

Location:

Meeting Date: Tuesday 2 December 2014

(LDA2005/0116).....

Planning and Environment Committee AGENDA NO. 13/14

Committee Room 2, Level 5, Civic Centre, 1 Devlin Street, Ryde

| Time | e: 5.00pm | |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| Item | NOTICE OF BUSINESS Page | nΔ |
| 1 | CONFIRMATION OF MINUTES - Meeting held on 18 November 2014 | |
| 1 | | . ! |
| 2 | 38 FREDERICK STREET, RYDE - LOT 10 IN DP 30457. Development Application for alterations and additions to a dwelling house to create a dual occupancy (attached) development. LDA2014/0194. INTERVIEW 5.00PM | 5 |
| 3 | 71-75 MAGDALA ROAD, NORTH RYDE - LOTS 324-326, DP 183739. | , J |
| J | Magdala Park. Section 96 Modification to amend condition of consent to allow use of Field No. 1 up to ten (10) nights per year. MOD2014/0006 | |



1 CONFIRMATION OF MINUTES - Meeting held on 18 November 2014

Report prepared by: Section Manager - Governance

File No.: CLM/14/1/3/2 - BP14/1093

REPORT SUMMARY

In accordance with Council's Code of Meeting Practice, a motion or discussion with respect to such minutes shall not be in order except with regard to their accuracy as a true record of the proceedings.

RECOMMENDATION:

That the Minutes of the Planning and Environment Committee 12/14, held on Tuesday 18 November 2014, be confirmed.

ATTACHMENTS

1 Minutes - Planning and Environment Committee - 18 November 2014



ATTACHMENT 1

Planning and Environment Committee MINUTES OF MEETING NO. 12/14

Meeting Date: Tuesday 18 November 2014

Location: Committee Room 2, Level 5, Civic Centre, 1 Devlin Street, Ryde

Time: 5.04pm

Councillors Present: Councillors Chung (Chairperson), Laxale and Yedelian OAM.

Apologies: Councillor Simon.

Absent: Councillor Salvestro-Martin.

Staff Present: Acting Group Manager – Environment and Planning, Manager – Assessment, Team Leader – Assessment, Senior Town Planner, Senior Development Engineer, Client Manager, Planning Consultant (Creative Planning Solutions), Business Support Coordinator – Environment and Planning and Section Manager – Governance.

DISCLOSURES OF INTEREST

There were no disclosures of interest.

1 CONFIRMATION OF MINUTES - Meeting held on 4 November 2014

RESOLUTION: (Moved by Councillors Yedelian OAM and Laxale)

That the Minutes of the Planning and Environment Committee 11/14, held on Tuesday 4 November 2014, be confirmed.

Record of Voting:

For the Motion: Unanimous

Note: This is now a resolution of Council in accordance with the Committee's delegated powers.

2 21 GORDON STREET, EASTWOOD - LOT 10 SECTION 4 IN DP 7076. DA for a multi dwelling housing development with 4 units - 1 x 2-storey 5 bedroom dwelling at the front and 3 x single storey 3 bedroom dwellings at the rear. LDA2014/0089.

Note: Helena Yuen (objector), Patrick Bracken (objector) and Eric Chan (on behalf of the applicant) addressed the meeting in relation to this Item.



ATTACHMENT 1

RESOLUTION: (Moved by Councillors Laxale and Yedelian OAM)

- (a) That LDA 2014/0089 at 21 Gordon Street, Eastwood being LOT 10 SECTION 4 DP 7076 be approved subject to the **ATTACHED** conditions (Attachment 1).
- (b) That the persons who made submissions be advised of Council's decision.
- (c) That Council write to Sydney Water on behalf of the applicant, residents and objectors in Gordon Street to highlight the concerns raised about the failure of the sewerage facilities in this locality and to offer to work with Sydney Water to find a solution.

Record of Voting:

For the Motion: Unanimous

Note: This is now a resolution of Council in accordance with the Committee's delegated powers.

7-9 RUTLEDGE STREET, EASTWOOD, LOT 1 DP1111051 and LOT 24 DP 653568. Staged Development: mixed use development comprising 613m2 of retail space and 100 residential apartments upon completion of both stages & strata subdivision. LDA 2011/0612.

Note: Andy Ludvik and Terry Morris (on behalf of the owner) were available to answer questions in relation to this Item.

RECOMMENDATION: (Moved by Councillors Yedelian OAM and Laxale)

(a) That Local Development Application No. 2011/0612 comprising staged development as outlined below for the construction and strata subdivision of a mixed use development at 7-9 Rutledge Trelawney Street, Eastwood be approved subject to the **ATTACHED** conditions (Attachment 1).

i. Stage 1

- Construction of mixed use development with 483m² of retail space and 99 residential apartments;
- Provide a new vehicular crossing and access ramp directly from Trelawney Street frontage;
- Strata subdivision of the development.

ii.Stage 2

 Remove the access ramp and vehicular crossing approved under Stage 1 above and replace it with additional retail space equating to 130m² of gross floor space on the lower ground floor level;



ATTACHMENT 1

- Construct a new 2 bedroom apartment within the void area above the retail level resulting from the removal of the ramp;
- Provide new access to the building from the northern corner of the building via Eastwood Shopping Centre access ramp (existing ROW). This may be possible if the Eastwood Shopping Centre site is redeveloped in the future;
- (b) That Council accept the Voluntary Planning Agreement received by Council on 12 August 2013 (Reference No. PJAC_100970_017.DOC) made by Rutledge Street Pty Ltd in conjunction with the approval of the LDA2011/0612.

Record of Voting:

For the Motion: Unanimous

Note: This matter will be dealt with at the Council Meeting to be held on **25 NOVEMBER 2014** as it is outside the Committee's delegations

The meeting closed at 5.23pm.

CONFIRMED THIS 2ND DAY OF DECEMBER 2014.

Chairperson



2 38 FREDERICK STREET, RYDE - LOT 10 IN DP 30457. Development Application for alterations and additions to a dwelling house to create a dual occupancy (attached) development. LDA2014/0194.

INTERVIEW: 5.00pm

Report prepared by: Team Leader - Assessment; Creative Planning Solutions Report approved by: Manager Assessment; Acting Group Manager - Environment

and Planning

Report dated: 10/11/2014 **File Number:** grp/09/5/6/2 - BP14/1372

1. Report Summary

Applicant: Nathan Jammal

Owner: Nathan Jammal & Jordan Jammal

Date lodged: 20 May 2014 (amended plans received 10 July 2014)

This report considers a proposal for the alterations and additions to an existing dwelling house to create an attached dual occupancy development. The proposed dual occupancy consists of a 2-storey four (4) bedroom dwelling at the front of the site fronting Frederick Street, and a part single/part 2-storey three (3) bedroom dwelling attached to the rear.

The subject site is located in an area of Ryde where there is a diversity of residential accommodation types, including predominately detached dwelling houses, however becoming increasingly interspersed with dual occupancy and multi dwelling house developments.

The development application as originally lodged (LDA2014/0194) was notified in accordance with the then Ryde Development Control Plan 2010 (now the Ryde Development Control Plan 2014). In response, a total of six (6) individual submissions were received by Council, objecting to the proposed development.

Following a request for additional information and modification of the proposal by Council, the amended application was re-notified. In response, no further submissions were received by Council.

The issues raised in the original round of notification can be broadly grouped as follows:

- Overshadowing impacts;
- Privacy impacts;
- Inadequate southern side setback;
- Excessive bulk;
- Traffic and parking implications;
- Height non-compliance;
- Swimming pool amenity impacts; and
- Inconsistent and confusing plans.



The proposal has been assessed against the provisions of the Ryde Local Environmental Plan 2010 and now applicable Ryde Development Control Plan 2014. While being compliant with the provisions of the Ryde Local Environmental Plan 2010, some areas of non-compliances with the Ryde Development Control Plan 2014 remain, and can be summarised as follows:

- The amount of front garden hard paving area;
- Greater than the maximum car parking requirement provided;
- Overshadowing of neighbouring properties; and
- Visual privacy impacts.

On this basis, the subject development application is recommended for approval subject to conditions. Such approval will need to be a "Deferred Commencement" consent to ensure particular development engineering matters can be addressed before the consent becomes operational (ie submission of a plan to indicate the location of an existing pipe within the adjoining property at No 36 Frederick Street, and also creation of an easement to drain water over that property).

Reason for Referral to Planning and Environment Committee: Requested by Councillor Maggio and Councillor Petch (currently suspended, note – Cr Petch's call up is to Full Council).

Public Submissions: A total of six (6) individual submissions were received in

relation to the original notification of the proposed

development.

Following a submission of revised plans, the amended application was re-notified. In response, no further submissions were received by Council regarding the amended plans.

SEPP 1 (or clause 4.6 RLEP 2010) objection required? None required.

Value of works: \$400,000.00

A full set of the plans is **CIRCULATED UNDER SEPARATE COVER** as additional information provided to Councillors - subject to copyright provisions.

RECOMMENDATION:

- (a) That LDA 2014/0194 at 38 Frederick Street, Ryde being LOT 10 DP 30457 be approved subject to the ATTACHED (*Attachment 1*) conditions.
- (b) That the persons who made submissions be advised of Council's decision.



ATTACHMENTS

- 1 Draft Conditions
- 2 Ryde DCP 2014 Compliance Table
- 3 Map
- 4 A4 Plans
- **5** A3 Plans subject to copyright provisions CIRCULATED UNDER SEPARATE COVER

Report Prepared By:

Chris Young
Team Leader – Assessment

Ben Tesoriero Planning Consultant Creative Planning Solutions

Report Approved By:

Liz Coad Manager Assessment

Meryl Bishop
Acting Group Manager - Environment and Planning



2. Site (Refer to attached map below)

Address : 38 Frederick Street, Ryde

(Lot 10 in Deposited Plan 30457)

Site Area : 1,030.68m² (Deposited Plan 30457).

Site frontage to Frederick Street of 16.59m (DP)

Rear boundary of 15.28m (DP)

Northern side boundary of 63.94m (DP) Southern side boundary of 70.49m (DP)

Topography and Vegetation

The subject site has a steady fall of approximately 5m: from the front boundary at Frederick Street to the rear boundary. Given this occurs over a distance of

around 65m, the average gradient across the site has

been calculated at approximately 1:13.

Existing vegetation on the subject site consists of two

(2) large trees in the front setback and one (1)

medium sized tree in the rear setback.

Existing Buildings

: There is currently a two-storey dwelling house of brick construction with a tiled roof on the subject site. Site access is via a concrete layback, crossover and driveway located parallel to the northern side boundary.

Planning Controls

Zoning : R2 – Low Density Residential under Ryde Local

Environmental Plan 2010;

R2 – Low Density Residential under Ryde LEP 2014.

Other : Ryde Development Control Plan 2014,

State Environmental Planning Policy (Building

Sustainability Index: BASIX) 2004



Figure 1. Aerial image of the subject site and the surrounding development. It is noted that all objections to the proposed development have been received from the large adjoining multidwelling housing development to the south of the subject site



Figure 2. Photograph of the front of the subject site, taken from Frederick Street. Noted in this photograph is the existing two-storey brick dwelling house with tiled roof that will be the subject of the alterations and additions as part of this development application.

3. Councillor Representations

Name of Councillor: Councillor Maggio

Nature of the representation: Call up to Planning & Environment Committee

Date: 31 May 2014

Form of the representation (e.g. via email, meeting, phone call): Email to Councillor Help Desk

On behalf of applicant or objectors? Objector at No 9/40 Frederick Street

Any other persons (e.g. consultants) involved in or part of the representation: None.

Name of Councillor: Councillor Petch (note: currently suspended)

Nature of the representation: Call up to Full Council.

Date: 31 May 2014

Agenda of the Planning and Environment Committee Report No. 13/14, dated Tuesday 2 December 2014.



Form of the representation (e.g. via email, meeting, phone call): Email to Group Manager Environment & Planning

On behalf of applicant or objectors? Objector at No 9/40 Frederick Street

Any other persons (e.g. consultants) involved in or part of the representation: None

4. Political Donations or Gifts

None disclosed in applicant's development application submission or in any submission received.

5. Proposal

The following outlines the scope of works proposed as part of the development application at 38 Frederick Street, Ryde:

Development consent is sought for the alterations and additions to a detached dwelling house to create a dual occupancy (attached) development. The proposed dual occupancy consists of retaining the existing 2-storey four (4) bedroom dwelling at the front of the site fronting Frederick Street (with some minor alterations/additions to the front), and a new part single, part 2-storey three (3) bedroom dwelling attached to the rear

It is noted that no subdivision is proposed as part of the subject development application.

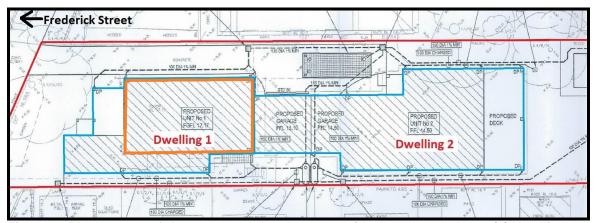


Figure 3. Plan extract of the proposed development with the proposed two (2) dwellings highlighted in blue and labelled in red. The orange represents the footprint of the existing dwelling that is proposed to be altered and added to. The red perimeter represents the boundary of the subject site at 38 Frederick Street, Ryde.

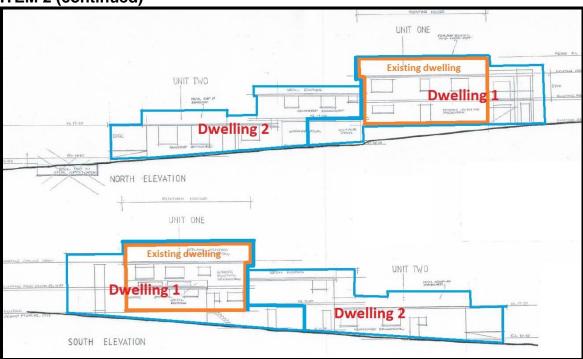


Figure 4. Extract of the North and South Elevation drawings of the proposed development with two (2) dwellings proposed highlighted in blue and labelled in red. Highlighted in orange is the existing dwelling that is the subject of the proposed alterations and additions.

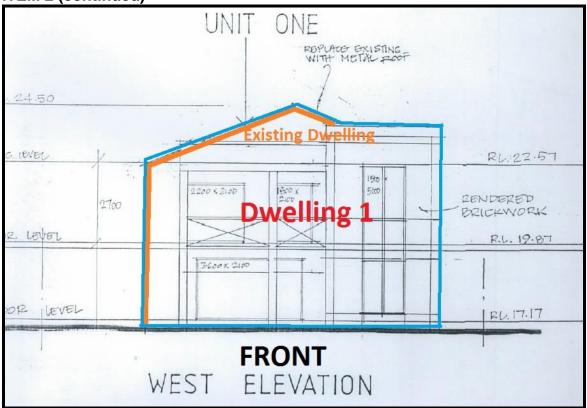


Figure 5. Extract of the Western (front) Elevation drawing of the proposed development with the visible Dwelling 1 highlighted in blue and labelled in red. Highlighted in orange is the visible portion of the existing dwelling that is the subject of the proposed alterations and additions.

6. Background

The following is a brief overview of the development history relating to the proposed development:

- Development application LDA2014/0194 was lodged with Council on 20 May 2014;
- Notification of the subject development application in accordance with Part 2.1 of the Ryde DCP 2014 took place for a period of two (2) weeks from 22 May 2014 to 6 June 2014.
- In response six (6) submissions that generally objected to the proposed development were received. It is noted that all of these submissions came from residents and owners of the adjoining villa development to the south.
- A letter requesting additional information and revised plans was sent to applicant on 23 June 2014. This was because the following issues were identified as part of Council's preliminary assessment and neighbour notification process:



- Planning Issues: significant non-compliance with front garden landscaping requirements and inconsistency between plans.
- Landscaping Issues: Arboricultural Impact Assessment not submitted, and an inadequate landscape plan provided.
- Development Engineering Issues: Flood assessment report not submitted, inconsistent and inadequate plans, sightline issues, and BASIX inconsistency.
- On 10 July 2014, additional information was submitted to Council from the applicant which included a revised set of plans in response to the issues raised by Council. In summary, the amended proposal included a reduction in hard paving in the front yard, the deletion of a swimming pool, and rectification of inconsistencies between the plans. The amendments were considered to adequately address the issues raised by Council.
- In accordance with Council policy, the amended application was re-notified for a period of two (2) weeks from 4 August 2014 to 20 August 2014.
- No further submissions were received by Council.

7. Submissions

The subject development application and subsequent amended development application was notified to surrounding property owners and residents in accordance with the Part 2.1 'Notice of Development Applications' of the then Ryde Development Control Plan 2010 (now the Ryde Development Control Plan 2014). Six (6) submissions were received in response to the notification of the original development application, and no submissions were received in response to the notification of the amended development application.

It is important to note that the six (6) submissions that were received by Council were all from the owners/occupiers of the dwellings within the adjoining multi dwelling house development to the south, No. 40-44 Frederick Street. Accordingly, the issues discussed below are all in relation to this property.

The issues raised in the submissions along with the Assessing Officer comments to each issue are illustrated below:

A. Overshadowing

All of the submissions raised concerns over the overshadowing impact of the proposed development on the adjoining villas to the south No. 40-44 Frederick Street, Ryde. There was particular concern for the impact on the private open spaces and rear windows of the six (6) villas that back onto the southern boundary of the subject site at 38 Frederick Street.



Assessing Officer's comment:

The daylight and sunlight access impacts of the proposed development have been assessed with specific regard for Section 2.14.1 of Part 3.3 of the Ryde DCP 2014 which prescribes development controls for daylight and sunlight access. This section provides a specific control for sunlight access to neighbouring properties that stipulates the following:

e. For neighbouring properties ensure:

i. sunlight to at least 50% of the principal area of ground level private open space of adjacent properties is not reduced to less than two hours between 9am and 3pm on June 21, and

ii. windows to north-facing living areas of neighbouring dwellings receive at least 3 hours of sunlight between 9am and 3pm on June 21 over a portion of their surface, where this can be reasonably maintained given the orientation topography of the subject and neighbouring sites.

An assessment of the overshadowing impact of the proposed development reveals that the rear private open spaces (POS) and the windows to the north-facing living rooms (rear windows) of three (3) dwellings (Unit 2, 3, and 4) adjoining to the south will not receive the abovementioned sunlight access requirements for neighbouring properties. **Figure 6** below depicts the likely shadows that the proposed development will cast at 9am, 12noon, and 3pm on June 21 (mid-winter). It is important to note that June 21 is where the suns path will be at its lowest angle and hence is the day of the longest shadows.

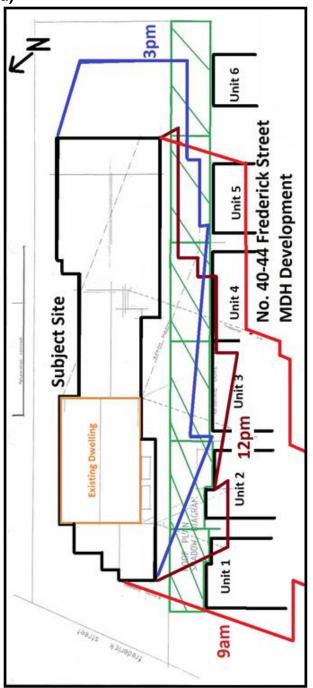


Figure 6. Overshadowing diagram of the proposed development on June 21 showing 9am (red outline), 12noon (maroon outline) and 3pm (blue outline) shadows. The diagram also shows the outlines of the adjoining dwellings to the south and their POS areas (green shading). The assessment has determined that the primary ground level POS and rear north facing living room windows to Unit 2, 3, and 4 of No. 40-44 Frederick Street will not receive the required amounts of sunlight as per RCP2014.



When determining the reasonableness of the overshadowing impact of a proposed development a range of factors must be considered. Firstly, the orientation of the allotment, the immediate subdivision pattern and the surrounding development must be considered. The following paragraphs will assess these factors for the proposed development in relation to the neighbouring property at No. 40-44 Frederick Street.

The subject site and the neighbouring property are generally oriented eastwest with north as a side boundary. In terms of overshadowing, this orientation is the most difficult to work with given the sun's path across the northern part of the sky. Combined with this, the subdivision pattern is also unhelpful with the subject site being very narrow relative to its overall length. This means that the building must be elongated which extends the bulk further across the allotment and hence extends the overshadowing impacts further to the rear. Further adding to this situation is the type and arrangement of the neighbouring development. This property, No. 40-44 Frederick Street, is a multi-dwelling house development containing ten (10) units, six (6) of which adjoin the southern boundary of the subject site (see **Figure 7**). This arrangement means that there are six (6) dwellings with small private open space areas and living room windows that are immediately adjacent to the southern boundary of the subject site.

It can be seen that the combination of the east-west orientation, the large and narrow allotment, and the multiple dwellings that adjoin the southern boundary present a difficult context for achieving sufficient sunlight access to the neighbouring dwellings of No. 40-44 Frederick Street. In fact, this is perhaps the most unhelpful contextual arrangement for maintaining sunlight access to the neighbouring property within a typical low density residential area of Sydney.



Figure 7. Aerial photograph of the subject site (outlined in red) and the adjoining multi dwelling housing development to the south, No. 40-44 Frederick Street. It can be seen that six (6) dwellings back on to the southern boundary of the site and that they have small areas of private open space adjoining the southern boundary of the subject site.

The next major factor that needs to be considered is the proposed development's bulk and the location and shape of this bulk. It is these factors that create the shadowing and determine where it will impact. The Ryde Local Environmental Plan 2010 (Ryde LEP 2010) and the Ryde Development Control Plan 2014 (Ryde DCP 2014) contain a range of provisions that control the bulk and location of a building within a site. The most important and relevant in terms of overshadowing impacts are the provisions for floor space ratio (FSR), building height, and setbacks which will be discussed in the following paragraphs.

The maximum FSR permitted by the Ryde LEP 2010 for the proposed development is 0.5:1. The proposal has been assessed as having an FSR of 0.422:1 which is significantly below the maximum permitted.



In terms of building height, the proposal will have a maximum building height of 9.3m which is no higher than the height of the existing building on the site. The proposed additions to this building will only have a maximum height of 7.12m, well below the 9.5m height limit of the Ryde LEP 2010 (see **Figure 8**). Also relevant, is the stepped design of the building which reduces the building height from that of the exiting dwelling to rear of the site.

As for setbacks, the front, side and rear all comply with the provisions of the Ryde DCP 2014. Of particular relevance for overshadowing of the adjoining property is the proposed southern side setback. The Ryde DCP 2014 stipulates that side setbacks for one storey components must be greater than 900mm and for two storey components greater than 1.5m. The proposed southern side setback for the two-storey portion of the building will meet the minimum 1.5m setback and will significantly increase this side setback it for a large portion which is setback 3.6m (see **Figure 9**). It is also important to note that the portion that is setback 1.5m will be setback 3.6m for the second storey which far beyond the minimum requirements of the control. Furthermore, the single storey portion at the rear of the building will have a southern side setback of 1.5m which again is far beyond the minimum 900mm required.

It is evident from the above analysis that the proposed development does not fully utilise the potential bulk that is available to it under the provisions of the Ryde LEP 2010 and Ryde DCP 2014. The proposal will have an FSR and building height that are well under the limits, and setbacks that in some areas are far beyond the minimum requirements. This has implications for the overshadowing impact of the proposal. The reduced FSR and building height of the building means that the shadow it casts will also be reduced. In addition, the proposed southern side setback is considered to be significant having the effect of shifting the building bulk further away from the neighbouring property and hence reducing overshadowing.

In summary, the above assessment has firstly, determined that the context of the subject site makes it difficult to achieve adequate sunlight access to the neighbouring properties and secondly, that the bulk and location of the proposed development on the site has minimised shadows as far as reasonably practical. Accordingly, it is considered that the non-compliance with the sunlight access requirements to neighbouring properties is largely the result of the context including the site orientation, the large and narrow allotment, and the type and location of the adjoining development.

The objectors' concerns regarding the overshadowing impact of the proposed development certainly have merit, however, given the above analysis, are not supported in this instance.

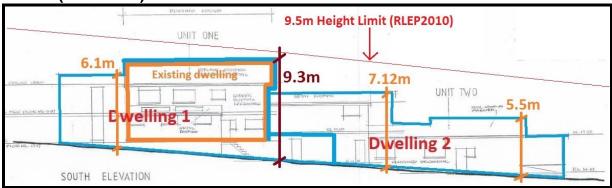


Figure 8. Southern elevation diagram indicating the proposed heights of the alterations and additions to the existing dwelling on the subject site. It is shown that the building height of the addition is proposed to be a maximum of 7.12m which is well below the 9.5m building height limit. This diagram also indicates how the proposed building steps down in height to the rear.

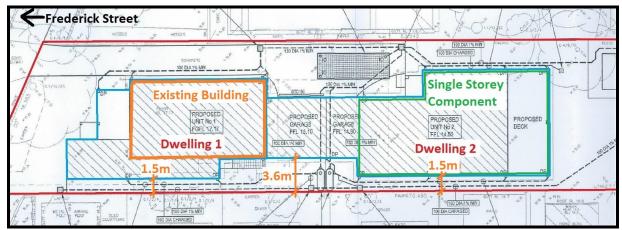


Figure 9. Diagram indicating the proposed southern side setback. It can be seen that a large portion of the two storey component is setback 3.6m, well in excess of the required 1.5m. Also, the single storey portion at the rear is setback 1.5m, more than the 0.9m required for single storey building component.

B. Visual Privacy

All of the submissions raised concerns over privacy impacts of the proposed development on the villas adjoining the southern boundary of the subject site. Specific concerns were raised over the potential for overlooking from the rear deck of 'Dwelling 2' and the south side facing windows.



Assessing Officer's Comment

The privacy impacts of the proposed development have been assessed with specific regard for Section 2.14.2 of Part 3.3 of the Ryde Development Control Plan 2014 (Ryde DCP 2014) which prescribes development controls for visual privacy. This section provides a range of controls that focus on ensuring that the main internal living spaces and private open spaces do not allow direct and close views into neighbouring dwellings and their private open space areas.

As demonstrated in **Figure 10 - 13** below, a systematic analysis of the privacy impact of the proposed development on the dwellings of No. 40-44 Frederick Street has been undertaken. The potential for overlooking from each of the south side facing windows as well as the external areas has been assessed. It has been determined there are two (2) locations that will allow for an unacceptable level of overlooking into the adjoining dwellings within No. 40-44 Frederick Street. These locations are discussed below:

Location 1 – Rumpus Room Window

The south side facing window of the first floor rumpus room of Dwelling 1. This window is within close proximity to the rear POS and rear windows of Unit 1 within No. 40-44 Frederick Street (see **Figure 12**). The room is considered to be the secondary living area of Dwelling 1 and is likely to be significantly used. Furthermore, the window is large extending from the floor to the ceiling. Accordingly, this window presents an unacceptable level of overlooking potential that does not comply with the privacy controls of the Ryde DCP 2014.

Given the above, it is recommended that the following condition be imposed to minimise the potential for overlooking from the south facing rumpus room window of Dwelling 1 as required by Section 2.14.2 of Part 3.3 of the Ryde DCP 2014 (see condition 31):

Window Treatment. The south side facing window of the First Floor Rumpus room of Unit 1 is to have fixed louvered privacy screen or obscure glazing or similar treatment installed up to a height of at least 1.8m above the finished floor level of the first floor that reduces the opportunity for overlooking to the adjoining dwellings and private open spaces of the neighbouring property at 40-44 Frederick Street, Ryde. Specific details of the proposed window treatment are to be submitted and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate.



Location 2 – Rear Deck

The rear deck of Dwelling 2 is elevated approximately 80cm above existing ground level (see **Figure 10**). This means that the side fencing will have insufficient height to prevent overlooking to the rear private open space area and rear windows of Unit 5 of the property to the south, No. 40-44 Frederick Street. Furthermore, overlooking will also be possible from the northern side of the deck into the rear POS of the dwelling to the north, No. 36 Frederick Street. Considering the close proximity of the deck to these areas and the fact that the deck adjoins the primary living area (i.e. is likely to be significantly used), the potential level of overlooking is considered unacceptable and does not comply with the privacy controls of the Ryde DCP 2014.

Given the above, it is recommended that the following condition be imposed to minimise the potential for overlooking from the rear deck of Unit 2 to adjoining property as required by Section 2.14.2 of Part 3.3 of the Ryde DCP 2014 (see condition 33):

Privacy Screen. The northern and southern sides of the rear deck to Unit 2 are to be fitted with a minimum 1.8m high privacy screen or similar treatment that reduces the opportunity for overlooking to the adjoining dwellings and private open spaces of the neighbouring property at 36 Frederick Street, Ryde and 40-44 Frederick Street, Ryde. Specific details of the proposed privacy screen or similar are to be submitted and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.

It is noted that the amended plans did partially respond to the objectors privacy concerns by modifying the Unit 1 Kitchen windows (see **Figure 11**) so that they will be high level with sill heights of 1.5m which will minimise overlooking potential. However, the kitchen window of Unit 2 is to be elevated above natural ground level in such a way that boundary fencing will not be high enough to resolve privacy/overlooking issues into the adjoining development. Accordingly, it is recommended that the following condition be imposed, to minimise the potential for overlooking from the kitchen window of Unit 2 (see condition 32):

Window Type. The kitchen window shown on the approved 'Lower Ground Floor Plan' is to minimise the potential for overlooking to the dwellings to the south. The following measures are considered acceptable solutions: a minimum sill height of at least 1.5m above finished floor level (FFL) or a maximum head height of 1.2m above FFL. Specific details of the proposed window type are to be submitted and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate.



As for the remaining windows on the southern elevation, overlooking potential is considered to be minimal due to the windows being to less used rooms such as bedrooms, bathrooms, and hallways.

Given the above, it is considered that the proposed development will not have an unreasonable visual privacy impact on neighbouring properties subject to imposition of the recommended conditions of consent. Accordingly, the objector's issues with the privacy impacts of the proposed development are considered to have been satisfactorily addressed.

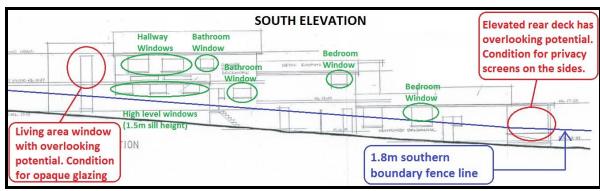


Figure 10. South elevation diagram indicating the areas that have potential to facilitate overlooking impacts in red and the areas that are not of concern for overlooking impacts in green. Also shown is the existing 1.8 southern side fence (to be retained) that provides screening to a number of windows on the southern elevation of the proposed development.

Unit 1

ITEM 2 (continued) OWER GROUND FLOOR PLAN **Front Garden** No.36 Frederick St 14.38 High level windows prevent overlooking (1.5m bed 4 Ritcher courtyard Side fence living JI, UNIT ONE prevents UNIT TWO bath# overlooking bed 1 entry courtyard PLAN POS

Figure 11. Ground floor plan diagram indicating how privacy is maintained from the Dwelling 1 ground floor living room windows. The side fencing and the proposed high level windows prevent overlooking on the southern side. To the north, the windows will only be able to minimally overlook the front garden of No. 36 Frederick Street which is not considered to be a significant privacy concern.

