	2	OVAL	Active open space and recreation	A 3.194 ha approximately double playing field plus a 100 space car park in a location generally consistent with that marked "OVAL" on the Stage 1 Plan, and that is otherwise in accordance with the specification for Item OVAL as outlined below.	Prior to the issue of a Subdivision Certificate for the creation of the 407 th Final	Local Multipurpose playing field inc Irrigation: \$1,090,600;	1 year

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
				<ul style="list-style-type: none"> 2 Multipurpose playing fields each with a minimum playing dimension of 122m x 70m and/or to suit local senior competition requirements. Overlaid cricket and AFL fields dimensioned for local senior competitions and any necessary ancillary requirements (such as goalposts). Fields to be constructed in accordance with Camden Council's draft "Guidelines for Sportsfield Construction—A Grade-Community Sportsfield". Sealed parking facilities. Fencing. Tiered concrete seating and bench seating with shade structures as reasonable. Cricket nets and wicket. Sportsfield lighting to 100-lux. Bins. Irrigation and rainwater re-use infrastructure. 	Lot within the Development.	<ul style="list-style-type: none"> Playing Field Lighting: \$116,000; Local Sports Furniture: \$40,000; Local Sports Picnic Facilities: \$42,000; Cricket practice nets: \$33,000; Car Park (100 spaces x \$1250) \$125,000; and Allowance for retaining walls / stepped seating /shade structures \$200,000. 	

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
5	2	Community Hall and amenities	Community facilities	<p>One combined community hall and amenities building of approximately 360 sqm (which contains 170 sqm of community floorspace) in a location adjoining the oval, generally consistent with that marked "Community Hall and Amenities" on the Stage 1 Plan that is otherwise in accordance with the specification for Item Community Hall as outlined below:</p> <ul style="list-style-type: none"> • Building to be constructed with a similar general layout and similar standard of design and construction to the facility at Ron Dine Reserve, South Camden; • External construction to include brick/masonry external walls, plasterboard to internal walls and ceiling, concrete floor and colorbond roof, gutters and downpipes; and • Internal fitout to include provision of security and fire alarm, provision of kitchenette sink / taps / laminex benchtop / cupboards / tiled splashback, kiosk roller shutter to kitchenette, provision of vinyl flooring to rooms and tiles to wet areas, provision of benches and toilets/ wash basins to change/toilet rooms, second fit plumbing and electrical, and painting of all internal walls, ceilings and internal and external doors and eaves. • The external construction and internal fitout is to 	<p>Prior to the issue of a Subdivision Certificate for the creation of the 407th Final Lot within the Development.</p>	<p>\$1,646,600</p> <ul style="list-style-type: none"> • Base Building (360 sqm x \$2780): \$1,000,800. • Entry paving (400 sqm x \$150/sqm): \$60,000. • Allowance for retaining walls \$30,000. • \$1,090,800 	1 year

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
6	2	PG1	Active open space and recreation	<p>include reasonable environmentally sustainable design initiatives.</p> <p>One multi-purpose playspace which incorporates playground equipment and skate equipment in a location generally consistent with that marked "PG1" on the Stage 2 Plan (the playground and skate equipment may be provided in separate locations within the surrounds of Item 4 - OVAL subject to approval by Council under Clause 13 of this Deed) that is otherwise in accordance with the specification for Item PG1 as outlined below</p> <ul style="list-style-type: none"> • Playground to be similar in standard as that provided at Sedgwick Reserve, Currans Hill including fencing, seating and concrete edging otherwise to Council's specifications. • Skate equipment including concrete areas, sliding rails and jumps. 	<p>Prior to the issue of a Subdivision Certificate for the creation of the 407th Final Lot within the Development.</p>	<ul style="list-style-type: none"> • Playground: \$100,000 • Skate equipment: \$25,000 • \$125,000 	
7	2	OS2	Passive open space and recreation	<p>Embellishment of approximately 24,060 sqm of passive open space at locations that are generally consistent with the areas identified as 'OS2' on the Stage 2 Plan and that is otherwise in accordance with the specification for Item OS2 below:</p> <ul style="list-style-type: none"> • Seating and bins to Council's requirements. • Landscaping. 	<p>Prior to the issue of a Subdivision Certificate for the creation of the 117th Final Lot within Stage 2.</p>	<p>(24,060 sqm x \$59.64/sqm + \$20,000 furniture +100,000 toilets) \$1,554,938</p>	1 year

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
				<ul style="list-style-type: none"> Bubblers. Toilet facilities of masonry/brick construction featuring two cubicles which are family/disabled appropriate. Local Picnic Shelters/facilities (similar in standard to Narellian Urban Forest, Elyard Street, Narellian 			
8	2	OS3	Passive open space and recreation	<p>Embellishment of approximately 3,860 sqm of passive open space at locations that are generally consistent with the areas identified as 'OS3' on the Stage 2 Plan and that is otherwise in accordance with the specification for Item OS3 below:</p> <ul style="list-style-type: none"> Seating. Landscaping and informal "kick" around areas. Bubblers. 	Prior to the issue of a Subdivision Certificate for the creation of the 117 th Final Lot within Stage 2.	(3,860sqm x \$59,64/sqm + \$20,000 furniture) \$250,210	1 year
9	2	TL2	Passive open space and recreation	<p>Embellishment of approximately 6,952 sqm of transmission line easement land within the areas identified as 'TL2' on the Stage 2 Plan and that is otherwise in accordance with the specification for Item TL2 below:</p> <ul style="list-style-type: none"> Landscaping Bench seating 	Prior to the issue of a Subdivision Certificate for the creation of the 117 th Final Lot within Stage 2.	(6,952sqm x \$59,64/sqm) \$414,600	5 years
10	2	PG2	Active open space and	One playground in a location generally consistent with that marked 'PG2' on the Stage 2 Plan that is otherwise in	Prior to the issue of a	\$100,000	1 year

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans.	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
			recreation	<p>accordance with the relevant portions of the specification for Item PG2 below:</p> <ul style="list-style-type: none"> Playground to be similar in standard and value as that provided at Sedgwick Reserve, Cumrans Hill including fencing, seating and concrete edging otherwise to Council's specifications. 	Subdivision Certificate for the creation of the 117 th Final Lot within Stage 2.		
11	2	FT1	Active open space and recreation	<p>Fitness equipment situated along and adjoining footpath in a location, generally consistent with that marked "FT1" on the Stage 2 Plan that is otherwise in accordance with the specification for Item FT1 below.</p> <p>A minimum of five fitness stations to be provided at locations along the Fitness Trail. Fitness Stations shall be to standard similar to Wayne Gardner Reserve, Oran Park.</p>	Prior to the issue of a Subdivision Certificate for the creation of the 117 th Final Lot within Stage 2.	\$30,000	1 year
12	2	Dual use path	Active open space and recreation	<p>Pedestrian and cycle footpath of 1,084 metres in length and 2.5 metres wide (2,710 sqm) in locations generally consistent with those marked "Dual Use Path" on the Stage 2 Plan and otherwise in accordance with Council's Engineering Design Specifications</p>	Prior to the issue of a Subdivision Certificate for the creation of the 117 th Final Lot within	(2,710sqm x \$90/sqm) \$243,900	1 year

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
13	3	OS4	Passive open space and recreation	<p>Embellishment of approximately 9,834 sqm of passive open space at locations that are generally consistent with the areas identified as 'OS4' on the Stages 3-6 Plan and that is otherwise in accordance with the specification for Item OS4 below:</p> <ul style="list-style-type: none"> • Local Picnic Shelters/facilities (similar in standard to Narellan Urban Forest, Elyard Street, Narellan) • Seating and Bins to Council's requirements. • Landscaping and informal "kick" around areas. • Bubblers. • Public domain artwork to celebrate history and heritage of former school on site. 	<p>Stage 2.</p> <p>Prior to the issue of a Subdivision Certificate for the creation of the 69th Final Lot within Stage 3.</p>	<p>(9,834sqm x \$59,64/sqm + \$20,000 furniture + 20,000 for artwork) \$627,036</p>	1 year
14	3	PG3	Active open space and recreation	<p>One playground in a location generally consistent with that marked "PG3" on the Stages 3-6 Plan that is otherwise in accordance with the specification for item PG3 below:</p> <ul style="list-style-type: none"> • Playground to be similar in standard and value as that provided at Sedgwick Reserve, Currans Hill including fencing, seating and concrete edging otherwise to Council's specifications. 	<p>Prior to the issue of a Subdivision Certificate for the creation of the 69th Final Lot within Stage 3.</p>	\$100,000	1 year

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
15	3	Dual use path	Active open space and recreation	Pedestrian and cycle footpath of 210 metres in length and 2.5 metres wide (525 sqm) in locations generally consistent with those marked "Dual Use Path" on the Stages 3-6 Plan and otherwise in accordance with Council's Engineering Design Specifications	Prior to the issue of a Subdivision Certificate for the creation of the 69 th Final Lot within Stage 3.	(525sqm x \$90/sqm) \$47,250	1 year
16	4	TL3	Passive open space and recreation	Embellishment of approximately 2,627 sqm of transmission line easement land within the areas identified as 'TL3' on the Stages 3 - 6 Plan and that is otherwise in accordance with the specification for Item TL3 below: <ul style="list-style-type: none"> Dog off Leash area similar in standard to Council's facility at River Road, Elderslie including bench seats, shelters, fencing, parking facilities, bins and dog play equipment. 	Prior to the issue of a Subdivision Certificate for the creation of the 78 th Final Lot within Stage 4.	(2,627sqm x \$59,64/sqm) \$156,674	5 years
17	4	Dual use path	Active open space and recreation	Pedestrian and cycle footpath of 293 metres in length and 2.5 metres wide (732 sqm) in locations generally consistent with those marked "Dual Use Path" on the Stages 3-6 Plan and otherwise in accordance with Council's Engineering Design Specifications	Prior to the issue of a Subdivision Certificate for the creation of the 78 th Final Lot within	(732sqm x \$90/sqm) \$65,880	1 year

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D&AI Pty Ltd**

Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
18	5	TL3	Passive open space and recreation	Embellishment of approximately 8,220 sqm of transmission line easement land within the areas identified as 'TL3' on the Stages 3 - 6 Plan and that is otherwise in accordance with the specification for item TL3 below: <ul style="list-style-type: none"> • Landscaping • Bench seating 	Stage 4. Prior to the issue of a Subdivision Certificate for the creation of the 76 th Final Lot within Stage 5.	(8,220 sqm x \$59,64/sqm + \$20,000 furniture) \$510,241	5 years
19	5	Dual use path	Active open space and recreation	Pedestrian and cycle footpath of 150 metres in length and 2.5 metres wide (375 sqm) in locations generally consistent with those marked "Dual Use Path" on the Stages 3-6 Plan and otherwise in accordance with Council's Engineering Design Specifications	Prior to the issue of a Subdivision Certificate for the creation of the 76 th Final Lot within Stage 5.	(375sqm x \$90/sqm) \$33,750	1 year
20	11	OS5	Passive open space and recreation	Embellishment of approximately 3,305 sqm of passive open space at locations that are generally consistent with the areas identified as 'OS5' on the Stages 7-11 Plan and that is otherwise in accordance with the specification for item OS5 below:	Prior to the issue of a Subdivision Certificate for the creation of the 66 th Final	(3,305sqm x \$59,64/sqm + \$20,000 furniture) \$217,110	1 year

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
Dedication of Land							
21	1	OS1, dual use paths	Passive open space and recreation	<ul style="list-style-type: none"> Seating and Bins to Council's requirements. Landscaping and informal "kick" around areas to Council's requirements. Bubblers 	Lot within Stage 11.	(25,711 sqm x \$120/sqm residential) \$3,086,320	
22	1	TL1, dual use paths	Transmission Line Easement Open Space Embellishment, Active open space and	Dedication of approximately 25,711 sqm of embellished active and passive open space constructed under Item 1 (inclusive of dual use paths where constructed under Item 3) at locations that are generally consistent with the areas identified as 'OS1' on the Stage 1 Plan.	Within 28 days of Works Completion for Item 1 or at such later date as agreed between the parties.	\$nil	
				Dedication of approximately 25,013 sqm of embellished transmission line easement land constructed under Item 2 (inclusive of dual use paths where constructed under Item 3) at locations that are generally consistent with the areas identified as 'TL1' on the Stage 1 Plan.	Within 28 days of Works Completion for Items 2 and 3 (whichever is the later), or at such later date		

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Camden Council
Hazzcorp Developments Pty Ltd and Taurus Development Company Pty Ltd (trading as Emerald Hills Estate)
D&AI Pty Ltd**

Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
23	2	OVAL, PG1, Community Hall, dual use paths	recreation Active open space and recreation, community hall	Dedication of approximately 31,940 sqm of embellished active and passive open space (inclusive of dual use paths constructed under Item 12, the OVAL, constructed under Item 4, the playground and skate equipment constructed under Item 6, the community hall and amenities building constructed under Item 5 and any associated car parking area and traffic management areas) at locations that are generally consistent with the areas identified as 'OVAL' on the Stage 1 Plan.	as agreed between the parties. Within 28 days of Works Completion for Items 12, 4 or 6 (whichever is the later), or at such later date as agreed between the parties.	(31,940sqm x \$120/sqm residential) \$3,832,800	
24	2	OS2, FT1, PG2, dual use paths	Passive Open Space and Recreation	Dedication of approximately 24,060 sqm of embellished active and passive open space constructed under Item 7 (inclusive of the playground where constructed under Item 10, the fitness trail where constructed under Item 11, and the dual use paths where constructed under Item 12) at locations that are generally consistent with the areas identified as 'OS2' on the Stage 2 Plan.	Within 28 days of Works Completion for Items 7, 10, 11 and 12 (whichever is the later), or at such later date as agreed between the parties.	(24,060 sqm x \$120/sqm residential) \$2,887,200	

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Attachment 6

Emerald Hills Planning Agreement

Camden Council

Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd (trading as Emerald Hills Estate)

D&AI Pty Ltd

Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
25	2	OS3, dual use paths	Passive Open Space and Recreation	Dedication of approximately 3,860 sqm of embellished active and passive open space constructed under Item 8 (inclusive of dual use paths where constructed under Item 12) at locations that are generally consistent with the areas identified as 'OS3' on the Stage 2 Plan.	Within 28 days of Works Completion for Items 8 and 12 (whichever is the later) or at such later date as agreed between the parties.	(3,860 sqm x \$120/sqm residential) \$463,200	
26	2	TL2, dual use path	Passive open space and recreation	Dedication of approximately 6,952 sqm of embellished passive open space constructed under Item 9 (inclusive of dual use paths where constructed under Item 12) at locations that are generally consistent with the areas identified as 'TL2 on the Stage 2 Plan.	Within 28 days of Works Completion for Items 9 and 12 (whichever is the later), or at such later date as agreed between the parties.	Nil	
27	3	OS4, PG3, dual use path	Passive open space and recreation	Dedication of approximately 9,834 sqm of embellished passive open space constructed under Item 13 (inclusive of playground PG3) constructed under Item 14 and dual use paths constructed under Item 15) at locations that are generally consistent with the areas identified as 'OS4' on	Within 28 days of Works Completion for Items 13, 14 and 15	(9,834sqm x \$120/sqm residential) \$1,180,080	

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
28	4	TL3	Passive open space and recreation	the Stages 3-6 Plan Dedication of approximately 2,627 sqm of embellished passive open space under Item 16 (inclusive of dual use paths where constructed under Item 17) at locations that are generally consistent with the areas identified as 'TL3' on the Stages 3-6 Plan	(whichever is the later) or at such later date as agreed between the parties. Within 28 days of Works Completion for Item 16 and 17 (whichever is the later), or at such later date as agreed between the parties.	\$nil	
29	5	TL3	Passive open space and recreation	Dedication of approximately 8,220 sqm of embellished passive open space under Item 18 (inclusive of dual use paths where constructed under Item 19) at locations that are generally consistent with the areas identified as 'TL3' on the Stages 3-6 Plan	Within 28 days of Works Completion for Item 18 and 19 (whichever is the later), or at such later date as agreed between the parties.	\$nil	

Emerald Hills Planning Agreement

Camden Council

Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd (trading as Emerald Hills Estate)

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
30	11	OS5	Passive Open Space and Recreation	Dedication of approximately 3,305 sqm of embellished passive open space constructed under Item 20 at locations that are generally consistent with the areas identified as 'OS5' on the Stages 7-11 Plan.	parties. Within 28 days of Works Completion for Item 17 or at such later date as agreed between the parties.	(3,305 sqm x \$120/sqm residential) \$396,600	
Monetary Contributions							
31	B	N/A	Community Facility	Contribution towards community facilities at Leppington Town Centre of: <ul style="list-style-type: none"> • \$85.91 per Final Lot which is 300 sqm or greater in area; or • \$85.89 per Final Lot which is 299 sqm or lesser in area. 	Prior to the issue of a Subdivision Certificate for the creation of a Final Lot.	N/A	

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Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
32	N/A	N/A	Administration	Contribution towards the administration of this Deed of \$240.30 per Final Lot, to a maximum of \$307,586, for the entire Development.	Prior to the issue of a Subdivision Certificate for the creation of a Final Lot.	N/A.	
Miscellaneous Works							
33	ALL	Water Cycle Management	Water Cycle Management	The deployment of a water cycle management system which: Achieves the water outcomes and objectives (as described in Schedule 3 of this Deed) for each sub-catchment on the Land; Includes the embellishment of riparian corridor land located within the area shown as 'Riparian Corridor' and hatched on the Indicative Layout Plan; and Insofar as the deployment of the system and the embellishment of riparian corridor land requires the dedication of land, it is to be generally consistent with the	Prior to the issuing of a Subdivision Certificate for any Final Lot, but only to the extent as is necessary for the Final Lot(s) concerned to be serviced by the system.	\$25,264,000	1 year

**Emerald Hills Planning Agreement
Camden Council
Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd (trading as Emerald Hills Estate)
D&AI Pty Ltd**

Column 1 Item No.	Column 2 Relevant Stage	Column 3 Identifier on Plans	Column 4 Public Purpose	Column 5 Nature / Extent	Column 6 Timing	Column 7 Contribution Value	Column 8 Maintenance Period (if applicable)
34	ALL	N/A	Public Transport Infrastructure	Indicative Layout Plan. The provision of four bus shelters at appropriate locations on the future internal bus route, which will follow the local collector road as shown on the Indicative Layout Plan. The final location of the bus shelters will be determined in consultation with Council and the relevant bus service provider.	Prior to the commencement of internal bus services within the Development	(4 x \$15,000) \$60,000	1 year



Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Schedule 2

(Clause 1.1)

Plans

(see following 6 pages)

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Attachment 6

Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

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Indicative Layout Plan



Emerald Hills Planning Agreement
Camden Council
Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)
D&AI Pty Ltd

Stage 1 Plan



EMERALD HILLS ESTATE
DRAFT INDICATIVE LAYOUT PLAN
08 October 2013

- Stage Boundary and Number
 - Dual Use Path
 - Fitness Trail
 - Transmission Line Open Space
 - Passive Open Space
 - Oval
 - Water Cycle Management
 - Community Hall and Amenities
 - Playground
 - CA Boundary
 - Potential Transmission Realignment
- 0 100m 250m 500m

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Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Stage 2 Plan



EMERALD HILLS ESTATE
DRAFT INDICATIVE LAYOUT PLAN
 08 October 2013



- Stage Boundary and Number
 - Dual Use Path
 - Fitness Trail
 - Transmission Line Open Space
 - Passive Open Space
 - Oval
 - Water Cycle Management
 - Community Hall and Amenities
 - Playground
 - LGA Boundary
 - Potential Transmission Realignment
- 0 100m 250m 500m

Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

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Stages 3-6 Plan



EMERALD HILLS ESTATE
DRAFT INDICATIVE LAYOUT PLAN
 08 October 2013

- Stage Boundary and Number
- Dual Use Path
- Fitness Trail
- Transmission Line Open Space
- Passive Open Space
- Oval
- Water Quality
- Community Hall
- Playground
- LGA Boundary
- Potential Transmission Realignment

0 100m 250m 500m

Attachment 6

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Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Stages 7-8 Plan



**EMERALD HILLS ESTATE
DRAFT INDICATIVE LAYOUT PLAN**

DB October 2013



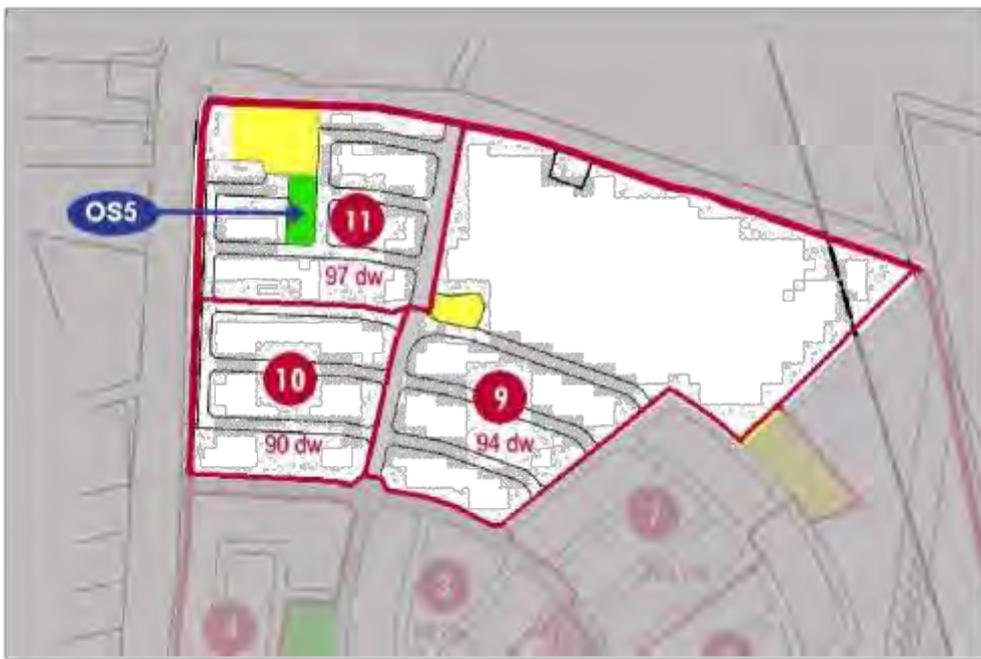
Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

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Stages 9-11 Plan



EMERALD HILLS ESTATE
DRAFT INDICATIVE LAYOUT PLAN
08 October 2013

- Stage Boundary and Number
- Dual Use Path
- Fitness Trail
- Transmission Line Open Space
- Passive Open Space
- Oval
- Water Quality
- Community Hall
- Playground
- LGA Boundary
- Potential Transmission Realignment



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Emerald Hills Planning Agreement
Camden Council
Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)
D&AI Pty Ltd

Schedule 3

(Item 29, Schedule 1)

Water Outcomes and Objectives

(see following 17 pages)

Attachment 6

DRAFT

Emerald Hills Estate

Rezoning

Stormwater Preliminary Budget Estimate



Report Number: 13-0203
Revision: B
Date: 10 September 2013

Project Number: NA50613004

Prepared: Matthew Lester
Reviewed: Chris Wild



Cardno Pty Ltd
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Document Control

Version	Date	Author		Reviewer	
A	27/08/2013	Matthew Lester	ML	Robert Lenferna	RL
B	10/09/2013	Matthew Lester	ML	Chris Wild	CW

Attachment 6

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Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

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Drawings

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Revision: B
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Notes

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Notes	
Note No.	Description
1	This preliminary cost estimate is provided for budgeting purposes only. No allowance was made for a Quantity Surveyor in the preparation of quantities and rates, and as such Cardno assumes no responsibility should project realities differ from these preliminary cost estimates.
2	Cost estimates have been prepared in good faith based on Cardno's experience and industry references such as Rawlinsons.
3	All costs are exclusive of GST.
4	No allowance has been made for the acquisition of land.
5	No allowance has been made for Council or authority fees unless noted otherwise.
6	No allowance has been made for unsound material or remediation of site contamination.
7	Pipe sizes based on preliminary basin volume calculation.
8	All earthworks associated in the construction of basins is assumed cut to fill on site.
9	No allowance has been made for bulking factors applied to earthworks volumes.
10	Cut and fill assumed to be a zero balance across the precinct.
11	Quantities area adopted from concept master planning design.
12	Bridge and major culverts works are excluded from this estimate.
13	No 3d modelling was undertaken to confirm quantities.
14	GPT sizes used in this cost estimate are indicative only and are subject to detailed design.
15	No allowance has been made for retaining walls.
16	No allowance has been made for escalation of costs due to long term staging of the works.
17	MUSIC and xpRafts have been used for preliminary modelling of media filtration and earthworks volumes required for OSD basins.
18	A contingency allowance of 40% has been adopted given the preliminary nature of the cost estimates. This contingency allows for construction cost items not allowed for above, including retaining walls, additional bulk earthworks, latent conditions, upsizing of GPTs and pipework, excavation in rock, etc.

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Package Summary

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Summary				
Item No.	Description of Work	Cardno Estimate		
1	Basin 1	\$ 2,100,000		
2	Basin 2	\$ 895,000		
3	Basin 3	\$ 2,520,000		
4	Basin 4	\$ 840,000		
5	Basin 5	\$ 1,680,000		
6	Basin 6 Upper	\$ 1,500,000		
7	Basin 6 Lower	\$ 2,200,000		
8	Basin 7	\$ 895,000		
9	Basin 8	\$ 825,000		
10	Riparian Zone 1	\$ 1,953,000		
11	Riparian Zone 2	\$ 4,620,000		
Budget Cost Estimate (incl. Contingency)		\$ 20,028,000		

Basin 1

Revision: B
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Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 68,000.00	\$ 68,000
1.1.2	Clearing	10150	sq.m	\$ 0.50	\$ 5,075
1.1.3	Strip & stockpile topsoil	10150	sq.m	\$ 3.00	\$ 30,450
1.1.4	Respread topsoil	7370	sq.m	\$ 5.00	\$ 36,850
1.2	Earthworks				
1.2.1	Cut to fill on site within site	6600	cu.m	\$ 6.00	\$ 39,600
1.2.6	Trim and compact	10150	sq.m	\$ 2.00	\$ 20,300
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	7000	sq.m	\$ 20.00	\$ 140,000
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	350	sq.m	\$ 45.00	\$ 15,750
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3				Basin Subtotal	\$ 399,000
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	130	sq.m	\$ 80.00	\$ 10,400
2.1				Structures Subtotal	\$ 10,400
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	600 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 500.00	\$ 5,000
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	50	sq.m	\$ 450.00	\$ 22,500
3.1.4	Discharge Pit	1	item	\$ 2,500.00	\$ 2,500
3.2	WSUD				
3.2.1	CDS P1015 GPT and Associated Drainage Infrastructure	1	item	\$ 115,000.00	\$ 115,000
3.3	Bio-Retention Raingarden				
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	2600	sq.m	\$ 210.00	\$ 546,000
3.3.2	Raingarden Planting	2600	sq.m	\$ 80.00	\$ 208,000
3.3				Stormwater Drainage Subtotal	\$ 917,300
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 200,000	\$ 200,000
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 3,855	\$ 3,855
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000	\$ 10,000
4.1				Administration and Management Costs Subtotal	\$ 223,855
				Basin 1 Subtotal	\$ 1,500,000
				Contingency (40%)	\$ 600,000
				Basin 1 Total	\$ 2,100,000

Basin 2

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 27,000.00	\$ 27,000
1.1.2	Clearing	2700	sq.m	\$ 0.50	\$ 1,350
1.1.3	Strip & stockpile topsoil	2700	sq.m	\$ 3.00	\$ 8,100
1.1.4	Respread topsoil	1700	sq.m	\$ 5.00	\$ 8,500
1.2	Earthworks				
1.2.1	Cut to fill on site within site	3670	cu.m	\$ 6.00	\$ 22,020
1.2.6	Trim and compact	2700	sq.m	\$ 2.00	\$ 5,400
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	1600	sq.m	\$ 20.00	\$ 32,000
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	150	sq.m	\$ 45.00	\$ 6,750
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3	Basin Subtotal				\$ 156,100
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	150	sq.m	\$ 80.00	\$ 12,000
2.1	Structures Subtotal				\$ 12,000
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	525 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 500.00	\$ 5,000
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	50	sq.m	\$ 450.00	\$ 22,500
3.1.4	Discharge Pit	1	item	\$ 2,500.00	\$ 2,500
3.2	WSUD				
3.2.1	CDS P1012 GPT and Associated Drainage Infrastructure	1	item	\$ 95,000.00	\$ 95,000
3.3	Bio-Retention Raingarden				
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	800	sq.m	\$ 210.00	\$ 168,000
3.3.2	Raingarden Planting	800	sq.m	\$ 80.00	\$ 64,000
3.3	Stormwater Drainage Subtotal				\$ 369,300
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 80,600.00	\$ 80,600
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 6,000.00	\$ 6,000
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1	Administration and Management Costs Subtotal				\$ 106,600

Basin 2 Subtotal	\$ 640,000
Contingency (40%)	\$ 256,000
Basin 2 Total	\$ 896,000

Basin 3

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 77,000.00	\$ 77,000
1.1.2	Clearing	9600	sq.m	\$ 0.50	\$ 4,800
1.1.3	Strip & stockpile topsoil	9600	sq.m	\$ 3.00	\$ 28,800
1.1.4	Respread topsoil	6280	sq.m	\$ 5.00	\$ 31,400
1.2	Earthworks				
1.2.1	Cut to fill on site within site	10000	cu.m	\$ 6.00	\$ 60,000
1.2.6	Trim and compact	9600	sq.m	\$ 2.00	\$ 19,200
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	6100	sq.m	\$ 20.00	\$ 122,000
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	180	sq.m	\$ 45.00	\$ 8,100
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3				Basin Subtotal	\$ 396,300
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	120	sq.m	\$ 80.00	\$ 9,600
2.1				Structures Subtotal	\$ 9,600
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	375 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 265.00	\$ 2,650
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	500	sq.m	\$ 450.00	\$ 225,000
3.1.4	Discharge Pit	1	item	\$ 2,500.00	\$ 2,500
3.2	WSUD				
3.2.1	CDS P1015 GPT and Associated Drainage Infrastructure	1	item	\$ 113,400.00	\$ 113,400
3.3	Bio-Retention Raingarden				
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	2700	sq.m	\$ 210.00	\$ 567,000
3.3.2	Raingarden Planting	2700	sq.m	\$ 80.00	\$ 216,000
3.3				Stormwater Drainage Subtotal	\$ 1,138,650
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 230,000.00	\$ 230,000
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 8,500.00	\$ 8,500
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1				Administration and Management Costs Subtotal	\$ 256,500

Basin 3 Subtotal	\$ 1,800,000
Contingency (40%)	\$ 720,000
Basin 3 Total	\$ 2,520,000

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Attachment 6

Basin 4

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 23,000.00	\$ 23,000
1.1.2	Clearing	4000	sq.m	\$ 5.00	\$ 20,000
1.1.3	Strip & stockpile topsoil	4000	sq.m	\$ 3.00	\$ 12,000
1.1.4	Respread topsoil	3870	sq.m	\$ 5.00	\$ 19,350
1.2	Earthworks				
1.2.1	Cut to fill on site within Basin 1	1650	cu.m	\$ 6.00	\$ 9,900
1.2.2	Cut, stockpile, transfer and compact within Precinct	0	cu.m	\$ 15.00	\$ -
1.2.3	Cut and dispose offsite (incl. disposal fees)	0	cu.m	\$ 130.00	\$ -
1.2.4	Import material from within Precinct	0	cu.m	\$ 13.00	\$ -
1.2.5	Import material from offsite	0	cu.m	\$ 25.00	\$ -
1.2.6	Trim and compact	4000	sq.m	\$ 2.00	\$ 8,000
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	3800	sq.m	\$ 20.00	\$ 76,000
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	100	sq.m	\$ 45.00	\$ 4,500
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3				Basin Subtotal	\$ 217,750
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	80	sq.m	\$ 80.00	\$ 6,400
2.1				Structures Subtotal	\$ 6,400
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	375 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 265.00	\$ 2,650
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	50	sq.m	\$ 440.00	\$ 22,000
3.1.4	Discharge Pit	1	item	\$ 2,500.00	\$ 2,500
3.2	WSUD				
3.2.1	CDS P1009 GPT and Associated Drainage Infrastructure	1	item	\$ 79,200.00	\$ 79,200
3.3	Bio-Retention Raingarden				
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	500	sq.m	\$ 210.00	\$ 105,000
3.3.2	Raingarden Planting	500	sq.m	\$ 80.00	\$ 40,000
3.2				Stormwater Drainage Subtotal	\$ 263,850
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 73,200.00	\$ 73,200
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 16,650.00	\$ 16,650
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1				Administration and Management Costs Subtotal	\$ 109,850
				Basin 4 Subtotal	\$ 600,000
				Contingency (40%)	\$ 240,000
				Basin 4 Total	\$ 840,000

Basin 5

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 48,000.00	\$ 48,000
1.1.2	Clearing	6900	sq.m	\$ 0.50	\$ 3,450
1.1.3	Strip & stockpile topsoil	6900	sq.m	\$ 3.00	\$ 20,700
1.1.4	Respread topsoil	5000	sq.m	\$ 5.00	\$ 25,000
1.2	Earthworks				
1.2.1	Cut to fill on site within site	6900	cu.m	\$ 5.00	\$ 34,500
1.2.2	Cut, stockpile, transfer and compact within Precinct	0	cu.m	\$ 15.00	\$ -
1.2.3	Cut and dispose offsite (incl. disposal fees)	0	cu.m	\$ 130.00	\$ -
1.2.4	Import material from within Precinct	0	cu.m	\$ 13.00	\$ -
1.2.5	Import material from offsite	0	cu.m	\$ 25.00	\$ -
1.2.6	Trim and compact	6900	sq.m	\$ 2.00	\$ 13,800
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	4695	sq.m	\$ 20.00	\$ 93,900
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	315	sq.m	\$ 45.00	\$ 14,175
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3				Basin Subtotal	\$ 296,525
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	105	sq.m	\$ 80.00	\$ 8,400
2.1				Structures Subtotal	\$ 8,400
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	600 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 500.00	\$ 5,000
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	135	sq.m	\$ 440.00	\$ 59,400
3.2	WSUD				
3.2.1	CDS P1015 GPT and Associated Drainage Infrastructure	1	item	\$ 113,400.00	\$ 113,400
3.3	Bio-Retention Raingarden				
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	1650	sq.m	\$ 210.00	\$ 346,500
3.3.2	Raingarden Planting	1650	sq.m	\$ 80.00	\$ 132,000
3.3				Stormwater Drainage Subtotal	\$ 688,600
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 150,000.00	\$ 150,000
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 15,200.00	\$ 15,200
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1				Administration and Management Costs Subtotal	\$ 185,200

Basin 5 Subtotal	\$ 1,200,000
Contingency (40%)	\$ 480,000
Basin 5 Total	\$ 1,680,000

Basin 6 Upper

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 42,000.00	\$ 42,000
1.1.2	Clearing	18800	item	\$ 0.50	\$ 9,400
1.1.3	Strip & stockpile topsoil	18800	sq.m	\$ 3.00	\$ 56,400
1.1.4	Respread topsoil	18800	sq.m	\$ 5.00	\$ 93,000
1.2	Earthworks				
1.2.1	Cut to fill on site within site	8900	cu.m	\$ 6.00	\$ 53,400
1.2.2	Cut, stockpile, transfer and compact within Precinct	0	cu.m	\$ 15.00	\$ -
1.2.3	Cut and dispose offsite (incl. disposal fees)	0	cu.m	\$ 130.00	\$ -
1.2.4	Import material from within Precinct	0	cu.m	\$ 13.00	\$ -
1.2.5	Import material from offsite	0	cu.m	\$ 25.00	\$ -
1.2.6	Trim and compact	18800	sq.m	\$ 2.00	\$ 37,600
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	18300	sq.m	\$ 20.00	\$ 366,000
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	300	sq.m	\$ 45.00	\$ 13,500
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3				Basin Subtotal	\$ 716,300
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	130	sq.m	\$ 80.00	\$ 10,400
2.1				Structures Subtotal	\$ 10,400
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	600 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 500.00	\$ 5,000
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	50	sq.m	\$ 450.00	\$ 22,500
3.2	WSUD				
3.2.1	CD6 P1015 GPT and Associated Drainage Infrastructure	1	item	\$ 115,000.00	\$ 115,000
3.2				Stormwater Drainage Subtotal	\$ 154,800
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 130,000.00	\$ 130,000
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 15,800.00	\$ 15,800
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1				Administration and Management Costs Subtotal	\$ 165,800
				Basin 6 Upper Subtotal	\$ 1,050,000
				Contingency (40%)	\$ 420,000
				Basin 6 Upper Total	\$ 1,500,000

Basin 6 Lower

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 64,000.00	\$ 64,000
1.1.2	Clearing	14000	sq.m	\$ 0.50	\$ 7,000
1.1.3	Strip & stockpile topsoil	14000	sq.m	\$ 3.00	\$ 42,000
1.1.4	Respread topsoil	13700	sq.m	\$ 5.00	\$ 68,500
1.2	Earthworks				
1.2.1	Cut to fill on site within site	8900	cu.m	\$ 8.00	\$ 41,400
1.2.2	Cut, stockpile, transfer and compact within Precinct	0	cu.m	\$ 15.00	\$ -
1.2.3	Cut and dispose offsite (incl. disposal fees)	0	cu.m	\$ 130.00	\$ -
1.2.4	Import material from within Precinct	0	cu.m	\$ 13.00	\$ -
1.2.5	Import material from offsite	0	cu.m	\$ 25.00	\$ -
1.2.6	Trim and compact	14000	sq.m	\$ 2.00	\$ 28,000
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	11000	sq.m	\$ 20.00	\$ 220,000
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	230	sq.m	\$ 45.00	\$ 10,350
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3				Basin Subtotal	\$ 526,250
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	95	sq.m	\$ 80.00	\$ 7,600
2.1				Structures Subtotal	\$ 7,600
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	600 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 50.00	\$ 500
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	175	sq.m	\$ 450.00	\$ 78,750
3.2	WSUD				
3.2.1	CDS P1015 GPT and Associated Drainage Infrastructure	1	item	\$ 115,000.00	\$ 115,000
3.3	Bio-Retention Raingarden WQ3				
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	1050	item	\$ 210.00	\$ 220,500
3.3.2	Raingarden Planting	1050	item	\$ 80.00	\$ 84,000
3.4	Bio-Retention Raingarden WQ4				
3.4.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	1000	sq.m	\$ 210.00	\$ 210,000
3.4.2	Raingarden Planting	1000	sq.m	\$ 80.00	\$ 80,000
3.4				Stormwater Drainage Subtotal	\$ 801,050
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 200,000.00	\$ 200,000
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 15,800.00	\$ 15,800
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1				Administration and Management Costs Subtotal	\$ 235,800

Basin 6 Lower Subtotal	\$ 1,570,000
Contingency (40%)	\$ 630,000
Basin 6 Lower Total	\$ 2,200,000

Basin 7

ORD01

Attachment 6

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1 Basin					
1.1 Preliminaries					
1.1.1	Establishment (5%)	1	item	\$ 25,000.00	\$ 25,000
1.1.2	Clearing	9350	sq.m	\$ 0.50	\$ 4,675
1.1.3	Strip & stockpile topsoil	9350	sq.m	\$ 3.00	\$ 28,050
1.1.4	Respread topsoil	9040	sq.m	\$ 5.00	\$ 45,200
1.2 Earthworks					
1.2.1	Cut to fill on site within site	6760	cu.m	\$ 6.00	\$ 40,560
1.2.2	Cut, stockpile, transfer and compact within Precinct	0	cu.m	\$ 15.00	\$ -
1.2.3	Cut and dispose offsite (incl. disposal fees)	0	cu.m	\$ 130.00	\$ -
1.2.4	Import material from within Precinct	0	cu.m	\$ 13.00	\$ -
1.2.5	Import material from offsite	0	cu.m	\$ 25.00	\$ -
1.2.6	Trim and compact	9350	sq.m	\$ 2.00	\$ 18,700
1.3 Additional Items					
1.3.1	Planting (incl maintenance for 2 years)	5810	sq.m	\$ 20.00	\$ 116,200
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	780	sq.m	\$ 45.00	\$ 35,100
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3 Basin Subtotal					\$ 356,495
2 Structures					
2.1 Paths and Pavements					
2.1.1	Maintenance Access Pavement	260	sq.m	\$ 80.00	\$ 20,800
2.1 Structures Subtotal					\$ 20,800
3 Stormwater Drainage					
3.1 Inlets/Outlets					
3.1.1	750 dia (RRJ) Outlet *(incl. exc, lay & backfill)	5	m	\$ 650.00	\$ 3,250
3.1.2	Main basin outlet structure	1	item	\$ 12,300.00	\$ 12,300
3.1.3	Scour protection at outlet	50	sq.m	\$ 450.00	\$ 22,500
3.1.4	Discharge Pit	1	item	\$ 2,500.00	\$ 2,500
3.2 WSUD					
3.2.1	CDS P1015 GPT and Associated Drainage Infrastructure	1	item	\$ 115,000.00	\$ 115,000
3.3 Bio-Retention Raingarden WQ1					
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	2000	sq.m	\$ 210.00	\$ 420,000
3.3.2	Raingarden Planting	2000	sq.m	\$ 80.00	\$ 160,000
3.4 Bio-Retention Raingarden WQ2					
3.4.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	450	sq.m	\$ 210.00	\$ 94,500
3.4.2	Raingarden Planting	450	sq.m	\$ 80.00	\$ 36,000
3.4 Stormwater Drainage Subtotal					\$ 155,550
4 Administration and Management Costs					
4.1 General					
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 80,000.00	\$ 80,000
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 4,000.00	\$ 4,000
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1 Administration and Management Costs Subtotal					\$ 104,000

Basin 7 Subtotal	\$ 640,000
Contingency (40%)	\$ 255,000
Basin 7 Total	\$ 895,000

Basin 8

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Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Basin				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 23,200.00	\$ 23,200
1.1.2	Clearing	2750	sq.m	\$ 0.50	\$ 1,375
1.1.3	Strip & stockpile topsoil	2750	sq.m	\$ 3.00	\$ 8,250
1.1.4	Respread topsoil	1890	sq.m	\$ 5.00	\$ 9,450
1.2	Earthworks				
1.2.1	Cut to fill on site within site	3120	cu.m	\$ 6.00	\$ 18,720
1.2.2	Cut, stockpile, transfer and compact within Precinct	0	cu.m	\$ 15.00	\$ -
1.2.3	Cut and dispose offsite (incl. disposal fees)	0	cu.m	\$ 130.00	\$ -
1.2.4	Import material from within Precinct	0	cu.m	\$ 13.00	\$ -
1.2.5	Import material from offsite	0	cu.m	\$ 25.00	\$ -
1.2.6	Trim and compact	2750	sq.m	\$ 2.00	\$ 5,500
1.3	Additional Items				
1.3.1	Planting (incl maintenance for 2 years)	1110	sq.m	\$ 20.00	\$ 22,200
1.3.2	Reinforced turf on weir and spillway (incl 2 yr maint)	780	sq.m	\$ 45.00	\$ 35,100
1.3.3	Soil & water management (Allowance Only)	1	item	\$ 45,000.00	\$ 45,000
1.3	Basin Subtotal				\$ 168,795
2	Structures				
2.1	Paths and Pavements				
2.1.1	Maintenance Access Pavement	80	sq.m	\$ 80.00	\$ 6,400
2.1	Structures Subtotal				\$ 6,400
3	Stormwater Drainage				
3.1	Inlets/Outlets				
3.1.1	375 dia (RRJ) Outlet *(incl. exc, lay & backfill)	10	m	\$ 265.00	\$ 2,650
3.1.2	Main basin outlet structure	1	item	\$ 6,150.00	\$ 6,150
3.1.3	Scour protection at outlet	30	sq.m	\$ 450.00	\$ 13,500
3.1.4	Discharge Pit	1	item	\$ 2,500.00	\$ 2,500
3.2	WSUD				
3.2.1	CDS P0908 GPT and Associated Drainage Infrastructure	1	item	\$ 70,000.00	\$ 70,000
3.3	Bio-Retention Raingarden A				
3.3.1	Media bed constructions (inc. earthworks filter bed and subsoil drainage)	750	sq.m	\$ 210.00	\$ 157,500
3.3.2	Raingarden Planting	750	sq.m	\$ 80.00	\$ 60,000
3.3	Stormwater Drainage Subtotal				\$ 312,300
4	Administration and Management Costs				
4.1	General				
4.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 75,000.00	\$ 75,000
4.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
4.1.3	Council DA fees and planFIRST Levy	1	item	\$ 6,800.00	\$ 6,800
4.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
4.1	Administration and Management Costs Subtotal				\$ 101,800

Basin 8 Subtotal	\$	590,000
Contingency (40%)	\$	235,000
Basin 8 Total	\$	825,000

Riparian Zone 1

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Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Riparian Zone				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 60,000.00	\$ 60,000
1.1.2	Clearing	11500	sq.m	\$ 0.50	\$ 5,750
1.1.3	Strip & stockpile topsoil	11500	sq.m	\$ 3.00	\$ 34,500
1.1.4	Respread topsoil	11500	sq.m	\$ 5.00	\$ 57,500
1.2	Riparian Zone				
1.2.1	Riparian	11500	sq.m	\$ 15.00	\$ 172,500
1.2.2	Riparian Management (5 years)	11500	sq.m	\$ 25.00	\$ 287,500
1.2.3	Vegetation Rehabilitation	11500	sq.m	\$ 50.00	\$ 575,000
1.2	Riparian Zone Subtotal				\$ 1,192,750
2	Administration and Management Costs				
2.1	General				
2.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 180,000.00	\$ 180,000
2.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
2.1.3	Council DA fees and planFIRST Levy	1	item	\$ 2,300.00	\$ 2,300
2.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
2.1	Administration and Management Costs Subtotal				\$ 202,300

Riparian Zone 1 Subtotal	\$ 1,395,000
Contingency (40%)	\$ 558,000
Riparian Zone 1 Total	\$ 1,953,000

Riparian Zone 2

Page 17 of 17

Revision: B
 Completed: Matthew Lester
 Checked: Chris Wild

Item No.	Description of Work	Quantity	Unit	Unit Cost	Budget Estimate
1	Riparian Zone				
1.1	Preliminaries				
1.1.1	Establishment (5%)	1	item	\$ 140,000.00	\$ 140,000
1.1.2	Clearing	27500	sq.m	\$ 0.50	\$ 13,750
1.1.3	Strip & stockpile topsoil	27500	sq.m	\$ 3.00	\$ 82,500
1.1.4	Respread topsoil	27500	sq.m	\$ 5.00	\$ 137,500
1.2	Riparian Zone				
1.2.1	Riparian	27500	sq.m	\$ 15.00	\$ 412,500
1.2.2	Riparian Management (5 years)	27500	sq.m	\$ 25.00	\$ 687,500
1.2.3	Vegetation Rehabilitation	27500	sq.m	\$ 50.00	\$ 1,375,000
1.2	Riparian Zone Subtotal				\$ 2,849,750
2	Administration and Management Costs				
2.1	General				
2.1.1	Consultancy and Project Management Fees (15%)	1	item	\$ 425,000.00	\$ 425,000
2.1.2	Government Agency Approvals (DSC, RMS, DECCW etc)	1	item	\$ 10,000.00	\$ 10,000
2.1.3	Council DA fees and planFIRST Levy	1	item	\$ 2,500.00	\$ 2,500
2.1.4	PCA Fees (allowance only)	1	item	\$ 10,000.00	\$ 10,000
2.1	Administration and Management Costs Subtotal				\$ 447,500

Riparian Zone 2 Subtotal	\$ 3,300,000
Contingency (40%)	\$ 1,320,000
Riparian Zone 2 Total	\$ 4,620,000

ORD01

Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Execution

Executed as a Deed

Dated:

Executed on behalf of the Council

General Manager

Witness

Mayor

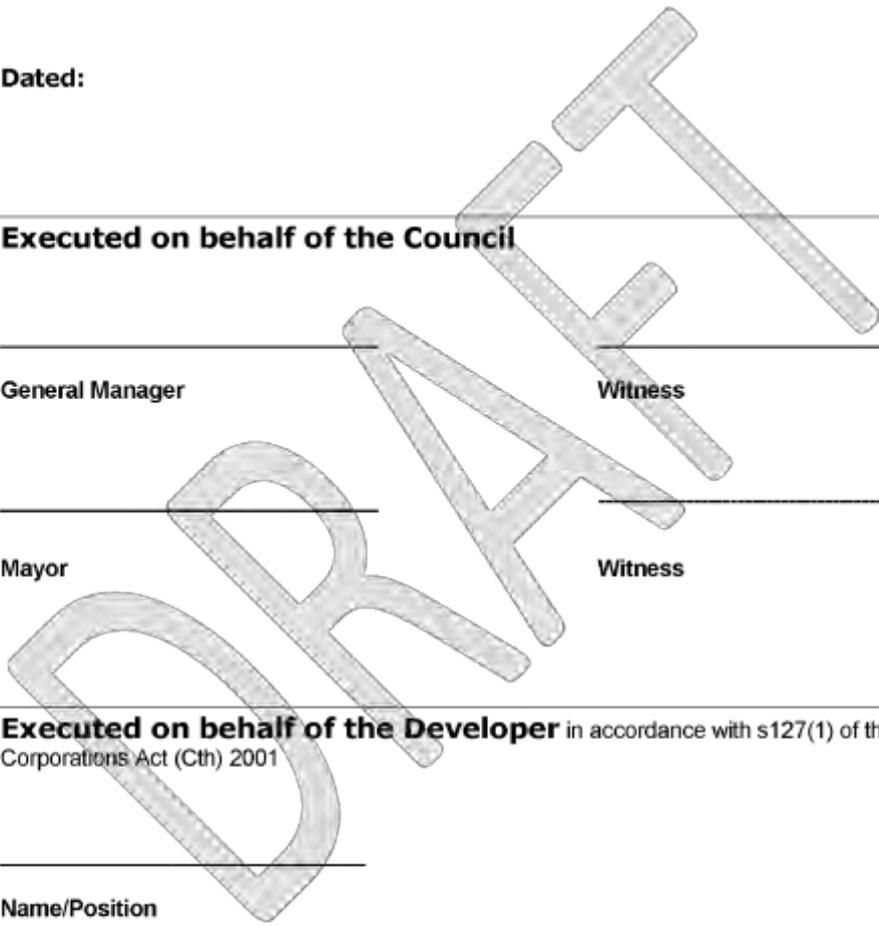
Witness

Executed on behalf of the Developer in accordance with s127(1) of the
Corporations Act (Cth) 2001

Name/Position

Name/Position

Attachment 6



Emerald Hills Planning Agreement

Camden Council

**Hazcorp Developments Pty Ltd and Taurus Development Company Pty Ltd
(trading as Emerald Hills Estate)**

D&AI Pty Ltd

Appendix

(Clause 54)

Environmental Planning and Assessment Regulation 2000

(Clause 25E)

Explanatory Note

(see following pages)

DRAFT

ORD01

Emerald Hills Planning Agreement

Explanatory Note

Attachment 6

Prepared by:

**Camden Council
Emerald Hills Estate
D&AI Pty Ltd**

Emerald Hills Planning Agreement Explanatory Note**Contents**

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Emerald Hills Planning Agreement Explanatory Note

ORD01

Attachment 6

Executive summary

Emerald Hills Estate (EHE) is developing the Emerald Hills site.

When completed, Emerald Hills will be home to approximately 4100 people, and include 1280 dwellings, a local shopping centre and community and recreation facilities.

EHE, the owner of the land (D&AI Pty Ltd) and Camden Council (Council) propose to enter into a planning agreement under section 93F of the Environmental Planning and Assessment Act 1979 (EP&A Act) to facilitate the provision of local infrastructure to meet the Emerald Hills development.

In summary, the proposed planning agreement requires the developer and land owner to:

- dedicate land to the Council and construct works and facilities required to serve the future residents of Emerald Hills;
- make 'settle-up' and 'project management' monetary contributions to the Council that can then be used by the Council to deliver other district and regional infrastructure included in Draft Camden Section 94 Contributions Plan 2012 (Leppington North Precinct);
- embellish and dedicate to the Council over 7.6 hectares of land within riparian corridors in accordance with Council's Dedication of Riparian Corridors Policy; and
- embellish and dedicate to the Council 4.1 hectares of land within high voltage electricity easements in accordance with Council's Dedication of Land Burdened by Transmission Easements Policy.

There are considered to be many public benefits that would accrue as a result of the proposed planning agreement, some of which include:

- utilisation of the developers' expertise in infrastructure provision;
- timely completion of infrastructure items through the developer delivering the infrastructure at the same time as land is subdivided and developed;
- shifting the infrastructure project risk from Council to the land developer;
- allowing the Council to concentrate its planning effort on other parts of the LGA that will need a more proactive approach to infrastructure provision;
- streamlining contributions arrangements and minimising the resources required by Council to manage development contributions over the life of the development; and
- clarity for the Council and the community on the future development and management of substantial sections of riparian corridors and electricity transmission easements located within the Emerald Hills development.

There are not considered to be any negative impacts of the proposed planning agreement.

Emerald Hills Planning Agreement Explanatory Note

1. Introduction

D&AI Pty Ltd owns the Emerald Hills site. Emerald Hills Estate is the developer of the Emerald Hills development.

The Emerald Hills development is bound by Camden Valley Way, Raby Road, St Andrews Road and the Sydney Upper Canal. To the north of the site is the East Leppington Growth Centre Precinct, and to the south of the site is the Camden Lakeside development. Both of these sites have been rezoned to facilitate urban development. To the west of the site are the Leppington and Catherine Field North Growth Centre Precincts which have not yet been rezoned.

The Emerald Hills development will ultimately accommodate around 4100 residents and 1280 dwellings.

There is a significant amount of local infrastructure that is required to be provided to meet the demands of the urban development expected in the Emerald Hills development. Emerald Hills Estate, D&AI Pty Ltd and Council propose to enter into a planning agreement under section 93F of the EP&A Act to provide public purposes.

The proposed planning agreement will be the mechanism for Emerald Hills Estate to provide all of the onsite infrastructure, works and facilities required by the Emerald Hills development. In addition, Emerald Hills Estate will make monetary contributions towards off-site infrastructure under the Draft Camden Section 94 Contributions Plan 2012 (Leppington North Precinct). The proposed agreement will also establish how riparian corridors and transmission easements on Emerald Hills site will be managed.

This document (the **Explanatory Note**) has been prepared to assist in the public's understanding of the proposed agreement and its impacts, and has been prepared to meet the requirements of Environmental Planning and Assessment Regulation 2000 (**EP&A Regulation**).

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2. Objectives of the planning agreement

(This matter is required under clause 25E(1)(a) of the EP&A Regulation to be addressed in the Explanatory Note)

The objectives of the proposed planning agreement are as follows:

- To deliver the local infrastructure required as a result of the urbanisation of the Emerald Hills site.
- To ensure that local infrastructure is delivered in a timely manner, harmonising the delivery of public assets with the delivery of subdivided lots for sale.
- To maximise provision efficiencies by supporting the delivery of local infrastructure by the developer at or around the same time as land is subdivided and developed.
- To minimise the potential exposure to Council of infrastructure cost overruns which may have occurred if Council was required to provide infrastructure under a section 94 contributions plan, and to remove the need for piecemeal and incremental calculation of section 94 contributions with every affected development application involving the Emerald Hills site if a section 94 contributions plan was adopted.
- To lock-in the infrastructure program for the entire Emerald Hills development, thereby allowing the Council to concentrate its planning effort on those parts of the Camden LGA that will need a more proactive approach to infrastructure provision (i.e. smaller landholdings and fragmented ownership areas).
- To provide clarity on the future development and management of the riparian corridors and electricity transmission easements located within the Emerald Hills site.

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3. Nature and effect of the planning agreement

(This matter is required under clause 25E(1)(a) of the EP&A Regulation to be addressed in the Explanatory Note)

3.1 Summary

The proposed agreement imposes the following obligations on Emerald Hills and D&AI Pty Ptd:

- Dedicate land and undertake all of the works required to facilitate the urbanisation of the Emerald Hills site.
- Make a cash contribution to the Council in accordance with the rates identified for district and regional facilities under the Draft Camden Section 94 Contributions Plan 2012 (Leppington North Precinct).
- Make a cash contribution to the Council for the purposes of planning agreement implementation. The contribution amount will be 1% of the total monetary value of the open space and recreation, community and transport management facilities to be provided under this agreement.
- Restore and / or embellish riparian corridor and transmission easement land situated within the Emerald Hills site, and dedicate that land to the Council.

3.2 Land and works contributions

Type of provision	Details
Open space and recreation (land and works)	<ul style="list-style-type: none"> • One double playing field • Three children's playgrounds • Embellished passive open space • Two dog off leash areas • A total active and passive open space provision of 14.1 hectares,
Community facilities (land and works)	One combined community and amenities building of 360m ² adjacent to the double playing field
Transport management facilities	<ul style="list-style-type: none"> • 3,677 linear metres of shared cycleway along riparian corridors • 4 bus shelters
Water cycle management facilities	A total of 11.6 hectares of land accommodating a network of detention and bio retention facilities that serve the entire development.
Embellished riparian corridor land (land and works)	A total of 7.5 hectares of riparian corridor land embellished and gradually handed over to Council in accordance with its requirements.
Embellished transmission easement land (land and works)	A total of 4.1 hectares of electricity transmission easement land embellished and gradually handed over to Council in accordance with its requirements.

Maps showing the extent and staging of proposed land and works are shown in Schedule 1 of the proposed planning agreement.

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Details regarding the staging of these contributions are included in Schedule 3 to the proposed planning agreement.

3.3 Monetary contributions

The proposed planning agreement is to be the sole development contributions mechanism for the Emerald Hills site, whereby the developer will undertake all of the works and dedicate all of the land necessary to facilitate the urbanisation of the Emerald Hills site. A section 94 contributions plan which is specific to Emerald Hills will not be adopted in relation to this development.

However, the Draft Camden Section 94 Contributions Plan 2012 (Leppington North Precinct) identifies district and regional facilities which will service the Emerald Hills development.

In addition, it is a policy of Camden Council to require the payment of a 'project management' cash contribution which is the equivalent of 1% of the total value of all works relating to the development.

Accordingly, Emerald Hills Estate and DA&I Pty Ltd are offering to make cash contributions as shown in Items 31 and 32 of Schedule 3 to the agreement, and may be summarized as follows:

- A total 'settle-up' amount of \$85.91 per lot which is 300m² or greater in area, or \$65.69 per lot which is 299m² or lesser in area. These contributions have been determined by multiplying the 'per lot' rate for district and regional facilities in the Draft Camden Section 94 Contributions Plan 2012 (Leppington North Precinct) by 1280 (which is the approximate number of lots to be developed at Emerald Hills).
- A total 'project management' amount of \$307,586 which is 1% of the value of all works to be undertaken by Emerald Hills Estate and provided to the Council.

These amounts have been indexed to CPI as of June 2013.

Both settle-up and project management cash contributions will be used by the Council to deliver the off-site infrastructure envisaged by the Draft Camden Section 94 Contributions Plan 2012 (Leppington North Precinct) and to administer the planning agreement.

Details regarding the staging of the payment of these amounts are included in Schedule 1 to the agreement.

3.4 Inclusion of riparian corridors and lands burdened by transmission easements

In addition to the infrastructure required by the Emerald Hills development, the proposed planning agreement is to include the rehabilitation, embellishment and hand over of land within riparian corridors and areas burdened by transmission easements.

Council has adopted policies that require the merits of transferring these types of land to be assessed against a range of criteria, before it considers whether to accept responsibility for such lands.

An analysis of the developers' offer of riparian corridor land against Council's Dedication of Riparian Corridors Policy is included as Attachment A to this Explanatory Note.

An analysis of the developers' offer of transmission easement land against Council's Dedication of Land burdened by Transmission Easements Policy is included as Attachment B to this Explanatory Note.

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These analyses show how these lands integrate with the wider planning objectives for the Emerald Hills site. The riparian corridor and transmission easements lands will support achievement of the Emerald Hills development's:

- environmental conservation objectives;
- visual amenity objectives;
- passive recreation and pedestrian and cycle access; and
- water cycle management planning objectives.

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4. Merits of the planning agreement

(This matter is required under clause 25E(1)(b) of the EP&A Regulation to be addressed in the Explanatory Note)

The merits of the proposed planning agreement are evident in:

- its promotion of the public interest (Part 4.1 of the Explanatory Note);
- its promotion of the Council's charter (Part 4.2);
- its delivery of planning purposes (Part 4.3);
- its delivery of Council's works program (Part 4.4); and
- its provisions require developer commitments to be provided prior to the issue of certificates (Part 4.5).

4.1 Promotion of the public interest

(This matter is required under clause 25E(2)(a) of the EP&A Regulation to be addressed in the Explanatory Note)

The public benefits to be secured by this planning agreement will flow from the achievement of the planning agreements' objectives (refer to Part 2 of the Explanatory Note).

Significant efficiencies will be achieved through the agreement by allowing Emerald Hills Estate and D&AI Pty Ltd both:

- greater involvement in the timing and scope of the Contributions Plan infrastructure items that affect their development; and
- the ability to coordinate the concurrent roll-out of urban lots and local infrastructure.

The expected efficiencies, together with anticipated public benefits of the proposed agreement, are described below:

- The agreement relieves Council of the project risk associated with the provision of local infrastructure on the Emerald Hills site. Any cost overruns, rather than being met by the Council, would be met by Emerald Hills Estate.
- The agreement is likely to result in, over the development life, a significant reduction in the resources required by the parties to calculate and administer development contributions associated with the development.
- The agreement allows the Council to concentrate its planning effort on those parts of the Precinct that will need a proactive approach to infrastructure provision. By entering into the agreement Council is relieved of the obligation of delivering infrastructure in Emerald Hills (which is more ably delivered by the developers) and can instead focus on providing infrastructure in locations where it is less likely that developers would directly provide that infrastructure.
- The Emerald Hills riparian corridor land comprises significant environmental value and is also integral to the achievement of the development's pedestrian and cycle access and water cycle management planning objectives. Appropriate arrangements for the sustainable ongoing management of the riparian corridors are therefore in the interests of the wider community. The planning agreement addresses these matters. A specific analysis of the merits of the proposed dedication of riparian land (as well as electricity easement land) to the Council is included in the Attachments A and B to this Explanatory Note.

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There are various provisions in the proposed planning agreement relating to the implementation of the agreement that protect and uphold the public interest. These include the following:

- Under clause 9.4 of the agreement the Council has discretion in the way it may apply contributions it receives under the agreement.
- Provisions (including clauses 19 and 21) requiring the developer to repair and make good works or rectify defects in works provided under the agreement.
- Under clause 36 of the agreement Emerald Hills Estate is required to prepare, at least annually, a report detailing the performance of its obligations under this Agreement; and the Council is to keep a written register of the development contributions made by Emerald Hills Estate under the agreement.
- Various provisions relating to security including:
 - (i) Where the developer proposes a deferral of work (clause 15 of the agreement);
 - (ii) Provision of a security amount covering the outstanding contributions obligations under the agreement (clause 26); and
 - (iii) Compulsory acquisition of land by Council for a nominal amount in the event the land is not dedicated at the time required under the agreement (clause 27).

4.2 Promotion of the Council’s charter

(This matter is required under clause 25E(2)(d) of the EP&A Regulation to be addressed in the Explanatory Note)

A planning agreement should promote elements of the Council’s charter, which is established under section 8 of the Local Government Act 1993.

It is considered that the proposed planning agreement would further a number of elements of the charter, as shown below:

Element of the Council’s charter (section 8 of the Local Government Act 1993)	How does the agreement promote the element?
<p>To provide directly or on behalf of other levels of government, after due consultation, adequate, equitable and appropriate services and facilities for the community and to ensure that those services and facilities are managed efficiently and effectively.</p>	<p>This element is embedded in the purposes and objectives of the proposed planning agreement. That is:</p> <ul style="list-style-type: none"> • the proposed agreement will be the subject of community input prior to its consideration by the Council; • the services and facilities to be provided reflect the objectives of the Contributions Plan and the Council’s Dedication of Riparian Corridors and Dedication of Land burdened by Transmission Easements Policies; and • the proposed agreement includes arrangements for the staged handover of completed facilities following a developer sponsored maintenance period.
<p>To exercise community leadership.</p>	<p>The proposed agreement:</p> <ul style="list-style-type: none"> • Secures the means of providing local infrastructure to meet the needs of a major development in one of Camden’s key growth areas. • Taps into and applies the expertise offered by land developers towards providing substantial public benefits for the future Turner Road Precinct

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Element of the Council's charter (section 8 of the Local Government Act 1993)	How does the agreement promote the element?
To promote and to provide and plan for the needs of children.	<p>community.</p> <ul style="list-style-type: none"> • Together with other similar agreements that have been negotiated, establishes Camden Council as an innovative facilitator of greenfield urban development schemes.
To properly manage, develop, protect, restore, enhance and conserve the environment of the area for which it is responsible, in a manner that is consistent with and promotes the principles of ecologically sustainable development.	<p>The proposed agreement provides for the delivery of various facilities focused on the needs of children, including various sports facilities, a playgrounds and a play space, cycleways, natural areas for exploring, and a multi purpose facility.</p> <p>The development site's more significant natural areas include its extensive riparian corridors. It is considered the optimum long term management regime for most of the riparian corridor land will be achieved if the land is embellished and dedicated to Camden Council in accordance with its standards, specifications and policies.</p> <p>As a result, over 7.5 hectares of the development site's riparian corridor lands are proposed to become public assets under the proposed agreement.</p> <p>Response to ESD principles:</p> <ul style="list-style-type: none"> • The precautionary principle, inter generational equity; and conservation of biological diversity and ecological integrity: Proposed agreement supports natural areas being retained, protected and integrated into the development scheme. • Improved valuation, pricing and incentive mechanisms: Proposed agreement establishes a framework whereby infrastructure users are accountable for the provision of that infrastructure; allows earlier provision of the infrastructure (by the developer) than would be the case with 'business as usual'; and allows the most efficient means of delivering that infrastructure (i.e. by the developer).
To have regard to the long term and cumulative effects of its decisions.	<p>The development has a life of at least 10 years. The proposed agreement sets out a framework for the efficient delivery and sustainable ongoing management of a substantial amount of public infrastructure on the development site.</p> <p>The agreement would relieve Council of the project risk associated with the provision of local infrastructure on the development site and allows the Council to concentrate its planning effort on other parts of the Camden LGA that will need a proactive approach to infrastructure provision.</p>
To bear in mind that it is the custodian and trustee of public assets and to effectively plan for, account for and manage the assets for which it is responsible.	<p>The proposed agreement includes provisions placing asset maintenance obligations on the developers for a period after the works are completed.</p> <p>The proposed agreement also includes appropriate</p>

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Element of the Council's charter (section 8 of the Local Government Act 1993)	How does the agreement promote the element?
	asset handover and defects liability provisions.
To engage in long term strategic planning on behalf of the local community.	The proposed agreement spans at least a 10 year time frame, assuring the long term provision and management of public assets and infrastructure.
To exercise its functions in a manner that is consistent with and promotes social justice principles of equity, access, participation and rights.	The proposed agreement creates spaces and places for public interaction and provides facilities for the delivery of public services to the local community.
To raise funds for local purposes by the fair imposition of rates, charges and fees, by income earned from investments and, when appropriate, by borrowings and grants.	<p>The proposed agreement includes the payment of monetary contributions to the Council for its management of infrastructure projects and for the provision of other district level infrastructure in Leppington North not proposed to be delivered under this agreement.</p> <p>The monetary contribution amounts reflect the total value of the balance of the infrastructure needs that will not be provided directly by the developer.</p>

4.3 Planning purposes and the objects of the EP&A Act

(This matter is required under clause 25E(2)(a), (c) and (e) of the EP&A Regulation to be addressed in the Explanatory Note)

The planning purposes served by the planning agreement can best be addressed by reference to the objects of the EP&A Act.

It is considered that this planning agreement would further each of the following objectives of the EP&A Act:

Objective of the EP&A Act (section 5)	How does the agreement promote the objective?
To encourage the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment.	The proposed agreement provides a basis for the comprehensive management of the delivery of the local infrastructure requirements of the Emerald Hills development. The proposed agreement also establishes land use management arrangements for the site's riparian corridor lands and electricity easements lands.
To encourage the promotion and co ordination of the orderly and economic use and development of land.	Orderly development of land is encouraged by (through the agreement) establishing a basis whereby local infrastructure is delivered at or around the same time as surrounding development.
To encourage the provision of land for public purposes.	The proposed agreement includes provision of around 25 hectares of land for public purposes.
To encourage the provision and co ordination of community services and facilities.	The proposed agreement will sustain provision and coordination of local infrastructure (which includes, community, open space, recreation, transport

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Objective of the EP&A Act (section 5)	How does the agreement promote the objective?
To encourage the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats.	management and water cycle management facilities) delivered at or around the same time as surrounding development. Additionally, the proposed agreement would result in some of the facilities planned for the Turner Road Precinct development (for example, the community centre and sports fields) occurring sooner than would have been achieved with a business as usual approach.
To encourage ecologically sustainable development	Refer to comments on ecologically sustainable development in Part 4.1.2.
To encourage ecologically sustainable development	Refer to comments on ecologically sustainable development in Part 4.1.2.

4.4 Conformity with Council's works program

(This matter is required under clause 25E(2)(f) of the EP&A Regulation to be addressed in the Explanatory Note)

The proposed agreement is a vehicle for Emerald Hills Estate to complete all of the works required by the Emerald Hills development in a more timely and efficient fashion than if Council were to be required to deliver these works via a s94 contributions plan and via Council's works program.

4.5 Requirements to be complied with before a certificate is issued

(This matter is required under clause 25E(2)(g) of the EP&A Regulation to be addressed in the Explanatory Note)

Schedule 1 of the agreement contains details of when contributions of land, works or money are to be met by the developers.

The Schedule states that land will be required to be dedicated, works will be required to be completed, and cash contributions will be required to be paid before the issue of a Subdivision Certificate for stages of development. If the developer seeks the issue of a Subdivision Certificate prior to the completion of these works, Clause 15 of the planning agreement requires the payment of security against the value of the incomplete works within the relevant stage.

Attachments

Attachment A	Dedication of Riparian Corridors Policy Assessment
Attachment B	Dedication of Land burdened by Transmission Easements Policy Assessment

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SUBMISSIONS TO PUBLIC EXHIBITION OF EMERALD HILLS REZONING PACKAGE**SUMMARY OF SUBMITTORS**

Campbelltown Council

Heritage Council of NSW

Office of Environment and Heritage (OEH)

Transport for NSW (TfNSW)

NSW Department of Trade and Investment (DTIRIS) Mineral Resource Branch (MRB).

NSW Office of Water (OoW)

Department of Education and Communities (DEC)

Sydney Water

NSW Health – South Western Sydney Local Health District

Sydney Catchment Authority (SCA)

Transgrid

Resident 1

Resident 2

SUBMITTOR	ISSUES	COMMENT	PROPOSED ACTION
Campbelltown Council	Campbelltown Council wishes to ensure that the green buffer known as the Scenic Hills, and the visual benefit that it provides, is not impacted upon by the planning proposal. In particular, any development on the elevated parts of the site facing the Campbelltown LGA should not impact upon current views and vistas.	The visual impact analysis undertaken by Geoffrey Brittan and Associates has demonstrated that the visual impact of the proposed development will be minimal when viewed from the Scenic Hills. This has been achieved by precluding buildings from the most prominent ridgeline near the fig tree, limiting the height of buildings along the eastern slope of the ridgeline which traverses the northern part of the site, requiring the planting of screening vegetation.	No further action required
	Campbelltown Council notes that the conservation land at the northern corner of the site is proposed to be E2 Environmental Conservation, which appears not to allow dwelling houses. Council understands that the intention for this land is to facilitate two lots of approximately 10 hectares in size, with provision for two dwelling houses on land zoned R1 General Residential. This approach is supported.	The draft Land Zoning Map has been amended to better clarify the intended land zoning for the conservation land, which is predominantly E2 Environmental Conservation, with two small pockets of R1 General Residential. These zonings will allow the land to be subdivided into two lots of approximately 10 hectares in size, with a single dwelling house permitted on the R2 Low Density Residential zoned land, and the E2 Environmental Conservation zoned	No action required.

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		land will remain undeveloped. The exhibited minimum lot size map shows a minimum lot size of 2 hectares applying to the site. Whilst this is smaller than the 10 hectare lots proposed for the E2 land, there is no provision for a 10 hectare minimum lot size under the Camden LEP due to restrictions related to the Standard Instrument. Notwithstanding, the E2 zone does not permit residential accommodation, therefore the only subdivision potential that this land holds is for the subdivision into two lots of approximately 10 hectares as noted above.	
Heritage Council of NSW	Section 7.2 and 7.3 of the AHMS Heritage Assessment should be implemented in full.	The recommendations of Sections 7.2 and 7.3 of the AHMS Heritage Assessment (which are post-rezoning actions) will be undertaken by the proponent prior to the lodgement of any future development applications on the site.	No action required prior to rezoning, however the proponent has been advised that they will need to action the recommendations of the report at development application stage.
	Full archival recording of the site must be undertaken in compliance with recommendation 2 of the AHMS Heritage Assessment, and copies provided for the Heritage Council and for Camden Council's files and	The proponent has electronically edited the existing archival recording undertaken on 4/2/2013 to improve the legibility of the photos to the	No further action required.

	<p>future public reference. The current photographic archival record undertaken 4/2/2013 is too dark, therefore electronic manipulation is required to ensure they are legible.</p> <p>A Landscape Strategy for Emerald Hills that is informed by the formerly rural uses of the land, and featuring appropriate indigenous species, should be prepared.</p>	<p>required standards, and hard copies and electronic copies have been provided to the Heritage Council and Camden Council.</p> <p>Section C12.13 of the draft DCP chapter for Emerald Hills requires the preparation of a combined landscape strategy and heritage interpretation strategy to be submitted with the development application for the park on the former St Andrews' Boys Home site.</p>	<p>No further action required.</p>
	<p>A Heritage Interpretation Strategy should be prepared by a suitably experienced heritage consultant that identifies the key stories associated with this land, its varying owners, associations and evolving users over time. The Heritage Interpretation Strategy should include an implementation plan with prioritised actions that identify specific locations and recommended means by which heritage interpretation will be integrated into the Emerald Hills Estate, and should include the results of any further consultation with Aboriginal communities, archaeological surveys, test excavations, formal Aboriginal Cultural Heritage Assessment and the like.</p>	<p>Section C12.13 of the draft DCP chapter for Emerald Hills requires the preparation of a combined landscape strategy and heritage interpretation strategy to be submitted with the development application for the park on the former St Andrews' Boys Home site.</p>	<p>No further action required.</p>
Office of Environment and Heritage	<p>OEH recommends that Council not finalise the rezoning until it can be demonstrated that the vegetation retained on site has been given an</p>	<p>The planning proposal intends to zone the CPW land as E2 Environmental Conservation. This zoning provides for the fundamental</p>	<p>No further action required.</p>

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<p>(OEH)</p>	<p>adequate level of protection and suitable management arrangements are put in place, and until the outcomes of outcomes of the BCAM assessment are provided for review and a suitable biodiversity offset strategy is determined. Further, OEH recommends that Council ensure that suitable offsets for the impacts on CPW be resolved at the rezoning stage and not be deferred to the development application stage. It is suggested that Council explore other options with Planning and Infrastructure for committing to a biodiversity offset strategy.</p>	<p>protection of this land by restricting the permissible uses on the land, and by preventing any future development that is not related to the conservation of the land.</p> <p>Planning and Infrastructure have advised that applying an E2 Environmental Conservation zoning to the land provides a sufficient level of protection for the land to enable the planning proposal to proceed. Planning and Infrastructure further advised that biodiversity offsetting is a matter which can be resolved prior to development consent being granted on the Emerald Hills site.</p> <p>It is also noted that the proponent intends to lodge a Biobanking Application with OEH to enable the CPW land to become a Biobanking Site under the <i>Threatened Species Conservation Act 1995</i>. This will provide certainty regarding the enhancement and maintenance of the CPW land into the future, and will also establish the site's role in meeting the necessary biodiversity offset credits to permit the removal of the scattered CPW across the remainder of the site.</p> <p>To inform the proposed Biobanking Agreement, the proponent</p>	
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<p>commissioned the preparation of a Biodiversity Certification Assessment Report (BCAR) to identify the number of biodiversity credits required to offset the proposed CPW removal. The BCAR report has been reviewed by OEH and Council officers and is supported in principle. The BCAR is included in the suite of specialist studies referenced later in this report.</p>	<p>The BCAR identifies that the proponent must enter into a Biobanking Agreement with the OEH for the 20.27 hectares of CPW located within the E2 Environmental Conservation zoned land at Emerald Hills, as well as acquiring off-site credits. To achieve this, the proponent has acquired land at The Oaks which contains a significant amount of CPW. The BCAR also identifies that it is necessary to Biobank both of these sites in order to generate sufficient overall credits to offset the proposed CPW removal on the Emerald Hills site.</p> <p>The proposed Biobanking Agreements will need to be finalised prior to granting of development consent for any works which require the removal of CPW on the site, as the proponent will need to</p>
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	<p>OEH suggests the following amendments to the draft DCP amendment:</p> <p>Objectives</p> <ol style="list-style-type: none"> 1. Given the significance of the vegetation, OEH recommends removing the words 'where practical'. 2. Recommend removing the word 'offset' as it is not necessary, and recommends rewording to 'conservation management plan' to be consistent with Control 2. OEH requests further detail about the conservation management plan for this area. 3. It is not clear what construction Objective 3 is referring to. The core objective for the conservation area is for the protection and management of the CPW. The development controls for this area should ensure the conservation values of this area are protected. <p>Controls</p> <ol style="list-style-type: none"> 1. It is recommend that the words 'and managed' be included i.e. '...in Figure C78 is to be 	<p>demonstrate compliance with the Threatened Species Conservation Act 1995 via future development applications on the site</p>	<p>No further action required.</p>
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	<p>protected and managed to ensure long term viability'.</p> <p>OEH note that 'Map 3B Proposed Amendment to HOB_016 as it relates to the Emerald Hills site' does not include the General Residential area on St Andrews Road and flags that not having a building height allocated to this block may be an omission.</p>	<p>HOB_016 will be amended to include a maximum building height of 9.5m which is consistent with the height limit applied to the rest of the residential land at Emerald Hills</p>	<p>Amend HOB_016 map to include a maximum building height of 9.5m for the pocket of R2 Low Density Residential zoned land fronting St Andrews Road and surrounded by E2 Environmental Conservation zoned land.</p>
	<p>The Aboriginal Heritage Preliminary Assessment is inadequate to support a planning proposal as it contains insufficient detail about the archaeological and cultural values within the subject land. OEN cannot support the statement that there are no Aboriginal heritage issues that indicate that rezoning cannot proceed as there is not enough information presented in this report to determine this. No mapping of Aboriginal cultural heritage (ACH) values or significance has been provided and there is no indication of whether there are areas of sufficiently high heritage significance that would warrant conservation and protection through specific zoning at this stage. Further consultation needs to occur with the Aboriginal community.</p>	<p>The proponent has subsequently undertaken a draft ACHA which has been reviewed by Council officers and is considered to be adequate. OEH have advised that they are currently under-resourced and are unable to review the ACHA, therefore they are satisfied with Council's review of the ACHA.</p>	<p>No action required</p>
	<p>Recommendation 3 on page 48 of the report states that a meeting should be requested with OEH to discuss future AHIP applications. Please note, OEH expects significantly more information about the archaeological and cultural values and their proposed</p>	<p>Noted. The proponent's consultant will request a meeting in relation to AHIP applications in the near future given the completion of the draft ACHA.</p>	<p>No action required</p>

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	<p>sport, medium and long term management in Emerald Hills prior to agreeing to any meeting. Further, it is OEH policy not to issue AHIPs until development consent has been issued.</p> <p>Please ensure that all Aboriginal objects not currently registered on AHIMS are registered as soon as possible in accordance with S89A of the National Parks and Wildlife Act 1974.</p>	<p>Noted. The proponent has been advised accordingly.</p>	<p>No further action required.</p>
	<p>The flood risk management assessment appears to follow accepted floodplain risk management practice and is considered adequate subject to the following points of clarification:</p> <ol style="list-style-type: none"> 1. Consideration should be given to post development flow volume in order to determine the peak and duration of the basin outflow. 2. Table 4-4 indicates decreased catchment discharge at outlets 2 and 3 for the 20 and 100 year ARI, whilst Figures 15 and 16 in Appendix D show increases in flood levels up to and greater than 0.5m downstream at the same outlets. 3. No consideration has been given to flooding impacts upon properties on the north-western side of Camden Valley Way. This impacts are highlighted in Appendix D – Figures 15 and 16 and show flood levels up to and greater than 	<p>The flooding and stormwater reports have been amended to address issues raised by Council's Engineers and OEH. The amended proposal is satisfactory and addresses all of the matters raised by OEH.</p>	<p>No further action required.</p>

<p>Transport for NSW (TfNSW)</p>	<p>0.5m.</p> <p>4. The report indicates that 'increase in peak flood levels along Camden Valley Way and the intersection with St Andrews Road is a result of raising this section of road in the RMS design as opposed to an increase in flooding. This is not a result of the EHE development'. There is insufficient information to determine whether this is indeed the case, and clarification is required.</p>	<p>Revised SIDRA modeling has been provided to RMS for review by Cardno. RMS have advised that the revised modeling is satisfactory.</p>	<p>No further action required.</p>
	<p>TfNSW requested that amended traffic modeling data be provided and that prior to the Planning Proposal being finalised, the modelling issues should be satisfactorily addressed with revised SIDRA models (hardcopy results + the electronic files) submitted to RMS for further review and approval.</p>	<p>Noted.</p>	<p>No action required.</p>
	<p>TfNSW / RMS have no objections to the proposed bus routes within this development. Bus Service Planning Guidelines used by TfNSW require new developments to make allowance for 90% of new dwellings to be within 400 metres, as the crow flies, of a bus route.</p>	<p>Amended SIDRA modeling has been provided to RMS from Cardno.</p>	<p>No further action required.</p>
	<p>The bus lanes (where proposed at key intersections) should be included and modelled within the SIDRA models for the intersections along Camden Valley Way.</p> <p>Designated roads for these bus routes must be bus capable. These roads should accommodate corresponding bus stops and required 3.2m wide kerbside parking lanes in each direction to allow for buses to serve bus stops without impeding movement of other vehicles/buses in the travel lane. Travel lanes</p>	<p>Noted. The internal bus routes within the Emerald Hills development incorporate adequate street cross-sections to accommodate bus movements in accordance with the</p>	<p>No action required.</p>

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	<p>on these roads must be 3.5m wide to accommodate buses. Cycleways on these roads should not be between the travel lane and kerbside lanes. This will help buses avoid cyclists when entering kerbside lanes to serve bus stops.</p> <p>The proponent should identify and show how any bus capable roads within this subject proposal connect with the Leppington East Precinct road network to the north and also the proposed precinct to the south</p>	TfNSW comments.	
	<p>TfNSW has no objections to the proposed additional bus stops at the intersections of Camden Valley Way with Raby Road and also St Andrews Road. The removal of the existing bus stops (with close proximity to Dwyer and George Roads) along Camden Valley Way, however, is not supported. Approximately 400 metres between bus stops is the preferred distance for spacing. It is understood use of these stops will be subject to demand as the development progresses.</p> <p>Appropriate facilities such as bus shelters and seating should be provided at the bus stops which are proposed to serve the school and neighbourhood centre.</p>	<p>Figure C70 in the draft Emerald Hills DCP chapter shows that the north-south collector road within Emerald Hills connects to East Leppington precinct to the north via the proposed roundabout on St Andrews Road, and to Camden Lakeside to the south via the proposed signalised intersection on Raby Road.</p> <p>The proposal has been amended to clarify that the existing bus stops on Camden Valley Way will not be altered by the Emerald Hills rezoning.</p>	<p>No action required.</p> <p>No further action required.</p>
		<p>The bus stops on the internal collector road as shown on Figure C70 of the draft amendment to Camden DCP 2011 have been noted as bus shelters rather than bus stops, and the draft Emerald Hills VPA already confirms that bus shelters and seats will be provided in</p>	<p>No action required.</p>

		these locations in lieu of bus stops.	
	Appropriate pedestrian and bicycle access is needed to support any proposed bus stops. Good pedestrian access to bus stops should be facilitated by appropriate road and intersection design and any pedestrian crossing facilities should be clarified. In this regard appropriate pedestrian connections should be provided to the existing and proposed bus stops located on Camden Valley Way.	The amended ILP provides good connectivity both within and external to the site for pedestrians and cyclists, including access to existing and proposed bus stops on Camden Valley Way	No action required.
	Any traffic calming measures and intersection design should have regard to the safe and efficient operation of buses.	This is a relevant consideration at the detailed design stage in the preparation of future development applications.	No further action required as this stage, however the proponent has been advised of TfNSW's comments.
	There is a clear demonstrated nexus for the Emerald Hills Development to ensure that the baseline level of service is maintained at the Camden Valley Way / Raby Road intersection by the year 2026. This should be addressed through the following measures. Imposing the following conditions within the Draft VPA: a) Requiring the Developer to construct a third lane in each direction along Camden Valley Way for a distance of 250m prior to and 250m beyond the Raby Road intersection. Timing for Implementation (2026); or b) If Camden Valley Way is already upgraded to three lanes each way the Developer will be required to provide a monetary contribution to the value of the works described in point a) above (which would be subject to indexation). Note: This will require the Developer to prepare a	The proponent has is currently negotiating a state VPA with Planning and Infrastructure and TfNSW. The proponent's position that there is a stronger nexus to upgrade Raby Road to four lanes between the stub currently being constructed by RMS, and the future signalized intersection to Emerald Hills and Camden Lakeside. Finalising the state VPA is required under the 'satisfactory arrangements' clauses in Part 6 of the Camden LEP 2010 and it not a matter which needs to be resolved at the rezoning stage.	No action required.