Unit 2

Unit 3

No.40-44 Frederick St

Unit 4

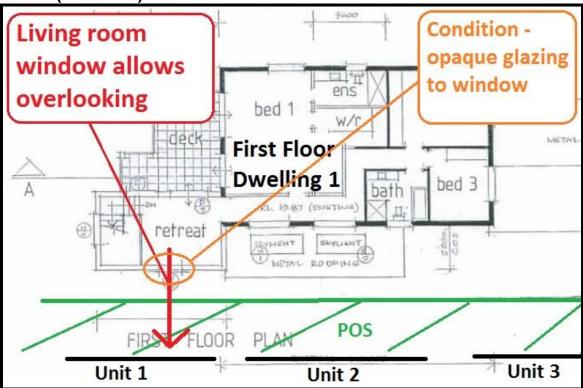


Figure 12. First floor plan diagram indicating that the south facing window of the retreat will allow overlooking into rear POS and rear living room windows of Unit 1 / 40-44 Frederick Street, to the south of the subject site. Recommended that a condition be imposed requiring opaque glazing or similar treatment on this window to prevent potential overlooking.



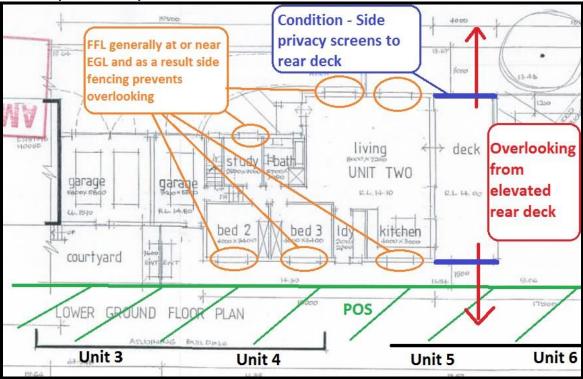


Figure 13. Lower ground floor plan diagram indicating that side fencing prevents overlooking from the windows circled in orange (note – subject to condition regarding the kitchen window). Shown with red arrows is the potential for overlooking from the elevated rear deck to the properties to the north and south. It is recommended that a condition be imposed requiring privacy screens to the sides of the deck (position marked in blue) to prevent this potential overlooking.

C. Traffic and Parking

A number of submissions raised concerns over traffic and parking impacts of the proposed development on Frederick Street. There were specific concerns that the proposal did not include sufficient parking for the number of bedrooms proposed. There were also concerns that increased street parking and increased cars would further worsen traffic in the street.

Assessing Officer's Comment:

The traffic and parking impacts of the proposed development have been assessed with specific regard for Section 2.11.1 of Part 3.3 of Ryde DCP 2014 which includes provisions for parking rates of dual occupancy developments. Specifically, one (1) car parking space is required per dwelling.



An assessment of the proposed development reveals that a total of three (3) car parking spaces are provided for the proposed development. This includes an attached double garage for 'Dwelling 1' and an attached single garage for 'Dwelling 2'. Despite exceeding the requirements, the level of car parking proposed is in fact a non-compliance with the Ryde DCP 2010 as the control stipulates that one (1) and only one (1) space is to be provided per dwelling. This non-compliance is supported with justification in the Ryde DCP 2010 non-compliances section later in this report.

In regards to the objector's issues with the proposed parking, they cannot be supported as three (3) spaces are proposed where only two (2) are required. This additional off-street car parking space is considered to adequately address any concerns for the impact on street parking.

In regards to the impact of the proposed development on traffic in Frederick Street, there are no specific provisions in the Ryde LEP 2010 or Ryde DCP 2014 which control for this. The proposed development has been referred to Council's Senior Development Engineer who has advised that the proposal is satisfactory from a traffic and parking perspective.

Given the above, the objector's concerns for the impact of the proposed development on traffic and parking are not supported in this instance.

D. Southern side setback

A number of submissions raised concerns over the size of the southern side setback. There were specific concerns that the setback is too small meaning that the proposal would be in close proximity to the adjoining villas to the south. Concerns were primarily related to the associated issues of overshadowing, privacy, landscaping, and bulk.

Assessing Officer's Comment:

The setbacks of the proposed development have been assessed with specific regard for Section 2.9.2 of Part 3.3 of Ryde DCP 2014 which includes provisions for side setbacks. Specifically, the Ryde DCP 2014 stipulates that side setbacks for one (1) storey components must be greater than 900mm and for two (2) storey components greater than 1.5m.

An assessment of the proposed southern side setback which provides separation with the adjoining property, No. 40-44 Frederick Street, has been undertaken. The proposed southern side setback for the two-storey portion of the building will meet the minimum 1.5m setback and will significantly go beyond the minimum required by the Ryde DCP 2014 and provide a larger side setback up to 3.6m (see **Figure 14**). It is also important to note that the portion that is setback 1.5m will be setback 3.6m for the second storey which again is far beyond the minimum control of the Ryde DCP 2010 of 1.5m Furthermore, the single storey portion at the rear of the building will have a southern side setback of 1.5m is also significantly more than the minimum required of 900mm.

Given that the proposed southern side setback is far greater than the minimum requirements for most of this elevation, the objector issues regarding the size of this setback are not supported in this instance.

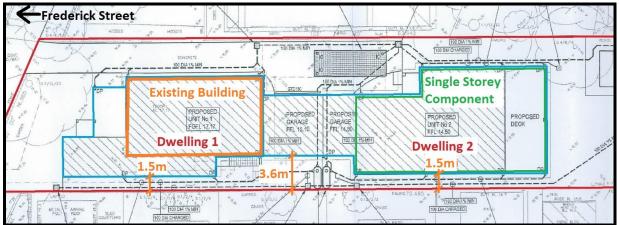


Figure 14. Diagram demonstrating the southern side setbacks of the proposed development.

E. Noise

One (1) of the submissions raised concerns over acoustic impacts of the proposed swimming pool on the villas adjoining the southern boundary of the subject site.

Assessing Officer's Comment:

The amended plans have deleted the swimming pool. Accordingly, the objector concerns for the acoustic impacts of the pool are considered to have been appropriately addressed.



F. Plans

A number of the submissions raised concerns over the submitted plans. Specifically, objectors commented that the plans were unclear and confusing and there was concern over the labelling of the floor plans.

Assessing Officer's Comment:

The amended plans have been assessed and are considered to be generally consistent. It is acknowledged that the plans could have been clearer and easier for the general public to understand, however they do generally meet the requirements of Ryde Council's DA submission guide and they are adequate to complete a proper assessment of the development application.

As for the labelling of the floors, the objectors raised concerns that the second storey component of Unit 2 was labelled as the 'Ground Floor' and that the first storey component of Unit 2 was labelled as the 'Lower Ground Floor'. This labelling of the floors has not had any impact on the assessment of the proposed development. Since the finished floor level (FFL) of the second floor of Unit 2 is closest to that of the ground floor of Unit 1, it is considered that this floor plan has been appropriately labelled.

G. Landscaping

One (1) of the submissions raised concern for the level of landscaping of the proposal. Specifically, there was concern that the landscaping on the site was to remain as existing and the objector commented that they hoped additional landscaping was proposed.

Assessing Officer's Comment:

An assessment of the landscaping of the proposed development revealed that it is largely compliant with the landscaping controls contained within Section 2.13 of Part 3.3 of Ryde DCP 2014. It is noted that there is a non-compliance with the proposal including excessive hard paved areas in the front garden. This non-compliance is supported with justification provided in the Ryde DCP 2014 non-compliances section later in this report.

Overall the existing site is considered to be minimally vegetated including only three (3) trees and open lawn over a large site in excess of 1,000m². The proposed development includes the retention and protection of all three (3) trees on the site as well as the planting of some additional trees and boundary plantings.



The development application was also referred to a Consultant Landscape Architect. The referral raised no objection to the proposed development stating the following:

It is noted that no trees are to be removed as part of the development, however four (4) trees have the potential to be impacted by the proposed construction works. Accordingly, a condition of consent has been imposed to ensure adequate protection of these trees is undertaken and all works within the Tree Protection Zones are supervised by a qualified professional.

It is noted that the level of hard paving within the front yard is significant; however this is an improvement on the existing conditions on site which see over 90% of the front yard area hard paved.

It is noted that a number of conditions have been recommended in relation to providing additional trees on site, and more appropriate species selection in terms of providing privacy screening shrubs.

Given that the landscape referral has raised no objection to the proposed landscaping, subject to a number of conditions, the objector's concerns are considered to have satisfactorily been addressed.

H. Building height non-compliance

One (1) of the submissions raised concerns that the building height of the proposal was non-compliant with the Ryde DCP 2010. Specifically, the objector commented that the Ryde DCP 2010 contained a control for dual occupancies that prohibits a dwelling at the rear of an allotment from being more than one-storey in height; the proposed 'Dwelling 2' at the rear is two-storeys.

Assessing Officer's Comment:

The proposed dual occupancy development includes a two-storey dwelling fronting to Frederick Street and attached to the rear a part single, part two-storey dwelling. Since the proposal is for alterations and additions to create a dual occupancy, the relevant part of the Ryde DCP 2014 is Part 3.3 'Dwelling Houses and Dual Occupancy'. The control for the number of storeys permitted is that the development is to be a maximum of two-storeys high. As such the proposed number of storeys complies with this control and the objectors' comments are therefore unsupported.



The control that the objector has quoted is taken from Part 3.4 of the Ryde DCP 2014 which provides controls for multi dwelling house development. Since the proposed development is not a multi dwelling house development as per the definition contained within the Dictionary of the Ryde LEP 2010, Part 3.4 of the Ryde DCP 2014 does not apply. Accordingly, the objector has erroneously applied this control to the proposed development.

8. Clause 4.6 Ryde LEP 2010 objection required?

None required.

9. Policy Implications

Relevant Provisions of Environmental Planning Instruments etc:

(a) Ryde Local Environmental Plan 2014

Ryde LEP 2014 commenced on 12 September 2014 as the new environmental planning instrument applicable to the City of Ryde. In relation to existing DAs undetermined as of 12 September 2014, this instrument contains a Savings Provision (clause 1.8A) which states:

If a development application has been made before the commencement of this Plan in relation to land to which this Plan applies and the application has not been finally determined before that commencement, the application must be determined as if this Plan had not commenced.

The DA was made (lodged) on 20 May 2014, before the commencement of this Plan and so it must be determined as if Ryde LEP 2014 had not commenced. What this means is that Ryde LEP 2014 is treated as a draft.

(b) Ryde Local Environmental Plan 2010

Zoning

Under the Ryde Local Environmental Plan 2010 (Ryde LEP 2010) the subject site is zoned R2 Low Density Residential. The proposal is permissible with Council's development consent in this zone.

Mandatory Requirements

The following mandatory provisions under Ryde LEP 2010 apply to the development.



Clause 4.3 Height of buildings

Clause 4.3 of Part 4 of the Ryde LEP 2010 prescribes development standards for the height of buildings. Specifically, clause 4.3(2) states the following:

(2) The height of a building on any land is not to exceed the maximum height shown for the land on the <u>Height of Buildings Map</u>.

Council's height of buildings map shows the relevant maximum height for the subject site at 9.5m.

An assessment of the proposed development's height has revealed that the proposed alterations and additions to the existing dwelling for the purposes of a new dual occupancy development on the subject site will not change the maximum building height – which is 9.3m. Accordingly, the proposal has a complying building height.

Clause 4.4 Floor space ratio

Clause 4.4 of Part 4 of the Ryde LEP 2010 prescribes development standards for the floor space ratio of buildings. Specifically, clause 4.4 states the following:

(2) The maximum floor space ratio for a building on any land is not to exceed the floor space ratio shown for the land on the <u>Floor Space Ratio</u> Map.

Council's floor space ratio map shows the relevant maximum FSR for the subject site at 0.5:1.

An assessment of the proposed development has revealed that it will have an FSR of 0.422:1 which complies with the abovementioned development standard.

Clause 4.5A Density controls for Zone R2 Low Density Residential

Clause 4.5A stipulates that consent cannot be granted to the erection of dual occupancy (attached) on a lot in Zone R2 if the site area is less than 580m².

The subject site is zoned R2 and the proposed alterations and additions to the dwelling house will result in the creation of a dual occupancy (attached) development. The site area of the subject site is 1,030.68m² which is well in excess of the 580m² required, and therefore complaint with this development standard.



(b) Relevant State Environmental Planning Policies (SEPPs)

SEPP (Building Sustainability Index: BASIX)

The development is identified under the Environmental Planning and Assessment Regulation 2000 as a BASIX Affected Building. Two (2) compliant BASIX Certificates have been submitted with the development application (BASIX Cert A189039 & 548546S dated 18 May 2014). BASIX certificate A189039 relates to the alteration and addition of the existing building on the subject site, whilst BASIX certificate 548546S relates to the new dwelling which will be created as a result of the alterations and additions.

SEPP No. 55 - Remediation of Land

The provisions of SEPP 55 require Council to consider the potential for a site to be contaminated. The subject site has a history of residential use and as such it is unlikely to contain any contamination and further investigation is not warranted in this case.

(c) Any draft LEPs

None relevant.

(d) The provisions of any development control plan applying to the land

Ryde Development Control Plan 2014

The proposed development has been assessed against the controls of the Ryde Development Control Plan (Ryde DCP 2014). The Ryde DCP 2014 Compliance Table for this development proposal is held at **Attachment 2** to this Report.

The following is a brief summary of those development controls which have been identified as failing to comply with the provisions of the Ryde DCP 2014. These non-compliances have been categorised into those controls which are considered to be justifiable in the circumstances of the development, those controls which would ordinarily be addressed by way of condition, and those controls which are neither justifiable nor capable of being conditioned.

Non compliances – Justifiable

1. Landscaping: Section 2.12 of Part 3.3 of Ryde DCP 2014 prescribes development controls for landscaping. Specifically, the Ryde DCP 2014 stipulates that hard paved areas are to be no more than 40% of the front garden areas.



An assessment of the proposed development reveals that hard paved areas cover 66.83% of the front garden area. As such this does not comply with the abovementioned control.

Despite not complying with the control, the proposed hard paved area in the front garden is supported for the following reasons:

- Permeable surfaces and deep soil planting has been incorporated where possible throughout the site with the inclusion of soft landscaping to minimise the visual impact of the hard paved area and reduce the heat island effects associated with hard paved areas (as demonstrated in Figure 15).
- Soft landscaping has been provided throughout the front yard and will include two (2) large existing trees to be retained. This arrangement is a significant improvement on the existing front yard which is almost fully hard paved (see **Figure 16**).
- The driveway is only a single car width which reduces hard paved areas.

As covered by Section 79C(3A)(b) of the Environmental Planning and Assessment Act 1979, if a development control plan contains provisions that relate to the development that is the subject of a development application, the consent authority is to be flexible in applying those provisions and allow reasonable alternative solutions that achieve the objects of those standards for dealing with that aspect of the development.

In this regard an assessment of the proposed development against the objectives of the landscaping controls contained within the Ryde DCP 2014 is provided below followed by the assessing officer's comment as to how the proposed development performs against each of these objectives:

To enhance the appearance and amenity of development.

Assessing officer's comment: Permeable surfaces and deep soil planting has been incorporated where possible throughout the site with the inclusion of soft landscaping to minimise the visual impact of the hard paved area and reduce the heat island effects associated with hard paved areas. In addition, two (2) large trees are to be retained in the front yard. The existing hard paving in the front yard is greater than what is proposed. Accordingly, it is considered that the amenity and the appearance of the proposed dwelling is improved over that of the existing arrangements on site.



To enhance the character of the locality and the streetscape.

<u>Assessing officer's comment:</u> As the existing hard paving in the front yard is greater than what is proposed, the proposed development is considered to enhance the character of the locality and the streetscape over the current arrangements.

To retain existing important landscape features.

<u>Assessing officer's comment:</u> Two (2) large trees located in the front yard are proposed to be retained.

 To provide privacy between adjoining dwellings and their private open space.

<u>Assessing officer's comment:</u> The proposed landscaping provides significant vegetation for a site which currently has minimal vegetation. Vegetation to be planted includes three (3) small trees in the rear yard as well as boundary plantings which will provide for privacy between the proposed development and adjoining dwellings and their private open space.

 To assist in the percolation of rainwater and reduction in stormwater runoff.

Assessing officer's comment: It is considered that sufficient area has been provided for rain water absorption to minimize stormwater runoff. Furthermore, a stormwater management system including a large underground OSD is proposed that will appropriately reduce stormwater runoff.

• To improve microclimatic conditions on sites and the solar performance of dwellings.

<u>Assessing officer's comment:</u> The proposed landscaping provides significant vegetation for a site which currently has minimal vegetation. Vegetation to be planted includes three (3) small trees in the rear yard as well as boundary plantings which will improve the microclimatic conditions on the site and the solar performance of the dwelling relative to the existing dwelling.



To contribute to improving urban air quality.

Assessing officer's comment: As the proposed level of vegetation across the site will be increased as part of the proposal, it is considered that the urban air quality is also to be improved over that of the existing arrangements.

To provide fauna and flora habitat.

Assessing officer's comment: The existing site provides a minimal level of vegetation that is not conducive to providing habitat for flora and fauna. The proposed development includes additional landscaping across the site including three (3) additional trees which is considered to increase the level of habitat available to flora and fauna.

To assist in the protection of urban bushland.

<u>Assessing officer's comment:</u> Council's mapping (held on file) does not indicate any Urban Bushland occurring on the subject site.

Given the above, the proposed non-compliance with the landscaping control contained within the Ryde DCP 2014 is considered justifiable in this instance, particularly having regard to the provisions of Section 79C(3A)(b) the Environmental Planning and Assessment Act 1979 and the ability of the proposed development to achieve the objectives of the landscaping controls within the Ryde DCP 2014.

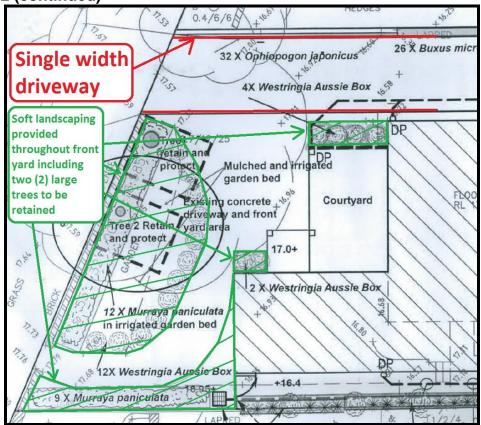


Figure 15. Diagram showing the proposed front garden which includes a single width driveway, soft landscaping spread throughout, and two (2) large existing trees to be retained. This is considered to be a satisfactory level of landscaping within the front boundary and significantly better than that of the existing arrangements shown in Figure 16 below.

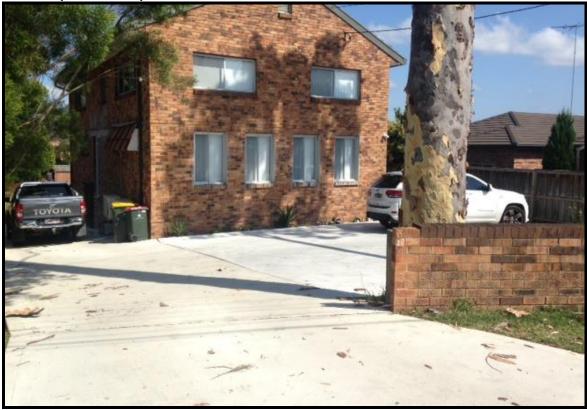


Figure 16. Photograph of the front yard of the subject site. Visible is the almost fully hard paved front yard area which is to be substantially improved with the proposed development.



Figure 17. Aerial photograph of the subject site demonstrating that there is minimal vegetation existing on the site. The proposal will significantly increase the amount of vegetation across the subject site with new tree and shrub plantings in the front setback areas and rear yard.

2. Car Parking: Section 2.11.1 of Part 3.3 of Ryde DCP 2014 prescribes development controls for car parking. Specifically, the Ryde DCP 2014 stipulates that dual occupancy (attached) dwellings must have one (1) car space provided per dwelling.

An assessment of the proposed development reveals that a total of three (3) car parking spaces are provided within the development. This includes an attached double garage for 'Dwelling 1' and an attached single garage for 'Dwelling 2'. As such this does not comply with the abovementioned control as more than one (1) car space is provided per dwelling.

Despite not complying with the control, the proposed number of car parking spaces is supported for the following reasons:



- This is considered to be only a minor non-compliance by providing one (1) additional car space over that prescribed. The additional car space is considered to reduce the demand for on-street parking.
- This control is primarily targeted at reducing the prominence of garages in the streetscape which three (3) or more car parking spaces would have if they were visible in the streetscape.
 Importantly, the proposed garages are located in the middle of the site along the northern boundary and as result are not visible in the streetscape. Accordingly, the additional car space does not result in a visual impact to the public domain area.
- The submissions raised concern for the impact of the proposed development on street parking. This indicates that residents claim street parking is an issue in Frederick Street and the additional car parking space proposed can be seen to address this issue.

As covered by Section 79C(3A)(b) of the Environmental Planning and Assessment Act 1979, if a development control plan contains provisions that relate to the development that is the subject of a development application, the consent authority is to be flexible in applying those provisions and allow reasonable alternative solutions that achieve the objects of those standards for dealing with that aspect of the development.

In this regard an assessment of the proposed development against the objectives of the car parking controls contained within the Ryde DCP 2010 is provided below followed by the assessing officer's' comment as to how the proposed development performs against each of these objectives:

To provide for off-street parking.

<u>Assessing officer's comment:</u> Proposal includes three (3) off-street car parking spaces where only two (2) are required. This will have positive impact for reducing demand for on-street parking.

 To ensure car parking structures and garage doors are not prominent features with regard to either the individual lot or the streetscape.

Assessing officer's comment: The proposed garages are located in the middle of the building along the northern boundary and as result are not visible in the streetscape. Accordingly, the additional car space does not result in a visual impact when viewed from the public domain.



 To ensure that car parking structures are consistent with the design of the dwelling.

<u>Assessing officer's comment:</u> The proposed garages are typical of modern dwellings and are considered to be consistent with the design aesthetic of the proposed development.

Given the above, the proposed non-compliance with the landscaping control contained within the Ryde DCP 2014 is considered justifiable in this instance, particularly having regard to the provisions of Section 79C(3A)(b) the Environmental Planning and Assessment Act 1979 and the ability of the proposed development to achieve the objectives of the car parking and access controls within the Ryde DCP 2014.

3. Daylight and sunlight access

Assessing Officer's comment: The daylight and sunlight access impacts of the proposed development have been assessed with specific regard for Section 2.14.1 of Part 3.3 of the Ryde DCP 2014 which prescribes development controls for daylight and sunlight access. Specifically, the Ryde DCP 2014 stipulates the following:

e. For neighbouring properties ensure:

i. sunlight to at least 50% of the principal area of ground level private open space of adjacent properties is not reduced to less than two hours between 9am and 3pm on June 21, and

ii. windows to north-facing living areas of neighbouring dwellings receive at least 3 hours of sunlight between 9am and 3pm on June 21 over a portion of their surface, where this can be reasonably maintained given the orientation topography of the subject and neighbouring sites.

An assessment of the proposed development reveals that the rear private open spaces and rear windows of three (3) dwellings (Villa 2, 3, and 4) adjoining to the south within the multi dwelling house development, No. 40-44 Frederick Street, will not receive the abovementioned sunlight access requirements for neighbouring properties (see **Figure 18**).

Despite not complying with the controls, the level of overshadowing of the proposed development is supported for the following reasons:



- The controls for sunlight access for neighbouring properties are very difficult to achieve for the proposed development due to the east-west orientation of the subject site combined with the fact the property to the south is a multi-dwelling house development with six (6) dwellings adjoining the southern boundary. This means that rather than the private open space being at the rear of the adjoining property, they are located along this southern boundary immediately adjacent to the proposed building. Furthermore, the private open spaces are only small at approximately 4m x 10m further adding to the difficulty of allowing sunlight penetrate to these spaces (see **Figure 17**).
- The proposed development is fully compliant with the key controls which influence the bulk and overshadowing of a building including building height, FSR and setbacks. An assessment of the proposal against each of these controls as they relate to overshadowing is provided below:
 - An extensive southern side setback is proposed that mostly goes beyond the minimum requirements of 0.9m for single storey components and 1.5m for two storey components as per Ryde DCP 2014. As demonstrated in Figure 19, the setback for the single storey portion at the rear is 1.5m which is greater than the minimum requirement by 0.6m. Furthermore, the two-storey portion of the building will extend up to 3.6m for a large portion. This large southern side setback is considered to enhance sunlight access for the neighbouring dwellings over and above what the side setbacks of the Ryde DCP 2014 permit.
 - The proposed alterations and additions, as well as the building as a whole, will have a building height that is well below the maximum height of 9.5m as per Ryde LEP 2010. As shown in **Figure 20**, the maximum height of the proposed building will be the same as the existing building at 9.30m. The proposed additions that are the subject of this development application will only reach a maximum height of 7.12m which is 2.38m below the maximum permissible building height.



- The FSR of the proposed development will be 0.422:1, well below the maximum 0.5:1 development standard under the Ryde LEP 2014. This has positive implications for the bulk and overshadowing impacts of the building. Accordingly, the reduced FSR is considered to enhance the sunlight access to the neighbouring properties over that which is permitted under the Ryde LEP 2010.
- As confirmed through the NSW Governments 'Electronic Housing Code' website (www.ehc.nsw.gov.au), a complying dwelling house could be developed on the subject site under the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008. An assessment has been undertaken to determine the overshadowing impact of a complying dwelling house on the subject site. The key provisions of building height, setbacks and FSR have all been considered.

The assessment has revealed that a complying dwelling house could be developed on the site that would have similar or greater overshadowing impacts on the neighbouring properties to the south.

A similar building envelope, with some minor modifications, could be developed as a complying development not requiring Council approval.

Accordingly, since a complying development is one of minimal environmental impact, the proposed development having a similar bulk and siting to a complying development proposal must also be considered to have a minimal environmental impact in terms of overshadowing.

As covered by Section 79C(3A)(b) of the Environmental Planning and Assessment Act 1979, if a development control plan contains provisions that relate to the development that is the subject of a development application, the consent authority is to be flexible in applying those provisions and allow reasonable alternative solutions that achieve the objects of those standards for dealing with that aspect of the development.

In this regard an assessment of the proposed development against the objectives of the daylight and sunlight access controls contained within the Ryde DCP 2014 is provided below followed by the assessing officer's' comment as to how the proposed development performs against each of these objectives:



- To maximise sunlight and daylight access.
 Assessing officer's comment: As discussed above, the proposed development does not propose a building envelope that exceeds the bulk and scale controls that largely determine the overshadowing impact of the development. The FSR is only 0.422:1, the building height is largely under 9.3m, and the southern side setback is up to 3.6m. Accordingly, given the eastwest orientation of the site, the proposal is considered to maximise sunlight and daylight access.
- To ensure that new development maintains appropriate sunlight access to neighbouring dwellings and neighbouring private open space.
 - Assessing officer's comment: It is acknowledged that the proposed development will not be able to maintain a complying level of sunlight access to three (3) dwellings within the neighbouring property to the south, No. 40-44 Frederick Street. However, given the unfavourable east-west orientation of the site combined with the private open spaces adjoining the southern boundary, the proposed development is considered to have maximised sunlight access to neighbouring dwellings and private open space as far as reasonably possible. This is evident as the proposed development will not fully utilise the potential building envelope and sizing controls allowed by the Ryde LEP 2010 and the Ryde DCP 2014.
- To encourage the use of passive solar design.
 Assessing officer's comment:
 The proposed development is considered to utilise passive solar design. For example, side setbacks well in excess of Council's controls are proposed to maximise natural lighting both within the dwelling and for surrounding properties.

Given the above, the proposed non-compliance with the daylight and sunlight access controls contained within the Ryde DCP 2014 is considered justifiable in this instance, particularly having regard to the provisions of Section 79C(3A)(b) the Environmental Planning and Assessment Act 1979 and the ability of the proposed development to achieve the objectives of the daylight and sunlight access controls within the Ryde DCP 2014.



Figure 18. Aerial image of the subject site and the neighbouring property to the south, No. 40-44 Frederick Street. Unit numbers of the multi-dwelling housing development are labelled.

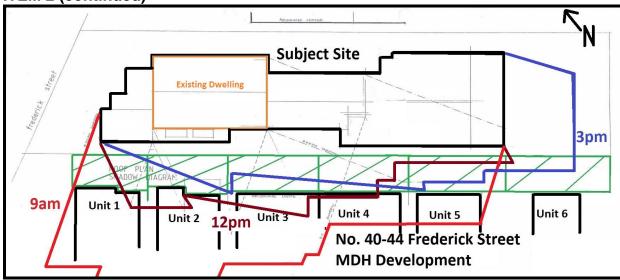


Figure 19. Overshadowing diagram of the proposed development. It has been determined that the primary ground level private open space and rear windows of Unit 2, 3, and 4 of No. 40-44 Frederick Street will not receive the required amounts of sunlight as per Ryde DCP 2014.

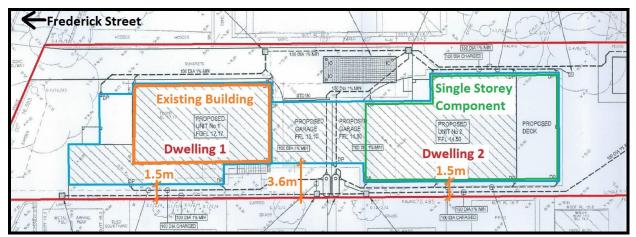


Figure 20. Diagram indicating the size of the proposed southern side setback. Noted is the large portion of the two storey component which is setback 3.6m, much more than the required 1.5m. Also, noted is the single storey portion at rear which is setback 1.5m, again much larger than the 0.9m required for single storey development under the Ryde DCP 2014.

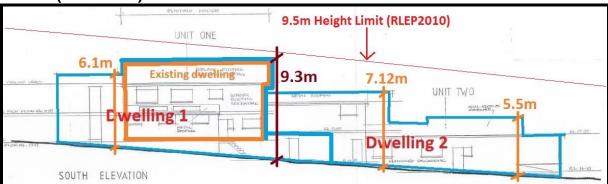


Figure 21. Southern elevation diagram indicating the proposed heights of the alteration and addition to the existing dwelling on the subject site. It is shown that the height of the addition is proposed to be a maximum of 7.12m which is well below the 9.5m height limit. This diagram also indicates how the proposal steps down in building height to the rear.

Non compliances – Resolvable via conditions:

1. Visual Privacy: Section 2.13.2 of Part 3.3 of the Ryde Development Control Plan 2014 (Ryde DCP 2014) prescribes development controls for visual privacy. Specifically, that windows of main internal living spaces such as living rooms, dining rooms, kitchens, family rooms and the like are not to overlook neighbouring private open space and that terraces and balconies are not to overlook neighbours living areas and private open space.