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	<p>strategic estimate for the abovementioned works which should then be submitted to TfNSW / RMS for review/ agreement.</p> <p>Development Control Plan 2011 – Emerald Hills Rezoning – Clause 12.2 Subdivision Design – Controls – Point No 3. This point should be amended to also ensure that higher density housing shall also be located near areas in close proximity to proposed Regional / District bus routes / stops.</p>	<p>The new dwelling density map provide certainty regarding the future location of smaller lot housing near areas of high amenity, including those well serviced by the proposed bus routes.</p>	<p>No further action required.</p>
<p>Raby Road is identified as a Transit Boulevard in accordance with the South West Growth Centre (SWG) Road network strategy. A typical road corridor width for Transit Boulevard is 43 metre wide without any batters that may be required. Land dedication should be provided for future upgrade of Raby Road</p>	<p>The draft ILP and Land Acquisition Map for Emerald Hills sets aside land to facilitate a 29.4m road reservation width for Raby Road. This includes a widening of the existing road reservation by 9.3 to 12.3m into the Emerald Hills site. This width is consistent with the approved road width of Gregory Hills Drive which also has 'transit boulevard' status.</p> <p>The topographical constraints and existing land holdings along Raby Road present significant challenges to achieving a road reservation width of 43m to facilitate the future construction of a six lane 'transit boulevard'. A 29.4m road reservation with four travel lanes is considered to be a more appropriate outcome. TfNSW understand this issue and</p>	<p>No further action required at this stage, however relevant Council officers shall participate in future meetings and/or working groups with TfNSW and RMS to determine an outcome for Raby Road and St Andrews Road.</p>	

	<p>have advised that the planning proposal may proceed, with Council officers to participate in a future working group with TfNSW and RMS regarding Raby Road.</p>	<p>St Andrews Road is identified as a sub-arterial road in accordance with the SWGC Road network strategy. A typical road corridor width for sub-arterial road is 35 metre without any batters that may be required. Land dedication should be provided for future upgrade of St Andrews Road.</p>	
<p>No further action required at this stage, however relevant Council officers shall participate in future meetings and/or working groups with TfNSW and RMS to determine an outcome for Raby Road and St Andrews Road.</p>	<p>The existing road reservation at St Andrews Road is sufficient to accommodate a four lane road with narrow verges, however the further widening of St Andrews Road is constrained by the residential land to the north which was rezoned via the East Leppington rezoning, and the Cumberland Plain Woodland (CPW) which will be zoned E2</p>	<p>Environmental Conservation under the Emerald Hills rezoning, and is intended to be Biobanked as part of the biodiversity offset strategy for Emerald Hills.</p> <p>TfNSW have noted the constraints associated with St Andrews Road and have advised that a review of the South West Growth Centre Road Network Strategy will commence shortly. Council officers will participate in a future working group with TfNSW and RMS to determine the most appropriate outcome for St</p>	

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		Andrews Road. TfNSW have advised that the planning proposal may proceed prior to the resolution of the road reservation width for St Andrews Road.	No further action required at this stage, but the proponent has been advised of TfNSW's comments.
		This will occur when a future development application is lodged for the Raby Road intersection works by the proponent of Emerald Hills	No further action required.
		The signalised intersection of Raby Road/Site Access/Sekisui House Development Access should be referred to RMS for approval under Section 87 of the Roads Act 1993.	The ILP has been designed to minimise the requirement for noise walls and mounding, relying instead upon the subdivision layout and acoustically treated 'barrier housing' to achieve the necessary road traffic noise attenuation. Setbacks have been increased and perimeter roads will allow for appropriate dwelling orientation to be achieved to maximise noise attenuation. Future subdivision development applications will be accompanied by additional traffic noise assessments.
		The applicant should be aware of the existing and future road traffic noise impacts from Camden Valley Way on the subject site. Noise attenuation measures should be provided in accordance with Office of Environment and Heritage's Environmental Criteria for Road Traffic Noise. RMS is not in favour of noise walls. To achieve noise mitigation requirements, other preferable alternative measures would be to increase setbacks via the provision of service roads running parallel to the corridor. Mounding would be one option to investigate should the above not be achievable (possibly in combination with other techniques), but we would avoid them being too steep and out of character with the surrounding topography.	No further action required.
NSW Department of Trade and Investment (DTIRIS)		There is a potential coal resource beneath the site, but at a depth which is currently prohibitive for exploration. This cannot be discounted in the future however. The area lies within a residential exclusion zone for coal seam gas (CSG) exploration, and will	Noted No action required

<p>Mineral Resource Branch (MRB).</p>	<p>therefore not impact on CSG resource extraction. As such, MRB has no issues with the proposed rezoning</p>		
<p>NSW Office of Water (OoW)</p>	<p>OoW recommends that the ILP is amended to incorporate the first order watercourse/riparian corridor located at the top north-west corner of the site.</p>	<p>Eco Logical Australia wrote to OoW on 26 September 2012 (ref. 2WOLPLA-0009) regarding riparian corridors and stream classification at the Emerald Hills site. A subsequent site meeting was held on 19 October with Council officers, Eco Logical Australia and the proponent, and a follow-up meeting was held on 13 December 2012 including OoW officers, Council officers, Eco Logical Australia and the proponent. It was agreed at that meetings that the 'watercourse' at the north-western corner of the site was incorrectly mapped as a first-order stream. The land in this part of the Emerald Hills site is flat with no defined stream corridor nor top-of-bank. In this instance, the first-order stream commences on the northern side of St Andrews Road within the East Leppington development, and passes beneath Camden Valley Way.</p>	<p>No further action required.</p>

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	<p>OoW recommends that all watercourses and riparian corridors on the site are protected and enhanced by an appropriate application of an environmental conservation zone, generally by zoning as E2 Environmental Conservation (E2) rather than the proposed R1 General Residential zoning.</p>	<p>The use of a R2 Low Density Residential (or R1 General Residential as was the case with the exhibited Emerald Hills planning proposal) for the entire precinct is an approach taken by Council to minimise issues with minor inaccuracies in zoning boundaries causing problems at the development application stage once ground-truthing occurs. It is intended that once the site has been fully subdivided and the exact subdivision lot boundaries are known, the land will be retrospectively zoned E2 Environmental Conservation. The decision to delay the application of an E2 zoning to this land does not expose the land to any undue development pressures, given that the land is already protected by riparian corridor and stream classification requirements regarding setbacks.</p>	<p>No further action required.</p>
	<p>Clarification is required as to whether the online basins (in particular upper and lower basin 6) are proposed to be planted with grass, or if they are intended to be vegetated with riparian vegetation. The planting of grass in the online basins is not consistent with the Office of Water 'Guidelines for riparian</p>	<p>The online basins will be planted with appropriate riparian vegetation in accordance with the OoW guidelines.</p>	<p>No action required.</p>

	<p>corridors on waterfront land (2012)' and if required, consideration should be given to moving the basins offline.</p>		
	<p>OoW supports the removal of the existing online dams, as stated in Section 9.4.2 of the Geotechnical Assessment Report. It is recommended that where the dams occur on watercourses that are to be retained, that these that these creeks are rehabilitated to mimic natural systems.</p>	<p>The existing online dams will be removed due to the watercourses having to be re-constructed during the development process. However, the watercourse and new online basins will be designed to mimic natural watercourse systems and planted with appropriate riparian vegetation.</p>	<p>No action required.</p>
	<p>Table 2 in the Voluntary Planning Agreement notes land in the vicinity of the riparian corridor may in future be developed for a primary school. As schools have larger Asset Protection Zone requirements, this should be considered in relation to riparian corridor planning.</p>	<p>The proposed school site has been reviewed in close consultation with DEC and the matter of APZs has been resolved to the satisfaction of DEC. Appropriate APZs can be accommodated on the school site.</p>	<p>No action required.</p>
	<p>It is recommended that the OoW requirements for detention basins (see Controlled Activities: Guidelines for outlet structures and Guidelines for instream works) are incorporated into the Section C12 of the DCP.</p>	<p>The requirements or guidelines of state agencies or other parties are not replicated in Council documents as they may be amended from time to time, and therefore Council's documents would no longer be up-to-date. The proponent will need to comply with these guidelines during the development application and detailed design stage of the</p>	<p>No action required.</p>

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		development.	No further action required.
	The master plan at Figure C68 of the DCP incorporates perimeter roads and passive open space adjacent to riparian land in some areas, which is supported by the OoW as it can lead to better environmental outcomes and reduce maintenance costs to Council. It is recommended that consideration should be given to expanding perimeter roads and passive open space to be adjacent to other riparian land on site.	The amended draft ILP has incorporated the maximum possible road frontage and open space frontage to riparian lands to improve the environmental outcomes for Emerald Hills and improve the private land/public land interface. There is no further option for amending the ILP by reconfiguring the road network without a significant reduction in lot yield and potentially impacting upon pedestrian, cycle and vehicle accessibility within the site.	No further action required.
	The legend on the master plan uses similar shading for the riparian corridors as the existing gas easement. It is suggested that the master clearly differentiates between the riparian corridors and the existing gas easement.	The exhibited ILP was unclear in this regard. The amended ILP provides greater certainty regarding riparian corridors and the existing gas easement.	No further action required.
	It is recommended that C12.10 Bushfire Risk Management control 1(c) is amended to be consistent with the OoW Controlled Activity Guidelines (2012) (i.e. removes reference to the CRZ and the buffer). It should also outline that APZs are allowed within the outer 50% of the VRZ but any encroachment into the riparian corridor requires offsets to be provided.	The controls in C12.10 have been updated to be consistent with OoW's comments.	No further action required.
	The Preliminary Contamination assessment recommends installing groundwater monitoring wells	Noted. This is a development application matter and the OoW	No further action required.

	<p>to detect contaminants in the groundwater (page 14). It is recommended that site monitoring also includes:</p> <ul style="list-style-type: none"> • Groundwater level (particularly as there is groundwater seepage associated with the creep landslides present on the site); and • The potential for salinity <p>OoW should be contacted prior to any dewatering associated with earthworks for the development of the site to determine if an authorisation is required.</p>	<p>comments have been provided to the proponent and Council officers for consideration.</p>	
<p>Department of Education and Communities (DEC)</p>	<p>DEC recommends that an indicative school site is shown in the Emerald Hills plan which:</p> <ul style="list-style-type: none"> • Is at least 2-3 hectares in size, and if 2 hectares in size, the school will need exclusive access to the opposite playing fields during school times • Is free of land encumbrances, including bush fire prone land, flood land, riparian land and easements, • Includes at least two road frontages to separate out the transport hierarchy of parent kiss-and-drop, bus drop-off, vehicle access to onsite parking and back-of-house access for large vehicles including garbage trucks, • Has road widths and footpaths that are of 	<p>Council officers and the proponent have met with DEC officers on three occasions to review the school site, and numerous iterations of the indicative school site have been produced. The current layout shown on the draft ILP satisfies all of DEC's location and preliminary design requirements and DEC have provided written confirmation that the site meets their requirements. The draft DCP controls for Emerald Hills include an amendment to Figure C80 to and the draft ILP to show a revised vehicular access point to the school site and oval in accordance with DEC's approval.</p>	<p>No further action required.</p>

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	<p>suitable size to service a primary school,</p> <ul style="list-style-type: none"> Includes surrounding traffic management provisions, including appropriate pedestrian crossings and any necessary traffic intersections 		
<p>DEC requests that contributions from the developer be sought to recover the costs of providing public education bought about by the rezoning land at Emerald Hills.</p>		<p>The proponent is in the process of negotiation a VPA with Planning and Infrastructure in order to satisfy the development's obligations regarding contributions towards regional infrastructure as per the proposed amendment to the Urban Release Areas map which triggers the 'satisfactory arrangements' provisions of Part 6 of the Camden LEP 2010. The proponent intends to dedicate the school site to DEC subject to their concurrence.</p>	<p>No further action required.</p>
<p>The proponents VPA needs to ensure that all local infrastructure required to support the proposed school site is provided by the developers, as DEC receives no funding for local infrastructure works via the state education budget.</p>		<p>Figure C80 in the draft DCP controls for the Emerald Hills site indicates the provision of a roundabout at the entry to the school and oval precinct of the development. The developer will be required to provide this roundabout to provide access to the school and oval as part of the road network construction via the draft VPA. There is also scope for DEC to</p>	<p>No further action required.</p>

	require the construction of the roundabout via the state VPA being negotiated between the proponent and Planning and Infrastructure.		
Sydney Water	Noted	Sydney Water have consulted with the proponents and have issued them with a letter identifying the wastewater infrastructure required to service the precinct. The proponents will deliver the services in line with Sydney Water's 'Funding Infrastructure to Service Growth' policy and 'Funding Principles of Developer Delivered Major Infrastructure'.	No action required.
	Noted	Early stages of the Emerald Hills development can be serviced by a 300mm water main extension from the Leppington surface reservoir. This will be build ahead of the first lots being developed in Emerald Hills. Sydney Water will be delivering further extensions and amplifications to the water network to service Emerald Hills and the greater Central Hills area in line with our 'South West Growth Centre – Second Release Precincts Water Strategy' of March 2013.	No action required.
	Noted	The proponent is currently carrying out detailed planning for the required wastewater services in line with Sydney Water's Wastewater Strategy Report for the South West Growth Centre' of 26 July 2012. This strategy identifies the need for a new sewage pumping station and rising main to service Emerald Hills. This infrastructure will need to be delivered in order for any development to occur at Emerald Hills.	No action required.

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	<p>The infrastructure planning work being carried out by the proponent will be assessing the requirements for servicing the broader Central Hills area including Camden Lakeside, El Caballo Blanco and the Gledswood Hills Eastern Precinct. The proponent is working closely with Sydney Water during this phase and will continue to liaise with us throughout the process.</p>	Noted	No action required.
<p>NSW Health – South Western Sydney Local Health District (SWSLHD)</p>	<p>SWSLHD commend the Emerald Hills rezoning for the protection of the environment and sustainable development, the promotion of housing choices and affordability including a diversity of lot sizes and housing types, provision of open space, cycle links and walking trails, and public transport.</p>	Noted.	No action required.
	<p>Emerald Hills is currently used as a working farm, however it is unclear to what extent the site is currently contributing to food supply in the region. Will fresh food production be displaced and therefore cease, or will it be directed elsewhere?</p>	<p>Emerald Hills is currently used for low-scale cattle grazing for non-food production purposes, and no crop production occurs on the land. The site has not been used for food production purposes in recent times. Accordingly, the proposed rezoning will have no impact on fresh food production due to the loss of farming land.</p>	No action required.
	<p>Access to fresh foods could be addressed by planning for ready access to fresh food outlets or providing space and support for community gardens.</p>	<p>The Emerald Hills local centre is likely to contain outlets for fresh food, however the exact configuration and tenancies of the local centre cannot</p>	<p>No action required, however the proponent has been advised of SWSLHD's comments for consideration in future.</p>

		<p>be confirmed at rezoning stage. There is currently no proposal to incorporate community gardens into Emerald Hills, however this is not a rezoning matter, and is instead an option that may be taken up in the development phase of Emerald Hills if the opportunity presents itself.</p>	
	<p>SWSLHD reinforces the importance of planning for the ageing population and changes to socio-economic and cultural characteristics of the population and the implications of these changes for infrastructure and services, ensuring adequate access to a wide range of services that meet the needs of the community. We particularly highlight the increasing need for housing and accommodation that is appropriate for seniors and for health and social services that are accessible to these groups of people</p>	<p>State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 applies to the R2 Low Density Residential zoned land at Emerald Hills and permits seniors housing subject to development consent.</p>	<p>No further action required.</p>
	<p>Further consideration could be given to social infrastructure such as community health centres, libraries, recreation facilities and community centres.</p>	<p>Emerald Hills will contain community floorspace within the building being provided by the developers on the double playing field site as part of the Voluntary Planning Agreement. The incorporation of other types of social infrastructure into Emerald Hills will be considered during the detailed design phase of the local centre.</p>	<p>No action required, however the proponent has been advised of SWSLHD's comments for consideration in future.</p>

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<p>Sydney Catchment Authority (SCA)</p>	<p>SCA prefers a local road with verge to be placed along the interface of the canal corridor and new urban development. The Emerald Hills masterplan includes a periphery road between the urban development areas and the corridor, with public open space and a pedestrian pathway fronting the rest of the SCA land. In view of the recreational nature of this land, it will be important to ensure people using this area do not enter the upper canal for security and safety reasons.</p>	<p>The developer will provide an appropriate security fence between the Emerald Hills site and adjacent SCA corridor as part of the development in accordance with C12.5 of the draft Emerald Hills DCP controls.</p>	<p>No further action required</p>
	<p>SCA requires security fencing to be erected along the length of the site to prevent public access to the Upper Canal corridor prior to the commencement of development.</p>	<p>Noted. The proponent has been advised of SCA's requirements. This is a development application matter and SCA will be consulted during the assessment of future development application, and appropriate conditions of consent applied.</p>	<p>No further action required.</p>
	<p>SCA requires that no stormwater from new urban development enters the canal corridor and that external flow coming from the corridor is not impeded. There are a number of existing structures in place that convey stormwater across or under the Upper Canal. In the area adjacent to the southern end of the Emerald Hills site, there are steel pipes and culverts that convey water on to the Emerald Hills site. In this area the site drains away from the canal corridor, so the main issue is ensuring that stormwater runoff from land to the south of the canal corridor does not enter the open water canal. This land is identified as</p>	<p>Noted. The proponent has been advised of SCA's requirements and will need to consult closely with SCA during the detailed design phase for stormwater conveyance.</p>	<p>No further action required.</p>

		<p>catchments 12 and 13 in the Stormwater Management and Flood Assessment Report. The future detailed stormwater design will need to show how the proposed drainage system integrated with the existing drainage system of the Upper Canal in this location.</p> <p>The SCA should be closely consulted on the more detailed stormwater drainage plans when they are developed. Their development will require site visits with SCA operational staff to ensure stormwater systems, which satisfy SCA requirements, are implemented in the plans.</p>	
	<p>Noted. The proponent has been advised of SCA's access approval requirements.</p>	<p>Should access be required to the Upper Canal corridor at any time during the progress of the Emerald Hills site, an access consent will need to be obtained from the SCA. This can take up to 28 days to issue. The consent would not be required when access is with an SCA officer.</p>	
<p>TransGrid</p>	<p>Noted. The proponent has reviewed TransGrid's submission and note that the land use configuration complies with the diagram in Annexure B to the submission. The proponent will ensure that future development applications are designed in accordance with TransGrid's requirements.</p>	<p>Emerald Hills should be designed taking into account the recommendations documented in the report "Inquiry into Community Needs and High Voltage Transmission Line Development". Transgrid has no objection to the land use zones proposed within the easement on the Emerald Hills Estate subject to the conditions set out in TransGrid's letter and the zoning and land use configuration shown in Annexure B to the submission.</p>	

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	TransGrid request that Council ensures that no residential zoned land is located inside the TransGrid easement, as per Annexure B to the submission.	Noted. The proponent has reviewed TransGrid's submission and note that the land use configuration complies with the diagram in Annexure B to the submission	No further action required.
	Roads within the easements will need to comply with TransGrid's vertical and horizontal clearance requirements. Appropriate drainage, earthing and traffic impact prevention measures must also be applied.	Noted. The proponent has reviewed TransGrid's submission and will incorporate these measures into the detailed design of the development prior to lodgement of future development applications.	No further action required.
	The development plans for the proposed neighbourhood centre must be reviewed by TransGrid regarding the design and construction of development within the easement.	Noted. The proponent has reviewed TransGrid's submission and will consult with TransGrid prior to lodgement of future development applications. Council will also consult with TransGrid formally during the development application assessment process.	No further action required.
	TransGrid will require access along the easement to undertake infrastructure maintenance using large mobile plant and equipment. TransGrid therefore requests that water retention basins be located outside the easement, and any detention basins for the temporary detention of water are designed so that they do not pose a flood risk to the stanchions, not obstruct TransGrid's access along the easement.	Noted. The proponent has reviewed TransGrid's submission and will consult with TransGrid prior to lodgement of future development applications. Council will also consult with TransGrid formally during the development application assessment process.	No further action required.

	<p>Transgrid's Easement Guidelines for Third Party Development should be compiled with, and future development applications will require formal notification pursuant to Section 45 of SEPP (Infrastructure) 2007 for each stage of the Emerald Hills development.</p>	<p>Noted. Council will consult with TransGrid formally during the development application assessment process in accordance with Section 45 of SEPP (Infrastructure) 2007.</p>	<p>No further action required.</p>
<p>Resident 1</p>	<p>The proposal features no shielding of future dwellings from traffic noise generated from Camden Valley Way. The cheaper land fronting Camden Valley way is likely to be adversely affected by traffic noise, and those purchasing the cheaper land are unlikely to be able to afford to add acoustic treatment to their dwellings. The owners of these dwellings will need to operate heating and cooling systems 24 hours a day as a result of being unable to open the house windows due to the noise impact. Residents will be unable to enjoy their outdoor open space due to noise impacts. The developer should be required to provide barrier fencing and/or mounds. Acoustic and noise issues should take precedent over visual amenity.</p>	<p>The Emerald Hills development has been designed to provide satisfactory acoustic amenity for future residents without requiring the construction of acoustic barrier walls. This is consistent with the policy of Transport for NSW and Roads and Maritime Services as per the RMS publication 'Beyond the Pavement', which discourages the provision of acoustic barrier walls.</p> <p>The subdivision pattern has been designed so that the houses fronting Camden Valley Way will be constructed as acoustically treated two storey dwellings, with appropriate fencing around, and between, the dwellings. These dwellings will act as noise barriers and will provide sufficient attenuation for both the subject dwellings, and the dwellings shielded by these</p>	<p>No action required.</p>

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		<p>dwelling.</p> <p>The requirement to construct these dwellings to a higher standard and to incorporate acoustic attenuation measures will be noted on the Section 88b instruments relating to these lots, and will be disclosed in the contract of sale for these lots.</p> <p>Notwithstanding the above, the detailed design stage and accompanying acoustic reports may indicate that parts of the site will need low walls and mounds in order to achieve compliance with the internal and external noise criteria.</p>	
<p>Resident 2</p>	<p>We request that the proponent consults with the adjoining land owner to the east regarding the servicing of the Emerald Hills site, to establish a cooperative approach regarding servicing and infrastructure provision.</p>	<p>Noted. This not is not a rezoning matter, however the proponent has been advised of the adjoining landowner's request.</p>	<p>No further action required.</p>



Draft Planning Proposal

Lot 24 Crase Place

Grasmere

April 2014



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Planning Proposal, Crase Place Grasmere

EXECUTIVE SUMMARY

PLANNING PROPOSAL – Grasmere

Local Government Area: Camden

Address of the land: Lot 24 DP 1086823, Crase Place, Grasmere.

Current Zone: RU1 Primary Production and R5 Large Lot Residential under Camden Local Environmental Plan 2010 (LEP).

Proposal: The land subject to this planning proposal is shown in Figure ES1 below and is outlined in red.

Figure ES1 Land subject to planning proposal – current zoning



Source: www.legislation.nsw.gov.au (Map 4)



1.0 INTRODUCTION & BACKGROUND TO PLANNING PROPOSAL

1.1 Background

In 2001 Camden Council considered a Local Environmental Study (LES) to rezone 5 properties in Grasmere to enable future subdivision of the area into an estimated 80 lots. The LES progressed and the majority of the site was rezoned.

In 2003 Camden Council considered a development application for the subdivision of one of the 5 properties (Lot 102 DP 841639) on the corner of Werombi Road and the Oaks Road Grasmere. The application was for 27 rural residential lots and the creation of one residual lot.

The Statement of Environmental Effects (SEE) identified that a portion of the site was excluded from consideration for subdivision as it provided an odour buffer zone to the Water Recycling Plant.

Since the consideration and approval of that development application, Sydney Water has commenced upgrading its West Camden Water Recycling Plant (WRP). The upgrade was preceded by a Review of Environmental Factors (REF) which specifically addressed the Biosolids Treatment Upgrade and Amplification.

The REF assessed a range of issues associated with the upgrade. One of the impacts considered was odour arising from the upgrade works. Traditionally, the odour zones have been imposed through the allocation of zoning boundaries which have limited the level and type of development permitted in an area. The 'odour boundary' which has been imposed on some of the lots adjoining the recycling plant has been nominally 400m from the boundary of the WRP.

The REF has considered the impact of odour as a consequence of these works and the predicted odour contour shown in Figure 1.1.

The 'odour boundary' is based on the (then) Department of Environment and Conservation's document called a 'Technical Framework - Assessment and Management of Odour from Stationary Sources in NSW'. The intent of the document is to provide a system which:



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- Protects the environment and community from the impacts of odour emissions; and
- Promotes fair and equitable outcomes for the operators of activities that emit odour.

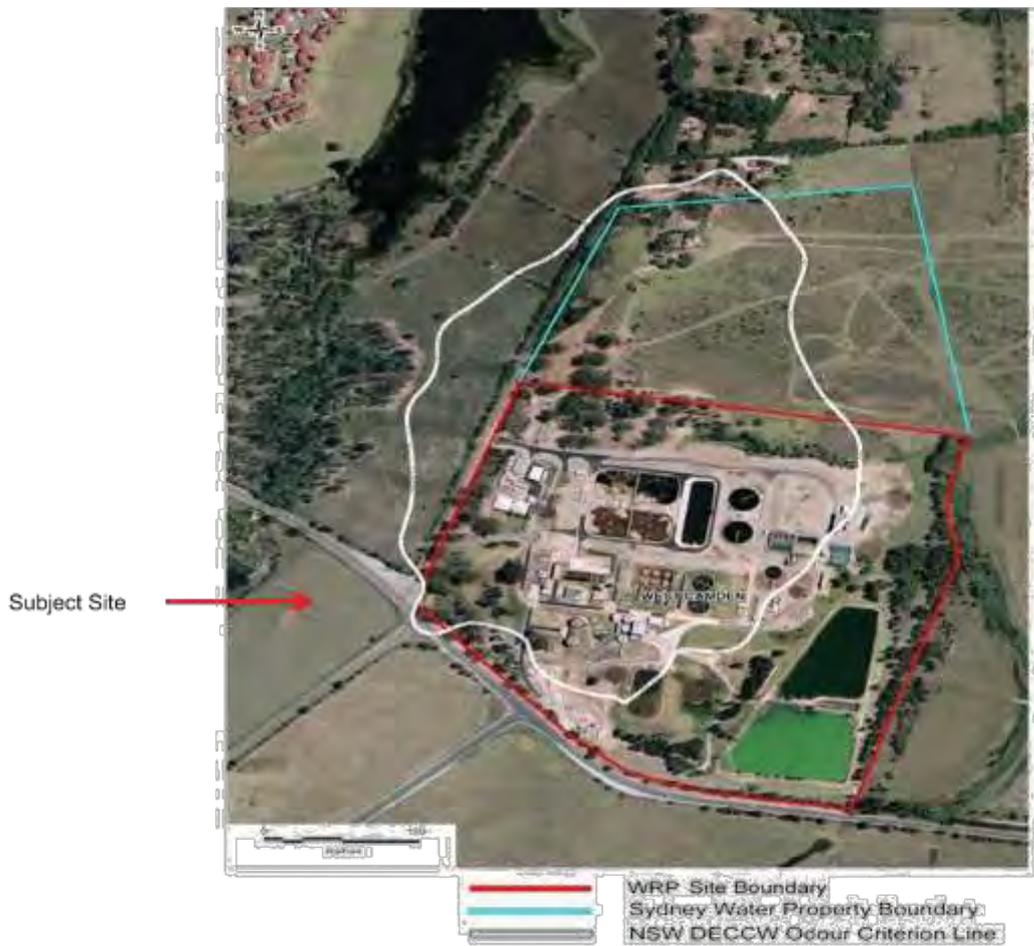
In view of the re-assessment of actual odour impacts, as shown by the white line in Figure 1.1, the owner of the site has sought to reconsider the site's development opportunities. Accordingly, discussions have been held with representatives from Sydney Water to determine the extent of development that might be reasonably considered for the site.

Sydney Water has essentially agreed that the site is capable of accommodating additional development as long as any future development is no closer than 300m to the water recycling plant. (Appendix B)

Figure 1.1 Location of Odour Impact



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Odour impact of West Camden WRP, as modelled using AUSPLUME 6.0 (07/03/2011)
 Source: Sydney Water REF West Camden Water Recycling Plant

1.2 Liaison

Liaison has occurred with Sydney Water over an extended period of time. A summary of the interactions is located in Appendix C.

Essentially on 21/05/13 Sydney Water provided advice that the indicative plans could be supported as future residents were unlikely to be impacted by odour that might emanate from the site. A copy of the indicative plans and Sydney Water's response is located in Appendix B.

A meeting was held with representatives of Camden Council on 27/06/13.



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A copy of the letter from Sydney Water was tabled at the meeting and Council indicated that this advice is fundamental to the consideration of the proposal.

The primary issue raised at the meeting centred on the proposal to rezone the site to R5 Large Lot residential and how dwelling houses would be restricted from locating within 300m of the Water Recycling Plant.

It was also noted by Siteplus that the subject site is part of an overall Local Environmental Study (LES) prepared by Planning Workshop Australia and as such previous studies have been prepared for that proposal. These studies were considered and accepted by Council enabling the original subdivision development.

Council also advised that:

- the submission would need to adequately address the provision of infrastructure availability.
- as the area is a quiet cul-de-sac, some discussion on traffic expectation should be addressed in the proposal.

Council subsequently provided advice regarding issues required to be addressed in the Planning Proposal.

Council also advised that the minimum lot size map adopted would need to consider the range of options which prevent development from occurring within 300m of the Water Recycling Plant. These are discussed further in Section 6.

A further meeting was held with a representative of Camden Council on the 29th November 2013 and a copy of the preliminary documentation was provided to Council for any initial comment.

Council requested that the proposed minimum lot size be adjusted from the W (4000m²) and Z (2ha) proposed to W (4000m²) to Z2 (4ha) and that the areas of the proposed lots be provided. Other relatively minor adjustments have also been made to the document in response to Council's advice.

1.3 The Proponents

The proponent for the Gateway Proposal is Cowbridge Holdings Pty Ltd.



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1.4 Proposed Rezoning

This Gateway proposal for the site is to:

- Rezone the subject site to R5 Large Lot Residential which will reflect the residential zoning of the land adjoining the site.
- To amend the minimum lot size map to 'W' and 'Z2' to enable subdivision of the site to 4000m² and 4ha respectively.

The proposed amendments to the LEP will allow the subdivision of the site and the erection of a dwelling on each of the lots (Appendix A).

The indicative form of a subdivision development is shown in Figure 1.2 and Appendix D.

Figure 1.2 Indicative Subdivision Plan



Source: Siteplus



2.0 SUBJECT LAND

The subject land is Lot 24 DP 1086823, Crase Place, Grasmere. The site is accessed via Crase Place which is a cul-de-sac. Werombi Road is located on the northern property and the recently 'decommissioned' 'Old Oaks Road' along the western boundary.

The site has an area of approximately 5.6ha and is shown outlined in red in Figure 2.1. It has a gentle fall from east to west with an approximate fall of 12% and is vacant of any structures. The land is grassed and there is no significant vegetation on the site.

A drainage reserve traverses the property from the cul-de-sac in Crase Place to the adjoining property to the east (Lot 25 DP 1086823). This adjoining property is vegetated along the existing drainage line and feeds two dams located on the site. This adjoining lot essentially acts as a riparian buffer zone, filtering water run-off from adjacent properties.

The West Camden WRP is located to the north west of the subject property. Figure 2.1 is an aerial photograph showing the location of the site in the context of the general surrounds.

Figure 2.1 Plan of site in context of surroundings



Source: six spatial exchange

Subject Site

WRP



3.0 PLANNING PROPOSAL

This planning proposal is seeking to amend the current provisions of Camden LEP 2010 to enable development to occur on the site which is commensurate with the provisions of the R5 Large Lot Residential Zoning. Currently the zoning and minimum lot size applying to this site prevents further subdivision of the land.

In proposing these amendments, the planning proposal is reflective of other controls and development which apply within Grasmere.

In Appendix D of this proposal an indicative subdivision plan is provided showing how development of the site can occur. It has been developed from an interactive process through incorporating sub-consultants advice and based on discussions with Sydney Water who have advised that development can occur on the site as long as it is no closer than 300m to the boundary of the WRP.

It is noted that upon rezoning of the site, a development application would be submitted and be supplemented by supporting documentation appropriate for lodgement of a development application.

A summary of the proposed changes is located in Table 3.1.

Table 3.1 Comparison of existing and proposed provisions

Control	Existing Provisions	Proposed Provisions
Zone - Land Zoning Map LZN_004	RU1 - Primary Production R5 Large Lot Residential	R5 Large Lot Residential
Minimum Lot Subdivision - Minimum Lot Size Map LSZ_004	AB - 40ha W - 4000sqm	Minimum Lot Size Z 2 - 4 ha Minimum Lot Size W - 4000sqm

Source: Siteplus

The issues which have been identified as requiring further consideration are listed below and preliminary advice is summarised in Section 4.



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4.0 KEY ISSUES RELATING TO THE SITE

The key issues associated with the proposal are discussed below:

4.1 Odour Impacts

The site is located on the southern side of Werombi Road and is diagonally opposite the West Camden Water Recycling Plant. Sydney Water has recently carried out works to upgrade and amplify the treatment of biosolids. In preparing the REF for the upgrade work, Sydney Water considered a range of air quality impacts including odour impacts emanating from the site.

The REF identifies the NSW Department of Climate Change (DECC) Odour Criterion Line. The extent to which this line encroaches upon the subject site is shown in Figure 1.1, and as the map illustrates, only a small section of the north-eastern corner of the site is affected by odour.

The movement of odour is minimised by the topography of the site. A ridgeline running east – west dissects the site and as such acts as a barrier between the northern edge of the site and the southern side where the proposed dwellings are located. In conjunction with designating the Odour Criterion Line, DECC have advised the nature of odour which inherently travels in a straight line and does not rise over landforms. In this sense, the ridgeline acts as an effective odour and visual buffer from the Water Recycling Plant.

After discussions and Sydney Water examination of the Odour model used for the upgrade of West Camden WRP (Ref: West Camden WRP Biosolids Treatment Upgrade and Amplification Project, Review of Environmental Factors, Published July 2012). Sydney Water agreed that a setback of 300 from the boundary of the WRP would be acceptable for future residential development (Appendix B).

Should a favourable gateway determination be received, a stage 1 odour study will be required.

4.2 Bushfire

There is limited vegetation on the subject site. The original



Planning Proposal, Crase Place Grasmere

subdivision proposal contained a bushfire assessment which allowed the development proposal to proceed. An updated review has been prepared which forms Appendix E.

In preparing this new bushfire report, an iterative approach has been taken where the initial indicative plans prepared for Sydney Water were reviewed. This analysis further considered the constraints and opportunities of the site, including the 300m odour buffer. Through this iterative approach an indicative subdivision plan has been developed which shows that 4 lots are compliant with the 300m odour buffer and are located within the Bushfire Attack Level (BAL) 12.5 category. Indicative plans are shown in (Appendix D).

4.3 Infrastructure Provision

Council requested specific advice on sewer provision for the Planning Proposal and this is provided in Appendix F of this report. The report has concluded that there is sufficient capacity within the system to accommodate the form of development which is envisaged by the Planning Proposal.

Other utilities are also available to the site and can be augmented as required.

4.4 Traffic Impacts

Appendix G contains a traffic assessment on the potential impacts associated with the Planning Proposal. The assessment has concluded that there is ample capacity within the existing street system to accommodate the level of development anticipated. It has also concluded that no additional infrastructure works would be required as a result of the Planning Proposal.

4.5 Salinity and Contamination Assessment

A phase 1 contamination assessment and salinity assessment has been undertaken by Coffeys Pty Ltd (Attachmet H).

The assessment considered the site and in particular, the 2 ha portion of the site where the building envelope has been made available by Sydney Water.

The assessment found that opportunities for contaminating activities was low to very low. Impacts for salinity were found to be low to moderate.



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5.0 OBJECTIVE OF PROPOSED LOCAL ENVIRONMENTAL PLAN

The objective of the Gateway proposal is to enable the reclassification of the subject site to that of adjacent lots. The site is currently zoned RU1 Primary Production and R5 Large Lot Residential as shown in Figure 1.1. The gateway proposal will require amendment to:

- the zoning of the site
- the minimum lot size and

The changes proposed will enable the development of the site into lots permitting residential development with a minimum lot size of 4000m² and 4 ha on land zoned R5. The existing controls proposed are summarised in Table 3.1. This Table shows the current standards which apply under the existing provisions and the proposed provisions as a consequence of this rezoning.



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6.0 EXPLANATION OF PROVISIONS

The proposed amendments to the zoning map and the minimum lot size map will accommodate future subdivision for:

- Large lot residential development (R5)

Under the current LEP provisions applying to the majority of the site, subdivision is permitted in this zone with consent, however there is a minimum lot size requirement of 40 ha for each lot which is created. This provision of the LEP consequently prevents the subdivision of the site. Altering the zone from RU1 to R5 will enable a subsequent reduction in minimum lot size. It is appropriate to permit the R5 zone as this is consistent with surrounding properties.

The minimum lot size zonings are proposed to take into account the issue raised by Council to prevent development from occurring within 300m of the WRP. This is achieved through:

- the portion of land with W – 4000m² minimum lot size limits the extent of subdivision which can be considered. (The indicative lots range in approximate size from 4500m² to 6000m²)
- the portion of land with Z 2 – 4 ha limits the opportunity for subdivision for the majority of the site.

It is noted there will be no changes or implications to the text of the LEP as a consequence of this proposal.

Table 6.1 is a comparison between the land use table of the existing and proposed residential zones for the subject site.

Attachment 1



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Table 6.1 Compares the RU1 zone and R5 Large Lot Residential

RU 1 – Primary Production – Existing	R5 – Large Lot Residential
<p>Objectives</p> <ul style="list-style-type: none"> 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 this zone and land uses within adjoining zones. To permit non-agricultural uses which support the primary production purposes of the zone. To maintain the rural landscape character of the land. 	<p>Objectives</p> <ul style="list-style-type: none"> To provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality. To ensure that large residential lots do not hinder the proper and orderly development of urban areas in the future. To ensure that development in the area does not unreasonably increase the demand for public services or public facilities. To minimise conflict between land uses within this zone and land uses within adjoining zones.
<p>Permitted without consent</p> <p>Extensive agriculture; Forestry; Home occupations.</p>	<p>Permitted without consent</p> <p>Extensive agriculture; Home occupations.</p>
<p>Permitted with consent</p> <p>Bed and breakfast accommodation; Cellar door premises; Dual occupancies (attached); Dwelling houses; Environmental protection works; Extractive industries; Farm buildings; Farm stay accommodation; Garden centres; Home-based child care; Home businesses; Home industries; Intensive livestock agriculture; Intensive plant agriculture; Open cut mining; Roads; Roadside stalls; Rural industries; Rural supplies; Rural workers' dwellings; Secondary dwellings; Any other development not specified in item 2 or 4.</p>	<p>Permitted with consent</p> <p>Bed and breakfast accommodation; Dual occupancies (attached); Dwelling houses; Home-based child care; Home businesses; Home industries; Roads; Any other development not specified in item 2 or 4.</p>
<p>Prohibited</p>	<p>Prohibited</p>



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<p>Amusement centres; Car parks; Commercial premises; Correctional centres; Eco-tourist facilities; Entertainment facilities; Exhibition homes; Freight transport facilities; Function centres; Health services facilities; Heavy industrial storage establishments; Home occupations (sex services); Industrial retail outlets; Industries; Information and education facilities; Port facilities; Public administration buildings; Recreation facilities (indoor); Recreation facilities (major); Residential accommodation; Restricted premises; Service stations; Sex services premises; Storage premises; Tourist and visitor accommodation; Transport depots; Vehicle body repair workshops; Vehicle repair stations; Warehouse or distribution centres; Wharf or boating facilities; Wholesale supplies.</p>	<p>Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Car parks; Caravan parks; Charter and tourism boating facilities; Commercial premises; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Electricity generating works; Entertainment facilities; Exhibition homes; Extractive industries; Forestry; Freight transport facilities; Function centres; Heavy industrial storage establishments; Home occupations (sex services); Industries; Information and education facilities; Mortuaries; Neighbourhood shops; Public administration buildings; Recreation facilities (indoor); Recreation facilities (major); Registered clubs; Research stations; Residential accommodation; Rest/limited premises; Rural industries; Service stations; Sewerage systems; Sex services premises; Storage premises; Tourist and visitor accommodation; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Veterinary hospitals; Warehouse or distribution centres; Waste or resource management facilities; Wharf or boating facilities; Wholesale supplies.</p>
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Source: www.nsw.legislation



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7.0 JUSTIFICATION

7.1 Need for the Planning Proposal

7.1.1 Strategic studies or reports

Is the planning proposal a result of any strategic study or report?

The NSW government has produced the Draft South-West Sub-Regional Strategy to inform where development might occur within and surrounding the Camden Region in the future. This document provides broad direction for the LGA and proposals are subject to specific considerations as they are evaluated.

To assess the need for future housing supply, the draft strategy has identified that there will be significant population growth for the region in the future. This population growth translates into a total of 155,000 forecast new dwellings to the South-West subregion by 2031. One of the objectives of the draft strategy has provided is that Camden LGA will provide 10,274 new dwellings between 2004 - 2031.

Another of the core targets of the strategy is for Camden Council to complete its residential strategy and continue to identify opportunities for infill. This proposal, whilst minor in nature, provides an opportunity to provide infill housing.

7.1.2 Achieving objectives or intended outcomes

Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?

The current provisions under the LEP do not permit subdivision to occur and amending the LEP is the only option available. The provisions of Clause 4.6 of the LEP 'Exceptions to Development Standards' has been considered and this clause will not permit a variation to the minimum lot size as anticipated by this proposal.

The proposal is considered an appropriate outcome in that the draft housing strategy nominates much of the new housing stock to be located in and around centres, town centres, villages and neighbourhood centres. The proposal generally



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complies with this objective.

7.2 Relationship to Strategic Planning Framework

7.2.1 Regional and sub-regional strategies

Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy?

Camden Local Government Area (LGA) is a sub-region within the Metropolitan Plan for Sydney 2036. The South West Subregion is comprised of Liverpool, Campbelltown, Wollondilly and Camden Local Governments.

The Metropolitan Strategy and each of its draft South West Subregional Strategies consist of seven areas for consideration, or strategies. Each of these strategies consists of a series of actions pertaining to the following fields:

- A Economy and Employment
- B Centres and Corridors
- C Housing
- D Transport
- E Environment, Heritage and Resources
- F Parks, Public Places and Culture
- G Implementation and Governance

The proposed rezoning generally accords with each of the above stated seven strategies as translated within the South West Subregional Strategy. Relevant strategies of the proposed rezoning application and its compatibility is considered in more detail below.

The 'Key Directions' for Housing South West have identified that the Camden Council will provide for approximately 10,274 new dwellings by 2031 and of this number, 8690 will be via greenfield development. Whilst the key directions have nominally indicated that this growth will occur specifically around Narellan it nevertheless recognises the demand for additional housing within the LGA.

Clause SW C1.1.2 – Identifies the need for Camden (and Campbelltown) Council to work with the Department of Primary Industry and Mine Subsidence Board to develop subsidence



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guidelines that will permit higher urban densities around the centres of Narellan, Mt Annan, Menangle Park and Rosemeadow while not sterilising valuable coal resources. Although the proposal is not relevant to this clause, the fact that the proposed subdivision is so minor ensures that the intent of the plan is not undermined by its approval.

Clause SW C1.1.4 – identifies the need to retain a distinct edge to urban areas where they border rural land in consistent Camden LGAs. The proposal is compliant with this clause as it is consistent with the semi-rural character of the surrounding area as a Rural Residential subdivision.

Clause SW C1.3.3 – Identifies the need for the NSW Government and Camden Council to identify areas around Narellan to be developed at higher densities in the longer term. The proposal is not within Narellan though, the higher densities planned for the site do not reflect those related to this clause.

Clause SW C2.1.1 – requires that new dwellings increase the region's performance against the target for State Plan Priority E5. The site is within an area where a public bus route is available and therefore is able to accommodate this requirement.

Clause SW C2.1.2 – the intent of this clause is to deliver a significant number of housing opportunities. The ultimate development capacity of the subject site is not of the same scale and anticipated by this clause and therefore this clause does not preclude consideration of this proposal.

7.2.2 Council's Community Strategic Plan

Is the planning proposal consistent with a Council's Local Strategy, or other local strategic plan?

Camden 2040 is Camden Council's Strategic Plan for the People and Place of the Camden Local Government Area. It has an over-arching goal to achieve sustainability for the region. The Plan employs six key directions which guide activities to be adopted to achieve this goal. These six key directions are:

1. *Actively managing Camden's growth*
2. *Health urban and natural environments*
3. *A prosperous economy*
4. *Effective and sustainable transport*



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5. *An enriched and connected community*
6. *Strong local leadership*

These key Directions are supported by a series of strategies to assist in various outcomes being achieved. The strategies have been developed having reference to the NSW Government's State Plan (NSW 2021) and associated Regional Action Plan. The strategies and desirable outcomes have been assessed against the planning proposal.

Key direction 1: Actively managing Camden's Growth

Outcomes:

- *Camden has the best of both worlds*
- *People can access what they need*
- *There are housing choices*

Comment

The Planning Proposal is compliant with the outcomes for actively managing Camden's growth. It does not affect any heritage or character areas of Camden nor does it restrict accessibility to public space. The proposal will ultimately provide for some additional housing for the region.

Key direction 2: Healthy Urban and Natural Environments

Outcomes:

- *There is clean air and water, and bushland is protected*
- *Nothing is wasted*
- *There is community pride and amenity in our places*
- *There are open spaces and places to play*
- *People are healthy*

Comment

The planning proposal allows an efficient use of land which will form a healthy and positive addition to the surrounding neighbourhood as well as its future inhabitants. It will not impact negatively on biodiversity characteristics of the area.

Key direction 3: A Prosperous Economy

Outcomes:

- *The local economy is growing*
- *There are a variety of local job available*
- *There is a commitment to learning and skills*
- *People can access what they need*

Comment:

The planning proposal supports the objectives underpinning a



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prosperous economy for Camden as it will enable new residences to the neighbourhood which in turn will in turn support the local economy.

Key direction 4: Effective and Sustainable transport

Outcomes:

- Roads are high quality, free flowing and safe
- We leave the car at home
- People breathe clean air

Comment:

A traffic assessment has been provided which indicates that there will be no negative impacts on the street network in view of the indicative subdivision proposal. Consequently the proposal will be compliant with this objective.

Key direction 5: An enriched and connected community

Outcomes:

- *People feel connected, supported and that they belong*
- *There is community pride*
- *People feel safe*
- *People are healthy*

Comment:

The outcomes for this key direction are intangible and largely rely on provision of government services and participation rates in community support groups.

Nevertheless, the proposal is compliant in that the indicative subdivision layout is consistent with the subdivision layout generally existing in the area which will facilitate social cohesion as the site is developed. The resultant additional dwellings as an outcome of the proposal will enable greater passive surveillance in the area which will promote the safety of the area. This will also ultimately facilitate greater social connections in the area.

Key direction 6: Strong Local Leadership

Outcomes:

- People have a say in the future
- It is well governed

Comment:

The Planning Proposal is an appropriate outcome as it identifies the assets and constraints of the area and the



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response developed has taken into account these sensitivities of the site. In particular it maintains appropriate boundaries between the West Camden Water Recycling Plant through the development of appropriate zoning boundaries. The Planning Proposal is supported by relevant sub-consultant advice. The proposal will be exhibited for public comment and assessed by Council which conforms to the outcome of strong local leadership.

7.2.3 State Environmental Planning Policies Compliance

Is the planning proposal consistent with applicable State Environmental Planning Policies?

The following table outlines the potentially relevant State Environmental Planning Policies and their relevance to the Planning Proposal:

Table 7.1 Statement of Environmental Planning Policy Compliance

STATE ENVIRONMENTAL PLANNING POLICY	COMPLIANCE	COMMENT
State Policies		
SEPP No. 1 Development Standards	NA	
SEPP No. 4 Development without consent and miscellaneous exempt and complying development.	NA	
SEPP No. 6 Number of storeys in a building.	NA	
SEPP No. 14 Coastal Wetlands.	NA	
SEPP No. 15 Rural Landsharing Communities.	NA	This policy does not apply to the Shire of Camden LGA
SEPP No. 19 Bushland in Urban Areas.	NA	This policy applies to the Camden LGA, though there is no bushland present on the subject site.
SEPP No. 21 Caravan Parks.	NA	
SEPP No. 22 Shops and Commercial Premises.	NA	
SEPP No. 26 Littoral Rainforests.	NA	No littoral rainforests identified on the subject land.
SEPP No. 29 Western Sydney Recreational Area.	Does not apply	
SEPP No. 30 Intensive Agriculture.	NA	
SEPP No. 32 Urban Consolidation (Redevelopment of Urban Land).	NA	
SEPP No. 33 Hazardous and Offensive Development.	NA	
SEPP No. 36 Manufactured Home Estates.	NA	

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SEPP No. 39	Spit Island Bird Habitat	Does not apply	
SEPP No. 41	Casino/ Entertainment Complex.	Does not apply	
SEPP No. 44	Koala Habitat Protection.	NA	This policy does not apply
SEPP No. 47	Moore Park Showground.	NA	
SEPP No. 50	Canal Estate Development.	NA	
SEPP No. 52	Farm Dams and Other Works in Land and Water Management Plan Areas	NA	This policy does not apply in this Shire.
SEPP No. 55	Remediation of Land	Yes	Any Development of the Land will be required to meet the requirements of the SEPP with regard to appropriate remediation of the site.
SEPP No. 59	Central Western Sydney Economic and Employment Area.	Does not apply	
SEPP No. 60	Exempt and Complying Development	NA	The proposal will not affect the provisions of the SEPP
SEPP No. 62	Sustainable Aquaculture	NA	
SEPP No. 64	Advertising and Signage.	NA	
	SEPP No. 65 Design quality of residential flat development.	NA	
SEPP No. 70	Affordable housing (revised schemes).	NA	
SEPP No. 71	Coastal Protection.	NA	
SEPP	Affordable Rental Housing	NA	
	SEPP Housing for Seniors or Persons with a disability 2004.	NA	
SEPP Index:	Building Sustainability BASIXs 2004	Compliant	Any subsequent development applications will be compliant with these provisions
SEPP	Exempt and Complying Development Codes 2008	NA	
SEPP	Housing for Seniors or People with a Disability 2004	NA	
SEPP	Major Projects 2005.	NA	
SEPP	Development on Kurnell Peninsular 2005	Does not apply	
SEPP	Sydney Region Growth Centres 2006.	NA	
SEPP	Mining, Petroleum Production and Extractive Industries 2007.	NA	
SEPP	Infrastructure 2007.	NA	
SEPP	Temporary Structures and places of public entertainment 2007.	NA	
SEPP	Kosciuszko National Park – Alpine Resort 2007.	Does not apply	



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SEPP	Rural Lands 2008		The rezoning proposal will not alter the application of this SEPP.
SEPP 53 (2011)	Transitional Provisions	NA	
SEPP	Sydney Region Growth Centres 2006	NA	
SEPP	Temporary Structures 2007	NA	
SEPP	Urban Renewal 2010	NA	
SEPP	Western Sydney Employment Area 2009	NA	
SEPP	Western Sydney Parklands	NA	
SEPP	State and Regional Development 2011	N/A	
SEPP	Sydney Drinking Water 2011	N/A	
Deemed SEPPS (former Regional Plans)			
	Hawkesbury Nepean Catchment	N/A	
	Greater Georges River Catchment Metropolitan REP No.2		

7.2.4 Ministerial Directions

Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?

The following table outlines the Ministerial Directions under Section 117 of the EP&A Act and their relevance to the Planning Proposal:

Table 7.2 Compliance with Ministerial Directions

Ministerial Direction	Compliance	Comment
1. Employment and Resources		
1.1 Business and Industrial Zones	N/A	
1.2 Rural Zones	Applies.	This proposal is deemed of 'minor significance'
1.3 Mining, Petroleum Production and Extractive Industries	NA	
1.4 Oyster Aquaculture	NA	
1.5 Rural Lands		The proposal is consistent with the rural planning and rural subdivision principles described in SEPP (Rural Lands) 2008.
2. Environment and Heritage		
2.1 Environment Protection Zones	NA	
2.2 Coastal Protection	NA	
2.3 Heritage Conservation	NA	There are no known heritage items on the subject land.

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Attachment 1

Planning Proposal, Crase Place Grasmere



2.4 Recreation Vehicle Areas	NA	No recreation vehicle areas proposed.
3. Housing, Infrastructure and Urban Development		
3.1 Residential Zones	Complies	This proposal is compliant with this direction to the extent of future applications being compliant with provisions and controls relating to the site. It satisfies the terms of this direction by encouraging the provision of the desired housing type and character.
3.2 Caravan Parks and Manufactured Home Estates	NA	This Direction is complied with to the extent that the overall provisions of the LEP are compliant.
3.3 Home Occupations	Complies	The proposal will not impact on this outcome from being achieved.
3.4 Integrating Land Use and Transport	Applies	It is considered the proposal is consistent with the objectives of this direction.
3.5 Development Near Licensed Aerodromes	Applies	Whilst the direction is considered, the Camden Airport Masterplan has been viewed which identifies the current ANEF maps which shows that the subject site is not impacted. During exhibition, Camden Airport will have an opportunity to comment on the proposal.
3.6 Shooting Ranges	N/A	
4. Hazard and Risk		
4.1 Acid Sulphate Soils	NA	This site is unlikely to be affected by Acid Sulphate Soils. Determinative advice will be provided with the development application.
4.2 Mine Subsidence and Unstable Land	NA	Camden LGA has areas which are impacted by mine subsidence however the subject site is not located within one of these areas.
4.3 Flood Prone Land	NA	The site is not listed on Council's LEP maps as being flood prone land.
4.4 Planning for Bushfire Protection	Consistent	The proposed development is capable of being developed to be consistent with relevant bush fire protection strategies.
5. Regional Planning		



Planning Proposal, Crase Place Grasmere

5.1 Implementation of Regional Strategies	NA	
5.2 Sydney Drinking Water Catchments	NA	
5.3 Farmland of State and Regional Significance on the NSW Far North Coast	Does not apply	
5.4 Commercial and Retail Development along the Pacific Highway, North Coast	Does not apply	
5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)	Does not apply	
5.6 Sydney to Canberra Corridor (Revoked 10 July 2008. See amended Direction 5.1)	Does not apply	
5.7 Central Coast (Revoked 10 July 2008. See amended Direction 5.1)	Does not apply	
5.8 Second Sydney Airport: Badgerys Creek	Does not apply	
6. Local Plan Marketing		
6.1 Approval and Referral Requirements	NA	The proposal as submitted is consistent with the objectives of this direction.
6.2 Reserving Land for Public Purposes	NA	
6.3 Site Specific Provisions	NA	
7. Metropolitan Planning		
7.1 Implementation of the Metropolitan Plan for Sydney		The proposal is of minor significance and does not detract from the Metropolitan Plan for Sydney from being carried out.

7.3 Environmental, Social and Economic Impact

7.3.1 Critical habitats and threatened species

Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?

The majority of the site is currently cleared grassland. The site slopes down towards the eastern boundary.

It is considered that there are no critical habitats or threatened species located on the site which would be impacted by the proposal.

7.3.2 Management of environmental effects



Planning Proposal, Crase Place Grasmere

Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?

There are minimal environmental effects as a consequence of the planning proposal as the site is essentially cleared grassland. A bushfire assessment has been prepared which shows that bushfire can be appropriately managed (Appendix E).

When a development application is lodged for subdivision, opportunity will be provided for visual screening of the WRP through the development of an appropriate landscape plan.

The site has appropriate road infrastructure to access the site. All other services and utilities are considered to be available to the site or can be augmented as required.

7.3.3 Social and economic effects?

How has the planning proposal adequately addressed any social and economic effects?

The odour buffer line illustrated in Figure 1.1 shows that future dwellings will not be affected by odour from the water treatment plant. As the subdivision allows the introduction of building envelopes which are not affected by this constraint, it is considered the proposal is an efficient use of land considering its proximity to Camden and the services offered in the township.

This provides social and economic benefits in that additional housing opportunities are made available in relatively close proximity to the existing town centre and the existing businesses in the area will be supported by additional custom.

The size and nature of the proposed lots is compatible to surrounding development for which there is a proven market in Camden. Continuing this trend provides dual benefits including the potential for economic incentives, for local trade contractors engaged in building, landscape and vegetation management.

7.4 State and Commonwealth Interests

7.4.1 Public infrastructure provision?



Planning Proposal, Crase Place Grasmere

Is there adequate public infrastructure for the planning proposal?

Adequate infrastructure is available for the proposal.

Adequate public infrastructure is available to the site. If necessary, some augmentation of existing services may be required and this can be adequately addressed as the site is developed.

7.4.2 Consultation with State and Commonwealth Public Authorities

What are the views of State and Commonwealth Public Authorities consulted in accordance with the Gateway determination, and have they resulted in any variations to the planning proposal?

The views of State and Commonwealth Public Authorities will be canvassed through the assessment process of this proposal as appropriate. This consultation may result in variations to the Planning Proposal.

7.4.3 Further investigations as part of Land Rezoning

The Gateway process will determine what additional information may be required to enable the continued consideration of this proposal. Confirmation of the zoning boundary prepared by a registered surveyor is appropriate to ensure minimum lot sizes are achieved is appropriate.

With regard to other matters, the impacts of the proposed rezoning are considered to be commensurate with other activity and development in the area and that sufficient studies are provided as part of this documentation to enable assessment.



8.0 MAPPING

8.1 Zoning Amendments

The planning proposal will result in an amendment to the zoning map LZN_004 by rezoning the subject site to R5 Large Lot Residential. The proposed amendment is shown in Figure 8.1. The current zoning of the subject site is shown in Figure 8.2. (Appendix A)

Figure 8.1 Proposed Zoning Map

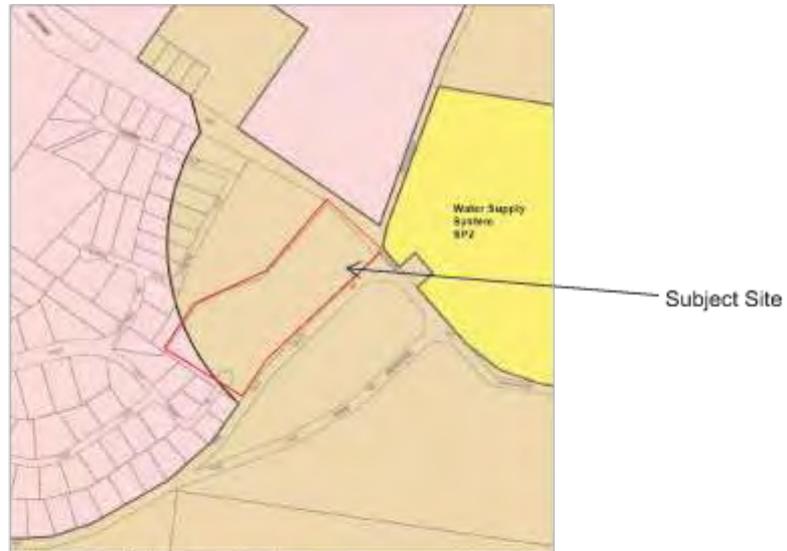


Source: Googlemaps and Siteplus

Figure 8.2 Current Zoning Map



Planning Proposal, Crase Place Grasmere



Source: www.legislation.nsw.gov.au (Map 4)

8.2 Minimum Lot Size Amendments

The Gateway Proposal amends the current lot size permitted in the zone from 'W' 4000m² and AB 40 ha to 'W' 4000m² and to Z2 (4ha). The proposed lot size map is shown in Figure 8.3 and the current lot size map is shown in Figure 8.4.

Figure 8.3 Proposed Lot Size Map



Source: Googlemaps and Siteplus



Planning Proposal, Crase Place Grasmere

Figure 8.4 Current Lot Size Map



Source: www.legislation.nsw.gov.au (Map 4)

Council provided advice that the proposed minimum lot size should be amended to allow for a Z2 (4ha) minimum. This would also result in the creation of a Z1 (2ha) minimum. These changes would require an amendment to the legend of all lot size maps to include:

- Z1 (2 ha) minimum
- Z2 (4 ha) minimum

All other lot size maps currently identifying land as 'Z' would be amended to 'Z1'.

A preliminary survey has been used to assist in the development of this proposal. It has been used to locate the zoning boundary on the site and indicate the area of each of the potential lots. These are shown in Figure 8.5. Appendix D contains plans showing the indicative lots.

Figure 8.5 Approximate Area of Indicative Lots



Planning Proposal, Crase Place Grasmere



Source: Siteplus

9.0 DETAILS OF COMMUNITY CONSULTATION

It is envisaged the proposal will need to be advertised for a minimum of 28 days.

During exhibition of the proposal the community will be invited to make a submission regarding the planning proposal.

The community will be further afforded the right to comment on final details of the proposal through both the rezoning and development application process.



Planning Proposal, Crase Place Grasmere

10.0 PROJECT TIMELINE

An anticipated project timeline is provided to enable an understanding of the time required to complete the planning proposal within a reasonable period of time. The timeline also provides a mechanism to monitor the progress of the proposal through the plan making process.

The anticipated time line is described in Table 9.1

Table 9.1 Anticipated Timeline

Government Agency Consultation – pre-exhibition	N/A
Date of Gateway Determination (Commencement Date)	May 2014
Completion of Required Technical Information (if any – see Note 1)	July 2014
Government Agency Consultation – post-exhibition	TBA
Commencement and completion dates for public exhibition	TBA
Dates for public hearing	N/A
Timeframe for consideration of submissions	TBA
Timeframe for the consideration of proposal post exhibition	TBA
Date of submission to P&I to finalise the LEP	TBA
Anticipated date RPA will make the plan	TBA
Anticipated date the RPA will forward to the P&I for notification.	TBA

Note 1

The proposal is a minor adjustment to the planning scheme in regard to zoning and minimum lot sizes and should not result in the requirement of further technical studies to those included in the document.



Planning Proposal, Crase Place Grasmere

11.0 CONCLUSION & RECOMMENDATIONS

It is recommended that Council forward the Planning Proposal to the NSW Minister for Planning under the Gateway determination process in accordance with Section 56 of the EP&A Act.

1. That the Planning Proposal prepared by Siteplus Pty Ltd for the proposed Amending Local Environmental Plan for Lot 24 DP 1086823, Crase Place, Grasmere be forwarded to the NSW Minister for Planning for determination under the Gateway process under Section 56 of the EP&A Act.
2. That the Minister be requested to give advice to Council on:
 - a. The need for studies or other information to support the Planning Proposal and any associated need to revise the Planning Proposal.
 - b. Confirm the period of public exhibition of the proposal.

ORD02



Planning Proposal, Crase Place Grasmere

12.0 APPENDICES

Attachment 1

APPENDIX A

Proposed Zoning



ORD02

Attachment 1





ORD02

Attachment 1

ORD02

APPENDIX B

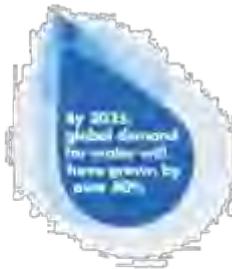
Sydney Water Advice

Attachment 1



ORD02

Attachment 1



21 May 2013

Clive Hughes
 50 Wyuna Avenue
 Freshwater NSW 2096
 Reference: 2011/03754F

10 Crase Place, Grasmere

Dear Clive,

I am writing to advise you that Sydney Water is satisfied with your revised subdivision proposal at Crase Place, Grasmere, submitted for discussion in March 2013.

Sydney Water previously required a standard 400 metre buffer to distance development from our treatment plants. As you are aware, Sydney Water has now adopted a position where we may support development outside of the actual odour impact area, known as 2OU contour boundary zone. Sydney Water considers the nature of development, likelihood of odour detection and proximity to the plant when reviewing these proposals.

Although within 400 metres of the West Camden Water Recycling Plant, your planned residential subdivision proposes housing outside of the 2OU contour boundary zone.

Sydney Water is satisfied with your plans of March 2013, proposing three low density residential dwellings no closer than 300 metres from the West Camden Water Recycling Plant. Sydney Water considers this proposal an improved outcome for the site and locates housing at a sufficient distance from the treatment plant.

I wish to advise that while the proposed development is outside of the 2OU zone, there may still be instances of detection of odour emissions at this site due to the proximity of the plant.

If you require any further information, please contact David Demer of the Urban Growth Branch on 02 8849 5241 or e-mail david.demer@sydneywater.com.au

Yours sincerely,

Adnan Miller
 Manager, Growth Strategy

Sydney Water Corporation, Level 11, 110 Pitt Street
 Sydney NSW 2000
 Tel: 02 9550 1000
 Fax: 02 9550 1001
 Email: enquiries@sydneywater.com.au
 Sydney Water Corporation is a not-for-profit public utility company. It is a subsidiary of the Government of New South Wales.

APPENDIX C

Interaction with Sydney Water

APPENDIX C

Summary Timeline of Events

Date	Correspondence type	From	To	Conversation Content	Outcome	Actioned
1 Aug 2011	E-mail	Clive Hughes	Council	Seeking relaxation of Council's odour limit - noting that it was imposed by Council against Sydney Water which would allow a more logical location of the building envelope rather than its current location which is limited in opportunity	Chris Lacer of Council waiting for Sydney Water representative to return	
11 Aug 2011	E-mail		Sydney Water Richard Schul	Making enquiries regarding the blanket exclusion zone of 400m around STP with the emphasis on actual wind patterns.	Conference receipt of e-mail	
11 Aug 2011	Phone and confirming e-mail		Sydney Water Rodney Mackenzie	Confirming earlier conversation that the site is due west of the STP and that the prevailing winds are south to north and therefore the site is not in the prevalent direction of winds arising from the STP - may result in a reduction of the odour zone		
21 Nov 2011	E-mail		Sydney Water Cassandra Loughlin	Following up on the relaxation of the odour exclusion zone. Advice offered that: <ul style="list-style-type: none"> Upgrades to the STP occurred in 2009 to and further upgrades are scheduled for 2012. REF for the 2012 upgrade shows that the gume does not touch the subject site. From 1999 to 2010 5 odour complaints were received and these were during periods when major upgrade works were proposed (Pg 53 of REF West Carnton Water Recycling Plant Bioreactor Treatment Upgrade and Amplification). If a house were built within the (currently) identified building envelope, then this will impact on the view corridor to the nature reserves for all three property owners Any dwelling should be offset to the edge/line on the south eastern border next to the noise def and Old Oaks Road 	24 Nov 2011 (CL) Sydney Water - the current approach is to use a combination of odour mitigation techniques and compatible land uses SW approach to development proposals so that a consistent response is developed.	Meeting held with CL on 12 December 2011
25 Jan 2012	E-mail	Cassandra Loughlin Sydney Water	Clive Hughes	Confirm the revised approach of managing impact of odour emissions in mitigation works associated with compatible land uses. This approach is consistent with OEH guidelines and DPI OEH - Assessment and management of odour from stationary sources in NSW. Technical framework: http://www.environment.nsw.gov.au/infoodour.htm . DPI Urban NSW Best Practice Odour Guidelines. Subject to further assessment, the building zone could be relocated to the suggested site however there is unlikely to be any support at this stage, for rezoning or subdivision of the property.		
4 June 2012	E-mail	Clive Hughes	Sydney Water Cassandra Loughlin	Seeking a meeting with CL and Rod Mackenzie with regard to an alternate building envelope as it provides best views and privacy from other houses on the southern boundary. Rational is based on the e-mail of 21 November 2011. Opportunity to actively monitor odour risk would be to plant a 25m to 30m corridor of mixed aromatic natives providing a wind (odour) break and a visual separation between the source and the site.	Cassandra has left the section that works on developments near treatment plants and Rod has left Sydney Water	
27/7	E-mail	Sydney Water David Denier	Clive Hughes	The required buffer from the STP is based on the 2 Odour Unit (2OU) contour and Sydney Water will only support compatible land uses such as industrial or farming. The position of the proposed building appears to be outside the 2OU contour boundary. If an application is lodged with Council for development then Sydney Water would make comments then	The matter has been forwarded to David Denier (on leave). The matter has been referred to Engineering and Environmental Services Group to provide advice/assessments	
20 Aug 2012	E-mail	Sydney Water David Denier	Clive Hughes	Requested advice from an internal board paper		

ORD02

APPENDIX D

**Indicative Subdivision
Layout**

Attachment 1



LEGEND

- 30M WSP BUFFER ZONE
- MINIMUM LOT SIZES
- 4000m²
- 4ha



REVISIONS

no.	description	date	by	app.
01	08/07/14			
F	26/11/13			
D	10/11/13			
C	20/08/13			
B	12/08/13			
A	17/08/13			

Plan Adjustment for Councils regarding Lot Sizes
 Plan Adjustment regarding 4000m²
 Readjustment to reference location and existing infrastructure
 Acquisition of the site into the site
 Plan developed for Siteplus Water

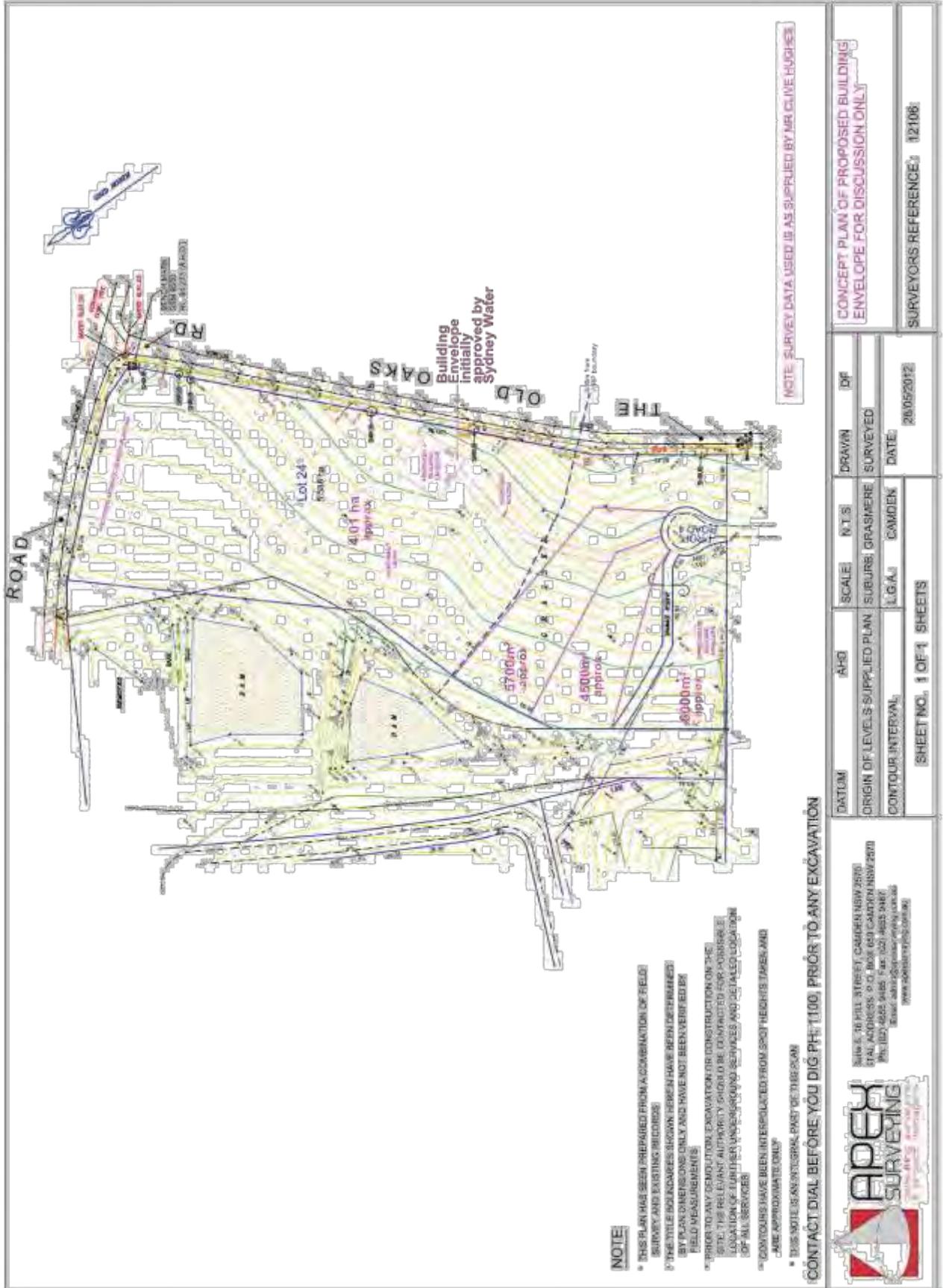
scale AS 1:5000
 AT 11
 date 14.08.12

PROJECT
 PYRENS ESTATE
 GRAPESIDE
 client COMBRIDGE HOLDINGS PTY LTD

REG NO.
 MUNICIPALITY PLAN
 PROJECT NO.
 PMS556 12134

ORD02

Attachment 1



NOTE

- * THIS PLAN HAS BEEN PREPARED FROM A COMBINATION OF FIELD SURVEY AND EXISTING RECORDS
- † THESE TITLE BOUNDARIES SHOWN HEREIN HAVE BEEN DETERMINED BY FIELD MEASUREMENTS ONLY AND HAVE NOT BEEN VERIFIED BY
- ‡ PRIOR TO ANY CONSTRUCTION OR EXCAVATION OF THE SITE, THE RELEVANT AUTHORITY SHOULD BE CONTACTED FOR POSSIBLE LOCATION OF FURTHER UNDERGROUND SERVICES AND DETAILED LOCATION OF ALL SERVICES
- § CONTOURS HAVE BEEN INTERPOLATED FROM SPOT HEIGHTS TAKEN AND ARE APPROXIMATE ONLY
- ¶ THIS NOTE IS AN INTEGRAL PART OF THIS PLAN

CONTACT DIAL BEFORE YOU DIG PH: 1100, PRIOR TO ANY EXCAVATION

Apex SURVEYING
 1100 Hill Street, Camden NSW 2570
 1100 Hill Street, Camden NSW 2570
 Ph: (02) 4622 5455 Fax: (02) 4622 5447
 Email: apex@apexsurveying.com.au
 www.apexsurveying.com.au

DATUM	AMG	SCALE	N.T.S.	DRAWN	DF
ORIGIN OF LEVELS SUPPLIED PLAN	SUBJRL	GRASMERE		SURVEYED	
CONTOUR INTERVAL	1 G.A.G	CAMDEN		DATE	28/06/2012
SHEET NO. 1 OF 1 SHEETS					
SURVEYORS REFERENCE: 12106					
CONCEPT PLAN OF PROPOSED BUILDING ENVELOPE FOR DISCUSSION ONLY					

ORD02

Attachment 1

APPENDIX E

Bushfire Assessment

BUSHFIRE HAZARD ASSESSMENT FOR PROPOSED
REZONING OF 10 CRASE PLACE, GRASMERE

LOT 24 DP: 1086823

LGA: CAMDEN

OWNER: CLIVE HUGHES

PROJECT MANAGER: SITE PLUS PTY LTD

29 October 2013

Our ref: 995bf



Phone: (02) 4236 0954 Fax: (02) 4236 7410 Mobile: 0425 305 245 ABN: 6156 3609 153
Email: sales@harrisenvironmental.com.au Postal Address: PO Box 13, Wallaby Hill Rd, Jerrabombie NSW 2533

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639



HARRIS ENVIRONMENTAL CONSULTING:
 FPA Business Certification number: BPD-BD-26927

ABN 6156 3609 153

ASSESSOR & QUALIFICATIONS

Katherine Harris
 BPAD – D Certified Practitioner: BPAD-D BPD-PD-26927
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 Grad Dip Enviro Mang (Herts, Uk), Grad Dip Nat Res (UNE)
 Bsc App Sc, Agriculture (HAC)

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17 September 2013/ref 995bf
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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

SUMMARY

This Bushfire Hazard Assessment was prepared for the proposed rezoning of Lot 24 in DP 1086823, which is located on bushfire prone land.

This assessment outlines how compliance with Planning for Bushfire Protection (2006) can be achieved to assist in further subdivision design. It identifies the land which meets BAL 12.5 construction and APZ requirements, the key constraints and the general bushfire protection measures required.

Site specific bushfire protection measures are not provided at this stage although this assessment can be used to inform subsequent stages in the development assessment process.

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

1. INTRODUCTION

This Bushfire Assessment Report has been prepared by Harris Environmental Consulting for the proposed rezoning of Lot 24 DP 1086823, at 10 Crase Pl, Grasmere. This assessment is based on a site assessment carried out on the 23 September 2013.

This assessment has been prepared with all reasonable skill, care and diligence. The writers of this report recognizes the fact that no property and lives can be guaranteed to survive a bushfire attack and this proposal examines ways the risk can be reduced through consideration of the following legislation:

1. *Rural Fires Act 1997*;
2. *Environmental Planning and Assessment Act 1997*;
3. Building Code of Australia;
4. NSW Rural Fires Services, *Planning for Bushfire Protection*,2006;
5. Australian Standard AS3959-2009 Construction of buildings in bushfire-prone areas.

Harris Environmental Consulting accepts no responsibility to third parties who use this report or part thereof. This assessment was undertaken using the terms of contract between Site Plus Pty Ltd and Harris Environmental Consulting. The authors allow the intellectual property within the assessment to be used, with the date of assessment acknowledged, and copyright will not be breached.

2. ASSESSMENT CRITERIA

This assessment addresses the bushfire protection requirements of Section 117 Direction 4.4 of *Environmental Planning and Assessment Act 1979*. It applies the Planning Principles for Rezoning to Residential Land in Bushfire Prone Areas from *Planning for Bushfire Protection 2006* (PBP).

The Planning Principles for Rezoning to Residential Land in Bushfire Prone Areas are applied to the proposed development. These planning principles are listed on page 4 of the *Planning for Bushfire Protection Guidelines*, (NSW Rural Fire Service, 2006). This includes:

- a) **Access**; does the site have provision for a perimeter road with two way access which delineates the extent of the intended development?
- b) **Asset Protection Zones**; does the development have provision at the urban bushland interface for the establishment of adequate asset protection zones for future housing?
- c) **Minimum lot depths**; what will be the minimum residential lot depth to accommodate asset protection zones for lots on perimeter roads?
- d) **Perimeter exposed to hazard**; does the development minimise the area of developed land interfacing the hazard?
- e) **Inappropriate development in hazardous areas**; are there any site specific controls needed to address development or placement of combustible materials?

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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

- f) **Inappropriate placement of combustible materials in asset protection zones;** are there any site specific controls needed to prevent the inappropriate placement of combustible materials in asset protection zones?

3. SITE LOCATION AND PROPOSAL

3.1 Location

The general location is shown on Figure 1 and a broad scale aerial photograph is shown in Figure 2. Figure 3 provides a street map.

The subject site (Lot 24 DP 1086823) is located approximately 2 kilometres west of Camden and is accessed off Harben Vale Circuit. The whole south eastern boundary adjoins The Old Oaks Road. The north eastern boundary adjoins Werombi Road. The Camden Sewerage Treatment Plant is located on the other side of Werombi Road directly north east of the site. The northern boundary adjoins a series of water storage dams.

Figure 1 Location of property



Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Figure 2 Broadscale view of property location



Figure 3 Street map of subject site



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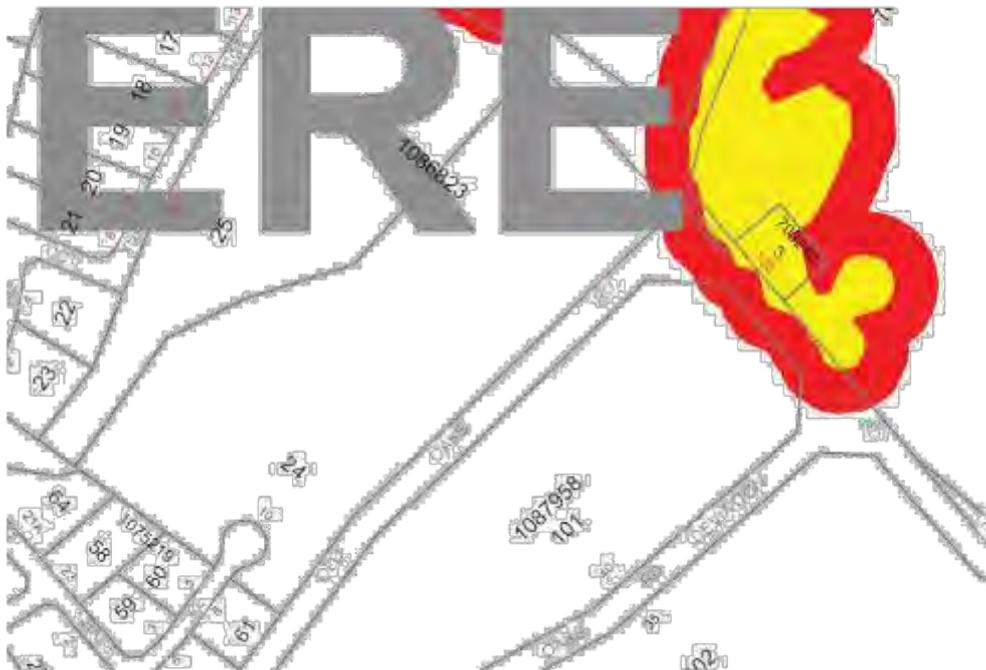
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4. SITE DESCRIPTION

4.1 Mapped Bushfire Prone Land

The Camden Council map of Bushfire Prone Land (Figure 5) shows a small fraction of the property is mapped as Bushfire Prone Land. The mapped area is in the north east corner. However the site is located on grassland and the adjacent nature strip would be considered Bushfire Prone regardless of whether or not it has been mapped.

Figure 5 Bushfire Prone Land



Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

4.2 Terrain

The subject lot faces the north west. The landform is undulating and slopes gently down towards the drainage line and three large water supply dams on the north westerly boundary. The house sites will be located on land close to the cul-de-sac on the south western side of the subject lot. See Figure 4.

4.3 Vegetation

Figure 6 shows the bushfire prone land within 100m of the area identified suitable for dwellings. The dominant vegetation formation is characterised as grassland. The only trees near to the site are located within the nature strip where the creek and water supply dams are, as shown in Photo 1. There is also a bike track within this riparian corridor. For bushfire assessment purposes, the trees in the riparian corridor are considered "Rainforest", as the total width measures approximately 40m and the PBP 2006 page 52, allows "Riparian areas are those areas of vegetation which are no greater than 20m in width and are found on either bank of a river, creek or stream identified on a bush fire prone land map and treated the same as rainforest". These trees are still juvenile as shown in Photo 2.

Photo 1 View of grassland and riparian corridor on north western elevation



Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Figure 6 Vegetation Formations within 100m of land identified as suitable for house sites



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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Photo 2 View of tree planting in riparian corridor and bike track



5. BUSHFIRE HAZARD ASSESSMENT

5.1 Methodology

A number of related factors determine the nature of the bushfire hazard. These are slope, vegetation type, distance from hazard, access and the regions fire rating index. The Fire Rating Index is determined by the NSW RFS for fire areas and council areas across NSW and assumed for a 1 in 50 year event (Table A2.3, RFS 2006). Camden LGA has an **FDI rating of 100** for a 1 in 50 year event.

Each of these factors has been considered in this assessment.

The assessment of the slopes and vegetation was carried out in accordance with the RFS Guidelines Planning for Bushfire Protection (2006), Appendix II and AS 3959:2009, Section 2.

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

5.2 Slope Assessment

The effective "slope" is the slope under the vegetation posing the bushfire threat. As fires travel slower down a hill, AS3959:2009 classifies all upslope as "flat".

For this assessment, the slopes that would most significantly influence fire behavior were determined over a distance of 100m from the proposed development. This assessment was undertaken using a digital contour map with 2 metre contour intervals and assessed in the field, using a hand held clinometer.

Table 1 summarises the identified effective slope in accordance with the PBP (2006) to a distance of 100m.

Table 1 Slope and direction

NORTH	SOUTH	EAST	WEST
Downslope	Upslope/Level	Upslope	Downslope
5-10 degrees			5-10 degrees

The subject lot is located on an undulating side slope with a north westerly orientation. This assessment found that the slope influencing bushfire behavior on the north west falls into the PBP (2006) category of "downslope 5-10 degrees". Photo 3 shows the downslope looking directly west from proposed indicative dwelling footprints. The east and south elevations falls into the PBP (2006) category of level/upslope. Photo 4 shows the upslope looking east from indicative dwelling footprints.

Photo 3 View looking west



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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Photo 4 View looking east



5.3 Defendable space/Asset Protection Zone

The Asset Protection Zone (APZ) provides a defendable space between the asset and the hazard. This ensures minimal separation for safe fire-fighting, reduced radiant heat, reduced embers and smoke.

The primary purpose of the APZ assessment is to determine a compliant (APZ required by Acceptable Solutions within Table A2.4 AS 3959:2009) location for building envelopes.

The building construction standard is based on the determination of the Bushfire Attack Level (BAL) in accordance with AS 3959:2009 'Construction of Buildings in Bushfire Prone Areas'. The BAL is based on known vegetation type (AS3959 – vegetation), effective slope and managed separation distance between the development and the bushfire hazard.

It is assumed that the highest bushfire attack level construction standard will be BAL 12.5. The following describes the BAL setbacks for each elevation:

North West: the BAL 12.5 setback is located 36m from the downslope 5-10 degree "rainforest";

North East: the BAL 12.5 Setback is located along the 300m buffer line and assumes the grassland on the other side of this land could be "managed" as part of a APZ;

South West: Managed lands so no setback required;

South East: The Old Oaks Road provides an adequate buffer to the "Grassland" so no setback required.

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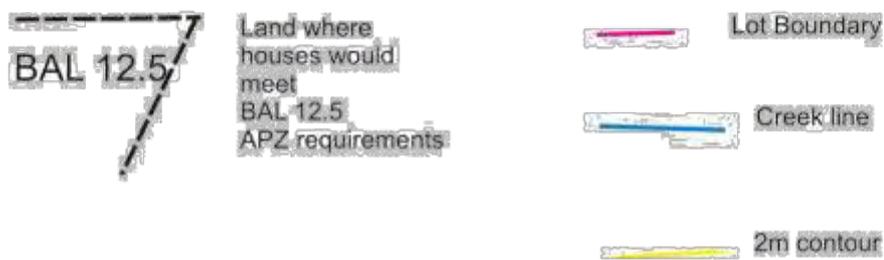


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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Figure 7 shows BAL 12.5 APZ setbacks of land for the land identified as suitable for housing "

Figure 7 APZ Requirements of indicative dwelling footprints



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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

5.4 Access

The proposed lots are all within 40m from an existing sealed 2-way public road.

5.5 Inappropriate Development in Hazardous Areas

Site specific controls will be required to address the development or placement of combustible materials within the building setbacks that is part of the APZ for lots. This will be based on the Bushfire Protection Measures in Appendix 5 of PBP (RFS, 2006) which includes:

- Avoid planting trees species with rough fibrous bark, or which retain/shed bark in long strips or retain dead material in their canopy.
- Avoid planting deciduous species that may increase fuel at surface/ground level by the fall of leaves.
- Avoid climbing species to walls and pergolas.
- Locate combustible materials such as woodchips/mulch, flammable fuel stores (LPG gas bottles) away from the building.
- Locate combustible structures such as garden sheds, pergolas and materials such as timber furniture away from the building.
- Ensure any vegetation planted around the house is a suitable distance away so these plants do not come into physical contact with the house as they mature.
- The property should be developed to incorporate suitable impervious area surrounding the house, including courtyards, paths and driveways.

5.6 Water Supply and Utility Services

Adequate supply of water is essential for firefighting purposes. In addition, gas and electricity should be located so as not to contribute to the risk of fire or impede the firefighting effort. Water, electricity and gas are to comply with section 4.1.3 of PBP (2006).

5.7 Building Construction

The Australian Standard AS3959:2009 Construction of building in bushfire prone areas provides the relevant construction requirements for buildings in bushfire prone land. The proposed lot layout provides building envelopes for construction standard of BAL12.5.

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

6. SUMMARY

Based upon an assessment of the plans and information received for the proposal, it is recommended that:

- The APZ setbacks identified in this assessment will be required as a condition of development. The consent authority is required to ensure that a mechanism is established to ensure the setback is enforced.
- Water, electricity and gas are to comply with Section 4.1.3 of PBP (2006).
- Landscaping is to be undertaken in accordance with Appendix 5 of PBP (2006) and managed and maintained in perpetuity.
- Standard of access is to comply with standards for PBP (2006) 4.1.3.

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

7. REFERENCES

Keith, D. (2004) "Ocean Shores to Desert Dunes" Department of Environment and Conservation, Sydney

NSW Rural Fire Service (2006) *Planning for Bushfire Protection. A Guide for Councils, Planners, Fire Authorities, Developers and Home Owners.*

NSW Rural Fire Service Standards for asset protection zones. Can be accessed from www.rfs.nsw.gov.au

Standards Australia (2009) AS3959, *Construction of buildings in bushfire-prone areas.*

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Appendix I Methodology and process used to determine APZ

The PBP (2006) provides a methodology to determine the Asset Protection Zone required for residential dwellings. In addition, the Australian standard AS3959-2009 determines the appropriate setback for construction level BAL 29.

The following process was taken to assess the APZ required for this zoning proposal.

Determine vegetation formations

The PBP (2006) requires the assessment to:

- (a) Determine vegetation formations:
- I. Identify vegetation within 140 metres in all directions;
 - II. Consult Table A2.1 to determine the predominant vegetation type; and
 - III. Select the predominant vegetation formation as described in Table A2.1.

The vegetation formations classified in Table A2.1 of Planning for Bushfire Protection 2006 that could be included in Bushfire Prone Land area:

- Forest (wet and dry sclerophyll)
- Woodland
- Plantations (pine only)
- Forested wetlands
- Tall heaths
- Freshwater heaths
- Short heaths
- Alpine complex
- Semi-arid woodlands; and
- Rainforest.

However, Bushfire Prone Land does not include:

- a) Vegetation less than 1 ha, or a shape that provides a potential fire run to building of less than 50m is considered remnant vegetation, which is considered a low hazard. The same APZ and construction standards applied to rainforest are applied to remnant vegetation;
- b) The following are not considered in the assessment:
 - non-vegetated areas including roads, footpaths, cycleways, waterways buildings, rocky outcrops etc; and
 - reduced vegetation including maintained lawns, golf course fairways, playgrounds or sports fields, vineyards, orchards, cultivated ornamental gardens and commercial nurseries.

For this site, the Eucalypt vegetation is found as open forest that is consistent with what is deemed to be **Forest**.

Determine effective slope

The effective slope represents the slope most likely to influence fire behavior. The effective slope between the proposed development site and forest, measured over 100m, is divided into two categories:

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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

- 5-10 degrees
- 10-15 degrees.

The steeper slopes are closer to the development within the southern part of the development. This is because the development is closer to the Megarritys Creek.

Where a large part of the 100m transect included slopes in the 10-15 degree range, it was assumed this was the dominant slope to influence fire behaviour. The land assessed in the 5-10 degree category includes a smaller proportion of slope in the 10-15 degree category, so it was much less likely that this slope would influence fire behaviour.

Determine appropriate fire weather

The Fire Rating Index is determined by the NSW RFS for fire areas and council areas across NSW and assumed for a 1 in 50 year event (Table A2.3, RFS 2006). Wollondilly LGA has an **FDI rating of 100** for a 1 in 50 year event.

Determine appropriate setback

The required Asset Protection Zone setback is calculated using the following Table 2.4.2 from the AS 3959 2009.

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Minimum specifications for Asset Protection Zones

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Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

Appendix II Definition of Asset Protection Zones

The following summary from RFS (2001) and RFS (2006) is intended to help the owner to understand how the Inner and Outer Protection Zones are to be maintained.

Inner Protection Zone (IPA)

The inner component of an asset protection zone, consisting of an area maintained to minimal fuel loads and comprising a combination of perimeter road, fire trail, rear yard or reserve, so that fire path is not created between the hazard and the building. An IPA should provide a tree canopy of less than 15% and should be located greater than 2 metres from any part of the roofline of a dwelling. Garden beds of flammable shrubs are not to be located under trees and should be no closer than 10 metres from an exposed window or door. Trees should have lower limbs removed up to a height of 2 metres above the ground.

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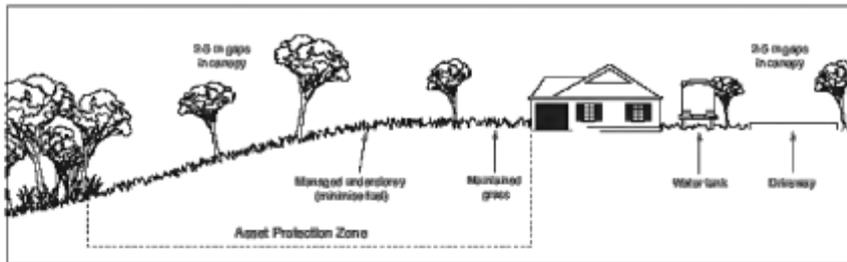


Figure A 2.1 Asset Protection Zone [setback] design

Bushfire Hazard Assessment for proposed rezoning, 10 Crase Place, Grasmere, Lot 102 DP:841639

ORD02

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ORD02

Attachment 1

APPENDIX F

**Sewer Augmentation
Assessment**





WorleyParsons

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Infrastructure & Environment

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24 January 2014

Ref: 301015-03400
File:

Site Plus Pty Ltd
2a Thomas Street
Wollongong NSW 2500

Attention Anne Trezise

Dear Anne

**10 CRASE PLACE, GRASMERE (LOT 24 DP 1086823)
SEWERAGE SERVICING INVESTIGATION**

This letter outlines a preliminary sewerage servicing investigation prepared by WorleyParsons for the proposed residential development at 10 Crase Place, Grasmere (the property), also described as Lot 24 of DP 1086823.

The purpose of this letter is to provide advice to Site Plus Pty Ltd advising whether an appropriate sewerage servicing option is available for the indicative level of development. We understand that this advice will accompany a rezoning application for the property.

1. APPROACH

This sewerage servicing investigation has been developed and presented in the following phases:

- Review of background data and documentation;
- Confirmation of the proposed development layout and type;
- Review of existing sewerage infrastructure in the vicinity of the property, including an estimate of current sewer loading and total available capacity;
- Presentation of an indicative servicing option involving connection to a Sydney Water gravity sewer sewerage system that discharges to West Camden Water Recycling Plant (WRP).

2. SITE LOCATION

The subject property is located at the end of Crase Place, Grasmere in the Camden Local Government Area (LGA). The property is bound by Werombi Road to the north, The Old Oaks Road to the east, existing residential development to the south and an unnamed watercourse to the west. The West Camden WRP is located to the north-east of the site (refer to **Figure 1**).

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Attachment 1



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Figure 1: Extent of the property at 10 Crase Place, Grasmere

(Image from <http://maps.six.nsw.gov.au/> (15/10/13))

3. PROPOSED DEVELOPMENT

Site Plus is currently preparing a rezoning application for the property to accommodate up to four low density residential dwellings outside the 300 metre odour control buffer for West Camden WRP. The indicative layout of these dwellings is shown below in **Figure 2**.



Figure 2: Indicative proposed development layout

Source: Site Plus

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The indicative development layout presented in **Figure 2** has been derived from an iterative process. Following the upgrade of West Camden WRP, a layout had initially been prepared for Sydney Water that showed the 'odour boundary' could be adjusted. This odour boundary is currently a constraint on potential future development of the site. Sydney Water advised that they had no issue with the development of the site if it occurred beyond 300 metres of the boundary of the WRP. Sydney Water's response amends the odour buffer from 400 metres to 300 metres. This enabled the indicative development envisaged in **Figure 2** from which this investigation has been prepared.

4. EXISTING SEWERAGE INFRASTRUCTURE

The subject property is neighboured by an existing residential area, with subdivided lots connected to a gravity sewerage system that discharges to West Camden WRP. A review of Dial Before You Dig (DBYD) information has revealed that a DN150 PVC sewer main runs within the south-western boundary of the proposed property (as marked in **Attachment A**).

The sewer passes through the neighbouring residential area before draining to the West Camden WRP inlet works. The overall capacity of the existing gravity sewerage system that services the site and surrounding residential area is governed by a DN150 PVC concrete encased sewer, located about 300 metres north of 10 Crase Place, near Werombi Rd.

The details of this sewer main were obtained from Sydney Water's HYDRA asset database and analysed using the Sydney Water Sewerage Flow Schedule (September 2013 Edition). The grade of the sewer was found to be 1.13% with a maximum capacity of 16.5 L/s.

The grade of the sewer main immediately adjacent to the property was determined by comparing survey and DBYD data, and was found to vary between 12%-14%. At this grade the total capacity of the sewer main is found to be 53.91 L/s.

The results of the pipe capacity calculations are shown in **Table 1**.



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Table 1: Comparison of sewer loadings

	No. of lots ¹	Design Flow (L/s) ²	EP ²	Max Design Flow (L/s) ³
Pre-Development (Existing) Conditions	90	12.32	315	16.5
Future Conditions (Existing + Proposed)	94	12.78	329	16.5

Notes:

- ¹ Estimated number of lots currently connected to sewer main, as shown on Sydney Water DBYD Map. The neighbouring residential area contains 90 residential lots including both developed and undeveloped sites. This analysis assumes that all lots have been developed.
- ² Equivalent Population, based on 3.5 EP per Lot as per WSA 02-2002-2.2 Table A1
- ³ Calculated using the Sydney Water Sewerage Flow Schedule (EP Calculations) (Updated September 2013)

As shown above, the existing loading falls is within capacity of the existing sewer.

Future Development

The addition of the four proposed dwellings presents a 3.7% increase in design flow. The total proposed loading on the sewer main in terms of design flow is 12.78 L/s, within the maximum of 16.5 L/s (approximately 80% of its maximum design flow).

The results of the calculations show that there is adequate capacity to cater for the four additional dwellings within the existing DN150 PVC sewer main, both in terms of design flow and EP.

5. PROPOSED SERVICING OPTION

A preliminary servicing option has been prepared by WorleyParsons and involves the installation of a DN150 gravity sewer to connect each dwelling to the existing sewer main. It shows that a gravity line be placed along the rear boundary of each property to maximise land use and connect to the existing sewer main with the property boundary, approximately 40 metres downstream of the existing sewer and maintenance hole. This indicative arrangement is shown in **Attachment A**.

We note that the indicative proposed layout shows the building envelope in close proximity to the existing maintenance hole within the boundary of Lot 1 (as shown in **Attachment A**) and the final placement / location of a dwelling should take this into consideration. It is likely that this dwelling will be subject to SWC building over or adjacent to sewer requirements, such as piling of dwelling

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foundations and concrete encasement of the existing sewer. Access to this maintenance hole should be considered during the design of the proposed dwelling.

6. CONCLUSION

Following a desktop review of background documentation and an investigation of existing sewerage infrastructure capacity, we advise the following regarding sewerage servicing for the proposed development of 10 Crase Place, Grasmere:

- The existing sewerage system appears to have sufficient capacity DN150 PVC concrete encased sewer main, located approximately 300 metres north of the property, and is currently being used at approximately 80% of its estimated design flow capacity.
- There is adequate capacity in the existing sewerage infrastructure, including a sewer main to the south-west of the property, to accommodate the addition of the four proposed dwellings.

WorleyParsons would also like to bring the following points to Site Plus' attention:

- Proximity of the proposed indicative building envelope for Lot 1 in relation to the existing sewer and maintenance hole may be subject to "GUIDELINES FOR BUILDING OVER/ADJACENT TO SYDNEY WATER WATER AND WASTEWATER ASSETS"

7. DISCLAIMER

WorleyParsons has undertaken a desktop study of the overall catchment and has only assessed the key pipes in the existing sewerage system for rezoning purposes only. This report is not intended to provide any approval for connection to Sydney Water systems.

Only Sydney Water can provide approval for connection to the sewerage network.

The servicing option proposed is a concept only and may not be suitable for the final subdivision of the site. The property owner should apply to Sydney Water for a Section 73 Certificate following rezoning of the site and subsequent preparation of Development Application documentation. The developer will need to engage a Water Servicing Coordinator for the Section 73 certificate and to progress the approval, design and construction of an extension of Sydney Water's sewer system.

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Attachment 1



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We trust that this report meets your requirements. Please do not hesitate to contact the undersigned on (02) 8456 7263 should you require any further information or clarification of any issue.

Regards

Reviewed by

WorleyParsons

Tim MICHEL

Warren BRAZEL

Engineer, Water and Environment

Senior Civil Engineer

Enclosed:

Attachment A Indicative layout of proposed development



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ATTACHMENT A
INDICATIVE LAYOUT OF PROPOSED DEVELOPMENT



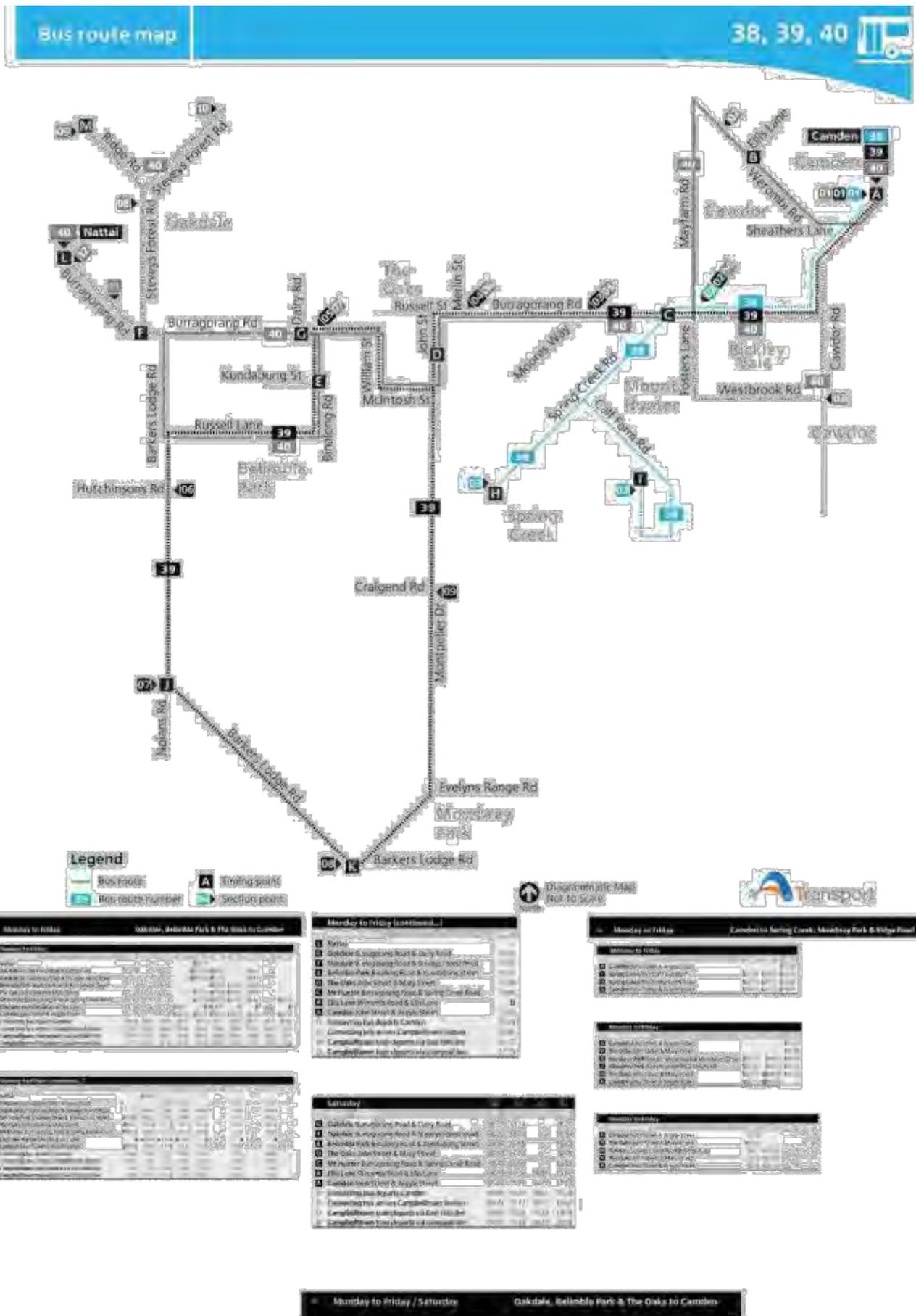
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Attachment 1

APPENDIX G

Traffic Assessment



Attachment 1
ORD02

APPENDIX H

Contamination and Salinity Assessment



ORD02



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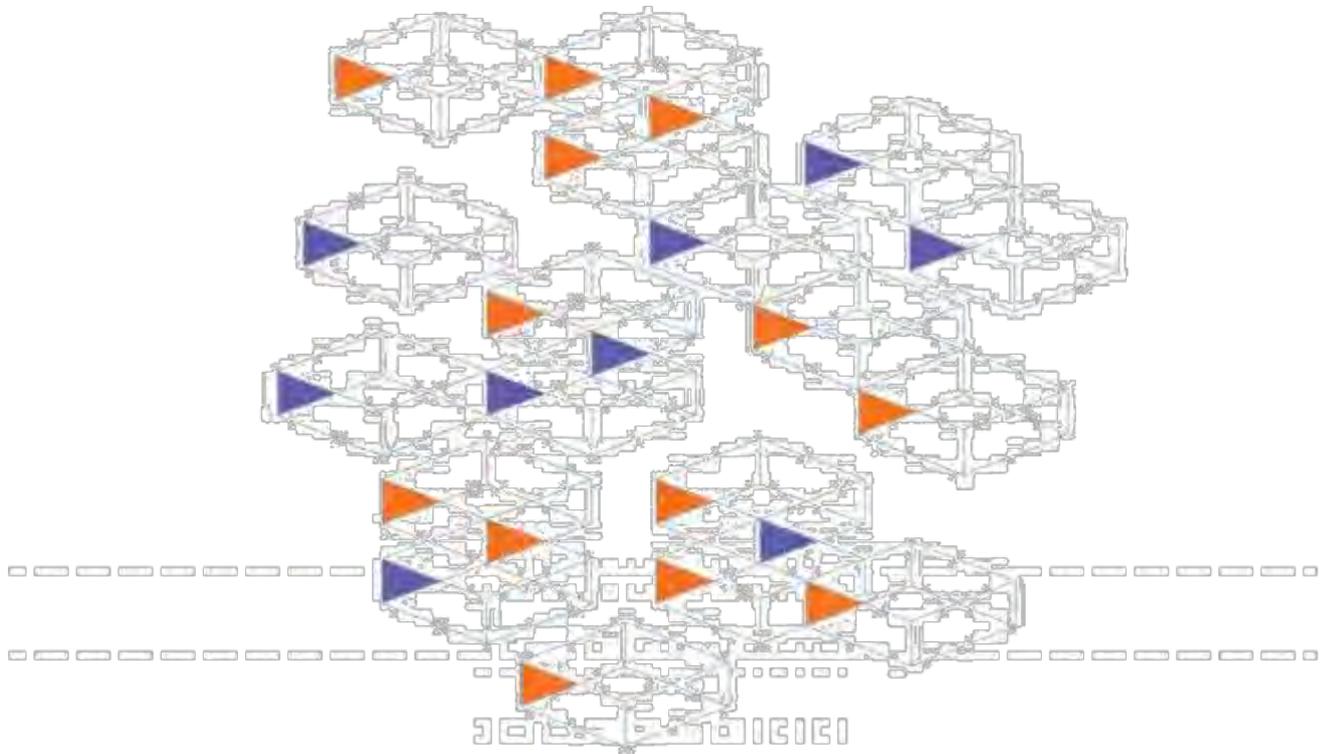
PHASE 1 CONTAMINATION ASSESSMENT AND
SALINITY ASSESSMENT

PART LOT 24 DP1086823, 10 CRASE PLACE,
GRASMERE, NSW

Report Date: 25 November 2013

Reference: ENAUWOLL04150AA-R01 (Rev. 1)

Attachment 1



Boundaries
are set by those
who are afraid
to push them

RECORD OF DISTRIBUTION

PHASE 1 CONTAMINATION ASSESSMENT AND SALINITY ASSESSMENT
PART LOT 24 DP1086823, 10 CRASE PLACE, GRASMERE, NSW

Report Date: 25 November 2013

Report Ref: ENAUWOLL04150AA-R01 (REV.1)

Prepared for:
Site Plus
2a Thomas Street
WOLLONGONG NSW 2500

Project Director	Sarah Richards Principal					
Project Manager	Colee Quayle Senior Associate					
Record of Distribution						
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ORD02

Attachment 1

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Attachment 1

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 ENAUWOLL04150AA-R01 (Rev.1)
 25 November 2013

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25 November 2013

LIST OF ATTACHMENTS

Important Information Sheets (end of text)

Important Information about your Coffey Environmental Report

Tables

Table 1: Summary of Site Identification Information

Table 2: Annual Mean for Climate Data

Table 3: Summary of Subsurface Conditions

Table 4: Summary of Potentially Contaminating Activity, Potential Areas of Environmental Concern, Likelihood of Contamination and Contaminants of Potential Concern

Figures (within text)

Figure A: Salinity Potential

Figures (end of text)

Figure 1: Site Locality Plan

Figure 2: Site Layout Plan Showing Approximate Sampling Locations

Appendices

Appendix A: Registered Groundwater Bore Search Results and SALIS Reports

Appendix B: Climate Data

Appendix C: Aerial Photograph Review

Appendix D: Section 149 Planning Certificate and Development Applications

Appendix E: Land Ownership Title Search Results

Appendix F: NSW EPA Online Contaminated Land Register and Online Licence Register Search Results

Appendix G: WorkCover NSW Dangerous Goods Search

Appendix H: Site Photographs

ABBREVIATIONS

AEC	Area of Environmental Concern
AHD	Australian Height Datum
bgs	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene and Xylenes
COPC	Chemical of Potential Concern
DECC	Department of Environment and Climate Change (NSW)
DLWC	Department of Land and Water Conservation (NSW)
NEHF	National Environmental Health Forum
NEPM	National Environment Protection (Assessment of Site Contamination) Measure
NSW EPA	Environment Protection Authority of New South Wales
NSW SALIS	NSW Soil and Land Information System
OCP	Organochlorine Pesticide
OPP	Organophosphorus Pesticide
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
TRH	Total Recoverable Hydrocarbon
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

Coffey was commissioned by Site Plus to undertake a Phase 1 Contamination Assessment and Salinity Assessment at No. 10 Crase Place, Grasmere, NSW (herein referred to as the 'Site').

We understand that a submission is being prepared to amend current zoning allowing additional dwellings to occupy the site. Camden Council has requested information concerning soil contamination and salinity, as part of this submission. The building envelope is currently constrained by an odour buffer associated with Sydney Water's water treatment plant located northeast of the site. The building envelope occupies an approximate area of 2ha.

The objectives of the assessment were to:

- Assess, at a preliminary level, the potential for contamination to be present on the site from previous site activities with respect to its proposed land use and provide recommendations on the need for further stages of assessment; and
- Assess for potential salinity issues.

The scope of work developed to meet this objective included a review of site history information, review of geotechnical reports and salinity indicators, and site walkover. The results of the desk study and site walkover were interpreted and assessed with respect to these objectives.

Contamination Issues

Site history information indicates that the site has been used for grazing land since at least the 1900's. The site had formed part of a larger parcel of land (48.4ha) and has been progressively subdivided since 2005 into smaller lots. Apart from installation of minor infrastructure (i.e. cul-de-sac and stormwater drain), the site has remained undeveloped. There were some gaps in the early site history which cannot preclude certain activities occurring or structures having been present at the site.

Based on the available site history information, the likelihood of these contaminating activities occurring at the site was assessed as low to very low. Further stages of investigation are not considered necessary based on information presently available.

It is recommended that an unexpected finds procedure be developed to manage potential contamination, should it be encountered during construction. Potential contamination may include, but not limited to, oil staining, building materials such as fibre cement, burial pits, fill, odours or discolouration.

Salinity Issues

Based on literature review and topography, the site has been assessed to have a low to moderate salinity potential. A low salinity potential is expected in hill crest/sandstone areas and transitioning to a moderate potential in the lower lying regions near the western site boundary.

Salinity issues can be exacerbated through inappropriate development practices, which can mobilise salt to the surface where it can come into contact with structures. The risk to structures and style of mitigation measures are dependent on profiling and construction details of the proposed development. Management strategies are available to mitigate the effects of potential salinity and options can be further refined following additional investigations during detailed design. Further investigations can be undertaken at a future stage, for example, as part of a development application.

EXECUTIVE SUMMARY

This executive summary must be read in conjunction with the full report and in the context of the attached "Important Information about your Coffey Environmental Report" and to the statement of limitations in Section 9 of this report.



Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW

1 INTRODUCTION

Coffey was commissioned by Site Plus to undertake a Phase 1 Contamination Assessment and Salinity Assessment at No. 10 Crase Place, Grasmere, NSW (herein referred to as the 'Site') (Figure 1). The work was completed in general accordance with our proposal ENAUWOLL04150AA-P01, dated 6 September 2013. This report presents the findings of the assessment.

We understand that a submission is being prepared to amend current zoning allowing additional dwellings to occupy the site. Camden Council (Council) has requested information concerning soil contamination and salinity, as part of this submission. The building envelope is currently constrained by an odour buffer associated with Sydney Water's water treatment plant located north east of the site. The buffer zone is shown on Figure 2. The building envelope occupies an approximate area of 2ha.

The objectives of the assessment were to:

- Assess, at a preliminary level, the potential for contamination to be present on the site from previous site activities with respect to its proposed land use and provide recommendations on the need for further stages of assessment; and
- Assess for potential salinity issues.

Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW

2 SCOPE OF WORKS

The work carried out by Coffey to meet the above objectives included:

- Review of published information (e.g. topographic, geological, soil landscape, salinity potential maps) and previous geotechnical reports.
- Specific information reviewed for assessing the likelihood of potential contamination to exist at the site included review of: historical title records, aerial photographs and Camden Council planning records; and search of NSW EPA and WorkCover Dangerous Goods licence databases.
- Specific information reviewed for assessing salinity potential included the collation of broad scale information including review of climate and rainfall data, land use and vegetation history, search of the NSW Office of Water groundwater database, NSW Soil and Landscape Information Systems and defining landforms.
- A site walkover to visually assess potential sources of contamination, observe surrounding land uses, topography, drainage, nearby sensitive environments, and assess details of the site history and desk study to further assess potential areas of environmental concern (AECs) and contaminants of potential concern (COPCs) and obvious evidence of saline impacted soils.
- Preparation of this report summarising results of the desk study and site walkover and making conclusions and recommendations with respect to the objectives outlined in Section 1.

Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW

3 SUMMARY OF SITE LAND USE AND SURROUNDING ENVIRONMENT

The Site identification information is summarised in Table 1. The Site locality, Site layout and general surrounding land uses are shown in Figures 1 and 2. The Site is defined on Figure 2. The Site forms part of a larger parcel of land which extends a further 265m north.

Table 1: Summary of Site Identification Information

Street Address	10 Crase Place, Grasmere, NSW
Site Area (approximate)	2ha
Dimensions (approximate)	165m (southern boundary) by 110m (eastern boundary)
Title Identifiers	Part Lot 24 DP1086823
Local Government Area	Camden
Parish and County	Camden
Current Zoning	R5 Large Lot Residential and RUI Primary Production under the Camden Council Local Environmental Plan (LEP) 2010.
Grid Co-ordinates	285317E; 6228585N (from the southeastern corner of the Site)
Surrounding Land Uses	North: Grazing land then Werombi Road and Sydney Water Sewerage Treatment Plant East: Grazing land and a residential dwelling South: Two residential dwellings and vacant land West: Dams and connecting watercourses

Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW

3.1 Topography and Drainage

Reference to the Camden 1:25,000 topographic map published by the New South Wales Department of Information, Technology and Management indicates that the Site is at an elevation between 80m and 100m above Australian Height Datum (AHD) (Refer to Figure 1). This is consistent with survey plans included in the Local Environmental Study (Coffey, 1999).

The site is located on the western slopes of a local rise in topography and has a moderate downward slope of 5° to 10° in that direction. Surface water that is not absorbed into the ground is likely to follow the topography, flowing west, into a series of dams and connecting watercourses adjacent to the site's western boundary. Water released from these dams will flow north through a culvert beneath Werombi Road and discharging into a larger dam located approximately 580m north of the site. The topography map and aerial photographs suggest that this dam does not routinely discharge into the Napean River located 75m north of this dam.

3.2 Soil Landscape

The Wollongong to Port Hacking 1:100,000 soil landscape series sheet 9029-9129, (Soil Conservation Service of NSW, 1990) shows that the Site is situated within the Blacktown soil landscape. Blacktown is a residual soil landscape characterised by gently undulating rises on Wianamatta Group shale with broad rounded crests and ridges of gently inclined slopes. The soils on crests and upper slopes are well drained however lower slopes are subject to poor drainage and drainage depressions. Soils are moderately reactive, highly plastic and have low fertility.

3.3 Local Geology

The 1:100,000 Wollongong-Port Hacking Geological Map 9029-9129 (Geological Survey of NSW 1985) shows that the Site is underlain by the Bringelly Shale. The Bringelly Shale is described as shale, carbonaceous claystone, laminite with coal in parts which forms part of the Wianamatta Group of Rocks. The map indicated that a geological contact with an 'unnamed sandstone member' was located near the southern part of the site. This unnamed sandstone member was described as fine to medium grained quartz-lithic sandstone.

This description is generally consistent with subsurface conditions encountered during previous investigations undertaken at the site (Refer to Section 4) and observations made of road cuttings near the site (Refer to Section 4).

3.4 Local Hydrogeology and Groundwater Use

A survey of groundwater bores within a 1 kilometre radius of the site registered with NSW Office of Water indicated that there are 10 registered bores. The bores were located between 400m and 1km from the site and were either up-gradient or cross gradient of the site. Three of the ten bores were registered with work summary sheets. These three bores were installed between 1965 and 2003 and registered for stock and / or irrigation purposes. Salinity information was listed for bores GW023588 and GW105251. Groundwater from bore GW023588 was described as 'very salty' whereas the salinity was measured at GW105251 but units were not specified. Water bearing zones were encountered in the 'clay shale' at 3m and 5.5m, and depths greater than 8.5m within shale and sandstone units.

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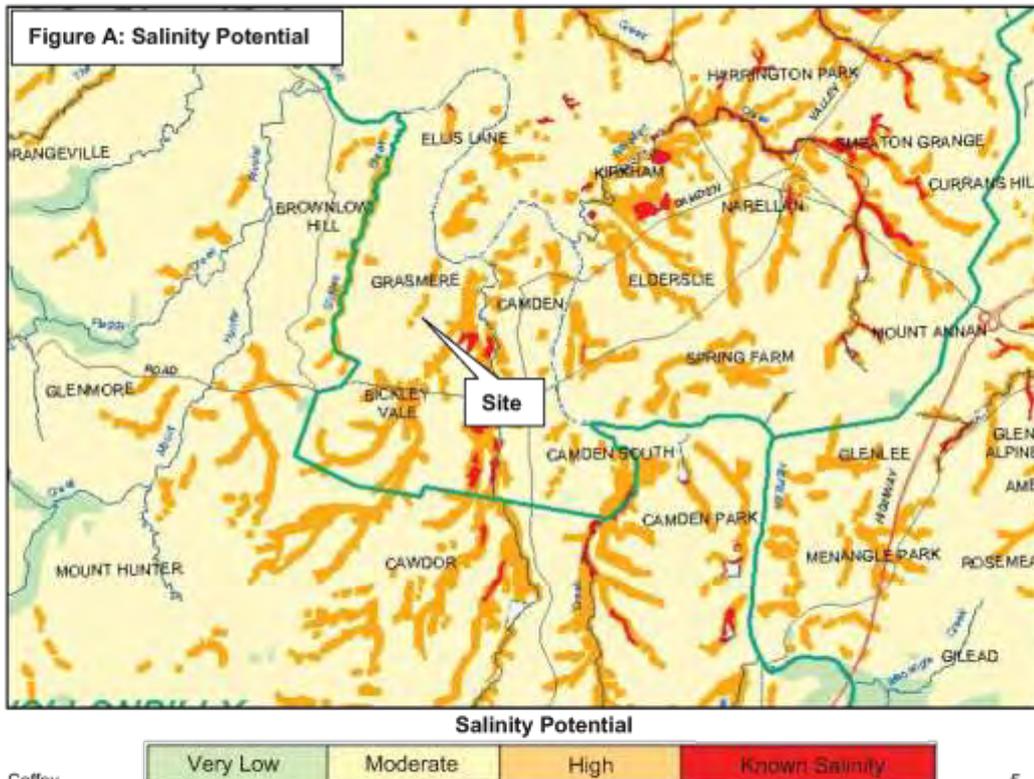
No other chemical data was listed on the work summary sheets. The work summary sheets for groundwater bores GW023588, GW072309 and GW105251 and their location are presented in Appendix A.

Based on site observations and results of the desk study, groundwater is expected to follow local topography, flowing in a westerly direction towards the dams and connecting watercourses. Depth to groundwater across the site is expected to be variable. In areas of higher elevation, groundwater may be encountered at depths between 3m and 5m; however in lower regions near the foot slopes, groundwater could be less than 1m from the ground surface and in periods of heavy rain groundwater seepages may be observed.

3.5 Salinity Potential

The Salinity Potential in Western Sydney 2002 (NSW DIPNR, 2003) map indicates the site located within an area of moderate salinity potential where saline areas may occur in this zone, which have not yet been identified or may occur if risk factors change adversely (Refer to Figure A). This zone is characterised by hill slopes and crests on Wianamatta Group Shales and situated within particular soil landscapes including the Blacktown Soil Landscape. Other salinity indicators such as scalding and certain vegetation types were also associated with this zone.

A high salinity potential was mapped in an area adjacent to the site's western boundary and appears to be associated with the three dams and connecting watercourses (Refer to Figure A). The map indicates these areas are predisposed to salinity based on soil, geology, groundwater and topography. This area is also located at the lower slopes of a local rise and forms part of a drainage system where water accumulation is high.



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The NSW Soil and Land Information System (SALIS) database was reviewed and identified three soil technical reports prepared for properties located between 600m to 1.1km from the site. A copy of these reports and map showing where the soil survey was done is presented in Appendix A.

Profiles 58 and 59 represent hillcrest or hill slope similar to that of the site, whereas Profile 84 is located in along a plain. Electrical conductivity concentrations reported in soils from profiles 58 and 59 were notably lower than those at profile 84. This was consistent with field observations where salting was evident at Profile 84. Profiles 58 and 59 reports "no salting evident", however Profile 59 did note "might be salty". This observation for Profile 59 does not appear to be reflected in electrical conductivity results that suggest the potential for salt is low. Based on the descriptions provided, Profiles 58 and 59 are comparable with the landform for the site. Therefore, salinity conditions at the site could be similar to those encountered at Profiles 58 and 59.

3.6 Climate Information

Rainfall and other climate statistics for the Site were recorded by the Bureau of Meteorology at Camden Airport (Station No. 68192), which is located approximately 2.7km north of the Site (Refer to map in Appendix B).

These statistics are based on data recorded by the Camden Airport weather station since 1943 and are presented in Appendix B. Table 2 provides a summary of annual mean for temperature, rainfall and wind. No information was available on evaporation.

Table 2: Annual Mean for Climate Data

Climate Data	Rainfall (mm)	Temperature (°C)		Wind (km/h)	
		Minimum	Maximum	9am conditions	3pm conditions
Mean	768.4	10.2	23.6	7.0	15.9

Climate information can be incorporated into future salinity assessments once building designs are finalised.

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4 SUMMARY OF PREVIOUS INVESTIGATIONS

Coffey was commissioned by Planning Workshop Australia in 1999 to undertake a land capability assessment incorporating items of landform, geotechnical, mineral resources, soils and agricultural capability of a 48.4ha study area, which included the current site. As part of the 1999 study, Coffey reviewed a report prepared by Regional GTS Pty Ltd presenting results of a geotechnical investigation undertaken in 1995. The references for these reports are listed below:

- Regional GTS Pty Ltd (1995) Geotechnical Assessment for proposed residential development, Lots 100, 102 and Part 1 Old Oakes Road, Camden (Report Ref: 95225/GK/1, dated 8 August 1995).
- Coffey Geosciences Pty Ltd (1999) Grasmere Local Environmental Study – Land Capability Study, southwest corner of Werombi Road and Old Oakes Road, Grasmere (Report Ref: S20166/1-AG, dated 28 July 1999).

A geotechnical report held on Council file was briefly reviewed (Geotechnique, 2005). The reference for this report is listed below:

- Geotechnique Pty Ltd (2005) Site Classification for Proposed Subdivision, cnr Werombi and Old Oakes Roads, Grasmere (Report Ref: 10255/2-AA, dated 4 July 2005).

The relevant parts of these reports are summarised in the following sections.

4.1 Geotechnical Assessment (Regional GTS, 1995)

Regional GTS (GTS) was commissioned by T.J. O'Donnell & Associates Pty Ltd to undertake a geotechnical assessment of a 43.6ha property, including the current Site. The purpose of the assessment was to assess the suitability of the land for proposed residential development. This included site stability, site classification (in accordance with AS2870.1 & .2, 1990) and other geotechnical restraints.

To achieve this objective, published geological information was reviewed, site observations of surface features such as rock outcrops and vegetation were made and collecting information on subsurface conditions from seven hand auger boreholes drilled to a maximum depth of 1.2m.

The Site and surrounding properties were mostly covered with a thick grass that had been recently slashed and trees were sparsely located throughout the area. Residential dwellings were noted west and south of the Site, but none were observed on the Site. Dams and connecting watercourses were present at the time of the assessment. The report notes that water releases from these dams flow north towards a culvert beneath Werombi Road. This culvert is located approximately 150m west of the Werombi Road and Old Oakes Road intersection.

The subsurface conditions encountered at the borehole locations were topsoil overlying residual clay soils then extremely to highly weathered shale. No fill or groundwater was observed at the borehole locations. The subsurface conditions are summarised in Table 3.

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Table 3: Summary of Subsurface Conditions

Unit	Description	Unit Thickness
Topsoil	Clayey silt, low plasticity, highly organic, dry to moist, firm.	0.2m to 0.3m
Residual	Silty Clay, medium to high plasticity, red-brown becoming orange-grey with depth, moist, stiff.	0.8m to >1m
Extremely to highly Weathered Shale	Shale, grey. Extremely weathered shale (described as a soil) was dry to moist and very stiff to hard.	Unknown

The soil observed at the dams and connecting water courses was inferred to be alluvial, comprising silts but was not assessed directly. The closest borehole to the current site was located approximately 100m north of the site's northern boundary and was the only borehole to encounter highly weathered shale. Highly weathered shale was also observed in road cuttings near the Sewerage Treatment Plant, a further 170m north of this borehole. The assessment inferred the shales to be those consistent with the Bringelly Shale Member of the Wianamatta Group of rocks.

4.2 Land Capability Study (Coffey, 1999)

A land capability assessment was undertaken by Coffey in 1999 for inclusion in a Local Environmental Study being prepared by Planning Workshop Australia. The study area included five lots occupying 48.4ha. The Site formed part of Lot 102 DP841639. As previously discussed, the study included landform, geotechnical, mineral resources, soils and agricultural capability.

Land within the Grasmere area has traditionally been used for agricultural purposes such as cattle grazing, dairy farming and occasional cropping. However since the early 1970's, these activities were reduced due to land sub-division for hobby farms and rural residential use.

The study area had not been exposed to significant agricultural activities for several years however occasional grazing and pastoral improvement were still common on Lot 102 DP841639 at the time of the study. There was evidence of past overgrazing, concurrent leaching and soil erosion.

The study area was divided into four geotechnical zones based on geology, topography and risk of slope instability. The Site formed part of Zone B described as 'flanking slopes of 5° to 10°' with a low risk of slope instability. The geology for this Zone comprised colluvial and residual soils, less than 2m depth developed on either shale or sandstone. No rock outcrops were observed on Site. However, sandstone outcrops were observed in road cuttings east of the Site and another located near residential housing located approximately 400m south of the Site. Shale outcrops were noted along Werombi Road. Inferred locations of these outcrops are shown on Figure 2.

A fill mound approximately 2.5m high and 100m long was located near the south-western boundary of Lot 102 DP841639. The exact location of this fill mound was not provided. There was no further discussion concerning the occurrence of fill materials within the study area.

Four soil samples were collected across the study area targeting depths between 0.1m and 0.5m and tested for dispersion characteristics. The closest sampling location to the Site was located approximately 15m north of the northern Site boundary. This sample was collected at 0.5m representing red-brown sandy clays; clays were medium plasticity and sands fine to medium grained.

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The laboratory results indicated that non-dispersive materials were present at this location. The results for other samples were variable and more dispersive.

Vegetation occurrences were discussed in broad terms for the study area. A mixture of native and introduced grasses in particular Paspalum and Phalaris, and smaller amounts of native Sedge, Kikuyu, Couch and Clovers. There was significant intrusion of weeds in the pasture, mainly of the Feather Grass and Fireweed varieties at the time of the study. Generally few trees occupied the study area. Minimal trees comprising Red Gum, and Red and Grey Box varieties generally occupied southern parts of the study area, south of the Site.

4.3 Site Classification (Geotechnique, 2005)

The majority of test pit locations were positioned in the subdivision area located west of the site. One test pit appears to have been positioned within the southern portion of the site immediately south of the cul-de-sac. The report indicates this test pit was excavated during previous geotechnical investigations. The subsurface conditions were similar to those encountered in previous investigations. No groundwater inflows were observed within the investigation depth of 2.5m. The report noted that groundwater seepages may occur in periods of rainfall.

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5 SITE HISTORY

5.1 General

Information on the Site history was obtained from:

- Review of selected aerial photographs;
- A historical land title search to review previous landowners and possible past uses of the Site;
- Interviews with available people familiar with the history and operations of the Site;
- A search of NSW EPA register for listings of the Site and nearby Sites;
- A review of Camden Council records and planning certificate; and
- A search of dangerous goods licenses held for the Site by WorkCover.

The Site history information is presented in Appendix C to G and a summary is provided below.

5.2 Summary of Site History

The general chronology of the site land use history is summarised below:

- Prior to 1901 – unknown;
- 1901 to 1945 – owned by farmers/graziers;
- 1945 to 1955 – owned by a clerk and hotel keeper;
- 1955 to 1989 – owned by several government departments;
- 1989 to 2003 – owned by University of Sydney for grazing use;
- 2003 to current – owned by two company entities;
- 2005 – subdivision of Lot 1. Site formed part of Lot 102; and
- 2012 – subdivision of Lot 102. Site formed part of Lot 24.

Site history information indicates that the site has been used for grazing land since at least the 1900's. The site had formed part of a larger parcel of land (48.4ha) and has been progressively subdivided from 2005 into smaller lots. Apart from the construction of a cul-de-sac and stormwater drain (directing water from the cul-de-sac to watercourse west of the site) circa 2007, no other activities are known to have occurred on the site.

A representative from University of Sydney provided information of site activities during their tenure on the site. The University representative was involved with the site for approximately 20 years. The site was used as part of the University's agricultural / veterinarian program where a variety of sheep, cattle and horses grazed at the site. The animals were periodically transported to another property located on Mayfarm Road, where they were treated for ticks, worms and other parasites. Mayfarm Road is located approximately 3km west of the site. No chemicals (e.g. pesticides, fuels, etc) were stored onsite and no tick dips were used to manage animal parasites. Any animals that died at the site were taken to the University for dissection and further study. No crops, ploughing or filling took place during the University's tenure. The site eventually become surplus to the University's needs and was sold in 2003.

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Council records indicate that a development application (DA) for student accommodation, education and associated seminars/functions was submitted for Lot 1 in 1991. Based on aerial photographs, it is likely this building was constructed south or southeast of the site. Another DA was submitted to Council for the construction of a brick stables building for Lot 24 in 2007. Based on other site history information and site observations construction of this building has not commenced. Council indicate their records do not extend past 1991 and have no record of complaints or other information pertaining to the site. A copy of these DA's is included in Appendix D.

The planning certificate for the site (under Section 149 of the Environmental Planning and Assessment Act, 1979) indicates the land is not subject to any notifications under the Contaminated Land Management Act 1997.

The WorkCover search of the Stored Chemical Information Database (SCID) for licenses to keep dangerous goods indicated that no records pertaining to dangerous goods storage existed for the site.

There are currently no notices on the NSW EPA contaminated land record.

The following gaps in the site history are noted:

- Limited information is available on the early history of the site and therefore, some site activities may not have been identified.

5.3 Historical Information for Surrounding Areas

The University representative provided anecdotal information concerning the early history of the area but was unclear if there was a direct relationship to the site. This information included:

- A boys home "on top of the hill" (presumably south or southeast of the site) operated by the Department of Youth and Community Services between 1980 and 1989; and
- Unspecified use of the area by the Department of Defence during World War 2. Based on property title information, the Commonwealth did not acquire the site until 1955 and prior to this was privately owned. This would suggest the site was not used by Department of Defence.

Although the site appears to have remained generally undeveloped, surrounding properties to the east, south and west have progressively transformed from grazing land to rural / residential land use. Northeast of the site, a sewerage treatment plant was constructed circa 1975. The dams west of the site were progressively constructed starting prior to 1954 and completed by circa 1975.

In the 1954 aerial photograph, a structure and driveway was evident in the northeastern corner of Lot 24, but had been removed by 1965. Other evidence of activities on the remaining parts of Lot 24 was not observed until 2007. In 2007, two patches of exposed soils were observed north of the site. Although some grass cover has re-established across these areas since 2007, exposed soil is still evident.

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6 SITE OBSERVATIONS

An environmental scientist made observations of the Site and nearby surrounds on 21 October 2013 during a site walkover. A summary of the relevant observations made is described below, with the Site layout and relevant features shown in Figure 2. An aerial photograph showing the current Site is presented in Figure 2. Relevant Site photographs (Plates 1 to 6) are also presented in Appendix H.

The Site was irregular in shape and except for a cul-de-sac occupying the southeastern portion of the site was vacant (i.e. no buildings/structures present). The Site was accessible from Crase Place which terminated within the southeastern portion of the site. The northern and eastern site boundaries were defined by a wooden fence and the western boundary by a series of dams, connecting watercourses and a chain wire fence. Chain wire fencing was used along parts of the southern boundary to define the property boundary between residential Lots and the site.

The Site and remaining parts of Lot 24 are situated on the western slope of a local rise (Plate 3). The ground surface has a moderate downward slope (ranging between 5% and 10%) mostly towards the west with some cross slope towards the north (Plate 3). At the base of these slopes were a series of local depression, which at the time of the site visit were dry and firm underfoot (Plates 1, 2 and 5). During periods of heavy rain, water is likely to accumulate in these areas causing saturated ground conditions. These areas generally correlated with darker green zones observed on aerial photographs.

The Site and remaining parts of Lot 24 were generally grass covered with some patches of exposed soil (Plates 2 and 5). One of these patches was located adjacent to the southern boundary and may be associated with the construction of the adjoining residential dwelling (Plates 2 and 4). Some gravel fill was observed in this area. The other two patches of exposed soil were located north of the site and corresponded to exposed ground observed in the 2007 aerial photograph (Plate 5). At the time of the site walkover some grass cover had re-established in these areas. Some brick fragments were observed suggesting these exposed areas may have been associated with a localised filling event during construction of nearby residential dwellings (Plate 6).

Evidence of a slight depression was observed between the cul-de-sac and watercourses west of the site. This depression is consistent with that observed in the 2007 aerial photograph and appears to be associated with the stormwater drainage system. This depression is also consistent with the drainage easement shown on title diagrams (Appendix E). The drainage appears to capture water accumulated within the cul-de-sac and directs it towards the watercourses located west of the site. No other structures or infrastructure was observed on the site. A building once occupied the northeastern corner of Lot 24 (offsite) circa 1954. Evidence of this former structure was not apparent during the site walkover however the long grass may have obscured any remnants.

There was no evidence of salinity indicators onsite such as yellowing vegetation or dieback, scalding or efflorescence. No groundwater seepages or springs were observed.

Apart from some localised filling in offsite areas, no other evidence of potentially contaminating activities or indications of contamination (such as oil staining, etc) was observed.

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7 DISCUSSION

7.1 Contamination

Site history information and site observations indicate that site activities have generally been associated with grazing and the site has remained undeveloped. Activities and potential sources of contamination associated with this land use could have potentially included:

- Importing fill of unknown quality and origin;
- Potential weathering of hazardous building materials, demolition of site structures and use of pesticides near buildings;
- Storage of fuels and chemicals in former farming buildings and sheds;
- Use of pesticides for treating parasites on livestock;
- Filling of disused farm dams with waste materials;
- Burial of deceased livestock.

The likelihood of these activities and potential sources of contamination occurring onsite and associated Contaminants of Potential Concern (COPCs) based on site history and observation information is discussed in Table 4.

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Table 4: Summary of Potentially Contaminating Activities, Potential Areas of Environmental Concern, Likelihood of Contamination and Contaminants of Potential Concern

Potentially Contaminating Activity/Source	Sub Component / Description	Potential Areas of Environmental Concern (See also Figure 2)	Likelihood of Contamination*	Potential Chemicals of Concern
Fill of Unknown Origin and Quality	Surplus soil (cut materials) transferred to site during construction of neighbouring subdivisions south and southeast of the site.	Localised areas near the northern site boundary and near the southern boundary adjacent recently constructed residential dwellings. <i>Soil and groundwater media potentially impacted.</i>	Low likelihood of contamination and appears to be localised. Geotechnical reports did not identify fill at the site. The fill material appears to have been derived from excavation of natural soils although some brick fragments were observed in filled areas near the northern boundary. Some gravel fill was observed near the southern boundary and possibly associated with the distribution of excess materials following construction of the adjoining residential dwelling. No other evidence of construction materials was observed on the ground surface near filled areas.	TRH, BTEX, PAH, OCP, OPP, PCB, heavy metals, asbestos
Potential weathering of hazardous building materials, demolition of site structures and use of pesticides near buildings	Weathering of hazardous building materials such as lead paint, fibre cement containing asbestos and galvanised iron. Potentially present from former and existing site structures. Possible use of pesticides near structures.	Typically contamination associated with this AEC is identified adjacent to former structures or in areas where demolition has taken place. <i>Generally near surface soil are potentially impacted.</i>	Very low likelihood of contamination. Site history information has not identified any structures within the site suggesting contamination associated with the use of pesticides around building and weathering of hazardous building materials is unlikely.	OCP, OPP and heavy metals, asbestos
Storage of fuels and chemicals in former farm buildings and sheds	Storage and use of fuels, oils and lubricants or other chemicals	Contamination would typically be present in near surface soils in areas where these chemicals were stored. <i>Soil and groundwater media potentially impacted.</i>	Very low likelihood of contamination. Site history information has not identified any structures onsite, storage or the use of chemicals onsite.	TRH, BTEX, PAH, OCP, OPP, arsenic
Filling and disposal of wastes in farm dams or other areas	Use of pesticides for treating parasites on livestock. Filling of dams with waste materials and / or burial of dead livestock.	Contamination would typically occur in near designated treatment areas, such as a tick dip. Contamination would be present in both surface soil and at depth depending on the method of pesticide application. <i>Soil and groundwater media potentially impacted.</i> Contamination would typically be present within the fill materials used to fill the dam and possibly dam sediments from runoff from upslope areas. Contamination associated with livestock burial areas would be localised to burial cell. <i>Soil and groundwater media potentially impacted.</i>	Low likelihood of contamination. Site history suggests parasite management occurred offsite in recent years however limited information is available on early history for the site. Low likelihood of contamination. Three dams were constructed west of the site and are presently filled with water. Aerial photographs did not identify dams onsite or potential burial areas. The University confirmed during their tenure that dead animals were removed from site. Aerial photographs are up to 11 years apart and other site history information available prior to 1990 is limited. Filling of dams and burying dead animals were activities routinely undertaken in rural areas; and therefore it cannot be precluded that these practices did not occur at the site.	OCP, OPP, arsenic TRH, BTEX, PAH, OCP, PCB, heavy metals, asbestos, nutrients, pathogens.

* It is important to note that this is not an assessment of financial risk associated with the AEC in the event contamination is detected, but a qualitative assessment of the probability of contamination being detected at the potential AEC. Based on the site history study and field observations.

- | | | | |
|------|--|--------------|---|
| TRH | Total Resaturable Hydrocarbons | Heavy Metals | arsenic, cadmium, chromium, copper, lead, nickel, mercury, zinc |
| BTEX | Benzene, Toluene, Ethylbenzene, Xylene | OCP | Organochlorine Pesticides |
| PAH | Polycyclic Aromatic Hydrocarbons | OPP | Organophosphorus Pesticides |
| PCB | Polychlorinated Biphenyl | | |

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7.2 Salinity

The desk study has indicated that the site is located within an area of moderate salinity potential, particularly lower lying regions within the western portions of the site. Previous investigations observed sandstone near the southern and southeastern parts of the site and potentially associated with the local rise in topography. These areas are likely to pose a lower salinity potential than the lower western portions of the site.

No groundwater information was available directly relating to the site. Groundwater information from other properties in the region indicates water bearing zones encountered at depths between 3m and 5m in weathered shale. Natural springs or seepages were not observed during the site walkover however perched/shallow groundwater may daylight as springs or seepages during heavy rainfall periods. It should be noted that water bearing zones within the Bringelly Shale are typically saline.

The 2007 aerial photograph indicated potential white efflorescence in areas immediately surrounding dams, located west of the site. This white feature may also be associated with hydromulching rather than salt as vegetation growth substantially increased in later years. Potential hydromulching is consistent with site observations, as no evidence of salt impacts were noted onsite or in nearby surrounding areas.

Inappropriate development practices could mobilise the potentially saline groundwater to the surface, or lower the site surface to intercept saline soils, not just in the topographically low areas on site, but also in more elevated locations. Inappropriate practices could include:

- Excessive removal of vegetation, thereby reducing the amount of water intake by plants and increasing infiltration of rainwater into the soil, causing the water table to rise nearer the ground surface;
- Overwatering of future parks and gardens causing the water table to rise nearer the ground surface;
- Construction of retaining walls and excessive compaction can form barriers to groundwater flow, resulting in a rising groundwater table or perched water behind the wall. Saline water can also lead to damage of the retaining wall;
- Pipes extending into the groundwater zone can be corroded quicker than normal. Burst and / or leaking pipes can exacerbate the problem by rising the water table; and
- Drilling of piers, footings etc into the groundwater surface can lead to capillary rise of the groundwater table, particularly in clay soils.

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8 CONCLUSIONS

8.1 Contamination

Site history information indicates that the site has been used for grazing land since at least the 1900's. The site had formed part of a larger parcel of land (48.4ha) and has been progressively subdivided since 2005 into smaller lots. Apart from installation of minor infrastructure (i.e. cul-de-sac and stormwater drain), the site has remained undeveloped. There were some gaps in the early site history which cannot preclude certain activities occurring or structures having been present at the site. Potentially contaminating activities that may occur at rural sites and may have occurred at the site include:

- Importing fill of unknown quality and origin;
- Potential weathering of hazardous building materials, demolition of site structures and use of pesticides near buildings;
- Storage of fuels and chemicals in former farming buildings and sheds;
- Use of pesticides for treating parasites on livestock;
- Filling of disused farm dams with waste materials;
- Burial of deceased livestock.

Based on the available site history information, the likelihood of these contaminating activities occurring at the site was assessed as low to very low. Further stages of investigation are not considered necessary based on information presently available.

It is recommended that an unexpected finds procedure be developed to manage potential contamination, should it be encountered during construction. Potential contamination may include, but not limited to, oil staining, building materials such as fibre cement, burial pits, fill, odours or discolouration.

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8.2 Salinity

Based on literature review and topography, the site has been assessed to have a low to moderate salinity potential. A low salinity potential is expected in hill crest/sandstone areas and transitioning to a moderate potential in the lower lying regions near the western site boundary. Further investigation is required to confirm this assessment along with developing appropriate strategies for managing the level of salinity present at the site. Further investigations can be undertaken at a future stage, for example, as part of a development application.

Salinity issues can be exacerbated through inappropriate development practices, which can alter groundwater levels, or disturb soils and mobilise salt to the surface, where it can come into contact with structures. The following management strategies and options are provided for preliminary planning purposes only. Further investigation would be best undertaken once more details are known with respect to the proposed development.

Options that may be used to mitigate the effects of potential saline soils or groundwater on the site include the following:

- Minimising water infiltration;
- Landscaping using salt-tolerant native plants in areas identified with slightly saline soils;
- Sealing the base of stormwater detention ponds;
- Retaining as much deep-rooted vegetation on site as possible;
- Minimising soil disturbance such as compaction and cut and fill;
- Water proofing slab work;
- Provide good site drainage to prevent water-logging;
- The use of higher strength concrete with thicker cover and exposure class masonry;
- Minimise disturbance on groundwater flow caused by utility trenches; and
- Soils replaced in their original order if deep (<1m) excavations are undertaken.

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9 LIMITATIONS

Limited information is available on the early history of the site and therefore, some site activities may not have been identified. In addition, aerial photographs are up to 11 years apart and other site history information available prior to 1990 is limited. We cannot preclude that potentially contaminating activities took place during these periods. Allowances for uncertainties and potential unexpected finds should be made during planning and development phases.

In preparing this report, Coffey has relied on information in reports made available to Coffey by the client and prepared by other consultants. Coffey has assumed that these consultants performed the scope of works in general accordance with standard industry procedures and guidance materials at the time and that the information is suitable.

We draw your attention to the attached sheet titled "Important Information about your Coffey Environmental Report" which must be read in conjunction with this report.

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10 REFERENCES

1. **Coffey Geosciences Pty Ltd (1999)** *Grasmere Local Environmental Study – Land Capability Study*, southwest corner of Werombi Road and Old Oaks Road, Grasmere (Report Ref: S20166/1-AG, dated 28 July 1999);
2. **Geological Survey of NSW (1985)** *1:100,000 Wollongong to Port Hacking Geological Series Sheet No. 9029-9129*, edition 1;
3. **Geotechnique Pty Ltd (2005)** *Site Classification for Proposed Subdivision*, Cnr Werombi and Old Oaks Roads, Grasmere (Report Ref: 10255/2-AA, dated 4 July 2005);
4. **NEPC (1999)** *National Environmental Protection (Assessment of Site Contamination) Measure 1999*, National Environment Protection Council;
5. **NEPC (2013)** *National Environmental Protection (Assessment of Site Contamination) Measure 1999*, as amended in 2013, National Environment Protection Council;
6. **NSW DEC (2006)** *Guidelines for the NSW Auditor Scheme*, 2nd Ed;
7. **NSW Department of Infrastructure, Planning and Natural Resources (2003)** *Salinity Potential in Western Sydney 2002*;
8. **NSW Department of Information, Technology and Management (2000)** *Camden 1:25,000 Topographic Map 9029-4N*, 3rd Edition;
9. **NSW OEH (2000)** *Guidelines for Reporting on Contaminated Sites*;
10. **Regional GTS Pty Ltd (1995)** *Geotechnical Assessment for proposed residential development*, Lots 100, 102 and Part 1 Old Oaks Road, Camden (Report Ref: 95225/GK/1, dated 8 August 1995).



Important information about your Coffey Environmental Report

Introduction

This report has been prepared by Coffey for you, as Coffey's client, in accordance with our agreed purpose, scope, schedule and budget.

The report has been prepared using accepted procedures and practices of the consulting profession at the time it was prepared, and the opinions, recommendations and conclusions set out in the report are made in accordance with generally accepted principles and practices of that profession.

The report is based on information gained from environmental conditions (including assessment of some or all of soil, groundwater, vapour and surface water) and supplemented by reported data of the local area and professional experience. Assessment has been scoped with consideration to industry standards, regulations, guidelines and your specific requirements, including budget and timing. The characterisation of site conditions is an interpretation of information collected during assessment, in accordance with industry practice.

This interpretation is not a complete description of all material on or in the vicinity of the site, due to the inherent variation in spatial and temporal patterns of contaminant presence and impact in the natural environment. Coffey may have also relied on data and other information provided by you and other qualified individuals in preparing this report. Coffey has not verified the accuracy or completeness of such data or information except as otherwise stated in the report. For these reasons the report must be regarded as interpretative, in accordance with industry standards and practice, rather than being a definitive record.

Your report has been written for a specific purpose

Your report has been developed for a specific purpose as agreed by us and applies only to the site or area investigated. Unless otherwise stated in the report, this report cannot be applied to an adjacent site or area, nor can it be used when the nature of the specific purpose changes from that which we agreed.

For each purpose, a tailored approach to the assessment of potential soil and groundwater contamination is required. In most cases, a key objective is to identify, and if possible quantify, risks that both recognised and potential contamination pose in the context of the agreed purpose. Such risks may be financial (for example, clean up costs or constraints on site use) and/or physical (for example, potential health risks to users of the site or the general public).

Limitations of the Report

The work was conducted, and the report has been prepared, in response to an agreed purpose and scope, within time and budgetary constraints, and in reliance on certain data and information made available to Coffey.

The analyses, evaluations, opinions and conclusions presented in this report are based on that purpose and scope, requirements, data or information, and they could change if such requirements or data are inaccurate or incomplete.

This report is valid as of the date of preparation. The condition of the site (including subsurface conditions) and extent or nature of contamination or other environmental hazards can change over time, as a result of either natural processes or human influence. Coffey should be kept apprised of any such events and should be consulted for further investigations if any changes are noted, particularly during construction activities where excavations often reveal subsurface conditions.

In addition, advancements in professional practice regarding contaminated land and changes in applicable statutes and/or guidelines may affect the validity of this report. Consequently, the currency of conclusions and recommendations in this report should be verified if you propose to use this report more than 6 months after its date of issue.

The report does not include the evaluation or assessment of potential geotechnical engineering constraints of the site.

Interpretation of factual data

Environmental site assessments identify actual conditions only at those points where samples are taken and on the date collected. Data derived from indirect field measurements, and sometimes other reports on the site, are interpreted by geologists, engineers or scientists to provide an opinion about overall site conditions, their likely impact with respect to the report purpose and recommended actions.

Variations in soil and groundwater conditions may occur between test or sample locations and actual conditions may differ from those inferred to exist. No environmental assessment program, no matter how comprehensive, can reveal all subsurface details and anomalies. Similarly, no professional, no matter how well qualified, can reveal what is hidden by earth, rock or changed through time.

The actual interface between different materials may be far more gradual or abrupt than assumed based on the facts obtained. Nothing can be done to change the actual site conditions which exist, but

steps can be taken to reduce the impact of unexpected conditions.

For this reason, parties involved with land acquisition, management and/or redevelopment should retain the services of a suitably qualified and experienced environmental consultant through the development and use of the site to identify variances, conduct additional tests if required, and recommend solutions to unexpected conditions or other unrecognised features encountered on site. Coffey would be pleased to assist with any investigation or advice in such circumstances.

Recommendations in this report

This report assumes, in accordance with industry practice, that the site conditions recognised through discrete sampling are representative of actual conditions throughout the investigation area. Recommendations are based on the resulting interpretation.

Should further data be obtained that differs from the data on which the report recommendations are based (such as through excavation or other additional assessment), then the recommendations would need to be reviewed and may need to be revised.

Report for benefit of client

Unless otherwise agreed between us, the report has been prepared for your benefit and no other party. Other parties should not rely upon the report or the accuracy or completeness of any recommendation and should make their own enquiries and obtain independent advice in relation to such matters.

Coffey assumes no responsibility and will not be liable to any other person or organisation for, or in relation to, any matter dealt with or conclusions expressed in the report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in the report.

To avoid misuse of the information presented in your report, we recommend that Coffey be consulted before the report is provided to another party who may not be familiar with the background and the purpose of the report. In particular, an environmental disclosure report for a property vendor may not be suitable for satisfying the needs of that property's purchaser. This report should not be applied for any purpose other than that stated in the report.

Interpretation by other professionals

Costly problems can occur when other professionals develop their plans based on misinterpretations of a report. To help avoid misinterpretations, a suitably qualified and experienced environmental consultant should be retained to explain the implications of the report to other professionals referring to the report and then review plans and specifications produced to see how other professionals have incorporated the report findings.

Given Coffey prepared the report and has familiarity with the site, Coffey is well placed to provide such

assistance. If another party is engaged to interpret the recommendations of the report, there is a risk that the contents of the report may be misinterpreted and Coffey disowns any responsibility for such misinterpretation.

Data should not be separated from the report

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way. Logs, figures, laboratory data, drawings, etc. are customarily included in our reports and are developed by scientists or engineers based on their interpretation of field logs, field testing and laboratory evaluation of samples. This information should not under any circumstances be redrawn for inclusion in other documents or separated from the report in any way.

This report should be reproduced in full. No responsibility is accepted for use of any part of this report in any other context or for any other purpose or by third parties.

Responsibility

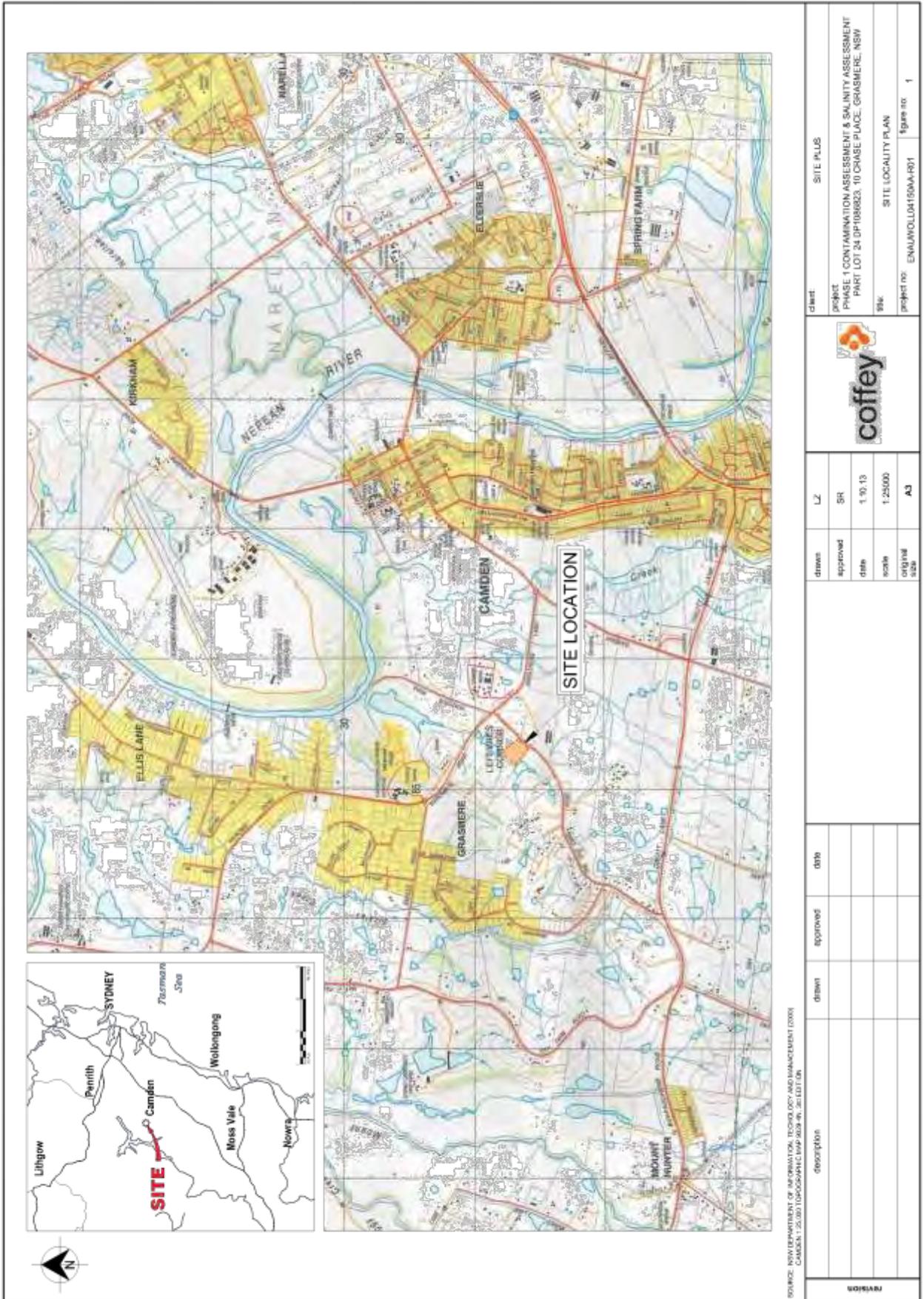
Environmental reporting relies on interpretation of factual information using professional judgement and opinion and has a level of uncertainty attached to it, which is much less exact than other design disciplines. This has often resulted in claims being lodged against consultants, which are unfounded. As noted earlier, the recommendations and findings set out in this report should only be regarded as interpretive and should not be taken as accurate and complete information about all environmental media at all depths and locations across the site.