As demonstrated in *Figure 22-23* below, there are two (2) locations in the proposed development that are considered to allow for overlooking into neighbouring private open space and living areas.

Location 1 – Rumpus Room Window

The south side facing window of the first floor rumpus room of Dwelling 1. This window is within close proximity to the rear private open space area and rear windows of Unit 1 within No. 40-44 Frederick Street (see **Figure 22**). The room is considered to be the secondary living area of Dwelling 1 and is likely to be significantly used. Furthermore, the window is large extending from the floor to the ceiling. Accordingly, this window presents an unacceptable level of overlooking potential that does not comply with the abovementioned controls.

Given the above, it is recommended that the following condition be imposed to minimise the potential for overlooking to adjoining property as required by Section 2.13.2 of Part 3.3 of the Ryde DCP 2014 (see condition 31):



Window Treatment. The south side facing window of the First Floor Rumpus room of Unit 1 is to have fixed louvered privacy screen or obscure glazing or similar treatment installed up to a height of at least 1.8m above the finished floor level of the first floor that reduces the opportunity for overlooking to the adjoining dwellings and private open spaces of the neighbouring property at 40-44 Frederick Street, Ryde. Specific details of the proposed window treatment are to be submitted and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate.

• Location 2 – Rear Deck

The rear deck of Dwelling 2 is elevated approximately 80cm above existing ground level. This means that the side fencing will have insufficient height to prevent overlooking to the rear private open space area and rear windows of Unit 5 of the property to the south, No. 40-44 Frederick Street. Furthermore, overlooking will also be possible from the northern side of the deck into the rear private open space areas of the dwelling to the north, No. 36 Frederick Street. Considering the close proximity of the deck to these areas and the fact that the deck adjoins the primary living area (so is likely to be significantly used), the potential level of overlooking is considered unacceptable and does not comply with the abovementioned controls (see **Figure 22**).

Given the above, it is recommended that the following condition be imposed to minimise the potential for overlooking from the deck to adjoining property as required by Section 2.13.2 of Part 3.3 of the Ryde DCP 2014 (see condition 33):

Privacy Screen. The northern and southern sides of the rear deck to Unit 2 are to be fitted with a minimum 1.8m high privacy screen or similar treatment that reduces the opportunity for overlooking to the adjoining dwellings and private open spaces of the neighbouring property at 36 Frederick Street, Ryde and 40-44 Frederick Street, Ryde. Specific details of the proposed privacy screen or similar are to be submitted and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.

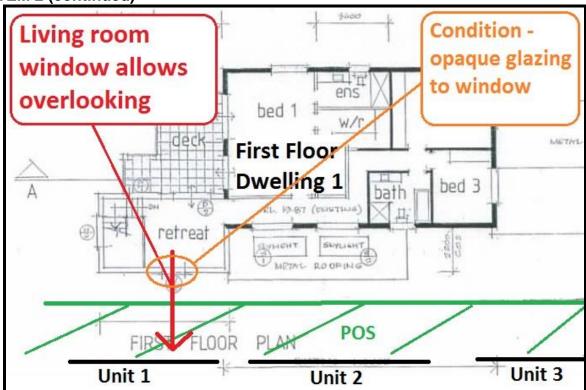


Figure 22. First floor plan diagram indicating that the south facing window of the retreat in Unit 1 will allow overlooking into rear private pen space and rear living room windows of Unit 1 / 40-44 Frederick Street, to the south of the subject site. Recommended that a condition be imposed requiring opaque glazing or similar on this window to prevent potential overlooking.

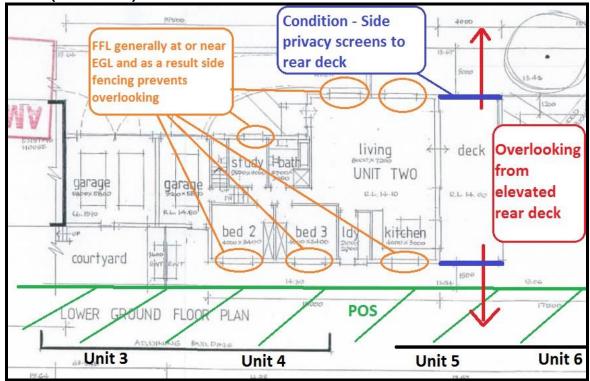


Figure 23. Lower ground floor plan diagram indicating that side fencing prevents overlooking from the windows circled in orange. Shown with red arrows is the potential for overlooking from the elevated rear deck to the properties to the north and south. It is recommended that a condition be imposed requiring privacy screens to the sides of the deck (position marked in blue) and also a highlight window to the kitchen to prevent this potential overlooking.

Non compliances – Not justifiable:

Nil

10. Other issues - Resolvable via conditions

The amended plans include two (2) areas of inconsistency that can be resolved via conditions of consent. They are as follows:

1. Unit 2 Kitchen Window: The amended 'Lower Ground Floor Plan' shows a window to the kitchen, however this is not shown on the 'South Elevation'. To avoid potential overlooking from the window to the adjoining dwellings to the south, it is recommended the following condition be imposed (see condition 32):



Window Type. The kitchen window shown on the approved 'Lower Ground Floor Plan' is to minimise the potential for overlooking to the dwellings to the south. The following measures are considered acceptable solutions: a minimum sill height of at least 1.5m above finished floor level (FFL) or a maximum head height of 1.2m above FFL. Specific details of the proposed window type are to be submitted and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate.

2. Swimming Pool: The Swimming Pool in the rear yard has been deleted from the amended Architectural Plans, however it is still shown on the 'Stormwater Management Plan'. The development application has been assessed as not including the Swimming Pool. Accordingly, to ensure the Swimming Pool does not form part of this development application and potential development consent, it is recommended that the following condition be imposed (see condition 2):

Swimming Pool. The Swimming Pool has been deleted from the approved Architectural Plans, however it is still shown on the approved 'Stormwater Management Plan'. This development consent does not include a Swimming Pool.

Section 94 Contributions Plan 2007

Council's current Section 94 Development Contributions Plan 2007 (2010 Amendment - adopted 16 March 2011) requires a contribution for the provision of various additional services required as a result of increased development.

The contribution that are payable with respect to the increase housing density on the subject site (being for residential development outside the Macquarie Park Area) are as follows:

| A – Contribution Type | B – Contribution Amount |
|---------------------------------------|-------------------------|
| Community & Cultural Facilities | \$4,227.91 |
| Open Space & Recreation Facilities | \$10,408.11 |
| Civic & Urban Improvements | \$3,539.92 |
| Roads & Traffic Management Facilities | \$482.77 |
| Cycleways | \$301.62 |
| Stormwater Management Facilities | \$958.35 |
| Plan Administration | \$81.32 |
| The total contribution is | \$20,000.00 |

A condition for the payment of a Section 94 Contribution of \$20,000 has been included in the draft conditions of consent (see condition 17).



Note: The above calculation has been reviewed by two Assessment Officers. A detailed copy of rates and calculation spreadsheet has been placed on the relevant development application file.

11. Likely impacts of the Development

The impacts of the proposed development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality, have been addressed in the issues discussed throughout this report in response to the proposed development's performance against the relevant planning controls and objector submissions.

The proposed development is considered to be satisfactory in terms of impacts subject to the imposed conditions of consent.

12. Suitability of the site for the development

A review of Council's map of Environmentally Sensitive Areas (held on file) identifies the following constraints affecting the subject property:

Overland Flow Area: As discussed in Development Engineer's referral (see below).

13. The Public Interest

The assessment of the proposed development has established that the proposed development would be consistent with:

- the aims of the Ryde LEP 2010;
- the aims of the Ryde LEP 2014; and
- the key development controls under the Ryde DCP 2014.

Furthermore is it considered that those objections made in relation to the proposed development have been satisfactorily addressed as either being complying with the abovementioned plans and policies, addressed via conditions of consent, or suitably justifiable.

On the above basis, approval of this development is considered to be in the public interest.

14. Consultation – Internal and External

Internal Referrals

<u>Development Engineer:</u> Council's Development Engineer has made an assessment of the proposal and provided the following comments:



The subject property slopes to the rear and Council's mapping system shows that rear corner is affected by flooding. The pool which has been part of the development application has been deleted now.

The outlet drainage pipe from the development is proposed to be connected into a Council pipe which runs through the adjoining property No 36 Frederick Street. As there is no legal access to the pipe through No 36 Frederick Street, applicant is required to create an easement to drain water over this property.

The inter-allotment drainage line appears to be running closer to an existing tree. As such Black max or similar grade of pipe should be used for this area.

Applicant's engineer has submitted calculations for the overland flow using Manning's equation and a flood impact assessment report. As per the details, only a small portion of the rear of the site is affected by flooding. The finished floor level of the dwelling RL 14.5m AHD as shown on the drainage plan, has adequate freeboard above the calculated water level. This level cannot be lowered due to the design levels of the driveway and the drainage system. Note the architectural plans show a lower floor level which should be amended. The deck level can be at RL 14.1 or higher.

Onsite detention has been provided as an underground Atlantis cell system. As most parts of the front yard and side court yards are paved at the moment, it appears that these areas will be kept as concrete except the side yard adjoining No 40. The landscape plan indicates decomposed granite (permeable) pavers within this area. Stormwater plan indicates adequate stormwater inlet pits to collect runoff from this side court yard area and direct to the inter-allotment drainage.

There will be some issues with sightlines when vehicles reverse out of western side of the garage of Unit 1 due to the adjacent brick wall of the existing dwelling. Though this was raised with the applicant before, he has failed to address this. Therefore I have conditioned the application for them to provide a convex mirror to increase the visibility of reversing vehicles from this garage to the pedestrians and vehicles coming down the driveway.

The driveway gradients can be achieved to comply with AS 2890.1.

As there is an existing driveway from street to the development, no condition has been provided to construct a new driveway. Concrete footpath paving along the property frontage should be constructed.

No objections are raised from engineering perspective to issue a Deferred Commencement approval to the development proposal subject to the attached conditions and plans as amended in red.



<u>Landscape Architect</u>, 22 May 2014: The consultant Landscape Architect (Creative Planning Solutions Pty Limited) has raised no objection to the proposed development subject to a number of conditions (see conditions 27-30). The following comments were provided in relation to the subject application:

It is noted that no trees are to be removed as part of the development, however four (4) trees have the potential to be impacted by the proposed construction works. Accordingly, a condition of consent has been imposed to ensure adequate protection of these trees is undertaken and all works within the Tree Protection Zones are supervised by a qualified professional. It is noted that the level of hard paving within the front yard is significant; however this is an improvement on the existing conditions on site which saw over 90% of the front yard area hard paved. It is noted that a number of conditions have been recommended in relation to providing additional trees on site, and more appropriate species selection in terms of providing privacy screening shrubs.

External Referrals

No external referrals undertaken as part of the assessment of the proposed development.

15. Critical Dates

There are no critical dates or deadlines to be met.

16. Financial Impact

Adoption of the option(s) outlined in this report will have no financial impact.

17. Other Options

None relevant.

18. Conclusion

The proposal has been assessed against the heads of consideration of Section 79C of the Environmental Planning and Assessment Act 1979 and the following has been determined:

 The proposal can comply with the mandatory requirements and objectives of the relevant environmental planning instruments pertaining to the subject site, including the Ryde Local Environmental Plan 2010, and Ryde LEP 2014;



- The proposal is satisfactorily complying when assessed against the provisions and objectives of the Ryde Development Control Plan 2014;
- The likely environmental impacts of the proposed development have been considered and determined to be satisfactory when having regard to both the natural and built environment, and social and economic impacts in the locality;
- The proposed dual occupancy development is considered to be suitable for the site on which it is to be constructed; and
- The proposed development is considered to be in the public interest, subject to the recommended conditions of consent as outlined in the recommendation.

On this basis, the subject development application is recommended for approval, subject to conditions.



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DRAFT CONDITIONS OF CONSENT 38 FREDERICK STREET, RYDE. LDA2014/194

DEFERRED COMMENCEMENT

The following are the Deferred Commencement condition(s) imposed pursuant to Section 80(3) of the Environmental Planning & Assessment Act 1979.

- 1. A plan prepared by a registered surveyor shall be submitted indicating the location of existing Council pipe within No 36 Frederick Street and the distance to the pipe from the south-western boundary of No 36.
- 2. An easement to drain water shall be created over downstream property Lot 9B DP 416865(No 36 Frederick) in favour of the subject property. Documents from Land and Property Information to demonstrate that easement has been registered shall be submitted to Council.

The conditions in the following sections of this consent shall apply upon satisfactory compliance with the above requirements and receipt of appropriate written confirmation from Council.

GENERAL

The following conditions of consent included in this Part identify the requirements, terms and limitations imposed on this development.

1. **Approved Plans/Documents.** Except where otherwise provided in this consent, the development is to be carried out strictly in accordance with the following plans (stamped approved by Council) and support documents:

| Document Description | Date | Plan No/Reference |
|----------------------------------|------------|------------------------------|
| Ground Floor Plan, Lower | 03.07.2014 | D01 / Issue B |
| Ground Floor Plan, and West | | |
| Elevation. | | |
| First Floor Plan and Section A-A | 03.07.2014 | D02 / Issue B |
| North Elevation and South | 03.07.2014 | D03 / Issue B |
| Elevation | | |
| Ground Floor Plan, Lower | 03.07.2014 | D01 / Issue B |
| Ground Floor Plan, and West | | |
| Elevation. | | |
| Stormwater Management Plan | 12.04.2014 | A1 / Issue A |
| Landscaping Planting Plan | 25.06.2014 | No Drawing number / Issue B |
| Site Waste Minimisation and | 11.04.2014 | Council form and attachment. |
| Management Plan | | No author stated |



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- 2. **Swimming Pool.** The Swimming Pool has been deleted from the approved Architectural Plans, however it is still shown on the approved 'Stormwater Management Plan'. This development consent does not include a Swimming Pool.
- 3. **Building Code of Australia.** All building works approved by this consent must be carried out in accordance with the requirements of the Building Code of Australia.
- 4. **BASIX.** Compliance with all commitments listed in BASIX Certificate(s) numbered A189039, dated 18 May 2014 and numbered 548546S, dated 18 May 2014.
- 5. **Support for neighbouring buildings.** If the development involves excavation that extends below the base of the footings of a building on adjoining land, the person having the benefit of the development consent must, at the person's own expense:
 - (a) Protect and support the adjoining premises from possible damage from the excavation, and
 - (b) Where necessary, underpin the adjoining premises to prevent any such damage, in accordance with relevant Australian Standards.

Protection of Adjoining and Public Land

6. **Hours of work.** Building activities (including demolition) may only be carried out between 7.00am and 7.00pm Monday to Friday (other than public holidays) and between 8.00am and 4.00pm on Saturday. No building activities are to be carried out at any time on a Sunday or a public holiday.

7. Hoardings.

- (a) A hoarding or fence must be erected between the work site and any adjoining public place.
- (b) Any hoarding, fence or awning erected pursuant this consent is to be removed when the work has been completed.
- 8. **Illumination of public place.** Any public place affected by works must be kept lit between sunset and sunrise if it is likely to be hazardous to persons in the public place.
- 9. **Development to be within site boundaries.** The development must be constructed wholly within the boundaries of the premises. No portion of the proposed structure shall encroach onto the adjoining properties. Gates must be installed so they do not open onto any footpath.



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 Public space. The public way must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances, without prior approval from Council.

Works on Public Road

- 11. Public Utilities. Compliance with the requirements (including financial costs) of any relevant utility provider (e.g. Energy Australia, Sydney Water, Telstra, RTA, Council etc) in relation to any connections, works, repairs, relocation, replacements and/or adjustments to public infrastructure or services affected by the development.
- 12. Roads Act. Any works performed in, on or over a public road pursuant to this consent must be carried out in accordance with this consent and with the Road Opening Permit issued by Council as required under section 139 of the Roads Act 1993.

Engineering Conditions

- 13. Design and Construction Standards. All engineering plans and work shall be carried out in accordance with the relevant Australian Standard and City of Ryde Development Control Plan 2014 Section 8 except as amended by other conditions.
- 14. **Service Alterations.** All mains, services, poles, etc., which require alteration shall be altered at the applicant's expense.
- 15. Restoration. Public areas must be maintained in a safe condition at all times. Restoration of disturbed road and footway areas for the purpose of connection to public utilities will be carried out by Council following submission of a permit application and payment of appropriate fees. Repairs of damage to any public stormwater drainage facility will be carried out by Council following receipt of payment. Restoration of any disused gutter crossings will be carried out by Council following receipt of the relevant payment.
- 16. **Road Opening Permit.** The applicant shall apply for a road-opening permit where a new pipeline is proposed to be constructed within or across the footpath. Additional road opening permits and fees may be necessary where there are connections to public utility services (e.g. telephone, electricity, sewer, water or gas) are required within the road reserve. No drainage work shall be carried out on the footpath without this permit being paid and a copy kept on the site.

PRIOR TO CONSTRUCTION CERTIFICATE

A Construction Certificate must be obtained from a Principal Certifying Authority to carry out the relevant building works approved under this consent. All conditions in this Section of the consent must be complied with before a Construction Certificate can be issued.



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Council Officers can provide these services and further information can be obtained from Council's Customer Service Centre on 9952 8222.

Unless an alternative approval authority is specified (eg Council or government agency), the Principal Certifying Authority is responsible for determining compliance with the conditions in this Section of the consent.

Details of compliance with the conditions, including plans, supporting documents or other written evidence must be submitted to the Principal Certifying Authority.

17. Section 94. A monetary contribution for the services in Column A and for the amount in Column B shall be made to Council prior to the issue of any Construction Certificate:

| A - Contribution Type | B – Contribution Amount |
|---------------------------------------|-------------------------|
| Community & Cultural Facilities | \$4,227.91 |
| Open Space & Recreation Facilities | \$10,408.11 |
| Civic & Urban Improvements | \$3,539.92 |
| Roads & Traffic Management Facilities | \$482.77 |
| Cycleways | \$301.62 |
| Stormwater Management Facilities | \$958.35 |
| Plan Administration | \$81.32 |
| The total contribution is | \$20,000.00 |

These are contributions under the provisions of Section 94 of the Environmental Planning and Assessment Act, 1979 as specified in Section 94 Development Contributions Plan 2007 (2010 Amendment) adopted by City of Ryde on 16 March 2011.

The above amounts are current at the date of this consent, and are subject to **quarterly** adjustment for inflation on the basis of the contribution rates that are applicable at time of payment. Such adjustment for inflation is by reference to the Consumer Price Index published by the Australian Bureau of Statistics (Catalogue No 5206.0) – and may result in contribution amounts that differ from those shown above.

A copy of the Section 94 Development Contributions Plan may be inspected at the Ryde Planning and Business Centre, 1 Pope Street Ryde (corner Pope and Devlin Streets, within Top Ryde City Shopping Centre) or on Council's website http://www.ryde.nsw.gov.au.

18. Compliance with Australian Standards. The development is required to be carried out in accordance with all relevant Australian Standards. Details demonstrating compliance with the relevant Australian Standard are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.



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- 19. **Structural Certification.** The applicant must engage a qualified practising structural engineer to provide structural certification in accordance with relevant BCA requirements prior to the release of the **Construction Certificate**.
- 20. **Security deposit.** The Council must be provided with security for the purposes of section 80A(6) of the *Environmental Planning and Assessment Act 1979* in a sum determined by reference to Council's Management Plan prior to the release of the **Construction Certificate.** (category: dwelling houses with delivery of bricks or concrete or machine excavation)
- 21. **Fees.** The following fees must be paid to Council in accordance with Council's Management Plan prior to the release of the **Construction Certificate**:
 - (a) Infrastructure Restoration and Administration Fee
 - (b) Enforcement Levy
- 22. **Alignment Levels.** The applicant is to apply to Council, pay the required fee, and have issued site specific alignment levels by Council prior to the issue of the **Construction Certificate.**
- 23. **Long Service Levy.** Documentary evidence of payment of the Long Service Levy under Section 34 of the Building and Construction Industry Long Service Payments Act 1986 is to be submitted to the Principal Certifying Authority prior to the issuing of the **Construction Certificate**.
- 24. Sydney Water quick check. The approved plans must be submitted to a Sydney Water Quick Check agent or Customer Centre, prior to the release of the Construction Certificate, to determine whether the development will affect any Sydney Water assets, sewer and water mains, stormwater drains and/or easements, and if further requirements need to be met. Plans will be appropriately stamped.

Please refer to the website www.sydneywater.com.au for:

- Quick Check agents details see Building, Developing and Plumbing then Quick Check; and
- Guidelines for Building Over/Adjacent to Sydney Water assets see Building, Development and Plumbing then Building and Renovating.

Or telephone 13 20 92.

25. **Reflectivity of materials.** Roofing and other external materials must be of low glare and reflectivity. Details of finished external surface materials, including colours and texture must be provided to the Principal Certifying Authority prior to the release of the **Construction Certificate**.



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- 26. **Fencing.** Fencing is to be in accordance with Council's Development Control Plan and details of compliance are to be provided in the plans for the **Construction Certificate**.
- 27. **Species Selection.** The 15 x Murraya paniculata located along the northeastern boundary are to be substituted for a species with a narrow form so as to grow appropriately within the proposed 350mm wide planting bed. Details are to be submitted to and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.
- 28. **Boundary Screen Planting.** The species of Camellia 'Plantation Pink' along the south-western side boundary are to be substituted for a more appropriate native species which is capable of reaching a mature height of 3 metres with a dense form and planted at spacing's to provide a higher level of privacy to the dwellings and private open spaces of the adjoining allotments. Details are to be submitted to and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.
- 29. Tree planting front yard. One (1) additional Australian native tree with a minimum pot size of 45 litres to be planted in the front garden, to reach a height of 10m at maturity with a spreading canopy. Details are to be submitted to and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate.
- 30. **Tree planting rear yard.** One (1) Australian native tree with a minimum size of 45 litres to be planted in the rear garden, to reach a height of 15m at maturity with a spreading canopy. Details are to be submitted to and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.
- 31. **Window Treatment.** The south side facing window of the First Floor Rumpus room of Unit 1 is to have fixed louvered privacy screen or obscure glazing or similar treatment installed up to a height of at least 1.8m above the finished floor level of the first floor that reduces the opportunity for overlooking to the adjoining dwellings and private open spaces of the neighbouring property at 40-44 Frederick Street, Ryde. Specific details of the proposed window treatment are to be submitted and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.
- 32. **Window Type.** The kitchen window shown on the approved 'Lower Ground Floor Plan' is to minimise the potential for overlooking to the dwellings to the south. The following measures are considered acceptable solutions: a minimum sill height of at least 1.5m above finished floor level (FFL) or a maximum head height of 1.2m above FFL. Specific details of the proposed window type are to be submitted and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.



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33. **Privacy Screen.** The northern and southern sides of the rear deck to Unit 2 are to be fitted with a minimum 1.8m high privacy screen or similar treatment that reduces the opportunity for overlooking to the adjoining dwellings and private open spaces of the neighbouring property at 36 Frederick Street, Ryde and 40-44 Frederick Street, Ryde. Specific details of the proposed privacy screen or similar are to be submitted and approved by the Principal Certifying Authority prior to the issue of a **Construction Certificate**.

Engineering Conditions

- 34. **Car Parking & Vehicular Access**. All internal driveways, dradients, vehicle turning areas, garage opening widths, car parking areas and headroom clearances etc shall be designed to comply with AS 2890.1-2004 where applicable.
 - Plans and engineering certification, indicating compliance with this condition are to be submitted with the Construction Certificate application.
- 35. **Council Inspections.** A Council engineer must inspect the stormwater connection to the existing Council stormwater pipeline. The connection shall be designed in accordance with Council's DCP part 8.2. Council shall be notified when the collar connection has been made to the pipe and prior to backfilling. An inspection fee of \$144.00 shall be paid to Council prior to the issue of the Construction Certificate.
- 36. **Convex Mirror**. A convex mirror is to be installed in such a way to increase the visibility to drivers/pedestrians coming down the driveway towards the garages, of any reversing vehicles from the garage of Unit one. Details are to be shown on the plans prior to the issue of the Construction Certificate.
- 37. **Inter-allotment drainage**. To facilitate satisfactory stormwater disposal from the subject site an inter-allotment drainage system shall be designed and constructed to collect and pipe runoff from the site to Council's drainage system in adjoining property No 36 Frederick Street. The design shall be prepared by a qualified engineer to incorporate, but not be limited to the following:
 - 1. The Inter-allotment drainage system shall be designed to cater for the 1 in 100 year 5 minute storm runoff from the proposed development.
 - 2. The pipe line within the easement shall be of Blackmax or similar grade. The system shall incorporate a 600x600 gully pit at the lowest corner of No 36 Frederick Street where pipe turns at ninety degree angle.
 - 3. The design shall be in accordance with DCP 2014 Part 8.2 Stormwater Management.

Engineering plans, including certification indicating compliance with this condition is to be submitted with the Construction Certificate application.



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- 38. **On-Site Stormwater Detention.** Stormwater runoff from all impervious areas shall be collected and piped by gravity flow to a suitable on-site detention system in accordance with City of Ryde, Development Control Plan 2014: Part 8.2; Stormwater Management. The minimum capacity of the piped drainage system shall be equivalent to the collected runoff from a 100 year average recurrence interval 5 minute storm event. Detailed engineering plans including certification indicating compliance with this condition & DCP 2014 are to be submitted with the Construction Certificate application.
- 39. **Overland Flow path.** No filling, alteration to the surface levels or other obstructions within the overland flow path across the site shall be made without prior approval of Council.
- 40. **Fencing within Floodways.** All fencing within the overland flow path shall have a permeable section at least 300 mm above the calculated top water surface level.
- 41. **Water Tank First Flush.** A first flush mechanism is to be designed and constructed with the water tank system. Details of the first flush system are to be submitted with the construction certificate application.
- 42. **Erosion and Sediment Control Plan.** An *Erosion and Sediment Control Plan* **(ESCP)** shall be prepared by a suitably qualified consultant in accordance with the guidelines set out in the manual *"Managing Urban Stormwater, Soils and Construction"* prepared by the Landcom. These devices shall be maintained during the construction works and replaced where considered necessary.

The following details are to be included in drawings accompanying the *Erosion* and Sediment Control Plan

- (a) Existing and final contours
- (b) The location of all earthworks, including roads, areas of cut and fill
- (c) Location of all impervious areas
- (d) Location and design criteria of erosion and sediment control structures,
- (e) Location and description of existing vegetation
- (f) Site access point/s and means of limiting material leaving the site
- (g) Location of proposed vegetated buffer strips
- (h) Location of critical areas (drainage lines, water bodies and unstable slopes)
- (i) Location of stockpiles
- (j) Means of diversion of uncontaminated upper catchment around disturbed areas
- (k) Procedures for maintenance of erosion and sediment controls
- (I) Details for any staging of works
- (m) Details and procedures for dust control.



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PRIOR TO COMMENCEMENT OF CONSTRUCTION

Prior to the commencement of any demolition, excavation, or building work the following conditions in this Part of the Consent must be satisfied, and all relevant requirements complied with at all times during the operation of this consent.

43. Site Sign

- (a) A sign must be erected in a prominent position on site, prior to the commencement of construction:
 - (i) showing the name, address and telephone number of the Principal Certifying Authority for the work,
 - (ii) showing the name of the principal contractor (if any) or the person responsible for the works and a telephone number on which that person may be contacted outside working hours, and
 - (iii) stating that unauthorised entry to the work site is prohibited.
- (b) Any such sign must be maintained while the building work, subdivision work or demolition work is being carried out, but must be removed when the work has been completed.
- 44. **Residential building work insurance.** 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 before any building work authorised to be carried out by the consent commences.
- 45. **Residential building work provision of information.** Residential building work within the meaning of the Home Building Act 1989 must not be carried out unless the PCA has given the Council written notice of the following information:
 - (a) in the case of work for which a principal contractor is required to be appointed:
 - (i) the name and licence number of the principal contractor; and
 - (ii) the name of the insurer by which the work is insured under Part 6 of that Act.
 - (b) in the case of work to be done by an owner-builder:
 - (i) the name of the owner-builder; and
 - (ii) if the owner-builder is required to hold an owner-builder permit under that Act, the number of the owner-builder permit.

If any of the above arrangements are changed while the work is in progress so that the information notified under this condition becomes out of date, further work must not be carried out unless the PCA for the development to which the work relates has given the Council written notice of the updated information (if Council is not the PCA).



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46. Excavation adjacent to adjoining land

- (a) If an excavation extends below the level of the base of the footings of a building on an adjoining allotment of land, the person causing the excavation must, at their own expense, protect and support the adjoining premises from possible damage from the excavation, and where necessary, underpin the adjoining premises to prevent any such damage.
- (b) The applicant must give at least seven (7) days notice to the adjoining owner(s) prior to excavating.
- (c) An owner of the adjoining allotment of land is not liable for any part of the cost of work carried out for the purposes of this condition, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.
- 47. **Safety fencing.** The site must be fenced prior to the commencement of construction, and throughout demolition and/or excavation and must comply with WorkCover New South Wales requirements and be a minimum of 1.8m in height.
- 48. **Project Arborist** A Project Arborist with minimum AQF level 5 qualifications is to be engaged to ensure adequate tree protection measures are put in place for all trees to be retained on the subject site and neighbouring allotments. All trees are to be monitored to ensure adequate health throughout the construction period is maintained. Additionally, all work within the Tree Protection Zones is to be supervised throughout construction. Details of the Project Arborist are to be submitted to Council prior to the commencement of construction.

Engineering Conditions

- 49. Sediment and Erosion Control. The applicant shall install appropriate sediment control devices in accordance with an approved plan prior to any earthworks being carried out on the site. These devices shall be maintained during the construction period and replaced where considered necessary. Suitable erosion control management procedures shall be practiced. This condition is imposed in order to protect downstream properties, Council's drainage system and natural watercourses from sediment build-up transferred by stormwater runoff from the site.
- 50. Compliance Certificate. A Compliance Certificate should be obtained confirming that the constructed erosion and sediment control measures comply with the construction plan and City of Ryde, Development Control Plan 2014: - Part 8.1; Construction Activities.

DURING CONSTRUCTION

Unless otherwise specified, the following conditions in this Part of the consent must be complied with at all times during the construction period. Where applicable, the requirements under previous Parts of the consent must be implemented and maintained at all times during the construction period.



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- 51. **Critical stage inspections.** The person having the benefit of this consent is required to notify the Principal Certifying Authority during construction to ensure that the critical stage inspections are undertaken, as required under clause 162A(4) of the *Environmental Planning and Assessment Regulation 2000.*
- 52. **Survey of footings/walls.** All footings and walls within 1 metre of a boundary must be set out by a registered surveyor. On commencement of brickwork or wall construction a survey and report must be prepared indicating the position of external walls in relation to the boundaries of the allotment.
- 53. **Sediment/dust control.** No sediment, dust, soil or similar material shall leave the site during construction work.
- 54. **Use of fill/excavated material.** Excavated material must not be reused on the property except as follows:
 - (a) Fill is allowed under this consent;
 - (b) The material constitutes Virgin Excavated Natural Material as defined in the *Protection of the Environment Operations Act 1997;*
 - (c) the material is reused only to the extent that fill is allowed by the consent.
- 55. **Construction materials.** All materials associated with construction must be retained within the site.