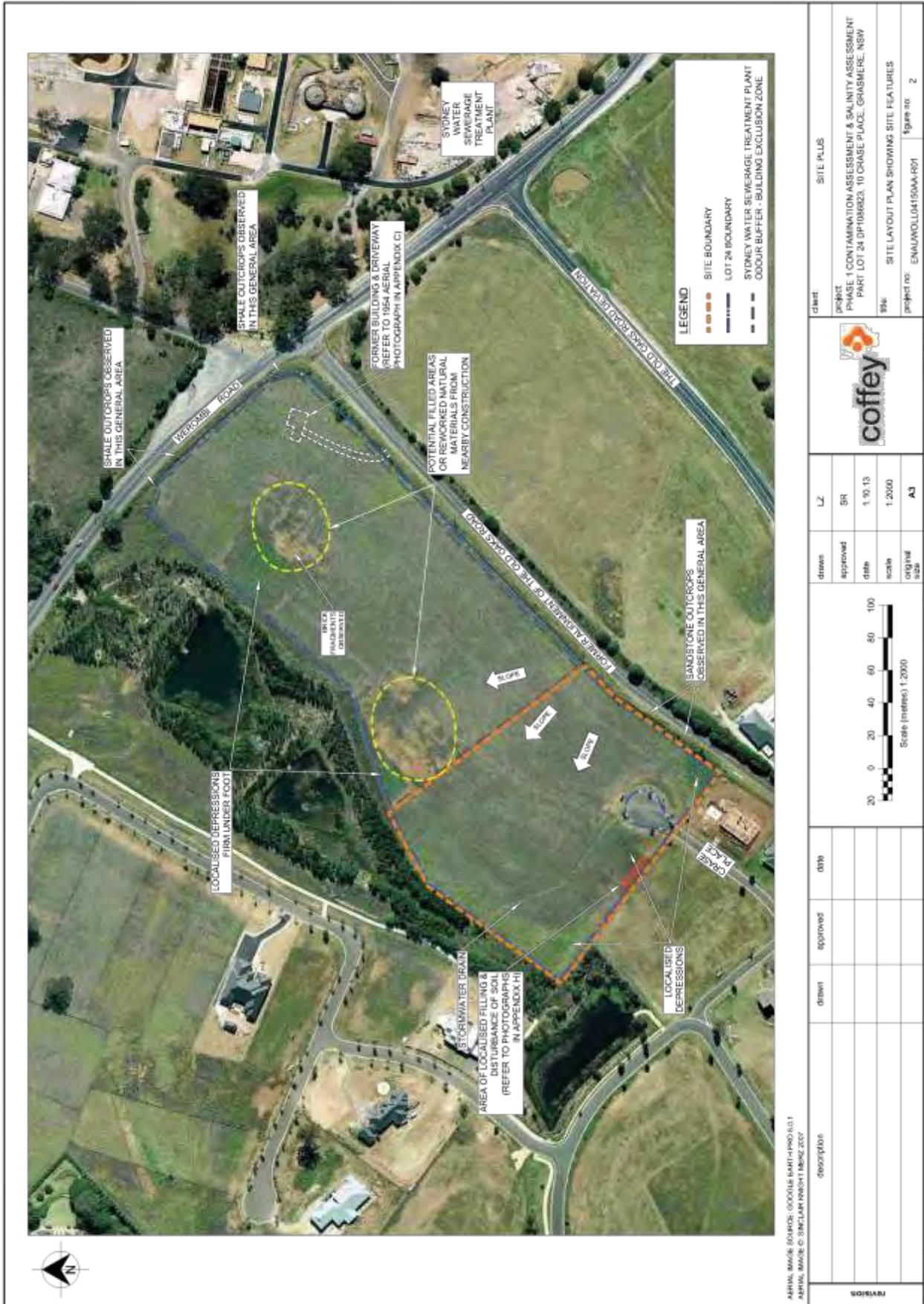
Figures

**Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW**

ORD02

Attachment 1





ORD02

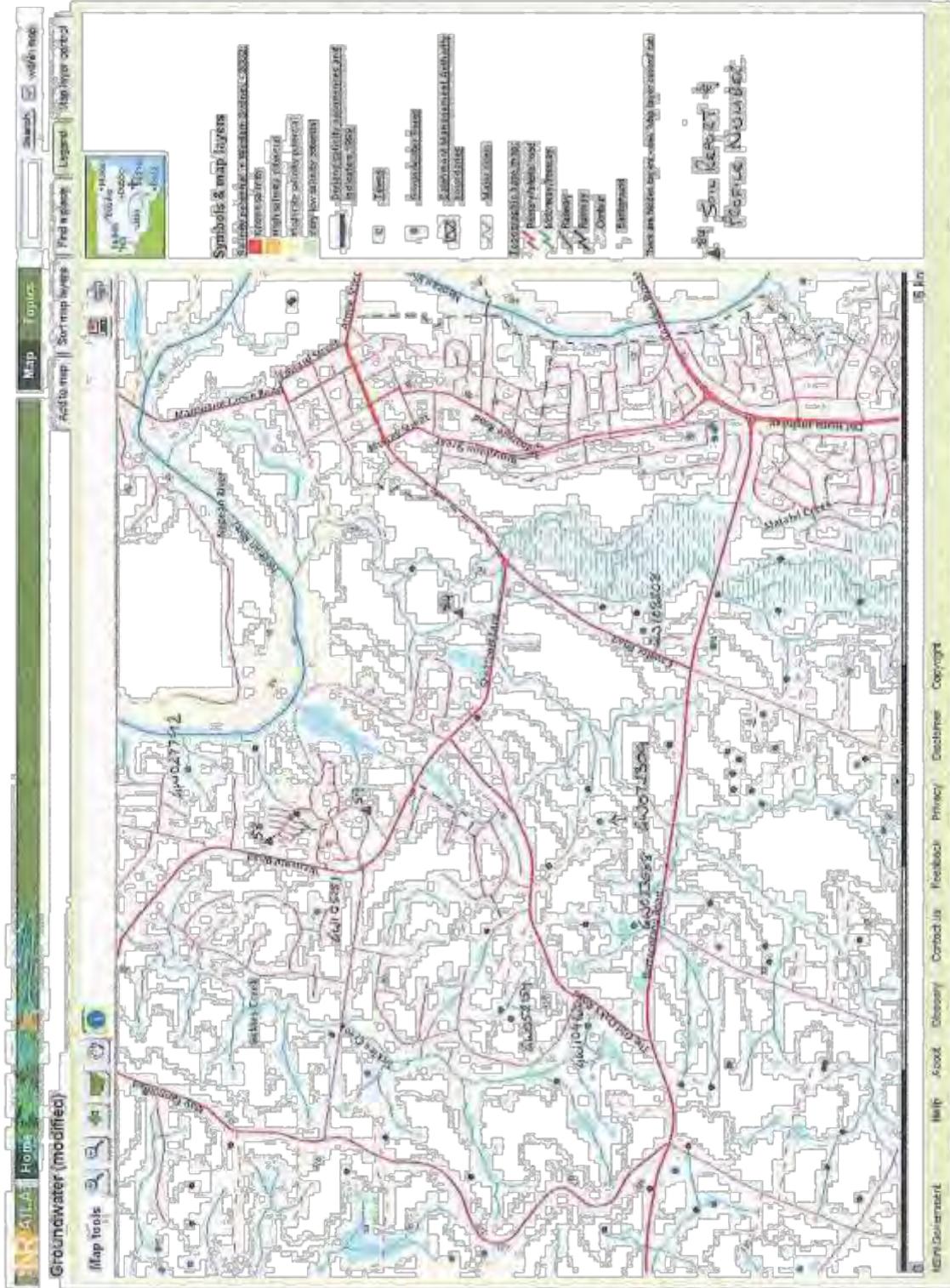
Attachment 1

ORD02

Attachment 1

Appendix A
Registered Groundwater Bore Search
Results and SALIS Report

Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW



Attachment 1
ORD02

ORD02

Attachment 1

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, October 17, 2013

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW023588

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW023588
 LIC-NUM 10WA109654
 AUTHORISED-PURPOSES STOCK
 INTENDED-PURPOSES IRRIGATION
 WORK-TYPE Bore open thru rock
 WORK-STATUS (Unknown)
 CONSTRUCTION-METHOD Cable Tool
 OWNER-TYPE Private
 COMMENCE-DATE
 COMPLETION-DATE 1965-01-01
 FINAL-DEPTH (metres) 91.40
 DRILLED-DEPTH (metres) 91.40
 CONTRACTOR-NAME
 DRILLER-NAME
 PROPERTY BOARDMAN
 GWMA -
 GW-ZONE -
 STANDING-WATER-LEVEL
 SALINITY
 YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
 RIVER-BASIN 212 - HAWKESBURY RIVER
 AREA-DISTRICT
 CMA-MAP 9029-4N
 GRID-ZONE 56/1
 SCALE 1:25,000
 ELEVATION
 ELEVATION-SOURCE (Unknown)
 NORTHING 6227676.00
 EASTING 284629.00
 LATITUDE 34 4' 10"
 LONGITUDE 150 39' 58"
 GS-MAP 0075C1

<http://is2.dnr.nsw.gov.au/proxy/dipnr/gwworks?GWID=GW023588>

17/10/2013

Groundwater Works Summary

Page 2 of 2

AMG-ZONE 56
 COORD-SOURCE GD.,ACC.MAP
 REMARK

Form-A (top)

COUNTY CAMDEN
 PARISH CAMDEN
 PORTION-LOT-DP 12

Licensed (top)

COUNTY CAMDEN
 PARISH CAMDEN
 PORTION-LOT-DP 7 1078000

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1	1	Casing	Threaded Steel	-0.60	71.60	127			(Unknown)

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK-CAT- DESC	S- W-L	D- D- L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
5.40	5.40	0.00	(Unknown)			0.00			(Unknown)
27.40	33.40	6.00	Fractured	3.60		1.26			V.Salty
86.50	86.50	0.00	Consolidated (natural flow)	- 0.60					invalid code

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	5.48	5.48	Clay		
5.48	8.53	3.05	Clay Shale	Water Supply	
8.53	70.10	61.57	Shale	Water Supply	
70.10	91.44	21.34	Sandstone	Water Supply	

Warning To Clients: This raw data has been supplied to the Department of Infrastructure, Planning and Natural Resources (DIPNR) by drillers, licensees and other sources. The DIPNR does not verify the accuracy of this data. The data is presented for use by you at your own risk. You should consider verifying this data before relying on it. Professional hydrogeological advice should be sought in interpreting and using this data.

<http://is2.dnr.nsw.gov.au/proxy/dipnr/gwworks?GWWID=GW023588>

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Attachment 1

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
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[Print Report](#)

[Works Details](#) [Site Details](#) [Form A Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW072309

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW072309
 LIC-NUM
 AUTHORISED-PURPOSES
 INTENDED-PURPOSES FARMING STOCK
 WORK-TYPE Bore
 WORK-STATUS (Unknown)
 CONSTRUCTION-METHOD Rotary Air
 OWNER-TYPE Private
 COMMENCE-DATE
 COMPLETION-DATE 1994-07-15
 FINAL-DEPTH (metres) 30.00
 DRILLED-DEPTH (metres) 30.00
 CONTRACTOR-NAME
 DRILLER-NAME
 PROPERTY
 GWMA
 GW-ZONE
 STANDING-WATER-LEVEL
 SALINITY
 YIELD

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
 RIVER-BASIN 212 - HAWKESBURY RIVER
 AREA-DISTRICT
 CMA-MAP 9029-4N
 GRID-ZONE 56/1
 SCALE 1:25,000
 ELEVATION
 ELEVATION-SOURCE
 NORTHING 6227902.00
 EASTING 285170.00
 LATITUDE 34 4' 3"
 LONGITUDE 150 40' 19"
 GS-MAP

<http://is2.dnr.nsw.gov.au/proxy/dipnr/gwworks?GWID=GW072309>

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Groundwater Works Summary

Page 2 of 2

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A ([top](#))

COUNTY CAMDEN
 PARISH CAMDEN
 PORTION-LOT-DP LPT19 DP975392

Licensed ([top](#))

no details

Water Bearing Zones ([top](#))

no details

Drillers Log ([top](#))

FROM	TO	THICKNESS	DESC	GEO-MATERIAL	COMMENT
0.00	1.00	1.00	Soil & Clay		
1.00	10.00	9.00	Brown Shale		
10.00	30.00	20.00	Blue Shale		

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<http://is2.dnr.nsw.gov.au/proxy/dipnr/gwworks?GWWID=GW072309>

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ORD02

Attachment 1

Groundwater Works Summary

For information on the meaning of fields please see [Glossary](#)
Document Generated on Thursday, October 17, 2013

[Print Report](#)

[Works Details](#) [Site Details](#) [Form A Licensed Construction](#) [Water Bearing Zones](#) [Drillers Log](#)

Work Requested -- GW105251

Works Details [\(top\)](#)

GROUNDWATER NUMBER GW105251
 LIC-NUM 10WA111036
 AUTHORISED-PURPOSES DOMESTIC STOCK
 INTENDED-PURPOSES DOMESTIC STOCK
 WORK-TYPE Bore
 WORK-STATUS Supply Obtained
 CONSTRUCTION-METHOD Rotary
 OWNER-TYPE Private
 COMMENCE-DATE
 COMPLETION-DATE 2003-10-03
 FINAL-DEPTH (metres) 162.00
 DRILLED-DEPTH (metres) 162.00
 CONTRACTOR-NAME
 DRILLER-NAME
 PROPERTY ROMEO
 GWMA -
 GW-ZONE -
 STANDING-WATER-LEVEL 40.00
 SALINITY 1260.00
 YIELD 0.30

Site Details [\(top\)](#)

REGION 10 - SYDNEY SOUTH COAST
 RIVER-BASIN 212 - HAWKESBURY RIVER
 AREA-DISTRICT
 CMA-MAP 9029-4N
 GRID-ZONE 56/1
 SCALE 1:25,000
 ELEVATION
 ELEVATION-SOURCE (Unknown)
 NORTHING 6229667.00
 EASTING 284660.00
 LATITUDE 34 3' 6"
 LONGITUDE 150 40' 1"
 GS-MAP

<http://is2.dnr.nsw.gov.au/proxy/dipnr/gwworks?GWID=GW105251>

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Groundwater Works Summary

Page 2 of 3

AMG-ZONE 56
 COORD-SOURCE
 REMARK

Form-A (top)

COUNTY CAMDEN
 PARISH CAMDEN
 PORTION-LOT-DP 116 854483

Licensed (top)

COUNTY CAMDEN
 PARISH CAMDEN
 PORTION-LOT-DP 116 854483

Construction (top)

Negative depths indicate Above Ground Level;H-Hole;P-Pipe;OD-Outside Diameter;
 ID-Inside Diameter;C-Cemented;SL-Slot Length;A-Aperture;GS-Grain Size;Q-Quantity

HOLE- NO	PIPE- NO	COMPONENT- CODE	COMPONENT- TYPE	DEPTH- FROM (metres)	DEPTH- TO (metres)	OD (mm)	ID (mm)	INTERVAL	DETAIL
1		Hole	Hole	0.00	5.50	208			Rotary Air
1		Hole	Hole	5.50	162.00	158			Down Hole Hammer
1	1	Casing	Steel	-0.50	5.50	168.3	158.7		C: -1-5.5m; Driven into Hole
1	1	Casing	PVC Class 9	-0.50	71.50	140			Screwed and Glued; Suspended in Clamps

Water Bearing Zones (top)

FROM- DEPTH (metres)	TO- DEPTH (metres)	THICKNESS (metres)	ROCK- CAT- DESC	S-W- L	D- D- L	YIELD	TEST- HOLE- DEPTH (metres)	DURATION	SALINITY
28.00	30.00	2.00				0.05	36.00	0.25	3200.00
86.00	89.00	3.00				0.20	90.00	0.25	960.00
109.00	110.50	1.50				0.30	114.00	0.25	940.00
122.00	124.00	2.00		40.00		0.30	162.00	0.25	1260.00

Drillers Log (top)

FROM	TO	THICKNESS	DESC	GEO-MATERIAL COMMENT
0.00	3.00	3.00	CLAY STIFF	
3.00	5.00	2.00	CLAY SILTY WET	
5.00	65.00	60.00	SHALE HARD	

<http://is2.dnr.nsw.gov.au/proxy/dipnr/gwworks?GWWID=GW105251>

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ORD02

Attachment 1

Groundwater Works Summary

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ORD02

Attachment 1

65.00	70.00	5.00	SANDSTONE GREY
70.00	72.00	2.00	SHALE
72.00	86.00	14.00	SANDSTONE GREY
86.00	89.00	3.00	SANDSTONE FINE QUARTZ
89.00	109.00	20.00	SANDSTONE GREY
109.00	110.50	1.50	SANDSTONE QUARTZ
110.50	114.50	4.00	SANDSTONE GREY
114.50	117.00	2.50	SHALE
117.00	122.00	5.00	SANDSTONE GREY
122.00	124.00	2.00	SANDSTONE QUARTZ
124.00	130.00	6.00	SANDSTONE GREY
130.00	131.00	1.00	SANDSTONE FRACTURED QUARTZ
131.00	139.00	8.00	SANDSTONE GREY
139.00	140.00	1.00	SANDSTONE QUARTZ
140.00	151.00	11.00	SANDSTONE GREY
151.00	162.00	11.00	SHALE

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10/18/13

Soil Technical Report



LOCATION: Grasmere nr Carrington Centennial Hospital

SURVEY: Wollongong II NHT (1004364)

PROFILE: 58

PROFILE MAP DETAILS:

1:100,000 Mapsheet: WOLLONGONG (9029)

Scale of other

Mapping:

MGA Easting: 285018

MGA Northing: 6230010

SITE DETAILS:

Described by: Andrew Macleod

Profile Date: January 29, 2003

Nature of Exposure: batter

Photo Taken:

No of Layers: 2

SOIL AND MAP CODES:

Geology Map Code: Rwb

Soil Map Code: bt

Aust. Soil Classification: Kurosol, Brown, Natric, Haplic, Haplic,

Classification: All required data available

Great Soil Group: Soloth (Solod)

Northcote

PPF:

Soil Taxonomy:

Atlas

(Northcote)

Code:

Atlas (A&M) Code:

TOPOGRAPHY:

Slope: 3%, ?

Elevation: 90 m

Aspect: west

LANDFORM:

Site Morphology: upper slope

Site Process: 90 m

Slope Morphology: waxing

Local Relief: very low (9-30 m)

Landform Pattern:

Landform hillcrest

Element:

Microrelief

Pos in LF Element:

Plan Curvature:

LITHOLOGY:

Solum PM: shale

Substrate: shale m

Rock Outcrop: nil

Outcrop Same

As:

ORD02

Attachment 1

10/18/13

Soil Technical Report

Substrate Strength: moderately strong
 Weathering & Alteration: highly weathered rock m
 Discontinuities:
 Fragment Amount:

VEGETATION:

Vegetation Community: woodland grass u'storey
 Growth Form(s): tree,shrub,tussock grass
 Crown Separation Ratio:
 Upper Stratum Height:

Species: Dendrobium aemulum (ironbark orchid)

SITE CONDITION:

Ground Cover %: 99

Site Disturbance: extensive clearing

Current Condition(s): firm

Expected Dry Condition: hardsetting

LAND USE:

Site: volun./native pasture

General Area: urban,volun./native pasture,improved pasture

HYDROLOGY:

Presence of Free Water: none

Free Water Depth:

Run-on: low

Run-off: low

Permeability: slowly permeable

Profile Drainage: imperfectly drained

Free Water pH:

Free Water Salinity:

EROSION: none

EROSION HAZARD: moderate

SALINITY: no salting evident

FIELD NOTES: Soil underlain by highly weathered and broken-up shale fragments (C horizon) - greyish coloured Bringelly shale.

PROFILE ADDENDUM:**SOIL DESCRIPTION:**

LAYER 0 horizon
 Depth: 00.00 - 00.00

COARSE FRAGMENTS:

spade.dnr.nsw.gov.au/SoilTechnical.jsp?p_profile_id=70732

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10/18/13	Soil Technical Report				
Type:	not evident	Amount:	Distribution: Orientation: Weathering:		
Shape:					
Size:					
Type:	not evident	Amount:	Distribution: Orientation: Weathering:		
Shape:					
Size:					
LAYER 1	A1 horizon				
Depth:	00.00 - 00.25				
TEXTURE:	medium clay loam				
COLOUR:					
Moist:	strong brown (bright brown) (7.5YR 5/6)				
Dry:					
FIELD CHEMICAL TESTS:					
pH:	5 (Raupach)				
STRUCTURE:					
Grade of Pedality:	moderate pedality	Fabric:	rough-faced peds		
Dominant Peds:	10 - 20 mm, polyhedral				
Subdominant Peds:	5 - 10 mm, sub-angular blocky				
Artificial Aggregates:					
COARSE FRAGMENTS:					
Type:	not evident	Amount:	Distribution: Orientation: Weathering:		
Shape:					
Size:					
Type:	not evident	Amount:	Distribution: Orientation: Weathering:		
Shape:					
Size:					
ROOTS:					
<1 mm size:	few (1-10/10x10cm)	1-2 mm size:	few (1-10/10x10cm)	2-5 mm size:	>5 mm size:
CRACKS AND MACROPORES:					
Cracks					
<5 mm width:	evident	5-10 mm width:	evident	10-20 mm width:	20-50 mm width: >50 mm width:
Macropores					
<1 mm size:		1-2 mm size:		2-5 mm size:	>5 mm size:
CONSISTENCE:					
Degree of Plasticity:		Stickiness:	moderately sticky		
Texture Modifier:	increase < 2 Grades	Disruptive Test:	moderately strong force		
Shearing Test:	crumbly	Toughness:			

ORD02

Attachment 1

10/18/13

Soil Technical Report

SOIL WATER STATUS: dry

ERODIBILITY TESTS:

Crumb Test: no change Bolus Formation: Field Dilatency:

SOIL ERODIBILITY: low

SAMPLE TAKEN: bulked

BOUNDARY:

Distinctiveness: abrupt (5-20 mm) Shape: smooth

LAYER 2 B2 horizon
Depth: 00.25 - 00.55

TEXTURE: medium clay

COLOUR:

Moist: yellowish brown (dull yellowish brown) (10YR 5/4)

Dry:

FIELD CHEMICAL TESTS:

pH: 5.5 (Raupach)

STRUCTURE:

Grade of Pedality: strong pedality Fabric: rough-faced peds

Dominant Peds: 5 - 10 mm, polyhedral

Subdominant Peds: 2 - 5 mm, sub-angular blocky

Artificial Aggregates:

COARSE FRAGMENTS:

Type: not evident Amount: Distribution: Orientation: Weathering:

Shape:

Size:

Type: not evident Amount: Distribution: Orientation: Weathering:

Shape:

Size:

CONSISTENCE:

Degree of Plasticity: Stickiness: very sticky

Texture Modifier: increase < 2 Grades Disruptive Test: moderately strong force

Shearing Test: crumbly Toughness:

SOIL WATER STATUS: dry

ERODIBILITY TESTS:

Crumb Test: aggregates Bolus Field

spade.dnr.nsw.gov.au/SoilTechnical.jsp?p_profile_id=70732

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10/18/13

Soil Technical Report

disperse

Formation:

Dilatency:

SOIL ERODIBILITY: moderate**SAMPLE TAKEN:** disturbed**LAYER NOTES:** Most likely sodic. Some silt. Minor dispersion, but doesn't slake.**BOUNDARY:**

Distinctiveness: clear (20-50 mm) Shape: smooth

LAYER 99 horizon

Depth: 00.68 -

LABORATORY TESTS:**Sample No:**

99

Depth:

00.00 - 00.00 m

Test Results:

N504.99 [Oven-dry moisture content]:	4.0
N518.99 [Volume expansion]:	7
N517.99_CL [PSA clay - SDS]:	34
N517.99_SI [PSA silt - SDS]:	19
N517.99_FS [PSA fine sand - SDS]:	14
N517.99_CS [PSA coarse sand - SDS]:	2
N517.99_GR [PSA gravel - SDS]:	31
N514.99 [Dispersion percentage]:	25
N513.98 [Emerson aggregate test SCS method]:	3(1)
N550.01 [USCS - lab]:	CL
N504.02_FC [Field Capacity, SWC pressure plate]:	30.3
N504.02_PWP [Permanent Wilt Point, SWC pressure plate]:	14.9
N515.99 [Wind erodible aggregate percentage]:	23
N505.99 [Water repellence field method]:	1
N3A1 [EC of 1:5 soil/water extract]:	0.06
N4A1 [pH of 1:5 soil/water suspension]:	5.3
N4B1 [pH of 1:5 soil/0.01M CaCl2 extract - direct, no stir]:	4.3
N15F1_CEC [CEC by 0.01M silver-thiourea (AgTU)+, no pret.]:	20.9
N15F1_CA [Exchangeable Ca - 0.01M (AgTU)+, no pretreatment]:	3.6
N15F1_MG [Exchangeable Mg - 0.01M (AgTU)+, no pretreatment]:	6.2
N15F1_NA [Exchangeable Na - 0.01M (AgTU)+, no pretreatment]:	0.7
N15F1_K [Exchangeable K - 0.01M (AgTU)+, no pretreatment]:	1.3
N15F1_AL [Exch. bases (Al+), 0.01M (AgTU)+, no pretreat.]:	4.3
N6A1 [Organic carbon - Walkley & Black]:	0.78
N9E1 [Fluoride-extractable P (Bray 1-P) - manual colour]:	2
N9I1 [Phosphate sorption index]:	599

Sample No:

100

Depth:

00.25 - 00.25 m

Test Results:

N504.99 [Oven-dry moisture content]:	3.6
N518.99 [Volume expansion]:	5

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N518.01 [Linear shrinkage]:	11.0
N517.99_CL [PSA clay - SDS]:	32
N517.99_SI [PSA silt - SDS]:	28
N517.99_FS [PSA fine sand - SDS]:	16
N517.99_CS [PSA coarse sand - SDS]:	2
N517.99_GR [PSA gravel - SDS]:	22
N514.99 [Dispersion percentage]:	63
N513.98 [Emerson aggregate test SCS method]:	2(2)
N550.01 [USCS - lab]:	CL
N504.02_FC [Field Capacity, SWC pressure plate]:	32.4
N504.02_PWP [Permanent Wilt Point, SWC pressure plate]:	15.1
N515.99 [Wind erodible aggregate percentage]:	3
N505.99 [Water repellence field method]:	2
N3A1 [EC of 1:5 soil/water extract]:	0.08
N4A1 [pH of 1:5 soil/water suspension]:	5.7
N4B1 [pH of 1:5 soil/0.01M CaCl ₂ extract - direct, no stir]:	4.2
N15F1_CEC [CEC by 0.01M silver-thiourea (AgTU)+, no pret.]:	20.4
N15F1_CA [Exchangeable Ca - 0.01M (AgTU)+, no pretreatment]:	2.4
N15F1_MG [Exchangeable Mg - 0.01M (AgTU)+, no pretreatment]:	7.6
N15F1_NA [Exchangeable Na - 0.01M (AgTU)+, no pretreatment]:	2.0
N15F1_K [Exchangeable K - 0.01M (AgTU)+, no pretreatment]:	1.7
N15F1_AL [Exch. bases (Al+), 0.01M (AgTU)+, no pretreat.]:	2.0
N6A1 [Organic carbon - Walkley & Black]:	0.60
N9E1 [Fluoride-extractable P (Bray 1-P) - manual colour]:	1
N9I1 [Phosphate sorption index]:	367

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SALIS Soil Technical Report

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Fri Oct 18 16:01:47 EST 2013

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Soil Technical Report



LOCATION: Werombi Rd - Lefevres Corner

SURVEY: Wollongong II NHT (1004364)

PROFILE: 59

PROFILE MAP DETAILS:

1:100,000 Mapsheet: WOLLONGONG (9029)

Scale of other

Mapping:

MGA Easting: 285202

MGA Northing: 6229384

SITE DETAILS:

Described by: Andrew Macleod

Profile Date: January 29, 2003

Nature of Exposure: batter

Photo Taken:

No of Layers: 2

SOIL AND MAP CODES:

Geology Map Code: Rwb

Soil Map luz

Code:

Aust. Soil Classification: Chromosol, Red, Mesotrophic, Haplic, Haplic, All required data available

Great Soil Group: Red Podzolic Soil

Northcote

PPF:

Soil Taxonomy:

Atlas (Northcote)

Code:

Atlas (A&M) Code:

TOPOGRAPHY:

Slope: 13%, measured

Elevation: 85 m

Aspect: south east

LANDFORM:

Site Morphology: upper slope

Site Process: 85 m

Slope Morphology: waxing

Local Relief: low (30-90 m)

Landform Pattern:

Landform hillslope

Element:

Microrelief

Pos in LF Element:

Plan Curvature:

LITHOLOGY:

Solum PM: shale

Substrate: shale m

Rock Outcrop: nil

Outcrop Same

As:

Substrate Strength: moderately strong

Weathering & Alteration: highly weathered rock m

Discontinuities:

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Fragment Amount:

VEGETATION:

Vegetation: woodland grass u'storey
 Community:
 Growth Form(s): tree,shrub,tussock grass
 Crown Separation
 Ratio:
 Upper Stratum
 Height:

Species: Eucalyptus crebra (narrow-leaved ironbark)
 Species: Eucalyptus moluccana (coastal grey box)

SITE CONDITION:

Ground Cover %: 99
 Current Condition(s): firm
 Site Disturbance: extensive clearing
 Expected Dry Condition: hardsetting

LAND USE:

Site: General Area: volun./native pasture,improved pasture

HYDROLOGY:

Presence of Free Water: none
 Run-on: low
 Permeability: slowly permeable
 Free Water pH:
 Free Water Depth:
 Run-off: moderate
 Profile Drainage: mod. well drained
 Free Water Salinity:

EROSION: none**EROSION HAZARD:** moderate**SALINITY:** no salting evident**FIELD NOTES:** ? Might be salty? Shale/sandstone mix. Abundant round ironstone segregations.**PROFILE ADDENDUM:****SOIL DESCRIPTION:**

LAYER 1: A1 horizon
 Depth: 00.00 - 00.35

TEXTURE: medium silty clay loam**COLOUR:**

Moist: reddish brown (dull reddish brown)
 (5YR 4/4)
 Dry:

FIELD CHEMICAL TESTS:

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FIELD CHEMICAL TESTS:

pH: 6 (Raupach)

STRUCTURE:

Grade of Pedality: weak pedality
 Fabric: rough-faced peds
 Dominant Peds: 2 - 5 mm, polyhedral
 Subdominant Peds: 5 - 10 mm
 Artificial Aggregates:

ROOTS:

<1 mm size:	common (10-25/10x10cm)	1-2 mm size:	none	2-5 mm size:	>5 mm size:
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CRACKS AND MACROPORES:

Cracks
 <5 mm width: evident
 5-10 mm width: evident
 10-20 mm width: evident
 20-50 mm width: evident
 >50 mm width: evident

Macropores
 <1 mm size: 1-2 mm size:
 2-5 mm size:
 >5 mm size:

CONSISTENCE:

Degree of Plasticity: Stickiness: moderately sticky
 Texture increase < 2 Disruptive very firm
 Modifier: Grades Test: force
 Shearing Test: crumbly Toughness:

SOIL WATER STATUS: dry

ERODIBILITY TESTS:

Crumb Test: no change Bolus Formation: Field Dilatency:

SOIL ERODIBILITY: low

SAMPLE TAKEN: bulked

BOUNDARY:

Distinctiveness: clear (20-50 mm) Shape: smooth

LAYER 2 B2 horizon
 Depth: 00.35 - 00.70

TEXTURE: medium heavy clay

COLOUR:

Moist: reddish brown (dull reddish brown) (2.5YR 4/4)

Dry:

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FIELD CHEMICAL TESTS:

pH: 5.5
(Raupach)

STRUCTURE:

Grade of strong Fabric: rough-faced
Pedality: pedality peds
Dominant 10 - 20 mm, sub-angular blocky
Peds:
Subdominant 20 - 50 mm
Peds:
Artificial
Aggregates:

COARSE FRAGMENTS:

Type: ironstone Amount: common (10-20%) Distribution: dispersed Orientation: reoriented Weathering: strongly weathered
Shape: rounded, sub-rounded
Size: fine gravel (2-6 mm), gravel (6-20 mm)

ROOTS:

<1 mm size:	none	1-2 mm size:	few (1-10/10x10cm) size:	2-5 mm size:	>5 mm size:
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CRACKS AND MACROPORES:

Cracks
<5 mm width: evident 5-10 mm width: evident 10-20 mm width: 20-50 mm width: >50 mm width:
Macropores
<1 mm size: 1-2 mm size: 2-5 mm size: >5 mm size:

CONSISTENCE:

Degree of Plasticity: Stickiness: very sticky
Texture increase < 2 Disruptive Grades: moderately strong force
Modifier: Grades Test: strong force
Shearing Test: crumbly Toughness:

SOIL WATER STATUS: dry

ERODIBILITY TESTS:

Crumb Test:	aggregates slake	Bolus Formation:	Field Dilatency:
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SOIL ERODIBILITY: moderate

SAMPLE TAKEN: disturbed

LAYER NOTES: Fairly abundant iron segregations. - very rounded iron nodules.

BOUNDARY:

Distinctiveness: clear (20-50 mm) Shape: smooth

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LAYER 99 horizon
Depth: 00.90 -

LABORATORY TESTS:

Sample No: 101
Depth: 00.00 - 00.00 m
Test Results:

N504.99 [Oven-dry moisture content]:	3.2
N518.99 [Volume expansion]:	13
N517.99_CL [PSA clay - SDS]:	35
N517.99_SI [PSA silt - SDS]:	20
N517.99_FS [PSA fine sand - SDS]:	39
N517.99_CS [PSA coarse sand - SDS]:	5
N517.99_GR [PSA gravel - SDS]:	1
N514.99 [Dispersion percentage]:	12
N513.98 [Emerson aggregate test SCS method]:	5
N550.01 [USCS - lab]:	ML
N504.02_FC [Field Capacity, SWC pressure plate]:	29.4
N504.02_PWP [Permanent Wilt Point, SWC pressure plate]:	11.7
N515.99 [Wind erodible aggregate percentage]:	31
N505.99 [Water repellence field method]:	1
N3A1 [EC of 1:5 soil/water extract]:	0.05
N4A1 [pH of 1:5 soil/water suspension]:	6.5
N4B1 [pH of 1:5 soil/0.01M CaCl2 extract - direct, no stir]:	5.7
N15F1_CEC [CEC by 0.01M silver-thiourea (AgTU)+, no pret.]:	13.2
N15F1_CA [Exchangeable Ca - 0.01M (AgTU)+, no pretreatment]:	4.1
N15F1_MG [Exchangeable Mg - 0.01M (AgTU)+, no pretreatment]:	4.8
N15F1_NA [Exchangeable Na - 0.01M (AgTU)+, no pretreatment]:	0.3
N15F1_K [Exchangeable K - 0.01M (AgTU)+, no pretreatment]:	0.9
N15F1_AL [Exch. bases (Al+), 0.01M (AgTU)+, no pretreat.]:	0.5
N6A1 [Organic carbon - Walkley & Black]:	0.75
N9E1 [Fluoride-extractable P (Bray 1-P) - manual colour]:	1
N9H1 [Phosphate sorption index]:	455

Sample No: 102
Depth: 00.35 - 00.35 m

Test Results:

N504.99 [Oven-dry moisture content]:	3.6
N518.99 [Volume expansion]:	15
N517.99_CL [PSA clay - SDS]:	40
N517.99_SI [PSA silt - SDS]:	24
N517.99_FS [PSA fine sand - SDS]:	27
N517.99_CS [PSA coarse sand - SDS]:	6
N517.99_GR [PSA gravel - SDS]:	3
N516.01_CL [Non-dispersed PSA clay]:	7
N516.01_SI [Non-dispersed PSA silt]:	46
N516.01_FS [Non-dispersed PSA fine sand]:	31
N516.01_CS [Non-dispersed PSA coarse sand]:	13
N516.01_GR [Non-dispersed PSA gravel]:	3
N514.99 [Dispersion percentage]:	10
N513.98 [Emerson aggregate test SCS method]:	5
N550.01 [USCS - lab]:	CL
N504.02_FC [Field Capacity, SWC pressure plate]:	29.3

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N504.02_PWP [Permanent wilt Point, SWC pressure plate]:		13.7
N515.99 [Wind erodible aggregate percentage]:		14
N505.99 [Water repellence field method]:		2
N3A1 [EC of 1:5 soil/water extract]:		0.04
N4A1 [pH of 1:5 soil/water suspension]:		6.1
N4B1 [pH of 1:5 soil/0.01M CaCl2 extract - direct, no stir]:		5.2
N15F1_CEC [CEC by 0.01M silver-thiourea (AgTU)+, no pret.]:		16.4
N15F1_CA [Exchangeable Ca - 0.01M (AgTU)+, no pretreatment]:		2.4
N15F1_MG [Exchangeable Mg - 0.01M (AgTU)+, no pretreatment]:		5.9
N15F1_NA [Exchangeable Na - 0.01M (AgTU)+, no pretreatment]:		0.5
N15F1_K [Exchangeable K - 0.01M (AgTU)+, no pretreatment]:		0.6
N15F1_AL [Exch. bases (Al+), 0.01M (AgTU)+, no pretreat.]:		0.2
N6A1 [Organic carbon - Walkley & Black]:		0.21
N9E1 [Fluoride-extractable P (Bray 1-P) - manual colour]:		2
N9H1 [Phosphate sorption index]:		592

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Soil Technical Report



LOCATION: Sheathers Lane, near Matahil Ck

SURVEY: Wollongong II NHT (1004364)

PROFILE: 84

PROFILE MAP DETAILS:

1:100,000 Mapsheet: WOLLONGONG (9029)

Scale of other

Mapping:

MGA Easting: 286257

MGA Northing: 6228779

SITE DETAILS:

Described by: Andrew Macleod

Profile Date: February 11, 2003

Nature of Exposure: auger

Photo Taken:

No of Layers: 3

SOIL AND MAP CODES:

Geology Map Code: Qal

Soil Map scy

Code:

Aust. Soil Classification: Sodosol, Grey, Mesonatric, Eutrophic, Eutrophic, Sufficient data available

Great Soil Group: Gleyed Podzolic Soil

Northcote

PPF:

Soil Taxonomy:

Atlas (Northcote)

Code:

Atlas (A&M) Code:

TOPOGRAPHY:

Slope: 1%, measured

Elevation: 65 m

Aspect:

LANDFORM:

Site Morphology: flat

Site Process: 65 m

Slope Morphology:

Local Relief: extremely low (< 9m)

Landform Pattern:

Landform plain

Element:

Microrelief

Pos in LF Element:

Plan

Curvature:

LITHOLOGY:

Solum PM: alluvium

Substrate: alluvium m

Rock Outcrop: nil

Outcrop Same

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As:

Substrate Strength:
Weathering & Alteration: m
Discontinuities:
Fragment Amount:

VEGETATION:

Vegetation: unknown
Community:
Growth Form(s): tree,tussock grass,sod grass
Crown Separation Ratio:
Upper Stratum Height:

Species: Casuarina sp.

SITE CONDITION:

Ground Cover %: 99

Site: extensive clearing

Disturbance:
Expected Dry Condition:

Current Condition(s): firm

LAND USE:

Site: improved pasture

General Area: volun./native pasture,improved pasture

HYDROLOGY:

Presence of Free Water: none
Run-on: low
Permeability: moderately permeable

Free Water Depth:
Run-off: none
Profile: well drained
Drainage:
Free Water Salinity:

Free Water pH:

EROSION: none

EROSION HAZARD: slight

SALINITY: salting evident

FIELD NOTES: Almost completely cleared for pasture. Floodplain of Matahil Ck. Diagram, site, 20m from channel. Heavy grey/gleyed clay at water table depth. (-50cm)

PROFILE ADDENDUM:**SOIL DESCRIPTION:**

LAYER 0: horizon
Depth: 00.00 - 00.00

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COARSE FRAGMENTS:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

LAYER 1 A1 horizon
Depth: 00.00 - 00.25**TEXTURE:** fine medium clay loam sandy**COLOUR:**Moist: dark greyish brown (greyish yellow brown)
(10YR 4/2)

Dry:

FIELD CHEMICAL TESTS:

pH: 6 (Raupach)

STRUCTURE:

Grade of Pedality: massive Fabric: earthy

Dominant Peds: 2 - 5 mm, granular

Subdominant Peds: < 2 mm

Artificial

Aggregates:

COARSE FRAGMENTS:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

ROOTS:

<1 mm size: common (10-25/10x10cm) 1-2 mm size: none 2-5 mm size: >5 mm size:

CONSISTENCE:

Degree of Plasticity: Stickiness: slightly sticky

Texture Modifier: no change Disruptive Test: very weak force

Shearing Test: crumbly Toughness:

SOIL WATER STATUS: moderately moist**ERODIBILITY TESTS:**

Crumb Test: no change Bolus Formation: Field Dilatency:

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Soil Technical Report

SOIL ERODIBILITY: low**SAMPLE TAKEN:** bulked**BOUNDARY:**

Distinctiveness: abrupt (5-20 mm) Shape: irregular

LAYER 2 B1 horizon

Depth: 00.25 - 00.45

TEXTURE: light clay**COLOUR:**

Moist: very dark greyish brown (brownish black) (10YR 3/2)

Dry:

FIELD CHEMICAL TESTS:

pH: 6 (Raupach)

STRUCTURE:

Grade of Pedality: weak pedality Fabric: rough-faced peds

Dominant Peds: 2 - 5 mm, polyhedral

Subdominant Peds: < 2 mm, granular

Artificial

Aggregates:

COARSE FRAGMENTS:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

ROOTS:

<1 mm size: few (1-10/10x10cm) 1-2 mm size: none 2-5 mm size: >5 mm size:

CONSISTENCE:

Degree of Plasticity: Stickiness: moderately sticky

Texture Modifier: no change Disruptive Test: moderately weak force

Shearing Test: crumbly Toughness:

SOIL WATER STATUS: moderately moist**ERODIBILITY TESTS:**

Crumb Test: no change Bolus Formation: Field Dilatency:

SOIL ERODIBILITY: low

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Soil Technical Report

SAMPLE TAKEN: disturbed**BOUNDARY:**

Distinctiveness: clear (20-50 mm) Shape: smooth

LAYER 3 B2 horizon
Depth: 00.45 - 00.90**TEXTURE:** heavy clay**COLOUR:**

Moist: dark grey (brownish grey) (10YR 4/1)

Dry:

FIELD CHEMICAL TESTS:

pH: 9 (Raupach)

STRUCTURE:Grade of Pedality: strong pedality Fabric: smooth-faced
pedes

Dominant Peds: 20 - 50 mm, sub-angular blocky

Subdominant Peds: 10 - 20 mm

Artificial

Aggregates:

COARSE FRAGMENTS:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

Type: not evident Amount: none Distribution: Orientation: Weathering:

Shape:

Size:

ROOTS:

<1 mm size: none 1-2 mm size: none 2-5 mm size: >5 mm size:

CONSISTENCE:Degree of Plasticity: Stickiness: moderately
stickyTexture Modifier: no change Disruptive
Test: moderately
strong force

Shearing Test: plastic Toughness:

**SOIL WATER
STATUS:** moderately moist**ERODIBILITY TESTS:**Crumb Test: aggregates slake Bolus
Formation: Field
Dilatancy:**SOIL ERODIBILITY:** high**SAMPLE TAKEN:** disturbed

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Soil Technical Report

ORD02

LAYER NOTES: Very likely saline. Greyish, moist. Not mottled

BOUNDARY:

Distinctiveness: abrupt (5-20 mm) Shape: irregular

LAYER 99 horizon

Depth: -

LABORATORY TESTS:

Sample No: 151

Depth: 00.00 - 00.00 m

Test Results:

N504.99 [Oven-dry moisture content]:	4.6
N518.99 [Volume expansion]:	18
N517.99_CL [PSA clay - SDS]:	26
N517.99_SI [PSA silt - SDS]:	35
N517.99_FS [PSA fine sand - SDS]:	34
N517.99_CS [PSA coarse sand - SDS]:	2
N517.99_GR [PSA gravel - SDS]:	3
N514.99 [Dispersion percentage]:	22
N513.98 [Emerson aggregate test SCS method]:	3(1)
N550.01 [USCS - lab]:	CL
N504.02_FC [Field Capacity, SWC pressure plate]:	38.6
N504.02_PWP [Permanent Wilt Point, SWC pressure plate]:	16.3
N515.99 [Wind erodible aggregate percentage]:	25
N505.99 [Water repellence field method]:	0
N3A1 [EC of 1:5 soil/water extract]:	0.11
N4A1 [pH of 1:5 soil/water suspension]:	6.7
N4B1 [pH of 1:5 soil/0.01M CaCl2 extract - direct, no stir]:	5.7
N15F1_CEC [CEC by 0.01M silver-thiourea (AgTU)+, no pret.]:	24.1
N15F1_CA [Exchangeable Ca - 0.01M (AgTU)+, no pretreatment]:	11.1
N15F1_MG [Exchangeable Mg - 0.01M (AgTU)+, no pretreatment]:	7.4
N15F1_NA [Exchangeable Na - 0.01M (AgTU)+, no pretreatment]:	0.5
N15F1_K [Exchangeable K - 0.01M (AgTU)+, no pretreatment]:	0.9
N15F1_AL [Exch. bases (Al+), 0.01M (AgTU)+, no pretreat.]:	0.0
N6A1 [Organic carbon - Walkley & Black]:	2.52
N9E1 [Fluoride-extractable P (Bray 1-P) - manual colour]:	2
N9I1 [Phosphate sorption index]:	265

Sample No: 152

Depth: 00.25 - 00.25 m

Test Results:

N504.99 [Oven-dry moisture content]:	5.1
N518.99 [Volume expansion]:	8
N517.99_CL [PSA clay - SDS]:	29
N517.99_SI [PSA silt - SDS]:	35
N517.99_FS [PSA fine sand - SDS]:	19
N517.99_CS [PSA coarse sand - SDS]:	3
N517.99_GR [PSA gravel - SDS]:	14
N514.99 [Dispersion percentage]:	31

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N513.98 [Emerson aggregate test SCS method]:	3(4)
N550.01 [USCS - lab]:	CL
N504.02_FC [Field Capacity, SWC pressure plate]:	37.8
N504.02_PWP [Permanent Wilt Point, SWC pressure plate]:	16.9
N515.99 [Wind erodible aggregate percentage]:	22
N505.99 [Water repellence field method]:	0
N3A1 [EC of 1:5 soil/water extract]:	0.33
N4A1 [pH of 1:5 soil/water suspension]:	7.4
N4B1 [pH of 1:5 soil/0.01M CaCl2 extract - direct, no stir]:	6.1
N15F1_CEC [CEC by 0.01M silver-thiourea (AgTU)+, no pret.]:	28.6
N15F1_CA [Exchangeable Ca - 0.01M (AgTU)+, no pretreatment]:	11.2
N15F1_MG [Exchangeable Mg - 0.01M (AgTU)+, no pretreatment]:	8.8
N15F1_NA [Exchangeable Na - 0.01M (AgTU)+, no pretreatment]:	2.7
N15F1_K [Exchangeable K - 0.01M (AgTU)+, no pretreatment]:	0.5
N15F1_AL [Exch. bases (Al+), 0.01M (AgTU)+, no pretreat.]:	0.0
N6A1 [Organic carbon - Walkley & Black]:	1.96
N9E1 [Fluoride-extractable P (Bray 1-P) - manual colour]:	2
N9I1 [Phosphate sorption index]:	367
Sample No:	153
Depth:	00.45 - 00.45 m
Test Results:	
N504.99 [Oven-dry moisture content]:	7.3
N518.99 [Volume expansion]:	fs
N518.01 [Linear shrinkage]:	19.0
N517.99_CL [PSA clay - SDS]:	48
N517.99_SI [PSA silt - SDS]:	26
N517.99_FS [PSA fine sand - SDS]:	3
N517.99_CS [PSA coarse sand - SDS]:	2
N517.99_GR [PSA gravel - SDS]:	21
N516.01_CL [Non-dispersed PSA clay]:	22
N516.01_SI [Non-dispersed PSA silt]:	41
N516.01_FS [Non-dispersed PSA fine sand]:	28
N516.01_CS [Non-dispersed PSA coarse sand]:	6
N516.01_GR [Non-dispersed PSA gravel]:	3
N514.99 [Dispersion percentage]:	89
N513.98 [Emerson aggregate test SCS method]:	2(1)
N550.01 [USCS - lab]:	CH
N504.02_FC [Field Capacity, SWC pressure plate]:	48.9
N504.02_PWP [Permanent Wilt Point, SWC pressure plate]:	22.2
N515.99 [Wind erodible aggregate percentage]:	0
N505.99 [Water repellence field method]:	1
N3A1 [EC of 1:5 soil/water extract]:	1.25
N4A1 [pH of 1:5 soil/water suspension]:	8.7
N4B1 [pH of 1:5 soil/0.01M CaCl2 extract - direct, no stir]:	7.5
N15F1_CEC [CEC by 0.01M silver-thiourea (AgTU)+, no pret.]:	42.3
N15F1_CA [Exchangeable Ca - 0.01M (AgTU)+, no pretreatment]:	7.0
N15F1_MG [Exchangeable Mg - 0.01M (AgTU)+, no pretreatment]:	13.5
N15F1_NA [Exchangeable Na - 0.01M (AgTU)+, no pretreatment]:	13.0
N15F1_K [Exchangeable K - 0.01M (AgTU)+, no pretreatment]:	0.6
N15F1_AL [Exch. bases (Al+), 0.01M (AgTU)+, no pretreat.]:	0.0
N6A1 [Organic carbon - Walkley & Black]:	0.83
N9E1 [Fluoride-extractable P (Bray 1-P) - manual colour]:	5
N9I1 [Phosphate sorption index]:	518

spade.dnr.nsw.gov.au/SoilTechnical.jsp?p_profile_id=71054

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ORD02

Attachment 1

ORD02

Attachment 1

10/18/13

Soil Technical Report

For information on laboratory test data and units of measure, please see the SPADE Help page

SALIS Soil Technical Report

To contact us email: soils@dnr.nsw.gov.au
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Fri Oct 18 15:58:25 EST 2013

Appendix B Climate Data

**Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW**

ORD02

Attachment 1

Figure B-1: Camden Airport Weather Station Relative to Site



11/1/13

Climate statistics for Australian locations



Climate statistics for Australian locations

Monthly climate statistics

All years of record

Site name: CAMDEN AIRPORT AWS	Site number: 068192	Commenced: 1943
Latitude: 34.04° S	Longitude: 150.89° E	Elevation: 74 m
Operational status: Open		Map

View: Main statistics All available Period: Use all years of data Text size: Normal Large

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years
Temperature														
Maximum temperature														
Mean maximum temperature (°C)	29.5	28.6	26.7	23.8	20.5	17.7	17.2	19.0	21.9	24.1	26.1	28.4	23.6	36 1971-2013
Highest temperature (°C)	46.4	43.2	41.0	38.5	27.5	24.9	25.4	30.2	36.0	40.5	42.6	43.1	46.4	36 1971-2013
Date	18 Jan 2013	21 Feb 1960	09 Mar 1963	04 Apr 1966	03 May 2007	01 Jun 1976	22 Jul 2009	30 Aug 1962	30 Sep 1960	21 Oct 1988	26 Nov 1962	17 Dec 2009	18 Jan 2013	
Lowest maximum temperature (°C)	17.9	17.0	17.0	16.6	12.0	10.8	9.6	11.2	13.4	13.2	14.0	16.0	9.6	36 1971-2013
Date	13 Jan 1972	07 Feb 1973	02 Mar 1987	29 Apr 2009	30 May 2000	12 Jun 1975	20 Jul 1983	22 Aug 2008	01 Sep 1987	16 Oct 1978	16 Nov 1988	10 Dec 2002	20 Jul 1983	
Decile 1 maximum temperature (°C)	23.5	22.5	22.0	19.8	17.2	16.0	14.6	15.8	17.2	18.5	20.0	22.2		38 1971-2013
Decile 9 maximum temperature (°C)	38.0	35.0	31.7	27.8	23.9	20.3	20.0	22.7	27.5	30.6	33.0	36.5		38 1971-2013
Mean number of days ≥ 30 °C	13.2	10.2	5.9	0.9	0.0	0.0	0.0	0.0	1.1	4.0	6.4	10.5	52.2	36 1971-2013
Mean number of days ≥ 35 °C	4.6	2.9	0.8	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.6	3.4	13.9	36 1971-2013
Mean number of days ≥ 40 °C	1.1	0.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.3	2.4	36 1971-2013
Minimum temperature														
Mean minimum temperature (°C)	16.8	16.6	14.6	11.0	7.0	4.5	3.0	3.8	6.7	9.9	12.9	15.1	10.2	36 1971-2013
Lowest temperature (°C)	7.9	7.2	5.9	-0.7	-2.2	-5.4	-6.0	-4.0	-1.8	1.3	3.8	5.7	-6.0	36 1971-2013
Date	02 Jan 1972	23 Feb 1963	31 Mar 2006	23 Apr 2006	28 May 1987	26 Jun 1986	12 Jul 2002	02 Aug 1965	01 Sep 2012	01 Oct 1982	19 Nov 1977	19 Dec 2005	12 Jul 2002	
Highest minimum temperature (°C)	23.5	24.0	22.0	19.4	17.5	15.0	14.6	15.0	16.3	18.6	21.7	24.0	24.0	36 1971-2013
Date	25 Jan 1982	03 Feb 2011	19 Mar 2000	10 Apr 1976	01 May 1973	08 Jun 1991	06 Jul 1988	17 Aug 1988	23 Sep 2003	29 Oct 1988	21 Nov 2009	23 Dec 2000	23 Dec 2000	
Decile 1 minimum temperature (°C)	13.0	13.0	10.6	6.2	2.0	-0.5	-1.3	-0.5	2.0	5.0	8.6	11.0		37 1971-2013
Decile 9 minimum temperature (°C)	20.0	20.0	18.3	15.3	12.3	9.9	8.0	9.0	11.5	14.2	17.0	18.7		37 1971-2013
Mean number of days ≤ 2 °C	0.0	0.0	0.0	0.2	3.4	10.1	14.2	11.6	3.4	0.2	0.0	0.0	43.1	36 1971-2013
Mean number of days ≤ 0 °C	0.0	0.0	0.0	0.0	0.9	4.5	7.7	4.4	0.5	0.0	0.0	0.0	18.0	36 1971-2013
Ground surface temperature														
Mean daily ground minimum temperature (°C)														
Lowest ground temperature (°C)														
Date														
Mean number of days ground min. temp. ≤ -1 °C														

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years
Rainfall														
Mean rainfall (mm)	77.9	101.6	87.7	66.9	57.6	61.6	37.9	41.4	39.5	65.3	77.0	54.9	767.2	39 1943-2013
Highest rainfall (mm)	263.6	421.6	343.6	336.2	309.3	304.4	143.1	276.4	148.2	242.8	167.2	162.7	1261.2	39 1943-2013
Date	1978	1990	1978	1988	1943	1991	1984	1986	1982	1987	2007	1991	1978	
Lowest rainfall (mm)	0.0	12.6	0.0	2.3	0.6	2.0	0.2	0.6	1.6	0.3	8.8	0.0	446.7	39 1943-2013
Date	1960	1944	1943	1980	2008	2001	1977	1962	1989	1988	1982	1974	1979	
Decile 1 rainfall (mm)	18.5	21.2	18.1	10.2	5.2	7.2	8.6	4.5	6.7	9.9	18.7	17.1	502.6	39 1943-2013
Decile 5 (median) rainfall (mm)	58.4	79.4	63.4	36.6	41.0	40.6	29.0	19.8	36.0	47.8	70.5	41.2	796.8	39 1943-2013
Decile 9 rainfall (mm)	147.8	255.7	173.4	143.1	128.1	160.2	73.2	103.5	72.3	156.6	149.1	96.2	1060.3	39 1943-2013
Highest daily rainfall (mm)	125.2	106.0	99.4	108.0	89.4	135.0	83.0	142.6	61.4	109.2	66.4	70.4	106.0	39 1943-2013
Date	29 Jan 2013	03 Feb 1990	20 Mar 1978	30 Apr 1988	01 May 1988	11 Jun 1991	06 Jul 1988	06 Aug 1985	21 Sep 1982	25 Oct 1987	03 Nov 2007	13 Dec 2008	03 Feb 1990	
Mean number of days of rain	10.2	10.9	10.3	9.2	8.7	8.7	8.1	7.6	7.9	10.0	10.6	9.2	111.4	39 1943-2013
Mean number of days of rain ≥ 1 mm	4.5	4.7	4.4	3.9	3.5	3.3	2.9	2.8	3.1	4.2	4.6	4.1	46.0	39 1943-2013
Mean number of days of rain ≥ 10 mm	1.4	1.7	1.6	1.1	1.1	1.1	0.6	0.5	0.7	1.1	1.4	1.1	13.4	39 1943-2013
Mean number of days of rain ≥ 25 mm	0.4	0.6	0.4	0.4	0.3	0.4	0.2	0.3	0.2	0.3	0.5	0.2	4.2	39 1943-2013

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years
Other daily elements														
Mean daily wind run (km)	185	166	144	137	128	139	157	177	196	177	187	187	165	10 2003-2013
Maximum wind gust speed (km/h)	91	102	109	68	74	80	87	93	109	83	102	76	109	10 2003-2013
Date	14 Jan 2005	14 Feb 2005	09 Mar 2007	03 Apr 2009	07 May 2008	19 Jun 2004	06 Jul 2007	01 Aug 2008	24 Sep 2008	06 Oct 2008	10 Nov 2003	17 Dec 2005	24 Sep 2008	
Mean daily sunshine (hours)														

www.bom.gov.au/climate/averages/tables/cw_068192_All.shtml

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Attachment 1 ORD02

ORD02

Attachment 1

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Climate statistics for Australian locations

Mean daily solar exposure (MJ/m ²)	22.4	19.1	16.8	13.9	10.5	8.7	9.8	13.3	17.1	20.3	21.5	23.2	16.4	24	1950 2013
Mean number of clear days	5.9	4.6	6.6	7.8	8.0	9.2	10.1	11.2	9.2	7.1	6.1	6.1	91.9	26	1943 2010
Mean number of cloudy days	10.8	10.2	9.6	8.8	8.9	7.2	6.4	5.0	6.5	9.1	9.5	8.6	100.6	26	1943 2010
Mean daily evaporation (mm)															

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
9 am conditions															
Mean 9am temperature (°C)	21.6	20.9	19.6	16.9	13.0	9.6	8.6	10.7	14.6	17.7	18.7	20.9	16.1	37	1943 2010
Mean 9am wet-bulb temperature (°C)	18.5	18.4	17.1	14.6	11.5	8.3	7.1	8.6	11.4	13.8	15.4	17.2	13.5	33	1943 2010
Mean 9am dew-point temperature (°C)	16.1	16.7	15.3	12.5	9.5	6.4	5.1	5.6	7.8	10.0	12.5	14.2	11.0	36	1943 2010
Mean 9am relative humidity (%)	72	78	77	77	81	82	81	73	66	64	69	68	74	36	1943 2010
Mean 9am cloud cover (oktas)	5.0	4.8	4.5	4.1	4.1	3.7	3.4	3.1	3.7	4.3	4.5	4.5	4.1	26	1943 2010
Mean 9am wind speed (km/h)	6.5	5.5	6.0	6.3	5.4	5.9	5.8	7.9	8.0	9.3	8.0	7.9	7.0	35	1943 2010

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years	
3 pm conditions															
Mean 3pm temperature (°C)	27.7	26.9	25.4	22.6	19.3	16.5	16.0	17.7	20.3	22.4	24.3	26.8	22.2	37	1943 2010
Mean 3pm wet-bulb temperature (°C)	20.0	19.8	18.8	16.3	14.0	11.6	10.8	11.4	13.4	15.5	17.5	18.7	15.8	33	1943 2010
Mean 3pm dew-point temperature (°C)	14.7	15.1	13.8	11.0	8.5	6.2	4.7	4.0	6.2	8.8	11.6	12.5	9.8	36	1943 2010
Mean 3pm relative humidity (%)	49	52	52	52	52	53	50	43	44	47	50	46	49	38	1943 2010
Mean 3pm cloud cover (oktas)	4.7	5.1	4.9	4.6	4.5	4.4	4.2	3.7	4.2	4.7	4.9	4.7	4.0	26	1943 2010
Mean 3pm wind speed (km/h)	17.2	15.5	15.0	13.8	12.5	13.9	14.6	16.8	18.1	17.7	17.7	18.5	15.9	33	1943 2010

red = highest value blue = lowest value

Product IDCJCM037 Prepared at Thu 31 Oct 2013 01:00:41 AM EST

Monthly statistics are only included if there are more than 10 years of data. The number of years (provided in the 2nd last column of the table) may differ between elements if the observing program at the site changed. More detailed data for individual sites can be obtained by contacting the Bureau.

Related Links

- o This page URL: http://www.bom.gov.au/climate/averages/tables/cw_068192_All.shtml
- o Summary statistics and locational map for this site: http://www.bom.gov.au/climate/averages/tables/cw_068192.shtml
- o About climate averages: <http://www.bom.gov.au/climate/cdo/about/about-stats.shtml>
- o Data file (csv): http://www.bom.gov.au/clim_data/cdo/tables/test/IDCJCM037_068192.csv
- o Climate averages home page URL: <http://www.bom.gov.au/climate/data/index.shtml>
- o Bureau of Meteorology website: <http://www.bom.gov.au>

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Appendix C Aerial Photograph Review

**Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW**

C AERIAL PHOTOGRAPH REVIEW

Selected aerial photographs dating back to 1954 were reviewed by Coffey for preparation of this report. Table C-1 summarises the main relevant observations made during the review.

Table C-1: Aerial Photograph Review

DATE	OBSERVATIONS
16/11/1954 (black & white)	<p>On Site: Vacant grazing land. No trees evident.</p> <p>Off Site: Vacant grazing land. Remnant bushland north of Werombi Road. A structure is evident in the northeastern corner of Lot 24, close to the intersection of Werombi Road and The Old Oaks Road. The structure appears to be accessible from The Old Oaks Road, where a faint access leads from this road to the structure. Two dams are located adjacent to the southern and western site boundaries where a watercourse appears to flow between the dams. The watercourse continues north of the second dam towards Werombi Road.</p>
7/10/1965 (black & white)	<p>On Site: Site features are generally similar to those observed 1954, except for some minor ground disturbance. A line of disturbed ground extending from the southern boundary towards watercourse adjacent the site's western boundary.</p> <p>Off Site: The structure previously observed in the northeastern corner of Lot 24 is no longer evident. A second dam has been constructed northwest of the site, between the existing one west of the site and Werombi Road. Apart from water level changes in existing dams and some minor development (residential dwellings), the remaining areas have remained relatively unchanged since 1954.</p>
30/11/1975 (black & white)	<p>On Site: Unchanged since previous aerial photograph.</p> <p>Off Site: A third dam has been constructed northwest of the site, between the dam constructed in 1965 and Werombi Road. This dam is approximately one third the size of the other dams. The sewerage treatment plant is evident on Sheathers Lane, northeast of the Site. A residential dwelling and two large warehouse type structures are evident southeast of the site. Remaining areas appear relatively unchanged.</p>
8/10/1984 (Colour)	<p>On Site: Some very small objects dispersed throughout the Site (and remaining parts of Lot 24). These objects could be livestock. Trees and shrubs are evident along parts of the southern and eastern site boundaries. Remaining areas appear unchanged.</p> <p>Off Site: Some of the dams have bright green colouration forming along dam edges suggesting algal bloom. Apart from changes in vegetation remaining areas appear unchanged.</p>

DATE	OBSERVATIONS
4/1/1994 (Colour)	<p>On Site: A very small object is evident in the southeastern portion of the site. Remaining areas appear unchanged.</p> <p>Off Site: The green colouration previously observed in dams is no longer apparent. Apart from minor changes, the general surrounding areas appear similar to the previous photograph.</p>
21/7/2002 (Colour) Google Earth Image	<p>On Site: The site continues to remain undeveloped. The very small objective observed in 1994 is no longer evident. The grass appears brown suggesting a period of low rainfall.</p> <p>Off Site: The general area is still predominantly vacant grazing land however the area continues to develop slowly with new residential dwellings appearing.</p>
11/3/2007 (Colour) Google Earth Image	<p>On Site: A cul-de-sac extending from the southern boundary into the site has been constructed (Cruse Place). An access track extends north from the cul-de-sac through the site where it appears to terminate, offsite, at a circular area which appears to be a slight depression or higher moisture content. A second feature extending from the cul-de-sac appears to be a storm water drain that directs water west from the road towards the watercourse. Three small objects positioned along the length of this drain are also evident. This corresponds to a drainage easement marked on title diagrams.</p> <p>Off Site: Exposed ground is evident in areas north of the site. Near these areas are either slight depressions or high moisture content (as previously discussed). These areas are located adjacent to the dams. White efflorescence was observed in areas immediately surrounding dams located west of the site. This white feature may also be associated with hydromulching as vegetation growth substantially increases in later years. The third dam located northwest of the site and adjacent to Werombi Road is no longer evident. A network of roads servicing a new subdivision is evident in areas south and west of the site. The realignment of The Old Oaks Road appears under construction.</p>
2/11/2012 (Colour) Google Earth Image	<p>On Site: Except for the cul-de-sac, the site continues to remain undeveloped. The remaining features observed in the previous aerial photograph have faded. Sporadic growth of trees and/or shrubs is evident throughout and north of the site.</p> <p>Off Site: The exposed ground and access track extending north of the cul-de-sac are no longer evident. Extensive growth of tree and/or shrubs is evident in along the watercourse and areas surrounding the dams located west and north of the site. Residential developments continue in areas surrounding the site. The former alignment of The Old Oaks Road has been blocked with a fill mound at the intersection with Werombi Road. The realignment of The Old Oaks Road appears complete.</p>



AERIAL PHOTOGRAPH 2012
AERIAL IMAGE SOURCE: GOOGLE EARTH PRO 8.0.1
AERIAL MADE @ 3 MARCH 2012 10:02:13

client		SITE PLUS	
project		PHASE 1 CONTAMINATION ASSESSMENT & SALINITY ASSESSMENT PART LOT 24 DP1086823, 10 CHASE PLACE, GRASMERE, NSW	
DNM:		AERIAL PHOTOGRAPH - 2007 AND 2012	
project no:		ENHAWOLL041500A-R01	figure no: C-4



drawn	LZ	SR	date	scale	original size



AERIAL PHOTOGRAPH 2007
AERIAL IMAGE SOURCE: GOOGLE EARTH PRO 8.0.1
AERIAL MADE @ 3 MARCH 2012 10:02:13

description	drawn	approved	date

drawn	SR	date	scale	original size

ORD02

Attachment 1

ORD02

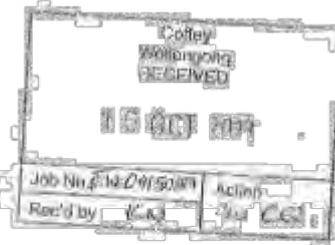
Attachment 1

Appendix D
Section 149 Planning Certificate and
Development Applications

Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW



Camden Council
 37 John Street, Camden, NSW 2570 DX 25807
 PO Box 181, Camden 2570 ABN: 39 112 341 254
 Telephone: 02 4654 7777 Fax: 02 4654 7925
 Email: mail@camden.nsw.gov.au



**PLANNING CERTIFICATE UNDER SECTION 149
 ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979**

Applicant: Coffey Environments Australia Pty Ltd
 PO Box 1851
 WOLLONGONG NSW 2520

Certificate number: 20132647
Receipt number: 997629
Property number: 1151652
Certificate date: 14/10/2013
Certificate fee: \$133.00
Applicant's reference: ENAUWOLL04150AA

DESCRIPTION OF PROPERTY

Title: LOT: 24 DP: 1086823
Property: 10 Crase Place GRASMERE 2570

BACKGROUND INFORMATION

This certificate provides information on how a property (such as land, a house, commercial building, etc) may be used and the limits on its development. The certificate contains information Council is aware of through records and environmental plans with data supplied by the State Government. The details contained in this certificate are limited to that required by Section 149 of the Environmental Planning and Assessment Act.

ORD02

Attachment 1



Section 149 (2)(5) Certificate
Property ID Case Place: GRASMEERS 2570

Certificate No: 20132647
Certificate Date: 14/10/2013

1. NAMES OF RELEVANT PLANNING INSTRUMENTS AND DCPS

(1) The name of each environmental planning instrument that applies to the carrying out of development on the land.

Camden Local Environmental Plan 2010.

State Environmental Planning Policy No.6- Number Of Storeys In Buildings.

State Environmental Planning Policy No.30-Intensive Agriculture

State Environmental Planning Policy No 4 - Development Without Consent and Miscellaneous Exempt and Complying Development (clause 6 parts.3 and 4)

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004.

State Environmental Planning Policy No 19- Bushland In Urban Areas

State Environmental Planning Policy No 21- Caravan Parks.

State Environmental Planning Policy No 22 - Shops And Commercial Premises.

State Environmental Planning Policy No 33- Hazardous And Offensive Development.

State Environmental Planning Policy No 55- Remediation Of Land

State Environmental Planning Policy No 65 - Design Quality of Residential Flat Development.

State Environmental Planning Policy No 64- Advertising and Signage

State Environmental Planning Policy (Building Sustainability Index: Basix) 2004.

State Environmental Planning Policy (Temporary Structures) 2007.

State Environmental Planning Policy (Infrastructure) 2007.

State Environmental Planning Policy No 50- Canal Estate Development.

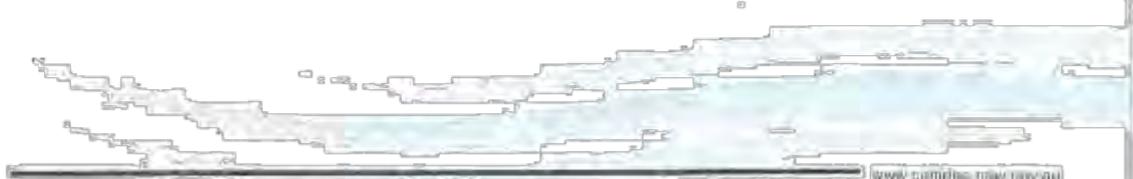
State Environmental Planning Policy (Major Development) 2005.

State Environmental Planning Policy No 62- Sustainable Aquaculture

State Environmental Planning Policy No 70- Affordable Housing (Revised Schemes).

State Environmental Planning Policy - (Affordable Rental Housing) 2009.

State Environmental Planning Policy - (Exempt and Complying Development Codes) 2008.





Section 149(2)(5) Certificate
Property ID Code Price GRASVPE 2573

Certificate No. 20132647
Certificate Date: 14/10/2013

State Environmental Planning Policy - (Mining, Petroleum Production and Extractive Industries) 2007.

State Environmental Planning Policy - (State and Regional Development) 2011.

State Environmental Planning Policy - (Urban Renewal) 2010.

Sydney Regional Environmental Plan No 9 - Extractive Industry (No.2 - 1995).

Sydney Regional Environmental Plan No 20 - Hawkesbury-Nepean River (No 2 - 1997).

(2) The name of each proposed environmental planning instrument that will apply to the carrying out of development on the land and that is or has been the subject of community consultation or on public exhibition under the Act (unless the Director-General has notified the Council that the making of the proposed instrument has been deferred indefinitely or has not been approved.

The subject land is not affected by an exhibited Draft Local Environmental Plan

Draft State Environmental Planning Policy - (Competition) 2010.

(3) The name of each development control plan that applies to the carrying out of development on the land.

Camden Development Control Plan (DCP) 2011 was adopted by Council on 9 February 2011, and takes effect on 18 February 2011. This DCP (as amended) applies to all land within the Camden Local Government Area.

ORD02

Attachment 1



Section 149 (2)(3) Certificate
 Property ID: 0401 Price: \$205,000.00

Certificate No: 201400647
 Certificate Date: 14/10/2013

2. ZONING AND LAND USE UNDER RELEVANT LEPs

For each environmental planning instrument or proposed instrument referred to in clause 1 (other than a SEPP or proposed SEPP) that includes the land in any zone (However described):

(a) the zone;

THIS ZONES THE LAND:-R5 LARGE LOT RESIDENTIAL

Objectives of zone:

- (a) To provide residential housing in a rural setting while preserving, and minimising impacts on, environmentally sensitive locations and scenic quality;
- (b) To ensure that large residential allotments do not hinder the proper and orderly development of urban areas in the future;
- (c) To ensure that development in the area does not unreasonably increase the demand for public services or public facilities;
- (d) To minimise conflict between land uses within the zone and land uses within adjoining zones.

(b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent;

Extensive agriculture; Home occupations

(c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent;

Bed and breakfast accommodation; Dual occupancies (attached); Dwelling houses; Home businesses; Home-based child care; Home industries; Roads; Any other development not specified in item b or d.

(d) the purposes for which the instrument provides that development is prohibited within the zone;

Advertising structures; Agriculture; Air transport facilities; Amusement centres; Animal boarding or training establishments; Boat building and repair facilities; Boat sheds; Camping grounds; Car parks; Caravan parks; Charter and tourism boating facilities; Commercial premises; Correctional centres; Crematoria; Depots; Eco-tourist facilities; Electricity generating works; Entertainment facilities; Exhibition homes; Extractive industries; Forestry; Freight transport facilities; Function centres; Heavy industrial storage establishments; Home occupations (sex services); Industries; Information and education facilities; Mortuaries; Neighbourhood shops; Public administration buildings; Recreation facilities (indoor); Recreation facilities (major); Registered clubs; Research station; Residential accommodation; Restricted premises; Rural industries; Service stations; Sewerage systems; Sex services premises; Storage premises; Tourist and visitor accommodation; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Veterinary hospitals; Warehouse or distribution centres; Waste or resource management facilities; Wharf or boating facilities; Wholesale supplies





Section 149(2)(c) Certificate
Property ID Code: 7102-000448-2573

Certificate No: 20132047
Certificate Date: 19/10/2013

(a) the zone;

THIS ZONE IS THE LAND USE RURAL PRIMARY PRODUCTION

Objectives of zone:

- (a) To encourage sustainable primary industry production by maintaining and enhancing the natural resource base.
- (b) To encourage diversity in primary industry enterprises and systems appropriate for the area.
- (c) To minimise the fragmentation and alienation of resource lands.
- (d) To minimise conflict between land uses within the zone and land uses within adjoining zones.
- (e) To permit non-agricultural uses which support the primary production purposes of the zone.
- (f) To maintain the rural landscape character of the land.

(b) the purposes for which the instrument provides that development may be carried out within the zone without the need for development consent;

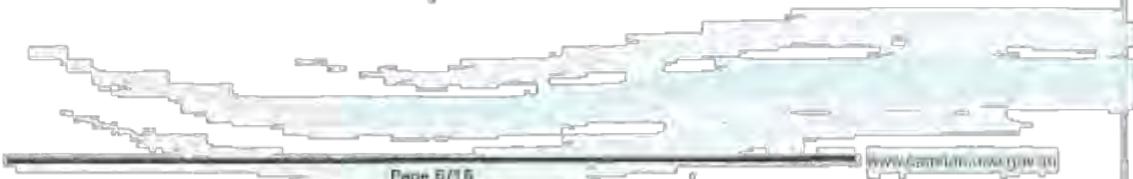
Extensive agriculture; Forestry; Home occupations.

(c) the purposes for which the instrument provides that development may not be carried out within the zone except with development consent;

Bed and breakfast accommodation; Cellar door premises; Dual occupancies (attached); Dwelling houses; Environmental protection works; Extractive industries; Farm buildings; Farm stay accommodation; Garden centres; Home-based child care; Home businesses; Home industries; Intensive livestock agriculture; Intensive plant agriculture; Open cut mining; Roads; Roadside stalls; Rural industries; Rural supplies; Rural workers' dwellings; Secondary dwellings; Any other development not specified in item b or d.

(d) the purposes for which the instrument provides that development is prohibited within the zone;

Amusement centres; Car parks; Commercial premises; Correctional centres; Eco-tourist facilities; Entertainment facilities; Exhibition homes; Freight transport facilities; Function centres; Health services facilities; Heavy industrial storage establishments; Home occupations (sex services); Industrial retail outlets; Industries; Information and education facilities; Port facilities; Public Administration buildings; Recreation facilities (indoor); Recreation facilities (major); Residential accommodation; Restricted premises; Service stations; Sex services premises; Storage premises; Tourist and visitor accommodation; transport depots; Vehicle body repair workshops; Vehicle repair stations; Workhouse or distribution centres; Wharf or boating facilities; Wholesale supplies



ORD02
Attachment 1

ORD02

Attachment 1



Section 149 (2)(a) Certificate
Property 10 Crane Place GRASSMERE 2578

Certificate No: 20132647
Certificate Date: 14/10/2013

(e) whether any development standards applying to the land fix minimum land dimensions for the erection of a dwelling-house on the land and, if so, the minimum land dimensions so fixed;

No.

(f) whether the land includes or comprises critical habitat;

No.

(g) whether the land is in a conservation area (however described), whether an item of environmental heritage (however described) is situated on the land;

The subject land is not identified as an item of environmental heritage in the Local Environmental Plan.

The subject land is not in a Conservation Area.

3. COMPLYING DEVELOPMENT

(1) Whether or not the land is land on which complying development may be carried out under each of the codes for complying development in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.

If complying development may not be carried out on that land because of one or more of the requirements under clause 1.19 of that Policy, why it may not be carried out.

(a) General Housing Code

Yes, subject to the satisfaction of the relevant criteria in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, Complying Development may be carried out under the General Housing Code.

(b) Rural Housing Code

Yes, subject to the satisfaction of the relevant criteria in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, Complying Development may be carried out under the Rural Housing Code.



Section 194(2)(a) Certificate
Property: 10 Cassin Place Greymare NSW 2574

Certificate No: J0132647
Certificate Date: 14/10/2013

(c) Housing Alterations Code

Yes, subject to the satisfaction of the relevant criteria in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, Complying Development may be carried out under the Housing Alterations Code.

(d) General Development Code

Yes, subject to the satisfaction of the relevant criteria in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, Complying Development may be carried out under the General Development Code.

(e) General Commercial and Industrial Code

Yes, subject to the satisfaction of the relevant criteria in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, Complying Development may be carried out under the General Commercial and Industrial Code.

(f) Subdivisions Code

Yes, subject to the satisfaction of the relevant criteria in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, Complying Development may be carried out under the Subdivisions Code.

(g) Demolition Code

Yes, subject to the satisfaction of the relevant criteria in State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, Complying Development may be carried out under the Demolition Code.

4. COASTAL PROTECTION

Whether or not the land is affected by the operation of section 38 or 39 of the Coastal Protection Act 1979, but only to the extent that the council has been so notified by the Department of Public Works.

No.



ORD02

Attachment 1



Section 149(2)(5) Certificate
 Property ID: Green Place GRADWATER 2570

Certificate No: 20132667
 Certificate Date: 14/03/2013

5. MINE SUBSIDENCE

Whether or not the land is proclaimed to be a mine subsidence district within the meaning of section 15 of the Mine Subsidence Compensation Act 1961.

The subject land is not affected by sec 15 of the Mine Subsidence Compensation Act, 1961, proclaiming land to be in the South Campbelltown Mine Subsidence District.

6. ROAD WIDENING AND ROAD REALIGNMENT

Whether or not the land is affected by any road widening or road realignment under:

- (a) Division 2 of Part 3 of the Roads Act 1993, or
- (b) any environmental planning instrument, or
- (c) any resolution of the council.

The subject land is not affected by road widening or road realignment under:

- (1) Division 2 of Part 3 of the Roads Act 1993.
- (2) Any Environmental Planning Instrument.
- (3) Any resolution of Council.

However, should your property be near a main road you should check with the Roads and Traffic Authority for possible affectation.

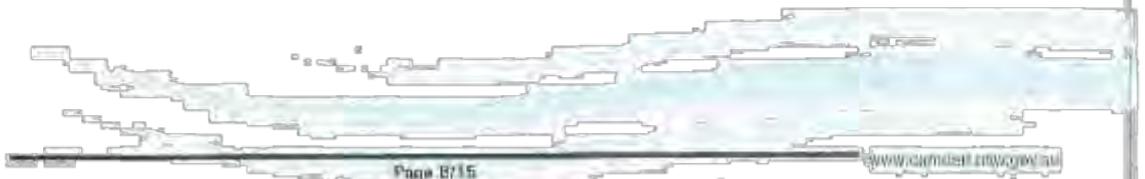
7. COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

Whether or not the land is affected by a policy:

- (a) adopted by the council, or
- (b) adopted by any other public authority and notified to the council for the express purpose of its adoption by that authority being referred to in planning certificates issued by the council,

that restricts the development of the land because of the likelihood of land slip, bushfire, tidal inundation, subsidence, acid sulphate soils or any other risk (other than flooding).

No. (Except Bushfire)





Section 749 (2&5) Certificate
Property: 10 CRAIG PLACE GRASMERE 2578

Certificate No: 20132647
Certificate Date: 14/10/2013

7a. FLOOD RELATED DEVELOPMENT CONTROLS INFORMATION

(a) Whether or not development on that land or part of the land for the purposes of dwelling houses, dual occupancies, multi-dwelling housing or residential flat buildings (not including development for the purposes of group homes or senior housing) is subject to flood related development controls.

The subject land is affected by flood related development controls that restrict development of the subject land due to the likelihood of flooding.

(b) Whether or not development on that land or part of the land for any other purpose is subject to flood related development controls.

The subject land is affected by flood related development controls that restrict development of the subject land due to the likelihood of flooding.

8. LAND RESERVED FOR ACQUISITION

Whether or not any environmental planning instrument or proposed environmental planning instrument referred to in clause 1 makes provision in relation to the acquisition of the land by a public authority, as referred to in section 27 of the Act.

The land is not subject to acquisition by Council or any public authority under any Local Environmental Plan, deemed environmental planning instrument or draft Local Environmental Plan applying to the land, as referred to in Section 27 of the Environmental Planning and Assessment Act, 1979.

9. CONTRIBUTIONS PLANS

The name of each contributions plan applying to the land

Section 94 Contributions Plan No 16 - Ellis Lane And Grasmere Adopted By Council: 27 January 1999.
Section 94 Contributions Plan No 16 - Amended Adopted by Council: 27 October 2003 - In Force: 12 November 2003.

Section 94 Camden Contributions Plan - Adopted by Council: 28 March 2012. In Force: 26 April 2012.



ORD02

Attachment 1



Section 149 (255) Certificate
Property ID: Crain Place GRAMMERS 2570

Certificate No: 2013/2647
Certificate Date: 19/10/2013

9A. BIODIVERSITY CERTIFIED LAND

If the land is biodiversity certified land (within the meaning of Part 7AA of the *Threatened Species Conservation Act 1995*), a statement to that effect.

The name of each contributions plan applying to the land

No.

10. BIOBANKING AGREEMENTS

If the land is land to which a biobanking agreement under Part 7A of the *Threatened Species Conservation Act 1995* relates, a statement to that effect (but only if the council has been notified of the existence of the agreement by the Director-General of the Department of Environment, Climate Change and Water).

No.

11. BUSH FIRE PRONE LAND

If any of the land is bush fire prone land (as defined in the Act) a statement that all or, as the case may be, some of the land is bush fire prone land.

Council has been supplied by the NSW Rural Fire Service with a Bush Fire Prone Land Map for the purposes of a bush fire risk management plan applying to the land within the Camden Local Government Area. Based on that map, it appears the land referred to in this certificate is bush fire prone land as defined in s.4 of the *Environmental Planning and Assessment Act, 1979*. For further details contact Council's Development Branch.

12. PROPERTY VEGETATION PLANS

If the land is land to which a property vegetation plan under the *Native Vegetation Act 2003* applies, a statement to that effect (but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act).

No.





Section 149(2)(5) Certificate
Property ID Case No: CASMOR2500

Certificate No: 20132643
Certificate Date: 14/10/2013

13. ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

Whether an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land (but only if the council has been notified of the order).

No.

14. DIRECTIONS UNDER PART 3A

If there is a direction by the Minister in force under section 75P (2) (c2) of the Act that a provision of an environmental planning instrument prohibiting or restricting the carrying out of project or a stage of a project on the land under Part 4 of the Act does not have effect, a statement to that effect identifying the provision that does not have effect.

No.

15. SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR SENIORS HOUSING

If the land is land to which *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* applies:

(a) a statement of whether there is a current site compatibility certificate (seniors housing), or which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

- (i) that period for which the certificate is current, and
- (ii) that a copy may be obtained from the head office of the Department of Planning.

And,

(b) a statement setting out any terms of a kind referred to in clause 18(2) of that Policy that have been imposed as a condition of consent to a development application granted after 11 October 2007, in respect of the land.

No.



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Attachment 1



Section 149 (2)(5) Certificate
Property: 10 Clyde Street GOSWAMORE NSW

Certificate No: 25132667
Certificate Date: 14/10/2011

16. SITE COMPATIBILITY CERTIFICATES FOR INFRASTRUCTURE

A statement of whether there is a valid site compatibility certificate (infrastructure), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

- (a) the period for which the certificate is valid, and
- (b) that a copy may be obtained from the head office of the Department of Planning.

No.

17. SITE COMPATIBILITY CERTIFICATES AND CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(1) A statement of whether there is a current site compatibility certificate (affordable rental housing), of which the council is aware, in respect of proposed development on the land and, if there is a certificate, the statement is to include:

- (a) the period for which the certificate is current, and
- (b) that a copy may be obtained from the head office of the Department of Planning.

(2) A statement setting out any terms of a kind referred to in clause 17(1) or 37(1) of State Environmental Planning Policy (Affordable Rental Housing) 2009 that have been imposed as a condition of consent to a development application in respect of the land.

No.

18. PAPER SUBDIVISION INFORMATION

- (1) The name of any development plan adopted by a relevant authority that applies to the land or that is proposed to be subject to a consent ballot.
- (2) The date of any subdivision order that applies to the land.
- (3) Words and expressions used in this clause have the same meaning as they have in Part 16C of this Regulation.

Note. The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

- (a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act - if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued.





Section 147 (2)(5) Certificate
Property 23 Grove Road GRASSBROOK 2570

Certificate No: 26/132047
Certificate Date: 11/7/0/2013

- (b) that the land to which the certificate relates is subject to a management order within the meaning of that Act - if it is subject to such an order at the date when the certificate is issued,
- (c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act - if it is the subject of such an approved proposal at the date when the certificate is issued,
- (d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act - if it is subject to such an order at the date when the certificate is issued,
- (e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act - if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

Note. Section 26 of the *Nation Building and Jobs Plan (State Infrastructure Delivery) Act 2009* provides that a planning certificate must include advice about any exemption under section 23 or authorisation under section 24 of that Act if the council is provided with a copy of the exemption or authorisation by the Co-ordinator General under that Act.

No.

CONTAMINATED LAND - The following matters are prescribed by section 59 (2) of the *Contaminated Land Management Act 1997* as additional matters to be specified in a planning certificate

- (a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act - if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,
No.
- (b) that the land to which the certificate relates is subject to a management order within the meaning of that Act - if it is subject to such an order at the date when the certificate is issued,
No.
- (c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act - if it is the subject of such an approved proposal at the date when the certificate is issued,
No.

ORD02

Attachment 1



Section 149(2A) Certificate
Property 10 Case Place Gungahlin ACT

Certificate No: 20132611
Certificate Date: 17/10/2013

(d) that the land to which the certificate relates is subject to an on-going maintenance order within the meaning of that Act – if it is subject to such an order at the date when the certificate is issued.

No.

(e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act – if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

No.