56. Site Facilities

The following facilities must be provided on the site:

- (a) toilet facilities in accordance with WorkCover NSW requirements, at a ratio of one toilet per every 20 employees, and
- (b) a garbage receptacle for food scraps and papers, with a tight fitting lid.

57. Site maintenance

The applicant must ensure that:

- (a) approved sediment and erosion control measures are installed and maintained during the construction period;
- (b) building materials and equipment are stored wholly within the work site unless an approval to store them elsewhere is held;
- (c) the site is clear of waste and debris at the completion of the works.
- 58. **Work within public road.** At all times work is being undertaken within a public road, adequate precautions shall be taken to warn, instruct and guide road users safely around the work site. Traffic control devices shall satisfy the minimum standards outlined in Australian Standard No. AS1742.3-1996 "Traffic Control Devices for Work on Roads".
- 59. **Tree protection no unauthorised removal.** This consent does not authorise the removal of trees unless specifically permitted by a condition of this consent or otherwise necessary as a result of construction works approved by this consent.



ATTACHMENT 1

60. **Tree protection – during construction.** Trees that are shown on the approved plans as being retained must be protected against damage during construction.

PRIOR TO OCCUPATION CERTIFICATE

An Occupation Certificate must be obtained from a Principal Certifying Authority prior to commencement of occupation of any part of the development, or prior to the commencement of a change of use of a building.

Prior to issue, the Principal Certifying Authority must ensure that all works are completed in compliance with the approved construction certificate plans and all conditions of this Development Consent.

Unless an alternative approval authority is specified (eg Council or government agency), the Principal Certifying Authority is responsible for determining compliance with conditions in this Part of the consent. Details to demonstrate compliance with all conditions, including plans, documentation, or other written evidence must be submitted to the Principal Certifying Authority.

- 61. **BASIX.** The submission of documentary evidence of compliance with all commitments listed in BASIX Certificate(s) numbered A189039, dated 18 May 2014 and numbered 548546S, dated 18 May 2014.
- 62. **Landscaping.** All landscaping works approved by condition 1 are to be completed prior to the issue of the final **Occupation Certificate**.
- 63. **Letterboxes and street/house numbering.** All letterboxes and house numbering are to be designed and constructed to be accessible from the public way. Council must be contacted in relation to any specific requirements for street numbering.

Engineering Conditions

- 64. **Footpath Paving Construction.** The applicant shall, at no cost to Council, construct standard concrete footpath paving across the frontage of the property.in Frederick Street. Levels of the footpath paving shall conform with levels issued by Council's Engineering Services Division.
- 65. **On-Site Stormwater Detention System Marker Plate.** Each on-site detention system basin shall be indicated on the site by fixing a marker plate. This plate is to be of minimum size: 100mm x 75mm and is to be made from non-corrosive metal or 4mm thick laminated plastic. It is to be fixed in a prominent position to the nearest concrete or permanent surface or access grate. The wording on the marker plate is described in City of Ryde, Development Control Plan 2014: Part 8.2; Stormwater Management. An approved plate may be purchased from Council's Customer Service Centre on presentation of a completed City of Ryde OSD certification form.



ATTACHMENT 1

- 66. Work-as-Executed Plan. A Work-as-Executed plan signed by a Registered Surveyor clearly showing the surveyor's name and the date, the stormwater drainage, including the on-site stormwater detention system if one has been constructed, finished ground levels and inter-allotment drainage details is to be submitted to the Principal Certifying Authority (PCA) and to Ryde City Council if Council is not the nominated PCA. If there are proposed interallotment drainage easements on the subject property, a Certificate from a Registered Surveyor is to be submitted to the PCA certifying that the subject drainage line/s and pits servicing those lines lie wholly within the proposed easements.
- 67. **Drainage Construction.** The stormwater drainage on the site is to be constructed in accordance with plan the Construction Certificate version of Job No 109246 Dwg D1 to D4 issue B dated 27/9/14 prepared by Storm Civil Engineering Solutions Pty Ltd and as amended in red by Council and conditions of this consent.
- 68. **Compliance Certificates Engineering.** Compliance Certificates should be obtained for the following (If Council is appointed the Principal Certifying Authority [PCA] then the appropriate inspection fee is to be paid to Council) and **submitted to the PCA**:
 - Confirming that the site drainage system (including the on-site detention storage system) servicing the development complies with the construction plan requirements and City of Ryde, Development Control Plan 2014: - Part 8.2; Stormwater Management
 - Confirming that inter allotment drainage system has been constructed in accordance with construction plan requirements and City of Ryde, Development Control Plan 2014: - Part 8.2; Stormwater Management
 - Confirmation from Council that connection to Council's stormwater pipe has been inspected and is satisfactory.
 - Confirmation from Council that footpath paving for the frontage of the property in Frederick Street has been constructed and complies with Council's requirements.
 - Confirming that after completion of all construction work and landscaping, all areas adjacent the site, the site drainage system (including the on-site detention system), and the trunk drainage system immediately downstream of the subject site (next pit), have been cleaned of all sand, silt, old formwork, and other debris.
- 69. **Restriction as to User, Floodway.** A restriction as to user is to be placed on the property title to prevent the alteration of the ground surface and maintenance within the 100 year Average Recurrence Interval flow path and also not to have any structure placed inside without Council permission. The terms of the restriction shall be generally in accordance with Council's draft terms for provision for overland flow and to the satisfaction of Council.



ATTACHMENT 1

70. **Positive Covenant, OSD.** The creation of a Positive Covenant under Section 88 of the Conveyancing Act 1919, burdening the property with the requirement to maintain the stormwater detention system on the property. The terms of the instruments are to be generally in accordance with the Council's draft terms of Section 88E instrument for Maintenance of Stormwater Detention Systems and to the satisfaction of Council.

The applicant shall submit the works as executed drawing and the compliance certificates for drainage from the hydraulic engineer to Council with the documents for the Positive Covenant.

OPERATIONAL CONDITIONS

The conditions in this Part of the consent relate to the on-going operation of the development and shall be complied with at all times.

71. **Single dwelling only.** The dwellings within the dual occupancy development are not to be used or adapted for use as two separate domiciles or a boarding house.



ATTACHMENT 2

Quality Certification

Assessment of a Dual Occupancy (attached), Single Dwelling House, Alterations & Additions to a Dwelling House and ancillary development

| LDA No: | 2014/0194 |
|-------------------------|--------------------------------------------------------|
| Date Plans Rec'd | 20 May 2014. Amended plans received 10 July 2014. |
| Address: | 38 Frederick Street, Ryde |
| Proposal: | Alterations and additions to dwelling to create a dual |
| | occupancy (attached). |
| Constraints Identified: | Overland Flow, Acid Sulphate Soils Class 5 |

COMPLIANCE CHECK

| RYDE LEP 2010 | PROPOSAL | COMPLIANCE |
|----------------------|----------|------------|
| 4.3(2) Height | | |
| 9.5m overall | 7.12m | Yes |
| 4.4(2) & 4.4A(1) FSR | | |
| • 0.5:1 | 0.422:1 | Yes |

| DCP 2014 | PROPOSED | COMPLIANCE | |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--|
| Part 3.3 – Dwelling Houses and Du | Part 3.3 – Dwelling Houses and Dual Occupancy (attached) | | |
| Desired Future Character | | | |
| Development is to be consistent with the desired future character of the low density residential areas. | The proposed development is considered to be consistent with the desired future character of the low density residential area as detailed further in this table. It is noted for future reference throughout this table that the proposed development is for alterations and additions to construct a dual occupancy. | Yes | |
| Dwelling Houses | | | |
| To have a landscaped setting which includes significant deep soil areas at front and rear. | Front and rear gardens proposed with satisfactory level of deep soil included within front yard. | Yes | |
| - Maximum 2 storeys. | Alterations are a maximum of two storeys. | Yes | |
| - Dwellings to address street | Dwelling is considered to have an improved streetscape elevation which | Yes | |



ITEM 2 (continued) ATTACHMENT 2

| ITEM 2 (continued) | A | TTACHMENT 2 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| | addresses Frederick Street more appropriately than the existing arrangements on site. | |
| Garage/carports not visually prominent features. | Garages located in the middle of the site not visible from the street. | Yes |
| Alterations and Additions | | |
| Design of finished building appears as integrated whole. | Design of the alterations and additions are considered to be consistent with the existing dwelling and provide an overall integrated building. | Yes |
| Development to improve amenity and liveability of dwelling and site. | Development improves the liveability of the site through integration of an additional dwelling of height quality design to better utilise the oversized allotment size. | Yes |
| Public Domain Amenity | | |
| Streetscape | | |
| Front doors and windows are to face the street. Side entries to be clearly apparent. | Side facing entry is considered to be clearly apparent and an improvement compared to the existing on-site arrangements. | Yes |
| Single storey entrance porticos.Articulated street facades. | Single entrance portico Articulated street façade which significantly improves the existing façade. | Yes Yes |
| Corner buildings to address both frontages | Not on corner | N/A |
| Public Views and Vistas A view corridor is to be provided along at least one side allotment boundary where there is an existing or potential view to the water from the street. Landscaping is not to restrict views. | No water views identified. | N/A |
| Garages/carports and outbuildings are not to be located within view corridor if they obstruct view. | As above. | N/A |



| ITEM 2 (continued) | | TTACHMENT 2 |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| Fence 70% open where height is >900mm | As above. | N/A |
| Pedestrian & Vehicle Safety | | |
| Car parking located to accommodate sightlines to footpath & road. | Integrated garages which allow vehicles to enter and exit the site in a forward direction with sufficient sightlines provided to | Yes |
| Fencing that blocks sight line is to be splayed. | footpath and roadway. Fencing is low wall approximately 900mm which allows appropriate sightlines to footpath and roadway. | Yes |
| Site Configuration | | |
| Deep Soil Areas 35% of site area min. | 371.28m ² approx. (36.02% of site area). | Yes |
| Min 8x8m deep soil area in backyard. | 8m x 8m provided within rear yard | Yes |
| - Front yard to have deep soil area (only hard paved area to be driveway, pedestrian path and garden walls). | Hard surface areas have not been kept to a minimum given the majority of the front yard is hard paved however this is an existing arrangement on site, with the proposed design reducing the level of hard paving and introducing additional deep soil and landscaping. | Yes |
| Dual occupancy developments only need 1 of 8 x 8m area (doesn't have to be shared equally). | 1 x 8x8m deep soil area provided within rear yard. | Yes |
| Topography & Excavation | | V. |
| Within building footprint: - Max cut: 1.2m | Max cut: 450mm | Yes Yes |
| - Max cut. 1.2111 - Max fill: 900mm | Max cut. 450mm | Yes |
| Outside building footprint: | Max III. O-OIIIII | 103 |
| - Max cut: 900mm | Max cut: 450mm | Yes |
| - Max fill: 500mm | Max fill: <200mm | Yes |
| No fill between side of building and boundary or close to rear boundary | | Yes |
| - No fill in overland flow path | Amended plans indicate that there will be no fill located within the overland flow path. | Yes |



| ITEM 2 (continued) | Α | TTACHMENT 2 |
|---------------------------------------------------------------------------|---------------------------------------------|-------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| Max ht retaining wall 900mm | | Yes |
| Floor Space Ratio | | |
| - Lower Ground Floor | 185.25m² | |
| - Ground floor | 174.09m² | |
| - First floor | 111.75m² | |
| - Total (Gross Floor Area) | 471.09m² | |
| - Less 36m ² (double) or 18m ² | 435.09m² | |
| (single) allowance for parking | | |
| FSR (max 0.5:1) | 0.422:1 | Yes |
| | Based on site area of 1030.68m ² | |
| Note: Excludes wall thicknesses, | as per Deposited Plan | |
| lifts/stairs; basement | | |
| storage/vehicle access/garbage | | |
| area; terraces/balconies with | | |
| walls <1.4m; void areas. | | |
| Height | Maying up 2 stancy a proposed | V |
| - 2 storeys maximum (storey) incl | Maximum 2 storeys proposed | Yes |
| basement elevated greater than | | |
| 1.2m above EGL). | 1 starsy proposed shows | Vaa |
| 1 storey maximum above attached garage incl semi- | 1 storey proposed above attached garage | Yes |
| basement or at-grade garages. | allached garage | |
| Wall plate (Ceiling Height) | | |
| - 7.5m max above FGL <i>or</i> | TOW RL: 20.55 | Yes |
| - 8m max to top of parapet. | FGL below (lowest point): | 163 |
| - on max to top or parapet. | RL:14.70 | |
| NB: | TOW Height (max)= 5.85m | |
| $TOW = Top \ of \ Wall$ | It is noted that the existing | |
| EGL = Existing Ground Level | approved dwelling on site | |
| FGL = Finished Ground Level | includes maximum wall plate | |
| | height of 7.47m | |
| | | |
| - 9.5m Overall Height | Max point of dwelling | Yes |
| | RL:21.55 | |
| | EGL below ridge (lowest | |
| NB: EGL – Existing ground Level | point) RL: 14.43 | |
| | Overall Height (max)= 7.12m | |
| | | |
| | It is noted that the existing | |
| | dwelling on site includes a | |
| | maximum building height of | |
| | 9.30m | |
| - Habitable rooms to have 2.4m floor | M min room height | Yes |
| to ceiling height (min). | | |
| | | |
| | | |
| | | |



| | TTACHMENT 2 |
|------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PROPOSED | COMPLIANCE |
| | |
| | |
| | Yes |
| Minimum 1500mm setback of | Yes |
| singe storey elements | |
| | |
| Min.1500mm setback of two | Yes |
| storey elements | |
| • | |
| Min. 6m front setback | Yes |
| Not on corner | N/A |
| Side facing garages which | Yes |
| are setback back 2m from | |
| side facing building facade | |
| Garage at side of dwelling | N/A |
| therefore this control not | |
| considered to apply. | |
| No ancillary elements | Yes |
| proposed within front setback | |
| | |
| 17.30m rear setback | Yes |
| proposed. | |
| | |
| | |
| | |
| | |
| Dual Occupancy – see below | N/A |
| | |
| 3 spaces proposed. Given | No – |
| the garages are located at | Justifiable |
| the side of the dwelling and | |
| significant distance from the | |
| Frederick Street, this | |
| arrangement is considered to | |
| be acceptable as there will be | |
| | |
| • | |
| concerned with street | |
| parking, this helps towards | |
| that concern. | |
| Access from: Frederick | N/A |
| Street, no other access | |
| available | |
| 1 | N/A |
| External width: 9m however | IN/A |
| External width: 9m however not facing public street, | IN/A |
| | IWA |
| | Minimum 1500mm setback of singe storey elements Min.1500mm setback of two storey elements Min. 6m front setback Not on corner Side facing garages which are setback back 2m from side facing building facade Garage at side of dwelling therefore this control not considered to apply. No ancillary elements proposed within front setback 17.30m rear setback proposed. Dual Occupancy – see below 3 spaces proposed. Given the garages are located at the side of the dwelling and significant distance from the Frederick Street, this arrangement is considered to be acceptable as there will be minimal visual impact to the streetscape. Submissions are concerned with street parking, this helps towards that concern. Access from: Frederick Street, no other access |



| ITEM 2 (continued) | Α | TTACHMENT 2 |
|---------------------------------------------------------------|--------------------------------|------------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| Behind building façade. | Behind side building facade | Yes |
| Garages | | |
| Garages setback 1m from façade. | Setback from side façade: 2m | Yes |
| Total width of garage doors visible | Width of opening: 9m | N/A |
| from public space must not | Not visible from public space | |
| exceed 5.7m and be setback not | so control doesn't apply | |
| more than 300mm behind the | Door setback: 300mm | Yes |
| outside face of the building | | |
| element immediately above. | No windows proposed | Voo |
| - Garage windows are to be at least | No windows proposed. | Yes |
| 900mm away from boundary. - Solid doors required | Solid proposed | Yes |
| Materials in keeping or | Materials: consistent with | Yes |
| complementary to dwelling. | new dwelling. | 163 |
| Parking Space Sizes (AS) | new aweiling. | |
| Double garages: 5.4m w (min) | 5.8m | Yes |
| - Single garage: 3m w(min) | 3.2m | Yes |
| Internal length: 5.4m (min) | 5.8m | Yes |
| Driveways | | |
| - Extent of driveways minimised | Driveway proposed only | Yes |
| | sufficient for safe vehicle | |
| | entry and exit. It is noted an | |
| | extensive hard stand area at | |
| | the front of the allotment | |
| | exists as part of the original | |
| | arrangements on site. This is | |
| | considered to be excessive | |
| | and required to be resolved | |
| | through implementation of | |
| Ondinancia a Dania a Ongo Itia anto | deep soil planting. | 41 |
| Swimming Pools & Spas – It is note | | |
| plans within the rear yard of dwelling a of this application. | 2 has been deleted and now doe | es not form part |
| Landscaping | | |
| Trees & Landscaping | | |
| Major trees retained where | No trees to be removed as | Yes |
| practicable. | part of alterations and | |
| · | additions. | |
| If bushland adjoining use native | Not bushland adjoining | N/A |
| indigenous species for 10m from | _ | |
| boundary | | |
| - Physical connection to be | Stairs to open spaces have | Yes |
| provided between dwelling and | been appropriately provided | |
| outdoor spaces where the ground | where necessary across the | |
| floor is elevated above NGL e.g. | site. | |
| stairs, terraces. | | |
| | | |



| ITEM 2 (continued) | A | TTACHMENT 2 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| Obstruction-free pathway on one side of dwelling (excl cnr allotments or rear lane access). | Access available along both sides of the dwelling. | Yes |
| - Front yard to have at least 1 tree with mature ht of 10m min and a spreading canopy. | Front yard includes two (2) existing trees over 15m in height with a spreading canopy. | Yes |
| Backyard to have at least 1 tree with mature ht of 15m min and a spreading canopy. | Rear yard includes one (1) tree over 15m in height with a spreading canopy. | Yes |
| Hedging or screen planting on boundary mature plants reaching no more than 2.7m. | Hedging and screen planting considered to be of an appropriate size. | Yes |
| OSD generally not to be located in front setback unless under driveway. | OSD located along side setback under the proposed driveway | Yes |
| Landscaped front garden, with max 40% hard paving. | Hard Paving: 66.83% Improvement on existing. Sufficient DSA provided and landscape architect supports. | No – Justifiable |
| Landscaping for lots with Urban Bushland or Overland Flow constraints Where lot is adjoining bushland protect, retain and use only native indigenous vegetation for distance of 10m from building adjoining | Not adjoining bushland. | Yes |
| bushland. - No fill allowed in overland flow areas. | Amended plans indicate that there will be no fill located within the overland flow path | Yes |
| Fences in Overland Flow areas must be of open construction so it doesn't impede the flow of water. | No change from existing fences on site. | Yes |
| Dwelling Amenity | | |
| Daylight and Sunlight Access Living areas to face north where orientation makes this possible. | Living areas have been provided with a northern orientation. | Yes |
| Increase side setback for side living areas (4m preferred) where north is the side boundary. | 3-3.5m side setback provided to the northern side boundary to increase available light levels to living rooms. | Yes |



| ITEM 2 (continued) | Α | TTACHMENT 2 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| Subject Dwelling: Subject dwelling north facing windows are to receive at least 3 hrs of sunlight to a portion of their surface between 9am and 3pm on June 21. Private Open space of subject dwelling is to receive at least 2 hours sunlight between 9am and 3pm on June 21. Neighbouring properties are to receive: | North facing windows of the subject dwelling will receive a minimum of 3 hours sunlight to a portion of their surface between 9am and 3pm on June 21. Rear private open space will receive minimum levels of sunlight required. | Yes |
| 2 hours sunlight to at least 50% of adjoining principal ground level open space between 9am and 3pm on June 21. At least 3 hours sunlight to a portion of the surface of north facing adjoining living area windows between 9am and 3pm on June 21. | According to the shadow diagrams submitted, the neighbouring private open spaces of three (3) dwellings of the multi-dwelling housing development at No 40-44 Frederick Street will not receive the required level of sunlight. Despite this, given the orientation of the allotments and the existing dwelling on site already casting a significant shadow across these private open spaces, this non-compliance is considered to be justifiable on this instance. Furthermore it is noted that the dwelling is full compliant in all building envelope controls. A review of the shadow diagrams submitted indicates that the three (3) of the dwellings located within the multi-dwelling housing development at No.40-44 Frederick Street will not receive the required level of sunlight. Despite this, given the orientation of the allotments and the dwellings fully compliant building height, setbacks and FSR | No - Justifiable No - Justifiable |



| ITEM 2 (continued) | Α | TTACHMENT 2 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| Vi accel Del conse | considered to be justifiable in this instance. | |
| Visual Privacy Orientate windows of living areas, balconies and outdoor living areas to the front and rear of dwelling. Windows of living, dining, family etc. placed so there are no close or direct views to adjoining dwelling or open space. | W5A & W5B close living area windows close and direct views into rear POS and rear windows of Unit 1/40-44. Condition to be imposed requiring opaque glazing. | Yes No – To be conditioned |
| Side windows offset from adjoining windows. | As above | No – To be conditioned |
| Terraces, balconies etc. are not to overlook neighbouring dwellings/private open space. | Rear deck is elevated up to 80cm. Will enable overlooking into both adjoining properties to the north and south. Condition to be imposed requiring privacy screening to the sides of the deck. | No – To be conditioned |
| Acoustic Privacy Layout of rooms in dual occupancies (attached) are to minimise noise impacts between dwellings e.g.: place adjoining living areas near each other and adjoining bedrooms near each other. | Acoustic privacy between the dwellings of the dual occupancy has been maintained through separating each dwelling on the lower floor with the garages. The upper floors have maintained acoustic privacy through placing bedrooms adjacent to each other. | Yes |
| View Sharing The siting of development is to provide for view sharing. Cross Ventilation Plan layout is to optimise access to prevailing breezes and to provide for cross ventilation. | No significant view identified on site. Layout of the development is considered to allow adequate access to prevailing breezes | Yes Yes |
| | | |



| ITEM 2 (continued) | | TTACHMENT 2 |
|--------------------------------------------------------|--------------------------------|-------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| External Building Elements | | |
| • Roof | | |
| - Articulated. | Articulated roof proposed | Yes |
| - 450mm eaves overhang minimum. | 450mm overhang provided | Yes |
| - Not to be trafficable Terrace. | None provided | Yes |
| - Skylights to be minimised and | None proposed | Yes |
| placed symmetrically. | | |
| - Front roof plane is not to have both | None proposed | Yes |
| dormer windows and skylights. | | |
| Fencing | | |
| • Front/return: | | |
| To reflect design of dwelling. | No change to existing front or | N/A |
| 0 | return fencing | |
| To reflect character and height of | As above. | N/A |
| neighbouring fences. | | |
| - Max 900mm high for solid (picket | As above. | N/A |
| can be 1m). | | |
| - Max 1.8m high if 50% open (any | As above. | N/A |
| solid base max 900mm). | | |
| Retaining walls on front building | As above. | N/A |
| max 900mm. | | |
| No colourbond or paling | As above. | N/A |
| - Max pier width 350mm. | As above. | N/A |
| Side/rear fencing: | | |
| - 1.8m max o/a height. | No change to side or rear | N/A |
| | boundaries. | |
| Part 7.2 - Waste Minimisation & Ma | | l |
| Submission of a Waste | The applicant has submitted | Yes |
| Management Plan | a Waste Management | |
| Part 8.2 – Stormwater Managemen | | |
| • Stormwater | - | |
| - Drainage is to be piped in | Drainage plans submitted | Yes |
| accordance with Part 8.2 – | and referred to Development | 100 |
| Stormwater Management. | Engineer for comment. | |
| Part 9.2 – Access for People with D | , , | |
| Accessible path required from the | Level of land does not permit | N/A |
| street to the front door, where the | an accessible pathway. | 1 47 1 |
| level of land permits. | an accession pairway. | |
| Part 9.4 – Fencing | I. | |
| Front & Return Fences | | |
| - Front and return fences that | No change to front or return | N/A |
| exceed 1m in height are to be 50% | fencing proposed. | IN/71 |
| open. | Torioning proposed. | |
| Part 9.6 – Tree Preservation | | <u> </u> |
| Where the removal of tree(s) is | No trees to be removed as | |
| associated with the redevelopment | part of the proposed | |
| associated with the redevelopment | part of the proposed | |



| 11 EW 2 (continuea) | F | TIACHMENT 2 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------|
| DCP 2014 | PROPOSED | COMPLIANCE |
| of a site, or a neighbouring site, the applicant is required to demonstrate that an alternative design(s) is not feasible and retaining the tree(s) is not possible in order to provide adequate clearance between the tree(s) and the proposed building and the driveway. | alterations and additions. | |
| Note: A site analysis is to be undertaken to identify the site constraints and opportunities including trees located on the site and neighbouring sites. In planning for a development, consideration must be given to building/site design that retains healthy trees, as Council does not normally allow the removal of trees to allow a development to proceed. The site analysis must also describe the impact of the proposed development on neighbouring trees. This is particularly important where neighbouring trees are close to the property boundary. The main issues are potential damage to the roots of neighbouring trees (possibly leading to instability and/or health deterioration), and canopy spread/shade from neighbouring trees that must be taken into account during the landscape design of the new development. | | |

| BASIX | PROPOSAL | COMPLIANCE |
|------------------------------------|------------------------------|------------|
| All ticked "DA plans" commitments | BASIX Certificates submitted | Yes |
| on the BASIX Certificate are to be | | |
| shown on plans (list) BASIX Cert | | |
| A189039 & 548546S dated 18 | | |
| May 2014 | | |
| • RWT 3000L | 2 x 2500L RWT proposed | Yes |
| Swimming Pool | | |
| 1. <26.5kL | To comply | Yes |
| 2. outdoors | Outdoor pool proposed | Yes |
| Thermal Comfort Commitments: | | |
| - Construction | Pass | Yes |



| ATTA | CHMENT 2 | 2 |
|------|----------|---|
|------|----------|---|

| BASIX | PROPOSAL | COMPLIANCE |
|----------------------------------------------|-----------------------|------------|
| - TCC – Glazing. | | Yes |
| HWS Gas Instantaneous 4.5 star. | To comply | Yes |
| Natural Lighting | | |
| - Kitchen(1) | 1 proposed | Yes |
| - bathrooms (2) | 2 proposed | Yes |
| Water Target 40 | Water: 44 | Yes |
| Energy Target 40 | Energy: 40 | Yes |
| Correct description of | Correct details shown | Yes |
| property/proposal on 1 st page of | | |
| Certificate. | | |

| DEMOLITION | PROPOSAL | COMPLIANCE |
|--------------------------------------------|------------------------|------------|
| Plan showing all structures to be removed. | No demolition proposed | N/A |
| Demolition Work Plan | As above | N/A |
| Waste Management Plan | WMP submitted | Yes |

Summary of Issues/Non compliances:

Non compliances – justifiable

- Hard paving within front yard exceeds maximum level
- · Maximum level of car parking spaces exceeded
- Private open space area and north facing windows to living areas of three (3) dwellings within the adjoining multi-dwelling housing development do not receive minimum levels of sunlight access.

Non compliances – resolved via conditions:

Privacy impacts – privacy screens and window treatments to be conditioned

Non compliances – not justifiable:

Nil

Certification

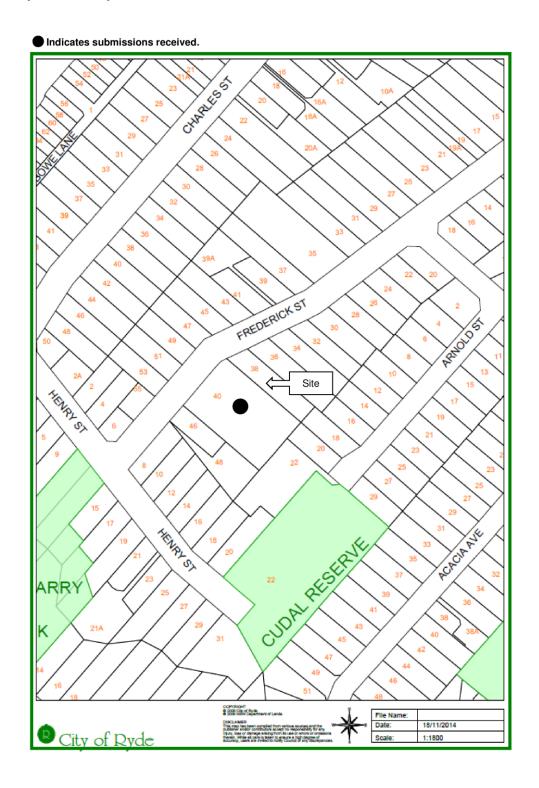
I certify that all of the above issues have been accurately and professionally examined by me.

Name Ben Tesoriero

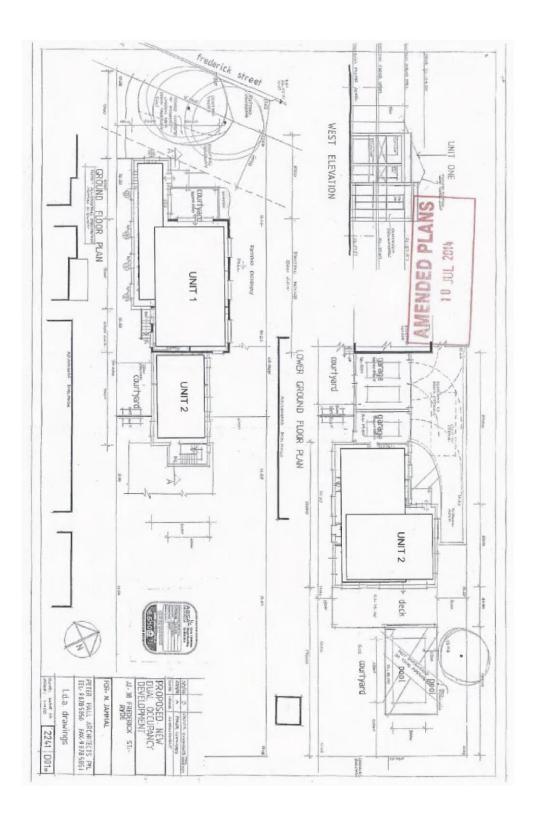
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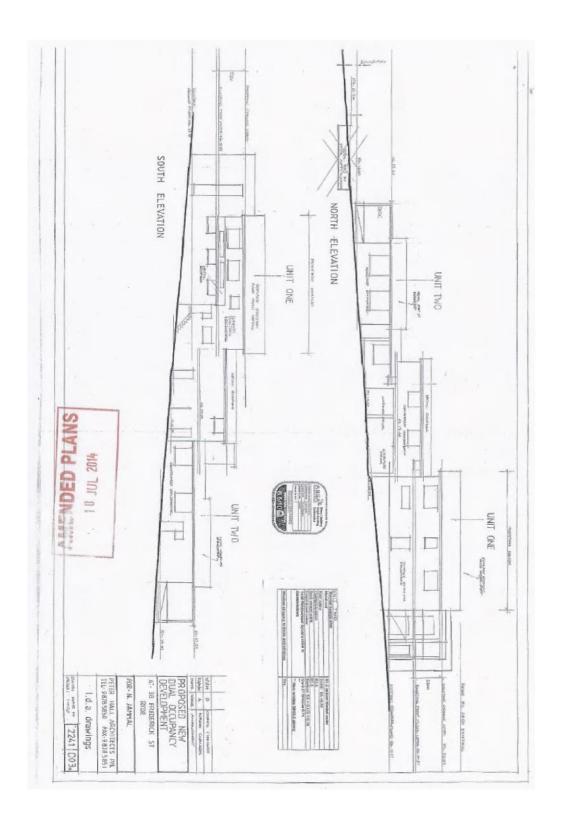
















71-75 MAGDALA ROAD, NORTH RYDE - LOTS 324-326, DP 183739.

Magdala Park. Section 96 Modification to amend condition of consent to allow use of Field No. 1 up to ten (10) nights per year. MOD2014/0006 (LDA2005/0116).

Report prepared by: Team Leader - Assessment; Creative Planning Solutions **Report approved by:** Manager Assessment; Acting Group Manager - Environment

and Planning

Report dated: 10 November 2014 File Number: GRP/09/5/6/2 -

BP14/1373

1. Report Summary

Applicant: City of Ryde Owner: City of Ryde

Date lodged: 31 January 2014 (additional information received 15 July

2014)

This report considers a Section 96 modification application to amend condition 3(b) of LDA2005/116 to allow use of Field No. 1 at Magdala Park for up to ten (10) nights per year on either Tuesday, Wednesday, Thursday or Saturday for soccer competition games required to be rescheduled due to wet weather cancellation of ordinary scheduled games.

It is understood that this is required due to the local soccer club experiencing an increased number of registered teams, which in turn places increased demand on Magdala Park when matches are not played during regular scheduled day-time hours due to wet weather cancellation of weekend sport.

This Section 96 modification application was notified in accordance with the then provisions of the Ryde Development Control Plan 2010, and six (6) submissions were received opposing the development on the following grounds:

- Impacts on the natural environment, including riparian areas, fauna, wildlife and the Lane Cove River;
- Impacts on heritage given Lane Cove National Park adjoining the site is listed as a heritage item;
- Acoustic impacts;
- Light spillage impacts;
- Traffic and Parking; and
- Non-compliance with current conditions of consent.



It is considered that most of these issues of concern can be addressed via conditions of consent, as discussed in the body of the report. In relation to concerns raised by the NSW Office of Environment and Heritage (OEH), the applicant has submitted a Flora and Fauna Habitat Assessment report which has been referred back to the OEH, and they have advised that the report is satisfactory.

The proposal development is considered to be in the public interest as it provides for the enhanced use of Field No. 1 in Magdala Park for public recreation purposes whilst not resulting in unsatisfactory impacts on the natural or built environment. Therefore, on balance, the social and community benefits of the proposed development are considered to outweigh any concern related to the impacts of the proposed Section 96 modifications.

On the above basis, MOD2014/0006 to LDA2005/0116 at 71 Magdala Road, North Ryde is recommended for approval subject to conditions.

Reason for Referral to Planning and Environment Committee: Number of submissions received.

Public Submissions: Six (6) submissions of objection were received in relation to the subject development application, all of which originally objected to the proposed Section 96 modifications. It is noted however that ongoing consultation with NSW Office of Environment and Heritage (OEH) has now resulted in OEH providing support for the proposed development, subject to conditions of consent. This is discussed further in the body of the report.

Clause 4.6 Ryde LEP 2010 objection required? None required.

Value of works?: Section 96 proposal is for increased use of existing facility (Original installation in 2005 - \$90,000)

A full set of the plans is **CIRCULATED UNDER SEPARATE COVER** as additional information provided to Councillors - subject to copyright provisions.

RECOMMENDATION:

- (a) That MOD2014/0006 (LDA2005/0116) at 71-75 Magdala Road, North Ryde being LOT 324-326 DP 183739 be approved in the following manner:
 - Condition 3 is deleted and replaced as follows:
 - The use of lights to illuminate the fields shall be restricted to no later than:



- (a) 9:30pm on Monday to Thursday for training on fields 1 & 2.
- (b) 6.00pm Saturday and Sunday for late finishing games only if light deteriorates to such an extent as to make playing unsafe, and 9,30pm on no more than ten (10) separate occasions on either a Tuesday, Wednesday, Thursday or Saturday throughout the winter season (April to September) for soccer competition games.
- The following additional conditions are added to the consent:
 - Condition 9. Noise Management Policy A noise management policy is to be prepared for all sporting organisations utilising the illuminated sports field at Magdala Park to adopt. The objective of this noise management policy is to minimise sounds emitted from the illuminated sports field at Magdala Park and minimise any adverse impacts on surrounding residents.
 - Establishment of a roped off spectator exclusion zone along the northern boundary of Field No. 1, the northern portion of the western boundary of Field No. 1 north of the existing spectator seating area, and also the corresponding northern portion of the eastern boundary. This spectator exclusion zone is to operate during evening soccer games/matches in the winter season.
 - Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes;
 - Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and
 - Methods to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.
 - Condition 10. Light Shields Light shielding is to be installed to light poles on Field No. 1 to reduce the impact of stray light on the surrounding areas.
 - Condition 11. Vegetation Planting Eucalyptus robusta (Swamp Mahogany) are to be planted as a narrow extension to the south of the 0.2ha planting adjacent to Field No. 2. Plans detailing the proposed planting are to be submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.



- Condition 12. Vegetation Planting Considerations the vegetation planting referred to in the condition titled 'Vegetation Planting' is to consider the long term maintenance of Magdala Park for facility/field use and the regulations of revegetation within the vicinity of power lines. This should be demonstrated in the vegetation plans submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.
- Condition 13. Vegetation Maintenance Report A Landscape Maintenance Report is to be submitted to City of Ryde twelve months (12) from the date of the vegetation planting referred to in the condition titled 'Vegetation Planting' is certifying that the landscape works are still in accordance with the Section 96 consent and the plant material is alive and thriving.

This report is to be prepared by a suitably qualified landscape professional.

- ALL other conditions remain unaltered and must be complied with.
- (b) That the persons who made submissions be advised of Council's decision.

ATTACHMENTS

- 1 Original Consent LDA2005/0116
- 2 Previous S96 Consent MOD2012/0142
- 3 Flora and Fauna Report from Abel Ecolog
- **4** Comments from the Office of Environmental Health on the Flora and Fauna Report from Abel Ecology
- 5 Light Spill Report from Gary Roberts & Associates (2012)
- **6** Virtual Areas Map from Gary Roberts & Associates (2012)
- 7 Spill Values Map from Gary Roberts & Associates (2012)
- 8 Map

Report Prepared By:

Chris Young

Team Leader – Assessment

Ben Tesoriero Planning Consultant Creative Planning Solutions

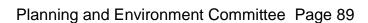
Report Approved By:

Liz Coad

Manager Assessment

Meryl Bishop

Acting Group Manager - Environment and Planning





2. **Site** (Refer to attached map overleaf)

> Address : 71 Magdala Road, North Ryde

> > Lot 324- 326 in Deposited Plan 183739

Site Area : 3.65ha (Deposited Plan)

Site Frontage (Page Road): 313.22m

Eastern Boundary: ≈ 309m (H.W.M - Lane Cove River) Northern Boundary: 61.112m (H.W.M - Lane Cove

River)

Southern Boundary: 79.934m (H.W.M - Lane Cove

River)

Topography and Vegetation The topography of the subject site, being the sports field

and curtilage area, is relatively level with slight

undulations around the periphery if the site. The central portion of the site, or the playing field surface itself, is clear of any significant vegetation, while the perimeter of the site includes stands of significant vegetation and the

Land Cove River.

Existing Buildings : Being a sports field, the subject site is relatively clear of

any significant buildings or structures.

Zoning

Planning Controls: RE1 – Public Recreation under Ryde LEP 2010 RE1 – Public Recreation under Ryde LEP 2014

Other : Ryde DCP 2014



Figure 1 - Aerial Image of subject site, including annotations of Field No. 1 which is the subject of this Section 96 modification application and those neighbouring properties objecting to the proposed development.



Figure 2: Photograph from the northern end of Magdala Park adjacent to the main pedestrian park entry looking south toward Field No. 1 in the background and the car parking area in the middle ground.

3. Councillor Representations

Nil.

4. Political Donations or Gifts

None disclosed in applicant's Section 96 modification submission or in any submission received.

5. Proposal

The subject Section 96 modification application (MOD2014/006) seeks to amend condition 3(b) of LDA2005/116 to allow use of Field No. 1 at Magdala Park for up to ten (10) nights per winter season (April to September) on either Tuesday, Wednesday, Thursday or Saturday for 'make-up' soccer competition games required to be rescheduled due to wet weather cancellation.

It is understood that this is required due to the local soccer club experiencing an increased number of registered teams, which in turn places increased demand on Magdala Park when matches are not played during regular scheduled day-time hours due to wet weather cancellation of weekend sport.



Given condition 3(b) currently permits Field No. 1 to be used up to six (6) Saturday nights per winter season (April to September) for soccer completion games, the modification can be seen to have the following changes to how Magdala Park soccer games are approved to operate:

- The number of rescheduled or 'make-up' soccer competition games on Field No. 1 are to increase from six (6) nights per winter season to ten (10) nights per winter season. Accordingly, this result in an additional four (4) nights per winter season.
- The rescheduled or 'make-up' soccer competition games on Field No. 1 are to occur on either Tuesday, Wednesday, Thursday or Saturday nights, rather than on Saturday nights only as currently permitted.

It is important to note that the current approval permits the use of Field No. 1 for training purposes from Monday to Thursday until 9.30pm, and then on not more than six (6) separate Saturdays throughout the winter season until 9.30pm.

6. Background

The following is a brief overview of the development history relating to the proposed development on the subject site:

- A proposal to install field lighting for Magdala Park was considered by the Public Facilities and Services Committee on 15 June 2004, and by the Committee of the Whole on 7 December 2004. The report to the Committee of the Whole indicated:
 - The Ryde City Soccer Club requested that lights to comply with the requirements of Soccer NSW that relate to representative soccer. Ryde City Soccer currently has seven (7) teams playing representative soccer, one of which is in the Super league competition.
 - The cost of the lighting will be met by the soccer club.
 - The installation of the lights at Magdala Park will free up Meadowbank Park, which is currently used for soccer training, for other sporting clubs to use.
 - A geotechnical report on ground conditions was unnecessary as the standard footing design used by Energy Australia allows for the placement of poles in unstable ground.
 - As a result of community consultation, 9 responses were received raising concerns over:
 - Locking of the access gate
 - Speeding in Magdala Park
 - Increased parking in the street
 - Possibility of light spill onto residences
 - Inadequate footpath access



- Clearing of brush on the northern side of Magdala Park to improve pedestrian access to the park.

The Committee adopted a number of recommendations including:

- The installation of lights be supported and to grant owners consent to the soccer club to lodge the application;
- The construction of a footpath in Magdala Road be listed for consideration in the Draft 2005-2008 Management Plan
- Council Rangers be requested to increase surveillance for illegal parking over weekends: and
- A management agreement be entered into with the soccer club covering use of the lights, car parking and traffic management with a performance bond of \$2.000.
- LDA478/2003 was approved on 27 June 2003 to subdivide Magdala Park into two (2) allotments to enable transfer of part of the land containing bushland to the National Parks and Wildlife Service for incorporation into Lane Cove National Park. LDA05/116 related to the retained part of that land which comprised the playing fields, kiosk, amenities and car parking.
- On 18 February 2005 a development application (LDA05/116) was lodged to install floodlighting on the two (2) sporting fields at Magdala Park to enable use for night training purposes and for late finishing games. A total of six (6) x 24m high light towers were proposed as follows:
 - Field No.1 4 x 24m galvanised steel poles with 4 x 2,000 watt metal halide lights on each pole. The field to be used for representative soccer (junior and senior) in winter and baseball in summer. The lighting be specifically for night raining and late finishing games.
 - Field No.2 2 x 24m galvanised steel poles with 4 x 2,000 watt metal halide lights on each pole. The field be used for mini soccer in winter, baseball in summer and training for soccer.
 - The proposed hours for use were 5pm-9:30pm Monday to Thursday for training on Field Nos.1 and 2 and infrequently on Saturdays and Sundays (about 6pm) on Field No.1, if light deteriorated to such an extent as to make playing conditions unsafe.
 - LDA05/116 was approved 19 April 2005 subject to eight (8) conditions of consent. The following are the particular conditions of consent important to operation of the floodlighting and also relevant to the proposed Section 96(1A) Modification detailed below:



Condition No 3 for LDA05/116:

The use of lights to illuminate the fields shall be restricted to no later than:

- (a) 9.30pm on Monday to Thursday for training on fields 1 & 2.
- (b) 6.00pm Saturday and Sunday for late finishing games only if light deteriorates to such an extent as to make playing unsafe.
- Condition 5 for LDA05/116:

The lighting of the ovals shall be directed so as not to cause nuisance to the owners or occupiers of adjacent/adjoining premises or to motorists on adjoining or nearby roads. All existing and proposed lights shall comply with the Australian Standard AS 4282-1997: Control of the Obtrusive Effects of Outdoor Lighting.

 On 19 November 2012, MOD2012/0142 to LDA2005/0116 was approved under delegated authority to upgrade the sports field lighting in Magdala Park to increase the lighting levels and change the hours of use of the field lighting.

Specifically the modification sought to:

- Increase the floodlighting level from 100Lux to 200Lux for the lights servicing Field No.1 (main sports field); and
- Modify condition 3(b) to be Saturdays until 9:30pm on no more than six (6) separate occasions throughout the winter season (April to September) for soccer completion games.

It is important to note that the proposed modifications did not result in any additional floodlight poles to be installed (i.e. remained at six (6) poles as approved under LDA05/116), and did not propose to modify the floodlighting level to Field No.2, which remained at 50Lux as also approved under LDA05/116.

MOD2012/0142 was approved with the following additional condition added to the consent:

 Condition 5A – Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the light use does not extend beyond the approved times of use.



The subject Section 96 modification application (MOD2014/006) was lodged on 31 January 2014 and seeks to amend condition 3(b) of LDA2005/116 to allow use of Field No. 1 at Magdala Park for up to ten (10) nights per winter season (April to September) on either Tuesday, Wednesday, Thursday or Saturday for 'make-up' soccer competition games required to be rescheduled due to wet weather cancellation.

Given condition 3(b) currently permits Field No. 1 to be used up to six (6) Saturday nights per winter season (April to September) for soccer completion games the modification can be seen to have the following effect:

- The number of rescheduled or 'make-up' soccer competition games on Field No. 1 are to increase from six (6) nights per winter season to ten (10) nights per winter season. Accordingly, this result in an additional four (4) nights per winter season.
- The rescheduled or 'make-up' soccer competition games on Field No. 1 are to occur on either Tuesday, Wednesday, Thursday or Saturday nights, rather than on Saturday nights only.
- The subject Section 96 application was advertised and notified to neighbouring properties for a period from 11 to 26 February 2014. Five (5) submissions were received from nearby property owners as discussed in **Section 7** of this report (below). In addition, a submission was received from the NSW Office or Environment & Heritage which raised a range of concerns about impacts on flora and fauna in the immediate vicinity.
- On 20 May 2014, the applicant was requested to provide a Fauna Impact Assessment to address the concerns raised by the NSW OEH (as noted above).
- On 14 July 2014, the requested Flora and Fauna Habitat Assessment report was provided, and also forwarded to the NSW OEH for their consideration and assessment. Subsequently, on 6 August 2014 Council received advice from the NSW OEH that they have reviewed the Flora and Fauna Assessment report and finds it satisfactory.

7. Submissions

The current Section 96 application was notified in accordance with the then Ryde Development Control 2010 on 11 February 2014 to neighbouring properties.

The application was also notified to Sydney Water, National Parks & Wildlife Service, Ryde-Hunters Hill Flora & Fauna Preservation Society, and Hunters Hill Council.



In addition, the application was also advertised in the Northern District Times on 12 February 2014.

In response, five (5) submissions were received from the owners/residents of neighbouring properties, one (1) submission from the Ryde Environment Group & Friends of Kitty's Creek, and one (1) submission from NSW Office of Environment & Heritage.

Firstly, the key issues raised in the submissions by the owners/residents of neighbouring properties will be addressed, followed by those issues raised in submissions by the Ryde Environment Group & Friends of Kitty's Creek and NSW Office of Environment & Heritage.

Owners/Residents of Neighbouring Properties

A. Acoustic Impacts. Concerns are raised that the proposal will result in unacceptable noise impacts associated with sporting games being undertaken on the playing fields.

Assessment Officer's Comment: In understanding the potential noise impact of the subject Section 96 application, it is important to focus on the how the proposed modifications differ from the existing use of Magdala Park.

As outlined in the Proposal section of this report (above), the current approval permits the use of Field No. 1 for training purposes from Monday to Thursday until 9.30pm, and then on not more than six (6) separate Saturdays throughout the winter season until 9.30pm.

Accordingly, the proposed modifications can only result in a maximum of four (4) additional illumination evenings for Field No. 1 over that already approved on the site, if each of the four (4) additional illumination evenings occur on a Saturday. This is because Field No. 1 is already approved to be illuminated for training purposes until 9.30pm on Tuesday, Wednesday and Thursday evenings.

However, given the application seeks to disperse the soccer matches over other weekdays, the proposed modifications will likely only alter the nature of the use of Field No. 1 from training purposes to four (4) additional competition evenings.

On this basis, the acoustic impacts of the proposed development to focus on are the differences between training and soccer competition matches.



Experience with acoustic assessments on other sports field development applications within the City of Ryde has revealed that expected noise from soccer training is generally in the order of 3-5dB lower than that from the social soccer competition games/matches. This is because there is generally little whistling, shouting and cheering from spectators during training as opposed to soccer competition matches.

Given the proposed modifications seek to replace approved soccer training times with soccer competition games for an addition four (4) nights per winter season, and also spread the occurrence of these games across Tuesday, Wednesday, Thursday or Saturday nights, it is considered that the acoustic impact of the additional soccer games raised by the objectors has merit, and is worthy of mitigation.

It is has been noted in the submissions made by objectors that noise created by players after soccer games when exiting and arriving at the fields is also a source of disturbance. In order for sports organisations using Magdala Park to be mindful and respectful of potential noise impacts on nearby residences, it is considered appropriate that a noise management policy be put in place for all organisations using the sports field at Magdala Park. The sports organisation should be required to adopt and follow the noise management plan in order to minimise noise emitted from the park and minimise any adverse impact on surrounding residents.

Such simple measures that are considered worthy of being adopted within the noise management policy for the Magdala Park sports fields include:

 Establishment of a roped off spectator exclusion zone around the northern portion of Field No. 1 during rescheduled/'make-up' soccer games on evenings in the winter season (refer to diagram of the spectator exclusion zone in **Section 10(a)** of this report).

This would ensure that potential spectator noise from up to ten (10) matches to be played on the field during the evenings of the winter season would be confined to the southern portions of the field, essentially placing the nearest spectators approximately 150m from nearby residential development;

- Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes;
- Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and



A plan to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.

In this regard, the following conditions of consent are recommended:

- Noise Management Policy A noise management policy is to be prepared for all sporting organisations utilising the illuminated sports field at Magdala Park to adopt. The objective of this noise management policy is to minimise sounds emitted from the illuminated sports field at Magdala Park and minimise any adverse impacts on surrounding residents.
 - Establishment of a roped off spectator exclusion zone along the northern boundary of Field No. 1, the northern portion of the western boundary of Field No. 1 north of the existing spectator seating area, and also the corresponding northern portion of the eastern boundary. This spectator exclusion zone is to operate during evening soccer games/matches in the winter season.
 - Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes;
 - Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities: and
 - Methods to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.

The completed Noise Management Policy is to be submitted and approved by Council's Group Manager Environment & Planning prior to the illuminated use of the sports field.

Reference should be made to **Section 10(a)** of this report for further assessment of the acoustic impacts of the proposed development.

B. Light Spillage. Concerns are raised that the proposed lighting will cause loss of amenity to nearby dwellings through high levels of illumination and light spillage, and also on flora and fauna within the area.



Assessment Officer's Comment: As outlined above and in **Section 5** of this report, it is important to note that the current approval permits the use of Field No. 1 for training purposes from Monday to Thursday until 9.30pm, and then on not more than six (6) separate Saturdays throughout the winter season until 9.30pm.

Accordingly, the proposed modifications can only result in a maximum of four (4) additional illumination evenings for Field No. 1 over that already approved on the site, if each of the four (4) additional illumination evenings occur on a Saturday. This is because Field No. 1 is already approved to be illuminated for training purposes until 9.30pm on Tuesday, Wednesday and Thursday evenings.

However, given the application seeks to disperse the soccer matches over other weekdays, the proposed modifications will likely result in less than four (4) additional illumination evenings for Field No. 1.

In MOD2012/0142, a detailed assessment of the illumination of Magdala Park was undertaken, which was principally guided by 'Australian Standard AS4282-1997 – Control of the obtrusive effects of outdoor lighting'.

The following again looks at the impacts of light spillage on adjoining property, this time having regard to the prospect that the subject modification may result in up to four (4) additional evenings where Field No. 1 is illuminated up until 9.30pm.

Australian Standard AS4282-1997 sets out guidelines for control of the obtrusive effects of outdoor lighting and gives recommended limits for the relevant lighting parameters to contain these effects within tolerable levels. The following is an extract from AS4282-1997 in relation to the effects on residents as a result of bright luminaries:

Section 2.6.1 Effects on residents Effects on residents generally involve a perceived change in amenity arising from either of the following:

- (a) The illumination from spill light being obtrusive, particularly where the light enters rooms of dwelling that are normally dark, e.g. bedrooms. The illuminance on surfaces, particularly vertical surfaces, is an indicator of this effect.
- (b) The direct view of bright luminaries from normal viewing directions causing annoyance, distraction or even discomfort. The luminance of a luminaire, in a nominated direction, is an indicator of this effect. However, because of difficulties associated with the measurement of luminance, recommendation in the Standard are expressed in terms on the luminous intensity in specified directions.



Tolerable levels of each of these light technical parameters will be influenced by the ambient lighting existing in that environment. This will be determined largely by the degree and type of the development of the area and by the road lighting in place.

Values of the light technical parameters that are acceptable during the earlier hours of the evening may become intolerable if they persist at later times when residents wish to sleep.

Given the above, it is important to assess the illumination spill on adjoining residential development whilst taking into consideration existing conditions, that being LDA2005/0116, as modified by MOD2012/0142 already approves illumination of Field No.1 and Field No.2 and the proposed development only seeks to increase the number of evenings Field No.1 may be illuminated to a maximum of four (4) during the winter season.

Table 2.1 within AS4282-1997 outlines the recommended maximum values of light for the control of obtrusive light both during curfew hours (i.e. after 11pm) and after curfew hours (before 11pm).

Table 2.1 provides that the recommended maximum Lux values at the boundaries of nearby residential properties is 10Lux for light or dark surrounds in pre-curfew hours, while at curfewed hours it is 2Lux in light surrounds and 1Lux in dark surrounds.

Although the nearby properties are located near approved light emitting sources already, such as the streetlights of Magdala Road and floodlights of Field No.2, for the purposes of this assessment the more stringent dark surrounds criteria have been used. That is, a maximum 10Lux for precurfew hours and a maximum of 1Lux for curfewed hours.

Information submitted by Gary Roberts & Associates Pty Ltd as part of the MOD2012/0142 proposal included measurements of the Lux levels at the boundary of nearby residential development, the residential development buildings themselves, and also at adjacent locations along the Lane Cove River to the east of Magdala Park (refer Figure 3 below).



Figure 3: Light level measurements as a result of the proposed Section 96 Modification

As demonstrated in Figure 3 above, with a maximum level of 6 Lux at the property boundary of the nearby residential development, the approved MOD2012/0142 complied with the recommendations outlined in AS4282-1997 for the obtrusive effects of outdoor lighting as the lighting was be restricted to operate until 9:30pm Monday to Thursday and until 9:30pm on six (6) Saturdays per year.

This restriction be maintained partly by the existing conditions of consent and also the modified condition number 3(b) as outlined below.

It is also noted that the existing condition number 5, that requires the lighting of the ovals to be directed so as not to cause nuisance to the owners or occupiers of adjacent/adjoining premises or to motorists on adjoining or nearby roads, and all existing and proposed lights shall comply with the AS 4282-1997 will be maintained on the consent with the subject Section 96 application (being MOD2014/0006) capable of continuing to meet this requirement.



Given the results of the above assessment, and the ability of the existing lighting arrangements of Magdala Park to comply with the provisions of AS 4282-1997, it is considered that the prospect of the subject modification resulting in up to four (4) additional evenings where Field No. 1 is illuminated until 9.30pm is acceptable from a light spillage perspective.

In this regard, the objectors concerns in relation to the light spillage impacts of MOD2014/0006 are not supported.

Reference should be made to **Section 10(a)** of this report for a complete assessment of the light spillage impacts of the proposed development on the built environment, and **Section 10(b)** of the report for a complete assessment of the light spillage impacts of the proposed development on the natural environment.

C. Traffic and Parking. Concerns are raised that the additional park usage created by the proposed modifications will see increased traffic congestion and parking demand.

Assessment Officer's Comment: Once again, when assessing the proposed modifications, it is important to note that the current approval permits the use of Field No. 1 for training purposes from Monday to Thursday until 9.30pm, and then on not more than six (6) separate Saturdays throughout the winter season until 9.30pm.

Accordingly, the proposed modifications can only result in a maximum of four (4) additional illumination evenings for Field No. 1 for soccer games over that already approved on the site. This is because Field No. 1 is already approved to be illuminated for training purposes until 9.30pm on Tuesday, Wednesday and Thursday evenings, and six (6) Saturday evenings per winter season are already approved for rescheduled/'make-up' soccer games.

However, given the application seeks to disperse the soccer matches over other weekdays, the proposed modifications will likely result in less than four (4) additional illumination evenings for soccer games on Field No. 1.

The following notes are made in relation to car parking and traffic aspects of the proposed modification:

- the soccer completion games will only occur on Field No.1 only which is the furthest field from the neighbouring residential properties on Magdala Road;
- the competition games to be held at the ground are at an amateur league competition level and as such lower levels of spectator attendance are envisaged;



the use of Field No. 1 on Tuesday, Wednesday or Thursday evenings would replace training activities on this field, and hence those vehicles that would normally attend Magdala Park for training on Field No. 1 would be replaced by the vehicles associated with the soccer game instead:

Given the above, and given the competition games are only to occur for maximum additional four (4) evenings per winter season, the proposed modification is not considered to result in an unsatisfactory impact on the built environment in terms of motor vehicle movements or parking.

Reference should be made to **Section 10(a)** of this report for a complete assessment of the traffic and parking impacts of the proposed development.

D. Non-compliance with current conditions of consent. Concerns have been raised by neighbouring residents/owners that Magdala Park is being used outside of the relevant consent conditions applying to the park. In particular, concern has been raised over the extended use of the lights beyond 9.30pm in the evening.

Assessment Officer's Comment: Enforcing compliance with conditions of consent is essentially a responsibility of Council's enforcement and compliance officers.

It is noted, that MOD2012/0142 included the following condition to ensure the illumination of Magdala Park did not extend beyond the permitted hours of operation:

 Condition 5A – Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the light use does not extend beyond the approved times of use.

It appears however that the required curfew switches may not be operating as intended, and as such, the aforementioned submissions from the adjoining residents should also be forwarded to Council's Open Space team for further investigation and action.

As identified above, the subject Section 96 application will also seek to introduce new conditions of consent to help address amenity issues associated with the extended use of Magdala Park for the purposes of sporting activities. This has included the recommendation for a Noise Management Plan to be prepared for Magdala Park that covers the following to minimise sounds emitted from the illuminated sports field at Magdala Park and minimise any adverse impacts on surrounding residents.



- Establishment of a roped off spectator exclusion zone from goalpost to goalpost around the eastern half of the sports field during soccer games/matches during the winter weekday season.
- Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes;
- Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and
- Methods to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.

Given the above, it is considered that this assessment has satisfactorily put into place measures to address any amenity impacts of the proposal, and make the responsible departments within Council aware of any potential breaches of existing conditions of approval relating to Magdala Park.

NSW Office of Environment and Heritage

Given the subject site adjoins the Lane Cove National Park, a submission was received from the NSW Office of Environment and Heritage (OEH) on 13 March 2014 raising concern with the proposed development's potential impact on native wildlife.

In order to ascertain if there is likely to be an impact on native wildlife as a result of the proposed development, including any significant impact on threatened species, Council, through an additional information request dated 20 May 2014, required the applicant prepare and submit a 'fauna impact assessment' carried out by a suitably qualified independent consultant.

The following criteria was stipulated to the applicant for choosing a suitably qualified independent consultant:

- The consultant was to be accredited (by the NSW Office of Environment and Heritage) or is a member of the Ecological Consultants Association or other appropriate professional organisations.
- The consultant was to have the relevant experience and tertiary qualifications in the ecological field (the consultant's resume including these details was to be attached with the report),
- The consultant was to possess a NPWS Scientific Licence (120s 132c National Parks and Wildlife Act) for flora and fauna survey work, and an Animal Research Authority administered by NSW Agriculture (s25 NSW Animal Research Act) if undertaking a fauna survey, and



- The consultant was required to carry the relevant insurances.

The following requirements were required by OEH to be included in the fauna impact assessment that was to be submitted:

- Address the impact of the proposed development the Powerful Owl which is a threatened species under the Threatened Species Conservation Act 1995, and which is known to be located in the area. The consultant was to liaise with Mr David Bain who was working on 'The Powerful Owl Project' in this part of Northern Sydney for Birds Australia (contact: david.bain@birdlife.org.au).
- The assessment was also required to address light spill impacts on ground dwelling mammals, including long nosed bandicoots that utilise Magdala Park for a potential nocturnal foraging ground.
- Fish impact was also to be assessed as artificial light can affect predation, migration, feeding behaviour of fish and the invertebrates they feed on.
- Impacts were also required to be considered on migrating birds including local migrations;
- Pest species such as foxes and rabbits were also required to be assessed to determine whether these pest species would be favoured by the change in lighting conditions.
- The impact assessment also needed to provide accurate representations of light spill and how this would impact fauna species in the adjacent national park. The report was required to address ongoing monitoring to determine whether light spill is has an impact upon wildlife.
- Fauna impacts from car lights and spectator noise was also to be taken into consideration in the report.

On 17 July 2014 the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology was submitted to Council by the applicant in response to Council's additional information request dated 20 May 2014.