INFORMATION PROVIDED UNDER SECTION 149(5) OF THE ACT:

OTHER INFORMATION

1. SECOND SYDNEY AIRPORT BADGERYS CREEK

It should be noted that the Commonwealth Department of Transport and Regional Development has released a document entitled Draft Environmental Impact Statement (Draft EIS) – Second Sydney Airport Proposal (Badgerys Creek) – (December 1997) which details the potential impacts of the three (3) proposed airport options including noise, land use and planning, air quality, water quality, traffic, social and economic effects. For the latest update on the Second Sydney Airport Proposal (Badgerys Creek), please contact the Commonwealth Department of Transport and Regional Development- GPO Box 594 Canberra ACT 2601, (02) 6274-7111.

2. TREE PRESERVATION ORDER

The subject land is affected by provisions of Clause 5.9 of Appendix 9 of State Environmental Planning Policy (Sydney Region Growth Centres) 2006, in regard to the protection of trees. A person shall not ringbark, cut down, lop, top, remove, injure or wilfully damage or destroy any living tree on this property, except with the consent of Council. Where clearing provisions apply, clearing of vegetation (including native vegetation) may not be carried out except with the consent of Council.

3. ADDITIONAL FLOODING INFORMATION

The subject land is affected by flood related development controls that restrict development of the subject land due to the likelihood of flooding.



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www.canberra.nsw.gov.au



Section 149(2)(5) Certificate
Property 10 Green Place CAMDEN 2570

Certificate No: 20132047
Certificate Date: 19/10/2013

4. MISCELLANEOUS INFORMATION

All buildings are to observe a 20 metre building setback to the primary road frontage and a 5 metre setback from the secondary road frontages and side/rear boundaries.

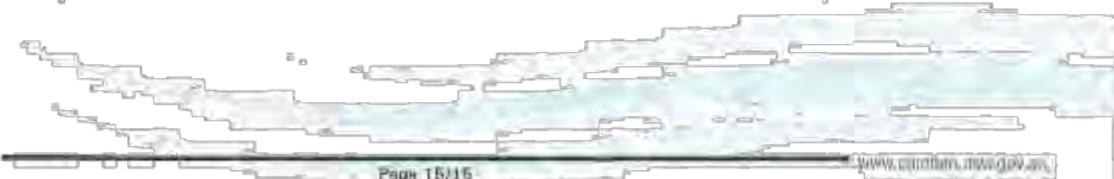
The subject land is affected by a policy relating to igloo-type greenhouses within rural and rural/residential areas. Details are available from Council's Environment Planning and Building Department.

The subject land is affected by Sydney Water Sewerage Treatment Plant (STP) Buffer Zone Policy. Further details are available from Council's Environment Planning and Building Department or Sydney Water Corporation (02 9828 8444).

Coal seam gas extraction takes place within the Camden Local Government Area. Enquiries may be made to AGL Gas Production (Camden) Pty Limited, or the relevant licence holder, as to the location of gas wells.

This information is provided in good faith and the Council shall not incur any liability in respect of any such advice. Council relies on state agencies for advice and accordingly can only provide that information in accordance with the advice. Verification of the currency of agency advice should occur. Further information, please contact Council's Land Information Section.

Ron Moore
General Manager
per.



ORD02

Attachment 1



THE COUNCIL OF THE MUNICIPALITY OF CAMDEN

(Incorporated 1889 - Reconstituted 1948)

(OUR REF.)

MEIER:PH:DA8125/019/00

(YOUR REF.)

Council Office
31 John Street
Camden, N.S.W.
2577
Telephone: (046) 55 7451
(046) 55 7738
Facsimile: (046) 55 7737

28th November, 1991.

PAGE 1 OF 3

PLC Sydney
Locked Mail Bag No. 2
Croydon Post Office
CROYDON NSW 2132

Dear Sir/Madam,

**ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979
NOTICE OF DETERMINATION OF DEVELOPMENT APPLICATION NO. 1333/91**

APPLICANT: PLC SYDNEY

Pursuant to Section 92 of the Act, notice is hereby given of the determination of Development Application No. 1333/91 relating to the land and proposed development described as follows:

LAND:	LOT PART 1, DP 536077
LOCATION:	WEROMBI ROAD, GRACMERE
ZONE:	PART NON-URBAN 'A' (40ha) AND PART NON-URBAN 'B' (40ha) - INTERIM DEVELOPMENT ORDER No. 3
PROPOSED DEVELOPMENT:	USE OF EXISTING PREMISES FOR STUDENT ACCOMMODATION/EDUCATION AND ASSOCIATED SEMINARS/FUNCTIONS

as shown on the plans endorsed with Council's stamp and attached to Development Consent No. 3110

The development application has been determined by the granting of consent subject to the following conditions:

1. Development shall take place in accordance with submitted plans dated October, 1989 prepared by M. Kohler Enterprises Pty Ltd and submitted in respect of Development Application dated 14th October, 1991 except where varied by the following conditions.

All communications to be addressed to The Town Clerk, Box 183, P.O. Camden 2570

- 2. All required building work as detailed in Council's correspondence to the Presbyterian Ladies College, Sydney and dated 9th October, 1991 shall be completed to Council's satisfaction prior to the use or occupation of the building. The Schedule attached to this consent lists these specific items.
- 3. The proposed conference centre shall be upgraded to improve the level of fire safety by the provision of a Fire hose reel, emergency lighting and additional fire escape doors to the requirements of Ordinance 70, Local Government Act, prior to the use or occupation of the building.
- 4. Additional separate male and female toilet/closet accommodation shall be provided in accordance with the requirements of the Municipal Health Surveyor.
- 5. Storage and disposal of trade waste shall be controlled to the satisfaction of Council at all times.

NOTE:- In this regard it is recommended that the applicant liaise with Council's Health and Building Department to arrange for the delivery of mobile garbage bins and to discuss collection procedures.

- 6. No incinerators are to be installed at the premises without prior Council approval. Any proposed incinerator will be required to comply with the specific requirements of Council, the State Pollution Control Commission and the Clean Air Act, 1971.

The above conditions have been imposed in the public interest; to reduce any potential environmental impact and to ensure that the proposed development complies with the provisions of the Environmental Planning and Assessment Act, 1979 and the Regulations, any environmental planning instruments applying to the subject land, and Council's Codes and Policies.

ENDORSEMENT OF DATE OF CONSENT: 29th November, 1991

NOTES:

- 1. Consent shall become effective and operate from the "Endorsement of date of consent" on this Notice, and shall lapse unless the proposed development is commenced within two years of that date. If an environmental planning instrument having the effect of prohibiting the development is made, consent shall lapse within one year from the date that instrument comes into force.
- 2. Applications for an extension of time must be made to Council prior to the lapsing of consent. Such extensions are limited by the Act to 12 months. Council reserves the right to approve or refuse such applications.
- 3. Section 97(1) of the Act confers on an applicant who is dissatisfied with the determination of a consent authority, a right of appeal to the Land and Environment Court exercisable within 12 months from the date of this notice.

ORD02

Attachment 1

PAGE 3 OF 3

4. This Consent does not represent Building Approval nor does it imply that the plans attached to this Consent comply with the specific requirements of Ordinance 70, Local Government Act. A separate Building Application under Part XI of the Local Government Act, 1919 as amended, accompanied by plans and specifications which comply with requirements of Ordinance 70, shall be submitted to, and approved by, Council's Health and Building Department for any building prior to the commencement of any work on site.
5. The proposed building, as detailed on the plans attached to this application, requires amendment to comply with the requirements of the Ordinance 70, Local Government Act 1919, as amended. In this regard it is suggested that the applicant liaise with Council's Health and Building Department prior to the preparation of plans for submission of the building application.
6. As this approval relates to the use of the building, or portion of the building, for the preparation, manufacture packaging, storage and/or sale of food, such building, or portion of the building, shall be constructed in accordance with the requirements of the Pure Food Act, 1908 and Council's Standards for Food Premises. In this regard Council's Health and Building Department is to be consulted for details relating to the fitout and the licensing required under the Local Government Act, 1919, as amended. Detailed plans and specifications of the food area fitout shall be submitted to Council and approval obtained prior to the commencement of any work.
7. An application under the provisions of ordinance 55 Local Government Act, 1919, as amended, shall be submitted to, and approved by Council's Health and Building Department, prior to the erection and/or display of any advertising signs. The design, style, colour and type of any advertising signs shall have regard to the style and character of the development on the site and Council's Policy on Advertising Signs and Structures.
8. Portable Fire Extinguishers are required to be installed throughout the building. In this regard the developer is requested to contact Council's Health and Building Department for particulars of the type and location of the required fire extinguishers.

I. R. Power
I. R. POWER
CHIEF TOWN PLANNER
Per: 

(TPCON15/17-19)

SCHEDULE OF WORKS REFERRED TO IN CONDITION 2
OF DEVELOPMENT CONSENT PERMIT No. 3110

1. Pursuant to the provisions of part 62 of Ordinance 70 an application in the prescribed format shall be lodged with Council for the issue of a boarding house licence. Such application shall be made to Council and approval obtained prior to occupancy.
2. Such premises shall be managed and used in strict accordance with Part 63 of Ordinance 70.
3. The subject premises shall be upgraded to meet the minimum requirements of Ordinance 70.
4. A early warning fire detection system presently installed within the building is to be thoroughly serviced and made operational. Such system shall be designed and installed to comply with A.S. 1670 - 1986.
5. A fire hose reel system shall be installed throughout the building incorporating 30m long hoses. Such system shall be installed so that no point in the whole building is beyond the reach of the nozzle end of a hose. The required hose reel system shall be installed to meet the requirements of Part 27 of Ordinance 70 made under the Local Government Act, 1919.
6. The kitchen facilities and rooms in general shall be upgraded to comply with Council's Food Premises Code and the Food Act of 1989 and Regulations made thereunder. In this regard it will be necessary to liaise with Senior Health Surveyor Mrs. Jayne Christie.
7. All exit doorways shall be identified with illuminated exit signs. Furthermore, all hallways, the two (2) stairways leading to the exits and common areas shall be illuminated with emergency lighting luminaires. Illuminated exit signs and emergency lighting luminaires in each case shall be designed and installed to comply with A.S. 2293.
8. All bedrooms, storage cupboards and other rooms facing the egress passageways in the subject premises shall be fitted with tight fitting self-closing solid core doors.
9. All curtains, drapes and floor coverings shall be protected or be of a material that complies with Clause 16.19 1(b) of Ordinance 70.

(TPCON15/20)

ORD02

Attachment 1

NTHO:2030.100

Dimpalis PTY LTD
 Level 2, 1 Transvaal Avenue
 DOUBLE BAY 2028

**NOTICE OF DETERMINATION OF DEVELOPMENT
 APPLICATION No. 1147/2006**

Issued under Section 81 (1) (a) of the
 Environmental Planning and Assessment Act 1979
(For privacy reasons, the applicant's details only appear in the notice to the applicant)

LAND TO BE DEVELOPED:	10 Crase Place GRASMERE LOT: 24 DP: 1086823
PROPOSED DEVELOPMENT:	Brick Stables Building
BUILDING CODE OF AUSTRALIA: <i>(If the development involves a building)</i>	Building Classification 10A

DETERMINATION: Consent granted subject to conditions described below.

DATE FROM WHICH THE CONSENT OPERATES: 16/02/2007

DATE THE CONSENT EXPIRES: 11/01/2009
(unless works commenced)

DATE OF THIS DECISION: 12/01/2007

INFORMATION ATTACHED TO THIS DECISION:

- Advice listed in Attachment A.
- CC Advice listed in Attachment B.

DA No: 1147/2006
 Property: 10 Cruse Place GRASMERE
 Proposal/Descriptor: New Shed/Outbuilding

Details of Conditions:

1.0 - General Requirements

- (1) **Approved Plans** – The development must be carried out strictly in accordance with the plans prepared by Keith Lane, dated 10/2006 and numbered 1 to 3.

The development must also comply with the conditions of approval imposed by Council hereunder.

Amendments – Modifications to the approved plans and specifications requires the prior approval of the Consent Authority (Camden Council). The procedure for applying to amend the approved plans is to submit an "Amended Development Application" form pursuant to section 96 of the *Environmental Planning & Assessment Act 1979*.

- (2) **Landscape** – Landscaping shall be installed prior to use/occupation of the building. Landscaping shall be protected from access by horses.
- (3) **Timber Framing** – The timber frame must be constructed in accordance with the requirements of the most current edition of AS1684 - 'Residential Timber-frame Construction'. The applicant is advised that the wall and roof framework including bracing must be designed and anchored to withstand a wind velocity for the particular area.
- (4) **Durable Timber Selection** – Timber exposed to weather which supports structural or live loads such as cantilevered balconies, posts and the like must be of natural durability, Class 1 or 2, or preservative treated to a hazard level of 3 or better in accordance with AS1684.
- (5) **Sewered Areas** – All sullage and effluent generated by the use of the building must be connected to the sewer of the Sydney Water Corporation. The plans approved by Council must be lodged with the Corporation for concurrence prior to the commencement of work.
- (6) **Building Code of Australia** – All works must be carried out in accordance with the requirements of the Building Code of Australia.

2.0 - Construction Certificate Requirements

The following conditions of consent shall be complied with prior to the issue of a Construction Certificate.

(1) **88B Instrument** – Prior to the issue of the construction certificate the following 88B restrictions to user shall be amended as follows;

- i. In regard to lot 24/1086823 the restriction to user as mentioned twelfthly in the plan shall be varied to read as follows:
 "The Owner of any of burdened shall not permit the construction of a dwelling or parts of a dwelling outside the building envelope as indicated on the plan of the lot. Any above ground structure, not including a dwelling, which is located external to the building envelope as indicated on the plan of the lot, shall not be erected unless the structure has had the prior consent of The Council of Camden".
- ii. In regard to lot 24/1086823 the restriction to user as mentioned eighthly in the plan shall be varied as follows:
 The restriction to user shall be extinguished and an amending easement plan and restriction on the use of the land under section 88E of The Conveyancing Act shall be created over the portion of the land where the restriction "L" is currently imposed and in accordance with the following:
 The amending easement plan created under section 88E shall replace the area of the current easement "L" as marked on the plan. The amending easement plan shall detail on the plan "RESTRICTION ON THE USE OF LAND 'STP' BUFFER ZONE".
 The amending easement plan shall be accompanied by a restriction to user created under section 88E worded as follows:
Terms of Restriction on the Use of Land (the new number for restriction) referred to in the above mentioned Plan.
 Not to erect or suffer to permit to be erected any dwelling, dwelling house, residential flat building, rural worker's dwelling or commercial premises, within the meaning of the Environmental Planning Assessment Model Provision 1980, on any part or parts of any lot hereby burdened identified on the Plan as "STP Buffer Zone". "STP Buffer Zone" means Sewage Treatment Plan Buffer Zone.
Name of Authority empowered to Release, Vary or Modify the Easement firstly and Restrictions secondly and thirdly referred to in the above mentioned Plan. The Council of Camden

The amending instruments and easements shall be prepared by a registered surveyor and be submitted to Council, with the requests to vary the instruments, for endorsement prior to lodgement with (NSW Dept. of Land and Property Information, Evidence of lodgement with the Land and Property Information shall be submitted to Council.

A release fee of \$ 285 (or the fee current on the day of submission to Council) must be deposited to Camden Council's Account No. A.2681.402.9, together with the Amending Easement Plan, variations to

EA/14/006
 Property: 30 Crase Place ORASMEIL
 Proposal Description: New Shed/Outbuilding

the 88B instrument and requests. Ten (10) copies of plans shall be provided that are suitable for certification by the General Manager and lodgement at Land and Property Information

- (2) **Salinity** - The site is located in an area confirmed as having soil salinity levels that will have a cumulative damaging effect on the building over time.

The following construction inclusions shall be incorporated in the building design to reduce/prevent any detrimental affect to the building from accumulative salt deposits:

- a) provide a **damp proof barrier** with high impact resistance to under slab in accordance with the NSW provisions of part 3.2.2.6 of the **Building Code of Australia**,
- b) concrete strength to bored piers, floor slabs and strip footings shall be a minimum of 32mpa and vibrated, and adequately cured
- c) drainage shall be provided to the building perimeter including **subsoil** drainage to prevent water pondage or soil water logging in the building vicinity, and adequately cured,
- d) brick work and mortar below DPC should be exposure rated,
- e) DPC material must be carried through to the face of any applied finishes. Retaining walls should be built of salinity resistant materials.

Porous pavement product such as cement and clay pavers may show permanent efflorescence and salt corrosion. The use of these products should be discussed with the manufacturer as suitable for use in a saline environment prior to installation.

3.0 - Prior To Works Commencing

The following conditions of consent shall be complied with prior to any works commencing on the construction site.

- (1) **Notice of Commencement of Work** - Notice in the form prescribed by the *Environmental Planning and Assessment Regulation 2000* shall be lodged with the Consent Authority (ie Camden Council) **at least 2 days prior** to commencing building works. The notice shall provide details relating to any Construction Certificate issued by a certifying authority and the appointed Principal Certifying Authority.
- (2) **Construction Certificate Before Work Commences** - This consent does not allow site works, building or demolition works to commence, nor does it imply that the plans attached to this consent comply with the specific requirements of the Building Code of Australia. Such works

DIS No: F147/2006
 Property: 10 Crase Place GROSSMERE
 Proposal Description: New Shed/Outbuilding

must only take place after a Principal Certifying Authority (PCA) has been appointed and a Construction Certificate has been issued.

4.0 - During Construction

The following conditions of consent shall be complied with during the construction phase.

- (1) **Hours Of Operation** - All construction and demolition work must be restricted to between:
- (a) 7am and 6pm Mondays to Fridays (inclusive);
 - (b) 7am to 4pm Saturdays, if construction noise is inaudible to adjoining residential properties, otherwise 8am to 4pm;
 - (c) work on Sundays and Public Holidays is prohibited.
- (2) **Site Management** - To safeguard the local amenity, reduce noise nuisance and to prevent environmental pollution during the construction period, the following practices are to be implemented:
- The delivery of material shall only be carried out between the hours of 7 am - 6pm Monday to Friday and between 8am - 4pm on Saturdays.
 - Stockpiles of topsoil, sand, aggregate, spoil or other material shall be kept clear of any drainage path, easement, natural watercourse, kerb or road surface and shall have measures in place to prevent the movement of such material off the site.
 - Builder's operations such as brick cutting, washing tools, concreting and bricklaying shall be confined to the building allotment. All pollutants from these activities shall be contained on site and disposed of in an appropriate manner.
 - Builder's waste must not be burnt or buried on site, nor should wind-blown rubbish be allowed to leave the site. All waste must be disposed of at an approved Waste Disposal Depot.
 - A waste control container shall be located on the development site.
- (3) **Roofwater Destination** - The roof of the subject building(s) must be provided with guttoring and down pipes and all stormwater conveyed to:
- (a) rubble pits located and constructed as detailed below;
- Note:** Such pits must be 10 metres in length x 600mm x 600mm in size sited parallel with the ground contours and at least 3m from any building property boundary.

DA No: 1 P7/2006
 Property: 10 Crase Place GRASMERE
 Proposal Description: New Shed/Outbuilding

- (b) such other method(s) as approved by Council.
- (4) **Connect Downpipes** - Stormwater from roof areas must be connected to a Council approved stormwater disposal system immediately after the roofing material has been fixed to the framing members. The Principal Certifying Authority must not permit construction works beyond the frame inspection stage until this work has been carried out.
- (5) **Building Inspections** - The Principal Certifying Authority (PCA) which may be Council or an Accredited Certifier, must determine when inspections and compliance certificates are required. Where the Consent Authority (ie Camden Council) is nominated as the PCA, the following stages must be inspected and passed prior to proceeding to the subsequent stage of construction.
- (a) **Pier Holes** - Excavated pier holes prior to pouring of concrete.
- (b) **Slab On Ground** - When steel reinforcement and associated formwork has been provided prior to the slab being poured with concrete.
- (c) **Wall & Roof Framing** - When the wall and roof frame have been completed (with plumbing and electrical wiring installed), brickwork complete and the roof covering fixed prior to internal lining.
- (d) **Wet Area Flashing** - When wall and floor junctions have been flashed with an approved product prior to installation of floor/wall coverings. Wet areas include bathrooms, laundries, sanitary compartments, ensuites and the like.
- (e) **Stormwater Line-work** - When stormwater drainage lines have been laid and connection to a street kerb, drainage easement, or rubble pit prior to backfilling.
- (f) **Occupation Certificate (final inspection)** - Upon completion of the development and before occupation or commencement of use.

5.0 - Prior To Issue Of Occupation Certificate

The following conditions shall be complied with prior to the issuing of an Occupation Certificate. The issue of an "interim" Occupation Certificate may occur if the Principal Certifying Authority (PCA) is satisfied that outstanding matters will be completed within a reasonable time frame. Additional fees for the issue of interim Occupation Certificates may be applied by the PCA.

- (1) **Compliance with Conditions** - The Principal Certifying Authority must submit a copy of the Occupation Certificate to the Consent Authority

DA No: 1187/2006
 Property: 10 Crase Place GRASMERE
 Proposal Description: New Shed/Outbuilding

(ie Camden Council) within seven (7) days from the date of determination and include all relevant documents and certificates that are asked for as conditions of development approval.

The use or occupation of the approved development must not commence until such time as all conditions of this development consent have been complied with. The use or occupation of the development prior to compliance with all conditions of development consent may make the applicant/developer liable to legal proceedings.

6.0 - Operational Conditions

- (1) All manure and refuse must be removed from the stables and yards **DAILY**.
- (2) Feed and drinking water must be placed in properly constructed containers which are not capable of being easily tipped over.
- (3) Bedding, shavings and straw must be cleaned (and provided with fresh clean bedding) **DAILY**. At least once a week the stable floor must be lime dusted.
- (4) The premises must be kept free from nuisance of any kind and maintained in a clean and sanitary condition at all times.
- (5) Feed and water troughs must be installed in a manner and location to avoid problems with flies, rodents, vermin, mosquito and drainage.
- (6) Horse food must be stored in approved metal containers, provided with close-fitting lids.
- (7) **Use Limitations** - The stables and land shall not be used for the adjustment of horses or animals, or for the commercial raising or training of horses/animals.

Reasons for Conditions:

- (1) To ensure that the proposed development complies with the requirements of *Environmental Planning and Assessment Act 1979 and Regulations* made thereto.
- (2) To prevent site works causing a nuisance to the surrounding properties and the area generally.
- (3) To ensure that the building complies with the requirements of the Building Code of Australia (BCA) and applicable Australian Standards.

DA14-1147/2005
PROPOSAL TO CLASH PLACE GRASMERE
Proposal Description: New Shed/Outbuilding

- (4) To ensure that the development meets the aims, objectives and requirements of Council's Local Environmental Plan, Development Control Plans and Policies which relate to the subject land.

Advice:

nil

RIGHTS OF APPEAL If you are the applicant:

You can appeal against this decision in the Land and Environment Court within 12 months of the date of this notice. You cannot appeal, however, if a Commission of Inquiry is or is to be held and the development is designated development or state significant development.

DETERMINATION REVIEW

If you are an applicant and you are dissatisfied with the determination, you may within 12 months from the date of determination, request Council, in writing, to review the determination.

SIGNED on behalf of
Camden Council

Mr N Thomson
DEVELOPMENT OFFICER
(Development Branch)

ATTACHMENT A

The following matters are included as advice as relative to this application.

1. Section 82A of the EP&A Act 1979 provides that the applicant may request a review of this determination within twelve months of the date of the determination, following the payment of the prescribed fee.
2. Section 125 of the EP&A Act, 1979 provides that any person who contravenes or causes or permits to be contravened the conditions of this consent shall be guilty of an offence.
3. Section 125 of the EP&A Act, 1979 provides that any person who contravenes or causes or permits to be contravened the requirements of Council's Tree Preservation Policy shall be guilty of an offence.

DA No: 1197/2006
 Property: 10 Crane Place GRASMERE
 Proposal Description: New Shed/Outbuilding

4. Section 126 of the EP&A Act, 1979 provides that a person guilty of an offence against this Act shall, for every such offence, be liable to the penalty expressly imposed and if no penalty is so imposed to a penalty not exceeding 1000 penalty units and to a further daily penalty not exceeding 100 penalty units.
5. The contributions required under Section 94 of the EP & A Act, 1979 are set out in the stated Contribution Plans which can be viewed at Council's Customer Service during normal business hours.
6. This consent does not allow site, building or demolition works to commence. Such works shall only take place after a Construction Certificate has been applied for and been issued.
7. SYDNEY WATER requires the submission of stamped approved plans to their office prior to commencement of work.
8. INTEGRAL ENERGY requires electrical installations to be in accordance with their standards. All enquiries relating to electrical installations should be directed to that Authority.
9. TELSTRA requests that prior to any excavation commencing in connection with the approved work, contact should be made with Telstra "Cable Locations", Telephone 1100. Calls to this number are free.
10. A home warranty certificate must have been issued for the project prior to issue of the Construction Certificate.

ATTACHMENT B - CC Advice

1. In the case of residential building work for which the *Home Building Act 1989* requires there to be a contract of insurance in force in accordance with Part 6 of that Act, that such a contract of insurance is in force.
2. **Residential Building Work** – Building work that involves residential building work (within the meaning of the *Home Building Act 1989*) must not be carried out unless the principal certifying authority for the development to which the work relates:
 - (i) in the case of work to be done by a licensee under that Act:
 - has been informed in writing of the licensee's name and contractor licence number, and
 - is satisfied that the licensee has complied with the requirements of Part 6 of that Act, or

DA Form 1 M7/2006
Property: 10 Crase Place GRASMERE
Proposal Description: New Shed/Outbuilding

(ii) in the case of work to be done by any other person:

- has been informed in writing of the person's name and owner-builder permit number, or
- has been given a declaration, signed by the owner of the land, that states that the reasonable market cost of the labour and materials involved in the work is less than the amount prescribed for the purposes of the definition of *owner-builder work* in section 29 of that Act.

and is given appropriate information and declarations under paragraphs (a) and (b) whenever arrangements for the doing of the work are changed in such a manner as to render out of date any information or declaration previously given under either of those paragraphs.

A certificate purporting to be issued by an approved insurer under Part 6 of the *Home Building Act 1989* that states that a person is the holder of an insurance policy issued for the purposes of that Part is, for the purposes of this clause, sufficient evidence that the person has complied with the requirements of that Part.

ORD02

Attachment 1

Appendix E Land Ownership Title Search Results

**Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW**

ADVANCE LEGAL SEARCHERS PTY LTD

(ACN 147 943 842)
ABN 82 147 943 842

P.O. Box 149
Yagoona NSW 2199



Telephone: +612 9644 1679
Mobile: 0412 169 889
Facsimile: +612 8076 3026
Email: als@advance.com.au

10th October, 2013

COFFEY ENVIRONMENTS PTY LTD

118 Auburn Street,
WOLLONGONG NSW 2500

Attention: Colce Quayle

RE:

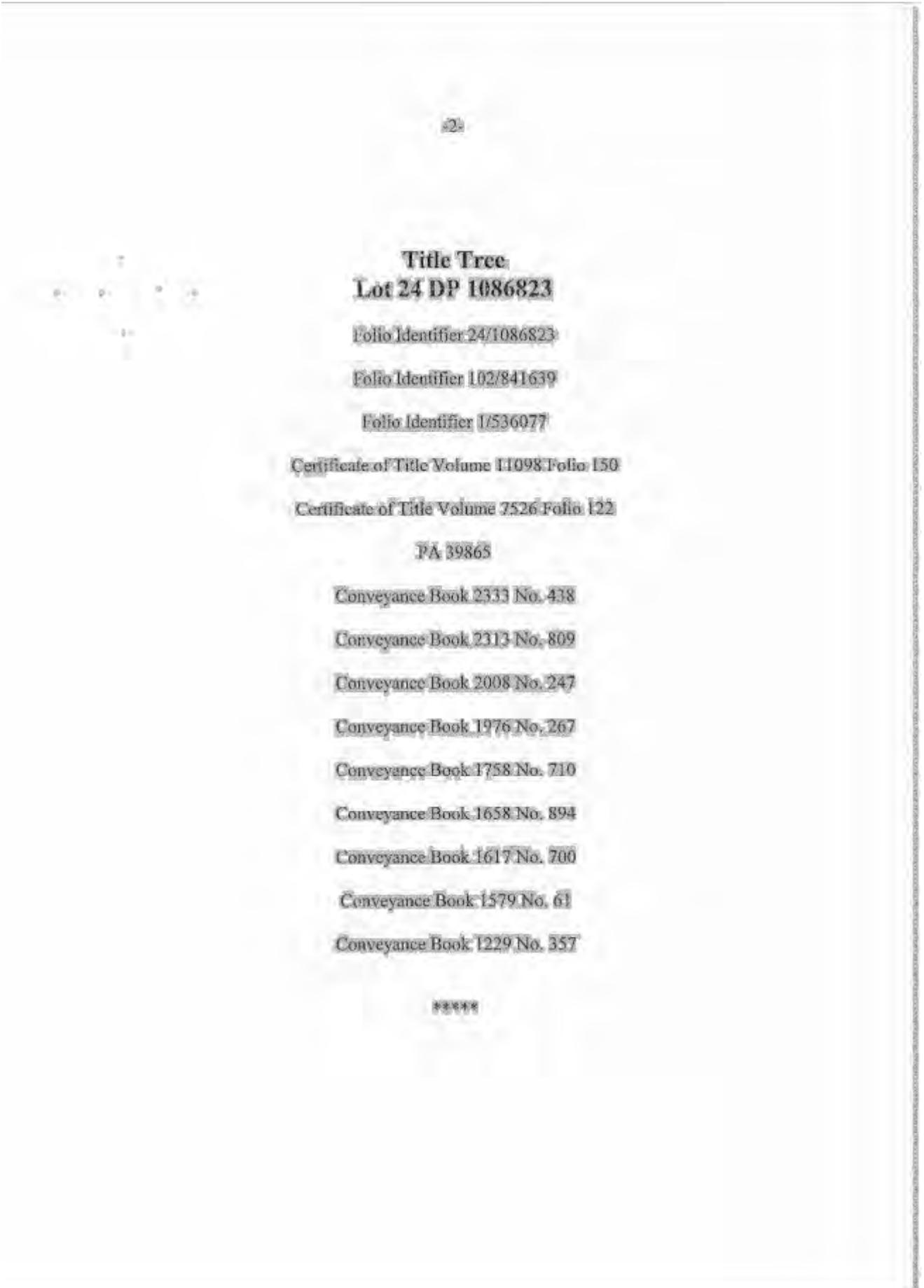
10 Crase Place, Grasmere
Project No: ENAUWOLL041500AA
Purchase Order EWOLE-279

Current Search

Folio Identifier 24/1086823 (title attached)
DP 1086823 (plan attached)
Dated 9th October, 2013
Registered Proprietor:
COWBRIDGE HOLDINGS PTY LIMITED

ORD02

Attachment 1



-3-

**Summary of proprietor(s)
Lot 24 DP 1086823**

Year	Proprietor
	(Lot 24 DP 1086823)
2012 – to date	Cowbridge Holdings Pty Limited
2005 – 2012	Dimpalis Pty Limited
	(Lot 102 DP 841639)
2003 – 2005	Dimpalis Pty Limited
1994 – 2003	The University of Sydney
	(Lot 1 DP 536077)
1989 – 1994	The University of Sydney
1988 – 1989	The Minister for Family and Community Services for the Family and Community Services Department
1988 – 1988	Minister for Public Works
	(Lot LDP 536077 – Area 61 Acres 2 Roods 12 Perches – CTVol 11098 Fol 150)
1973 – 1988	Minister for Public Works
1969 – 1973	Commonwealth Scientific and Industrial Research Organisation (CSIRO)
	(Lot C Misc. Plan of Subdivision (O.S.) No. 9967, part of Portion 12, Parish of Camden – Areas 61 Acres 3 Roods 30 Perches – CTVol 7526 Fol 122)
1958 – 1969	Commonwealth Scientific and Industrial Research Organisation (CSIRO)
	(Lot C Misc. Plan of Subdivision (O.S.) No. 9967, part of Portion 12, Parish of Camden – Conv Bk 2333 No. 438)
1955 – 1958	Commonwealth Scientific and Industrial Research Organisation (CSIRO)
1955 – 1955	The Commonwealth of Australia
	(Lots 21 to 24, of the resubdivision of Farms 44, 15 & 14, Cawdor Estate, Parish of Camden – Area 61 Acres 2 Roods 32 Perches, with other lands – Conv Bk 2008 No. 247)
1946 – 1955	Gladys Ivy Luscombe, wife of retired hotelkeeper
1946 – 1946	Gordon Charles Luscombe, clerk
	(Lots 21 to 24, of Onslow's subdivision, of the resubdivision of Farms 44, 15 & 14, Cawdor Estate, Parish of Camden – Area 61 Acres 2 Roods 32 Perches, with other lands – Conv Bk 1976 No. 267)
1945 – 1946	Gordon Charles Luscombe, clerk
1945 – 1945	Thomas Blow, farmer

Cont.

ORD02

Attachment 1

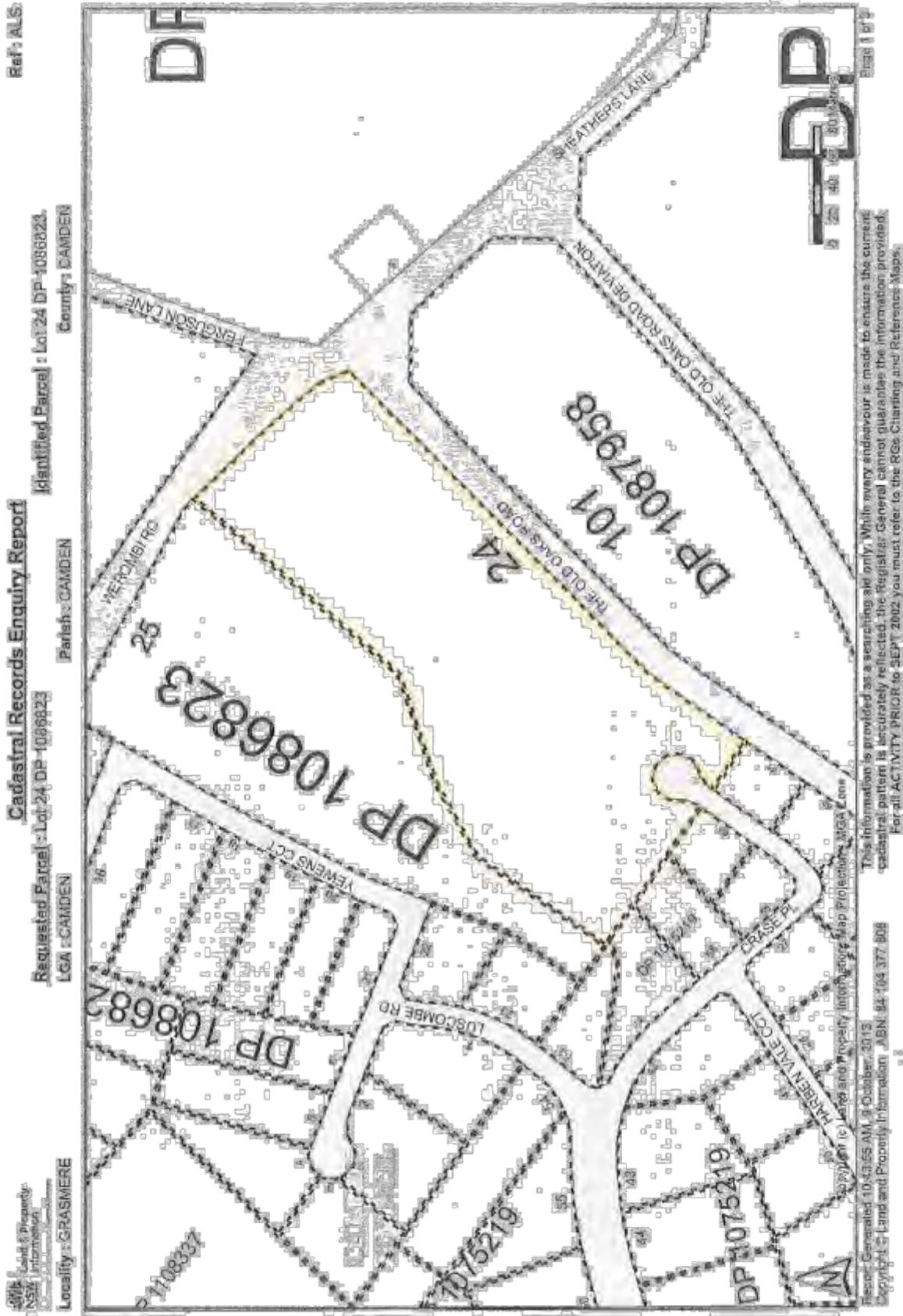
ORD02

Attachment 1

-4-

Cont.

	(Lots 21 to 24, of Onslow's subdivision, of the resubdivision of Farms 44, 15 & 14, Cawdor Estate, Parish of Camden – Area 61 Acres 2 Roods 32 Perches, with other lands – Conv Bk 1758 No. 710)
1936 – 1945	Thomas Blow, farmer
1936 – 1936	William George Watson, farmer
	(Lots 21 to 24, of Onslow's subdivision, of the resubdivision of Farms 44, 15 & 14, Cawdor Estate, Parish of Camden – Area 61 Acres 2 Roods 32 Perches, with other lands – Conv Bk 1658 No. 894)
1933 – 1936	William George Watson, farmer
1933 – 1933	John O'Brien, farmer
	(Lots 21 to 24, of the resubdivision of Farms 44, 15 & 14, Cawdor Estate, Parish of Camden – Area 61 Acres 2 Roods 32 Perches, with other lands – Conv Bk 1617 No. 700)
1929 – 1933	John O'Brien, farmer
1929 – 1929	Frederick Rofe, grazier
	(Lots 21 to 24, of the resubdivision of Farms 44, 15 & 14, Cawdor Estate, Parish of Camden – Area 61 Acres 2 Roods 32 Perches, with other lands – Conv Bk 1579 No. 61)
1929 – 1929	Frederick Rofe, grazier
	(Lots 21 to 24, of the resubdivision of Farms 44, 15 & 14, Cawdor Estate, Parish of Camden – Area 61 Acres 2 Roods 32 Perches, with other lands – Conv Bk 1229 No. 357)
1921 – 1929	Frederick Rofe, grazier
1901 – 1921	Elizabeth Willis, wife of grazier



Attachment 1
ORD02

ORD02

Attachment 1



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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - TITLE SEARCH

FOLIO: 24/1086823

Table with 4 columns: SEARCH DATE, TIME, EDITION NO, DATE. Row 1: 9/10/2013, 11:44 AM, 4, 23/2/2012

LAND

LOT 24 IN DEPOSITED PLAN 1086823 AT GRASMERE LOCAL GOVERNMENT AREA CAMDEN PARISH OF CAMDEN COUNTY OF CAMDEN TITLE DIAGRAM DP1086823

FIRST SCHEDULE

COWBRIDGE HOLDINGS PTY LTD (T AG832523)

SECOND SCHEDULE (19 NOTIFICATIONS)

- 1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP841639 RESTRICTION(S) ON THE USE OF LAND
3 DP1075537 EASEMENT FOR WATER SUPPLY PURPOSES 3 METRES WIDE AFFECTING THE PART OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 DP1086823 EASEMENT FOR DRAINAGE OF WATER VARIABLE WIDTH DESIGNATED (C) AFFECTING THE PART(S) OF THE LAND ABOVE DESCRIBED SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 DP1086823 RESTRICTION(S) ON THE USE OF LAND VARIABLE WIDTH DESIGNATED (L) AS REFERRED TO AND NUMBERED (8) IN THE SECTION 88B INSTRUMENT
6 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (12) IN THE SECTION 88B INSTRUMENT
7 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (13) IN THE SECTION 88B INSTRUMENT
8 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (14) IN THE SECTION 88B INSTRUMENT
9 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (15) IN THE SECTION 88B INSTRUMENT
10 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (16) IN THE SECTION 88B INSTRUMENT
11 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (17) IN THE SECTION 88B INSTRUMENT
12 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (18) IN THE SECTION 88B INSTRUMENT
13 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (19) IN THE SECTION 88B INSTRUMENT
14 DP1086823 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (20) IN THE SECTION 88B INSTRUMENT

END OF PAGE 1 - CONTINUED OVER

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FOLIO: 24/106623

PAGE 2

SECOND SCHEDULE (19 NOTIFICATIONS) (CONTINUED)

- 15 DL106623 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (21) IN THE SECTION 88B INSTRUMENT
- 16 DL106623 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (22) IN THE SECTION 88B INSTRUMENT
- 17 DL106623 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (23) IN THE SECTION 88B INSTRUMENT
- 18 DL106623 RESTRICTION(S) ON THE USE OF LAND DESIGNATED (X) AS REFERRED TO AND NUMBERED (24) IN THE SECTION 88B INSTRUMENT
- 19 DL106623 RESTRICTION(S) ON THE USE OF LAND AS REFERRED TO AND NUMBERED (25) IN THE SECTION 88B INSTRUMENT

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

Cofey - Graeme

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Attachment 1

ORD02

Attachment 1



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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE 9/10/2013 11:45AM

FOLIO: 24/1086823

First Title(s): OLD SYSTEM Prior Title(s): 102/841639

Table with 4 columns: Recorded, Number, Type of Instrument, C.T. Issue. Rows include DEPOSITED PLAN, DISCHARGE OF MORTGAGE, MORTGAGE, WITHDRAWAL OF CAVEAT, and TRANSFER.

*** END OF SEARCH ***

Coffey - Grasmere

PRINTED ON 9/10/2013

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REQ:03/2012 /DocID:AG832523 /Rev:28-Feb-2012 /Stat:NO.0K. /Dt:09-Oct-2012 11:48 /Pg:ALL /Seq:1 of 2
Ref:000000 - Gramercy Street

Form: DIT
Release: 4.2
www.lprma.nsw.gov.au

00

TRANSFER
New South Wales
Real Property Act 1900



AG832523X

PRIVACY NOTE: Section 31B of the Real Property Act 1900 (RP Act) authorises the Registrar by this form for the establishment and maintenance of the Real Property Act Register. Section 96B RP Act requires that the Register is made available to any person for search upon payment of a fee, if any.

STAMP DUTY

Office of State Revenue use only	Office of State Revenue NSW Treasury Client No. 7411500 Doc # 7411500 Trans No. 6583078 Ass'd date: 23/12/12
----------------------------------	---

(A) TORRENS TITLE 24/1086823

(B) LODGED BY	Document Collection Box Name, Address or DX, Telephone, and Customer Account Number if any Cive Hughes, 50 Wynna Ave, Freshwater, NSW 2098 Reference: Ne-sens	CODES T JT TF TJ TK TW
---------------	---	---------------------------------

(C) TRANSFEROR: DIMPALIS PTY LIMITED A.C.N. 074 097 340

(D) CONSIDERATION The transferor acknowledges receipt of the consideration of \$ 837,000.00 and as regards

(E) ESTATE the abovementioned land transfers to the transferee an estate in fee simple

(F) SHARE TRANSFERRED:

(G) Encumbrances (if applicable):

(H) TRANSFEREE: COMBRIDGE HOLDINGS PTY LTD A.C.N. 078 187 550
(I) TENANCY:

(J) I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence. Certified correct for the purposes of the Real Property Act 1900 by the person(s) named below who signed this instrument pursuant to the power of attorney specified.

Signature of witness:
Name of witness:
Address of witness:

Signature of attorney:
Attorney's name: SEE ANNEXURE A
Signing on behalf of:
Power of attorney-Book:
-No-

Certified correct for the purposes of the Real Property Act 1900 and executed on behalf of the corporation named below by the authorised person(s) whose signature(s) appear(s) below pursuant to the authority specified.
Corporation: COMBRIDGE HOLDINGS PTY LTD A.C.N. 078 187 550
Authority: section 127 of the Corporations Act 2001
Signature of authorised person: Sole Director + Secretary
Name of authorised person: CIVE HUGHES
Office held:

Signature of authorised person:
Name of authorised person:
Office held:

(K) The transferee certifies that the eNOS data relevant to this dealing has been submitted and stored under eNOS ID No. Full names: Signature:

Attachment 1 ORD02

ORD02

Attachment 1

Req:R358018 /Doc:DL AG832523 /Rev:28-Feb-2012 /Sts:SC.OK /Prt:09-Oct-2013 11:49 /Pgs:ALL /Seq:2 of 2
Ref:Coffey - Grasmere /Src:T

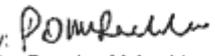
Annexure A to transfer between:

DIMPALIS PTY LIMITED A.C.N. 074 097 340 (as transferor) and COWBRIDGE HOLDINGS PTY LTD A.C.N. 078 187 550 (as transferee)

I certify that the person(s) signing opposite, with whom I am personally acquainted or as to whose identity I am otherwise satisfied, signed this instrument in my presence.

Certified correct for the purposes of the Real Property Act 1900 by the person(s) name below who signed this instrument pursuant to the power of attorney specified.

Signature of witness: 
Name of witness: Elaine Hall

Signature of attorney: 
Attorney's name: Peter Douglas McLachlan
Signing on behalf of: Dimpalis Pty Limited
Power of attorney-Book: 4592 No.506

Address of witness: 421/1 Cantleburgh St.
5900 Wj 2000.

Signature of attorney: 
Attorney's name: Toby Dylan Carter
Signing on behalf of: Dimpalis Pty Limited
Power of attorney-Book:4592 No, 506

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2/2



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Pty Ltd Phone: 02 9754 1590

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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

9/10/2013 11:46AM

FOLIO: 102/841639

First Title(s): OLD SYSTEM

Prior Title(s): 1/536077

Recorded	Number	Type of Instrument	C.T. Issue
9/8/1994	DP841639	DEPOSITED PLAN	FOLIO CREATED EDITION 1
14/5/2003	9603404	TRANSFER	
14/5/2003	9603405	MORTGAGE	EDITION 2
10/6/2004	AA711828	DISCHARGE OF MORTGAGE	
10/6/2004	AA711829	MORTGAGE	EDITION 3
30/8/2004	AA874904	CAVEAT	
24/1/2005	DP1075537	DEPOSITED PLAN	EDITION 4
26/10/2005	AB866435	DEPARTMENTAL DEALING	
27/10/2005	AB869813	DEPARTMENTAL DEALING	
27/10/2005	DP1086823	DEPOSITED PLAN	FOLIO CANCELLED RESIDUE REMAINS

*** END OF SEARCH ***

Coffey - Grasmere

PRINTED ON 9/10/2013

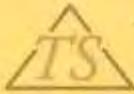
*ANY ENTRIES PRECEDED BY AN ASTERISK DO NOT APPEAR ON THE CURRENT EDITION OF THE CERTIFICATE OF TITLE. WARNING: THE INFORMATION APPEARING UNDER NOTATIONS HAS NOT BEEN FORMALLY RECORDED IN THE REGISTER.

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Attachment 1



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LAND AND PROPERTY INFORMATION NEW SOUTH WALES - HISTORICAL SEARCH

SEARCH DATE

9/10/2013 11:46AM

FOLIO: 1/536077

First Title(s): SEE PRIOR TITLE(S)
Prior Title(s): VOL 11098 FOL 150

Recorded	Number	Type of Instrument	C.T. Issue
28/3/1988		TITLE AUTOMATION PROJECT	LOT RECORDED FOLIO NOT CREATED
26/7/1988		CONVERTED TO COMPUTER FOLIO	FOLIO CREATED CT NOT ISSUED
4/10/1988	X886454	TRANSFER	EDITION 1
19/10/1988	X931654	DEPARTMENTAL DEALING	EDITION 2
31/7/1989	Y516622 *	TRANSFER	EDITION 3
9/8/1994	DP841639	DEPOSITED PLAN	FOLIO CANCELLED

*** END OF SEARCH ***

Coffey - Grasmere

PRINTED ON 9/10/2013

*ANY ENTRIES PRECEDED BY AN ASTERISK DO NOT APPEAR ON THE CURRENT EDITION OF THE CERTIFICATE OF TITLE. WARNING: THE INFORMATION APPEARING UNDER NOTATIONS HAS NOT BEEN FORMALLY RECORDED IN THE REGISTER.

Req:K358032 /Doc:DL Y516622 /Rev:17-Aug-2010 /Sts:OK.SC /Prt:09-Oct-2013 11:50 /Pgs:ALL /Seq:1 of 1
 Ref:Coffey - Grasmere /Src:2
 RP 13 STAMP DUTY ①

TRANSFER
 REAL PROPERTY ACT, 1900

CB 1 of 1 K
 \$ 44

Torrens Title Reference	If Part Only, Delete Whole and Give Details	Location
IDENTIFIER 1/536077	WHOLE	CAMDEN

DESCRIPTION OF LAND Note (a)

TRANSFEROR Note (b)
 HER MOST GRACIOUS MAJESTY QUEEN ELIZABETH THE SECOND ON BEHALF OF THE MINISTER FOR FAMILY AND COMMUNITY SERVICES FOR THE FAMILY AND COMMUNITY SERVICES DEPARTMENT

ESTATE Note (c)
 (the abovenamed TRANSFEROR) hereby acknowledges receipt of the consideration of \$ 880,000.00 and transfers an estate in fee simple in the land above described to the TRANSFEREE

TRANSFEREE Note (d)
 THE UNIVERSITY OF SYDNEY

TENANCY Note (e)
 XXXXXXXXXXXXXXXXXXXXXXXXXX

PRIOR ENCUMBRANCES Note (f)
 subject to the following PRIOR ENCUMBRANCES 1. _____
 2. _____
 3. _____
 DATE 18-7-1989
 We hereby certify this dosing to be correct for the purposes of the Real Property Act, 1900.

EXECUTION Note (g)
 Signed in my presence by the transferor who is personally known to me
 Signature of Witness: DAVID BROWN
 Name of Witness (BLOCK LETTERS): DAVID BROWN
 Address and occupation of Witness: CLERK 66 GRANVILLE RD, BAWLINGHAM HILLS 2153

AS DELEGATE FOR THE MINISTER FOR FAMILY & COMMUNITY SERVICES.

Note (g)
 Signed in my presence by the transferee who is personally known to me
 Signature of Witness: _____
 Name of Witness (BLOCK LETTERS): _____
 Address and occupation of Witness: _____

289

TO BE COMPLETED BY LODGING PARTY Notes (h) and (i)
 \$ 44 S

LODGED BY		LOCATION OF DOCUMENTS	
CT	OTHER	CT	OTHER
		Herewith, /	
		in L.T.O. with	
		Produced by	
Checked 2/19 N	Passed	Secondary Directions	
Signed	Extra Fee	Delivery Directions	CT 599D.

REGISTERED -19
 31 JUL 1983

ORD02

Attachment 1

NEW SOUTH WALES

REGISTRY OF TITLE
PROPERTY ACT, 1990, as amended

Appln. No. 39864
Prior Title Vol. 11098 Fol. 150

Vol. 11098 Fol. 150

CANCELLED dated 21-7-1998

I certify that the person described in the First Schedule is the registered proprietor of the undermentioned estate in the land within described subject nevertheless to such exceptions, encumbrances and interests as are shown in the Second Schedule.

Witness *L. Harrison*

Jaworski
Registrar General

SEE AUTO FOLIO

PLAN SHOWING LOCATION OF LAND

BROWNLOW HILL RD.

THE OAKS

LOT 1

CP 153867

ESTATE AND LAND REFERRED TO

Estate in Fee Simple in Lot 1 in Deposited Plan 536077 at Camden in the Municipality of Camden Parish of Camden and County of Camden being part of Portion 22 granted to John Macarthur on 5-10-1825.

FIRST SCHEDULE

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH ORGANISATION.

SECOND SCHEDULE

CRP
in observations and conditions, if any, contained in the Crown Grant above referred to.

Jaworski
Registrar General

PERSONS ARE CAUTIONED AGAINST ALTERING OR ADDING TO THIS CERTIFICATE OR ANY NOTIFICATION HEREON

WARNING: THIS DOCUMENT MUST NOT BE REMOVED FROM THE LAND TITLES OFFICE.

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED.

Reg: KJ58001 / Doc: CT 11098-150 CT / Rev: 04-Feb-2011 / Tot: OK SE / Prt: 09-Oct-2013 11:48 / Pg: All / Req: 2 of 2
 Ref: ALS / Src: R

Signature of Registrar General
 M 675724
 Paul A. ...
 Sec. R. ...

REGISTERED PROPRIETOR		FIRST SCHEDULE (concluded)		SECOND SCHEDULE (continued)	
REGISTERED PROPRIETOR	ANNUAL	PREVIOUS MONTH	DATE	ENTRANCE	REGISTRATION
Minister for Public Works	1699804	30.1.1974	1.7.1974		
CANCELLED					
SEE ALSO FILE					
REGISTERED PROPRIETOR	ANNUAL	PREVIOUS MONTH	DATE	ENTRANCE	REGISTRATION
Minister for Public Works	1699804	30.1.1974	1.7.1974		
CANCELLED					
SEE ALSO FILE					

NOTE: ENTRIES RULED THROUGH AND AUTHENTICATED BY THE SEAL OF THE REGISTRAR GENERAL ARE CANCELLED

(Page 2 of 7 pages)

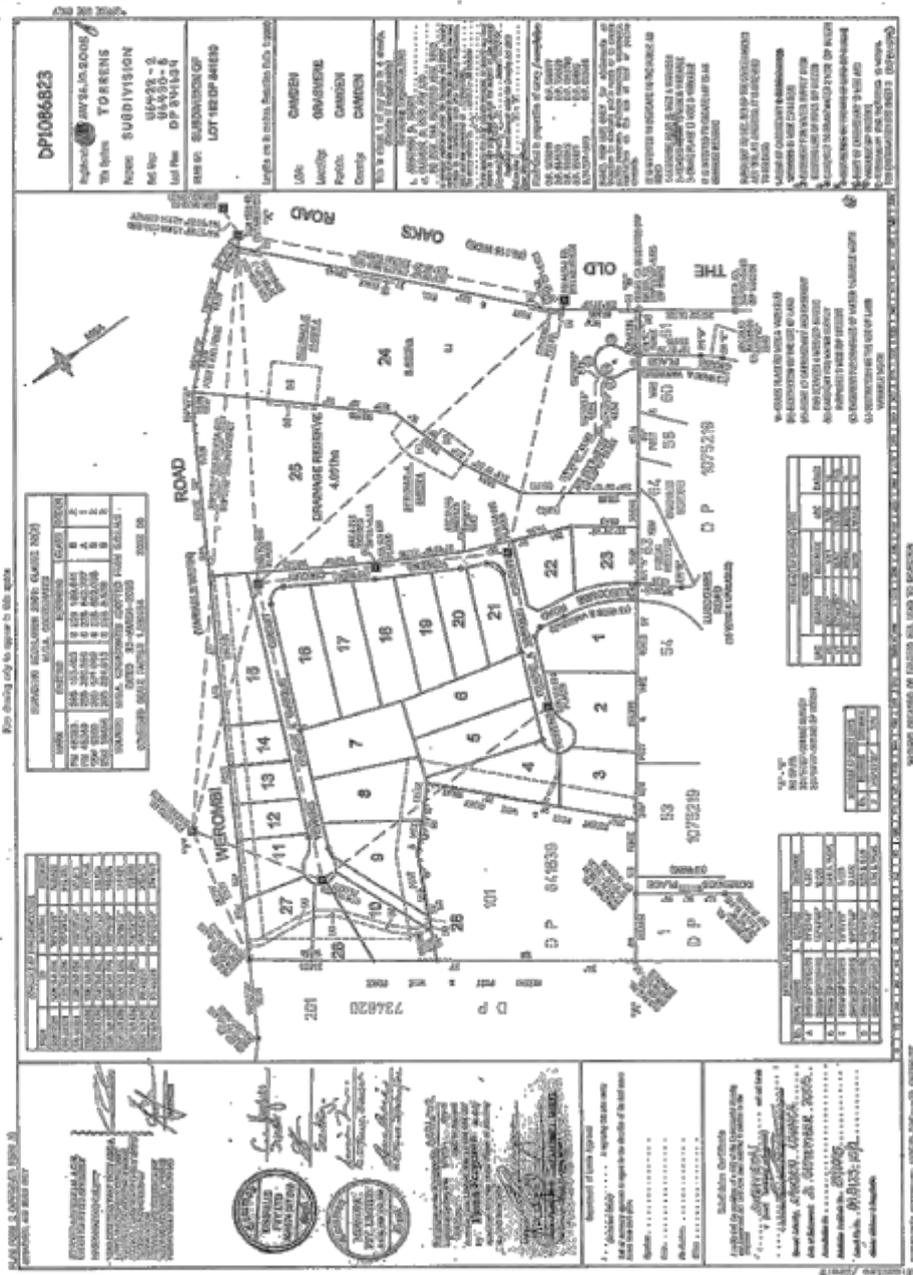
Attachment 1

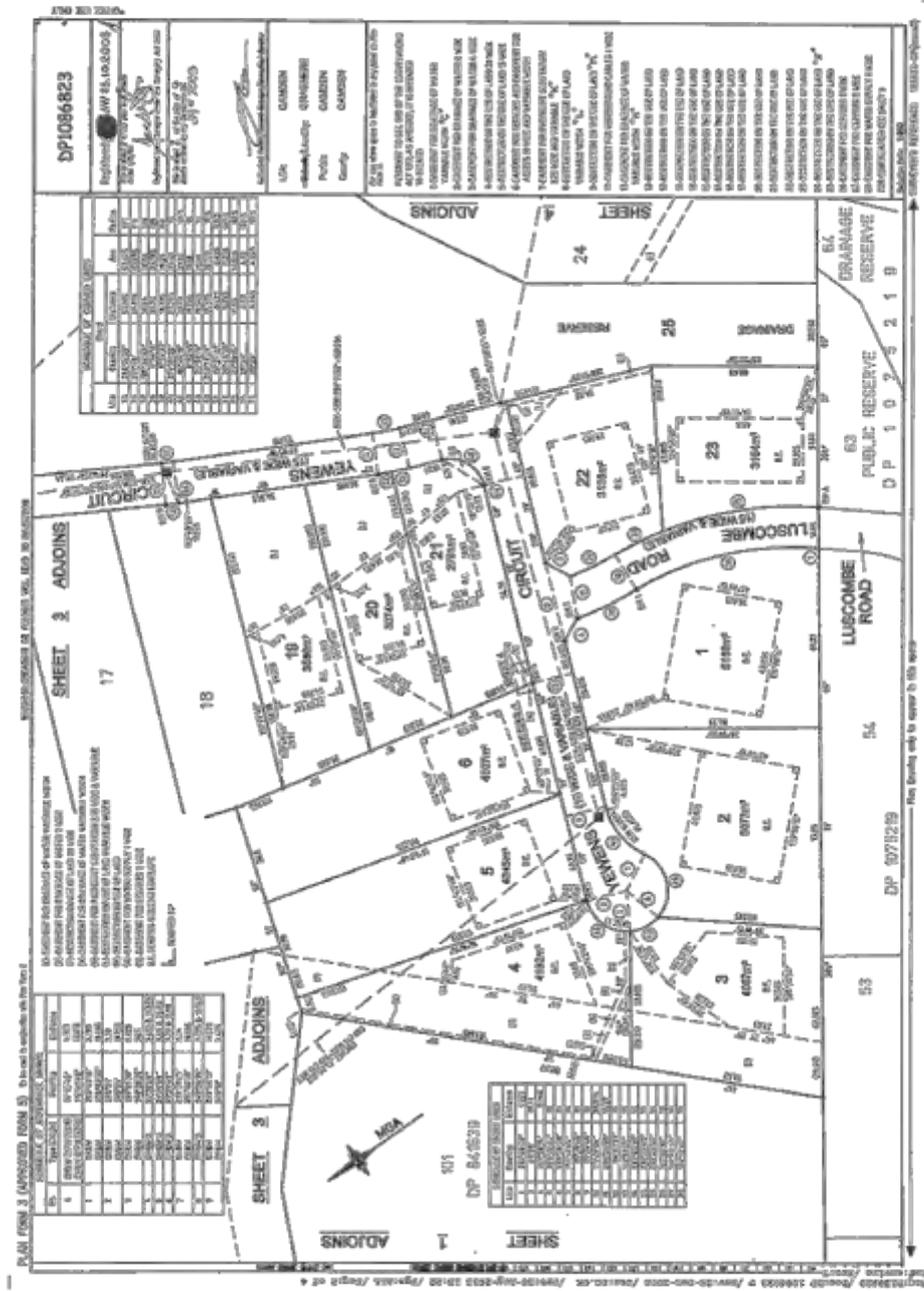
Attachment 1

Attachment 1

ORD02

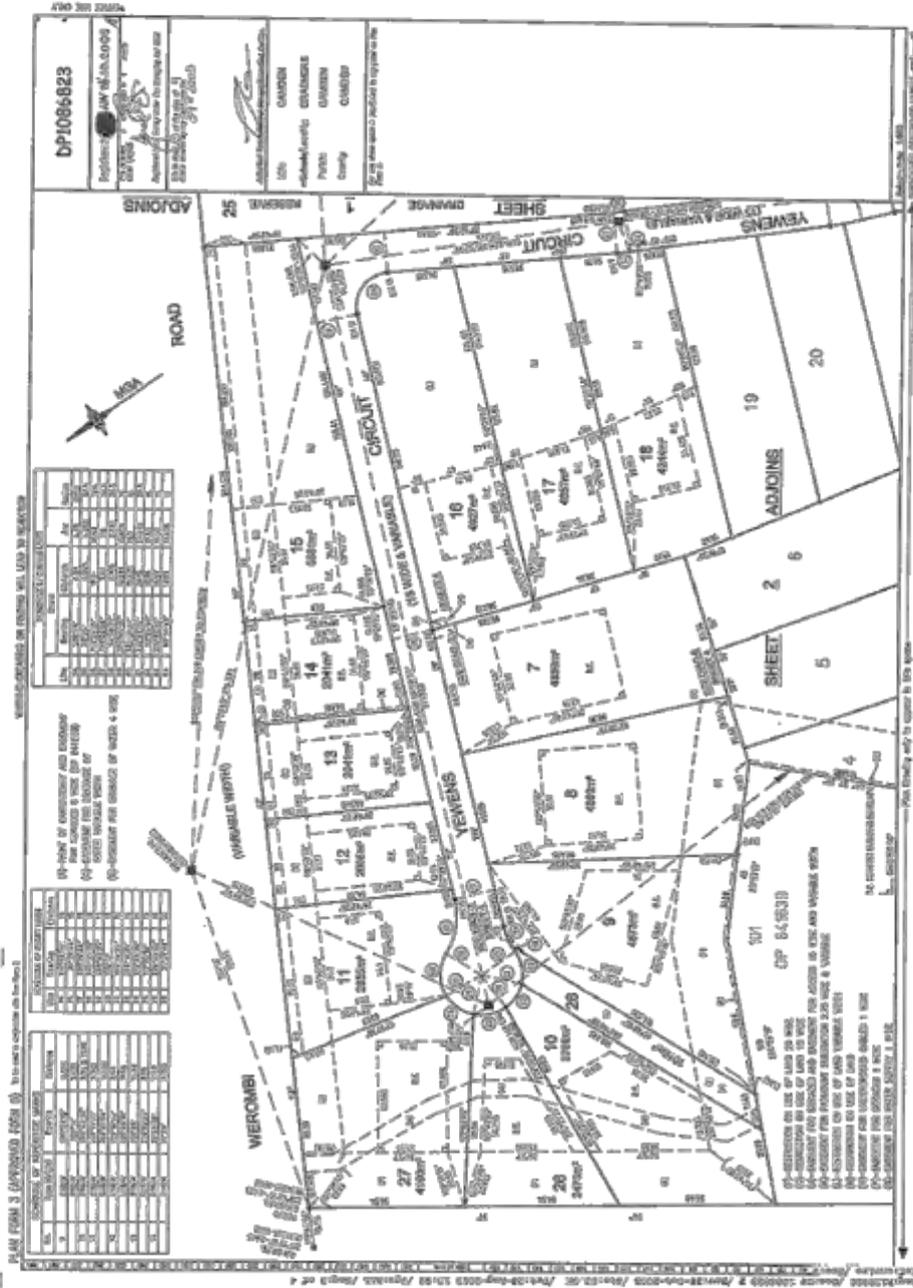
Attachment 1

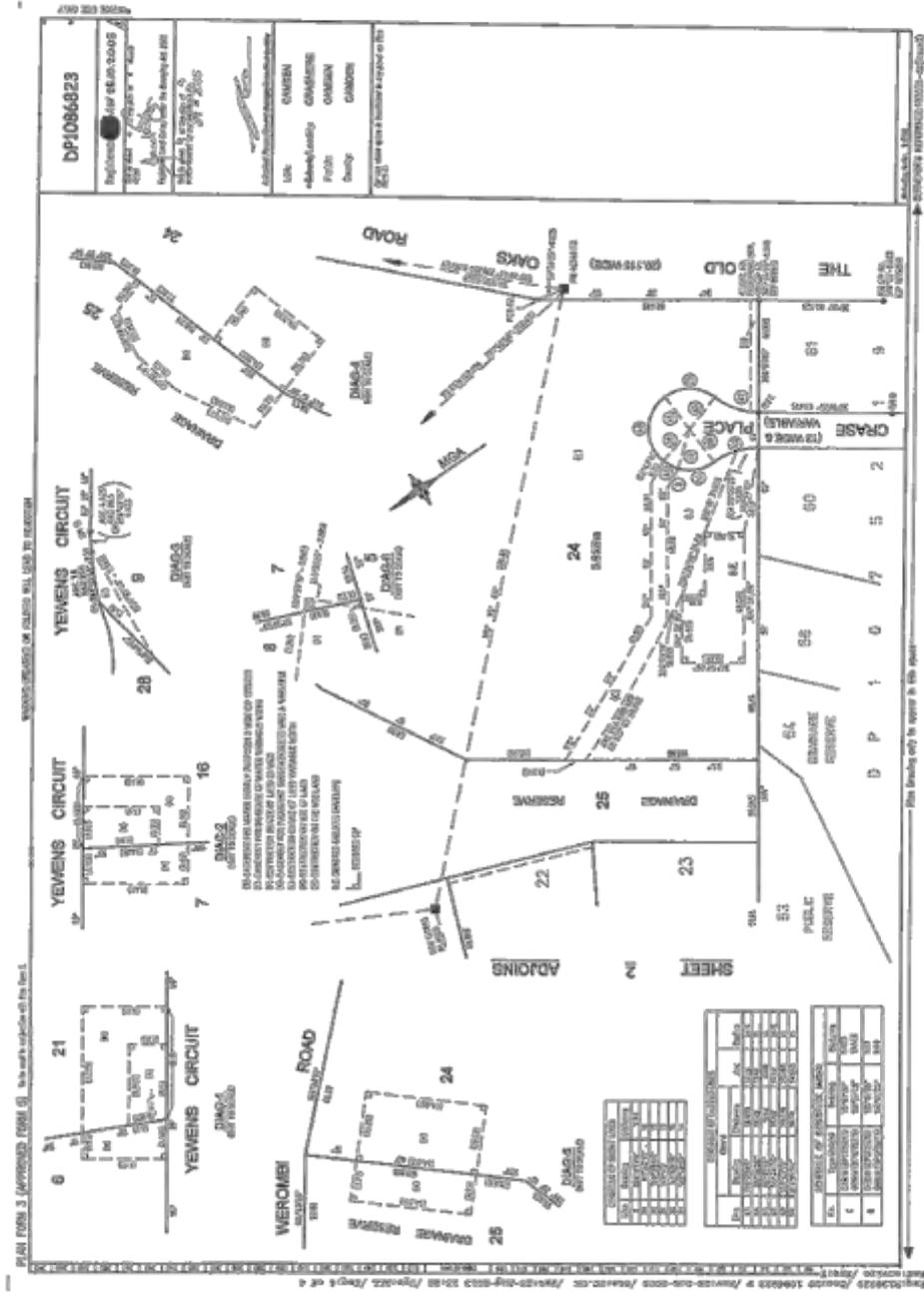




ORD02

Attachment 1





ORD02

Attachment 1

Appendix F
NSW EPA Online Contaminated Land
Register and Online Licence Register
Search Results

Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW

10/31/13

DECCW | Search results



You are here: [Home](#) > [Contaminated land](#) > [Record of notices](#)

Search results

Your search for: LGA: Camden Council

did not find any records in our database.

If a site does not appear on the record it may still be affected by contamination. For example:

- Contamination may be present but the site has not been regulated by the EPA under the Contaminated Land Management Act 1997 or the Environmentally Hazardous Chemicals Act 1985.
- The EPA may be regulating contamination at the site through a licence or notice under the Protection of the Environment Operations Act 1997 (POEO Act).
- Contamination at the site may be being managed under the [planning process](#).

More information about particular sites may be available from:

- The [POEO public register](#)
- The appropriate planning authority: for example, on a planning certificate issued by the local council under [section 149 of the Environmental Planning and Assessment Act](#).

See [What's in the record and What's not in the record](#).

If you want to know whether a specific site has been the subject of notices issued by the EPA under the CLM Act, we suggest that you search by Local Government Area only and carefully review the sites that are listed.

This public record provides information about sites regulated by the EPA under the Contaminated Land Management Act 1997, including sites currently and previously regulated under the Environmentally Hazardous Chemicals Act 1985. Your inquiry using the above search criteria has not matched any record of current or former regulation. You should consider searching again using different criteria. The fact that a site does not appear on the record does not necessarily mean that it is not affected by contamination. The site may have been notified to the EPA but not yet assessed, or contamination may be present but the site is not yet being regulated by the EPA. Further information about particular sites may be available from the appropriate planning authority, for example, on a planning certificate issued by the local council under section 149 of the Environmental Planning and Assessment Act. In addition the EPA may be regulating contamination at the site through a licence under the Protection of the Environment Operations Act 1997. You may wish to search the [POEO public register](#).

Search Again
Refine Search

Search TIP

To search for a specific site, search by LGA (local government area) and carefully review all sites listed.

[... more search tips](#)



31 October 2013

List of NSW Contaminated Sites Notified to EPA as of 2 October 2013

Background

In response to 2008 amendments to the *Contaminated Land Management Act 1997* (CLM Act) clarifying the Section 60 duty to report contaminated sites, the Environment Protection Authority (EPA) has received 1,059 notifications (as of 2 October 2013) from owners or occupiers of sites where they believe the site is contaminated.

A strategy to systematically assess, prioritise and respond to these notifications has been developed by the EPA. This strategy acknowledges the EPA's obligations to make information available to the public under *Government Information (Public Access) Act 2009*.

When a site is notified to the EPA, it may be accompanied by detailed site reports where the owner has been proactive in addressing the contamination and its source. However, often there is minimal information on the nature or extent of the contamination.

For some notifications, the information indicates the contamination is securely immobilised within the site, such as under a building or carpark, and is not currently causing any offsite consequences to the community or environment. Such sites would still need to be cleaned up, but this could be done in conjunction with any subsequent building or redevelopment of the land. These sites may not require intervention under the CLM Act, but could be dealt with through the planning and development consent process.

Where indications are that the nominated site is causing actual harm to the environment or an unacceptable offsite impact (i.e. it is a "significantly contaminated site"), the EPA would apply the regulatory provisions of the CLM Act to have the responsible polluter and/or landowner investigate and remediate the site.

As such, the sites notified to the EPA and presented in the following table are at various stages of the assessment and/or remediation process. Understanding the nature of the underlying contamination, its implications and implementing a remediation program where required, can take a considerable period of time. The tables provide an indication, in relation to each nominated site, as to the management status of that particular site. Further detailed information may be available from the EPA or the responsible landowner.

The following questions and answers may assist those interested in this issue:

Frequently asked questions

What is the difference between the "List of NSW Contaminated Sites Notified to the EPA" and the "Contaminated Land: Record of Notices"?

A site will be on the Contaminated Land: Record of Notices only if the EPA has issued a regulatory notice in relation to the site under the *Contaminated Land Management Act 1997*.

The sites appearing on this "List of NSW contaminated sites notified to the EPA" indicate that the notifiers consider that the sites are contaminated and warrant reporting to the EPA. However, the contamination may or may not be significant enough to warrant regulation by the EPA. The EPA needs to review and, if necessary, obtain more information before it can make a determination as to whether the site warrants regulation.

Why my site appears on the list?

Your site appears on the list because of one or more of the following reasons:

- The site owner and/or the person partly or fully responsible for causing the contamination notified to the EPA about the contamination under Section 60 of the *Contaminated Land Management Act 1997*. In other words, the site owner or the "polluter" believes the site is contaminated.
- The EPA has been notified via other means and is satisfied that the site is or was contaminated.

Does the list contain all contaminated sites in NSW?

No. The list only contains contaminated sites that the EPA is aware of, with regard to its regulatory role under the CLM Act. An absence of a site from the list does not necessarily imply the site is not contaminated.

The EPA relies upon responsible parties to notify contaminated sites.

How are these notified contaminated sites managed by the EPA?

There are different ways that the EPA manages these notified contaminated sites. First, an initial assessment is carried out by the EPA. At the completion of the initial assessment, the EPA may take one or more than one of the following management approaches:

- The contamination warrants the EPA's direct regulatory intervention either under the *Contaminated Land Management Act 1997* or the *Protection of the Environment Operations Act 1997* (POEO Act), or both. Information about current or past regulatory action on this site can be found on EPA website.
- The contamination with respect to the current use or approved use of the site, as defined under the *Contaminated Land Management Act 1997*, is not significant enough that it warrants EPA regulation.
- The contamination does not require EPA regulation and can be managed by a planning approval process.
- The contamination is related to an operational Underground Petroleum Storage System, such as a service station or fuel depot. The contamination may be managed under the POEO Act and the Protection of the Environment Operation (Underground Petroleum Storage Systems) Regulation 2008.
- The contamination is being managed under a specifically tailored program operated by another agency (for example the Department of Industry and Investment's *Derelict Mines Program*).

I am the owner of a site that appears on the list. What should I do?

First of all, you should ensure the current use of the site is compatible with the site contamination. Secondly, if the site is the subject of EPA regulation, make sure you comply with the regulatory requirements, and you have considered your obligations to notify other parties who may be affected.

If you have any concerns, contact us and we may be able to offer you general advice, or direct you to accredited professionals who can assist with specific issues.

I am a prospective buyer of a site that appears on the list. What should I do?

You should seek advice from the vendor to put the contamination issue into perspective. You may need to seek independent expert advice.

The information provided in the list, particularly the EPA Site Management Class, is meant to be indicative only, and a starting point for your own assessment. Site contamination as a legacy of past site uses is not uncommon, particularly in an urbanised environment. If the contamination on a site is properly remediated or managed, it may not materially impact upon the intended future use of the site. However, each site needs to be considered in context.

List of NSW Contaminated Sites Notified to the EPA

Disclaimer

The EPA has taken all reasonable care to ensure that the information in the list of contaminated sites notified to the EPA (the list) is complete and correct. The EPA does not, however, warrant or represent that the list is free from errors or omissions or that it is exhaustive.

The EPA may, without notice, change any or all of the information in the list at any time.

You should obtain independent advice before you make any decision based on the information in the list.

The list is made available on the understanding that the EPA, its servants and agents, to the extent permitted by law, accept no responsibility for any damage, cost, loss or expense incurred by you as a result of:

1. any information in the list; or
2. any error, omission or misrepresentation in the list; or
3. any malfunction or failure to function of the list;
4. without limiting (2) or (3) above, any delay, failure or error in recording, displaying or updating information.