This report included the following recommendations:

- 1. Install shielding to reduce the impact of stray light on the surrounding areas:
- 2. Ensure spill lighting from the floodlight lamps complies with Australian Standards;
- 3. Ensure use of a timer to allow floodlighting to be controlled effectively so that lights are not illuminated unnecessarily; and
- 4. Plantings (e.g. Swamp Mahogany) as a narrow extension to the south of the 0.2ha planting adjacent to Field No. 2. Any plantings need to consider long term maintenance of this area for facility/field use and the regulations of revegetation within the vicinity of power lines.



On 17 July 2014, the subject Flora and Fauna Habitat Assessment Report was forwarded to the NSW OEH for comment following their earlier submission outlined above. In a response letter dated 1 August 2014, OEH indicated that the report is satisfactory and subject to Council adopting the above recommendations, does not have any further issues in regard to the proposed additional night time lighting for an additional four (4) nights in winter.

Given the above, the following four (4) conditions of consent have been recommended to be included in any consent of the subject Section 96 modification:

- Light Shields Light shielding is to be installed to light poles on Field No. 1 to reduce the impact of stray light on the surrounding areas;
- Vegetation Planting Eucalyptus robusta (Swamp Mahogany) are to be planted as a narrow extension to the south of the 0.2ha planting adjacent to Field No. 2. Plans detailing the proposed planting are to be submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.
- Vegetation Planting Considerations the vegetation planting referred to in the condition titled 'Vegetation Planting' s to consider the long term maintenance of Magdala Park for facility/field use and the regulations of revegetation within the vicinity of power lines. This should be demonstrated in the vegetation plans submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.
- Vegetation Maintenance Report A Landscape Maintenance Report is to be submitted to City of Ryde twelve months (12) from the date of the vegetation planting referred to in the condition titled 'Vegetation Planting' certifying that the landscape works are still in accordance with the Section 96 consent and the plant material is alive and thriving.

This report is to be prepared by a suitably qualified landscape professional.

The following recommendations from the Flora and Fauna Habitat Assessment Report have been omitted from the recommended consent conditions for the following reasons:

 Ensure spill lighting from the floodlight lamps complies with Australian Standards;



Assessment Officer's Comment: Development consent LDA2005/0116 already includes Condition 5 (see below) which ensures spill lighting from the floodlight lamps complies with Australian Standards. It is intended to maintain this condition of consent as part of the subject Section 96 modification approval, and as such including the above recommendation from the Flora and Fauna Habitat Assessment Report would only lead to a duplication of conditions.

Condition 5 from LDA2005/0116:

The lighting of the ovals shall be directed so as not to cause nuisance to the owners or occupiers of adjacent/adjoining premises or to motorists on adjoining or nearby roads. All existing and proposed lights shall comply with the Australian Standard AS 4282-1997: Control of the Obtrusive Effects of Outdoor Lighting.

- Ensure use of a timer to allow floodlighting to be controlled effectively so that lights are not illuminated unnecessarily

Assessment Officer's Comment: Section 96 consent MOD2012/0142 already includes Condition 5A (see below) which requires the installation of curfew switches to allow floodlighting to be controlled effectively so that lights are not illuminated unnecessarily. It is intended to maintain this condition of consent as part of the subject Section 96 modification approval, and as such including the above recommendation from the Flora and Fauna Habitat Assessment Report would only lead to a duplication of conditions.

Condition 5A from MOD2012/0142:

Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the light use does not extend beyond the approved times of use.

Given the above, it is therefore considered that the requirements of OEH, as outlined in their original submission, and as per their subsequent response to the Flora and Fauna Habitat Assessment Report, have been satisfactorily addressed with the implementation of the recommended conditions of consent.



Ryde Environment Group & Friends of Kitty's Creek

The subject Section 96 application was also referred to the Ryde Environment Group & Friends of Kitty's Creek (herein referred to as the Group). In their letter dated 26 February 2014, the Group raised a number of concerns with the proposed development. These concerns are listed below, followed by the assessing officer's comment on how the proposed development performs against each of these concerns:

 Concerns in relation to the proposed development and the outcomes of the Lane Cove River Estuary Management Plan.

Assessment Officer's Comment: As has been outlined above, the proposed development was also referred to the NSW OEH for comment as part of the notification of the proposal. The response from OEH was that a flora and fauna habitat impact assessment of the proposal be undertaken by an independent suitably qualified professional, and then submitted to OEH for concurrence.

On this basis, an additional information request was issued to the application to have such a report prepared and submitted to Council.

This report, titled Flora and Fauna Habitat Assessment Report by Abel Ecology, has been completed and concluded that there is not likely to be a significant effect on any threatened species or their habitats as a result of the proposed development. The report also included a number of recommendations to increase the efficiency of existing lighting and reduce light spill to adjoining areas.

The report was forwarded to OEH who have responded indicating that the report is satisfactory, and that OEH has no issues in regard to the proposed additional night time lighting for an additional four (4) nights in the winter subject to Council adopting the recommendations of the report – refer to comments about on OEH for details of these recommendations and conditions to be imposed.

On this basis, it is considered that the environmental concerns raised by the Group in relation to the proposed development and the outcomes of the Lane Cover River Estuary Management Plan have been satisfactorily addressed by the recommendations of the report, as supported by OEH.

 Increased adverse environmental impacts will hinder achievement of broad sub-regional objectives for the Lane Cove River and National Park.



Assessment Officer's Comment: As identified above, it is considered that the proposed development will have satisfactory regard to the environmental sensitivities of the Lane Cove River and National Park through adoption of the recommendations of the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology, and as supported by OEH.

In this regard, the environmental impacts raised by the Group are considered to have been addressed.

 The proposed modification consent should address the aims and objectives of the Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.

Assessment Officer's Comment: An assessment of the proposed development against the provisions of the Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 is contained below within **Section 9(b)** of this report. Additionally, an assessment of the proposed development against the provisions of the Sydney Harbour Foreshore & Waterways Development Control Plan is contained within **Section 9(b)**.

 The heritage item that is Lane Cove National Park will be impacted upon by the proposed development.

Assessment Officer's Comment: The proposed development has been referred to the NSW Government's Office of Environment and Heritage, and also Council's Heritage Officer.

OEH has responded by indicating that they no issues in regard to the proposed additional night time lighting for an additional four (4) nights in the winter subject to Council adopting the recommendations of the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology. These recommendations have been adopted where relevant by conditions of consent – refer to comments about on OEH for details of these recommendations and conditions to be imposed.

Council's Heritage Officer has indicated that there are no heritage concerns relating to the extended use of the lighting for the playing fields adjacent to Lane Cove National Park.

 All land within Magdala Park is zoned Public Open Space under the draft local environmental plan and no provisions for riparian buffer areas were made.



Assessment Officer's Comment: Criticisms over the prescribed land use zonings for Magdala Park under the then draft Ryde Local Environmental Plan 2011 are considered to be objections or complaints in relation strategic planning matters, and separate to the statutory obligations for assessment of the proposal pursuant to matters for consideration outlined under Section 79C of the Environmental Planning and Assessment Act 1979, as amended.

In any event, it is noted that the recommendations to be adopted as conditions of consent for the subject Section 96 application include provisions for vegetative plantings as a buffer to the Lane Cove River and National Park area.

 The lighting and noise cause by the extended hours of operation will negatively impact on fauna/wildlife and result in loss of habitat.

Assessment Officer's Comment: As identified above, it is considered that the proposed development will have satisfactory regard to the environmental sensitivities of the Lane Cove River and National Park through adoption of the recommendations of the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology, and as supported by OEH.

Additionally, in relation to noise, it is noted that this assessment has recommended the implementation of a Noise Management Policy for the ongoing use of the park so that sports organisations using Magdala Park can be more mindful and respectful of potential noise impacts on the surrounding environment.

In this regard, the environmental impacts on wildlife/fauna and habitat raised by the Group are considered to have been addressed.

The occupants of surrounding residential areas will be impacted upon.

Assessment Officer's Comment: As covered above, this development assessment has recommended the implementation of a Noise Management Policy for the ongoing use of the park so that sports organisations using Magdala Park can be more mindful and respectful of potential noise impacts on the surrounding residential areas.

In addition, recommendations from the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology, and as supported by OEH, have been adopted at conditions of consent to further minimise the impact of the proposal on the surrounding built and natural environment.

In this regard, the impacts on the surrounding residential areas raised by the Group are considered to have been addressed.



Given the above responses to each of the items of concern from the Group, it is considered that the objections of from the Group have satisfactorily been mitigated.

8. Clause 4.6 Ryde LEP 2010 objection required?

None required

9. Policy Implications

Section 96 - Modification of Consents

In accordance with Section 96 of the Environmental Planning & Assessment Act 1979, Council may consider a modification of development consent provided:

- The proposed development is substantially the same as the approved.
- The application for modification has been notified in accordance with the regulations; and
- Council has considered any submissions regarding the proposed modification

In this regard, it is considered that the Section 96 Application is substantially the same development as that approved by Council and the proposal satisfies the requirements of the above provisions.

Section 96(3) requires Council to consider relevant matters referred to in Section 79C(1) in assessing and application for modification of development consent.

Relevant Provisions of Environmental Planning Instruments etc:

(a) Ryde Local Environmental Plan 2014

The Ryde Local Environmental Plan 2014 (Ryde LEP 2014) commenced on 12 September 2014 as the new environmental planning instrument applicable to the City of Ryde. In relation to existing applications un-determined as of 12 September 2014, this instrument contains a Savings Provision (clause 1.8A), which states:

If a development application has been made before the commencement of this Plan in relation to land to which this Plan applies and the application has not been finally determined before that commencement, the application must be determined as if this Plan had not commenced.

The subject Section 96 application (MOD2014/0006) was made (lodged) on 31 January 2014, before the commencement of the Ryde LEP 2014, and so it must be determined as if Ryde LEP 2014 had not commenced. What this means is that Ryde LEP 2014 is treated as a Draft.



The details of the proposed development in relation to Ryde LEP 2014 are as follows:

- the subject site remains within the 'RE1 Public Recreation' land use zone;
- the proposed development remains as development which is permitted with consent under the RE1 Public Recreation land use zone;
- the proposed development is considered to remain consistent with the objectives of the RE1 Public Recreation zone;
- the provisions of clause 5.9 Preservation of Trees or Vegetation of the Ryde LEP 2014 are considered to be consistent with the provisions of clause 5.9 Preservation of Trees or Vegetation of the Ryde LEP 2010 (refer to assessment below in **Section 9(b)** of this report); and
- the provisions of clause 5.10 Heritage Conservation of the Ryde LEP 2014 are considered to be consistent with the provisions of clause 5.10 Heritage Conservation the Ryde LEP 2010 (refer to assessment below in **Section 9(b)** of this report).

Given the above, it is considered that the proposed development remains consistent with the provisions of the Ryde LEP 2014.

(b) Ryde Local Environmental Plan 2010

Zoning

The subject site is zoned 'RE1 – Public Recreation' under the provisions of the Ryde Local Environmental Plan 2010 (Ryde LEP 2010). The proposal is considered to development for the purposes of a "recreation area", which is a permissible use within the zone.

Recreation areas are defined within the Dictionary of the Ryde LEP 2010 as:

recreation area means a place used for outdoor recreation that is normally open to the public, and includes:

- (a) a children's playground, or
- (b) an area used for community sporting activities, or
- (c) a public park, reserve or garden or the like, and any ancillary buildings.

Aims and objectives for the RE1 – Public Recreation zone:

- To enable land to be used for public open space or recreational purposes.
- To provide a range of recreational settings and activities and compatible land
- To protect and enhance the natural environment for recreational purposes.
- To provide adequate open space areas to meet the existing and future needs of the residents of Ryde.



 To protect and enhance the natural bushland in a way that enhances the quality of the bushland and facilitates public enjoyment of the bushland in a way that is compatible with its conservation.

The proposed development is considered to satisfy the objectives for the RE1 Public Recreation zone as it will:

- Further enable Magdala Park to be used for public open space and recreational purposes to meet the demands of community sporting activities;
- Will provide for recreational activities to be undertaken at Magdala Park that are considered compatible with surrounding land uses (subject to conditions of consent);
- The proposed modifications to LDA05/116 are not considered to detract significantly from the natural environment of Magdala Park (subject to conditions of consent);
- The proposed modifications to LDA05/116 are considered to assist in meeting the existing and future recreational activity demands for the residents of Ryde; and
- The proposed modifications to LDA05/116 are not considered to detract significantly from the natural bushland (subject to conditions of consent).

Mandatory Requirements

The following mandatory provisions under Ryde LEP 2010 apply to the development:

Clause 5.9 – Preservation of trees or vegetation

The objective of clause 5.9 of the Ryde LEP 2010 is to preserve the amenity of the area, including biodiversity values, through the preservation of trees and other vegetation.

Specifically, this clause states that a person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which any such development control plan applies without the authority conferred by:

- a) development consent, or
- b) a permit granted by the Council.

The Part 9.6 Tree Preservation of the Ryde DCP 2010 would apply to trees that form part of Magdala Park and its curtilage areas. Although it is acknowledged that the proposed development does not propose to ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation, it is considered that there is a responsibility to consider the impact of the proposed development on such vegetation given the objectives of this clause.



In this regard, reference made to the independent Flora and Fauna Habitat Assessment Report submitted as part of the package of information for the subject Section 96 application. The report concludes that there is no impediment to the proposed development, and there is not likely to be a significant effect on any threatened species or their habitats.

Given the above, it is considered that the proposed development is consistent with the objectives of clause 5.9 of the Ryde LEP 2010, and also in compliances with the provisions of this clause.

Clause 5.10 – Heritage Conservation

Clause 5.10 of the Ryde LEP 2010 outlines the heritage conservation provisions for the City of Ryde local government area. More specifically, clause 5.10(5) specifies that a consent authority may request a heritage management document be prepared that assesses the extent to which the carrying out of a proposed development would affect a heritage item that is within the vicinity of the proposed development.

The subject site has been identified as being located immediately adjacent to a portion of Heritage Item No. 59 and approximately 50m to the south of another portion of Heritage Item No. 59. The Ryde Local Environmental Plan 2010 identifies Heritage Item No.59 as being Open Space associated with the Lane Cove National Park which is identified as having State Significance.

A review of the NSW Government's Environment & Heritage Database has not revealed any specific advice or recommendations in relation to the abovementioned environmental heritage items.

The proposed development has been referred to the NSW Office of Environment and Heritage (OEH), and also Council's Heritage Officer.

OEH has responded by indicating that they no issues in regard to the proposed additional night time lighting for an additional four (4) nights in the winter subject to Council adopting the recommendations of the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology. These recommendations have been adopted where relevant by conditions of consent – refer to comments about on OEH for details of these recommendations and conditions to be imposed.

Council's Heritage Officer has indicated that there are no heritage concerns relating to the extended use of the lighting for the playing fields adjacent to Lane Cove National Park.



Relevant State Environmental Planning Policies (SEPPs)

State and Sydney Regional Environmental Planning Policies

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005

Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005 applies to the subject site and has been considered in this assessment.

The site is within the Foreshores and Waterways Area, and located within the Wetlands Protection Area, as indicated in the map extract below.

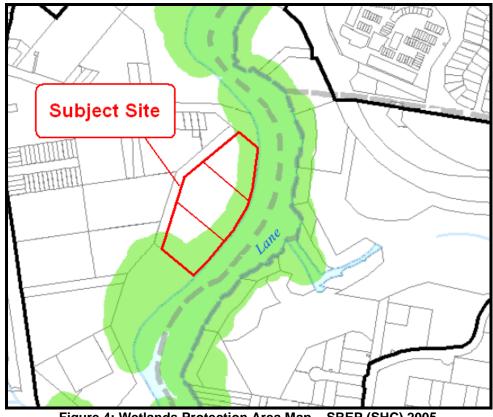


Figure 4: Wetlands Protection Area Map - SREP (SHC) 2005

The land is not however included within the following areas for the purposes of the SEPP:

- a zone for the purposes of the SEPP,
- a Little Penguin Critical Habitat Area,
- Lane Cove River Heritage Area;
- Strategic Foreshores Area; or
- Sydney Opera House Buffer Zone Map



Compliance with relevant provisions is illustrated in the corresponding table in the Attachments.

A Development Control Plan has been prepared to support the REP and is referred to in **Section 9(d)** below.

No other State and Sydney Regional Environmental Planning Policies have been determined to be specifically relevant to the proposed development.

It is noted however that the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology that forms part of the package of information for this Section 96 modification has referred to such legislation where relevant.

(d) Any draft LEPs

No draft environmental planning instruments have been identified as being relevant.

(d) The provisions of any development control plan applying to the land

Ryde Development Control Plan 2010;

A review of the Ryde Development Control Plan 2010 (Ryde DCP 2010) against the proposed Section 96 modification has not revealed any development controls that are considered applicable to the proposed development. The proposed development is considered to satisfy the general objectives of the Ryde DCP 2010.

Sydney Harbour Foreshore & Waterways Development Control Plan:

The aims of the Sydney Harbour Foreshore & Waterways Development Control Plan (SHFWDCP) are:

- To protect ecological communities within the area covered by SREP (Sydney Harbour Catchment) 2005;
- Ensure that the scenic quality of the area is protected or enhanced;
- Provide siting and design principles for new buildings and waterside structures within the area; and
- Identify potential foreshore access locations in the area.

The SHFWDCP has identified the area as being 'Landscape Character Type 15'.

Development in these areas must consider the following:

- the contribution industrial uses make to the economics and vitality of the river and their need for location on the waters edge;
- establishment of open space and recreational opportunities;



- mitigating against incompatible land uses; and
- preserving the mangrove screening along the foreshore and reducing the stark contrast of built elements behind these natural features.

The application proposes no physical works, but rather only to vary the use of Field No. 1 to permit up to an additional four (4) evenings per winter season.

The application is also assessed under the performance criteria for land within Landscape Character Type 15. See table below.

| Provision | Proposal | Compliance |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| The industrial uses along the river are maintained and preserved. Pressure for these uses to relocate is minimised; | The proposed development is not anticipated to impact on the industrial uses along the river, nor result in pressure for these uses to relocate. | Yes |
| Design and mitigation measures are provided between incompatible land uses to minimise noise and amenity impacts; | Conditions of consent under LDA05/116 in relation to direction of lights and compliance with relevant Australian Standards still apply to the proposal. Additionally conditions limiting the hours of floodlight usage will remain to mitigate amenity impacts on adjoining land uses. Further conditions of consent relating to minimising the impact of light spillage and noise have also been included as part of the Section 96 approval recommendations. | Yes |
| Remaining natural elements along the foreshore are preserved to maintain the natural screen along the foreshore; and | Proposal does not include any physical works, only to augment the usage of Field No. 1 to permit up to an additional four (4) evenings per winter season. | Yes |
| Vegetation is integrated within the development to minimise the contrast between natural and built elements. | Proposal does not include any physical works, only to augment the usage of Field No. 1 to permit up to an additional four (4) evenings per winter season. It is noted that conditions of consent have been recommended | Yes |



| Provision | Proposal | Compliance |
|-----------|-----------------------------------|------------|
| | to provide additional vegetation | |
| | planting as part of the proposal. | |
| | This has been a recommendation | |
| | that is stemmed from the Flora | |
| | and Fauna Habitat Assessment | |
| | Report prepared by Abel Ecology, | |
| | and supported by OEH. | |

10. Likely impacts of the Development

(a) Built Environment

Built Environment

The proposed development will augment the use of Field No. 1 at Magdala Park in line with the following:

- The number of rescheduled or 'make-up' soccer competition games on Field No. 1 are to increase from six (6) nights per winter season to ten (10) nights per winter season. Accordingly, this will result in an additional four (4) nights per winter season.
- The rescheduled or 'make-up' soccer competition games on Field No. 1 are to occur on either Tuesday, Wednesday, Thursday or Saturday nights, rather than on Saturday nights only as currently permitted.

In this regard it is acknowledged that the potential additional usage of Field No. 1 within Magdala Park may have a modified impact on the built environment over that of the current site arrangements.

Having regard to the above, the potential impacts on the built environment as a result of the additional sports field usage has been determined as follows:

- Light Spillage;
- Acoustic Impacts; and
- Traffic and Parking.

In order to understand the level of impact associated with the proposed development, it is important to assess the amount of additional usage that will be obtained from the sports field as a result of the Section 96 modification application.

As outlined in **Section 5** of this report, the current approval permits the use of Field No. 1 for training purposes from Monday to Thursday until 9.30pm, and then on not more than six (6) separate Saturdays throughout the winter season until 9.30pm.



Accordingly, the proposed modifications can only result in a maximum of four (4) additional illumination evenings for Field No. 1 over that already approved on the site – that is if each of the four (4) additional illumination evenings occur on a Saturday. This is because Field No. 1 is already approved to be illuminated for training purposes until 9.30pm on Tuesday, Wednesday and Thursday evenings.

However, given the application seeks to disperse the soccer matches over other weekdays (Tuesday, Wednesday and Thursdays), the proposed modifications will likely only alter the nature of the use of Field No. 1 from training purposes to four (4) additional competition evenings.

On this additional usage basis, each of the abovementioned potential impacts on the built environment are now assessed:

Light Spillage

In MOD2012/0142, a detailed assessment of the illumination of Magdala Park was undertaken, which was principally guided by 'Australian Standard AS4282-1997 – Control of the obtrusive effects of outdoor lighting'.

The following again looks at the impacts of light spillage on adjoining property, this time having regard to the prospect that the subject modification may result in up to four (4) additional evening where Field No. 1 is illuminated up until 9.30pm.

Australian Standard AS4282-1997 sets out guidelines for control of the obtrusive effects of outdoor lighting and gives recommended limits for the relevant lighting parameters to contain these effects within tolerable levels. The following is an extract from AS4282-1997 in relation to the effects on residents as a result of bright luminaries:

Section 2.6.1 Effects on residents Effects on residents generally involve a perceived change in amenity arising from either of the following:

- (a) The illumination from spill light being obtrusive, particularly where the light enters rooms of dwelling that are normally dark, e.g. bedrooms. The illuminance on surfaces, particularly vertical surfaces, is an indicator of this effect.
- (b) The direct view of bright luminaries from normal viewing directions causing annoyance, distraction or even discomfort. The luminance of a luminaire, in a nominated direction, is an indicator of this effect. However, because of difficulties associated with the measurement of luminance, recommendation in the Standard are expressed in terms on the luminous intensity in specified directions.



Tolerable levels of each of these light technical parameters will be influenced by the ambient lighting existing in that environment. This will be determined largely by the degree and type of the development of the area and by the road lighting in place.

Values of the light technical parameters that are acceptable during the earlier hours of the evening may become intolerable if they persist at later times when residents wish to sleep.

Given the above, it is important to assess the illumination spill on adjoining residential development whilst taking into consideration existing conditions, that being LDA2005/0116, as modified by MOD2012/0142 already approves illumination of Field No.1 and Field No.2 and the proposed development only seeks to increase the number of evenings Field No.1 may be illuminated, which is to a maximum of four (4) additional evenings during the winter season.

Table 2.1 within AS4282-1997 outlines the recommended maximum values of light for the control of obtrusive light both during curfew hours (i.e. after 11pm) and after curfew hours (before 11pm).

Table 2.1 provides that the recommended maximum Lux values at the boundaries of nearby residential properties is 10Lux for light or dark surrounds in pre-curfew hours, while at curfewed hours it is 2Lux in light surrounds and 1Lux in dark surrounds.

Although the nearby properties are located near approved light emitting sources already, such as the streetlights of Magdala Road and floodlights of Field No.2, for the purposes of this assessment the more stringent dark surrounds criteria have been used. That is, a maximum 10Lux for pre-curfew hours and a maximum of 1Lux for curfewed hours.

Information submitted by Gary Roberts & Associates Pty Ltd (attached) as part of the MOD2012/0142 proposal included measurements of the Lux levels at the boundary of nearby residential development, the residential development buildings themselves, and also at adjacent locations along the Lane Cove River to the east of Magdala Park (refer *Figure 5* below).





Figure 5: Light level measurements as a result of the proposed Section 96 Modification

As demonstrated in *Figure 5* above, with a maximum level of 6 Lux at the property boundary of the nearby residential development, the approved MOD2012/0142 complied with the recommendations outlined in AS4282-1997 for the obtrusive effects of outdoor lighting as the lighting was be restricted to operate until 9:30pm Monday to Thursday and until 9:30pm on six (6) Saturdays per year.

This restriction will be maintained partly by the existing conditions of consent and also the modified condition number 3(b).

It is also noted that the existing condition number 5 of LDA2005/0116, that requires the lighting of the ovals to be directed so as not to cause nuisance to the owners or occupiers of adjacent/adjoining premises or to motorists, and all existing and proposed lights shall comply with the AS 4282-1997 will be maintained on the consent.



Similarly, in order to ensure compliance with AS4282-1997 condition number 5A of MOD2012/0142 is to be maintained which limits the hours of operation of the floodlighting of the sports field.

 Curfew switches - Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the sports field light use does not extend beyond the approved times of use.

Given the results of the above assessment, and the ability of the existing lighting arrangements of Magdala Park to comply with the provisions of AS 4282-1997, it is considered that the prospect of the subject modification resulting in up to four (4) additional evenings where Field No. 1 is illuminated until 9.30pm is acceptable from a light spillage perspective.

Acoustic Impacts

Experience with acoustic assessments on other sports field development applications within the City of Ryde has revealed that expected noise from soccer training is generally in the order of 3-5dB lower than that from the social soccer competition games/matches. This is because there is generally little whistling, shouting and cheering from spectators during training as opposed to soccer competition matches.

Given the proposed modifications seek to replace approved soccer training times with soccer competition games for an addition four (4) nights per winter season, and also spread the occurrence of these games across Tuesday, Wednesday, Thursday or Saturday nights, it is considered that the acoustic impact of the additional soccer games raised by the objectors has merit, and is worthy of mitigation.

It is has been noted in the submissions made by objectors that noise created by players after soccer games when exiting and arriving at the fields is also a source of disturbance. Accordingly, in order for sports organisations using Magdala Park to be mindful and respectful of potential noise impacts on nearby residences, it is considered appropriate that a noise management policy be put in place for all organisations using the sports field at Magdala Park. The sports organisations should be required to adopt and follow the noise management policy in order to minimise noise emitted from the park and minimise any adverse impact on surrounding residents.

Such simple measures that are considered worthy of being adopted within the noise management policy for the Magdala Park sports fields include:

 Establishment of a roped off spectator exclusion zone around the northern boundary of Field No. 1 during rescheduled/'make-up' soccer games on evenings in the winter season (refer to the diagram on the following page).



This would ensure that potential spectator noise from up to ten (10) matches to be played on the field during evenings of the winter season would be confined to the southern portions of the field, essentially placing the nearest spectators approximately 150m from nearby residential development;

- Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes;
- Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and
- A plan to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.



Figure 6: Diagram indicating spectator exclusion zone to the northern and part north-eastern boundary of Field No. 1. This is to be established during evening soccer matches at Field No. 1 to ensure spectators are placed further away from nearby sensitive residential area receivers of noise.

In this regard, the following conditions of consent are recommended:

- Noise Management Policy A noise management policy is to be prepared for all sporting organisations utilising the illuminated sports field at Magdala Park to adopt. The objective of this noise management policy is to minimise sounds emitted from the illuminated sports field at Magdala Park and minimise any adverse impacts on surrounding residents.
 - Establishment of a roped off spectator exclusion zone along the northern boundary of Field No. 1, the northern portion of the western boundary of Field No. 1 north of the existing spectator seating area, and also the corresponding northern portion of the eastern boundary. This spectator exclusion zone is to operate during evening soccer games/matches in the winter season.
 - Prohibition of any amplification equipment for personal address announcements, music, sirens, or other purposes;



- Incorporate components of the player, parents, spectator and officials code of conduct into the noise management policy to limit noise generating behaviour such as excessive shouting, swearing, whistle blowing, and any other noise generating activities; and
- Methods to be put in place on how to respond to noise complaints, including but not limited to advising nearby residents of the contact details for which complaints can be addressed, measures to ensure prompt action can be taken to deal with any complaints and minimise recurring noise issues.

The completed Noise Management Policy is to be submitted and approved by Council's Group Manager Environment & Planning prior to the illuminated use of the sports field.

Traffic and Parking

The proposed modifications can only result in a maximum of four (4) additional illumination evenings for Field No. 1 for soccer games over that already approved on the site. This is because Field No. 1 is already approved to be illuminated for training purposes until 9.30pm on Tuesday, Wednesday and Thursday evenings, and six (6) Saturday evenings per winter season are already approved for rescheduled/'make-up' soccer games.

However, given the application seeks to disperse the soccer matches over other weekdays, the proposed modifications will likely result in less than four (4) additional illumination evenings for soccer games on Field No. 1.

The following notes are made in relation to car parking and traffic aspects of the proposed modification:

- the soccer completion games will only occur on Field No.1 only which is the furthest field from the neighbouring residential properties on Magdala Road;
- the competition games to be held at the ground are at an amateur league competition level and as such lower levels of spectator attendance are envisaged;
- the use of Field No. 1 on Tuesday, Wednesday or Thursday evenings would replace training activities on this field, and hence those vehicles that would normally attend Magdala Park for training on Field No. 1 would be replaced by the vehicles associated with the soccer game instead;



Given the above, and given the competition games are only to occur for maximum additional four (4) evenings per winter season, the proposed modification is not considered to result in an unsatisfactory impact on the built environment in terms of motor vehicle movements or parking.

(b) Natural Environment

The subject site adjoins the Lane Cove National Park, and as such, the assessment of the subject Section 96 application has been undertaken in consultation with the NSW Government's Office of Environment and Heritage (OEH).

On 13 March 2014 correspondence from OEH raised concern with the proposed development's potential impact on native wildlife.

In order to ascertain if there was likely to be an impact on native wildlife as a result of the proposed development, including any significant impact on threatened species, Council, through an additional information request dated 20 May 2014, required the applicant prepare and submit a Fauna Impact Assessment carried out by a suitably qualified independent consultant – as was required by OEH.

The following criteria was stipulated by OEH and reiterated to the applicant in the additional information letter for choosing a suitably qualified independent consultant:

- The consultant was to be accredited (by the NSW Office of Environment and Heritage) or is a member of the Ecological Consultants Association or other appropriate professional organisations.
- The consultant was to have the relevant experience and tertiary qualifications in the ecological field (the consultant's resume including these details was to be attached with the report),
- The consultant was to possess a NPWS Scientific Licence (120s 132c National Parks and Wildlife Act) for flora and fauna survey work, and an Animal Research Authority administered by NSW Agriculture (s25 NSW Animal Research Act) if undertaking a fauna survey, and
- The consultant was required to carry the relevant insurances.

The following requirements were required by OEH to be included in the fauna impact assessment that was to be submitted:

- Address the impact of the proposed development the Powerful Owl which is a threatened species under the Threatened Species Conservation Act 1995, and which is known to be located in the area. The consultant was to liaise with Mr David Bain who was working on 'The Powerful Owl Project' in this part of Northern Sydney for Birds Australia (contact: david.bain@birdlife.org.au).



- The assessment was also required to address light spill impacts on ground dwelling mammals, including long nosed bandicoots that utilise Magdala Park for a potential nocturnal foraging ground.
- Fish impact was also to be assessed as artificial light can affect predation, migration, feeding behaviour of fish and the invertebrates they feed on.
- Impacts were also required to be considered on migrating birds including local migrations;
- Pest species such as foxes and rabbits were also required to be assessed to determine whether these pest species would be favoured by the change in lighting conditions.
- The impact assessment also needed to provide accurate representations of light spill and how this would impact fauna species in the adjacent national park. The report was required to address ongoing monitoring to determine whether light spill is has an impact upon wildlife.
- Fauna impacts from car lights and spectator noise was also to be taken into consideration in the report.

On 17 July 2014 the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology was submitted to Council by the applicant in response to Council's additional information request dated 20 May 2014.

This report included the following recommendations:

- 1. Install shielding to reduce the impact of stray light on the surrounding areas;
- 2. Ensure spill lighting from the floodlight lamps complies with Australian Standards:
- 3. Ensure use of a timer to allow floodlighting to be controlled effectively so that lights are not illuminated unnecessarily; and
- 4. Plantings (e.g. Swamp Mahogany) as a narrow extension to the south of the 0.2ha planting adjacent to Field No. 2. Any plantings need to consider long term maintenance of this area for facility/field use and the regulations of revegetation within the vicinity of power lines.

On 17 July 2014, the subject Flora and Fauna Habitat Assessment Report was forwarded to EHO for comment following their earlier submission outlined above. In a response letter dated 1 August 2014, EHO indicated that the report is satisfactory and subject to Council adopting the above recommendations, does not have any further issues in regard to the proposed additional night time lighting for an additional four (4) nights in winter.



Given the above, the following four (4) conditions of consent have been recommended to be included in any consent of the subject Section 96 modification:

- Light Shields Light shielding is to be installed to light poles on Field No. 1 to reduce the impact of stray light on the surrounding areas;
- Vegetation Planting Eucalyptus robusta (Swamp Mahogany) are to be planted as a narrow extension to the south of the 0.2ha planting adjacent to Field No. 2. Plans detailing the proposed planting are to be submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.
- Vegetation Planting Considerations the vegetation planting referred to the condition titled 'Vegetation Planting' is to consider the long term maintenance of Magdala Park for facility/field use and the regulations of revegetation within the vicinity of power lines. This should be demonstrated in the vegetation plans submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.
- Vegetation Maintenance Report A Landscape Maintenance Report is to be submitted to City of Ryde twelve months (12) from the date of the vegetation planting referred to in the condition titled 'Vegetation Planting' certifying that the landscape works are still in accordance with the Section 96 consent and the plant material is alive and thriving.

This report is to be prepared by a suitably qualified landscape professional.

The following recommendations from the Flora and Fauna Habitat Assessment Report have been omitted from the recommended consent conditions for the following reasons:

 Ensure spill lighting from the floodlight lamps complies with Australian Standards.

Assessment Officer's Comment: Development consent LDA2005/0116 already includes Condition 5 (see below) which ensures spill lighting from the floodlight lamps complies with Australian Standards. It is intended to maintain this condition of consent as part of the subject Section 96 modification approval, and as such including the above recommendation from the Flora and Fauna Habitat Assessment Report would only lead to a duplication of conditions.

Condition 5 from LDA2005/0116:

The lighting of the ovals shall be directed so as not to cause nuisance to the owners or occupiers of adjacent/adjoining premises or to motorists on adjoining or nearby roads. All existing and proposed lights shall comply with the Australian Standard AS 4282-1997: Control of the Obtrusive Effects of Outdoor Lighting.



- Ensure use of a timer to allow floodlighting to be controlled effectively so that lights are not illuminated unnecessarily.

Assessment Officer's Comment: Section 96 consent MOD2012/0142 already includes Condition 5A (see below) which requires the installation of curfew switches to allow floodlighting to be controlled effectively so that lights are not illuminated unnecessarily. It is intended to maintain this condition of consent as part of the subject Section 96 modification approval, and as such including the above recommendation from the Flora and Fauna Habitat Assessment Report would only lead to a duplication of conditions.

Condition 5A from MOD2012/0142:

Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the light use does not extend beyond the approved times of use.

Given the above, it is therefore considered that the requirements of OEH, as outlined in their original submission, and as per their subsequent response to the Flora and Fauna Habitat Assessment Report, have been satisfactorily addressed with the implementation of the recommended conditions of consent.

Given the above, it is considered that the proposed development will not have an unsatisfactory impact upon the natural environment, subject to the implementation of the aforementioned conditions of consent.

11. Suitability of the site for the development

The proposed Section 96 modifications will enable the continued and expanded use of this existing recreation area for sports training purposes and sport games/matches.

The assessment of the proposed development within this report demonstrates that the proposal can comply with the relevant environmental planning instruments applying to the land, as well that of the objectives of the Ryde DCP 2014, and Ryde LEP 2010.

Furthermore, the impacts of the proposed development have been thoroughly assessed in terms of their impacts on both aspects of the built and natural environment have been determined to be satisfactory on balance.



The proposed development will deliver both social and community benefits via the continued and enhanced use of an existing public sports field within Magdala Park that still meets the Australian Standard 4282 – 1997 for control of the obtrusive effects of outdoor lighting, and with the recommended conditions of consent, will deliver reduced amenity impacts on nearby property, including both noise impacts and light spillage impacts.

A review of Council's map of Environmentally Sensitive Areas (held on file) identifies that there are no constraints affecting the subject property of concern that would specifically relate to the proposed development.

Having regard to the above, it is considered that the subject site is suitable for the proposed development.

12. The Public Interest

As has been demonstrated within this report, the proposal development is considered to be in the public interest as it provides for the enhanced use of Field No. 1 within Magdala Park for public recreation purposes whilst not resulting in unsatisfactory impacts on the natural or built environment. Therefore, on balance, the social and community benefits of the proposed development are considered to outweigh any concern related to the impacts of the proposed development.

13. Consultation – Internal and External

Internal Referrals

Heritage

The proposed development has been referred to Council's Heritage Officer.

Council's Heritage Officer has indicated that there are no heritage concerns relating to the extended use of the lighting for the playing fields adjacent to Lane Cove National Park.

External Referrals

Given the subject site adjoins the Lane Cove National Park, the subject Section 96 application was referred to the NSW Government's Office of Environment and Heritage (OEH).

Details of the ongoing liaison and response from OEH is outlined within Section 7 'Submissions' of this report. Reference should be made to this section for further information.



14. Critical Dates

There are no critical dates or deadlines to be met.

15. Financial Impact

Adoption of the recommendations outlined in this report will have a financial impact as City of Ryde is the applicant of the subject Section 96 application. The financial impact stems from the imposition of the following conditions of consent which have been lifted (where relevant) from the recommendations of the Flora and Fauna Habitat Assessment Report prepared by Abel Ecology, and as supported by the NSW Government's Office of Environment and Heritage:

- Light Shields Light shielding is to be installed to light poles on Field No. 1 to reduce the impact of stray light on the surrounding areas;
- Vegetation Planting Eucalyptus robusta (Swamp Mahogany) are to be planted as a narrow extension to the south of the 0.2ha planting adjacent to Field No. 2. Plans detailing the proposed planting are to be submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.
- Vegetation Planting Considerations the vegetation planting referred to in the condition titled 'Vegetation Planting' is to consider the long term maintenance of Magdala Park for facility/field use and the regulations of revegetation within the vicinity of power lines. This should be demonstrated in the vegetation plans submitted to Council for approval prior to the commencement of any additional usage of Field No.1 as sought by MOD2014/0006.
- Vegetation Maintenance Report A Landscape Maintenance Report is to be submitted to City of Ryde twelve months (12) from the date of the vegetation planting referred to in the condition titled 'Vegetation Planting' certifying that the landscape works are still in accordance with the Section 96 consent and the plant material is alive and thriving. This report is to be prepared by a suitably qualified landscape professional.

16. Other Options

None relevant.

17. Conclusion

The proposal has been assessed against the heads of consideration of Section 79C of the Environmental Planning and Assessment Act 1979 and the following has been determined:



- The proposal is complying when assessed against the mandatory requirements and objectives of the relevant environmental planning instruments pertaining to the subject site, including the Ryde Local Environmental Plan 2010, Ryde LEP 2014, and Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005;
- The proposal is complying when assessed against the provisions and objectives of the Ryde Development Control Plan 2014, and Sydney Harbour Foreshore & Waterways Development Control Plan;
- The likely environmental impacts of the proposed development have been considered and determined to be satisfactory when having regard to both the natural and built environment, and social and economic impacts in the locality;
- The sports field at Magdala Park is considered to be a suitable site for the proposed development; and
- The proposed development is considered to be in the public interest.

The proposal development is considered to be in the public interest as it provides for the enhanced use of Field No. 1 in Magdala Park for public recreation purposes whilst not resulting in unsatisfactory impacts on the natural or built environment. Therefore, on balance, the social and community benefits of the proposed development are considered to outweigh any concern related to the impacts of the proposed Section 96 modifications.

On the above basis, MOD2014/0006 to LDA2005/0116 at 71 Magdala Road, North Ryde is recommended for approval subject to conditions.



ATTACHMENT 1



City of Ryde
Civic Centre, Devlin Street, Ryde
Locked Bag 2069, North Ryde NSW 1670
DX 8403, Ryde
Facsimile 9952 8070
Telephone 9952 8222



Applicant:

North Ryde Soccer Club

PO Box 391

NORTH RYDE NSW 1670

Development Consent

Consent No:

116/2005

Consent Date:

19 April 2005

Valid until: 19 April 2010

The City of Ryde, as the consent authority under the provisions of the Environmental Planning and Assessment Act, 1979 hereby consents to the development as follows:

Property:

71 Magdala Road NORTH RYDE 2113.

LOT: 326 DP:

183739.

Development:

Installation of lights on Fields 1 & 2 at Magdala Park.

subject to the conditions 1 to 8 specified in this consent.

You are advised that failure to observe any condition of approval set out in the consent is an offence and legal proceedings may be instituted by Council.

This Consent does not guarantee compliance with the Disability Discrimination Act and you should, therefore, investigate your liability under the Act.

You are advised of your rights of appeal to the Land and Environment Court under Section 97 of the Act, against any of the conditions contained within this consent, within a period of twelve (12) months after receipt of the Consent.

Chris Young

Team Leader - Environmental Assessment

The fees quoted at the time of issue of this Consent may be subject to variation. Council's annual fees and charges are published in the Management Plan. To confirm fees please contact Customer Service on 9952-8222.



ATTACHMENT 1

Conditions of Consent for 116/2005 :-

- Development is to be carried out in accordance with the plans numbered 47868, FPLL27F and support information submitted to Council.
- 2. All building works are required to be carried out in accordance with the provisions of the Building Code of Australia.
- 3. The use of lights to illuminate the fields shall be restricted to no later than:
 - (a) 9.30pm on Monday to Thursday for training on fields 1 & 2.
 - (b) 6.00pm Saturday and Sunday for late finishing games only if light deteriorates to such an extent as to make playing unsafe.
- 4. Certification is to be provided with the **Construction Certificate** by a Structural Engineer that the proposed method of anchorage of the light poles is structurally adequate having regard to their size, type and location.
- 5. The lighting of the ovals shall be directed so as not to cause nuisance to the owners or occupiers of adjacent/adjoining premises or to motorists on adjoining or nearby roads. All existing and proposed lights shall comply with the Australian Standard AS 4282-1997: Control of the Obtrusive Effects of Outdoor Lighting.
- 6. The occasions on which building work must be inspected are:
 - (i) at the commencement of the building work
 - (ii) after excavation for, and prior to the placement of, any footings
 - (iii) prior to pouring any in-situ reinforced concrete building element
 - prior to covering of the framework for any floor, wall, roof or other building element
 - (v) prior to covering waterproofing in any wet areas
 - (vi) prior to covering any stormwater drainage connections
 - (vii) after the building work has been completed and prior to any occupation certificate being issued in relation to the building.

Documentary evidence of compliance with Council's approval and relevant standards of construction is to be obtained prior to proceeding to the subsequent stages of construction and copies of the documentary evidence are to be maintained by the Principal Certifying Authority and be made available to Council officers upon request.

Prior to occupation of the building, an occupation certificate must be obtained. Prior to the issue of the occupation certificate, **the mandatory inspections must be carried out.**

- 7. Sediment control works are to be installed and maintained in accordance with Council's Development Control Plan 42 for Construction Activities.
- 8. All construction and associated work is to be restricted to between the hours of 7.00am and 7.00pm Monday to Friday (other than public holidays) and between 8.00am and 4.00pm on Saturday. No work is to be carried out on Sunday or public holidays.

| | | |
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ATTACHMENT 1

Conditions of Consent for 116/2005 :-

ADVISORY CONDITIONS

- Prior to commencing any construction works, the following provisions of the Environmental Planning and Assessment Amendment Act, 1997 are to be complied with:
 - A Construction Certificate is to be obtained in accordance with Section 81A
 (2)(a) of the Act.
 - (ii) A Principal Certifying Authority is to be appointed and Council is to be notified of the appointment in accordance with Section 81A (2)(b) of the Act and Form 7 of Schedule 1 to the Regulations.
 - (iii) Council is to be notified at least two (2) days prior to the intention to commence building works, in accordance with Section 81A (2)(c) of the Act and Form 7 of Schedule 1 to the Regulations.
- The applicant may apply to the Council or an accredited certifier for the issuing of a
 Construction Certificate and to Council or an accredited certifier to monitor
 compliance with the approval and issue any relevant documentary evidence or
 certificate/s.

Council Officers can provide these services and further information can be obtained from Council by telephoning 9952 8222 (Customer Service).

3. Energy Australia

Underground and overhead electric cables may exist in this area. In your own interest and for safety, telephone Energy Australia on 13 1525 before excavating or erecting structures.

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ATTACHMENT 2

City of Ryde Civic Centre, Devlin Street, Ryde Locked Bag 2069, North Ryde NSW 1670 Facsimile 9952 8070 Telephone 9952 8222



Section 96 Consent

Applicant:

City of Ryde

Locked Bag 2069

NORTH RYDE NSW 1670

(Attn Mr S James)

Section 96 Consent No:

MOD2012/0142

Approval Date:

19 November 2012

Modification of Development Consent No. LDA05/116 under Section 96 of the Environmental Planning and Assessment Act, 1979

Property:

71 Magdala Road, North Ryde Lot 324-326 DP 183739

(Magdala Park)

Development:

Installation of lights on fields 1 & 2 at Magdala Park

Section 96 Modification:

Change lighting to array from 100Lux to 200Lux on Field No.1 and amend Condition 3(b) to permit field lighting to 9:30pm for six (6) Saturdays per year.

The City of Ryde as the Consent Authority pursuant to Section 96 of the Environmental Planning and Assessment Act, 1979 (as amended) hereby consents to the modification of Local Development Application No. 2005/116 dated 19 April 2005 in the following manner:

- Condition 1 is deleted and replaced with:
- Approved Plans/Documents. Except where otherwise provided in this consent, the development is to be carried out strictly in accordance with the following plans (stamped approved by Council) and support documents:

| Document Description | Date | Plan No/Reference |
|-------------------------------|---------|-------------------------------|
| Site Plan/Light Pole Location | Undated | Sheet No 1 (stamped and |
| Plan | | attached to this s96 consent) |

- Condition 3 is deleted and replaced as follows:
 - The use of lights to illuminate the fields shall be restricted to no later than:
 - (a) 9:30pm on Monday to Thursday for training on fields 1 & 2.
 - (b) 6.00pm Saturday and Sunday for late finishing games only if light deteriorates to such an extent as to make playing unsafe, and 9,30pm on no more than six (6)

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ATTACHMENT 2

Section 96 Consent No. MOD2012/0142

separate Saturdays throughout the winter season (April to September) for soccer competition games.

- The following additional condition is added to the consent:
 - Condition 5A Curfew switches are to be installed, along with manual off switches, to each tower set, to ensure that the light use does not extend beyond the approved times of use.
- · ALL other conditions remain unaltered and must be complied with.

You are advised that failure to observe any condition of approval set out in the consent is an offence and Council may institute legal proceedings.

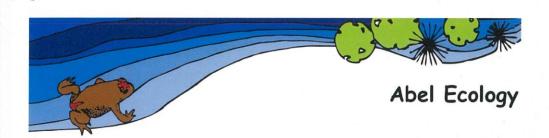
You are advised of your right of appeal to the Land and Environment Court under Section 97AA of the Environmental Planning & Assessment Act, 1979, and your right of review under Section 96AB within 6 months after you have received the Consent.

Chris Young

The fees quoted at the time of issue of this Consent may be subject to variation. Council's annual fees and charges are published in the Management Plan. To confirm fees please contact Customer Service on



ATTACHMENT 3



Flora and fauna Habitat assessment report

for

71 Magdala Road, North Ryde

Section 96 Application No MOD2012/0142 to Modify Consent No LDA 2005/0116

Date: 9 July 2014

Document No: 1300-REP-92-ISS-1 Prepared for: City of Ryde Council Prepared by: Abel Ecology

Abel Ecology Pty Ltd2 Samuel 20:18 ACN 079 079 762 – ABN 72 516 253 751

PO Box 495 Unit 2, 10-11 Ferguson Road Springwood NSW 2777

T (02) 4751 9487 F (02) 4751 9488 E info@abelecology.com.au www.abelecology.com.au



ATTACHMENT 3



Disclaimer

This report has been prepared in accordance with the scope of services described in agreement between Abel Ecology and the Client.

In preparing this report, Abel Ecology has relied upon data, surveys and site inspection results taken at or under the particular time and or conditions specified herein. Abel Ecology has also relied on certain verbal information and documentation provided by the Client and/or third parties, but did not attempt to independently verify the accuracy or completeness of that information. To the extent that the conclusions and recommendations in this report are based in whole or in part on such information, they are contingent on its validity. Abel Ecology assumes no responsibility for any consequences arising from any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to Abel Ecology.

The findings contained in this report are the result of discrete/specific methodologies used in accordance with normal practices and standards. To the best of our knowledge, they represent a reasonable interpretation of the general condition of the site in question. Under no circumstances, however, can it be considered that these findings represent the actual state of the site/sites at all points.

Any representation, statement, opinion or advice, expressed or implied in this publication is made in good faith but on the basis that Abel Ecology, its agents and employees are not liable (whether by reason of negligence, lack of care or otherwise) to any person for any damage or loss whatsoever, which has occurred or may occur in relation to that person taking or not taking (as the case may be) action in respect of any representation, statement, or advice referred to above. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client.

Furthermore, this report has been prepared solely for use by the Client. Abel Ecology accepts no responsibility for its use by other parties.

Document history

| | Charles I Charles I I | | Charles d bu | Submission | |
|--------------|-----------------------|-----------------------------------------|--------------|------------|----------|
| Report | Version | Prepared by | Checked by | Method | Date |
| Draft report | Draft A | Dr Danny Wotherspoon Mr Alan Midgley | Jane Gentles | Email | 4 Jul 14 |
| Final | Issue 1 | Dr Danny Wotherspoon | Jane Gentles | Email | 9 Jul 14 |

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List of Abbreviations

| NP | National | Parl |
|----|----------|------|

NPWS National Parks and Wildlife Service
DPI Department of Primary Industries

Note regarding maps in this report

The diagrams/site maps used in this report have been supplied by and are used with the permission of City of Ryde Council.

With regard to maps provided by the Land Information Centre, Topographic maps used with the permission of © Land and Property Information, NSW.

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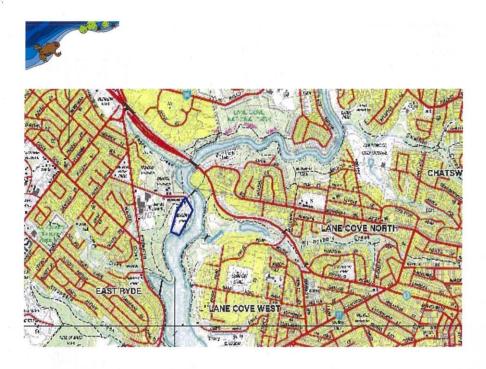


Figure 1. Locality map for 71 Magdala Road, North Ryde





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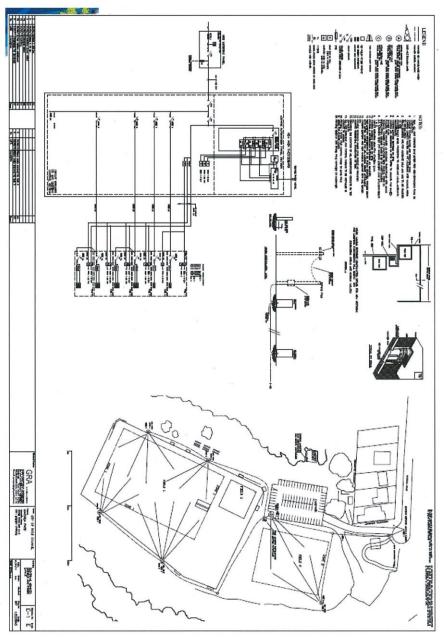


Figure 2. Proposal Diagram

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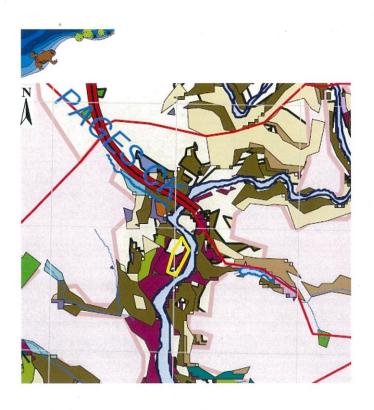
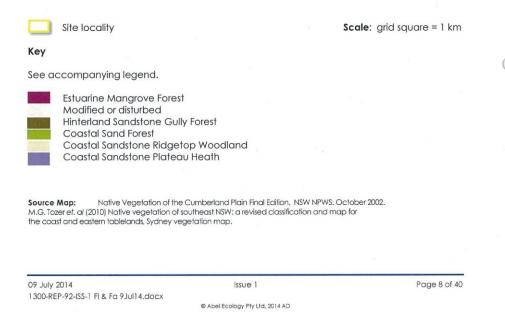
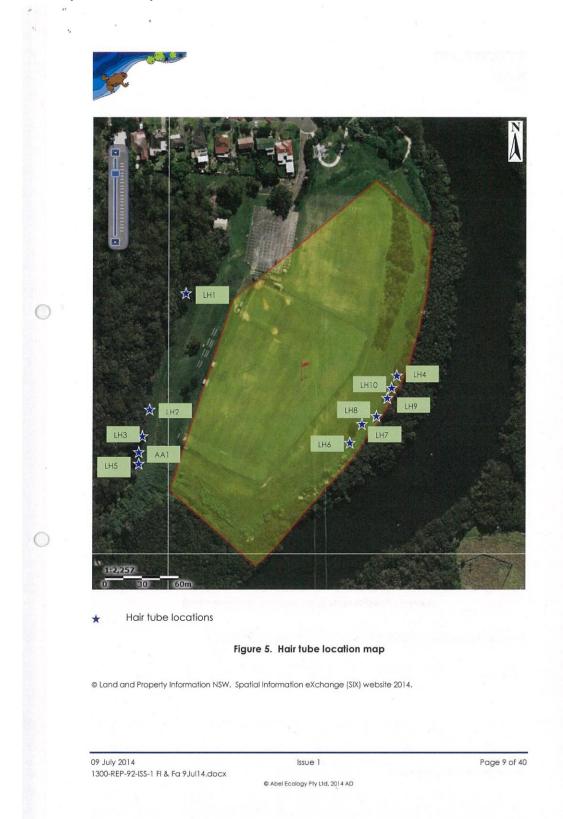


Figure 4. Vegetation map for the site and surrounding area









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Figure 6. Bandicoot foraging activity map (yellow line)

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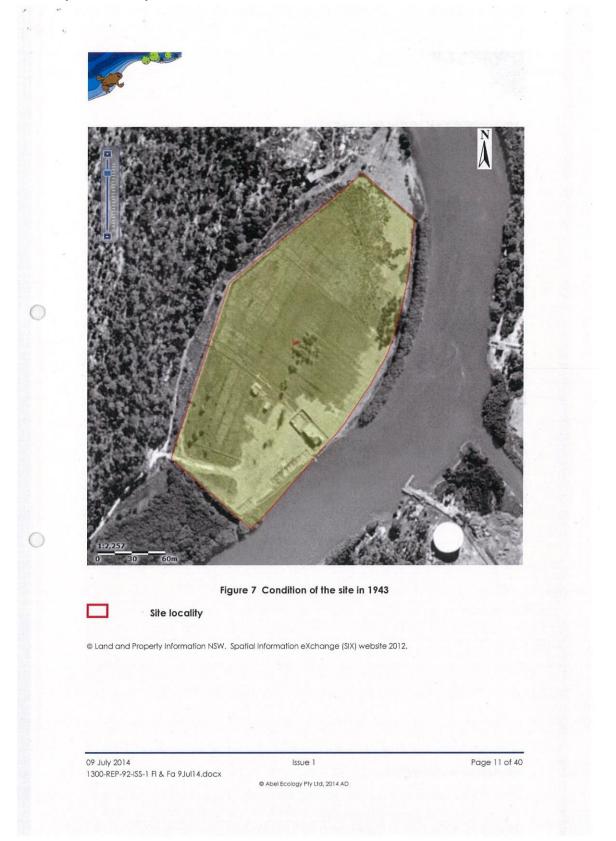
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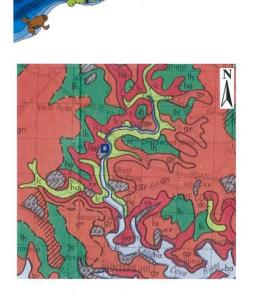


Figure 8 Soil Map

Approximate site locality

Scale: grid square = 1 km

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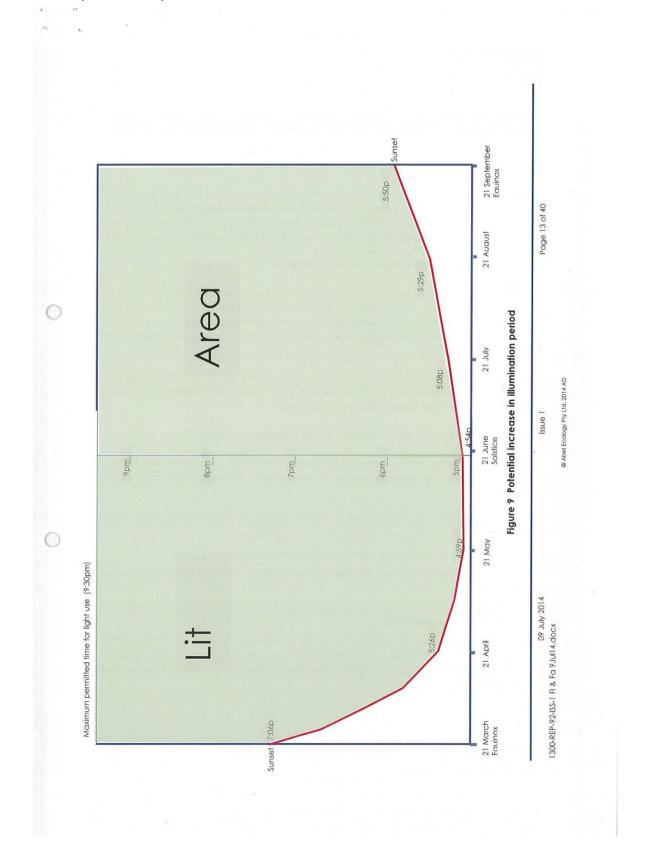
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Source: Soil Conservation Service of NSW Soil landscape series sheet 9130 Sydney.

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Executive Summary

The proposal is to increase the number of nights which the sports field lighting is utilised for competition games.

A flora and fauna survey was carried out at Magdala Park to assess the likely impacts of lighting increase on species present on the site, and whether there is likely to be any significant effect on any threatened species or their habitats, as per the listings in the Threatened Species Conservation Act 1995 (TSC Act 1995) (state legislation), the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999) (Commonwealth legislation) and other applicable local or regional policies.

The site is approximately 6.614 ha. in size, of which 0.2 ha is a planted area consisting of canopy trees and shrubs. The remainder of the site is a riparian zone of mangrove forest and cleared and managed lands, comprised primarily of two sporting fields. The trees and shrubs that have been planted in the past, including *Eucalyptus*, *Acacia*, *Hakea and Lomandra* are likely to be <30 years old.

There is little habitat value for small mammals, or even most bird species available on the site. The remaining vegetation forms a connective corridor to the remnant vegetation of Hunters Hill to the south and Lane Cove National Park to the north.

There were no threatened species identified on the site during the survey.

There is no impediment to this proposal in the scope of this report. There is not likely to be a significant effect on any threatened species or their habitats. A Species Impact Statement is not required.

The following recommendations are not mandatory but would if implemented increase the efficiency of existing lighting and reduce light spill to adjoining areas:

- a) Install shielding to reduce the impact of stray light on the surrounding areas.
- Ensure spill lighting from the floodlight lamps complies with the relevant Australian Standards.
- Ensure use of a timer to allow floodlighting to be controlled effectively so that lights are not illuminated un-necessarily.
- d) Plantings (e.g. Swamp Mahogany) as a narrow extension to the south of the 0.2ha planting adjacent to field 2. Any plantings need to consider long-term maintenance of this area for facility/field use and the regulations of revegetation within the vicinity of power lines.

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1. Introduction

A fauna and flora survey of the proposed development site at Magdala Park, Ryde ('the site' – Figure 1) was undertaken on 18 and 19 June 2014.

The main aim of this survey was to determine whether the present proposal is likely to cause a significant effect on any threatened species or their habitats. This assessment is based on the seven factors listed in Section 5A of the Environmental Planning and Assessment Act 1979, no. 203, (as amended), which are specifically addressed in Sections 7.6.1, and Appendix 1 of this report.

This assessment addresses both 'endangered' and 'vulnerable', as required by the Threatened Species Conservation Act, 1995 (TSC Act 1995). Throughout this report 'threatened' refers to those species and communities listed as 'endangered' or 'vulnerable' in Schedules 1 & 2 of the TSC Act 1995. 'Protected fauna' refers to any native bird or mammal (except the dingo) in NSW.

Description of the proposal and the site

2.1 The proposal

The proposal is to increase the number of nights on which the sports field lighting is used for competition games.

The increased amount of time for field lighting use will be an additional four nights per winter season (April-September), no later than 9:30pm. This equates to 5.5% (10/180 nights) of nights where field lighting will be used; a total increase of 2.2%.

2.2 Site description

For the purposes of this report, the site is defined as 71 Magdala Road, Ryde, which encompasses Lots 4, 5, 324, 325, and 326, DP183739. It is approximately 6.614 ha. in size and the elevation is between five and ten metres above sea level.

The site is generally flat, with sudden sloping to the east and south off the sports field proper. There is the major watercourse of Lane Cover River, which flows from north to south adjacent to the site (east), and can be seen as a vegetation corridor with strong connectivity to areas of Lane Cove National Park north and south of the site.

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The adjacent properties are high-density residential and commercial office buildings, an RSL and a sporting field to the northwest, industry to the north-east (over river) and national park located to the southeast.