THE EPA Site Management Class	Explanation
A	The contamination of this site is being assessed by the EPA. Sites which have yet to be determined as significant enough to warrant regulation may result in no further regulation under the <i>Contaminated Land Management Act 1997</i> .
B	The EPA is awaiting further information to progress its initial assessment of this site.
C	The contamination of this site is or was regulated under the <i>Contaminated Land Management Act 1997</i> . Information about current or past regulatory action on this site can be found on the EPA website (www.epa.nsw.gov.au) - Environmental Issues - Contaminated Land - Record of EPA notices.
D	The contamination of this site is or was regulated under the <i>Protection of the Environment Operations Act 1997</i> . Information about current or past regulatory action on this site can be found on the EPA website (www.epa.nsw.gov.au) - Environmental Issues - Environment Protection Licences - POEO public register.
E	This is a premises with an operational Underground Petroleum Storage System, such as a service station or fuel depot. The contamination of this site is managed under the <i>Protection of the Environment Operations Act 1997</i> and the Protection of the Environment Operations (Underground Petroleum Storage Systems) Regulation 2008.
F	The contamination of this site is managed by a planning approval process. The consent authority is either the local council or a government agency, such as the Department of Planning.
G	Based on the information made available to the EPA to date, the contamination of this site is considered by the EPA to be not significant enough to warrant regulatory intervention under the <i>Contaminated Land Management Act 1997</i>
H	Initial assessment completed. The contamination of this site is to be regulated by the EPA

ORD02

Attachment 1

Suburb/City	Site Description	Site Address	caused the	Received	Assessment	Management
Glen Innes (see Figure 1)	Teistra Depot, Lambeth Street Glen Innes	126 Lambeth Street	Unclassified	Yes	Completed	G
Glenbrook	Caltex Service Station	78 Great Western Hwy	Service Station	Yes	In progress	B
Glendale	Former Service Station	334-342 Lake Road	Unclassified	yes	Completed	G
Glendale	Shell Service Station	593 Main Road	Service Station	Yes	In progress	A
Glendale	Woolworths Service Station	Stockland Drive	Service Station	Yes	In progress	A
Glendenning	Mobil Service Station	1 Dublin Street	Service Station	Yes	In progress	A
Glenorie	Glenorie Caltex Service Station	912 Old Northern Road	Service Station	Yes	In Progress	A
Gloucester	Caltex Service Station	141 Church Street	Service Station	Yes	In progress	B
Goonellabah	Invercauld Road Cattle Dip	161 Invercauld Road	Cattle Dip	No	In Progress	A C
Gosford	Mobil Depot	Corner Merinee Road and Bowen Crescent	Other Petroleum	Yes	In progress	B
Gosford West	Caltex Service Station	283 Manns Rd	Service Station	Yes	In progress	B
Gosford West	Caltex Service Station	30a Pacific Hwy	Service Station	yes	In Progress	B
Goulburn	Caltex Service Station	13 Sloane St	Service Station	Yes	In progress	B
Goulburn	Caltex Service Station	315 Auburn St	Service Station	Yes	In progress	B
Goulburn	Caltex Service Station	68 Goldsmith St	Service Station	Yes	In progress	B
Goulburn	Caltex Service Station	72-74 Clinton St	Service Station	Yes	In progress	B
Goulburn	Former Goulburn Gasworks	1 Blackshaw Road	Gasworks	yes	Completed	C
Goulburn	Former Mobil Service Station	422-426 Auburn Street	Service Station	Yes	Completed	E
Goulburn	Former Shell Autoport Service Station	Corner Bruce Street and Lagoon Street	Service Station	Yes	In Progress	A
Goulburn	Goulburn Tannery	13 Gibson Street	Other Industry	No	In Progress	A
Goulburn	Mobil Depot	23 Braidwood Road	Other Petroleum	No	In Progress	B
Goulburn	Mobil Service Station	129 Lagoon Street	Service Station	Yes	Completed	C
Goulburn	Shell Service Station	Corner Clinton and Cowper Streets	Service Station	Yes	In Progress	B
Grafton	BP Service Station	58 Fitzroy Street	Service Station	Yes	In progress	A
Grafton	Caltex Service Station	179 Prince St	Service Station	Yes	In progress	B
Grafton	Caltex Service Station	72 Swallow Road	Service Station	Yes	In progress	B
Grafton	Caltex Service Station	Corner Villiers St and Fitzroy St	Service Station	yes	Completed	G
Grafton	Former BP Service Station	202 Queen Street	Service Station	Yes	In progress	A
Grafton	Former service station site	161 Turf Street	Other Petroleum	Yes	In progress	B

Suburb/City	Site Description	Site Address	caused the Other Petroleum	Received	Assessment	Management
Grafton	Former Shell Depot	12 Milton Street	Yes	Yes	In Progress	A
Grafton	Grafton Depot (Reliance Petroleum)	13 Orara Street	Yes	Yes	In progress	A
Grafton	Grafton Works Depot	26-28 Bruce St	Yes	Yes	In progress	A
Grafton	Mobil Depot	2-16 Bruce Street	Yes	Yes	Completed	E
Grafton	Shell Coles Express Service Station	91 Bent Street	Yes	Yes	Completed	E
Grafton	Woolworths Petrol	75 - 77 Fitzroy Street Cnr of Duke Street	yes	yes	In Progress	A
Grafton South	Caltex Service Station	Pacific Hwy Cnr Gwyder Hwy	Yes	Yes	In progress	B
Granville	7-Eleven Service Station	154-160 Parramatta Road	Yes	Yes	Completed	G
Granville	Australand	15-17 Berry St	Yes	Yes	Completed	F
Granville	Caltex Service Station	144 Parramatta Rd	Yes	Yes	In progress	B
Granville	Evans Deacon Ind	2B Factory St	No	No	Completed	C
Granville	Old Granville Depot	23 Elizabeth Street	yes	yes	Completed	G
Greenacre	Caltex Service Station	77 Roberts Rd	Yes	Yes	In progress	B
Greenacre	Former Plating Works	12 Claremont Street	No	No	Completed	G
Greenacre	Mobil Service Station	301-313 Hume Highway	Yes	Yes	In progress	A
Grenfell	Former SRA Fuel Depot	Grafton Street	Yes	Yes	Completed	G
Grenfell	Grenfell Gasworks	Corner Gooloogong Road & Bourks Street	No	No	Completed	G
Greta	Former landfill	112-114 High Street	Yes	Yes	Completed	G
Greta	Shell Coles Express Service Station	Hollingshed Road	No	No	Completed	G
Greta	Mobil Service Station	122 New England Highway	Yes	Yes	Completed	E
Greystanes	BP Service Station	73 Ettalong Road	Yes	Yes	In progress	B
Griffith	Caltex Service Station	81 Banna Avenue	Yes	Yes	In progress	A
Griffith	Caltex Service Station	2-4 Mackay Ave	Yes	Yes	In progress	B
Griffith	Caltex Service Station	32-34 Mackay Ave	Yes	Yes	In progress	B
Griffith	Landmark Fertiliser Storage	2 - 8 Jensen Road	Yes	Yes	In progress	A
Griffith	Mobil Depot	30 Banna Avenue	Yes	Yes	In progress	A
Griffith	Murrumbidgee Irrigation Depot	Griffith Airport	Yes	Yes	In progress	B
Griffith	Murrumbidgee Irrigation Depot	55-77 Banna Avenue	yes	yes	Completed	E G

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List current as of 2 October 2013

ORD02

Attachment 1

Notices Issued Under the Protection of the Environment Operations Act

Number	Name	Location	Type	Status	Issued date
1026058	A.C.N. 090 135 836 PTY LTD	MARALLAN PARK	s.91 Clean Up Notice	Issued	27-Mar-03
1026346	A.C.N. 090 135 836 PTY LTD	MARALLAN PARK	s.91 Clean Up Notice	Issued	4-Apr-03
1026512	A.C.N. 090 135 836 PTY LTD	MARALLAN PARK	s.91 Clean Up Notice	Issued	17-Apr-03
1027416	A.C.N. 090 135 836 PTY LTD	MARALLAN PARK	s.91 Clean Up Notice	Issued	19-May-03
1032269	A.C.N. 090 135 836 PTY LTD	MARALLAN PARK	s.91 Clean Up Notice	Issued	17-Nov-03
1037168	A.C.N. 090 135 836 PTY LTD	MARALLAN PARK	s.80 Surrender of a Licence	Issued	25-May-04
1024313	AGL UPSTREAM INVESTMENTS PTY LIMITED	RAY BEDDOE TREATMENT PLANT	s.58 Licence Variation	Issued	16-Jan-03
1063922	AGL UPSTREAM INVESTMENTS PTY LIMITED	RAY BEDDOE TREATMENT PLANT	s.58 Licence Variation	Issued	12-Sep-06
1078463	AGL UPSTREAM INVESTMENTS PTY LIMITED	RAY BEDDOE TREATMENT PLANT	s.58 Licence Variation	Issued	5-Dec-07
1088678	AGL UPSTREAM INVESTMENTS PTY LIMITED	RAY BEDDOE TREATMENT PLANT	s.58 Licence Variation	Issued	9-Sep-08
1103759	AGL UPSTREAM INVESTMENTS PTY LIMITED	RAY BEDDOE TREATMENT PLANT	s.80 Surrender of a Licence	Issued	3-Jul-09
1016336	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	27-Jun-02
1040220	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	22-Sep-04
1043879	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	20-Jan-05
1051526	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	5-Sep-05
1062983	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	28-Aug-06
1076143	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	19-Sep-07
1079902	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	15-Nov-07
1503297	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	23-Jan-12
1510257	BORAL BRICKS PTY LTD	BORAL BRICKS PTY LTD	s.58 Licence Variation	Issued	6-Feb-13
1050108	BORAL RESOURCES (NSW) PTY LTD	BORAL CONCRETE	s.58 Licence Variation	Issued	15-Aug-05
1021629	CAMDEN COUNCIL	WATERWAYS OF CAMDEN LOCAL GOVERNMENT AREA	s.58 Licence Variation	Issued	4-Nov-02
1504274	CAMDEN COUNCIL	WATERWAYS OF CAMDEN LOCAL GOVERNMENT AREA	s.58 Licence Variation	Issued	20-Feb-12
1400886	CONCRITE PTY LTD	CONCRITE PTY LTD	s.58 Licence Variation	Approved	6-Feb-01
1002885	CONCRITE PTY LTD	CONCRITE PTY LTD	s.58 Licence Variation	Issued	8-Feb-01
1128724	DART WEST DEVELOPMENTS PTY LIMITED	TURNER ROAD PRECINCT LANDS OWNED BY SEKISUI HOUSE AUSTRALIA HOLDINGS PTY LTD	s.80 Surrender of a Licence	Issued	1-Jun-11
1516849	Domenic Signorelli	95 Colonel Pye Drive	s.91 Clean Up Notice	Issued	4-Oct-13
1036726	EDL LFG (NSW) PTY LTD	JACKS GULLY WASTE MANAGEMENT CENTRE	s.58 Licence Variation	Issued	24-Jun-04
1061532	EDL LFG (NSW) PTY LTD	JACKS GULLY WASTE MANAGEMENT CENTRE	s.58 Licence Variation	Issued	13-Jul-06
1012065	GQ PRODUCTS PTY LIMITED	WHITE LODGE / SPRINGS ROAD	s.58 Licence Variation	Issued	25-Jul-02
1103167	GQ PRODUCTS PTY LIMITED	WHITE LODGE / SPRINGS ROAD	s.58 Licence Variation	Issued	30-Jun-09
1007405	HANDY CRETE (NSW) PTY LTD		s.58 Licence Variation	Issued	10-Aug-01
1033853	HANDY CRETE (NSW) PTY LTD		s.80 Surrender of a Licence	Issued	20-Jan-04
1035465	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.58 Licence Variation	Issued	19-Mar-04
1095376	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.58 Licence Variation	Issued	17-Feb-09
1099072	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.58 Licence Variation	Issued	31-Mar-09
1111306	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.91 Clean Up Notice	Issued	10-Feb-10
1111684	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.91 Clean Up Notice	Issued	9-Mar-10
1112249	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.110 Variation of Clean Up Notice	Issued	10-Mar-10
1112260	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.58 Licence Variation	Issued	21-Jun-10
1118231	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.58 Licence Variation	Issued	20-Aug-10
1121730	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.58 Licence Variation	Issued	11-Feb-11
1503776	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.96 Prevention Notice	Issued	9-Mar-12
1507951	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	s.110 Variation of Prevention Notice	Issued	17-Aug-12
11/09/2012 9:50	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	Penalty Notice	Withdrawn	11-Sep-12
13/09/2012 11:45	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	Penalty Notice	Withdrawn	13-Sep-12
18/12/2012 10:45	HI-QUALITY WASTE MANAGEMENT PTY LTD	HALLINANS PTY LTD	Penalty Notice	Issued	18-Dec-12
1504950	LTD	HALLINANS PTY LTD	s.79 Suspension of a Licence	Issued	10-Jan-13
1504687	J. P. HAINES PLUMBING PTY. LIMITED	Marylands	s.91 Clean Up Notice	Issued	27-Apr-12
1022049	KARYATES ENTERPRISE PTY LIMITED	KARYATES ENTERPRISE PTY LIMITED	s.58 Licence Variation	Issued	12-Nov-02
1089258	KARYATES ENTERPRISE PTY LIMITED	KARYATES ENTERPRISE PTY LIMITED	s.58 Licence Variation	Issued	24-Jun-08
1107081	KARYATES ENTERPRISE PTY LIMITED	KARYATES ENTERPRISE PTY LIMITED	s.58 Licence Variation	Issued	19-Oct-09
1504624	KARYATES ENTERPRISE PTY LIMITED	KARYATES ENTERPRISE PTY LIMITED	s.58 Licence Variation	Issued	29-Mar-12
1056334	KOALA PETROLEUM PTY LTD	KOALA DEPOT	s.58 Licence Variation	Issued	13-Apr-06
1072540	KOALA PETROLEUM PTY LTD	KOALA DEPOT	s.58 Licence Variation	Issued	29-Jun-07
1097581	KOALA PETROLEUM PTY LTD	KOALA DEPOT	s.58 Licence Variation	Issued	11-Feb-09
1110277	KOALA PETROLEUM PTY LTD	KOALA DEPOT	s.58 Licence Variation	Issued	26-Feb-10
1502883	KOALA PETROLEUM PTY LTD	KOALA DEPOT	s.58 Licence Variation	Issued	8-Dec-11
1126333	LANDCOM	Oran Park Town	s.58 Licence Variation	Issued	15-Apr-11
1129983	LANDCOM	ORAN PARK TOWN	s.80 Surrender of a Licence	Issued	30-Jun-11
1511201	LANDCOM	Oran Park Town	s.58 Licence Variation	Issued	19-Mar-13
1009896	M COLLINS & SONS HOLDINGS PTY LTD	M COLLINS & SONS (CONTRACTORS) PTY LTD	s.58 Licence Variation	Issued	4-Mar-02
1016200	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	10-Mar-03

1047682	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	12-Jul-05
1058707	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	18-Apr-06
1067861	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	20-Dec-06
1081325	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	7-Jan-08
1096062	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	19-Jan-09
1103855	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	28-Jul-09
1107936	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	20-Oct-09
1124885	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	5-Apr-11
1504257	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	20-Feb-12
1504711	M COLLINS & SONS HOLDINGS PTY LTD	M COLLINS & SONS (CONTRACTORS) PTY LTD	s.58 Licence Variation	Issued	6-Mar-12
1506975	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	8-Aug-12
1511248	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	13-Aug-13
1516264	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	20-Aug-13
1517225	M COLLINS & SONS HOLDINGS PTY LTD	SPRING FARM	s.58 Licence Variation	Issued	19-Sep-13
1012036	NEPEAN QUARRIES PTY LTD	LANIDCOM LAND	s.80 Surrender of a Licence	Issued	9-Jan-02
1057795	NEPEAN QUARRIES PTY LTD	NEPEAN QUARRIES PTY LTD	s.80 Surrender of a Licence	Issued	23-Mar-06
1509966	ROADS AND MARITIME SERVICES	Camden Valley Way Upgrade btw Cowpasture Rd & Cobolty Rd	s.58 Licence Variation	Issued	6-Nov-12
1516820	ROADS AND MARITIME SERVICES	Camden Valley Way Upgrade btw Cowpasture Rd & Cobolty Rd	s.58 Licence Variation	Issued	3-Sep-13
1015090	SADA SERVICES PTY LIMITED	GLENLEE COAL PREPARATION PLANT	s.58 Licence Variation	Issued	4-Jun-02
1084502	SADA SERVICES PTY LIMITED	GLENLEE COAL PREPARATION PLANT	s.58 Licence Variation	Issued	29-May-08
1109653	SADA SERVICES PTY LIMITED	GLENLEE COAL PREPARATION PLANT	s.58 Licence Variation	Issued	14-Jan-10
1123998	SADA SERVICES PTY LIMITED	GLENLEE COAL PREPARATION PLANT	s.58 Licence Variation	Issued	21-Jan-11
1126456	SADA SERVICES PTY LIMITED	GLENLEE COAL PREPARATION PLANT	s.58 Licence Variation	Issued	14-Jul-11
1018593	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	5-Nov-02
1023674	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	22-Jan-03
1025179	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	21-Feb-03
1026533	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	23-Jan-04
1036729	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	3-May-04
1041739	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	25-Oct-04
1048096	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	4-Oct-05
1064045	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	17-Aug-06
1069652	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	15-Mar-07
1067138	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	3-May-07
1073962	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	30-May-07
1084000	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	26-Mar-08
1087575	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	21-May-08
1090744	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	23-Sep-08
1093072	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	14-Nov-08
1095402	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	19-Dec-08
1104466	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	29-Jul-09
1109060	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	23-Dec-09
1113551	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	19-May-10
1113591	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	6-Jul-10
1117834	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	27-Jul-10
1118588	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	19-Aug-10
1118942	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	7-Sep-10
1119452	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	15-Sep-10
1119455	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	15-Sep-10
1120828	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	10-Nov-10
1122579	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	9-Dec-10
1126570	SITA AUSTRALIA PTY LTD	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	s.58 Licence Variation	Issued	4-Apr-11

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1126923	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	13-Jul-11
1501771	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	14-Oct-11
1507792	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	11-Sep-12
1512632	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	20-Mar-13
1516115	SITA AUSTRALIA PTY LTD	JACKS GULLY WASTE & RECYCLING CENTRE	s.58 Licence Variation	Issued	13-Sep-13
1005319	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	22-Oct-01
1017905	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	26-Jun-02
1018903	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	23-Dec-02
1028505	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	8-Jul-03
1032625	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	21-Nov-03
1032954	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	19-Mar-04
1047756	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	30-Jun-05
1061417	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	29-Jun-06
1074765	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	27-Jun-07
1076148	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	18-Jul-07
1077077	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	16-Aug-07
1092479	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	3-Nov-08
1096852	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	2-Mar-09
1116057	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	2-Jul-10
1129017	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	27-Jun-11
1504357	SYDNEY WATER CORPORATION	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	s.58 Licence Variation	Issued	28-Jun-12
1020469	T.J. & R.F. FORDHAM PTY LTD	TRN SOIL	s.80 Surrender of a Licence	Issued	16-Sep-02
1028105	VOLK HOLDINGS PTY LTD		s.91 Clean Up Notice	Issued	23-Jun-03
1033769	VOLK HOLDINGS PTY LTD		s.91 Clean Up Notice	Issued	9-Jan-04
1096898	VOLK HOLDINGS PTY LTD		s.58 Licence Variation	Issued	19-Jan-09
1101429	VOLK HOLDINGS PTY LTD		s.58 Licence Variation	Issued	1-Jul-09
1103296	VOLK HOLDINGS PTY LTD		s.91 Clean Up Notice	Issued	26-Aug-09
1107272	VOLK HOLDINGS PTY LTD		s.110 Variation of Clean Up Notice	Issued	22-Oct-09
1128831	VOLK HOLDINGS PTY LTD		s.91 Clean Up Notice	Issued	10-Jun-11
1500694	VOLK HOLDINGS PTY LTD		s.110 Variation of Clean Up Notice	Issued	28-Oct-11
21/06/2013 10:20	VOLK HOLDINGS PTY LTD		Penalty Notice	Issued	21-May-13

Licences Issued Under the Protection of the Environment Operations Act

Number	Name	Location	Type	Status	Issued date
11354	MARALLAN PARK	1037 THE NORTHERN ROAD, BRINGELLY, NSW 2171	POEO licence	Surrendered	28-Aug-01
11713	RAY BEDDOE TREATMENT PLANT	WESTBROOK ROAD , CAWDOR, NSW 2570	POEO licence	Surrendered	17-Sep-02
1808	BORAL BRICKS PTY LTD	LOT 2 GREENDALE ROAD, BRINGELLY, NSW 2171	POEO licence	Issued	10-Aug-00
1855	BORAL CONCRETE	GRAHAM HILL ROAD, NARELLAN, NSW 2567	POEO licence	No longer in force	30-May-00
5093	WATERWAYS OF CAMDEN LOCAL GOVERNMENT AREA	- , CAMDEN, NSW 2570	POEO licence	Issued	28-Aug-00
4076	CONCRITE PTY LTD	169 HARTLEY ROAD, SMEATON GRANGE, NSW 2567	POEO licence	No longer in force	17-Apr-00
13173	TURNER ROAD PRECINCT LANDS OWNED BY SEKISUI HOUSE AUSTRALIA HOLDINGS PTY LTD	IN THE VICINITY OF 668 CAMDEN VALLEY WAY, CATHERINE FIELD, NSW 2557	POEO licence	Surrendered	8-Sep-09
10021	JACKS GULLY WASTE MANAGEMENT CENTRE	Richardson Road, MOUNT ANNAN, NSW 2567	POEO licence	Issued	15-Oct-99
13025	NARELLAN FIELD SUPPORT CENTRE	17 & 19A McPHERSON ROAD, SMEATON GRANGE, NSW 2567	POEO licence	Issued	7-Jan-09
7630	WHITE LODGE / SPRINGS ROAD	RICHARDSON ROAD, NARELLAN, NSW 2567	POEO licence	Issued	29-Dec-00
3131		LOT 43 YORK ROAD, INGLEBURN, NSW 2565	POEO licence	Surrendered	3-Apr-00
11233	HALLINANS PTY LTD	761 The Northern Road, BRINGELLY, NSW 2171	POEO licence	Suspended	18-Oct-00
146	NARELLAN CONCRETE PLANT	9 GRAHAM HILL ROAD, NARELLAN, NSW 2567	POEO licence	No longer in force	22-Dec-99
3275	KARYATES ENTERPRISE PTY LIMITED	108 DEEPFIELDS ROAD, CATHERINE FIELD, NSW 2171	POEO licence	Issued	12-Jan-00
11914	KOALA DEPOT	166 INGLEBURN ROAD, LEPPINGTON, NSW 2171	POEO licence	Issued	15-Jul-03
13174	ORAN PARK TOWN	VARIOUS AREAS AT, ORAN PARK, NSW 2570	POEO licence	Surrendered	4-Sep-09
13303	Oran Park Town	The Northern Road, ORAN PARK, NSW 2570	POEO licence	Issued	15-Sep-10
2767	M COLLINS & SONS (CONTRACTORS) PTY LTD	CUT HILL ROAD, COBBITTY, NSW 2570	POEO licence	Issued	1-Aug-00
4093	SPRING FARM	214 MACARTHUR ROAD, SPRING FARM, NSW 2570	POEO licence	Issued	8-Jan-01
5071	LANDCOM LAND	RICHARDSON ROAD, ELDELSLIE, NSW 2570	POEO licence	Surrendered	9-Aug-00
11787	NEPEAN QUARRIES PTY LTD	149 MACARTHUR ROAD, ELDELSLIE, NSW 2570	POEO licence	Surrendered	15-Jan-03
20087	Camden Valley Way Upgrade btw Cowpasture Rd & Cobbitty Rd	27-31 Argyle Street , PARRAMATTA, NSW 2150	POEO licence	Issued	20-Jun-12
12672		8-10 Sedgwick Street, SMEATON GRANGE, NSW 2567	POEO licence	No longer in force	17-Aug-07
1596	GLENLEE COAL PREPARATION PLANT	1 GLENLEE ROAD, CNR SPRINGS AND RICHARDSON ROADS, NARELLAN, NSW 2567	POEO licence	Issued	7-Sep-00
5105	JACKS GULLY WASTE & RECYCLING CENTRE	275 RICHARDSON ROAD, SPRING FARM, NSW 2570	POEO licence	Issued	2-Jul-01
12588	ECOLIBRIUM MIXED WASTE AND ORGANICS FACILITY	Richardson Road, SPRING FARM, NSW 2570	POEO licence	Issued	10-Oct-06
20021	Spring Farm Materials Recycling Facility	275 Richardson Road, SPRING FARM, NSW 2570	POEO licence	Issued	30-Sep-11
1675	WEST CAMDEN SEWAGE TREATMENT SYSTEM including the STP at	CORNER OF SHEATHERS AND FERGUSON LANES, GRASMERE, NSW 2570	POEO licence	Issued	25-May-00
4169	TRN SOIL	ARGYLE STREET, CAMDEN, NSW 2570	POEO licence	Surrendered	5-Feb-01
1617	THE RUGBY LEAGUE COUNTRY CLUB LTD	810 CAMDEN VALLEY WAY, CATHERINE FIELD, NSW 2171	POEO licence	Issued	16-Jun-01
11539		765 - 769 The Northern Road, BRINGELLY, NSW 2171	POEO licence	Issued	18-Oct-01

ORD02

Attachment 1

Appendix G
WorkCover NSW Dangerous Goods
Search

**Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW**



WorkCover NSW
82-100 Davidson Street, St Helens, NSW 2252
Locked Bag 2000, Ureahra, NSW 2252
T 02 4321 5900 F 02 4325 4195
WorkCover Assistance Service 13 10 50
DX79 Sydney workcovernsw.gov.au

Our Ref: D13/124490
Your Ref: Colee Quayle

16 October 2013

Attention: Colee Quayle
Coffey Environments Pty Ltd
PO Box 1651
Wollongong, NSW 2500

Dear Ms-Quayle,

RE SITE: 10 Crase Pl Grasmere NSW

I refer to your site search request received by WorkCover NSW on 11 October 2013 requesting information on licences to keep dangerous goods for the above site.

A search of the Stored Chemical Information Database (SCID) and the microfiche records held by WorkCover NSW has not located any records pertaining to the above mentioned premises.

If you have any further queries please contact the Dangerous Goods Licensing Team on (02) 4321 5500.

Yours Sincerely


Brent Jones
Senior Licensing Officer
Dangerous Goods Team

REC-2013-039

Safety, Return to Work and Support Division

ORD02

Attachment 1

ORD02

Attachment 1

Appendix H Site Photographs

**Phase 1 Contamination Assessment and Salinity Assessment
Part Lot 24 DP1086823, 10 Crase Place,
Grasmere, NSW**

ORD02

Attachment 2



Odour impact of West Camden WRP, as modelled using AUSPLUME 6.0 (07/03/2011)

Odour Impact. (Source: Source: Sydney Water REF West Camden Water Recycling Plant, 2011)

Geographical Names Board of New South Wales naming proposal

Proposed name: Molloy Park
 Pronunciation if not obvious (use Macquarie Dictionary symbols): _____
 Local Government Area: Camden LGA
 Parish: _____ County: _____
 Latitude: _____ Longitude: _____ Lot DP or For: lot 2175 in DP1166232 &
 Area: _____ Suburb: Gregory Hills State Electorate: lot 2285 in DP1166234
 Other reference: _____

Description of feature, including location and extent
 (Please attach identification aids e.g. marked map, marked photograph): See attached Gregory Hills Masterplan

Reason for choice of name (if insufficient space, please attach details)
 If the name commemorates a person, biographical details must be supplied: Br William Molloy was appointed one of the first principles of St Gregory's college. This name pays respect to the Marist Brothers whom are the land owners of Gregory Hills and St Gregory's college.

Naming proposals approved by the Geographical Names Board will be advertised in local newspapers.
 Name of local newspaper(s): Camden-Narellan Advertised & Macarthur chronicle
 Applicant's name: Dart West Developments
 Address: PO Box 228 Narellan NSW 2567
 Telephone: 4648 5511 Facsimile: _____
 Contact person if not stated above: Jessica Tauby
 Signature: J. Tauby Date: 19/9/13 Your Reference: Molloy Park

Send this completed form with attached maps to:
 The Secretary
 Geographical Names Board
 PO Box 143
 Bathurst NSW 2795
 Ph: (02) 63 328 214
 Fax: (02) 63 328 217

Land and Property Information
 1 Prince Albert Road
 Queen's Square
 SYDNEY NSW 2000
 T 1 300 052 633
 01 2 0228 6056
 F 01 2 9233 4157



Disclaimer: This document has been prepared for marketing and contains general information only. Information is correct at time of printing and subject to change without notice.
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DART WEST

DEVELOPMENTS PTY LTD

18 McKenzie Boulevard
Gregory Hills NSW 2557
PO Box 228
Narrabri NSW 2567
Phone: (02) 4648 9511
Fax: (02) 4629 8925

2nd October 2012

Camden Council
PO Box 183
Camden NSW 2520



Attention: Angie Invasio

RE: Proposed lot 4168 in lot 997 DP1153635 Chestnut Reserve - Geographical Names Board Place Name Application

Dear Angie,

Please find attached completed application form in relation to the Geographical Names Board naming proposal. The proposal is for the naming of Chestnut Reserve, which is contained within stage 10A of Gregory Hills.

We have also enclosed in support of the abovementioned application the Gregory Hills concept Masterplan, prepared by DPS, dated 18th September 2012 which shows reference to the location of the proposed Chestnut Reserve. Further the proposed plan of subdivision is also enclosed, which is currently with Council for assessment under DA 860/2012.

Please, if you have any questions in relation to the submitted information do not hesitate to contact Jessica Elliott of this office.

Yours sincerely

David Taylor
General Manager - Property

Dart West Developments Pty Limited ABN 32 102 685 370

ORD03

Attachment 1

ORD03

Attachment 1

Geographical Names Board of New South Wales naming proposal

Proposed name: Wentworth Park

Pronunciation if not obvious (use Macquarie Dictionary symbols): _____

Local Government Area: Wentworth

Parish: _____ **County:** _____

Latitude: _____ **Longitude:** _____ **Letter of the** _____

Area: _____ **Suburb:** _____ **State postcode:** _____

Other reference: _____

Description of location, including location and extent: _____
 Please attach illustrations such as a marked map, aerial photographs _____

Reason for choice of name if not a local name - please attach details of the name's origin and any other geographical or historical context if applicable: _____

Names proposed by the Geographical Names Board will be advertised in local newspapers.

Name of local newspaper: _____

Applicant's name: _____

Address: _____

Telephone: _____ **Facsimile:** _____

Contact person (if not stated above): _____

Signature: _____ **Date:** _____

Send this completed form with a cheque payable to:
 The Secretary
 Geographical Names Board
 PO Box 744
 Belconnen ACT 2615
 Tel: 02 61 328 214
 Fax: 02 61 128 717



Geographical Names Board
 2 Macquarie Street
 Sydney NSW 2000
 T 02 9228 637
 F 02 9228 666
 T 02 9228 439

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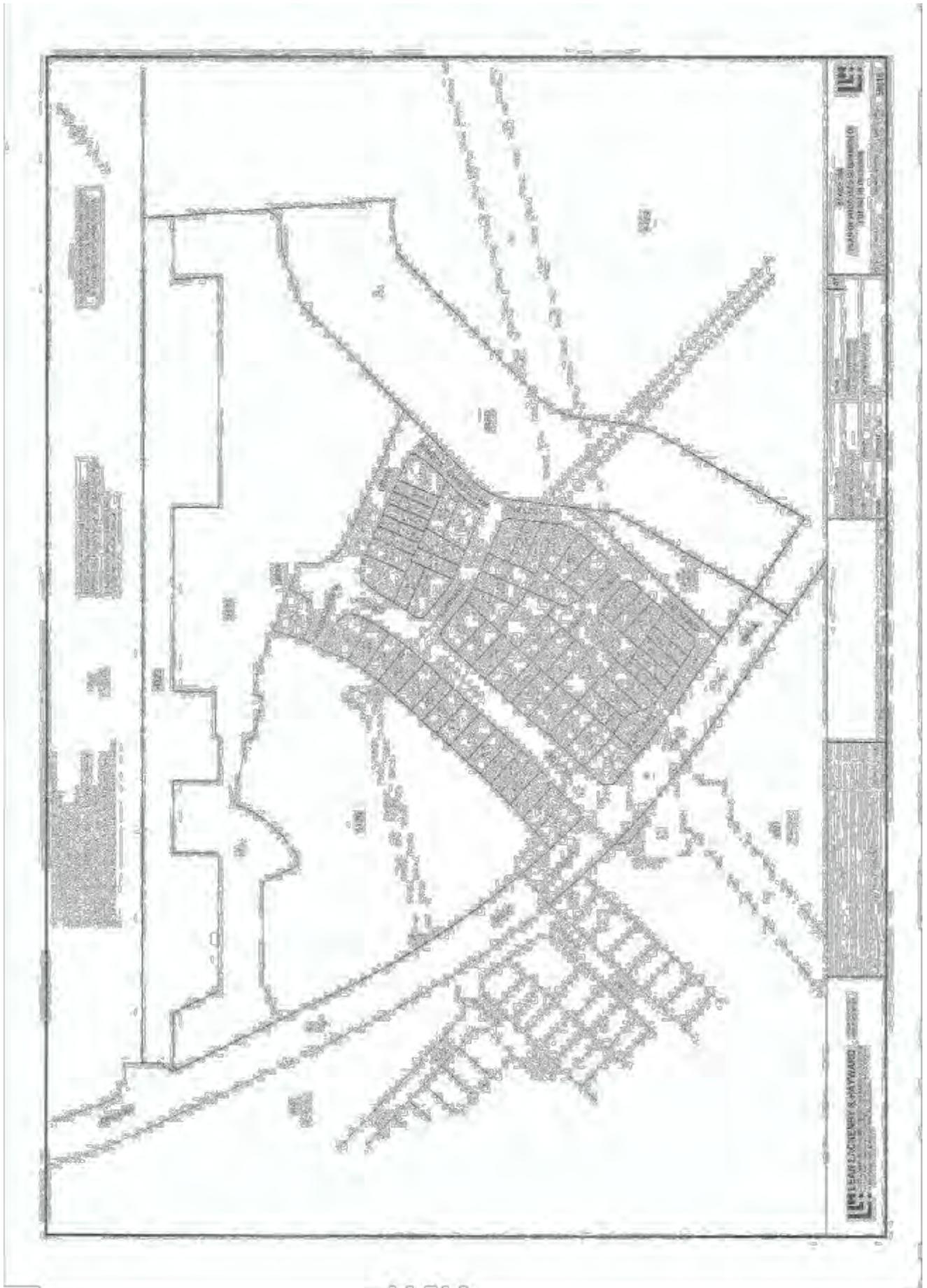


ORD03

Attachment 1

ORD03

Attachment 1



DART WEST
DEVELOPMENTS PTY LTD

16 McKendle Boulevard
Gregory Hills NSW 2567
PO Box 228
Narralan NSW 2567
Phone: (02) 4648 6511
Fax: (02) 4623 8925



2nd October 2012

Camden Council
PO Box 183
Camden NSW 2570

Attention: Angie Juvareba

RE: Proposed lot 4346 in lot 997 DP1153636 Currawong Park -- Geographical Names Board Place Name Application

Dear Angie,

Please find attached completed application form in relation to the Geographical Names Board naming proposal. The proposal is for the naming of Currawong Park, which is contained within stage 1DC of Gregory Hills.

We have also enclosed in support of the abovementioned application the Gregory Hills concept Masterplan, prepared by DPS, dated 18th September 2012 which shows reference to the location of the proposed Chestnut Reserve. Further the proposed plan of subdivision is also enclosed, which is currently with Council for assessment under DA 860/2012.

Please, if you have any questions in relation to the submitted information do not hesitate to contact Jessica Elliot of this office.

Yours sincerely,

David Taylor
General Manager - Property

Dart West Developments Pty Limited ABN 32 107 685 370

ORD03

Attachment 1

ORD03

Attachment 1

Geographical Names Board of New South Wales naming proposal

Proposed Name: Gregory Park

Pronunciation if not obvious (use Macquarie Dictionary symbols):

Local Government Area: Gregory Hills

Parish: _____ County: _____

Latitude: _____ Longitude: _____ IGA ID or PIN: _____

Area: _____ Suburb: _____ State District: _____

Other references: _____

Description of feature, including location and extent.
(Please attach identification maps if relevant maps are used photographs)

Reason for choice of name (if sufficient space, please attach details.
If the name commemorates a person, biographical details must be supplied)

Naming proposals approved by the Geographical Names Board will be advertised in local newspapers.

Name of local newspaper(s): _____

Applicant's name: _____

Address: _____

Telephone: _____ Facsimile: _____

Contact person (if indicated above): _____

Signature: _____ Date: _____ Your business: _____

Send this completed form with a check made to:
The Secretary
Geographical Names Board,
PO Box 1887
Hawkesbury NSW 2795
Ph: (02) 63 328 218
Fax: (02) 63 328 218

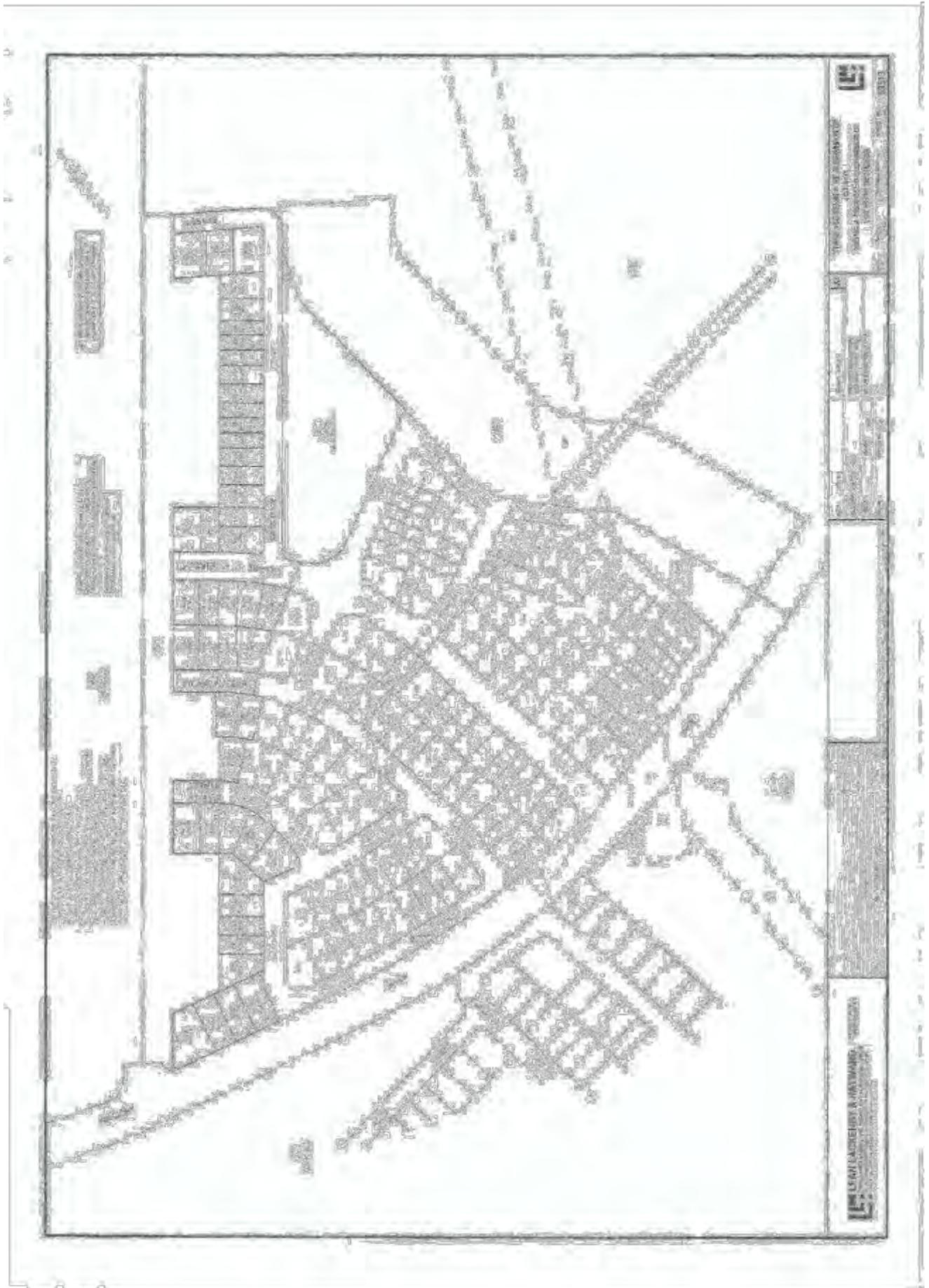
Postal Distribution Centre (PO) 1000
1 Rialto Albert Road
Circular Quay
SYDNEY NSW 2000
T: 61 61 922 6377
F: 61 61 922 6366
M: 61 2 9233 4332



Disclaimer: This document is to be used only for the purpose of providing information and support. Any information contained in this document and its use is provided without liability.

ORD03

Attachment 1





Monthly Report

Camden Council

March 2014

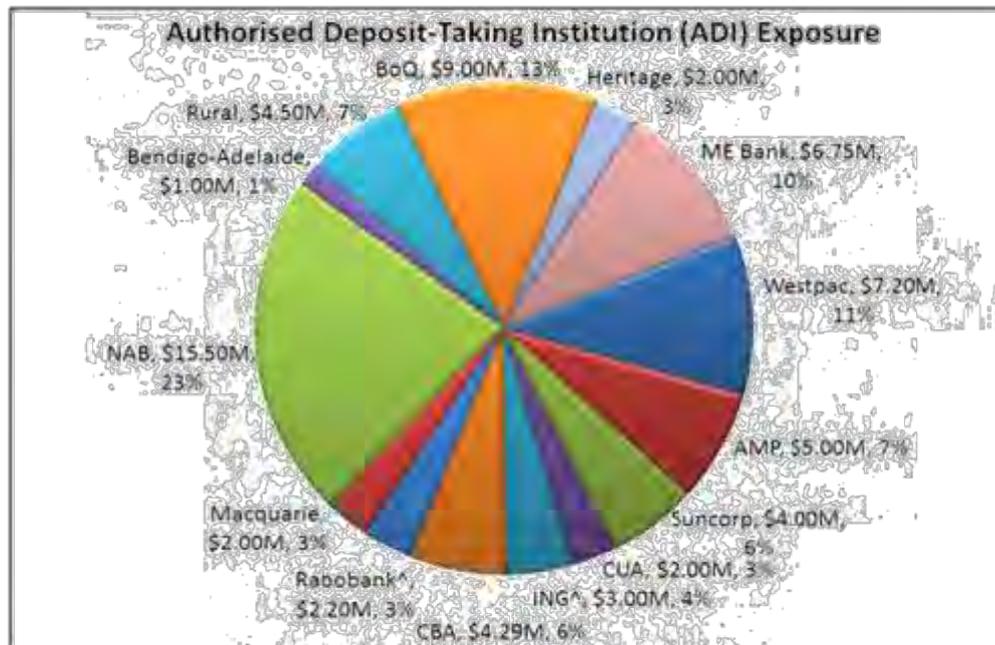
Investment Exposure

Council is at maximum capacity limits with ME Bank. Council will continue to diversify the investment portfolio across the investment credit spectrum.

ADI	Exposure \$M	Rating	Policy Limit	Actual	Capacity
Westpac	\$7.20M	A1+	25%	11%	\$9.91M
AMP	\$5.00M	A1	15%	7%	\$5.27M
Suncorp	\$4.00M	A1	15%	6%	\$6.27M
CUA	\$2.00M	A2	10%	3%	\$4.84M
ING [^]	\$3.00M	A1	5%	4%	\$0.42M
CBA	\$4.29M	A1+	25%	6%	\$12.82M
Rabobank [^]	\$2.20M	A1+	5%	3%	\$1.22M
Macquarie	\$2.00M	A1	15%	3%	\$8.27M
NAB	\$15.50M	A1+	25%	23%	\$1.61M
Bendigo-Adelaide	\$1.00M	A1	15%	1%	\$9.27M
Rural	\$4.50M	A1	15%	7%	\$5.77M
BoQ	\$9.00M	A1	15%	13%	\$1.27M
Heritage	\$2.00M	A2	10%	3%	\$4.84M
ME Bank	\$6.75M	A2	10%	10%	\$0.09M
Total	\$68.44M			100%	

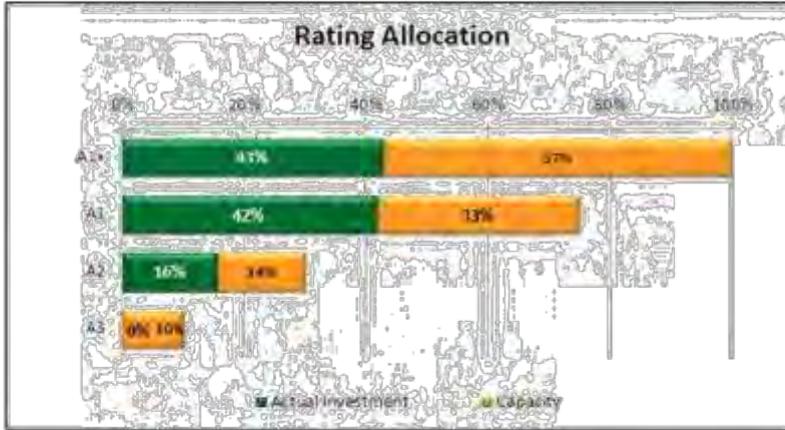
[^]Foreign subsidiary banks are limited to 5% of the total investment portfolio as per Council's investment policy.

Apart from investments with the regional ADIs, the investment portfolio is predominately directed to the higher rated entities with NAB and Westpac.



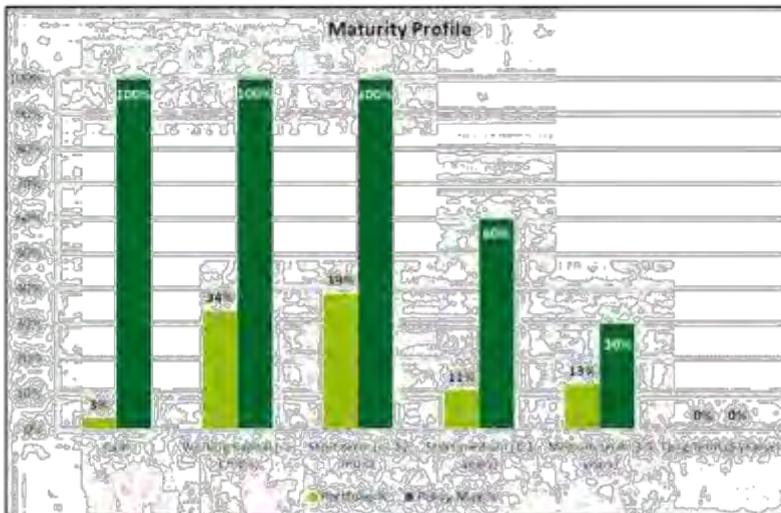
Credit Quality

A-1+ (the domestic majors) and A-1 (the high rated regionals) rated ADIs are the largest share of Council's investments. All of these comply with the Policy.



Term to Maturity

The portfolio remains highly liquid with 3% of investments at-call and a further 34% of assets maturing within 3 months. There is substantial capacity to invest in terms greater than 1 year. In consultation with its investment advisors, Council has strategically continued to lengthen its deposit portfolio to diversify across various maturities up to 5 years.



In the current low interest rate environment, as existing deposits mature, they will generally be reinvested at much lower rates than preceding years. A spread of maturities up to 5 years would help income pressures over current and future financial years.

2013-14 Budget

Current Budget Rate	3.75%
Source of Funds Invested	March
Section 94 Developer Contributions	\$29,372,800
Restricted Grant Income	\$1,646,700
Externally Restricted Reserves	\$7,369,500
Internally Restricted Reserves	\$22,079,000
General Fund	\$7,972,000
Total Funds Invested	\$68,440,000

Council's investment portfolio has increased by \$870,000 since the February reporting period. The increase in investment funds relates to operating revenues received for Council's operations and services, and Section 94 cash receipts received during the March Period.

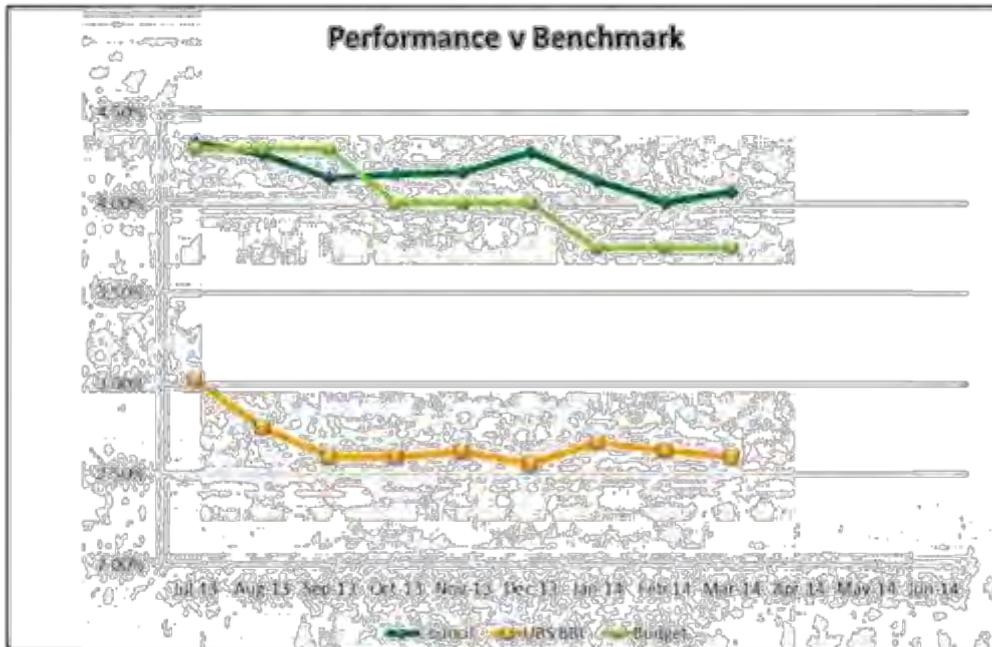
INTEREST RECEIVED DURING 2013/14 FINANCIAL YEAR				
	March	Cumulative	Projected Interest	Original Budget
General Fund	\$110,593	\$855,542	\$1,025,100	\$982,800
Restricted	\$127,465	\$1,077,068	\$1,293,100	\$751,800
Total	\$238,058	\$1,932,610	\$2,318,200	\$1,733,600

Interest Summary

The portfolio's interest summary as at 31 March 2014 is as follows:

NUMBER OF INVESTMENTS	59
AVERAGE DAYS TO MATURITY	365
AVERAGE PERCENTAGE	4.06% p.a.
WEIGHTED PORTFOLIO RETURN	4.06% p.a.
CBA CALL ACCOUNT*	2.70% p.a.
HIGHEST RATE	5.95% p.a.
LOWEST RATE	3.50% p.a.
BUDGET RATE	3.75% p.a.
AVERAGE BBSW (30 Day)	2.63% p.a.
AVERAGE BBSW (90 Day)	2.66% p.a.
AVERAGE BBSW (180 Day)	2.68% p.a.
UBS BANK BILL INDEX	2.60% p.a.

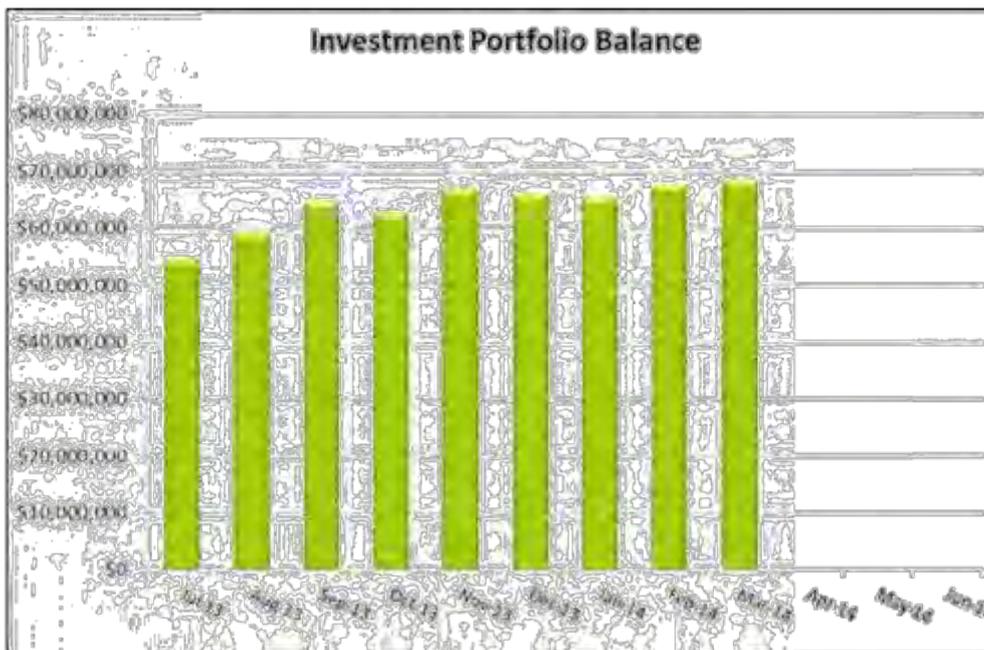
*Note: CBA call account is not included in the investment performance calculations



Outperformance over benchmark (UBS Bank Bill Index) continues to be attributed to the longer-dated deposits in the portfolio (particularly early investments placed above 4.5%). As existing deposits mature, performance will inevitably fall as deposits will be reinvested at much lower prevailing rates.

The revised budgeted return of 3.75% is likely to be achieved over the 2013/14 financial year with the adoption of a longer term strategy.

Camden Council Investment Portfolio as at 31 March 2014							
Investment	Type	Amount	Interest Rate	Date Invested	Maturity Date	Original Term of Investment (days)	Interest Accrued as at 31/03/2014
Barclays Cash	Cash	500,000.00	1.25%	30/01/2014	02/04/2014	62	1,750.00
NAB Cash	Cash	500,000.00	1.55%	30/01/2014	30/04/2014	90	3,000.00
Banque Paribas	Cash	50,000,000.00	1.30%	31/01/2014	30/07/2014	180	5,245,500
ANZ Cash	Cash	50,000,000.00	1.40%	27/01/2014	30/06/2014	160	5,014,50
ANZ Cash	Cash	50,000,000.00	1.25%	31/01/2014	31/06/2014	180	4,794,25
NAB Cash	Cash	500,000.00	1.25%	27/01/2014	20/06/2014	135	1,725
Barclays Cash	Cash	50,000,000.00	1.55%	23/02/2014	01/06/2014	100	5,000,000
Barclays Cash	Cash	50,000,000.00	1.55%	24/02/2014	01/06/2014	100	5,000,000
BOA Cash	Cash	50,000,000.00	1.61%	17/02/2014	27/02/2014	40	8,200,00
Agos Cash	Cash	50,000,000.00	1.50%	24/02/2014	29/05/2014	100	5,000,000
Agos Cash	Cash	50,000,000.00	1.50%	24/01/2014	30/01/2014	30	4,700,00
NAB Cash	Cash	50,000,000.00	1.25%	14/01/2014	13/06/2014	150	5,180,00
NAB Cash	Cash	5,000,000.00	1.25%	11/02/2014	10/06/2014	140	5,000,00
NAB Cash	Cash	5,000,000.00	1.40%	20/01/2014	17/05/2014	140	4,300,00
NAB Cash	Cash	5,000,000.00	1.25%	27/01/2014	24/05/2014	140	3,900,00
FTD Investments	FTD	56,150,000.00	4.00%				56,150,000
CDI Cash	Cash	12,000,000.00	1.70%				
		58,440,000.00					



Appendix B – Ratings Definitions

Standard & Poor's Ratings Description

Standard & Poor's (S&P) is a professional organisation that provides analytical services. An S&P rating is an opinion of the general credit worthiness of an obligor with respect to particular debt security or other financial obligation – based on relevant risk factors.

Credit ratings are based, in varying degrees, on the following considerations:

- Likelihood of payment
- Nature and provisions of the obligation
- Protection afforded by, and relative position of, the obligation in the event of bankruptcy, reorganisation or other laws affecting creditors' rights
- The issue rating definitions are expressed in terms of default risk.

S&P Short-Term Obligation Ratings are:

- **A-1:** This is the highest short-term category used by S&P. The obligor's capacity to meet its financial commitment on the obligation is strong. Within this category, certain obligations are designated with a plus sign (+). This indicates that the obligor's capacity to meet its financial commitment on these obligations is extremely strong.
- **A-2:** A short-term obligation rated A-2 is somewhat more susceptible to the adverse changes in circumstances and economic conditions than obligations in higher rating categories. However the obligor's capacity to meet its financial commitment on the obligation is satisfactory.
- **A-3:** A short-term obligation rated A-3 exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.

S&P Long-Term Obligations Ratings are:

- **AAA:** An obligation/obligor rated AAA has the highest rating assigned by S&P. The obligor's capacity to meet its financial commitment on the obligation is extremely strong.
- **AA:** An obligation/obligor rated AA differs from the highest rated obligations only in small degree. The obligor's capacity to meet its financial commitment on the obligations is very strong.
- **A:** An obligation/obligor rated A is somewhat more susceptible to the adverse effects of changes in circumstances and economic conditions than obligations/obligors in higher rated categories. However the obligor's capacity to meet its financial commitment on the obligation is strong.
- **BBB:** A short-term obligation rated BBB exhibits adequate protection parameters. However, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of the obligor to meet its financial commitment on the obligation.
- **Unrated:** Financial Institutions do not necessarily require a credit rating from the various ratings agencies such as Standard & Poor's and these institutions are classed as "Unrated". Most Credit Unions and Building societies fall into this category. These institutions nonetheless must adhere to the capital maintenance requirements of the Australian Prudential Regulatory Authority (APRA) in line with all authorised Deposit Taking Institutions (Banks, Building societies and Credit Unions).
- **Plus (+) or Minus(-):** The ratings from "AA" to "BBB" may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories

Fitch and Moody's have similar classifications.

Appendix C – Recently Invested ADIs

Rural Bank

Historically, the Bank was formed as Elders Rural Bank and received its banking licence in 2000. In August 2009, Elders Rural Bank Limited changed its name to Rural Bank Limited and, in December 2010, Rural Bank became a fully-owned subsidiary of the Bendigo and Adelaide Bank Group.

In December 2010, Bendigo and Adelaide Bank announced that it would increase its shareholding in Rural Bank from 60% to 100% for \$165m, or approximately 1.2 times book value. As such, Rural Bank takes on its parent's company's long-term credit rating of A- by S&P.

Over the years, the bank's business model has expanded, but its core business has not changed. They specialise in lending to the agricultural sector in rural and regional centres across the country. Rural Bank's products and services are now available at more than 400 locations nationally.

Financial Results

As at 30 June 2013, Rural Bank's Tier 1 Capital Ratio stood at 10.73% and its Total Capital Ratio at 12.13%, well above Basel III minimum capital requirements.

At a group level, Bendigo-Adelaide Bank Ltd announced a statutory profit after tax of \$352.3 million for the 12 months ending 30 June 2013, an 80.7% increase on the corresponding period. The cash earnings result is \$348.0 million for the 12 months ending 30 June 2013, a 7.7% increase on the prior corresponding period. Retail deposits were \$42.2 billion (June 2012 was \$40.7 billion), an increase of 3.9%.

Heritage Bank

In 1981 Toowoomba Permanent Building Society (est. 1875) and the Darling Downs Building Society (est. 1897) merged and became Heritage Building Society. In December 2011, Heritage Building Society officially changed its name to Heritage Bank.

Heritage Bank is Australia's largest mutual bank with \$8.5 billion in total assets. It is owned by customers, not shareholders. Heritage does not pay dividends so all profits are reinvested in the business. Heritage now has 61 branches in southern Queensland and 39 mini branch outlets. They offer a full suite of banking products, including savings and transaction accounts, term deposits, home loans, personal loans, business banking, credit and debit cards, retirement savings accounts, financial planning, insurance and foreign currency and travel finance products.

Financial Results

The operating profit of the Group for FY13 after income tax was \$37.052 million, an 18.5% increase compared to the previous year (FY12 was \$31.272 million). The Group reported a 3.5% increase in total consolidated assets to a total of \$8.507 billion for FY13 (up from \$8.221 billion in FY12).

As at 30 September 2013, Heritage Bank's Tier 1 Capital Ratio stood at 11.51% and its Total Capital Ratio at 13.26%, well above Basel III minimum capital requirements.

Rabobank Australia

With over 110 years of history, the Rabobank Group is a leading provider of financial services around the world and has a strong historical presence for the global food and agriculture industry. Headquartered in Utrecht, the Netherlands, Rabobank is a cooperative bank with over AUD\$926.4 billion in assets (€732 billion)¹, approximately 10 million clients, more than 59,000 employees, and a presence in 48 countries. Rabobank is one of the 30 largest financial institutions in the world based on Tier 1 Capital.

Rabobank established an office in Australia in 1990 and acquired the Primary Industry Bank of Australia (PIBA) operating in Australia and New Zealand in 1994. With headquarters in Sydney, Rabobank has 61 branches throughout Australia and 32 branches in New Zealand. As at December 2011, the Group employed more than 1,000 people in Australia and New Zealand, with more than half based in regional locations.

Financial Results

The latest Prudential Standards of Rabobank Australia Ltd as at 30 September 2013 is summarised as follows:

- Cash and liquid assets up to \$259.8m (Q3 2013) from \$124.9m (Q2 2013)
- Impaired loans down to \$292.6m (Q3 2013) from \$313.3m (Q2 2013)
- Tier one capital ratio of 10.28%, well in excess of Basel III regulatory requirements

¹ As a comparison, CBA has approximately AUD\$750 billion in total assets and 45,000 employees

ORD07

Attachment 1

oran park library + community resource hub.

strategic functional brief
STAGE 1 - ORAN PARK VPA WORKS



Record of Issue

- Draft Issue V1, 12 February 2014

Acknowledgements

Client

Camden Council
PO Box 193, Camden NSW 2570

Consulting Team

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Surry Hills, NSW 2010
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W brewsternorth.com.au

Arrow Consulting Engineering
PO Box 7140
Mount Annan, NSW 2567
T 02 4647 7325
E bd@arrowce.com.au

Sources

- Future Leaders workshop, 28 August 2013
- Visioning workshop, 28 August 2013
- Library and Community Resource Centre workshop, 30 August 2013
- ICT workshop, 12 September 2013
- Camden Council masterplan presentation, 17 September 2013
- Review workshop, 27 September 2013
- Councillors workshop, 15 October 2013
- Community Services Workshop Briefings, 29 October 2013
- Meeting with library and community services to review functional areas, 12 December 2013
- Meeting with IT team to review services and IT requirements, 12 December 2013
- Stakeholders reviews and feed back, 13-16 December 2013



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b introduction

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1.2 principles of library design

1.3 principles of community resource hub design

1.4 technology systems and processes

1.5 design principles

1.6 environmental sustainable design

1.7 services design brief

part 2 detailed needs

2.1 the facilities

2.2 schedule of areas

2.3 graphic functional brief

2.4 functional relationship diagrams

part 3 masterplan and design

3.1 masterplan concept

3.2 blocking and stacking

appendix A: room data sheets



a executive summary

Brewster Hjorth Architects (BHA) were engaged by Camden City Council (Council), to prepare a Strategic Functional Design Brief (Brief) for the Camden Council new Library and Community Hub to be located at Oran Park (the Project). The Brief has been prepared for the purpose of determining the functional requirements of the Library and Community Resource Hub. This document is intended to form Council's Brief to the Developers of Oran Park, who will deliver the facilities under the voluntary planning agreement Council has in place with the Developers.

1. The Vision

The development of the new Library/Community Hub project represents an opportunity for Council to:

- Contribute to a civic and cultural heart with buildings and facilities that reflect the community's identity and a Council commitment to delivery quality services together with a commitment to sustainability and the environment
- Contribute a civic centre for community development and information, education, passive recreation and Council business; a heart that compliments the retail and commercial development of the Oran Park City Centre
- Provide community facilities and meeting rooms that will support the Civic Facilities located in the adjacent Administration Centre.

The new Library/Community Hub will satisfy the new growing community need for a number of essential services in the new Oran Park city centre including:

- district library for the new community at Oran Park, as part of a series of Hub Libraries, located at strategic city centres.
- the new library will be a "community living room" where people of all ages, abilities and interests come for relaxation and entertainment, to experience history and culture, to play and create, to connect and communicate, to enhance lifestyles and broaden horizon
- sessional services: offices for community support
- community resource hub, to support art, culture, community activities and needs at Oran Park
- provide opportunities of linkages with the new Leisure/Youth/Sports Centre co-located on this site

Council proposes the location of the above facilities within the new Oran Park Civic Precinct:

Co-location of the facilities onto one site has benefits for Council, in terms of sharing and efficiency of resources, economies of scale and more coordinated service delivery.

Camden Council aims for the design of the new library and community resource hub to reflect design excellence, innovation, flexibility and sustainability principles while embodying the spirit and aspirations of the community.

Council's vision for a Library and Community Resource Hub is one that:

1. Creates a community lounge - "a third place" for the community
2. Is inviting both internally and externally.
3. Is a place that inspires creativity and is technology enabled.
4. Creates belonging and ownership for the community and Council staff.
5. Is welcoming, open and inclusive.
6. Is visually connected with and open to the surrounding town context.
7. Is accessible for the whole community.
8. Is safe for visitors, staff and users.
9. Enables collaboration and agility to change.
10. Innovation and sustainability.
11. Actively contributes to the amenity and vitality of the precinct in which they are located, acting as a destination, a generator of activity and a focus for the community.
12. Is designed to be flexible and adaptable over time to meet the changes and growing needs of the EGA.
13. Promotes Council's leadership role in the community.
14. Creates a community hub - "a place for the Community"
15. Demonstrates excellence in design, planning, development, management and construction.

2. The opportunities presented for the new library:

- Opportunity to provide modern services to the evolving community that can adapt and change easily over time.
- Welcoming and state-of-the-art facilities and a hub for the community within a new civic precinct.
- A place for innovations and leading edge design.
- Integrated facility for Camden Council staff, Library and Community Resource Hub.
- A vibrant centre for programming spaces for human social activities.
- An open, flexible, welcoming environment.
- A place that is supported by the latest technology for total flexibility.
- A library that still provides books for its community, but one that moves forward with new technological innovations, and electronically provides resources.
- A place that can be used by the community as casual drop in work space.
- A place owned by the community as an extension of their home: "The third place for the community".

3. The Opportunities Presented for the new Community Resource Hub

Create a place that complements and extends the library for the community to:

- Hold meetings.
- Carry out and attend classes.
- Participate in cultural activities and events.
- Provides multi functional spaces for performances, and creative arts.
- Presents opportunity for recording and dance space.
- Is connected to outdoor performance space.
- Reflects on "Oran Park" cultural context and history (rural and motor racing cognitions).
- Provides opportunity for gallery space that could be combined with Council's exhibition space.
- Provides flexible spaces for "artist of the month" programs.
- Is totally accessible for after hours use, independently of library hours.
- Forms a combined facility with the library (not a stand alone facility).

- Provides opportunities for hireable work space to the community, supported by mobile enabling technology.
- Provides an integrated cafe with library.
- A model that is similar to Blacktown Hub.

4. Council's Objectives

Council's objectives for the project are to:

- Comply with the Department of Local Government procurement guidelines, from initiation through to completion of the project
- Deliver the project(s) within allocated budgets
- Deliver the project(s) so that the operating costs of the facilities are efficient and sustainable

Upon completion, provide the following facilities as identified in this functional brief.

- Upon completion create a civic heart for Council and the community at Oran Park, co-locating Council civic and cultural facilities around a civic square integrating both indoor and outdoor spaces.
- Upon completion, create a city library in the centre of Oran Park capable of servicing the community
- Upon completion, have a series flexible multipurpose flat floor space capable of being sub-divided that can be utilised for a variety of functions suitable for community meetings and cultural activities, ceremonies, banquets, small conferences
- Buildings and facilities that have considered possible future links and sharing of services with the new Leisure Centre, programmed for the Civic Precinct.
- Upon completion, achieve reasonable sustainable design objectives that are identified and able to be met in the design process that target energy savings initiatives.

5. Key Components of the Project

Oran Park District Library

The new Library will become the third library within the network of Camden Council Hub Library and be located within the proposed new town centre of Oran Park.

It is intended that the library is seen as a "third space" concept and feel as if it "owned" by the community and forms the communities living room.

Community Resource Hub

The new facilities are to be developed as an integrated community resource centre, with the library, where the community centre offers complementary resources.

programming and activities. The Community Resource Hub will provide cultural facilities to cater for a very diverse range of users, activities and programs. Facilities may include social events, civic events, public meetings, education, leisure activities, fitness activities, performing arts, creative arts, children's activities, youth activities and senior's activities.

Access to community meeting and activity rooms will be open to the public on a bookable basis including during the evening seven (7) days a week.

The functional requirement is for a multi-purpose, administered facility comprising flexible, bookable small and large scale meeting rooms.

6. Project Quality

The external design of the buildings must be of a high architectural quality, having an attractive, enduring aesthetic appeal and displaying attention to detail.

The interior design must:

1. Create a vibrant, active library/community lounge space for all ages and groups.
2. Allow for maximum flexibility and multiple use of internal floor spaces.
3. Allow for security and after hours zoning of component facilities and sub-parts.
4. Maximise the use of natural light and minimise direct sunlight and glare into the internal work environment.
5. Maximise access to external views.
6. Minimise the vertical and horizontal path of travel between various parts of the building.
7. Maximise the use of passive energy saving techniques.
8. Minimise energy consumption and optimise running costs.
9. Incorporate new technologies during the life of the building.

7. Fitout Requirements

The spaces shall demonstrate a high quality of design, be welcoming and attractive. All finishes shall be durable and low maintenance.

The Design Team shall prepare an itemized list of all furniture, fittings and equipment (FF&E) for each functional area specific to its function and usage.

8. design principles

The Key Design Principles developed for the Library and Community Resource Hub are outlined as follows:

- * Be a gateway, locat and address with architectural consistency.
- * Create civic presence - place that has 'soul'
- * Create a community lounge - a "third place" for the community
- * Is innovative and high tech
- * Visually attractive and inspiring
- * Flexible, adaptable, multipurpose, functional and able to easily change over time
- * Integrated facility for Camden Council staff, library and the community
- * Represent a fun, vibrant and engaging place
- * Have an informal, casual feel, that reflects a community living space.
- * Provide a sense of place and form (along with the Administration Centre) the "soul" of the community at Oran Park
- * Be transparent and legible
- * Be part of the community hub and a place for the Community
- * be inviting internally and externally
- * Provide public open spaces and landscape that establish a memorable and activated town centre
- * Build on Council's sustainable aspirations to integrate appropriate sustainability principles to be developed and tested in the design process

9. desired appearance

The appearance of the Library and Community Resource Hub needs to reflect the design principles and aspirations set by Council as identified in the brief:

1. The exterior of the building needs to provide a modern expression and reflect the Civic and Cultural precinct, whilst reflecting the informal, vibrant community lounge.
2. A strong and welcoming entry needs to be created, that is light filled, transparent and fully accessible.
3. The centre needs to encourage active community access and provide links to the Administration Centre.
4. The library and community resource hub should be designed with high ceiling, voids, atriums and connections to external activity spaces and gardens.

5. The buildings should have large areas of clear glazing which encourages views to external public areas, roads and parks and allows interactions between users and the community visiting and accessing the civic precinct.
 6. The building should encourage activation of the public domain.
 7. A cafe with outdoor seating overlooking community gardens and external areas is desired.
 8. The design should provide a strong roof form, and articulated facade to create a distinctive and memorable civic presence.
 9. New construction needs to consider showcasing technology, as well as environmental initiatives that are able to be integrated in the design.
 10. The Civic Site needs to be provided with technology that allows for interactive displays for local events, environmental performance, or just educational material.
 11. Consideration needs to be given for the buildings and the public domain to integrate public art.
 12. Entrées, forecourt, community garden, cafe and market opportunity need to be considered in the design to create an active frontage to the streets, park and public plaza.
- Reducing ongoing maintenance and operational costs for the project.
- In addition, the development will create a space that attract the general public and provide a superior workplace environment for staff by creating,
- A high level of thermal comfort.
 - Maximising daylight ingress creating a naturally lit space.
 - Maximising ventilation rates to reduce the build up of indoor pollutants.

10. Civic Precinct Sustainability

The design will aim to create a sustainable environment, not only in terms of resource efficiency, safety, cost and flexibility, but more importantly in terms of human experience and well-being.

The key aspirations for the project include creating an iconic building to occupants and the community.

Council would like the design to achieve sustainability above the minimum standards. The project is to consider good sustainable practice in design that can be delivered within Council available project resources. The Library and Resource Hub aims to implement sustainability where proven to be cost effective and reduce the long term cost of operating and maintaining the building.

Consideration needs to be given to:

- Energy efficiency initiatives driving the design towards lower consumption for the Library and Resource Hub.
- Water efficiency initiatives that will minimise the requirement for potable water.
- Reducing the carbon footprint of the development through use of materials that have low embodied energy.

b introduction

1. Background

The State government in 2005 launched the Metropolitan Strategy for Sydney, which identified the provision of nearly 400,000 new dwellings in Western Sydney by 2031. Camden is expected to receive over 50,000 new dwellings, representing an increase in over 149,000 residents.

The Oran Park Precinct will be home to over 25,000 residents living in approximately 8,000 homes surrounding a modern Town Centre with 25,000-35,000 square metres of retail floor space.

The Oran Park Town Centre will also be the location for the Oran Park Civic Precinct which will include:

- A new Town Centre Parkland
- Camden Council Administration Building
- Oran Park Hub Library and Community Hub
- Oran Park Leisure/Sports/Youth Centre
- Associated parking

This strategic brief describes the Library and Community Hub. Council has carried out community consultation and briefing workshops to determine the future needs for the facility.

The co-location of the new Library and Community facilities in a single building will allow for the efficient delivery of the community services.

2. The Civic Precinct

The Oran Park Library / Community Hub will be the central building of the new Civic Precinct.

Its co-location with the Camden Council Administration Building and the Leisure/Youth Centre will provide a comprehensive range of Civic and Community facilities on a single site at the centre of the new town of Oran Park.

Each of the proposed buildings will face west to the new Civic Plaza and parkland and should be designed to address this central Civic Place.

The Library / Community Hub should open up to the Civic Plaza and be connected to the adjacent buildings by covered links.

Parking for the new centre will be provided on the eastern portion of the site in a multi-level carpark to be constructed at the same time as the Library / Community Hub.

This carpark will link in to the adjacent multi-level carparking for the Administration and Leisure Facilities. It will include a circulation and drop-off area to serve the whole civic precinct. Details of the Civic Precinct are outline in Part 3 - Masterplan and Design.

3. The New Library

The new Library will be designed as a Hub Library, of similar size as 2 other Hub Libraries in the Camden LGA. The Library will be of approximately 1,550m² over 2 levels and will provide a modern and connected library environment. The design principles of the Library are set out in Part 1 - Design of the Library and Community Resource Hub. The detailed briefing requirements of the new Hub Library are described in Part 2 - Detailed Needs.

4. The Community Resource Hub

The Oran Park Community Resource Hub will be of approximately 1,150m² and will include multipurpose meeting, community and exhibition spaces along with the dedicated meeting rooms for sessional community services.

It will integrate with the adjacent Library during the Library opening hours, and will have secure access during times when the Library is closed.

5. Town Centre Location

The Oran Park Town Centre will also be the location for the new Camden Council Administration Building and District Library & Resource Hub. The Library and Resource Hub building will be centrally located for Camden's growing population.

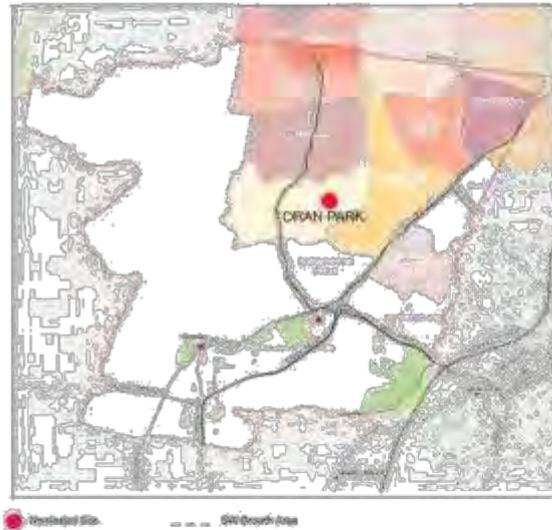


Figure 1: Location Plan (Map of South West Growth Centre)





Figure 2: Site Plan

6. The Site

Located within the Oran Park Town, the new Library and Resource Hub site is surrounded by The Town Park, Residential Areas and will have direct access to the commercial / retail centre and the Administration Centre on the site. As illustrated in the figure above, the site is located within the eastern portion of the Town Centre with street frontage to North South Street.

ORD07

Attachment 1



part one

design of the library and
community resource hub



1.1 the modern library and community resource hub

The modern library is the living room of the community. Co-location of the modern Library and Community Facilities creates a centre to community life that attracts and supports the widest range of the community.

The building that houses these facilities will form the strongest image of the civic life of Oran Park.

A centralised facility that provides a single address for the major community amenities will prove a major attraction to the community.

The new form of community facilities

Community facilities that support the modern community require the following:

- * centrally located with good access
- * Co-located with the Library and other Council services
- * are designed to be adaptable and flexible with good storage facilities
- * are able to be set up and knocked down for different hirers and users with a minimum of turnaround time.
- * are managed with efficient booking systems and high levels of maintenance and upkeep.
- * provide modern support spaces including kitchens that facilitate re-heat and service catering
- * include smaller scale rooms for related services including health, teaching, youth, social and business services
- * provide good quality audio and video infrastructure aimed at hirers and teaching uses
- * create attractive, modern and colourful spaces that are durable and low maintenance
- * are serviced to provide comfortable environments with high quality amenities

The new library

The Civic Library is the most public of all building types. Everyone in the community is invited to this building and everyone should have their needs catered for in some way.

The library becomes a connection and meeting point for the community.

The library provides:

- * places to study and work collaboratively
- * place for older people to gather and read
- * strong child friendly spaces for the children's collection and storytelling
- * youth focussed areas that create a space apart
- * pervasive technology that supports digital spaces from fixed computer points and users own devices
- * modern borrowing and book security systems like RFID that allow for high levels of self-checking in and out of borrowed material
- * staff that are freed from mundane tasks to be available to provide personal assistance to users to access information from any source
- * cafe and seating that bring life and vitality to the library environment
- * good connection to meeting rooms and spaces that facilitate events such as author talks, reading and exhibitions

1.2 principles of library design

1.2.1 Changing library paradigm

The modern library has become in recent years the "third place" for the community. It is no longer a repository or supermarket for books. It is much more. It has become an extension of the community living room, providing a vibrant place for the community:

- to lounge, socialize and interact
- to learn and be educated
- customer focused on needs such as youth drop in place and seniors living room
- it manifests as a series of rooms that combined create a sense of place for the community
- that is highly enabled by IT and technology making it possible to view and borrow digital media, including e-learning and collections via mobile devices
- becomes a place for Council services and information
- that is full of innovations, such as "Quick Fix" points, where the customer has quick access to latest picks and releases, and can readily access areas of interest
- that is rich in digital downloadable collections
- that is rich in IT training, educational material, and access
- is a place where you can meet friends and just "hang out"
- that provides a rich diversity of spaces for all interests and ages
- creates a vibrant hub of activity being at the forefront of knowledge and material for the community's needs.

The design of the library needs to reflect these changing paradigms and provide innovations to educate, assist, entertain and capture the community's imagination. It needs to be highly flexible and adaptable to the growing changes of the community.

The key changing paradigms for the future library of the 21st Century

Book centric moves to people centric

The traditional libraries have been places where lots of books are stored and limited space for people to use. The "people" centric paradigm presents the library with more space dedicated for people to sit, lounge, socialise and interact in, without being dominated by books.

Socialisation

This is the key factor in the new library design. The design needs to attract people in. It needs to be a fun, social place to be.

Individual Choice

The design of the library needs to provide multiple, flexible spaces for individuals choice, thus allowing a diversity of groups, programs and users to interact.

IT Centric

Innovations and IT dominates the library of the future. To engage it's new customers, the library needs to provide readily accessible and mobile technology, communicate with eBooks, and via new evolving social media.

The design of the library needs to reflect these changing paradigms and provide innovations to educate, assist, entertain and capture the community's imagination. It needs to be highly flexible and adaptable to the growing changes of the community.

1.2.2 Customer service model

The library should focus on providing a distributed customer service model around the library to providing library users service where required rather than form behind a centralized counter. The retail model using a central counter as an information point from which service moves to where customer can best be serviced is envisaged.

Roaming points envisaged for library staff to provide service and assistance, utilizing mobile tablet throughout the library and connecting directly with the customer.

1.2.3 Collection management system

The collection management will be handled through an RFID system which allows fully automated borrowing and returns sorting.

1.2.4 Model for managing borrowing and returns

Books and digital items will be borrowed through a series of self-checkout points located at entry points as well as around points scattered throughout the library. Similarly returns will be managed through RFID system and an automated sorting robot.

Increasingly digital collection borrowings will be managed through the library IT facilities allowing on line borrowing, as well as quick transfer of material to mobile technology.

1.2.5 Collection Organisation

The library's collection is structured along bookshop lines with the creation of sub-collections by genres or other special interest areas. This is facilitated by RFID book security which allows for easy searching for titles by tag location devices. The Non-fiction collection is generally shelved using the Dewey shelving system but can be divided up into genres or feature sections. Fiction books may be divided into genres which can be alphabetically shelved.

Children, young adult, family history and local history magazines and AV form important sub-collections.

1.2.6 Children's

The children's area needs to be designed for noisy activities, as well as good supervision by carers and parents. An external breakout area is to be provided for children activities, including craft and play. The design needs to cater for all ages and mobility, as well as parents and prams.

In modern library the children's area is identified with a strong identity fully integrated into the library. The spaces need to be provided with IT that can support the evolving changes and connectivity that the children have increasing access to. Oran Park is expected to have young families with young children needing creative, playful and inspiring spaces to come for a variety of activities, including story telling, art, craft and play.

1.2.7 Young Adult

The young adult areas of the library need to be designed with a strong youth identity, that is clearly different to the children's areas. It is to be designed as drop in youth space with soft lounges and chill out areas, without being dominated by collection. It is to have IT hubs and learning study areas, with digital connectivity for the young adults, increasing appetite for internet and everything that is digital, and allow them to connect through social media.

1.2.8 Digital Resources

Digital resources should not be separated out as a special area. Digital resources should be integrated into a range of library areas and functions to allow:

- * seamless movement of users from paper based to virtual resources
- * different types of usage patterns, including leisure and study
- * differentiate between users types and their usage
- * allow fixed and mobile usage.
- * allow spaces where users can use and plug in their own devices
- * access to wifi

As new digital resources are coming on line, some of these will have physical components but many will be virtually stored. An important function of the library will be to promote to its users these resources exist. Additionally in many cases the library will also need to provide facilities where librarian's can train users how to access and use these resources.

The digital resources need to be provided as a mix of fixed and mobile usage points through the library. It is to be designed to allow borrowing of laptops and tablets, and from mobile devices to be used anywhere in the library.

The library of the future will increasingly rely on ready at hand mobile technology. The Oran Park library needs to be designed and enabled for the increasing use of IT and be readily changeable and adaptable to new technologies.

ORD07

Attachment 1



changing paradigms
enabling technology



changing paradigms
social place

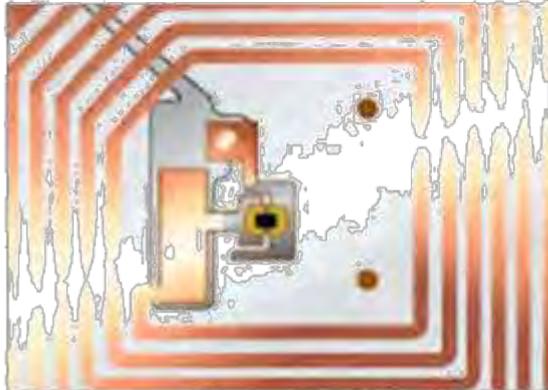


changing paradigms
youth learning and lounge

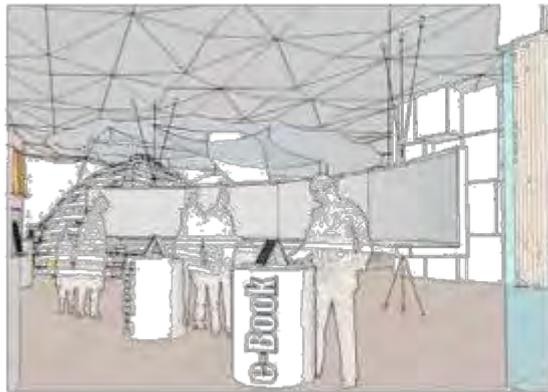
customer service model
central point + roaming points



collection management
RFID



digital resources



13 principles of community resource hub design

Through the process of workshops and stakeholders interviews carried out with council, a series of key design objectives were established for the design of the Resource Hub.

These design objectives are as follows:

1. Create a hub for mixed learning shared with the library.
2. Provide a suite of rooms for community meetings, activities, events and creative work.
3. Provide offices (hirable) for practitioners to provide a range of services to the community such as health, counselling and welfare.
4. Exhibition and performing space for cultural activities.

The vision for the resource hub is one that creates a light, bright, vibrant community space that is welcoming and accessible to the whole community.

The brief from the Council and stakeholders requires the Resource Hub to be flexible and adaptable to meet the changing needs of the community over time.

The Resource Hub will provide a series of spaces that allows the community to:

- Use the spaces for meetings, activities and events.
- Form a base for the delivery of local community services and programs.
- Is flexible in allowing particular services and programs that target specific groups, such as young people, older people etc.
- Provides spaces for the community to hire for private functions.
- Creates a hub for "Mixed Learning".
- Provides a series of activity rooms with different identity, ambience and flexible set up.
- Share resources and activities with the library to create one single community place.
- Provides specialist facilities with a particular focus on recreation, arts, cultural activity, learning or social support.
- Provide spaces for programs and services that assist individuals to achieve their potential including business and work program skills.
- Provide spaces for a range of community (and private) health and welfare practitioners to offer support and counselling to individuals and families.



1.4 technology

systems and processes

1.4.1 Introduction

In the briefing process with the council stakeholders, ICT (Information and Communication Technology) was identified as a key component in the design and development of the new Library and Community Resource Hub.

With the project located at Oran Park, it is anticipated that a faster, more consistent wireless network will be utilised, connection via the national broadband infrastructure that has been planned for Oran Park.

The library is required to be rich in digital downloadable collections, as well as rich in IT training, educational material and easy WiFi access.

Similarly, the Community Resource Hub needs to be equipped with latest (up to date) technology to enable the range of functions, activities and programs that will be planned in the centre.

The ICT for the project needed to be designed to be responsive and adaptable to change as the Camden LGA and Oran Park grows over time.

The technology system and processes will need to be designed for greater and levels of community connectivity and higher usage of mobile devices by the community and staff.

1.4.2 Key Initiatives

The brief provides high level direction on technology and processes. These will require development and endorsement with key stakeholders during the design process.

Key initiatives that will need to be developed in the design process include:

1. Provisions of converged data, voice and video network, which considers and allows connectivity to the administration centre. Central data services for the Library and Resource Hub will be coming through the new administration centre.
2. Provision of Wireless networking throughout the facility, that enables full mobility in the use of the centre and its services.
3. Provisions of audiovisual technologies that support interaction and programs within the centre.
4. Technologies that support coaching services within the library.
5. Technologies that support hiring of room and spaces for the range of programs, which will change over time as the community needs change.

1.4.3 Library and Community Resource Hub ICT + Technology

The library collection management will be handled through an RFID system which allows a fully automated borrowing and returns sorting.

Books and digital items will be borrowed through a series of self checkout point, located at entry points as well as around points scattered throughout the library.

Similarly returns will be managed through RFID system and an automated sorting room.

Increasingly digital collection borrowings will be managed through the library IT facilities allowing on line borrowing, as well as quick transfer of material to mobile technology.

Technology Requirements

Digital resources should not be separated out as a special area. Digital resources should be integrated into a range of library areas and functions to allow:

- seamless movement of users from paper based to virtual resources
- different types of usage patterns, including leisure and study
- differentiate between users types and their usage
- allow fixed and mobile usage
- allow spaces where users can use and plug in their own devices.
- access to wifi.

As new digital resources are coming on line, some of these will have physical components but many will be virtually stored. An important function of the library will be to promote to its users these resources exist. Additionally in many cases the library will also need to provide facilities where librarians can train users how to access and use these resources.

The digital resources need to be provided as a mix of fixed and mobile usage points through the library. It is to be designed to allow borrowing of laptops and tablets, and from mobile devices to be used anywhere in the library.

The library of the future will increasingly rely on ready at hand mobile technology. The Oran Park library needs to be designed and enabled for the increasing use of IT and be readily changeable and adaptable to new technologies.

The various activity rooms and offices within the Resource Hub are required to be equipped with conference and audiovisual technologies. The details of these are outlined in the room data sheet for each space at Appendix A, and in Section 1.7 Services Brief.

Similarly the library detailed technology requirements are outlined in the room data sheets at Appendix A and in Section 1.7, Services Brief.

1.5 design principles

1.5.1 Architectural Expression

The design of the new library and community hub should reflect the following design principles:

1. The design must express its importance and openness to the community as a whole.
2. It must form the centre of the Civic Precinct and actively address the civic plaza.
3. It must connect to and consider the design of the adjacent administration / civic building and the leisure / youth centre.
4. The building should have a strong visual identity that can be recognised from the adjacent parkland and commercial / retail centre. It should be memorable.
5. It should be a 'third place' for the community that is welcoming, comfortable and inviting.
6. It should be an appealing, attractive and high quality building that contributes to Civic Pride and the character and identity of the place.
7. The design should be youthful and forward looking to reflect the new community.
8. It should be created from flexible and adaptable spaces that support the changing life of the community in to the future.

1.5.2 Urban Design Principles Civic Precinct

The design of the Library / Community Resource Hub must be based on the Urban Design of the Civic Precinct

Masterplan Concept

The design should address the requirements of the masterplan design for the civic precinct as set out in section 3.1 Masterplan Concept.

Setting

The Library / Community Resource Hub will be a free standing building at the centre of the Civic Precinct and should actively engage with the civic plaza on all of its external facades:

1. The design should provide prominent entries to a combined entry foyer that serves both the library and community resource hub functions.
2. The use of the civic plaza as break out areas from the community halls and the library speciality areas should be considered and adopted where appropriate.
3. The cafe proposed for the foyer area should provide for seating areas internally and externally.
4. Covered links to the adjacent administration and future leisure / sports / youth centre should be considered in the design of the new building.
5. External and entry areas should be designed to facilitate waiting and meeting for visitors or those who use the building as a civic landmark.
6. The new building will be designed over 2 levels and the facade to the civic plaza should be open and transparent to enable the life inside the building to be visible from the public domain.



1.6 environmentally sustainable design

1.6.1 Environmental Performance

Camden Council has a commitment to promote environmental excellence in buildings, parks and streetscapes.

The brief requires the Design Team to explore a range of environmental design initiatives available and establish their feasibility for the new Library, Community Resource Hub, as well as their potential integration within the Civic Precinct and the future facilities of the Administration Centre, Leisure Centre and the Youth Centre.

The Design Team is required to prepare a sustainability plan in consultation with Council and Council Stakeholder to establish feasible sustainability drivers to be considered, costed, tested and where possible integrate these in the project and larger Civic Precinct.

Key Sustainability Principles to be Considered:

1. Consider developing a long term plan to reduce Carbon Emissions.
2. Minimise impact on ecology and biodiversity through low impact design, construction and operational methods.
3. Improve health and wellbeing through the provisions of optimised thermal comfort, daylight and glare control, non toxic materials, fresh air and acoustic privacy.
4. Promote sustainability through education and information to reduce consumption & waste, improve local awareness & preservation of local environment.
5. Reduce cost for headworks, infrastructure, material and labour.
6. Reduce costs for maintenance, energy, sewerage, water & waste.
7. Facilitate the speed of construction and use of local skills through modular construction and rationalised design.
8. Consider site wide strategies and potential integration into the greater precinct to achieve economies of scale.
9. Provide metering and control systems to optimise operational performance.
10. Support localised manufacturing in construction, maintenance and operation.
11. Account for the total carbon intensity of construction and maintenance (i.e. carbon tax impact).

12. Increase usability by creating multiple uses for spaces throughout the year (assisted by collocation of space and shared uses).
13. Supply a portion of annual energy consumption through on-site and/or off-site renewable energy generation.
14. Reduce carbon emissions associated with vehicular transport by incorporating infrastructure for low-carbon transport (bike, electric cars).
15. Reduce stormwater impact by controlling flows and treating suspended solids, gross pollutants, nitrogen and phosphorus.
16. Minimise waste to landfill during construction.
17. Reduce life cycle carbon emissions by identifying embodied and operational emission reduction strategies.
18. Minimise waste to landfill during operation.
19. Minimise carbon emissions associated with electricity and gas consumption.
20. Minimise demand for mains potable water through efficiency and reuse.

The brief requires the Design Team to look at:

1. Minimise energy consumption – through high efficiency building envelope.
2. Energy-efficient energy production.
3. Maximise on-site renewable energy production – solar, thermal, photovoltaic.
4. Improve occupant awareness – by providing building user guides.
- 5.





1.7 services design brief

prepared by Arrow Consulting Engineers

Services design requirements for the Oran Park Library and Community Hub are outlined here. For each major service area, there is a description of Design Criteria required in the developed design of the facility. There is also a description of the general systems that should be considered for each service.

1.7.1 Mechanical Services

Introduction

The purpose of this report is to provide information on the suitable Heating Ventilation and Cooling (HVAC) technologies available for the Camden Council Central Library Building that fit within the expectations of Camden Council. This includes appropriate indoor amenity for a large office type building, with energy and water consumption in line with (increasing) community standards, whilst maintaining reasonable capital and ongoing cost.

The Mechanical Services for this project for this project will include the following:

- Air Conditioning
- Ventilation Systems
- Triple exhaust systems

Item	Design Criteria
Cooling Capacity	<ul style="list-style-type: none"> • Cooling Capacity to be based on the Design conditions: • Occupancy - 2m²/person for assembly areas, 7m²/person for administration type areas up to 10m²/person for storage and collection areas. Determine on a zone by zone basis. • 15 W/m² Lighting allowance to be as required for base building lighting. • Equipment allowance 30 W/m². • Ability to supply cooling & outside air for 35% of space at 10 m²/person. • Additional capacity of supplementary systems of 55W/m².
Design Conditions	<ul style="list-style-type: none"> • Cooling Calculations to be based on the following: • Ambient: 35oC DB, 23oC WB (summer), 7oC DB (winter) • Internal: 22.5oC DB +/- 1.5oC • 50% +/- 10% Relative Humidity should be monitored and controlled where collections are deemed to be high value or at risk of damage. Higher precision control and seasonal adjustment in setpoint may be considered. • External plant selections sized to 40%.

Item	Design Criteria
Refrigeration Plant	<ul style="list-style-type: none"> • Refrigeration plant to consist of: • Chillers with an efficiency not less than 0.17 kW/kW • 1 low load reciprocating chiller with an efficiency not less than 0.22 kW/kW • A multistage Low energy cooling tower selected on a 24°C wet bulb ambient. OR Air cooled chillers, pending life cycle cost analysis.
Air Handling System	<ul style="list-style-type: none"> • Multizone constant volume system with zone dehumidification and humidifier for collection areas. Reheat may potentially be provided from waste condenser heat. VAV system may be implemented in office and administration. Natural ventilation of areas of non-critical collection. Outside air enthalpy recovery ventilators to provide pre-conditioned air to air handlers.
Heating	<ul style="list-style-type: none"> • Gas Fired Low Temperature Heating Water (LTHW) to be provided at air handlers for building warm up.
Fresh Air Intakes	<ul style="list-style-type: none"> • Fresh Air intakes to be located in position not affected by pollution.
Air Filtration	<ul style="list-style-type: none"> • Filters to meet the following performance to AS 1324.3 at installed face velocity to a final resistance of 125 Pa: • No.1 Dust Test - 20% minimum efficiency. • No.4 Dust Test - 85% minimum efficiency.
Economy cycle	<ul style="list-style-type: none"> • Economy Cycle not required, unless appropriate study shows outside air to have favorable moisture content for an economical number of hours.
After hours Air-Conditioning operation	<ul style="list-style-type: none"> • Plant to be available for operation 24 hours per day, 365 days per year. Zone of after hours operation to be discussed and determined during design phase.
Condenser Water System	<ul style="list-style-type: none"> • To be determined at concept design stage.
Minor Exhaust	<ul style="list-style-type: none"> • To be determined at concept design stage.
Toilet Exhaust	<ul style="list-style-type: none"> • Toilet Ventilation to code requirements.
Main communications Room	<ul style="list-style-type: none"> • DRAC units to provide - no humidity control, Top discharge, Hot aisle/cold aisle configuration, N+1 redundancy, 24/7 cooling.
Floor Communications Rooms	<ul style="list-style-type: none"> • N+1 redundancy • 24/7 cooling • No humidity control.



Air conditioning

The air conditioning system will provide cooling and heating to the building.

Human perception for comfort is quite individual, and there are a host of behavioral (opening windows, fans, clothing) physiological adaptations (acclimatisation) and psychological adjustments (expectations) that are available to respond to indoor comfort. There is evidence that an adaptive thermal comfort model is as suitable to achieving comfort while reducing energy consumption. Essentially this is a moving target for space temperature that depends on outdoor conditions, an example of which may be seen in the figure right. This could be a consideration to discuss with the designer.



A considerable range of different systems have been developed, with significantly different costs and spatial requirements. Given that the appropriate level of indoor amenity is provided for, the selection of the final system design is typically a function of:

- Capital cost
- Economic life of the plant
- Ongoing running and maintenance cost (Energy efficiency)

For a project of this nature, the following systems are typically chosen as having the best combination of these characteristics.

Chilled Water System

A Chilled water system incorporates a Chiller, responsible for refrigerating low temperature cooling water which is then pumped in a loop around the building. Cooling water may be used by:

- A central air handling unit (AHU) usually located within a plant room
- Smaller individual Fan Coil Units (FCUs) which are discretely located around the building.

The chiller also needs a form of heat rejection, typically air-cooled or water-cooled. Hybrid systems provide a combination of both.

- Air cooled chillers have large fans that essentially discharge warm air into the atmosphere.
- They need to be located in an open well ventilated space.
- A water cooled chiller will generally have an associated cooling tower, which takes the waste heat from the chiller in a separate water loop, and cools it through evaporation.
- This secondary cooling water loop may also be piped underground in a geothermal heat exchanger, where the heat exchange is provided by the soil at consistent underground temperature.

In a chilled water system a low temperature heating water (LTHW) boiler is provided for heating.

Variable Refrigerant Volume/Flow (VRF/VRV) Systems

VRF systems use refrigerant as their primary coolant, which is pumped around a loop to various types of FCUs located within the space. There are limitations to the length of the pipelines in the system.

VRF systems come as a proprietary system by a single manufacturer (e.g. Daikin, Mitsubishi, Fujitsu) but may be monitored and controlled by a Building Management System (BMS). A VRF system may also be used for heat recovery, in which refrigerant heat transfer is made between a zone with cooling requirement and a zone with heating requirement. This is a particularly efficient solution, as the waste heat from one area is transferred directly to another, and little energy is being consumed.



ORD07

Attachment 1

Air Conditioning System Comparison

The following table gives a qualitative comparison between the most viable air conditioning solutions for this project. An economic analysis or total cost of ownership (TCO) should be undertaken to determine the most suitable system. Staging of the works will impact the design as more staff come on-line over the course of the next 30-40 years.

	EFFICIENT	MODERATE	LEAST EFFICIENT
	Variable Refrigerant Flow (VRF/VRV) system	Chilled/Heating Water - air cooled	Chilled/Heating Water - water cooled
Capital Cost	Lower than a chilled/heating water air cooled system.	Moderate compared to the other systems. More modular than a water cooled system. Redundancy may be supplied from a smaller unit.	Most expensive. Cooling tower and loop add expense. Redundancy must also be considered. (i.e two or three chillers may be required)
Operating Cost	Can be as economical as a chilled water air cooled system	Can be lower than a VRF multi-split depending on configuration	Lowest operating cost (although water evaporation loss may account for nearly near half the building annual water consumption)
Economic Life	10 to 15 years	15 to 20 years	15 to 25 – chiller 10 to 25 – cooling tower
Plant Footprint:	Highest in comparison to the other two in terms of kW cooling/heating per m2. Must be installed externally, although units are modular and serve particular areas, the whole plant does not need to be located in one area.	Moderate in terms of kW cooling/heating per m2. Must be installed externally, typically all associated plant will be located nearby, with the exception of indoor units.	Lowest in terms of kW cooling/heating per m2. Chiller may be installed in a plant room. Cooling tower located externally.
Installation/Buildability	System is modular. Limitations on length of refrigerant pipework	The chiller and air-cooled condenser come as a package. Extra components such as boiler, pumps (CHW and LTHW) and pipework installation required	Chiller and Cooling tower available as separate. Extra components such as boiler, pumps (CHW, LTHW and condenser cooling water), and pipework installation required
Controls	OEM only however, they can be controlled from a master control panel and local controls in each room	Open source and can be controlled via a master control panel and local control in each room	

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(21334-4.02/0212 V.1)



Outdoor Plant Maintenance	As the condensers are consolidated into one or more units, maintenance is relatively simple. Higher scheduled maintenance due to no. of compressors. Refrigerant pipework rather than water adds complexity.	There are more plant items than a VRF system, although systems are generally relatively simple to maintain. The refrigerant system is refined to the chiller unit.	As for air cooled. Maintenance and Hygiene safety (Legionella) must be considered, although typically low use and low wear parts increase maintainability.
Indoor Plant maintenance	Smaller units must be maintained individually thus could be expensive.	Potential to have Larger AHUs to serve open office areas with smaller units for meeting areas.	
Future Expansion	Possible, However, equipment must be from the OEM. Individual systems may be installed as areas come on line, provided plant space is allowed for.	Flexible in terms of equipment type (e.g. indoor units) and source. Components may be added to the system, provided chilled water pipework is initially sized for expansion.	

Other Notes	<ul style="list-style-type: none"> • Design must take into account the possibility of refrigerant leaks into the occupied space. • VRF systems can provide cooling and heating to each room independently and provide energy savings • The system can be controlled via a master control panel, with clock-timer function and local control override. • The pipe run is limited to approximately 75 to 150 m (depending on brand) in overall length and up to 50 m in height. 	<ul style="list-style-type: none"> • The system is controlled from a desktop computer (standalone) with room temperature controlled from either within the room via a control panel or from the desktop computer.
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future works consideration - Implications for Air Conditioning

A chilled water system usually comprises of a number of chillers, depending on the function and the amount of redundancy required. A typical arrangement might be a smaller chiller for low loads, a larger chiller that runs when more cooling is required through summer, and a spare chiller for a duty standby arrangement. Essentially two or three chillers will be required per system. Chilled water may also be piped considerable distances with little energy loss.

We understand that the precinct will comprise over time the Administration Building, a Library and a Leisure Centre. This may be an opportunity to provide infrastructure capable of integrating with the other developments to take advantage of the different load profiles and energy requirements of the three buildings to reduce the overall plant that is required and also reduce the operating costs by operating at a higher efficiency. This is to be investigated as part of the design stage of the project.



Mechanical Services Benchmark Manufacturers

The following benchmark manufacturers are applicable for this project:

- Chillers: York, Trane, AHI-Carrier, Summit/Matsu, PowerPax, McQuay
- AHUs (packaged): AHI-Carrier, Flakt-woods
- AHUs (built): Fan-coil Industries, Temperzone, Trane/Daikin, Flakt-Woods, Johnson Controls
- Cooling Towers: BAC, EVAPCO, AquaCool
- Packaged water cooled FCUs: Temperzone, McQuay
- Chilled water FCUs: Fan-coil Industries, AHI-Carrier, Temperzone, Trane/Daikin
- CRAC Units: Stutz, Emerson, APC, Rittal
- Controls: Honeywell, Daust, Schneider-electric
- Energy recovery ventilators: Airchange, Munters
- VAV/VRV units: Mitsubishi Electric, Daikin, Toshiba
- Fans: Fantech, Flakt Woods, Systemair, Ebmpapst
- Pumps: KSB, Ajax, Wilo, Grundfos
- Grilles/Diffusers: Holyoke, Krentz, Trox, Bradfo

Ventilation

Natural and mixed mode (combination of natural and mechanical) ventilation can significantly reduce energy consumption of the mechanical plant, and can often be a low cost option to improve the indoor amenity. A standard rate of outside air is required by the National Construction Code (NCC) to prevent a build up of contaminants within the space. A significant proportion of mechanical cooling (or heating) and therefore energy consumption is due to the conditioning of the outside air. Various strategies may be implemented to reduce energy consumption.

Ventilation strategy may include:

- CO₂ monitoring, which is now commonplace, allows levels of outside air to be reduced when conditions are favorable.

Roof mounted passive ventilators

These can be either wind or solar fan driven.

This system can deliver fresh outside air to the space with or without fan assistance. The system can be controlled using motorized dampers and monitoring the CO₂ levels in the space. Generally the ventilators are mounted on the roof directly above the space, hence it is not possible to ventilate multiple levels in this fashion.



Building Management System

The Building Management System (BMS) is an important but often overlooked component of building operation and energy consumption.

The system shall be identical to the one installed in the Administration Building and shall be connected to the Head End in the Administration Building.

The system to be of proven manufacture with a substantial history in Australia and comprehensive service back-up in Sydney.

The BMS function is to Control, Monitor, Optimize and Report on the building facilities, including:

1. Lighting control.
2. Electric power control.
3. Heating, Ventilation and Air-conditioning.
4. Security and observation.
5. Access control.
6. Fire systems.
7. Lifts.
8. Hydraulic systems.

Item	Design Criteria
Operator Terminal	Provide a terminal for the operator and full training for operator's representatives. Key security and fire alarms shall also be monitored from this terminal. Access to be available for remote dial in. Provide all software and licenses.
Mechanical Services Control	Mechanical Services control and monitoring to be fully integrated into the BMS.
Electrical and Hydraulic services control	BMS to provide all time control functions, including lighting control to house lighting.
Electrical and Hydraulic services monitoring	Monitor all alarms. Monitor energy usage to major building elements. - Air Conditioning, Lifts, House lighting and power, Tenant Power.
Security interface	Interface BMS and Security to permit selected alarms to be shared between systems.

Item	Design Criteria
Fire Interface	Provide interface to monitor fire alarms on BMS.
Tenant after hours control	Provide out of hour AC Control via security card in each floor layer. System to run for 2 hours (adjustable) after use of card. Accounts to include details of individual users who have made such requests.
Trend Logging	Provide comprehensive trend logging facilities.
Lighting control	Each distribution board shall be provided with digital outputs for fayer, toilets, 50 % lighting, 100% lighting, and three spares for future use (7 total min). Provide timed switches for local override on each floor.
System Capability	System to be capable of purging i.e. artificial memory/intelligence to establish temperatures from previous year etc.
Code Compliance	Comply with all relevant codes, standards and regulations.
Interconnectivity	Investigate the feasibility of interconnecting the BMS for the Library to the BMS in the adjacent Administration Building. The interconnectivity would include controls and alarms to maximise the plant efficiency and flexibility of both buildings, while minimising the operating costs.
Computer Room	Environmental Monitoring System.

1.7.2 Electrical Services

Introduction

The purpose of this report is to provide information on the electrical design for the Camden Council Central Library Building that fit within the expectations of Camden Council.

Electrical Design Guidelines

Item	Applicable Standards	Design Criteria
Supply conditions	AS/NZS 3000	415V/240V, 50 Hz.
Supply Capacity		Lighting: 10 VA/m ² Power: 45 VA/m ² Air Conditioning: 50 VA/m ² .
Building Main Switchboards	AS/NZS 3000	To cater for the proposed building loads. Form 36th – metal separations. IP42. Surge Protection. Allow for a minimum of four spare circuit breakers for future use on the Main Switchboard post the completion of design. Each three phase pole must be rated at a minimum of 200A. 25% spare spaces for additions. Busbars sized to substation rating.
Reticalation design	AS/NZS 3008, AS/NZS 3000	Sub-mains cabling voltage drop shall not exceed 3.0% of the nominal supply voltage. Final sub-circuit voltage drop shall not exceed 2.0% of the nominal supply voltage.
Harmonics		To less than 4% (THD).
Distribution boards	AS/NZS 3439	Miniature circuit breakers in compliance with base building design. Surge Protection. All switchgear to be rated to withstand the prospective fault level at the switchboard. Fault protection via cascading technology or fault current limiters will not be utilised. Switchboards to cater for circuit capacity and emergency power strategy. Dedicated switchboards for communications rooms. 25% spare capacity after fitout is complete.
Sub-mains cabling	AS/NZS 3008, AS/NZS 3000	Capacity maximum demand + 25% spare. Fire equipment will be provided with fire-rated cabling. Full size neutrals for all sub-mains cabling. Separate dedicated submains for high peak loads that exceed the floor power capacity such as kitchens and communications rooms.
Final sub-circuits	AS/NZS 3008, AS/NZS 3000	Power 2.5mm ² minimum. Lighting 2.5mm ² minimum. Maximum 90% utilisation of AS/NZS 3000, 2000. Initial spare outlet capacity of 25% on each section of the switchboards.

Item	Applicable Standards	Design Criteria
Circuiting	AS/NZS 3008 AS/NZS 3000	Separate circuits for: Work points Audio-visual equipment Security Equipment Mechanical equipment Cleaners outlets CWU/BWU Kitchen and tea point equipment Auto blinds Kitchen equipment Meeting room power Vending Machines
Lighting	AS/NZS 1690	As per code as minimum. Consider: Illumination level Glare Uniformity Lamp efficiency Colour rendering Aesthetic and architectural empathy Computational reflectivity: Ceilings 70% Walls 50% Floors 10% Maintenance factor – as per AS/NZS 1690.4 (based on 1.5 year re-lamping cycle) Actual reflectivity calculations must consider the floor, wall and ceiling finishes and colour and adopt accordingly to achieve the nominated light levels.
External lighting	AS 1158.3.1	Class R110
Stand by power Generator	AS/NZS 3000	Provision for future connection to the MSB.
Emergency lighting systems	AS/NZS 2293	As per code as minimum. Centrally Computer monitored with automatic maintenance testing
Hearing Augmentation	AS 69118.4 AS 1428.1 AS 1428.5 NCC	Provide in all areas which have sound amplification installed
Lighting Protection	AS 1768	Provide as detailed under AS 1768.

Building Power Supply

It is anticipated that a new substation will supply the Library building; however, the practicality of this needs to be fully investigated.

A detailed maximum demand study is to be undertaken as part of the detailed design, as will the application to the Supply Authority. Liaise with the Level 3 designer and Architect to determine the optimum location and arrangement of this infrastructure.

Power

Main Switchboards shall be provided, located in dedicated 2-hour fire-rated rooms.

Submains shall be provided to distribution boards, mechanical services, switchboards, lift switchboards, and control panels.

Provide power to all areas of the buildings, including but not limited to offices, workstations, reception, meeting rooms, circulation spaces, communications rooms and plant rooms.

Sub-circuit cables will be concealed in ceiling spaces, within fixed partitions where applicable, and routed in open cable tray in areas. Cabling supported from other services or on ceilings will not be accepted.

Workstations are to use a soft-wiring system with the starter socket mounted below the raised floor tiles.

Floor boxes shall be Cat 6 compliant.

Cables to tables shall run through cable grommets and fix directly to a table support and then across to outlets mounted in the table.

In addition to power as required by each individual space including but not limited to:

- Cleaner's power outlets spaced at a maximum of 20m and not in client corridors.
- Supplementary air-conditioning units.
- Audio-Visual equipment
- Power for ancillary controls and monitoring equipment
- Vending machines.
- Automated blinds.
- Signage.

Cable Containment

Supply and install cable containment in the ceiling voids for security, communications and power systems.

Cable containment as follows:

- Communications and Security – 150mm Cable earthed steel basket.
- Power Cabling for in-ceiling services – Ladder tray for submains; catenary wire for subcircuits.
- Perimeter 2-channel slitting duct (200 x 50 cross-section).

Coordinate with all in-ceiling services. Supply points are from the dedicated tenant risers and switchboards and the floor communications rooms/tracks/frames.

Electrical Benchmark Manufacturers:

The following benchmark manufacturers are applicable for this project:

- | | |
|------------------------|--------------------|
| • Circuit Breakers: | Merlin Gerin / NHP |
| • Accessories | Clipsal, HPM |
| • Tray | Burndy |
| • Floorboxes | Elsafe, Moduline |
| • Fils | Ago |
| • Slitting Duct | Moduline, Skintec |
| • Lightning Protection | Eriac |

House Metering

Provide check metering in accordance with the requirements of the NCC to distribution boards and submains to mechanical, hydraulic and lift services. Connect the meters in the library buildings to a central reporting and monitoring system in the Administration Building. Ensure system compatibility between buildings.

EMI Protection

Provide EMI shielding where occupied spaces are located adjacent to high current cabling and equipment.

Lighting

New lighting shall be provided throughout the building in accordance with AS1880 and NCC Section J6 requirements.

Required lighting levels will be achieved by performing calculations using lighting modelling software. Use only long life lamps and high efficiency fittings (T8 fluorescent and LED) from reputable manufacturers.

Specialist lighting shall be provided in select areas. Refer to the room data sheets for additional information.

The quality of natural and artificial light is of key importance. It is appreciated that this includes a bright and open feeling of space, equality of light for all on the floor, minimizing energy demand and maximising daylight.

External carpark lighting shall be provided by pole mounted LED fittings. Fittings shall be complete with internal surge protection.

LED lamps are to be sourced from a supplier with binning system within a 2 step MacAdam ellipse to ensure colour consistency.

Low brightness (low r) fittings shall be used in the work spaces of the Library Building.

Feature lighting design shall be undertaken by a recognised lighting design professional, accredited with the IALD.

Lighting Benchmark Manufacturers

The following benchmark manufacturers are applicable for this project:

Internal

- Eagle Lighting (fluorescent TS, low brightness, downlights), Zumtobel, JSB Lighting, iGuzzini.

External

- Beggs, We-ef, iGuzzini, Lumascope.

Lighting Controls

Lighting switching zones in the office areas are to be limited to areas of 200m² or less.

Perimeter daylight harvesting is to be provided to automatically dim the luminaires output when the minimum required lighting levels are achieved through daylight.

Offices and enclosed rooms to be controlled utilising dual technology (movement and microphonic) sensors.

Open office areas to be controlled via dual technology (movement and microphonic) sensors.

Conference rooms and meeting rooms shall be controlled via a combination of dual technology (movement and microphonic) sensors and local dimming to allow the lights to be turned down for presentation purposes when the room is occupied.

Lighting in conference rooms and meeting rooms to be Dali dimmable.

Emergency and Exit Lighting

Emergency and exit lighting will be implemented throughout the new building. The installation shall comply with AS 2293 and NCC part E4 and incorporate LED and cold cathode lamp technology.

Exit and Emergency Lighting Benchmark Manufacturers

The following benchmark manufacturers are applicable for this project:

- Clevertorics.
- Stanlite.

1.7.3 Communication Services

Introduction

The communications cabling system is to provide the Council with the data and telephony connectivity and bandwidth required for the intended use of the Library building.

An integrated voice and data Cat 6a cabling system shall be provided. The communications infrastructure shall comprise the following elements:

- Incoming Telco cabling.
- Main Equipment Room/Main Computer Room (MER/MGR).
- Fibre optic and Cat 6a backbone cabling.
- Voice grade cabling to lifts and fire panel.
- Provision for the installation of a fibre backbone link to the Library Building.
- Floor Computer Room (FCR).
- Horizontal Cabling (Cat 6a).
- Patch cables and flyleads.
- Backs, cabinets and PU45 patch panels. Patch racks shall be equal to Panduit angled rack type. Server racks shall be equal to Panduit.

Communications Design Guidelines

The following design standards shall be considered:

- Telecommunication Industry Association standard 942 (TIA 942)
- ANSI/TIA/EIA/J-STD-607, commercial building grounding (earthing) and Bonding Requirements for Telecommunications (ANSI-H-STD-607-A;2002).

- Australian Wiring rules fifth edition 2007 (AS/NZS 3000:2007 including Amendment no. 1).

- CH&S Standard AS4801: 2001

Functional Design Guidelines Structured Cabling Guidelines

- Floor Computer Rooms (FCR) to be strategically located to cable zone with horizontal cable runs less than 75m.
- Secure metal cable duct or draw wire from building communications room to the MCR room for incoming telecommunication
- Cat6a horizontal cabling specification
- Dual Cat 6a outlet per workstation
- Dual Cat 6a outlets to printers and the like
- One Cat 6a outlet per seat in meeting rooms, plus for presenter location, AV rack, projectors, directory boards and television screens (where applicable)
- Cat 6a outlets to Building Management System and Security system
- Voice grade backbone cabling to lifts.
- Fire rated horizontal cabling to FIR
- Patch and flyleads to be provided: One patch lead per outlet and one flylead per phone and meeting room outlet
- Backbone cabling will be from MCR to each FCR. Fibre to be installed on cable tray in dedicated vertical risers in diverse paths. Backbone cabling shall be a combination of multi-mode fibre, single-mode fibre and Cat6a UTP cable.
- Backbone cabling cannot pass through publicly accessible areas.
- Cable provision in the riser to be supported on tray work and all service links to floors to be made in such a way that any appropriate bend radius and fire rating is compliant.
- Coordinate the integration of floor penetrations.

Wireless Technology/High Level Distribution

- The wireless technology will require data only and located throughout
- A comprehensive requirement for high level in-ceiling void LAN cabling will be required

Benchmark Manufacturers:

The following benchmark manufacturers are applicable for this project:

- AMP
- Molex

- Panduit
- Krone
- Belden
- Avaya

1.7.4 MATV

A MATV system is to be provided to meet the requirements of the Council.

The system shall include the following main elements:

- Antennae
- Mast head amplifier
- Channelised feed end amplifiers
- Modulators
- Backbone cables
- Taps and splitters
- Brand cables
- Outlets: Outlets shall be provided in meeting and conference rooms, council chambers and to the staff break out areas

Any received signal, from an unpaired source, at any point within the system, no worse than grade 4 on the 5 point scale for television reception impairment (CCIR Recommendation 500-1 Kyoto 1978 Vol X):

- 5 - Imperceptible impairments.
- 4 - Perceptible (not annoying) impairments.
- 3 - Slightly annoying impairments.
- 2 - Annoying impairments.
- 1 - Very annoying impairments.

1.7.5 Security Services

The Security Services are to provide access control, intruder detection and recording of images to meet the Council's security requirements.

The system shall be identical to that installed in the Administration Building.

The details of these systems are to be determined in consultation with the Council and the Architect.

Access Control and Intruder Detection (ACID)

The Access Control and Intruder Detection will be provided to the following

- All building entrances and exit
- Between public and staff areas
- Lifts

- Duress Alarms in strategic positions
- Plant room
- All computer rooms

The head end shall be PC based and shall form the main user/machine interface.

The ACID system shall be integrated with the CCTV system and the Administration Building ACID system and CCTV system.

The system shall incorporate the following main elements:

- Connection to the Headend, located in Main Computer Room in the Administration Building
- An Alarm monitor in the Library building
- Door contacts and reed switches
- Movement detection devices
- Keypads
- Proximity type card readers suitable for smartcard interface
- Access cards (one per staff member plus 20% spare)
- Photo ID printer and camera
- Alarm printer
- Electric locks, strikes and door release devices including shear locks
- Break glass sensors
- Vehicle control systems
- Duress alarm switches
- Assistance call buttons
- Auto dialer
- Off site alarm monitoring

CCTV

The building shall incorporate CCTV surveillance, utilising digital IP cameras connected to the structured communications cabling system.

The system shall be identical to that installed in the Administration Building.

External cameras shall be connected in fibre optic cables to limit the damage from lightning strikes.

30 days of data storage of the CCTV images shall be provided.

The system shall be interfaced to the ACID system and shall incorporate image buffering technology.

- Camera housings and mounting brackets
- Cameras

AV

- Monitors
- Lenses
- Power Supplies and Cabinets
- Switches and image storage

CCTV coverage shall be provided to the following areas:

- All doors with access control
- Public spaces
- Public meeting rooms
- External plaza areas
- Lifts
- Carpark

Data from the cameras shall be stored on a hard drive located within the Main Communications Room, in a uniquely locked rack.

Audio Visual

The building shall incorporate the following Audio Visual services:

- A multi zoned paging system
- Meeting Room Booking system
- Projectors, projection screens, speakers, amplifiers, DVD players and associated cabling to meeting rooms
- Room control systems (e.g. iPad controllers)
- LED screens to meeting rooms
- Touch screen monitors to the public foyer
- All cabling and connectors
- Hearing augmentation
- Feedback suppression

The installation of cables shall be carried out in such a manner that the performance of any Audio Visual Systems equipment shall not be impaired by noise induced by cabling or by earth loops.

Benchmark Manufacturers

The following benchmark manufacturers are applicable for this project

- Extron
- Panasonic

- * BiAmp
- * Tannoy
- * NEC
- * AMX
- * Crestron

1.7.6 Lift Services

The purpose of this report is to provide information on the lift design for the Library that fits within the expectations of Camden Council.

The lift installation shall be fully compliant with the AS 1735 suite of standards as applicable.

Lift Design Guidelines

Item	Design Criteria
Maximum waiting time	< 95 seconds
Handling Capacity	> 14%
Floor Levelling	+/- 5mm
Acoustics (within travelling lift car):	< 55 dBA
Design occupancy rate	one person per 12m ² NLA
Disabled access:	Fully disabled compliant to AS 1735 part 12
Reliability	Superior Reliability / Low Maintenance
Door protection	Infra-Red Door Protection Systems
Car finishes	High Quality Car Internal Finishes. VDS to be provided.
Lift car size	Lift car capacity to be minimum twenty one (21) persons.
Goods Lift	One (1) Goods shall be provided
Type	Machine-room-less
Lift car lighting	LED
Security	Compliant with access-card readers and CCTV cameras

Benchmark Manufacturers

The following benchmark manufacturers are applicable for this project:

- * Kone
- * Schindler
- * ThyssenKrupp
- * Otis

1.7.7 Fire Services Introduction

The fire services are to meet the loss prevention and health and safety requirements of Council, to protect life and to maintain the fire protection systems that comply with the buildings fire engineering and fire safety strategy.

The fire protection systems are to be designed and installed in accordance with all relevant Australian Standards, authorities' requirements, and any Fire Engineering report and as part of a precinct-wide solution.

FIP must interface with all new security, mechanical, gas, AV, BMS, smoke curtains and doors and all other systems requiring fire signals for their operation.

Fire Functional Design Guidelines Hydrants and Hose Reels

Install new hydrants and hose reels as required by the development to comply with AS 2419 and AS 2441. Provide a booster assembly meeting the requirements of FRNSW, Sydney Water and AS 2419. Install the hydrants externally and internally within fire isolated egress stairs. Hose reels to be in a cupboard that is within a location that is compliant to NCC and AS 2441.

Do not install the hydrants and hose reels in or directly adjacent to the electrical rooms. All proposed base building pipework must be routed outside these spaces.

Use 65mm hydrant valves with Storz fittings and plastic cap and chains along with 36m hose reels as required by the either fire engineering solution, FRNSW or Australian Standards.

Smoke Detection and MASD

Smoke detection shall be designed to comply with AS 1670 and 1668.1 as required.

MASD (VESDA) to be installed in the Main Computer Room. It shall trigger a fire alarm in conjunction with smoke alarms dedicated to the Main Computer Room (2 types).

Smoke detectors may be omitted from all kitchens and pantries and other areas where there is a risk of spurious alarms.

Smoke detectors to match ceiling finishes where applicable. Finishes to be applied by the manufacturer.

Early Warning

All rooms with partitions that reduce the noise level of the warning speakers outside the space to non-compliant levels (less than 10 dBA above ambient noise) must have additional warning speakers installed above perforated or exposed ceilings and within plasterboard ceilings.

Ensure sound intelligibility requirements are compliant and approved by FRNSW and seek an alternative solution if the aesthetics of exposed ceiling speakers is deemed unacceptable by the Architect or Client. Sound intelligibility levels may be relaxed in carparks, the large building entry lobby space and plant rooms.

Speakers to be surface mounted above feature ceilings with increased volumes.

Strobe lights for early warning to be provided throughout the development as required by the National Construction Code.

Fire Extinguishers and Blankets

New extinguishers shall be installed in the hydrant and hose reel cupboards, electrical rooms as well as required by table E1.6 of the NCC throughout the development.

Select extinguishers suitable for the environment which they protect.

Additional fire extinguishers including wet chemical extinguishers and fire blankets will be provided to all rooms as specified in the room data sheets.

Gas Suppression

Install inert fire suppression gas type for electrical rooms where required within the room data sheets.

Coordinate room construction with architect to ensure walls, ceiling and exhaust are adequate to accommodate a gas suppression system.

Sprinkler System

Automatic fire sprinkler systems shall be designed to comply with AS 2118.

Flush mount sprinklers are preferred to be used in plasterboard and feature ceilings. Sprinkler heads in suspended ceilings (ceiling tile) shall be semi-recessed sprinklers with two piece white escutcheon plates. Finish of sprinkler heads and escutcheon plates to non base building ceilings will be as nominated by the Architect subject to approval by Client.

Wet chemical fire suppression to be provided to the commercial kitchen hoods.

In duct sprinklers will be provided to kitchen exhaust ducts.

If the landlord insurer permits remove the sprinkler system from the electrical rooms. Replace with a certified gas suppression system. Remove all sprinkler wet pipework from the electrical rooms and divert to service the surrounding spaces.

Sprinklers shall be wet type with the following hazard ratings:

- Office Area – Light Hazard (NFPA 13)
- Parking Area – Ordinary hazard 2
- Retail Area – Ordinary Hazard 3

Ceiling void sprinklers are brass finish type with no escutcheon unless visual in exposed ceiling locations on tenant and client floors.

Smoke Hazard Management

Smoke hazard management is to be maintained to all areas to meet the requirements of AS 1668 and the building fire engineering solution.

Voids

The design and installation of the inter-floor stairs and voids must be within the limitations of the buildings fire safety engineering strategy. Provide integrated smoke curtains, additional sprinklers, wall washing sprinklers and other additional fire engineering to accommodate the requirement to have interconnecting stairs and voids between all levels and any fire related barriers. Provide options that consider:

- Cost
- Functionality
- Building Constraints (i.e. limited water supply)

Fire Test and Drain Down Water Reuse

All fire services test water and drain down water is to be captured either in the fire services storage tanks or the rainwater system for processing and reuse across the development as non-potable water.

Benchmark Manufacturers

The following benchmark manufacturers are applicable for this project:

Type	Description	Model
Smoke Detector	Photoelectric-analogue, addressable	Brooks 4301
Heat Detector	Rate of Rise and Fixed Point, analogue, addressable	Brooks 3308
Multi-Detector	Multi-criteria and Combination analogue, addressable	Brooks 4300
Enclosed Heat Detector	IP67 rated, Rate of Rise and Fixed Point, analogue, addressable	Brooks 3308
Duct Detector Chamber	Use with 4301 & 3312 for addressable	Brooks 5367
Analogue Base	Common base for AA detectors	Brooks 3312
Isolator Base	addressable short circuit isolator base	Brooks 4313
Sounder Base	Common AA base w addressable sounder	Brooks 3378
Alarm Acknowledgement Module	Enables AAF with 3378	Brooks 3340
Manual Call Point	Addressable MCP	Brooks 3333
Enclosed Manual Call Point	IP67 rated addressable MCP	Brooks 3339

Type	Description	Model
Addressable Siren	General purpose, 3 tone addressable	Brooks 3377
External Power Supply	Loop monitored 24VDC 4A	Brooks 3366AU
Input/Output Module	2x input, 2x output addressable I/O unit	Brooks 3361
Dual Output Module	2x monitored output addressable unit	Brooks 3364
Short Circuit Isolator	Addressable short circuit isolator module	Brooks 4370
Fire Indicator Panel	Analogue Addressable CIE	Brooks Firetracker 128
Gas Panel Controls	2 zone conventional CIE & gas control	Brooks FT2GAS
Local Control Station	Gas System manual override for gas	Brooks BUCS1
Remote Display Unit	Standard RDU	Brooks 1728.RD
Remote Display Unit	Alert Annunciation Unit acknowledge/reset	Brooks 1736
Magnetic door holders	Magnetic door holder	Brooks BAMDH
RF Magnetic Door Holder	Wireless magnetic door holder	Brooks BAMDHF

Type	Description	Model
OWS	Occupant Warning System	Brooks BOWSXXXX
PA Remote Microphone	Remote Paging Desktop Microphone	Brooks PA-XX
Remote Access	Remote Interface Unit	Brooks Web server 1599

1.7.8 Hydraulic Services: Introduction

The building design shall provide flexibility of layout arrangements to enable the functionality of spaces to suit the needs of occupants.

All services will incorporate a 25% spare capacity to allow future expansion of hydraulic services.

The hydraulic services shall facilitate the functionality of the wet services zones and precautionary drainage points.

Hydraulic Design Guidelines

The hydraulic services shall be designed in accordance with this functional brief and in accordance with all relevant Australian Standards, codes and authorities requirements and the precinct sustainability targets including:-

- Sydney water
- AS3500
- AS6001
- Fire and Rescue NSW
- Jemena
- Local Council

The hydraulic design should include water efficient dual flush toilets, water efficient taps, cold water drinking fountains, low maintenance hydro taps to supply boiling and chilled water and solar hot water units (with electric booster).

Adequate space must be provided and designed into the building fabric for all hydraulic services and maintenance access for routine service and replacement. Isolation valves are to be provided as necessary to ensure that the building can continue to function while general maintenance is carried out.

Wet services shall not pass above or through communications rooms or fire isolated passage ways.

Sanitary Waste

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Sanitary waste shall be provided to serve the buildings wet services and drainage zones throughout. Connect the wet services to the vertical stacks.

To enable flexibility within the wet zones, waste pipes shall be run to each wet zone to enable gravity drainage connection points to the vertical stack and provide connection within a radius of 6m from proposed wet services connection point.

Pumped drainage is not an acceptable solution.

Rainwater

Provide rainwater storage for roof water only (not pavement run off) at the rate of 40 litres per m2 of roof area. Tanks shall preferably be underground type, and shall be provided with adequate overflow provisions to prevent water entry or damage during run off under full conditions.

Provide a second reticulation system, pressure pump and reticulate water to WCs for flushing and landscape irrigation systems. Provide a low water level sensor and provision for automatic and manual conversion to town water use when the low level is indicated.

Gas

A new gas system shall connect to the Authority Infrastructure network. A meter assembly to be located in accordance with the suppliers requirements. The system shall include an automatic shut down and wired to the buildings FF to ensure that the gas supply is shut off in the event of a fire. Manual emergency push button type shut off shall be place at exit to any commercial style cooking facility that incorporates gas appliances.

All supply gas within the building will be equal to or less than 5kPa, to allow the use of low pressure regulators to each area to limit the need of regulator venting.

Install metering linked to the building metering BMs system on all new gas connection points.

The installation shall comply with the requirements of Jemena and AS5601.

Hot and Cold water

Cold water will be provided to the development and supplied from the Sydney Water network. A water meter assembly shall be installed in accordance with Sydney Water requirements.

Pressure throughout the development will be between 250-450kPa. If this cannot be achieved by the Sydney Water infrastructure then the inclusion of pressure boosting pumps may be required.

Each floor / area shall have the ability to be metered and wired to the building management systems.

Hot water shall be designed in accordance with the building NABERS rating and to service the equipment installed in the designated space. Central Hot water plant shall consist of solar panels with electric boost.

Boiling water/chilled water units are to be installed in tea points, kitchenettes, pantries, kitchens and cafe's. The capacity is to be determined by the number of serves per hour.

Trade Waste

Trade waste will be provided to serve the commercial cooking wet services in the commercial kitchens. Connect the wet services to the vertical trade waste stacks. To enable flexibility within the wet zones waste pipes will be run to each wet zone to enable gravity drainage, connection points to the vertical stack and provide connection within a radius of 6m from proposed wet services connection point.

Pumped drainage is not an acceptable solution.

Metering

Each service area / floor for gas and water shall be metered and wired to the building management systems.

Water Efficient Tapware

The development is to use water-efficient fixtures such as showerheads, taps and toilets. The efficiency of these fixtures and appliances is significant in minimising mains water consumption, especially when used in conjunction with an alternative water supply (rainwater re-use).

It is proposed to utilise standard water savings devices in accordance with the Water Efficiency Labeling and Standards (WELS) Scheme. These shall be as follows for this development:

- Water savings showerheads - WELS 3 star rating or higher
- Dual flush toilets 6/3 or 4/3 and waterless/water efficient urinals or urinal equipment - WELS 3 star rating or higher
- Tap aerators or tap equipment of WELS 3 star rating or higher
- Clothes washing machines and dishwashers of WELS 3 star rating or higher.
- Any proposed WLS device shall be 3 star or better.

Benchmark Manufacturers

The following benchmark manufacturers are applicable for this project:

- ✦ Hot Water Plant - Rheem Australia.
- Water pumps - Grundfos
- Fire Pumps - All pumps
- ✦ Underbench Boiling / Chilled / Hot Water Units - Zip Industries
- Urinal Flushing Systems - Zip Industries



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Attachment 1



part two detailed needs



2.1 the facilities

2.1.1 The New Library Facilities

The new library is to be designed as a 'hub' library with the community resource facilities, as part of a series of 'hubs' located in various parts of the LGA.

The detailed requirements of the library are listed in section 2.2, 2.3 and appendix A of the brief.

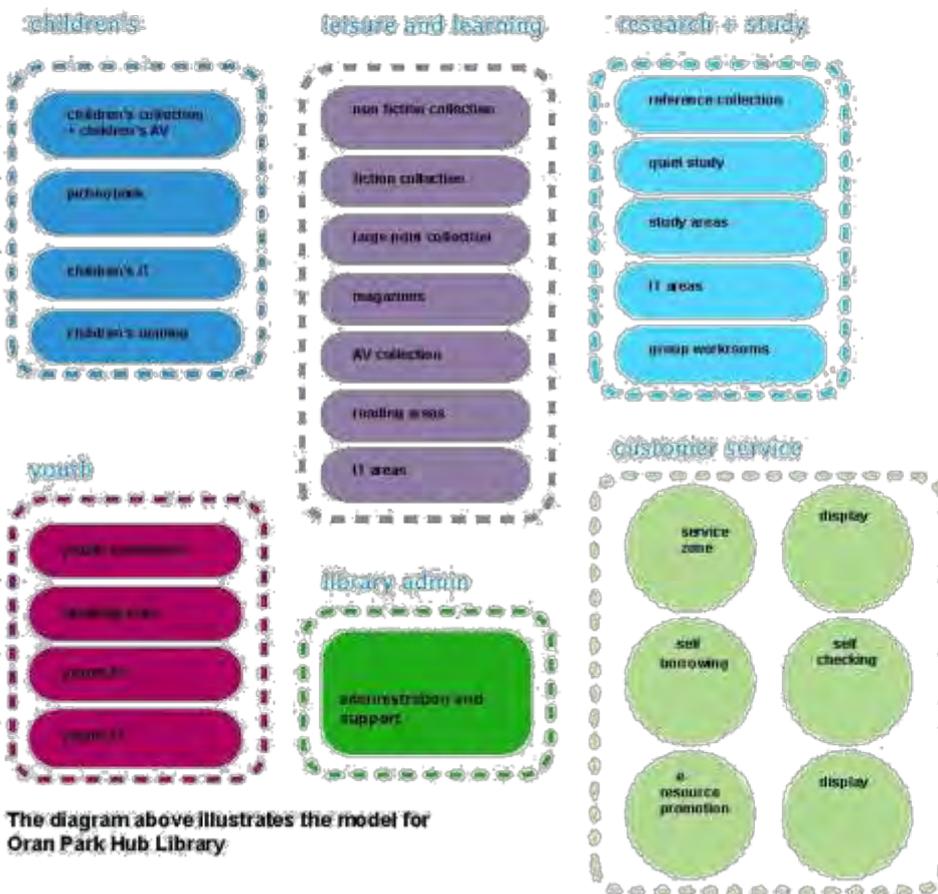
As a hub library, it is modeled on similar benchmark facilities which have been referred to in the briefing process.

These benchmark facilities are:

1. Narrabri Hub Library, (Library and Community Centre)
2. Mt Druitt CIM Hub, incorporating library and community centre
3. Blacktown City Hub Library and Community Centre
4. Avalon Library and Community Centre
5. Castle Hill Library and Community Centre
6. Goocrey Library and Digital Hub

These facilities represent a typical hub library model. The new Oran Park Library will include the following facilities:

1. A library collection organised around leisure and learning.
2. A children's library with areas to external activity area.
3. A youth (young adult) library tailored to the youth in the community.
4. Customer service, displays, returns and borrowing.
5. Library admin areas.
6. Innovations zones, including quick fix zone, new arrivals, video / digital display, e-book browsers, digital technology and IT.



The diagram above illustrates the model for Oran Park Hub Library

Collection Organisation

The library's collection is structured in the following sub collections. The Non-fiction collection is shelved using the dewey shelving system rather than dividing up into genres or creating feature sections. Fiction books are divided into genres which is alphabetically shelved. It is noted that it is proposed to allow the collection to "float" between each of the hub libraries.

Family history and local history will not be located at Camdeboo, and not in the Oran Park Hub Library.

Sub collections

Junior collection	including picture books, junior fiction, junior AV
Young Adult Collection	Including YA fiction, graphic novels, YA AV, YA magazines
Non-Fiction Collection	Junior NF interfiled with NF Collection to be generally filed in dewey shelving system, however with flexibility to incorporate a number of small genres in the future if required.
Fiction Collection	including large print, general fiction and genres and integrates paperback fiction
Magazines	current and past issue magazines
AV	includes CD's, DVD's and potentially downloading services

Collection size

Digital resources should not be separated out as a special area. Digital resources should be integrated into a range of library areas and functions to allow:

1. Seamless movement of users from paper based to virtual resources
2. Different types of usage patterns, including leisure and study
3. Differentiate between users types and their usage
4. Allow fixed and mobile usage
5. Allow spaces where users can use and plug in their own devices
6. Access to wifi

As new digital resources are coming on line, some of these will have physical components but many will be virtually stored. An important function of the library will be to promote to its users these resources exist. Additionally in many cases the library will also need to provide facilities where librarians can train users how to access and use these resources.

The digital resources need to be provided as a mix of fixed and mobile usage points though the library. It is to be designed to allow borrowing of laptops and tablets, and from mobile devices to be used anywhere in the library.

The library of the future will increasingly rely on ready at hand mobile technology. The Oran Park library needs to be designed and enabled for the increasing use of IT and be readily changeable and adaptable to new technologies

2.1.2 The New Community Resource Hub Facilities

The spaces outlined in the brief are divided under three principle categories, relating to their size and use. The details of the spaces are outlined in the Graphical Functional Brief in section 2.3, and the Room Data Sheets in Appendix A.

2.1.2.1 Sessional Offices

These form a series of smaller offices / hireable rooms that can be used by a community practitioner to provide a whole range of services such as counseling, health, welfare and business / learning skills. The spaces include:

- 4 flexible offices / rooms hireable to community and practitioners
- Waiting areas for members of the community attending programs.
- Centre management office.
- Meeting room and storage/utility space.

The sessional offices will have access to shared amenities accessed off the public foyer.

2.1.2.2 Large Activity / Function Room

This space forms the primary community space for larger community functions and events.

It is a space to be designed to allow different modes and uses.

The space is designed to be divisible into two smaller spaces.

As a full size space of 200m², the large activity room can be set up as follows:

- Meeting / speakers presentation mode seating 182 people
- Conference mode with people sitting at tables, accommodating a capacity of 102
- Set up in dining mode for events seating 96, and providing zone for an events performance
- Set up in dance lesson mode with a clear space

As two divided spaces, with a central operable wall, the rooms can accommodate the following:

- Informal meeting modes for 20
- Small meeting mode seating in rows for 60 people
- Round table meeting mode set up for 20 people
- Classroom mode seating at tables for 46 people
- Smaller dance lesson set up

50

The activity rooms are supported by kitchen / catering facilities, kitchen store, and furniture storage.

The catering facilities provides the ability to include food service for functions. It should allow for 're-heat and service' catering as this is the most common form of catering used and avoids extensive preparation facilities. It allows for service in common spaces as well as library for shared use.

A kitchenette will provide tea making and snacks area for all users of the Meeting Rooms and Sessional offices.

Medium Size Activity Rooms

This space of 100m² can be divided into two smaller activity rooms with an operable wall.

It is to be designed for various activities / uses including:

- Classroom mode, seating 45
- Round table / meeting mode seating 36
- Meeting / function mode seating 81 people
- Divided into two smaller rooms that can accommodate 12-20 people including training (computer) mode, craft / arts mode.

The rooms are to have a area of flooring to allow for wet and dry craft activities.

The rooms are supported by user storage cabinets and sinks equipped with plaster traps within the rooms.

The spaces are also supported by:

- A users store of 12m²
- A craft store of 12m²
- A users kitchenette of 12m² for tea making and serving of refreshments.

2.1.2.3 Performing Arts / Exhibition Space

This is a flexible space of 100m² and can accommodate artist exhibitions, and community performances / dance.

It is to be set up as a flat floor space with a timber sprung floor for performances.

The primary intended use is as an exhibition / gallery that can act as a community cultural space to display arts and culture.

The space is required to be equipped with walls hanging systems, exhibition / gallery lighting, as well as ability to attract spots / theatre lights to a ceiling hung light grid.



Typical community resource hub

The diagram below illustrates a typical model of the modern community resource Hub, with flexible function spaces, sessional offices and support areas.

flexible activity:



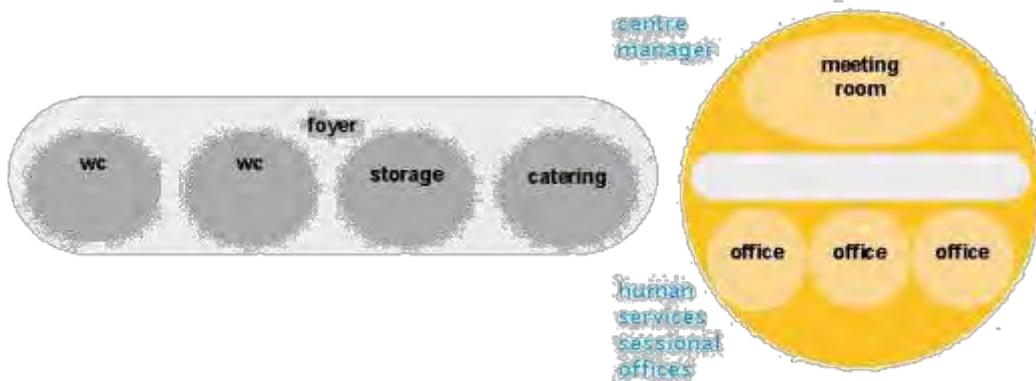
wet activity



cultural space



training space



2.1.3 Design Requirements

Accessibility

The design needs to ensure that all areas of the Library and Community Resource Hub are safe and accessible to all potential users, regardless of any disability. This will influence the design of every part of the library (in/out), from the provision barrier-free access to the entrance, right down to the appropriate height and stability of furniture and equipment.

Representative groups of people with disabilities and seniors are to be consulted on the project at appropriate times. Details to be considered in the design:

1. Clear external signage.
2. Handrail design.
3. Convenient access from designated parking bays.
4. Entries and doorways – automatic doors are essential for the main entrance.

Elsewhere care should be taken with the springing of swing doors (in cases where self-closers are necessary) to ensure that such doors are convenient for people with disabilities.

1. Lift and stair design.
2. Door furniture.
3. Floor surfaces and coverings; changes in level or function should be signalled by tactile signage.
4. Signs and guide maps.
5. Width of doorways, aisles, corridors and passageways; adequate space needs to be provided to accommodate double strollers and 'Gophers', and to allow for generous turning space for prams and wheelchairs.
6. Furniture and equipment selection.
7. Shelving set out and design.
8. Light levels.
9. Technical aids and provision of special equipment.
10. Emergency evacuation.
11. Fire precautions.

Attention is drawn to the Australian Standards, the Disability Discrimination Act and to the current Building Code of Australia. The needs of staff with disabilities should also be taken into account in the design process.

Acoustics

Appropriate measures will be required to insulate the Library and Resource Hub from external noise. Care needs also to be taken to ensure that air handling plant noise is within acceptable limits. A variety of tasks will take place in the Library, ranging from quiet study to group discussion and storytelling, which may be noisy. Care needs to be taken to avoid nuisance noise from the proposed arcade bisecting the building. Careful zoning of functions will assist in reducing potential conflict, and special acoustic treatment will be needed in some areas. Function and activity rooms will require noise separations from each other, as well as from public areas.

Finishes

Durable, high quality and low maintenance finishes are required throughout the facility. The finishes selected should where appropriate be of a colour and a texture to discourage graffiti and scratching. Paint finishes should be scrubbable.

Flexibility and adaptability

The interior of the Library and Resource Hub needs to be able to adapt easily to suit future changes in service provision. There should be a minimum of built-in items. Modular, loose furniture should be used extensively. Permanent partitions should be minimised. Lighting, power and air conditioning should be able to cope with changes in layout without major service reconfiguration.

Floor loading

The floor loading are required to be designed to allow for the installation of book shelving (including compact shelving in staff Work Room and Stores), with loadings in accordance with AS/NZS 1170.1:2002.

Functionality

The Library and Resource Hub needs to be designed as easy to find one's way around with a minimum of direction, efficient for people to use, and easy to supervise and to staff. Every component needs to be designed and located with convenience and efficiency in mind. Clever use needs to be made of the space available to permit a variety of activities to take place in some areas from time to time. Some opportunities to permit multiple functions are indicated in the brief (the use of operable walls, for example), and the client is open to other creative ideas from the design team to make the best use of space. Layouts need to be simple to follow, with clear routes of travel, unobstructed sight lines where

required, visual markers and a clear and logical set out of shelving to facilitate self-orientation.

Furniture and fittings

Furniture selection and design needs take account of the wide range of users, including people with physical disabilities. Care needs to be taken to ensure that designs are safe and ergonomically sound. Furniture needs to be robust, yet attractive, and easy to maintain. Fabrics used need to be readily cleaned. Wherever possible, furniture should be modular so as to facilitate reconfiguration as use and demand change. Readily available standard items of furniture are generally preferred to custom-built items, because of lower initial and replacement costs. Furniture which will accommodate personal computers and associated equipment needs to incorporate suitable wire management facilities, and address work health and safety issues; for example rounded corners of desks and tables are preferred to sharp edges.

Public art

There are opportunities for public and community art to be integrated into the design and decoration of the centre, and this is to be discussed with Council officers at an early stage to identify the kinds of contributions which local artists or members of the community may be able to make to the project. Particular attention is to be given to elements which can be created to reflect the history and environment of the local government area. Elsewhere there are opportunities to display items from Council collections, and a suitable hanging system is to be considered on suitable walls.

Safety and security

The entire centre design needs to be safe, in such a way as to deter vandalism and inappropriate behaviour, and to minimise security problems. There will be perimeter and internal intruder alarms. Alarms will be required on emergency exit doors. An alarm panel for Library areas will be required at the Welcome Decks. A silent duress alarm button will be required at all service points. Alarms will be linked to Council's security contractor, and will also indicate alarm status at the interface between the Work Room and public areas.

Special care is to be taken in deciding the location of the Library's RFID book theft detection system and the furniture and fittings in the surrounding area. Further

information on the site requirements for the system should be obtained from the manufacturer, in conjunction with Council officers. The returns chute, which may be accessed after hours, needs to be in a location which affords good surveillance.

A robust and reliable locking system is required for the premises. The number of locks which are keyed to differ should be minimised. Card/key access control will also be required at the staff entrance and for entry to staff areas from public areas and other selected locations. The keyed system is to be on Council's system or similar. Security cameras will be required at strategic points inside and outside the facility, monitored in the Work Room and Offices. Cameras will be linked to a recording device.

Shelving

In general there are four categories of shelving to be considered in fitting out this library:

- 'Standard library shelving': this refers to cantilever-type shelving. This shelving is appropriate for all public areas and in staff offices where there are considerable amounts of shelving. Standard shelving need to exceed the minimum requirements of Australian Standard 2273-1973, where possible.
- 'Office shelving': various lengths of shelving will be required to match the office furnishings.
- 'Compact shelving': this refers to rolling shelving on tracks, which may be surface-mounted or flush with the floor, with one or more access sides per unit of compact shelving, permitting greater use of floor space for low-use materials. Mobile units need to be easily moved with minimum effort and will require mechanical or electromechanical assistance.
- 'Special shelving': this is required for items such as DVDs, CDs and picture books, and will include displays similar to those used by retailers.

Some units of low shelving, for example in children's areas, may be on lockable castors to facilitate flexible use of space.

A number of spare new shelves, brackets and safe and easily installed and adjusted bookends are to be supplied as part of the fit out contract. The quantity required is to be discussed with Council officers.

Signs

Signage requirements for all areas need to include:

1. tactile signage

2. Prominent library identification, with graphics or large lettering
3. Directory display signs on each floor
4. Emergency exit and other statutory signs
5. Door signs
6. Easily changed signs, showing opening hours, layout and, where appropriate, current and forthcoming activities
7. Area guides, which are large, highly visible signs for areas such as 'Copying' and 'Information'
8. Desk and counter-top signs
9. Shelf signs, including signs to show the contents of bays and in some cases of individual shelves.

There will need to be close cooperation with the staff in developing the sign schedule.

Temperature and humidity control

Library materials are prone to mould when subjected to high levels of relative humidity (RH). Although there is no universal standard for RH, it is generally accepted that a reasonable range for storage of paper-based materials is 40-60% RH. It is recognised that lending collections may be out of the Library and subjected to all kinds of conditions, and critical tolerances are not suggested for the Library as a whole. In the Local History Store, stringent environmental conditions are required and are set out in the data sheet for this area and specifically referred to in the Scope of Works (Attachment 3.1).

Visual contact

Users and staff in the main areas of the centre should be able to maintain full visual contact with the outside. Similarly, from the outside, where appropriate, the centre needs to provide transparency to see into public areas.

Walls

Wherever possible wall space will be used for display purposes. A suitable hanging system is required. In corridors, at doorways and particularly near service counters, walls require protection from trolley impact and damage. Some internal walls will be fully glazed, and will

require safety motifs where there is a risk of people walking into the glazing. In some locations 'smart glass' may be used, using a switch to provide various degrees of opacity for reasons of privacy or to prevent nuisance glare or rogue reflections, or to provide a screen for projected images.

Windows

It is highly desirable for public and staff areas to have access to some natural light. Direct sunlight should not fall on collections or reader places. The client would prefer not to rely on manually-adjusted blinds to screen out unwanted sunlight. As noted under 'Walls', there may be some internal walls of 'smart glass' to prevent nuisance glare or rogue reflections.

Work health and safety

Work Health and Safety (WHS) issues are to be addressed throughout the planning and design process to ensure that the public areas and staff workplaces meet the highest standards. Opportunities to streamline some library routines in order to reduce WHS risks and to improve efficiency, such as checking in, sorting and moving library materials, are to be explored during the planning stage of relevant areas.

2.2 schedule of areas

The schedule of areas indicate the projected area requirements for the Library and Community Resource Hub. The Net new space allowances are represented graphically in the following section 2.3 Graphic Functional Brief. Allowances for grossing factors are made in this Schedule of Areas below to determine the Gross Floor Area requirements.

2.2.1 Summary of Functional Areas (Net and GFA) (for detailed Area Breakdown refer numbered Schedules 1-9)

Definitions

GFA - Gross Floor Area

A grossing factor of 25% is applied to the Net Area figures. This grossing is the allowance for circulation and base building elements – lift lobbies, lift and riser shafts, toilets, cleaners' cupboards, elec. and data cupboards, and the perimeter wall thickness.

Area		SUMMARY OF LIBRARY AND RESOURCE COMMUNITY HUB AREAS - BASED BHA INTERVIEWS		Briefed Areas (m ² Net)	Est. Grossing Factor GFA	Est. Gross Area GFA (m ²)
Code	Area Names	Staff	NET External			
		Library Staff	7			
		Community Centre Staff	1			
Library						
	Entrance + Customer Service			98	25%	110
	Lending			590.5	25%	738
	Young Adult			70	25%	87.5
	Study Centre			141.5	25%	177
	Children's Library			220	25%	275
	Library Back of House			130	25%	162.5
			SUBTOTAL	1240		1560
Community Resource Centre						
	Common Areas (Library + Community)			248	25%	310
	Seasonal Offices		123	123	25%	154
	Activity Rooms			550	25%	687
			SUBTOTAL	924		1155
Plant						
	Electrical Switchboard Allowance (Internal)			10	20%	12
	Comm. Room (Internal)			0		0
	Mechanical External Plant		70			
	Hydraulic/Fire (Hydrant Pump) Room			24	20%	29
			SUBTOTAL	34		41
TOTAL				2168		2734

2.2.2 Net Functional Areas - Detailed breakdown

The following tables provide the detailed net area requirements for each of the functional spaces and support areas of the Library and Community Resource Hub. Room codes refer to the Room Data Sheet codes on the graphic functional brief and room data sheets in Appendix A.

Room Data Sheet 1.0 Code	Accommodation Type	Area / Space m ²	Quality	Total Area m ²
1.0 Library Entrance and Customer Service				
L1	Security Point	3	1	3
L2	Self-Checkout	8	1	7.98
L3	After-Hours Book Return	35	1	35
L4	Return Area	21	1	18
L5	Customer Service	18	1	35
L6	Feature Display	3	1	21
SUBTOTAL				88
2.0 Library - Lending				
L7	Feature Collection	12	4	48
L8	Fiction/Large Print	131	1	131
L9	Non-Fiction Collection	141	1	141
L10	Language	32.5	1	32.5
L11 + L12 + L13	Informal Reading	27	3	81
L14	Newspapers and Periodicals	55	1	55
L15	Audiovisual	37	1	37
L16	IT Works Area	51	1	51
L17	Walkup IT Area	10	1	10
L18+19	Catalogue	2	2	4
SUBTOTAL				590.5
3.0 Library - Young Adult				
L20	Young Adult Collection/Reading	54	1	54
L19	Multimedia Pod	16	1	16
SUBTOTAL				70

Room Data Sheet 4.0 Code	Accommodation Type	Area / Space m ²	Quantity	Total Area m ²
4.0 Library - Study Centre				
L21	Reference Collection + Reading	47	1	47
L22	IT Training + Electronic Research	42	1	42
L23	Group Study Rooms	10.5	3	31.5
L24	Quiet Study Room	16	1	16
L25	Copying/Printing	5	1	5
SUBTOTAL				141.5
5.0 Library - Children's Library				
L26	Children Collection	85	1	85
L27	Children Reading + IT	20	1	20
L28	Children Picture Books Area	50	1	50
L30	Children Reading 2	20	1	20
L29	Children Activity Area	45	1	45
SUBTOTAL				220
6.0 Library - Back of House				
L31	Library Coordinator Office	1	10	10
L32	Staff Work Room	6	60	60
L33	Staff Lunchroom	20	1	20
L34	IT Room	12	1	12
L35	Storeroom	3	1	3
L36	Cleaner's Room	5	1	5
L37	Staff Shower	5	1	5
L38	Staff Unisex WC	5	1	5
L39	Staff Unisex AWC	5	1	5
SUBTOTAL				130

Room Data Sheet 7.0 Code	Accommodation Type	Area / Space m ²		Total Area m ²
7.0 Community Resource Centre - Common Areas				
L60	Foyer	100	1	100
L61	Cafe/Servery	24	1	24
	Cafe/ Customer Seating	60	1	30
L62	Cafe/Store	12	1	12
L63	Cleaners	5	1	5
L57	Male Toilets - (Community)	22	1	22
L58	Female - (Community)	22	1	22
L59	AWC (Community)	5	1	5
L56	Female (Library)	13	1	13
L57	Male (Library)	10	1	10
L58	AWC (Library)	5	1	5
	SUBTOTAL			248
8.0 Community Resource Centre - Sessional Offices				
L40 + L41	Sessional Office	16	4	64
L43	Waiting	16	1	16
L44	Facility Manager Office	16	1	16
L45	Meeting Room	18	1	18
L46	Store Room	9	1	9
	SUBTOTAL		1	123
9.0 Community Resource Centre - Activity Rooms				
L47	Activity Room 1 - Large	200	1	200
L48	Activity Room 2 + 3 - Medium	100	1	100
L48	Activity Room 4 - Performing + Exhibition	100	1	100
L49	Furniture Store	12	1	12
L50	User Store	12	1	12
L51	User Kitchenette	12	1	12
L52	Foyer	75	1	75
L53	Kitchen - Catering	24	1	24
L54	Kitchen Store	6	1	6
L55	Craft Store	12	1	12
	SUBTOTAL			653

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Attachment 1

2.3 graphic functional return brief

Graphic Functional Brief

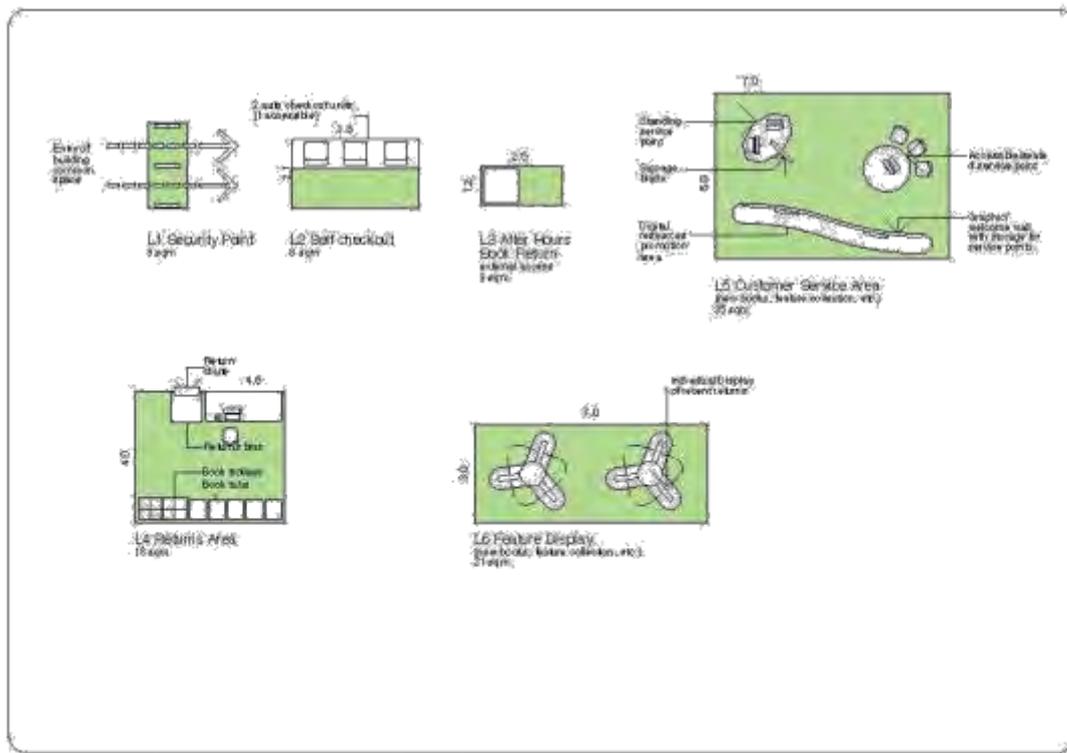
The graphic functional brief describes the size, number and functional requirements of each of the functional spaces required by the Brief.

The functional spaces are grouped according to the functional divisions indicated in 2.4 Functional Relationship Diagram. The functional area requirements for each of these groupings are indicated on the graphic functional brief as net areas, exclusive of grossing factors.

Room Data Sheets

The detailed fit out requirements for each projected space are tabulated in the individual Room Data Sheets. These Room Data Sheets are located at Appendix A.

1 Library Entrance and Customer Service



1.0 Library Entrance & Customer Service

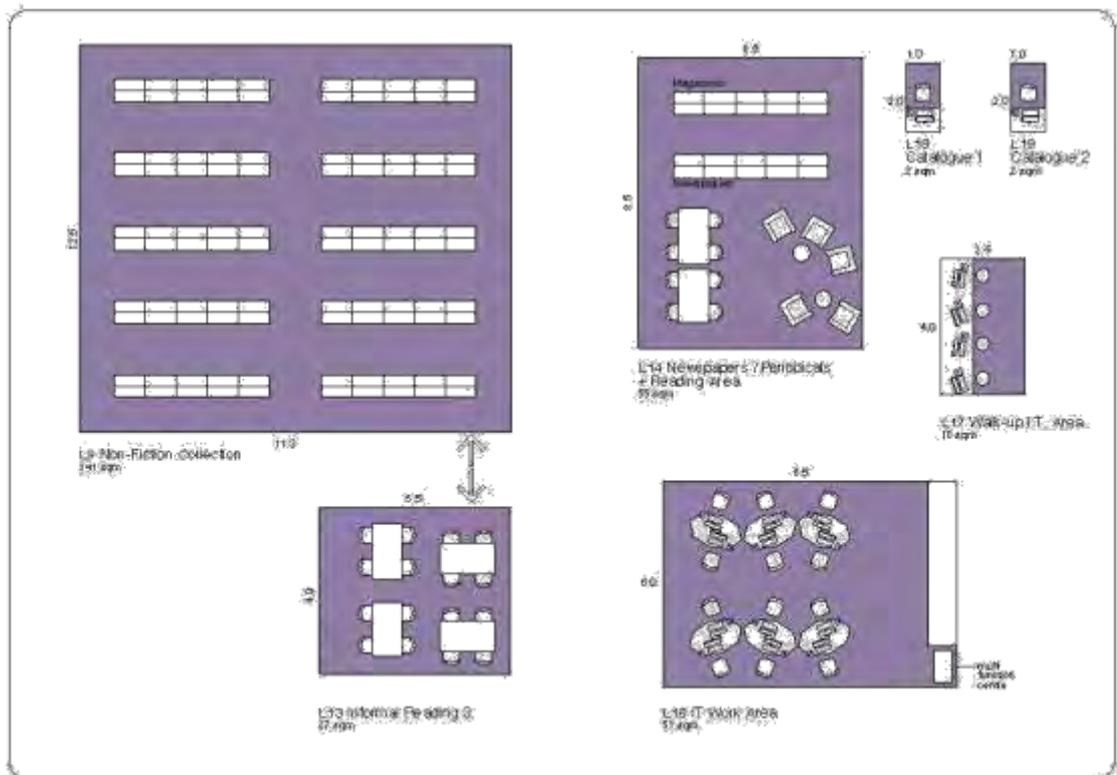
88 sqm



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Attachment 1

2 Library - Lending (1)

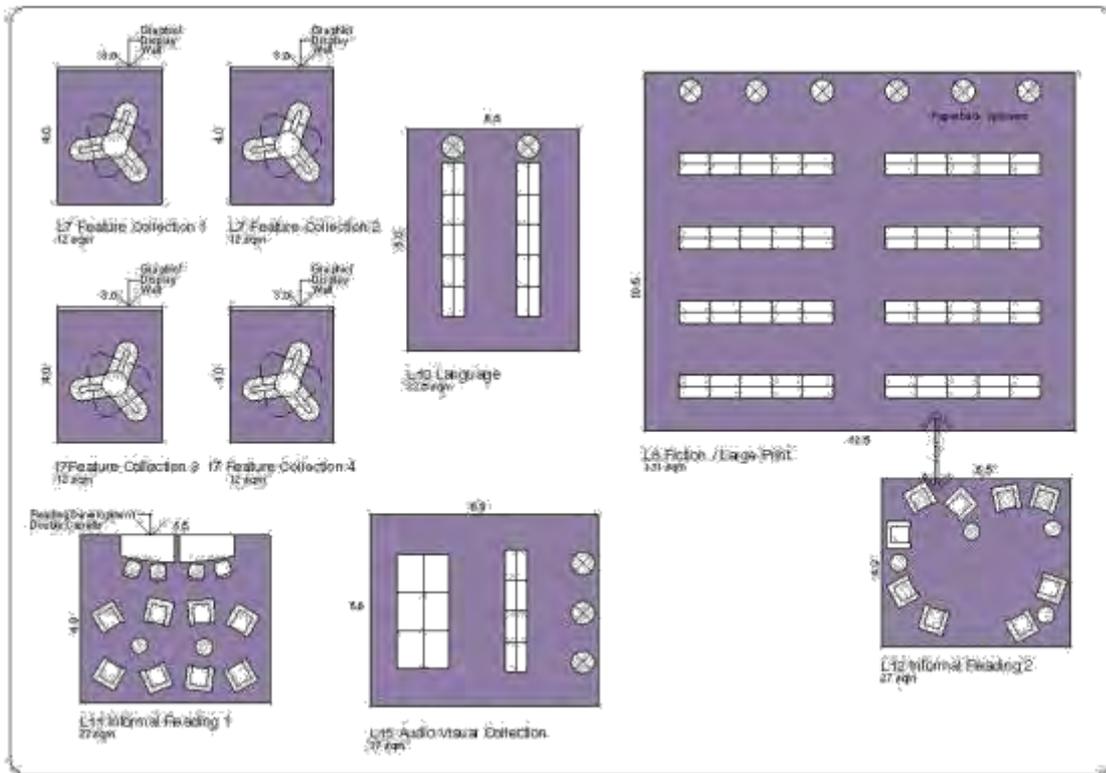


2.0 Library - Lending

288 sqm



2 Library - Lending (2)



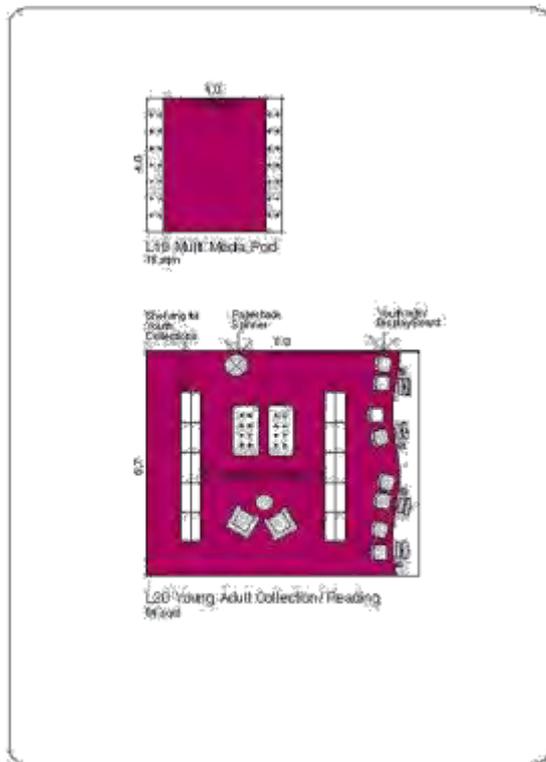
2.1 Library - Lending
303 sqm



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Attachment 1

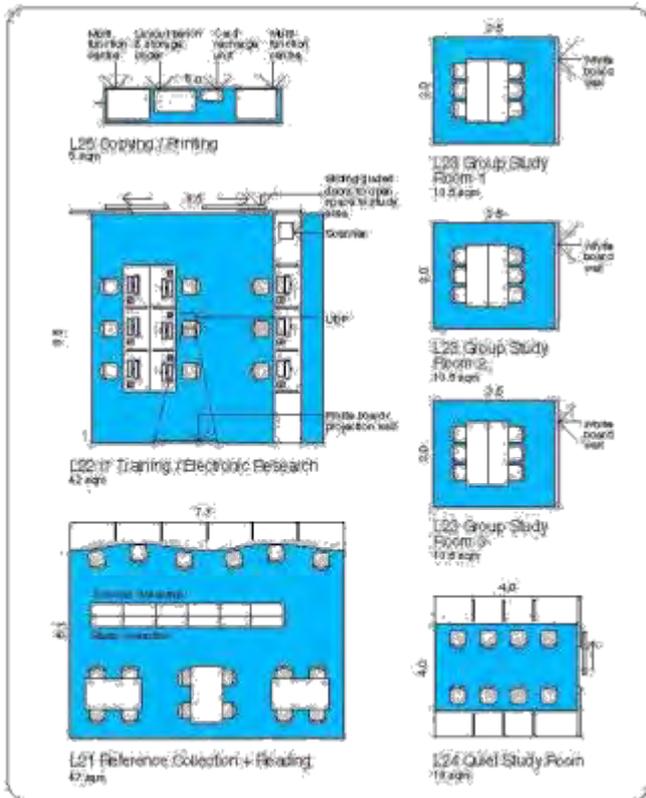
3 Library - Young Adult



3.0 Library - Young Adult

70 sqm

4 Library - Study Centre



4.0 Library - Study Centre

142 sqm³

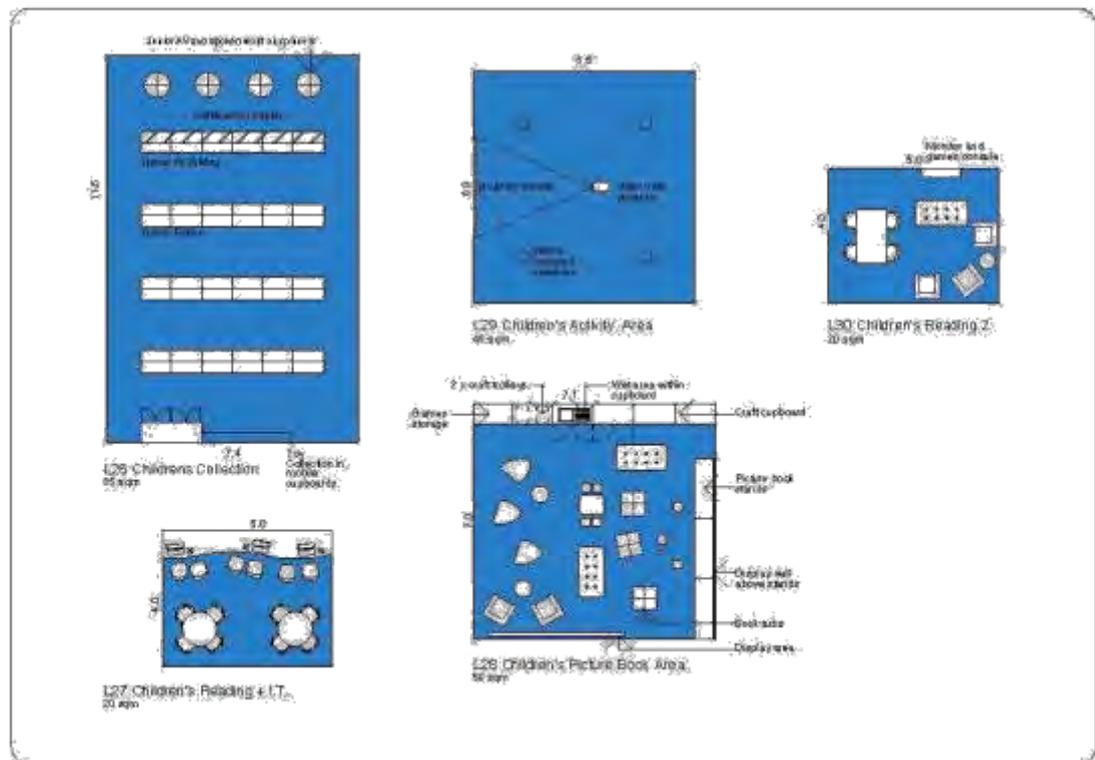


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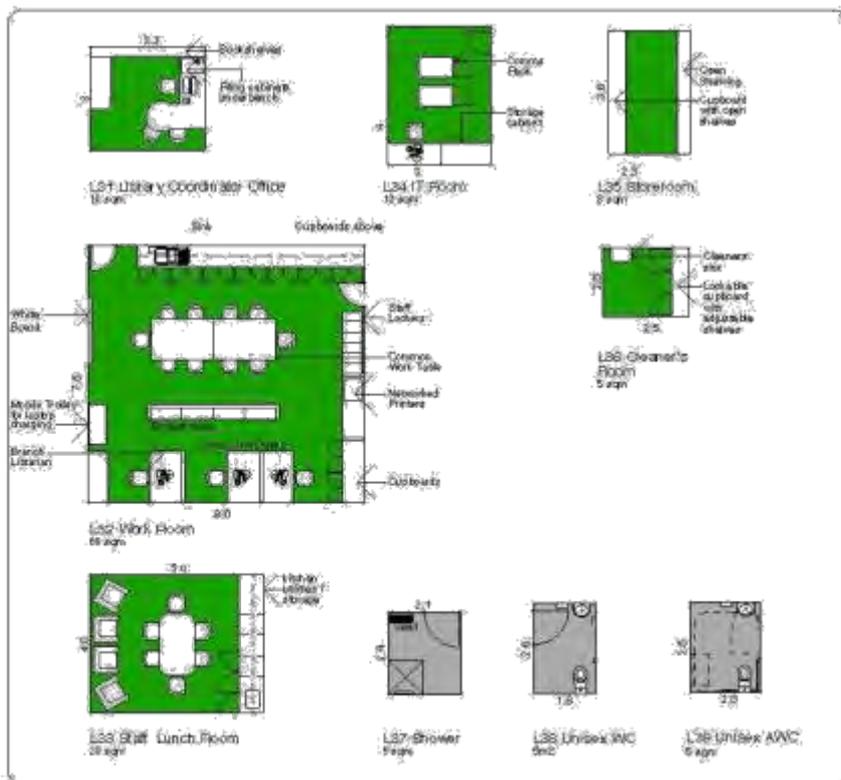


5 Library - Children's Library



5.0 Library - Children's Library
220 sqm

6 Library - Back of House



6.0 Library - Back of House

130 sqm

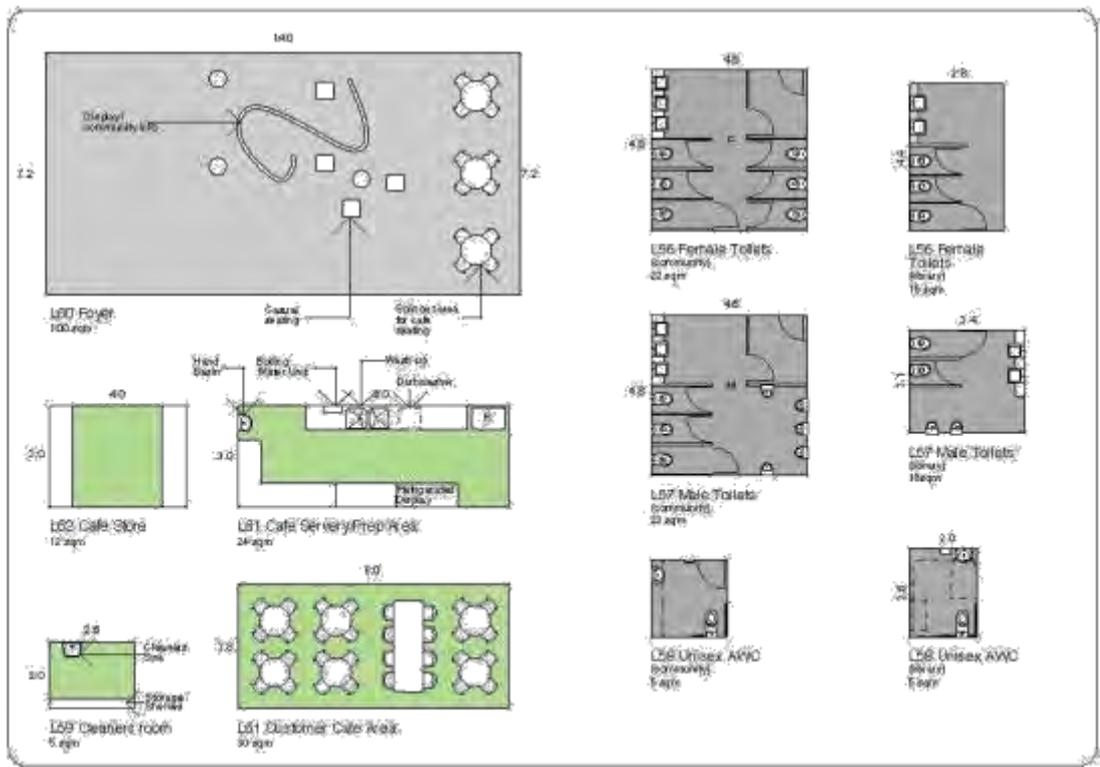


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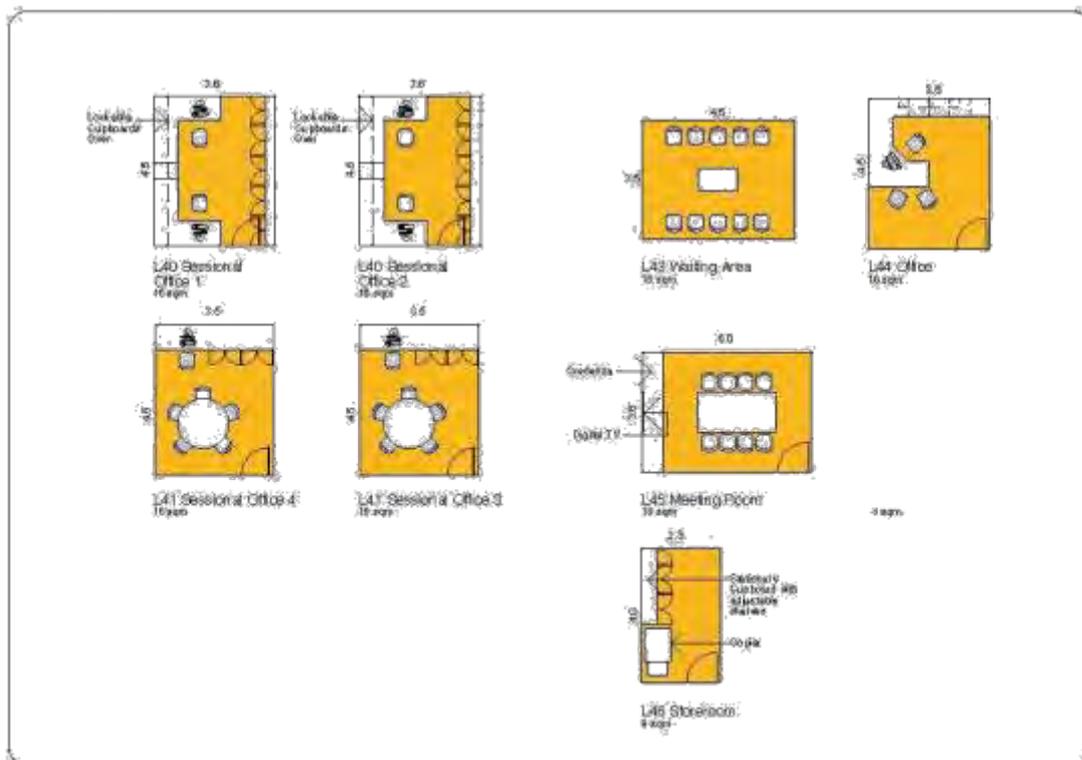
7 Community Resource Centre - Common Areas



7.0 Community Resource Centre - Common Areas

250 sqm

8 Community Resource Centre - sessional offices



8.0 Community Resource Centre - Sessional Offices

123 sqm

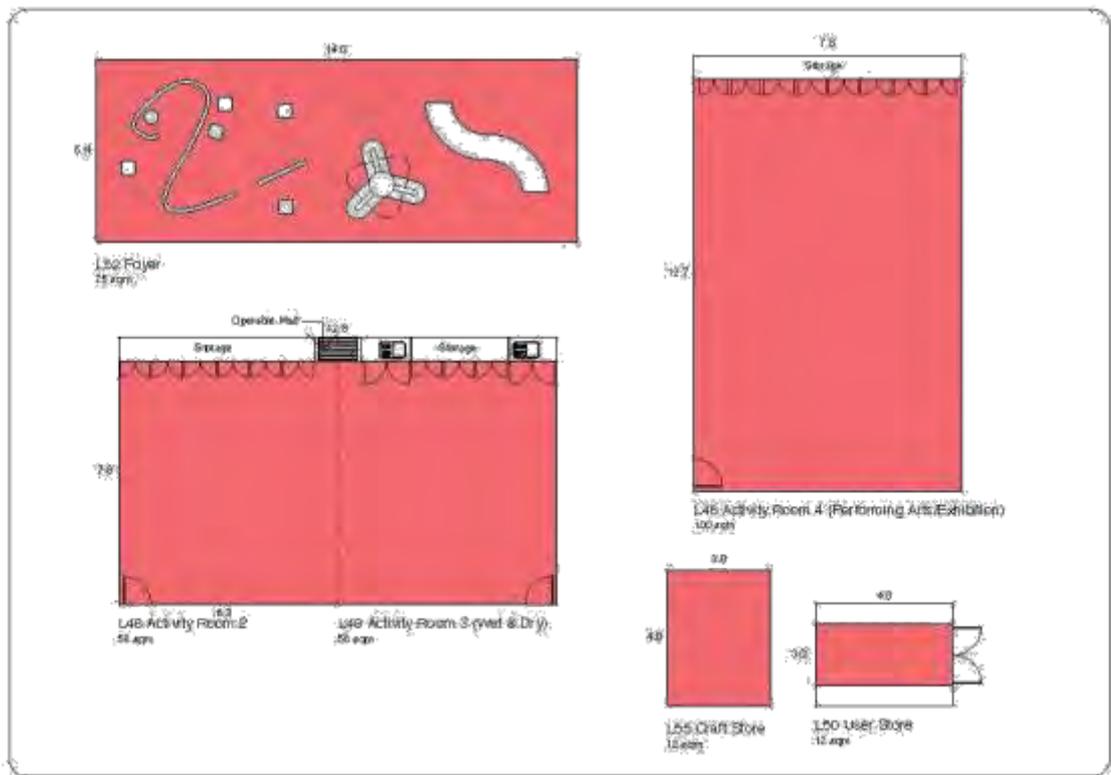


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Attachment 1



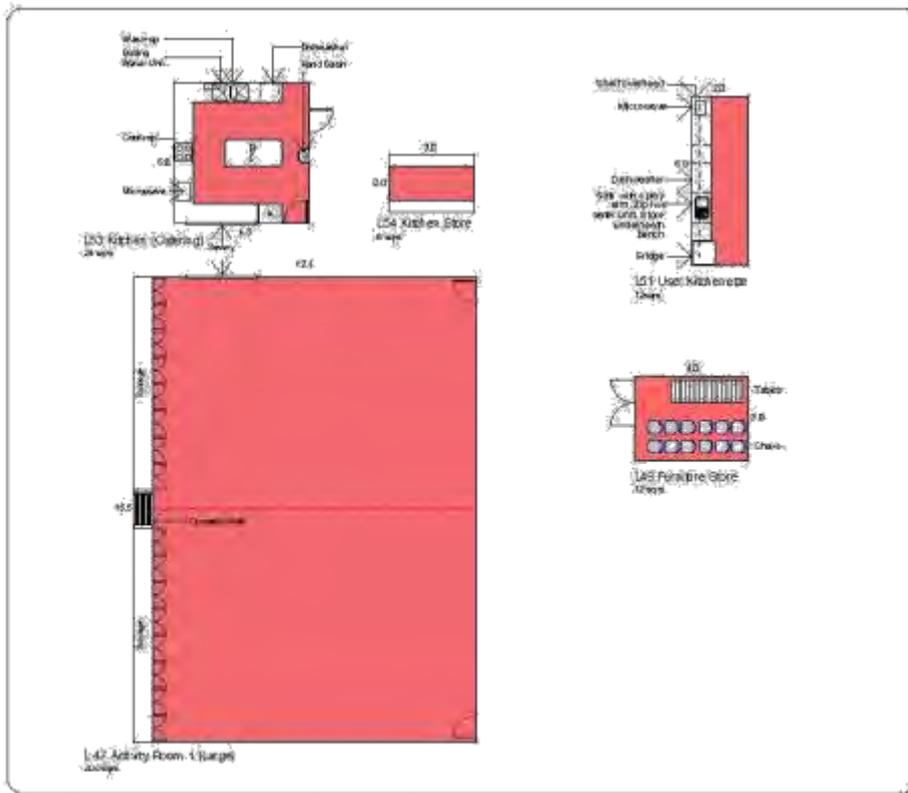
9 Community Resource Centre - activity room



9.0 Community Resource Centre - Activity Rooms

299 sqm

9 Community Resource Centre - Activity Rooms 254 sqm

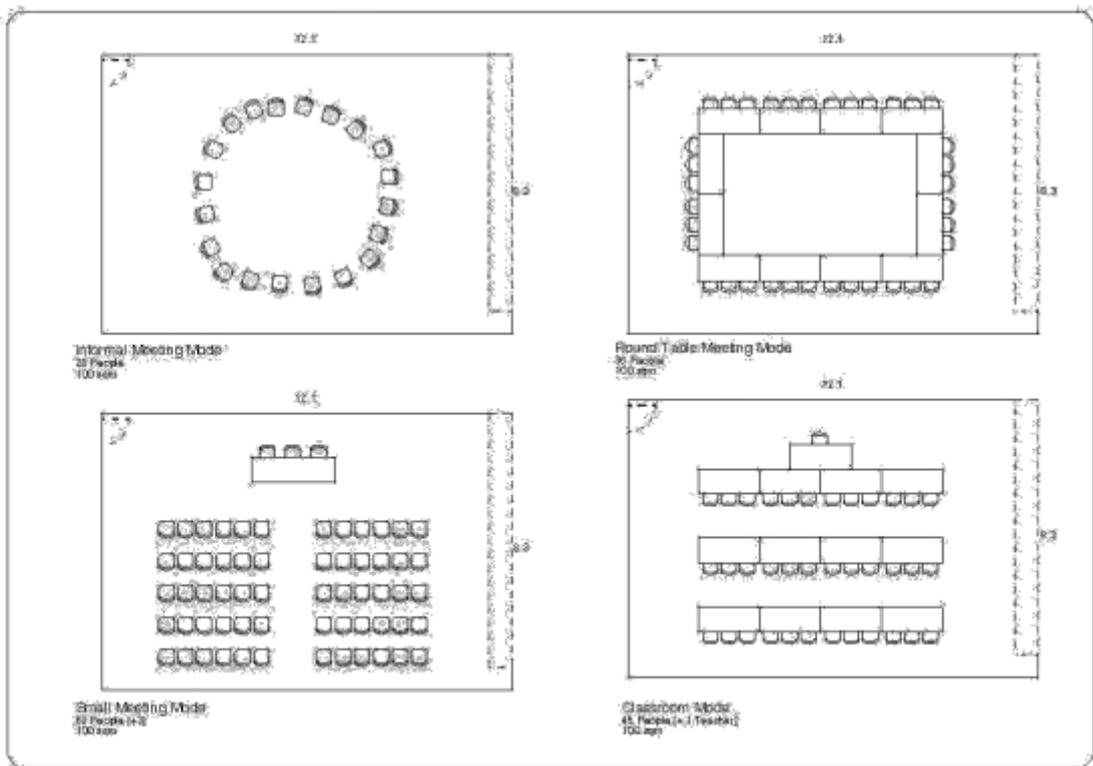


9.1 Community Resource Centre - Activity Rooms
254 sqm

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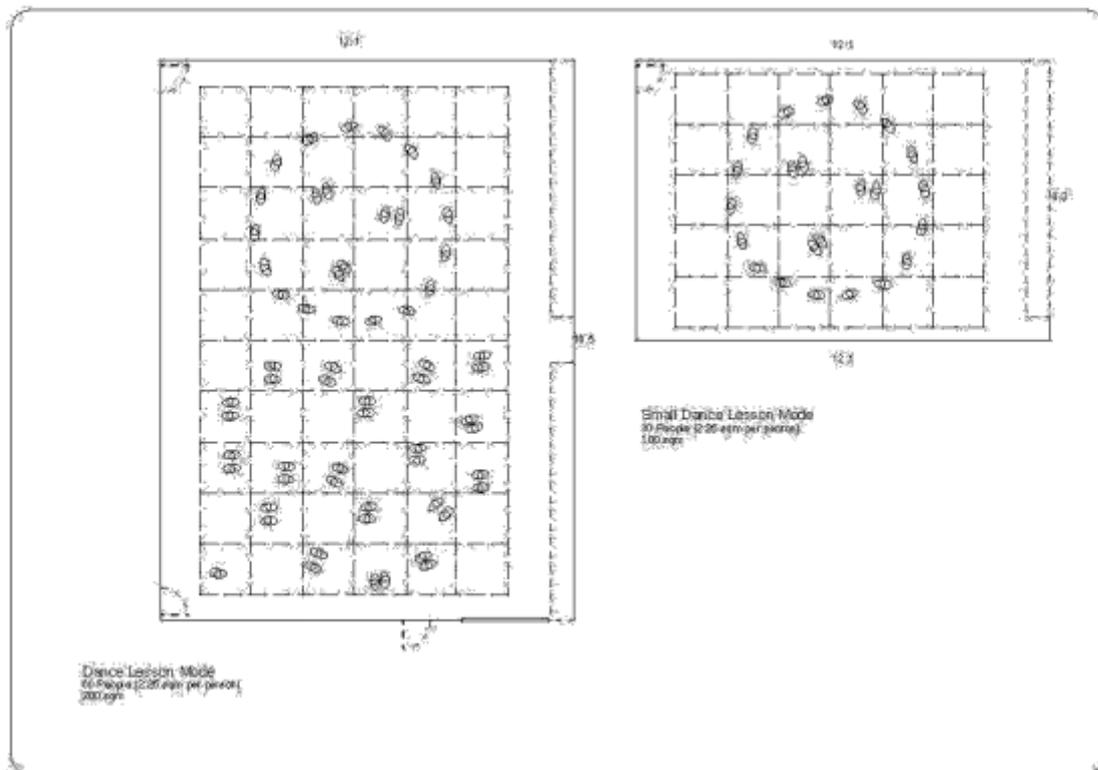
Attachment 1

10 Layout Options for Activity Room 1



10.0 Layout Options for Activity Room 1

10.1 Layout Options for Activity Room 1



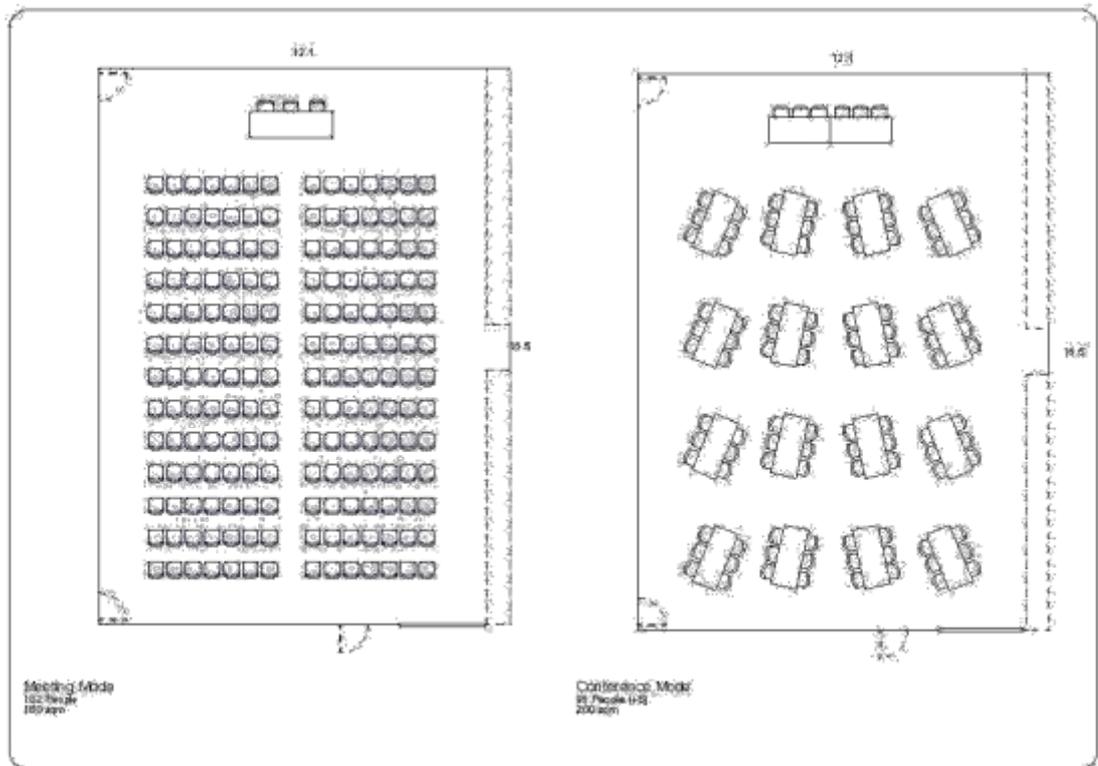
10.1 Layout Options for Activity Room 1

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Attachment 1

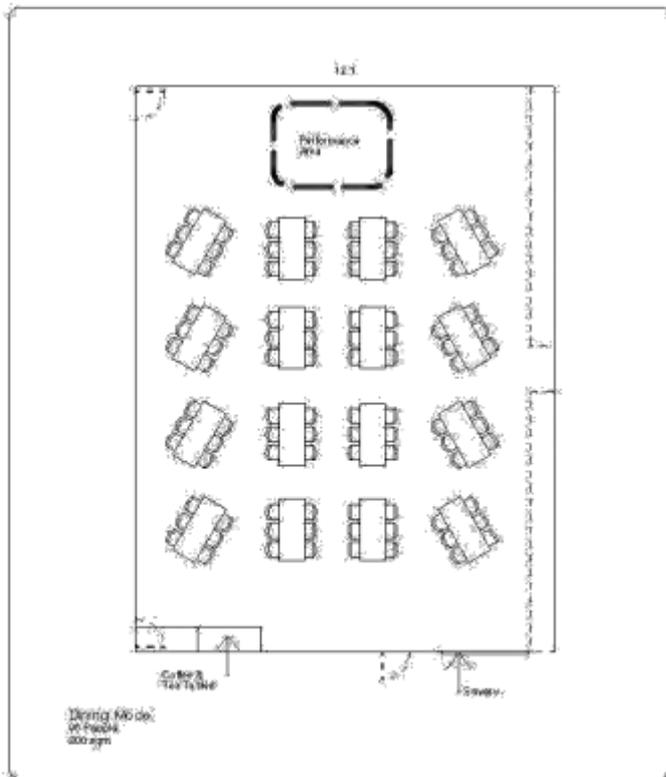


10.2 Layout Options for Activity Room 1



10.2 Layout Options for Activity Room 1

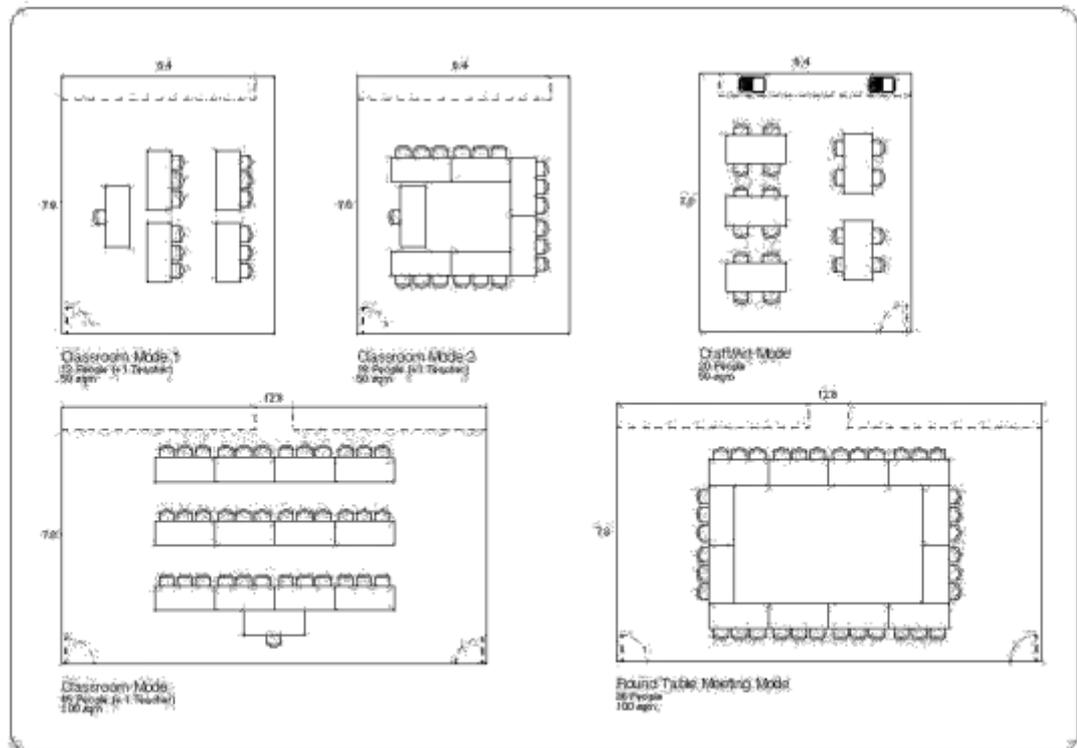
10.3. Layout Options for Activity Room 1



10.3 Layout Options for Activity Rooms 1

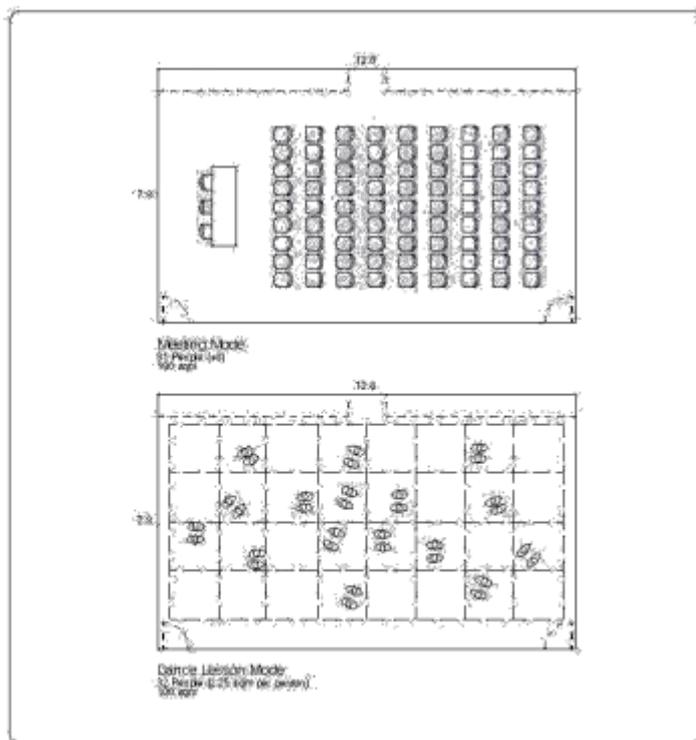


11.0 Layout Options for Activity Room 2 & 3



11.0 Layout Options for Activity Rooms 2 & 3

11.1 Layout Options for Activity Room 2 & 3



11.1 Layout Options for Activity Rooms 2 & 3



2.4 functional relationship diagrams

Functional Relationships

The functional relationship diagram arranges the function breakup of the Library and Resource Hub to show the major functional connections and interaction of the spaces in the project. It is a visual representation of important relationships between general group functions.

The spaces are indicated to approximate scale on a single diagram. It indicates the public interface between library and resource hub functions. It shows relationship of all library functions as well as the resource hub to each other and to the shared support facilities and amenities.

The areas are all shown in a single layer.

As the building footprint would be too large if built over a single level, the suggested arrangement of functional spaces over the 2 proposed levels is shown in Part 3 - Section 3.2 - Block and Stacking Concept.

The Library and Resource Hubs seen as a single identity, where there is seamless interaction between the two.

The are to be housed in a single building, with the Library operating at the same time as the resource hub. The hub will also operate after hours when the library is closed.

As part of the different hours of operation, the functional relationship developed allows for:

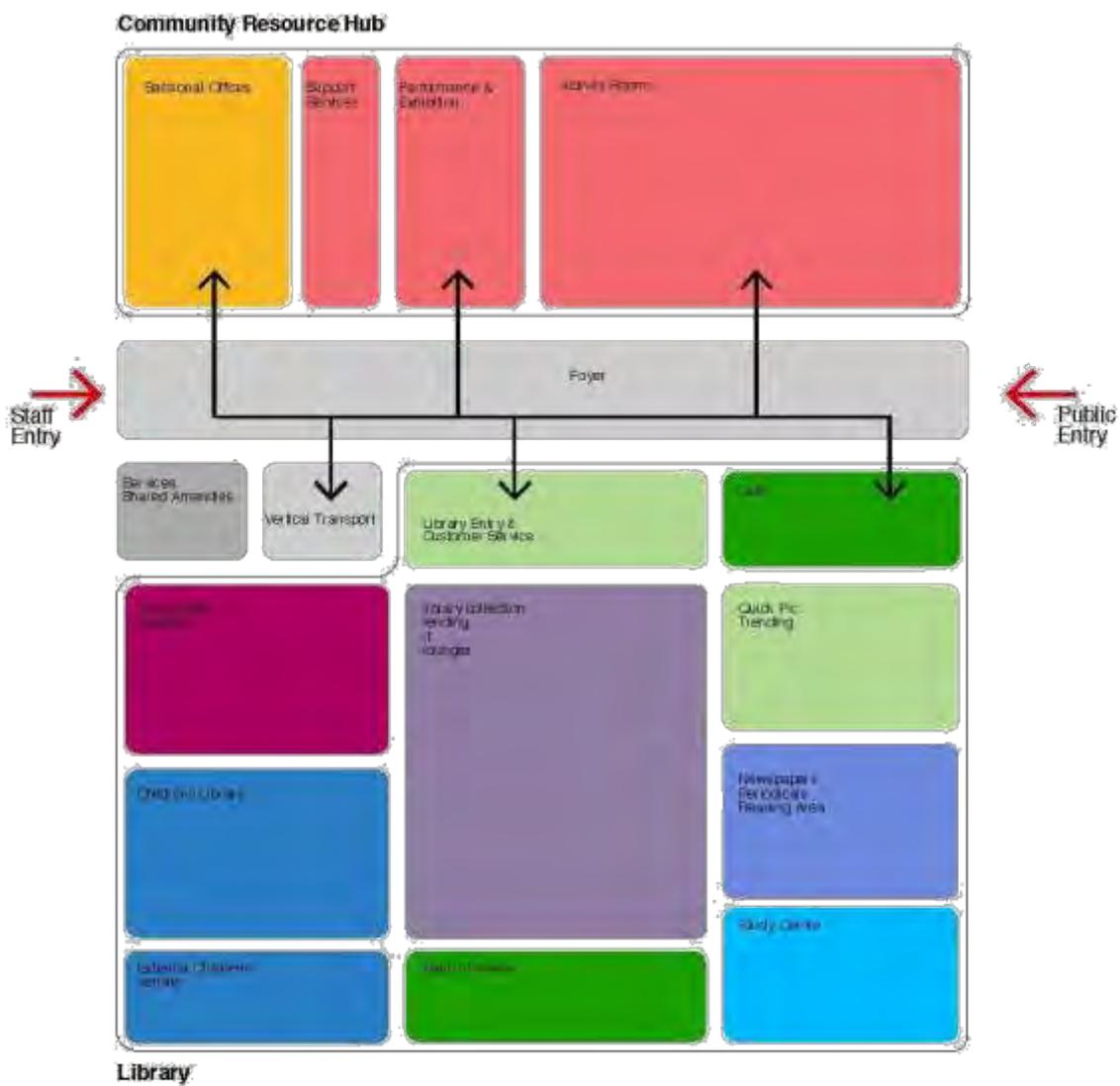
1. Library and Resource Hub to be assessed off a single shared foyer that allows the public to access both functions.
2. Shared amenities are provided within the foyer, allowing after hours use of the hub.
3. All spaces in the resource hub are bookable, needing separate access off the shared foyer.
4. Cross use of the resource hub spaces by the library for activities such as book launches and authors readings.

Room Data Sheets

Are included in Appendix A.

The Room Data Sheets describe the detailed functional and spatial requirements for each and every space required within the library and resource hub.

Functional Relationship Diagram



ORD07

Attachment 1



part three

masterplan and design

3.1 masterplan concept

The Civic Town Centre

The Council owned land at the centre of the new Oran Park Township will form a civic core for the community.

The western portion of this land forms a parkland separating the commercial core and shopping centre with the new civic facilities.

The new civic facilities are grouped along the street frontage of North-South street, facing the parkland and the commercial core.

The civic facilities include:

1. Library / Community Hub Functions
2. Council Administration and Civic Functions
3. Leisure / Aquatic / Sports / Youth Functions

Camden Council has endorsed the masterplan option for each of these functional groupings to be housed in 3 separate buildings on separate land titles and able to be developed in separate civic precinct stages over time.

Integration of Civic Precinct with Masterplan

The adjacent plan shows the integration of the Civic Precinct with the preferred masterplan option endorsed by Council:

The library and community resource hub (The Hub) are located north of the Council Administration Building and at a central point between the admin centre and the aquatic / leisure centre to the north (numbered 2 on the plan).

The core of the civic precinct is a 'civic plaza' that links the parkland to the Civic Precinct across the north-south road (numbered 6 and 7 on the plan).

The civic plaza collects the pedestrian routes from the new retail centre (numbered 11 on the plan) and provides a single focus point with the 3 Civic functions each having a distinct address from the plaza.

The library and resource hub is at the centre of the civic plaza, which provides a clear community focus.

The eastern portion of the Civic Precinct is assigned to a 2 storey carpark servicing the library and resource hub, as well as the other civic buildings.

The fall of the land across the site from south to north means that the upper level carpark is at grade adjacent to the Council Administrative offices and at grade access to the lower level parking is achieved at the midpoint of the site. Vehicle drop off at the Hub and civic facilities level are also provided from the mid point of the site.

This arrangement allows for at grade access from parking and drop off areas to the civic facilities at the 2 gaps between the three civic buildings and provides effective at grade access through site access.

The planned delivery of the civic facilities has been structured by Council as follows:

1. The Hub is to be delivered by the Oran Park developer as part of the arrangements between Council and the developer.
The Hub will be designed and built fully by the developer. It is expected that this will be delivered at the same time as the Administration Centre.
2. The Council Civic Chambers and Administration offices is to be delivered directly by Council.
3. The remaining civic facilities included in precinct 2, which include the Aquatic / Sports / Youth facilities along with associated staff and public parking facility is to be delivered separately in a future stage by the developer.

Library / Community Hub

The Library / Community Hub is situated between the Administration Building and the Sports / Youth Facility.

It is the building with the strongest community focus and pride and we have set it back from the adjacent buildings so that it addresses the Civic Plaza directly.

This adjustment allows for the civic open space to be concentrated at the building entries and maximises their impact.

Civic Plaza Concept

The Civic Plaza Concept unites the parkland and Civic buildings and provides a single, unified address for all of the civic functions of the city.

It will be a major gathering point and venue for special celebrations and events.

Adjustments to the Masterplan Concept

The masterplan concept in the adjacent drawings includes some adjustments to incorporate changes that have occurred in the preparation of this brief:

These changes are minor in nature but are important to the detail of the future public spaces.

Civic Precinct Plan - Level 1

The Civic Precinct Plan - level 1 shows the Civic Precinct 2 lower floor plan at grade with the surrounding streets to the northern boundary.

The Civic Precinct 1 carpark is shown at basement level, below the level of the Civic facilities. Lift and stair access will connect this to the upper level Plaza, giving access to the Aquatic / Sports Centre at grade from the Precinct 2 carpark.

Civic Precinct Plan - Level 2

The main level of the Civic Precinct is at Level 2. This level provides direct access from the Civic Plaza to all 3 Civic Buildings:

1. Library / Community Hub
2. Council and Administration offices
3. Aquatic / Sports / Youth Facilities Hub

All 3 buildings have the potential to be linked by a grand colonnade or veranda that provides an undercover link to the public entry of each building.

Vehicle Access

There is direct pedestrian access at grade to the Plaza and building entries from the vehicle drop off area and the carpark serving both Civic Precinct 1 and Civic Precinct 2.

There is direct access to a central foyer in the Hub to allow for a second building entry and provide good service vehicle access.

Masterplan Concept Development

The Masterplan Concept will continue to develop as the design information is refined. The pieces are in place for the progressive development of the whole precinct over time, with each succeeding stage providing a complete and fully functioning facility for the community of Oran Park.

Integration of Civic Precinct with Masterplan



1. New Council administration offices. 3 storey building with additional floor in Stage 2.
2. New Library and Community Resource Hub. 2 storey building to be constructed separately by Developer. The Hub is the Community Focus of the Civic Precinct.
3. New Aquatic and Fitness Centre. 3 storey structure to be constructed as part of later works by others.
4. Civic Precinct 1 Carpark. 300 cars on 2 levels.
5. Civic Precinct 2 Carpark. 400 cars on 2 levels.
6. New Civic Entry space to act as combined forecourt to the Library/Resource Hub, the Administrative Centre and the Aquatic / Leisure Centre.
7. Construction of large Civic Space across the access road and into the new parklands.
8. Pedestrian connections through the new parklands to the main entry area of the retail centre.
9. Possible covered veranda connection between buildings.
10. Parklands.
11. New Retail Centre.
12. Residential Use Zone.
13. Mixed Commercial / Residential Use Zone.

Civic Precinct Level 1



Civic Precinct Level 2



1-7 as for Masterplan Integration Diagram

- 8. Main public entries to the Library and Community Resource Hub, Council Administrative Centre and Aquatic Centre from new public forecourt
- 9. Service vehicle and staff entries to all new facilities from the carpark service area
- 10. Central public drop-off area

- 11. Public access from the carpark to the Council Admin Offices and the Civic Forecourt
- 12. Public Access from the carpark to the Aquatic Centre and the Public forecourt
- 13. Public entry to the Hub from the carpark
- 14. Possible covered verandah connection between buildings

Strategic 4 - Functional, Oran Park Library & Community Resource Hub
21334-4.02.0212 V1

3.2 block and stacking concept

The briefed areas for the Library and Community Resource Hub have been analysed to confirm how they will fit within the Masterplan Concept.

The diagrams on the following page show a conceptual floor plate for each floor of the proposed building along with how the briefed functional areas could be distributed through the building to satisfy the functional relationship required of the project.

Briefed area aligns with Masterplan

The briefed areas conform to the total building area anticipated by the Masterplan concept.

The total briefed area fits neatly over 2 levels with a building footprint of approximately 1,500m². This area is slightly larger than anticipated in the earlier Masterplan options but confirms fully to the Masterplan concept selected by the Councillors.

Building Area Incorporates Voids and Common Areas

The building envelope allows for a central spine foyer, which provides a clear organisational layout between library functions and community resource function.

This also provides good organisational connections between floor.

The library is laid out over two levels to one side of the foyer spine, whilst the community resource hub with the activity spaces is laid out on the other side of the foyer spine, also over two levels.

The library and resource hub can share resources seamlessly across the shared foyer, which provides access to common areas, such as toilets, lifts and support spaces.

Both the library and resource hub can be independently closed off at the foyer to allow separate hours of use and access to the community.

There is an allowance for open two storey voids within the foyer space to create openness, flexibility and transparency between the different spaces.

3.2.1 Block and Stack Concept Distribution of Functional Areas

The block and stacking diagram indicates a logical arrangement of functional spaces on each floor to accommodate library and hub functions. The layout for the library is open and flexible over the two floors, with its internal connecting circulation stair and lift.

Equally the resource hub with its activity rooms and seasonal offices provides a flexible arrangement of the spaces over the two levels.

Ground floor

The public building entry is from the Civic Plaza to a multi-level entry foyer with direct access to the cafe and library entry / customer service as well as direct access to activity room 1, which is a large flexible space for large user groups and function hire.

The library entry provides easy access to returns, quick fix and e-learning areas and opens out to:

- young adult,
- reading lounges,
- newspapers and periodicals
- children library
- lending library notice
- large print
- reading collections,
- IT reading
- informal reading areas.

These areas are outlined in the Graphic Return Brief and Floor Data Sheets.

The large multi-user activity room is accessed off the central foyer on ground level. The foyer provides gathering and spill out space for various community uses and functions. The activity rooms 2 and 3 are supported by shared amenities, kitchen and stores.

Level 1 floor

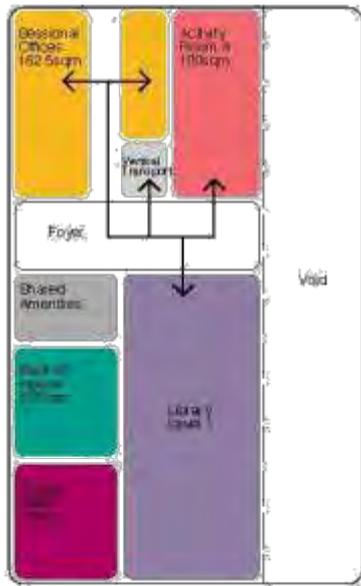
The level 1 floor is shown containing the remainder of the library which includes:

- study centre,
- IT work,
- informal reading lounges,
- non-fiction lending collection,
- young adult, and
- staff and back of house support areas.

This floor also includes activity room 4, which is a flexible space that can be used for exhibitions. Seasonal offices provide rooms for hire for a range of community and private health, welfare and educational practitioners that come to support and service the community.

This floor will also include plant areas and potential break out terraces to the active activity spaces.

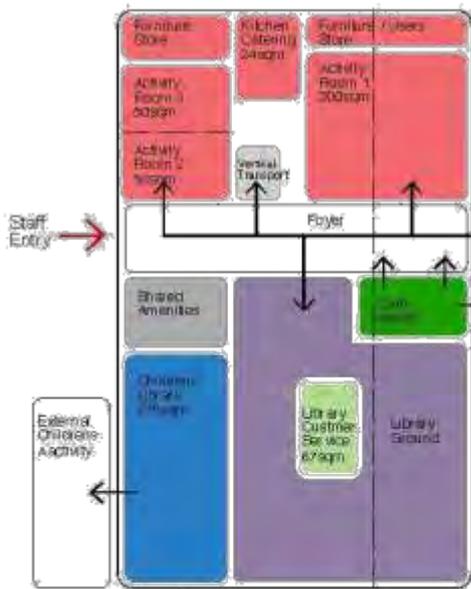
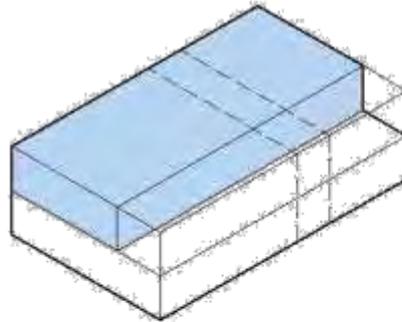
Blocking and Stacking Diagram



Level 1 Floor

Community Resource Hub

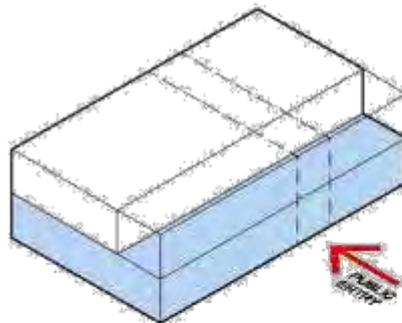
Library



Ground Floor

Community Resource Hub

Library



ORD07



A appendix:

room data sheets

Attachment 1

Oran park
library + community
resource
Centre
aspirational brief

STAGE 1 - ORAN PARK VPA WORKS



ORD07

Attachment 2



table of contents

1	executive summary
2	introduction
3	library and community services overview
4	principles for library and community facilities

Record of Issue

- Draft Issue V1, 27 September 2013
- Draft Issue V2, 10 October 2013
- Final Draft Issue V3 19 January 2014
- Final Draft Issue V3 21 January 2014
- Issue V4 12 February 2014

Acknowledgements

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Sources

- Future Leaders workshop, 26 August 2013
- Visiting workshop, 28 August 2013
- Library and Community Resources Centre workshop, 30 August 2013
- ICT workshop, 12 September 2013
- Camden Council masterplan presentation, 17 September 2013
- Review workshop, 27 September 2013
- Councillors workshop, 18 October 2013
- Community Services Workshop briefings, 29 October 2013
- Meeting with library and community services to review functional areas, 12 December 2013
- Meeting with IT team to review services and IT requirements, 12 December 2013

1 executive summary

Camden Council is an organisation that is entering a period of sustained transition as the population of the Local Government Area it serves is anticipated to grow five fold over the next thirty years.

Oran Park is currently transforming from a semi rural area into a new suburban township. At the core of this new township will be a new town centre. The town centre being developed will form part of a network of regional town centres, providing services for not only the adjacent residential areas but for the greater Camden region.

The importance to the Camden region of the town centre is highlighted by the proposal to create a new Civic Precinct in Oran Park Town Centre.

As part of developing the new township Council have agreed with the Developer of Oran Park (under a voluntary planning agreement VPA) for the provision of a number of community facilities within the Civic Precinct. The proposed community facilities include:

- A new Library and Community Resource Centre;
- A new Leisure Centre
- A new Youth Centre to the south east of the town centre
- A new Community Centre north of the town centre

The new Hub Library, Community Resource Hub and Leisure Centre are located within the Civic Precinct alongside the new Administration Centre and associated carparking.

Council has engaged Brewer Hill Architects, to prepare an Aspirational Brief and Functional Design Brief for the new Library and Community Resource Hub.

This document outlines the Aspirational Brief for Camden Council's new Library and Community Resource Hub. The purpose of this document is to define what the project needs to achieve including:

- The project scope and intent
- Identify key objectives, priorities and stakeholder issues.
- Develop strategies for core components
- Provide a framework for making decisions.

1.1 The Process

The briefing process has looked at three areas of focus:

- Library needs and functions, delivery models, and its place in Oran Park;
- Community resource hub needs and functions, and the delivery of services

The following meetings, workshops and surveys were carried out to define the Library and Community Hub brief:

- Meeting with Council Executives;
- Missioning workshops with SMT and "future leaders";
- ICT workshops;
- Library and resource needs workshops;
- Staff survey;
- Councilors' survey;
- Review workshop, 27 September 2013;
- Councilors workshop 15 October 2013;
- Stakeholders interviews, October, November 2013.

1.2 The Context

Camden Council is made up of approximately 80,000 ratepayers in 2013. By 2040 Camden Council is expected to be made up of approximately 250,000 ratepayers.

Camden Council is faced with:

- Needing to plan for growth - "we think like a small player when we need to be focusing on being a 'gig economy'".
- Evolving diverse customer base requires constant review and updating of services.
- Local Government regulatory environment is also evolving.
- Oran Park presenting a significant opportunity to create a thriving community supported by quality up to date services.
- A positive, committed culture that provides a solid foundation for innovation.

The Oran Park Precinct will be home to over 26,000 residents living in approximately 8,000 homes surrounding a modern Town Centre with 25,000-35,000 square metres of retail floor space. Oran Park is centrally located in the LGA and presents the ideal location for the new Administration Centre and Civic Precinct.

The Library and Community Resource Hub are part of a larger number of facilities being delivered to Council by the Developers of Oran Park (under VPA). This VPA is between Camden Council, Greenfields Development Company (GDC) and Urban Growth NSW. Separately, Council will be delivering the new Administration Centre, within the planned Civic Precinct at Oran Park.

The new Library and Community Resource Hub will be designed as an integrated facility, with links and potential connection to Council Administration Centre.

Councilors were presented with the current context at the workshop of the 15 October. At this workshop they confirmed agreement with the context outlined above.



1.3 the challenges + opportunities

The Aspirational Brief process has identified a series of key opportunities and challenges which were presented to Councillors at the workshop of the 16 October.

The opportunities presented for the new library

- Opportunity to provide modern services to the evolving community that can adapt and change easily over time.
- Welcoming and state-of-the-art facilities and a hub for the community within a new civic precinct.
- A place for innovations and leading edge design
- An integrated facility for Camden Council staff, Library and the Community Resource Hub.
- To create a new civic hub to the new township of Oran Park with the Library and Community Hub as its Centre.
- Good connections to the adjacent Administration and Sports Centre.
- A vibrant centre for programming spaces for human social activities.
- An open, flexible, welcoming environment.
- A place that is supported by the latest technology for total flexibility.
- A library that still provides books for its community, but one that moves forward with new technological innovations, and electronically provides resources.
- A place that can be used by the community as a casual drop in work spaces.
- A place owned by the community as an extension of their homes. "The third place for the community".

Councillors were generally in agreement with the opportunities presented. They noted at the workshop that they would like to see some innovations/leading edge design, but not too much. Councillors would like to see that any innovations/leading edge design be affordable within Council's resources.

The Opportunities Presented for the new Community Resource Hub

- The Community Resource Hub will create a place that complements and extends the library for the community to:
 - Hold meetings
 - Carry out and attend classes
 - Participate in cultural activities and events.
 - Provides multi functional spaces for performances, and creative arts.
 - Presents opportunity for dance space.
 - Is potentially connected to an outdoor performance space in the park.
 - Reflects on "Oran Park" cultural context and history (rural and motor racing connections).
 - Provides opportunity for gallery space.
 - Provides flexible spaces for "first of the month" programs.
 - Is totally accessible for after hours use; independently of library hours.
 - Forms a combined facility with the library (not a stand alone facility).
 - Provides opportunities for hireable work space to the community supported by mobile enabling technology.
 - Provides an integrated cafe with library.
 - A model that is similar to the Blacktown Community Hubs.

Challenges

- The challenges presented in designing and managing the facility.
 - Not knowing who the future customers will be, as the township grows.
 - The need to provide diversity of services, which reflect the changing community make up.
 - The ability for Council to have a quality facility reflecting community needs, delivered separately by the developer of Oran Park.
 - Align connections to the Administration Centre, acknowledging the project is being delivered separately by Council.
 - Financial constraints and taxpayer expectations.
 - Maintaining customer service quality and relationships.
 - Adopting "next generation" thinking.
- Councillors noted general agreement with the challenges facing Council.

1.4 the vision

Camden Council aims for the design of the new Library and Community Resource Hub to reflect design excellence, innovations, flexibility and sustainability principles while embodying the spirit and aspirations of the community.

In line with Council's aims, the Aspirational Brief has outlined Council's aspirations for a Library and Community Resource Hub that:

- Creates a community lounge - a "third place" for the community.
- Is inviting both internally and externally.
- Is a place that inspires creativity and is technology enabled.
- Creates belonging and ownership for the community and Council staff.
- Is welcoming, open and inclusive.
- Is visually connected with and open to the surrounding town context.
- Is accessible for the whole community.
- Is safe for visitors, staff and users.
- Actively contributes to the amenity and vitality of the precinct in which they are located, acting as a destination, a generator of activity and a focus for the community.
- Is designed to be flexible and adaptable over time to meet the changes and growing needs of the LGA.
- Promotes Council's leadership role in the Community.
- Creates a community hub - a place for the Community.
- Demonstrates excellence in all aspects of design, planning, development, management and construction.

1.5 design principles

As part of the workshop process with Council and stakeholders, the Aspirational Brief has formulated what are important design principles that will need to be considered in the design of the facilities.

The key design principles are for the facilities to:

- Be a gateway icon and address with architectural consistency.
- Create civic presence - a place that has "soul".
- Create a community lounge - a "third place" for the community.
- Is innovative and high tech.
- Visually attractive and inspiring.

- Flexible, adaptable, multipurpose, functional and able to easily change over time
- An integrated facility for Camden Council staff, library and the community
- Represent a fun, vibrant and engaging place
- Have an informal casual feel, that reflects a community living space
- Provide a sense of place and forms (along with the Administration Centre) the "god" of the community at Oran Park
- Be transparent and legible
- Be part of the community hub, and a place for the Community
- Be inviting internally and externally
- Provide public open spaces and Landscape that establish a memorable and activated town centre
- Build on Council's sustainable aspirations to integrate appropriate sustainability principles that are to be developed and tested in the design process.

1.6 desired appearance

- In line with the important design principles it has been established that the appearance of the building needs to reflect its, signature of the town centre and provide a sense of pride forming a united precinct with the other planned community facilities: administration centre, leisure centre and youth centre.
- The desired appearance includes:
- The exterior of the building needs to provide a modern expression and reflect the Civic and Cultural precinct, whilst reflecting the informal, vibrant community lounge.

- A strong and welcoming entry needs to be created, that is light filled, transparent and fully accessible.
- The centre needs to encourage active community access and provide links to the Administration Centre.
- The library and community resource hub should be designed with high ceiling voids, atriums and connections to external activity spaces and gardens.
- The buildings should have large areas of clear glazing which encourages views to external public areas, roads and parks and allows interactions between users and the community visiting and accessing the civic precinct
- The building should encourage activation of the public domain.
- A cafe with outdoor seating overlooking external areas is desired.
- The design should provide a strong roof form, and articulated facade to create a distinctive and memorable civic presence.
- The construction should consider showcasing technology as well as environmental initiatives that are able to be integrated in the design.
- The Civic Site is to be provided with technology that allows for interactive displays for local events, environmental performance, or just educational material.
- Consideration needs to be given for the buildings and the public domain to integrate public art
- Entries, forecourt, cafe and market opportunities need to be considered in the design to create an active frontage to the streets, park, and public plaza.

1.7 sustainability

Camden Council has outlined a desire to integrate sustainability aspirations in the Library and Community Resource Hub and the Administration Centre. These are intended to be explored in the design phase for possible integration with the larger site precinct.

At the workshop of the 15 October 2013, Councilors were presented with an overview of sustainability approach that could be considered for the project.

concord library centre

right: view of northern facade showing the thermal chimneys which drive the building's ventilation system



The previous sustainability considerations were confirmed to be the standard minimum practice which entails the following:

- The project sustainability needs to achieve at least the current Section 4 requirements of the BCA for energy efficiency measures. This is standard practice required for all new buildings.

Council's aspirations for the Library and Community Resource Hub include testing the ability to incorporate above standard sustainability initiatives where budget permits or where life savings illustrates benefits.

As part of the workshop Councilors were presented with the question on sustainability:

“What is important to Council?”

To arrive at sustainability brief it is critical to establish what is important for Camden Council and the new growth community. A series of Key Sustainable Objectives were presented which included:

- Identify good practice ESD initiatives for the development.
 - Potential investigation of alternative / sustainable power sources for the development, as opposed to relying on traditional power sources.
 - Potential to explore shared-energy opportunities for the precinct.
 - Consider potential for a staged development of service infrastructure requirements and integration with other facilities being provided at Oran Park (Leisure Centre).
 - Minimizing ecological impact.
 - Maximize occupant amenity.
 - Minimize operational costs through energy
 - Water, waste and maintenance minimization
 - Maximize integration with the greater precinct.
 - Reduce life-cycle carbon emission, including embodied carbon.
 - Reduce life-cycle carbon emission, including embodied carbon.
 - Design for a changing climate.
- Councilors direction for the project sustainability was confirmed as follows:
- Councilors do not want to target specific rating or targets such as Green Star Rating.

- The project is to consider good sustainable practices in design, which can be delivered within Council available project resources.

An Holistic Approach

On the basis of Council aspirations to look at what is possible within what is affordable, it is suggested that an holistic approach is looked at which combines the important aspects of achieving actual ESD goals (eg. reducing energy usage) with an analysis of what initiatives are available that could be incorporated in the project.

Designing for Oran Park Environment

Understanding the local environment at Oran Park will form an important aspect in arriving at a range of alternative systems which are best suited to local conditions.

There is a great potential for the incorporation of ESD principles in the design of the new building. This entails actively pursuing the application of passive energy systems to work with the buildings Climate Control (AC) systems such as:

- Natural ventilation.
- Naturally induced ventilation systems (thermal chimneys, chimneys, etc).
- Pre-cooled air supply using labyrinth.
- Night purging systems.
- Double skin facades.
- Increased use of daylighting to light user spaces.
- Integration of improved efficient energy per for mania building envelopes and structure.
- Displacement mode air delivery systems.

Reducing Energy usage

A key design objective will be to reduce energy use of the completed building. This will be achieved through both reviewing alternative methods of managing conditioned air and designing the building fabric to make use of thermal mass and insulation to manage the peaks and troughs in outside air temperature.

Water Conservation

Water conservation will be an important component of the buildings sustainability. The design needs to actively pursue the incorporation of ESD hydraulic systems including grey water recycling, and rain water collection for recycling.

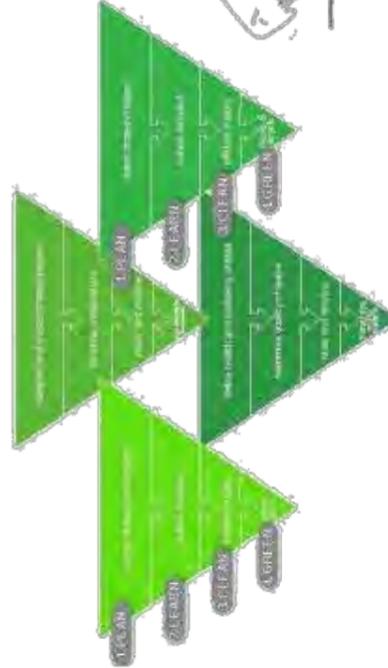
Other Objectives

- Other project objectives will include:
 - Reliance on natural day lighting wherever possible, together with energy efficient artificial lighting and lighting controls.
 - Avoidance of the use of non-renewable resources such as rainforest timber.
 - High efficiency plant components
 - Recycling and use of low embodied energy materials where possible.

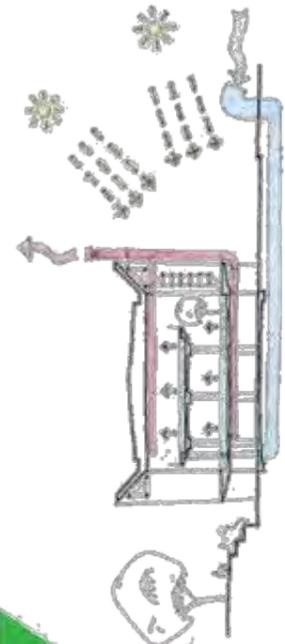
The project design brief requires a range of options to be explored to allow appropriate sustainability measures to be incorporated in the design.

ESD design should follow the inverted pyramid model illustrated by the diagram above.

Plan, Lean, Clean, Green: It is better to save energy and preserve resources in the Plan Phase, then in the GREEN Phase.



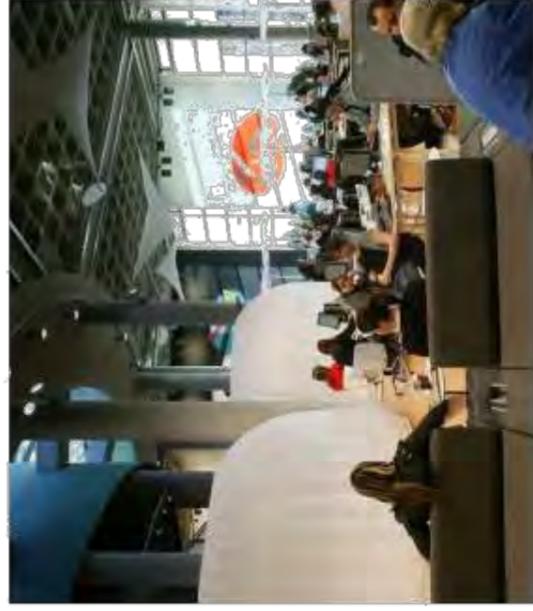
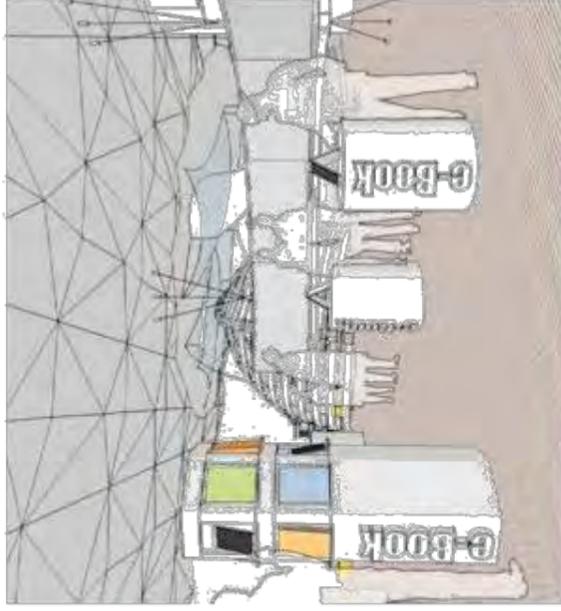
concord library centre
diagrammatic representation of the Concord Library Centre's naturally driven ventilation and cooling system;



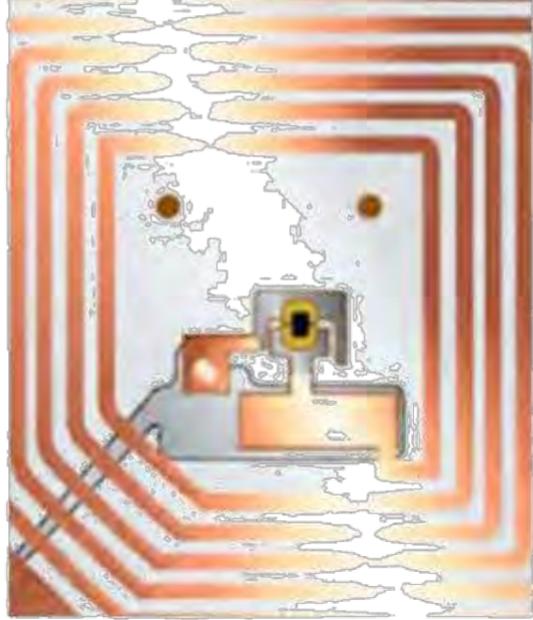
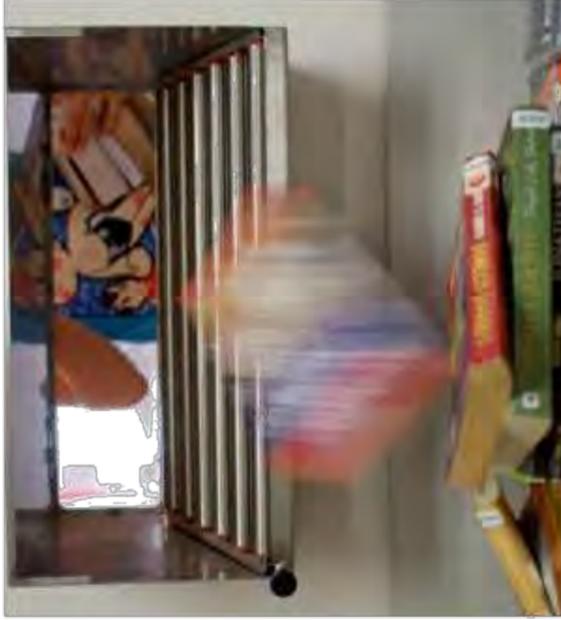
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Attachment 2

digital resources



collection management
RFID



customer service model
central point + focussing points



2 Introduction

2.1 Overview

This document captures the Council's aspirational requirements for the development of a new Library and Community Resource Centre to be located in the new Oran Park Town Centre.

The purpose of this brief is to understand the big picture for Council's proposed Community Facilities. It is intended to address:

- What services do you want to provide?
- How do you want to provide them?
- How do the services fit into the LGA? and
- How will these evolve into the future?

2.2 Scope

The Library and Community Resource Hub Aspirational Brief has two components:

- A branch library for Oran Park which is to form one of three hub libraries within the Camden LGA.
- A Community Resource Hub, which is to be integrated with the library.

A report was prepared in 2007 by Elton Consulting Group outlining the community facilities requirements for Oran Park. This formed part of a study prepared for the Growth Centres Commission in support of new growth centres planning.

The 2007 Elton Report identified the following community facilities for Oran Park based on the estimated population catchment:

- A branch library at 1600 m².
- A multipurpose community centre at 970 m².
- A youth centre at 798 m².
- Two other district and cultural centres within the precinct.

This Aspirational Brief deals with the branch library and the (multipurpose) community resource hub.

This brief outlines the aspirations for the service delivery, functional requirements, models of operation, and possible links and integrations with the Administration Centre.

2.3 Urban Context

Oran Park is currently transforming from a semi rural area into a new suburban township. This new town has been designed as more than a residential suburb. At the core of this new township will be a new town centre which will be planned to be more than a suburban shopping village. The town centre being developed will form part of a

network of regional town centres, providing services for not only the adjacent residential areas but for the greater Camden region.

The importance to the Camden region of the town centre is highlighted by the proposal to relocate Council's Administration to the Oran Park Town Centre.

As part of developing the new township Council and the developer have agreed to the provision of a number of community facilities. The proposed community facilities include:

- A new Branch Library and Community Resource Centre within the town centre
- A new Leisure Centre within the town centre
- A new Youth Centre to the south east of the town centre
- A new Community Centre north of the town centre

2.4 Planning Context

Council has prepared the Oran Park Section 94 contribution plan for the Oran Park VPA held with the developer of the Town Centre. These documents adopt the "Oran Park Community Facilities and Open Space Assessment Report" prepared by Elton Consulting. This further report calls for a Branch Library, Community Resource Hub to be constructed within the Civic Precinct of the Town Centre. made up by the following elements:

- Branch Library 1577 m² floor area
- Community Resource Centre 741 m² floor area
- Local Cultural Space 494 m² floor area
- Total Area 2722 m² floor area



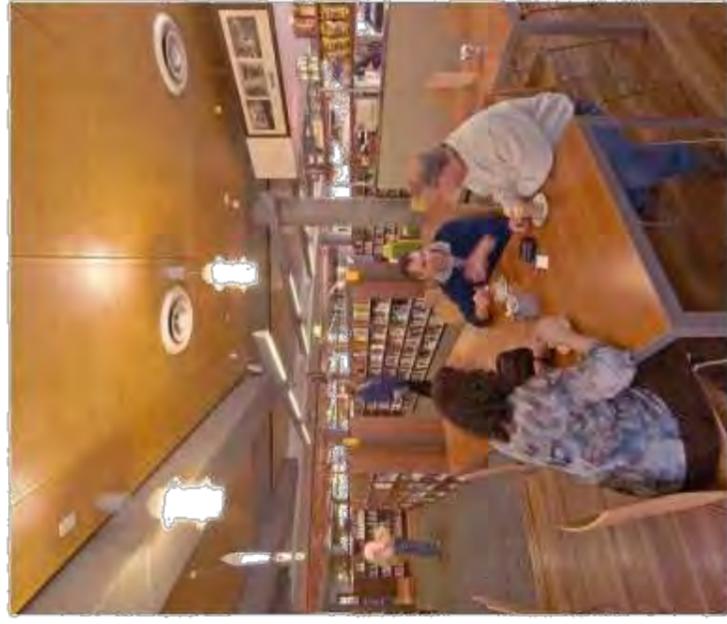
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Attachment 2

changing paradigms
enabling technology



changing paradigms
social place



changing paradigms
youth learning and lounge





3 library and community

3.1 Council's delivery model for libraries

Council currently operates two libraries to service the Camden LGA, one at each of the town centres of Camden and Natalan. The current delivery model is based on a "hub" model rather than a large centralised library with smaller branches. Council's intends to maintain this model as the LGA grows developing hub libraries located within the main town centres of the LGA. The proposed library will become the third library within this network and be located within the proposed new town centre of Oran Park.

3.2 The key objectives for the library service

It is intended that the library is seen as a "third space" (ie, as if it "owned" by the community and forms a community living room. To achieve this objective the new facilities need to be:

- Welcoming, open, friendly and vibrant;
- Provide a range of users spaces from informal flexible spaces through to specific programmed spaces;
- Provide both active and quiet working spaces;
- Provide social areas;
- Provide flexible integrated technology;
- Provide meeting and activity spaces for users;
- Allow partnerships with the community and small resource providers (for example student tutors)

A key objective of the new library will be to ensure that the facility is an active space not just a place to store resources. The facility should be designed to encourage users to spend time with in the library, whether it be reading, studying, socialising or learning something new.

To achieve this objective the library will need to provide a range of spaces and facilities which:

- Promote different usage patterns;
- Reflect that different users read and study differently;
- Allow both noisy and quiet activities to occur simultaneously;
- Understand different users sometimes like to be separated;
- Allow group activities to be undertaken;
- Allow for various programmed facilities.

The e-book revolution currently under way will see the library providing resources in new electronic formats at a growing pace. These resources will be accessed both within the library and also remotely. In the medium term the library will have an important role in marketing these materials to users and educating them on its use.

Importantly however, it is envisaged that there will be a need to hold a significant collection of "books" in the library. The library sees a need to provide a diverse range of resources into the future and the new facilities will need to cater for this diversity.

3.3 Council's delivery model for community and cultural facilities

Council provides community and cultural facilities to cater for a very diverse range of users, activities and programs. Facilities may include social events, civic events, public meetings, education, leisure activities, fitness activities, performing arts, creative arts, children's activities, youth centres, senior's activities or sporting activities.

The proposed facilities to be co-located with the library are just one of a number of community facilities proposed for the Oran Park town.

As it is planned to provide a comprehensive network of centres, this will allow each centre to be designated to cater for specific target users or activities.

3.4 An Integrated Community Resource Centre

It is envisaged that the new facilities are developed as an integrated community resource centre. With the library and community centre offering complementary resources, programming and activities.

It is envisaged that the community and cultural facilities will provide the following types of activities and programs including:

- Community group meetings;
- Educational and training classes, including IT training, languages, school extension, life learning and learning for the third age; financial learning programs and the like;
- Small civic events;

- Cultural displays and exhibitions provide display space for items for Council's art collection;

- Cultural activities, including course and group programs in literature, music and a creative arts;

- Small performance events, in drama, music, literature and cinema.
- The planned mix of programs and activities proposed for the community and cultural facilities is complementary to those planned for the library. It therefore envisaged that the new facility will become a single Community Resource Centre which offers integrated Council, Community and Commercially organised programs and activities.

3.5 The key objectives of the community and cultural facilities

To achieve an integrated resource centre the key objectives of the community and cultural facilities should mirror those for the library noted above.

The community and cultural facilities should also:

- Allow for integration of internal and external facilities, potentially allowing events to spill outside;
- Be a transparent active place, where people come together, meet, be seen, socialize, or learn;
- Include a spatial ambience and style suited to both civic and learning activities;
- Engender community involvement;
- Help promote cultural activities and allow them to become an active part of the centre through both performance and display.

A number of key operational objectives should also be integrated into the new facilities:

- Single venue with single management and booking;
- The location and visual connection between facilities helps create an active and vibrant facility;
- Ability to access community and cultural facilities outside library hours;
- Allow different types of activities to be programmed at the same time, limiting negative acoustic and operational impacts between activities;
- Allow groups of rooms to be used together to allow conferencing or multi room education programming for example; and
- Provision of appropriate support facilities to allow diverse range of users including storage and catering facilities.

3.6 Primary users of the facilities

It is very hard to determine with absolute certainty who the users of the new facilities will be, as the suburb is still being built and the future residents are yet to arrive.

- At this time a large number of the incoming residents to Oran Park are:
 - second to third time home buyers;
 - many of them are coming from other areas of the LGA;
 - there are not clear trends of residents (for example large numbers of young families or specific ethnic groups); and
 - no specific demographics with specialist needs.

At this time the proposed facilities will need to cater for a wide range of users and be designed to allow change over time as the shape of the new community forms and evolves.

The Oran Park development will potentially include:

- Customers using the regional shopping centre being developed;
- School children enrolled in the three K to 12 schools located immediately adjacent to the town centre;
- Council officers working in the on-focused administration centre;
- Workers of commercial enterprises to be located in the town centre;

3.7 Supporting education in the community

The new town includes three K to 12 schools as part of the planning of the town centre. One of these schools is being run by the Anglican Church. It is understood that the three Colleges will draw students from well outside the Oran Park Suburb and serve the greater Camden Region.

It is expected that students from the adjacent schools will actively use the new library facilities outside school hours to support their study needs. The library will need to facilitate the following to cater for these customers:

- The library will need to provide spaces for students to study or just chill after school and resources to support their studies, especially HSC resources;
- The library may potentially offer spaces where tutors can meet students after school to help with their studies;
- These students will also potentially access extra curricular activities which could be offered by providers using the Community and Cultural facilities.

- The library may consider including a cafe where students can purchase afternoon tea when arriving directly after school. Providing facilities for life long learning has become an important emphasis of local libraries. We have been advised, like existing Council libraries in the network, there is a need for supporting adult distance students with facilities within the new library.

3.8 Community Centre Programs

The following provides a proposed framework for the proposed centres and possible

Centre	Centre focus	Program and activity types
Community centre to north of town centre (900 sqm)	A focus on social events, community groups and young children activities.	Family Social Events, Children playgroups, Dance classes, Religious groups, meetings, Large Community group meetings, Active based community groups (social, dancers etc)
Leisure Centre	A focus on fitness and sporting activities	Fitness classes, Indoor sports
Library/Community Resource Centre	A focus on civic, education and cultural activities	Civic meetings, Small community groups, Educational classes, Charity and enterprise organisations, IT groups and training, Creative spaces
Youth centre		Chill out space, Youth dance, Youth music, Recording studio

3.9 Council's Delivery model for community and cultural facilities

It is Council's intention to locate a manager based at the centre. The Library and Community Resource Hub are to be designed as one facility, with shared common areas and foyers.

Bookings and management of the centre will be handled through Community Services and Council's customer service.

The Library and community resource hub will also have different hours of operation, requiring community spaces to be accessed and managed after hours, and on days when the Administration Centre is closed. The design of the facilities with links, possible collocation, shared amenities and foyers will be critical to the efficient management, control and security of the Centres during all hours of use.

This section of the aspirational brief reviews the overall operational requirements for the proposed library and Community Hub facilities. It is not intended to be a detailed analysis of functional requirements but to be used as a framework of principles which will be detailed within the functional brief.





4 design principles - library community facilities

4.1 Changing library paradigm

The modern library has become in recent years the "third place" for the community. It is no longer a repository or supermarket for books. It is much more. It has become an extension of the community living room providing a vibrant place for the community:

- To lounge, socialize and interact.
- To learn and be educated
- Customer focused on needs such as youth drop in place and seniors/living room
- It manifests as a series of rooms that combined create a sense of place for the community
- That is tightly enabled by IT and technology making it possible to view and borrow digital media, including "e-learning and collections via mobile devices
- Becomes a place for Council services and information
- That is full of innovations, such as "Quick Fix" points, where the customer has quick access to latest picks, and releases, and can readily access areas of interest.
- That is rich in digital downloadable collections
- That is rich in IT training, educational material, and access.
- Is a place where you can meet friends and just "hang out"
- That provides a rich diversity of spaces for all interests and ages
- Creates a vibrant hub of activity being at the forefront of knowledge and material for the community's needs.

4.2 Community Resource Hub Design

Through the process of workshops and stakeholder interviews carried out with Council, a series of key design objectives were established for the design of the Resource Hub.

These design objectives are as follows:

1. Create a hub for mixed learning shared with the library and creative work.
2. Provide a suite of rooms for community meetings, activities, events and creative work.
3. Provide offices (hireable) for practitioners to provide a range of services to the community such as health, counselling and welfare.
4. Exhibition and performing space for cultural activities.

The vision for the resource hub is one that creates a light, bright, vibrant community space that is welcoming and accessible to the whole community.

The brief from the Council and stakeholders requires the Resource Hub to be flexible and adaptable to meet the changing needs of the community over time.

The Resource Hub will provide a series of spaces that allows the community to:

- Use the spaces for meetings, activities and events
- Form a base for the delivery of local community services and programs.
- Is flexible in allowing particular services and programs that target specific groups, such as young people, older people etc.
- Provides spaces for the community to hire for private functions.
- Creates a hub for "Mixed Learning".
- Provides a series of activity rooms with different identity, ambience and flexible set up.
- Share resources and activities with the library to create one single community place.
- Provides specialist facilities with a particular focus on recreation, arts, cultural activity, learning or social support.
- Provide spaces for programs and services that assist individuals to achieve their potential including business and work program skills.
- Provide spaces for a range of community (and private) health and welfare practitioners to offer support and counselling to individuals and families.

The centre will be co-located with the Library with sharing of common facilities such as amenities and lifts.

It will be provided with separate secure entries and exits to allow for the different hours of operation with the Library.

4.3 Community Facilities

The facilities will include activity, meeting, exhibition and sessional spaces designed to provide flexible, bookable spaces to service both periodic and occasional uses.

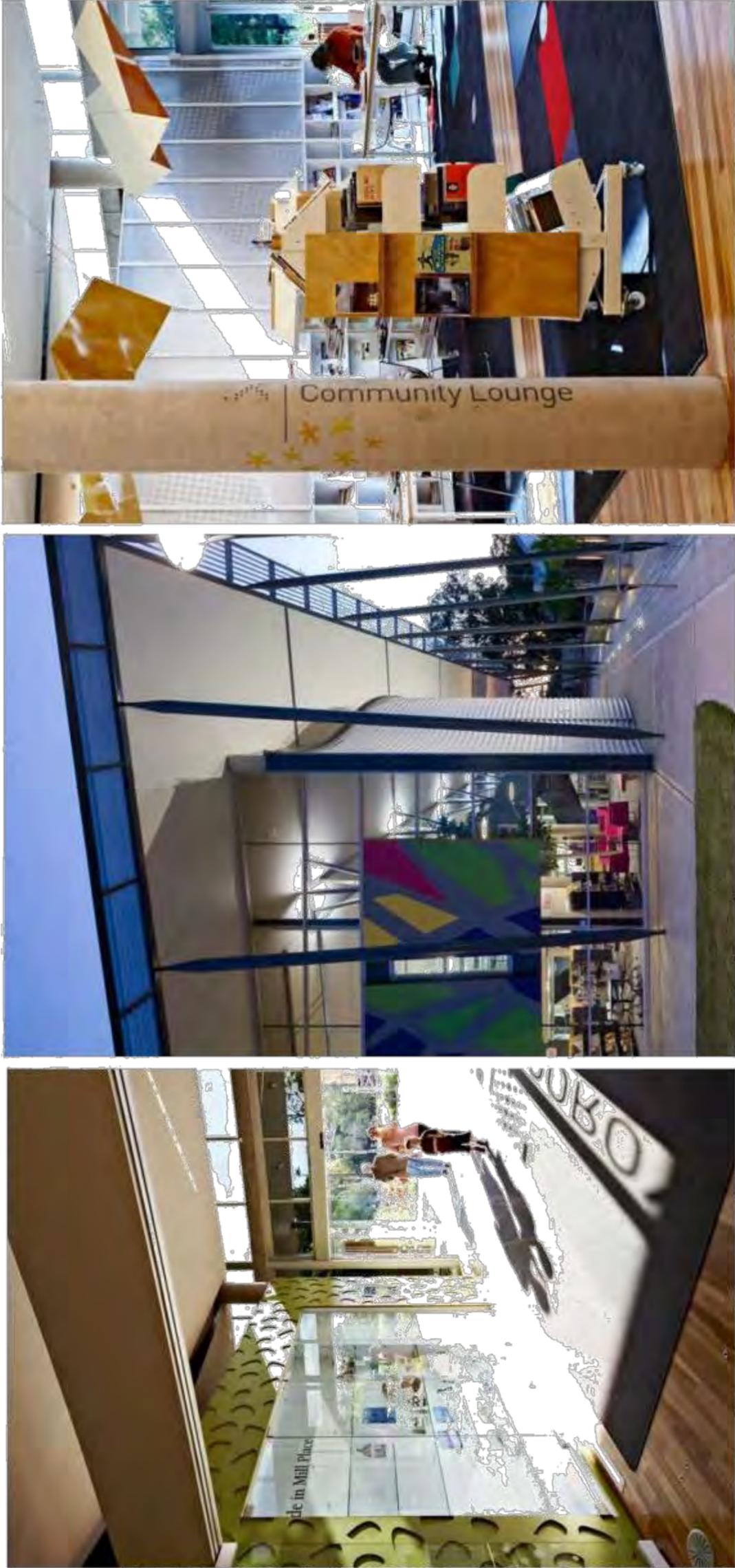
These facilities will include:

- Multi-purpose activity rooms providing spaces ranging from 50-200m² and including storage space for furniture and user equipment
- Sessional offices and meeting rooms around 18-180m²
- Catering Kitchen and user Kitchenette
- Printer and Manager's Office
- Cafe
- Lift, toilet facilities and ancillary support spaces

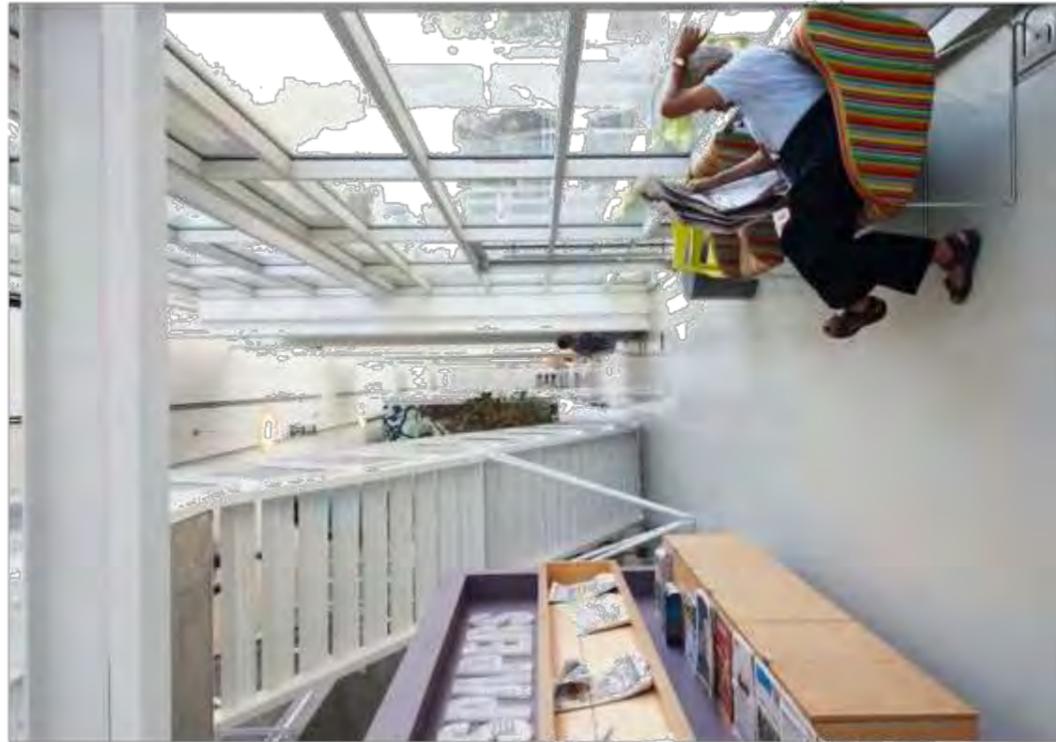
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Attachment 2

inspiring library and community spaces



inspiring libraries and community spaces



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Attachment 2