The fauna habitat is described in detail in Section 4 below.

2.3 History of the site

The site has been historically cleared, which is evident from the 1943 Sydney suburbs image, depicting what appears to be lawn areas and boat loading/docking facilities (Figure 7). This has altered the profile of the soil and the drainage, which means that the original indigenous vegetation community no longer exists in the maintained playing areas at least, including the soil seedbank.

The site in its current form is a sporting field, which is surrounded by a planting of native canopy/shrub species to the northeast, a riparian area consisting of mangroves to the east and uncleared national park to the southeast.

2.4 Soils

Past modification of the site for use as a sporting field has seen additional input of soil from off-site sources to create a level playing area. It is unlikely that the profile or composition of the soils is similar to that which they would originally have been. The soil is mapped as disturbed (Chapman et al., 1983), (Figure 8).

Methodology

3.1 Literature review

Literature reviewed in order to assess possible issues relating to this site include: Air photo
Schedules to the TSC Act 1995
Schedules to the EPBC Act 1999
OEH Atlas of NSW Wildlife

3.2 Field work

Over the two days of fieldwork a total of 7 hours and 45 minutes were spent undertaking survey work on the site and surrounding habitat areas.

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Table 1. Survey dates and weather conditions

| Date | Times | Weather (°C) | Task | Hours (hrs x no. people) |
|---------------|-------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 18 June 14 | 15:00-18:30 | Sunny, nil-light winds, no moon, temperature 11.8-18°C | Fauna presence/habitat assessment. Determine current and future light spill areas/intensity | (2 x 3h30m) = 7h0m |
| 19 June 14 | 17:00-17:45 | Sunny, nil-light winds, no moon | Collect hair traps from previous day's fieldwork | (1 x 0h45m) = 0h45m 7 hours 45 mins |
| 14 | | moon | day's fieldwork Total | |

Survey effort was concentrated within the site boundaries, although adjacent surrounding vegetation was noted (Figure 4).

3.3 Fauna survey method

The methods of survey undertaken to detect the various faunal groups or their habitat are outlined below. Locations for specific survey methodologies are shown in Figure 5 and Figure 6.

From this survey one hair sample was sent to Barbara Triggs for analysis.

Surveys for mammals, reptiles and frogs are generally run concurrently. Targeted searches were made for habitat of Long-nosed Bandicoots. Targeted surveys were made for the threatened species Powerful Owl *Ninox strenua* on the basis of known local species records or habitat availability (Appendix 3).

Dates, weather and temperatures of all fieldwork were recorded and are tabulated in Section 3.2 above.

3.3.1 Diurnal fauna searches

Searching and opportunistic observations provides an indication of types of species using a site. These methods are used to identify and record live animals, or record indirect evidence of animal presence on the site including Long-nosed bandicoot and Powerful Owl. This involved:

- a) Opportunistic observations and identification of calls of species, and search for indirect evidence such as nests, feathers, scratchings and feeding signs for birds.
- b) Searching for indirect evidence, such as diggings, droppings, runways and burrows, and opportunistic observations for mammals.
- c) Bandicoot diggings were mapped (see Figure 6).

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While rigorous surveys are likely to find more species, high species richness for birds can be recorded in a relatively short amount of time. Bird surveys are used as a simple indicator of other parameters, such as biodiversity and the functioning of the ecosystem.

3.3.2 Nocturnal fauna searches

Nocturnal fauna searches were undertaken by two people for a total of three man-hours on $18\,$ June 2014, by observing the interface between the mowed lawn area and denser vegetation with each person using $10\,$ x $50\,$ binoculars. In this scenario, light spill was bright enough to illuminate these areas negating the need for spotlighting.

Nocturnal searches may encompass all the surveying methods used during the day, but generally consist of either locating a live animal or recording its call. Nocturnal species, such as arboreal mammals and large forest owls are specifically targeted.

3.3.3 Trapping

Hair-tube trapping targets small mammals. Eleven hair tubes were placed at the interface of the mown lawn area where it meets denser vegetation (Figure 5), all with sesame oil bait at ground level. This resulted in a total of one trap night.

3.4 Species likely to occur

Species to be listed as 'likely to occur' or 'expected' (see Appendix 2), are common species generally found in the region, which are likely to occur on site if suitable habitat is present.

Expected species are common and, by definition, are not threatened species.

3.5 Limitations of the survey

This survey was conducted in the cool winter season.

The weather conditions were cold with clear weather for the duration of the survey. The temperature ranged from 11.8-18 $^{\circ}$ C and there was a slight breeze.

We were able to achieve the necessary fieldwork objectives in order to fulfil the brief. The conditions were suitable to see and hear Powerful Owl if it was present. Conditions were also suitable for Long-nosed Bandicoot as indicated by their diggings.

Species that may use the site were not detected during the survey for the following reasons:

 a) The species was present during the survey but was not detected due to dormancy, inactivity or cryptic habits.

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b) The species use the site at other times of the year, but was not present during the survey due to being nomadic or migratory.

4. Survey Results: Habitat

4.1 Site habitat descriptions

The site habitat is described below.

4.1.1 Planted native trees and shrubs

In the northeast corner of the site there is an area approximately 0.2ha in size that consists of several species of native trees and shrubs that have been planted in the past, including Eucalyptus, Acacia, Hakea and Lomandra. While these species are not likely to have been indigenous to the site, they provide valuable food resources for birds and other fauna in the region. The age of the trees is likely to be less than 30 years for most of them. There were no obvious large hollows in any of the trees located on the site and the age class would indicate it would be many years until significant hollows form; this can take in excess of 140 years.

4.1.2 Open playing fields

The largest portion of the site is cleared and managed as playing fields, comprising mown exotic grasses, which provide little to no habitat for fauna. Common Starling was observed across the open areas.

4.1.3 Riparian zone and river

The riparian zone is dominated by mangroves before the interface with the cleared playing areas. At this narrow interface Lantana Lantana camara and other weed species occur. The river in this area is tidal, moderate-high turbidity, with fish species such as Dusky Flathead Platycephalus fuscus and Yellowfin Bream Acanthopagrus australis likely to be common. Two species of duck were also observed using this habitat in high abundance, including Hardhead Aythya australis and Pacific Black Duck Anas superciliosa. Specific habitat features, rather than types, are listed below in Section 4.2.

4.2 Specific habitat features

Important habitat features that have significance for fauna occupation of the site are discussed below. These include both site disturbance and natural features.

There were no potential habitat trees observed on the site. There is generally a lack of fallen logs and dead wood/coarse woody debris.

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| Shelter/nesting/roosting sites and diversity | Habitat availability in the way of logs, leaf litter and coarse woody debris is limited. The mangrove forest and planted canopy trees provide suitable roosting habitat for birds, however no hollows were identified. |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Food resources | The native species planted on the site provide a range of food resources for different species. <i>Eucalyptus</i> and <i>Acacia</i> provide for nectivorous and blossom seeking species. The understorey provides shelter for invertebrate prey. During high tide the flooded pneumatophore root system of the mangrove forest is also likely to act as a feeding zone for fish, invertebrates and fish-eating birds. |
| Vegetation layers and density of cover | Where it exists, the mangrove forest dominates the canopy cover and restricts growth in areas below. The area of plantings is 0.2 ha in size and exhibits shrubs such as Lomandra and Hakea species as well as canopy species of Eucalypt. The remainder of the site consists of mown lawn. |
| Clearing | The site historically has been completely cleared except for some areas of mangrove which may not have experienced clearing. The current condition of the site is mostly cleared and managed lands surrounded by national park, residential, industrial and commercial buildings. |
| Fire damage and regrowth status | There is no evidence of recent fire. |
| Vehicle traffic and road mortality | Only a single access road is used infrequently for entry to the site's car park. Therefore, car speed is typically low and is unlikely to result in fauna mortality. |

4.3 Off-site habitat

Off site habitat consists of national park, residential, industrial and commercial buildings. The fringing national park occurs extensively southwest from the site providing habitat for a range of flora and fauna. There is the major watercourse of Lane Cover River, which flows from north to south adjacent to the site (east), and can be seen as a vegetation corridor with strong connectivity to areas of Lane Cove National Park north and south of the site. The vegetation in this riparian corridor, and indeed, much of its fringing vegetation appears to be generally intact.

5. Survey results: Fauna

5.1 Species of conservation concern

There were no threatened species observed on the day of the survey.

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5.2 Fauna results

A total of 19 species were detected, including mammals and birds. Species listed as 'likely to occur' in the area are presented in Appendix 2. Note that the majority of the 'Expected Species' would not occur on the site due to the lack of habitat, but do occur in the area. All the species listed as 'likely to occur' are common throughout the locality and the region. It is unlikely that protected species will be affected at a local, regional or state wide scale by the proposal.

The habitats for threatened species that occur in the area are tabulated in Appendix 3.

Table 2. List of fauna detected on the site

| Common Name | Scientific Name | Conservation Status | Recorded AE |
|--------------------------|--------------------------|------------------------|----------------|
| | Birds | | |
| Pacific Black Duck | Anas superciliosa | | 0 |
| Hardhead | Aythya australis | n = lo listi (Left | 0 |
| Sulphur-crested Cockatoo | Cacatua galerita | | OW |
| Rainbow Lorikeet | Trichoglossus haematodus | | W |
| Laughing Kookaburra | Dacelo novaeguineae | | 0 |
| Superb Fairy-wren | Malurus cyaneus | | 0 |
| Variegated Fairy Wren | Malurus lamberti | | 0 |
| Noisy Miner | Manorina melanocephala | | W |
| Magpie-lark | Grallina cyanoleuca | | 0 |
| Willie Wagtail | Rhipidura leucophrys | | 0 |
| Australian Magpie | Cracticus tibicen | | 0 |
| Pied Currawong | Strepera graculina | | W |
| Australian Raven | Corvus coronoides | | W |
| Welcome Swallow | Hirundo neoxena | | 0 |
| Common Starling* | Sturnus vulgaris | | 0 |

| Mammals | | |
|----------------------|------------------------|-----|
| Bush Rat | Rattus fuscipes | 0 |
| Black Rat | Rattus rattus | H-C |
| Long-nosed Bandicoot | Perameles nasuta | D |
| Dog* | Canis lupus familiaris | 0 |

Key

* = Introduced fauna

D = Diggings

H-C = Hair Tube - Confident O = Observed

O = Observe W = Calls

5.3 Fauna Summary

The number of species from each faunal group, listed as 'likely to occur' can be seen in Appendix 2.

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Mammals

There were four mammal species detected on the site. The site has limited available habitat for small mammals, which require large tree hollows for nesting or roosting. The mown lawn area dominating the site is a limiting factor for occupation of this site by small mammals, as the exposure to predators is high. Many mammals are nocturnal and cryptic in their habit, thus a more detailed survey effort may detect species, such as Common Brushtail Possum and insectivorous bats, which are likely to forage on and off the site.

Bandicoots foraging diggings were found within two to three metres of dense shrub cover(Figure 6).

Birds

Fifteen bird species were detected on the site, all of which occur commonly within the urban environment. This included species such as the Noisy Miner and Australian Magpie. These species are found in many urban environments. Species not recorded during the survey but likely to occur on the site include Common Myna and House Sparrow (Insight Ecology, 2011e).

6.5 Feral fauna

There was one feral fauna species identified on the day of the survey (Common Starling). Dogs also frequent the park with their owners, particularly after working hours. On the day and night of the site visit, dogs were observed off-leash. It is therefore possible that if they were able to locate bandicoots and other small mammals they could kill them. The proximity to residential dwellings and the built-up environment of the greater region would indicate that it is likely that cats may also visit the site. Another species that may potentially occur includes House Mouse.

6. Discussion of results

The site in its current form is used as a sporting field, which provides recreational areas for the Ryde community. Lane Cove National Park, Lane Cover River and residential, commercial and industrial establishments surround the sporting fields, with North Ryde RSL located approximately 250 m northwest of the site. There is a green corridor starting in Hunters Hill playing field, which is approximately 2.5 km south of the site, forming connectivity to the Lane Cove National Park found adjacent to this site and also north from the site.

The canopy vegetation on the site, other than the mangrove forest, is mostly planted Eucalyptus, and Acacia species, which have an understorey or shrub layer of selected native

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shrubs including Hakea and Lomandra. The planted trees appear to be of similar age class (<30 years).

While no large hollow-bearing trees for nesting or roosting were identified on the day of the survey, there is some habitat value for native fauna, such as canopy trees for birds. These flowering *Eucalyptus*, *Acacia* and *Hakea* species provide a high value food resource for numerous species, including threatened species known to forage in the region, such as Greyheaded Flying-fox and Little Lorikeet. Other fauna species identified in the area are commonly found in urban environments and thus will likely adjust to disturbance, including illumination changes, more readily than other more cryptic species would.

The proximity to residential dwellings means domestic animals frequent the site, indicating that the diversity of native fauna is likely to be low. The off-site habitat in the adjacent Lane Cove National Park appears to have a high diversity of native flora and fauna species. This forms a green corridor from the site to other areas of vegetation in the region including a more extensive area of Lane Cove National Park to the north. Indeed, Long-nosed bandicoots in this region have an extensive foraging area available if they prefer not to frequent the comparatively small area subject to light-spill. Bandicoot diggings extended at least to the playing field approximately 200 m northwest of the site. These attributes suggest that impacts on Long-nosed Bandicoot from the proposal are likely to be low.

Ecological services for the site e.g. bioturbators, pollinators, seed dispersers are present, but not functioning at full potential, which is partly due to management practices and subsequent changes in the structural ecosystem features, chiefly due to the existence of mown open areas. Functioning bioturbators are important as they act as a food source for Long-nosed Bandicoots.

7. Impact on flora and fauna

7.1 Long-term prospects with no development

The management of the sporting fields has subjected the ground to frequent mowing and measures for grass growing. Natural habitat for most native species has been removed. Those species that still occur have adapted to the present conditions.

7.2 Possible long-term condition with maintenance and removal of threats

The best possible solution for this site is to continue to operate as a managed ground. The conservation potential of the site is lower than that of other locations in the region, which have not undergone such dramatic changes to the soil profiles as well as the vegetation. The control of weed species would reduce the impact of invasive species on the natural bushland in the region, such as Lantana and Privet. However, weed species such as

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Lantana, which can act as prime Bandicoot habitat, needs to be considered before removal. This could also have follow-on effects in the food chain whereby Powerful Owl could be impacted due to a reduced food source.

7.3 Proposal and impact

7.3.1 Short-term impact

The proposal is to increase the number of nights on which the sports field lighting is used for competition games. The increased amount of time for field lighting use will be an additional four nights per winter season (April-September), no later than 9:30pm. This equates to 5.5% (10/180 nights) of nights where field lighting will be used; a total increase of 2.2%.

This will in the short term produce additional light into adjacent canopy trees and the surface of Lane Cover River for these periods. This may have an effect on roosting birds, Powerful Owl or Long-nosed Bandicoots in the locality, which may be unsettled for the short term. Nearby habitats that lack light spill will still be available to these species during field lighting use. Their use of adjacent habitats is supported by the fact that the Powerful Owl is a highly mobile species and Long-nosed Bandicoot diggings were present in the playing field approximately 200 m to the west.

Light spill onto the adjacent Lane Cover River is low, due primarily to distance from source and vegetation coverage (Figure 10). Additional light has been identified as beneficial for schools of fish in evading predation, whereby an individual can warn others of a predator before attack (Longcore and Rich, 2004). Decreasing day length which is often used as a migration cue for fish species such as Australian bass (Walsh et al., 2012) does have the potential to be disrupted by the on-site light spill. Similarly, invertebrate prawns, which act as a food source for fish have been shown to use lunar light as a motivator for movements and occupancy of certain habitats (Griffiths, 1999). There is the potential for disruption of their natural biorhythms with increased light spill and intensity. However, light spill from sources over river are likely to be greater than that produced on-site. Coupled with the high turbidity of this waterway, which lessens light spill through the water column, the effects on fish predation, migration, and food sources are likely to be negligible. Light spill originating from industrial and commercial buildings over river appears to create greater light spill on the river surface than the playing fields. It is predicted that this conclusion will not be significantly changed with the proposed increase in lighting duration.

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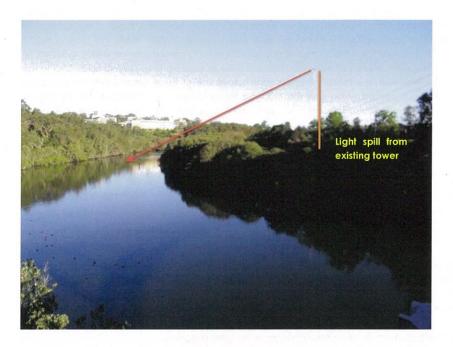


Figure 10 Restricted avenue of existing light spill (red arrow) on the Lane Cover River adjacent to Magdala Park, Ryde.

7.3.2 Long-term impact

The long-term impact will be additional light hours for the above mentioned periods, which may have an impact on the potential occupation of trees on the site by birds, including Powerful Owl* and migrating birds (e.g. Regent Honeyeater and Swift Parrot). A study in Yarra (VIC) found that light pollution actually reduced the advantage owls had in hunting rodents. This was because owls have better night vision than rodents, and can therefore hunt more efficiently in dim conditions (Clark, 2003). Birds can also be disorientated and entrapped by lights at night, increasing predation and disrupting natural biorhythms. Nocturnally migrating birds are therefore affected when meteorological conditions bring them close to lights, for instance, during inclement weather or late at night when they tend to fly lower (Rich and Longcore 2006). However, use of the lights from six nights per year to ten nights per year is unlikely to significantly alter Powerful Owl or migratory bird use of the site over the long-term.

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Long-nosed Bandicoots use of the site also has the potential to be impacted over the long-term. Artificial light, even as weak as the moon's intensity, has been shown to reduce activity and food consumption by mammals (Rich and Longcore 2006). While the playing field is affected by light spill it is likely that use by Bandicoots and other mammals will be reduced. In such situations, the use of adjacent habitat is likely to increase (e.g. playing field 200m to the west). However, it is highly probable that normal use of these areas would resume once lighting has ceased, even with the proposal for increased use. Therefore, the ecological impact on Long-nosed Bandicoots and other mammals from the proposal is likely to negligible.

Light spill onto the adjacent Lane Cover River is low, due primarily to distance from source and vegetation coverage (Figure 10). Coupled with the high turbidity of this waterway, which lessens light spill through the water column, the effects on fish predation, migration, and food sources are likely to be negligible in the long-term. Light spill originating from industrial and commercial buildings over river appears to create greater light spill on the river surface than the site itself. It is predicted that this will not be significantly changed with the proposed increase in lighting duration.

Foxes have been shown to be more likely to walk within the vicinity of illuminated dams than near unlit ones (Rich and Longcore 2006). However, both foxes and rabbits are reported to be more active during nocturnal periods (DPI 2014). No rabbit signs were observed (i.e. scats, burrows) and this indicates that they are unlikely to be present in any significant numbers on site. Due to the infrequent use of the field lights, both these species are unlikely to be advantaged with the proposed change to the lighting regime.

Fauna impacts from car lights are unlikely to significantly affect birds (e.g. Powerful Owl), mammals (e.g. Long-nosed Bandicoot) or fish. Vehicle use of the car park is likely to be at its peak when the field lighting is being used; therefore car headlight impact compared to this stronger light source is likely to be negligible. In addition, most signs (i.e. diggings) of Longnosed bandicoot were in areas behind embankments beyond the reach of car headlights.

Fauna impacts from any additional spectator noise is unlikely to affect fauna use of the site. There is ambient noise emanating from industry on the opposite side of Lane Cover River, and more importantly this area appears to be a significant flight path for low-flying aircraft. The noise pollution from these sources is likely to be greater and more consistent than periodic spectator noise. Abel Ecology has also completed work at Avalon, NSW (Wotherspoon pers. obs.) whereby it was determined that Long-nosed Bandicoots used a site despite an active human presence and a noisy urban environment.

*Mr David Bain was contacted by Abel Ecology as a liaison to determine potential impacts on Powerful Owl from the proposed development. We did not receive a reply from Mr Bain so his views were not included in this assessment.

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7.4 Measures to ameliorate impact

The increased frequency of lighting will create minor disruption to the natural life cycles of the species occurring in the locality. Installation shielding to direct the light onto the sports field and thus reduce the risk of stray lighting will help minimise the impact to the surrounding natural areas. Curfew switches will be installed to limit lighting to approved times.

7.5 Measures to enhance habitat

The structural habitat of the site is not consistent with a natural area. The use of tall growing trees (e.g. Swamp Mahogany) and shrubs would provide screening from light that may interrupt the natural routines of species occupying the site. Plantings would be most desirable as a narrow extension to the south of the 0.2ha planting adjacent to field 2. Any plantings need to consider long-term maintenance of this area for facility/field use in accordance with the regulations of Transgrid (Transgrid, 2011-2016).

7.6 Impact on floral and faunal species, populations and communities

7.6.1 Seven-part test summary

Habitat requirements for locally occurring threatened faunal species, and the presence or absence of such habitat on the site, is tabulated in Appendix 3.

Under Section 5A of the EP&A Act several factors (listed in Appendix 1) need to be considered in deciding whether there is likely to be a Significant effect on threatened species, populations or ecological communities, or their habitats (Table 3). If there is likely to be a significant effect on threatened species, etc., a Species Impact Statement is recommended.

Table 3. Summary of the seven-part test shown in full in Appendix 1

| Species/Communities | Recorded on site | C'wealth listing EPBC Act '99 | State listing TSC Act '95 | Result |
|-------------------------------------------------|------------------|-------------------------------------|---------------------------------|--------------------------|
| Threatened Owl Powerful Owl Ninox strenua | No | | Sch 2, Vul. | No significant effect |

A Species Impact Statement is not required.

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Recommendations

The following recommendations are not mandatory but would if implemented increase the efficiency of existing lighting and reduce light spill to adjoining areas:

- a) Install shielding to reduce the impact of stray light on the surrounding areas.
- Ensure spill lighting from the floodlight lamps complies with the relevant Australian Standards.
- c) Ensure use of a timer to allow floodlighting to be controlled effectively so that lights are not illuminated un-necessarily.
- d) Plantings (e.g. Swamp Mahogany) as a narrow extension to the south of the 0.2ha planting adjacent to field 2. Any plantings need to consider long-term maintenance of this area for facility/field use and the regulations of revegetation within the vicinity of power lines.

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Appendix 1. Seven-part tests

While the overall proposal incorporates mitigating considerations and offsets, these are not taken into account in determining the outcome of the seven-part tests.

Scientific name: Ninox strenua

Conservation status in NSW: <u>Vulnerable</u>
Commonwealth status: <u>Not listed</u>
Profile last updated: 24 Feb 2014

Description

The Powerful Owl is the largest owl in Australasia. It is a typical hawk-owl, with large yellow eyes and no facial-disc. Adults reach 60 cm in length, have a wingspan of up to 140 cm and weigh up to 1.45 kilograms. Males are larger than females. The upper parts of the Powerful Owl are dark, greyish-brown with indistinct off-white bars. The underparts are whitish with dark greyish-brown V-shaped markings. Juvenile Powerful Owls have a white crown and underparts that contrasts with its small, dark streaks and dark eye patches. The call of this species may be heard at any time of the year, but it is more vocal during the autumn breeding season. It has a slow, deep and resonant double hoot, with the female's being higher pitched and expressing an upward inflection on the second note.

Distribution

The Powerful Owl is endemic to eastern and southeast Australia, mainly on the coastal side of the Great Dividing Range from Mackay to southwest Victoria. In NSW, it is widely distributed throughout the eastern forests from the coast inland to tablelands, with scattered records on the western slopes and plains suggesting occupancy prior to land clearing. Now at low densities throughout most of it's eastern range, rare along the Murray River and former inland populations may never recover.

Habitat and ecology

- The Powerful Owl inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest.
- The Powerful Owl requires large tracts of forest or woodland habitat but can occur in fragmented landscapes as well. The species breeds and hunts in open or closed sclerophyll forest or woodlands and occasionally hunts in open habitats. It roosts by day in dense vegetation comprising species such as Turpentine Syncarpia glomulifera, Black She-oak Allocasuarina littoralis, Blackwood Acacia melanoxylon, Rough-barked Apple Angophora floribunda, Cherry Ballart Exocarpus cupressiformis and a number of eucalypt species.
- The main prey items are medium-sized arboreal marsupials, particularly the Greater Glider, Common Ringtail Possum and Sugar Glider. There may be marked regional differences in the prey taken by Powerful Owls. For example in southern NSW, Ringtail Possum make up the bulk of prey in the lowland or coastal habitat. At higher

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elevations, such as the tableland forests, the Greater Glider may constitute almost all of the prey for a pair of Powerful Owls. Flying foxes are important prey in some areas; birds comprise about 10-50% of the diet depending on the availability of preferred mammals. As most prey species require hollows and a shrub layer, these are important habitat components for the owl.

- Pairs of Powerful Owls demonstrate high fidelity to a large territory, the size of which
 varies with habitat quality and thus prey densities. In good habitats a mere 400 can
 support a pair; where hollow trees and prey have been depleted the owls need up to
 4000 ha.
- Powerful Owls nest in large tree hollows (at least 0.5 m deep), in large eucalypts (diameter at breast height of 80-240 cm) that are at least 150 years old. While the female and young are in the nest hollow the male Powerful Owl roosts nearby (10-200 m) guarding them, often choosing a dense "grove" of trees that provide concealment from other birds that harass him.
- Powerful Owls are monogamous and mate for life. Nesting occurs from late autumn to mid-winter, but is slightly earlier in northeast NSW (late summer - mid autumn).
 Clutches consist of two dull white eggs and incubation lasts approximately 38 days.

Source:

http://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10562

Powerful Owl Ninox strenua

 a. in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction,

No. Powerful Owl inhabits a range of vegetation types, from woodland and open sclerophyll forest to tall open wet forest and rainforest. It requires large tracts of habitat but can occur in fragmented landscapes, where it hunts in open or closed sclerophyll forests or woodlands and occasionally in open habitats. It roosts by day in dense vegetation comprising species such as Turpentine Syncarpia glomulifera, Black She-oak Allocasuarina littoralis, Blackwood Acacia melanoxylon, Rough-barked Apple Angophora floribunda, Cherry Balart Exocarpos cupressiformis and a number of eucalypt species.

There is potential for the proposal to have some effect on the prey behaviour of Powerful Owl. For instance, when the lights are on it could affect prey species such as possums and their use of lit areas. However, nearby appropriate habitat is plentiful for this species, meaning that the rare use of field lighting is unlikely to have an adverse affect on their life cycle or place them at risk of extinction.

The proposal will not require the removal of habitat for this species. However, it will extend the nights exposed to field lighting from six to ten times per year. There are no large hollows on site to provide potential nesting sites for this species. However, there is suitable breeding habitat for this species in the adjacent Lane Cove National Park. Thus due to the high

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mobility of this species it is likely that individuals that occur in the locality may forage both on and off site. Therefore it is unlikely that the increased lighting regime will have an adverse effect on the life cycles of this species such that any local population would be placed at risk of extinction.

 in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction,

Not applicable. This test is for a threatened species.

- in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed;
 - is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or

Not applicable. This test is for a threatened species.

ii. is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction

Not applicable. This test is for a threatened species.

- d. in relation to the habitat of a threatened species, population or ecological community:
 - the extent to which habitat is likely to be removed or modified as a result of the action proposed, and

There will be no habitat removed for the extension of the lighting regime. The area to be exposed to extra lighting for a maximum 10 nights per year could be considered potential foraging habitat. However, Powerful Owls have an extensive home range and are therefore likely to forage in other areas of the region. The rare use of field lighting proposed is therefore unlikely to result in a significant effect on the habitat used by Powerful Owl.

 ii. whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and

No. The habitat of this species will remain unchanged in structural composition and will not become fragmented or isolated from other areas of habitat in the region. The proposed addition of lighting and duration will not affect this status.

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iii. the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

Negligible. There is no habitat to be removed for the proposal. However, there will be a modification from six nights per year to ten nights per year in the light exposure due to artificial lighting. The extended lighting regime is highly unlikely to have an adverse effect on the long-term survival of this species.

 e. whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly),

No. Critical habitat has not been declared for this species.

 whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan,

Yes. A recovery plan exists for Large Forest Owls, which includes Powerful Owl. The structural habitat for prey will remain unchanged, and while some possums, if they exist near the site, may move further afield, they will likely return after lighting has ceased. In addition, Powerful Owls are a territorial species, therefore they may move temporarily further afield but will ultimately return to the affected part of their established territory when field lighting has ceased.

g. whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

No. The proposed extended lighting regime is not a key threatening process for this species. Key threatening processes are listed under the TSC Act, 1995

Conclusion

The proposed activity is unlikely to have a significant effect on Powerful Owl. Therefore a Species Impact Statement is not recommended.

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Appendix 2. Expected fauna species in the Sydney Basin

Mammals

| Common name | Scientific name |
|----------------------------|--------------------------|
| White-striped Freetail-bat | Tadarida australis |
| Gould's Wattled Bat | Chalinolobus gouldii |
| Chocolate Wattled Bat | Chalinolobus morio |
| Lesser Long-eared Bat | Nyctophilus geoffroyi |
| Gould's Long-eared Bat | Nyctophilus gouldi |
| Bush Rat | Rattus fuscipes |
| Swamp Rat | Rattus lutreolus |
| Long-nosed Bandicoot | Perameles nasuta |
| Brown Antechinus | Antechinus stuartii |
| Dusky Antechinus | Antechinus swainsonii |
| Yellow-footed Antechinus | Antechinus flavipes |
| Common Wombat | Vombatus ursinus |
| Common Ringtail Possum | Pseudocheirus peregrinus |
| Sugar Glider | Petaurus breviceps |
| Feathertail Glider | Acrobates pygmaeus |
| Eastern Grey Kangaroo | Macropus giganteus |
| Large Forest Bat | Vespadelus darlingtoni |
| Little Forest Bat | Vespadelus vulturnus |
| Common Wallaroo | Macropus robustus |
| Red-necked Wallaby | Macropus rufogriseus |
| Swamp Wallaby | Wallabia bicolor |
| Common Brushtail Possum | Trichosurus vulpecula |
| Greater Glider | Petauroides volans |
| Short-beaked Echidna | Tachyglossus aculeatus |
| Fox | Vulpes vulpes |
| Black Rat | Rattus rattus |
| Rabbit | Oryctolagus cuniculus |

Frogs

| Common Name | Scientific Name |
|--------------------------|----------------------------|
| Green Tree Frog | Litoria caerulea |
| Blue Mountains Tree Frog | Litoria citropa |
| Bleating Tree Frog | Litoria dentata |
| Eastern Dwarf Tree Frog | Litoria fallax |
| Jervis Bay Tree Frog | Litoria jervisiensis |
| Broad-palmed Frog | Litoria latopalmata |
| Peron's Tree Frog | Litoria peronii |
| Leaf-green Tree Frog | Litoria phyllochroa |
| Tyler's Tree Frog | Litoria tyleri |
| Verreaux's Frog | Litoria verreauxii |
| Common Eastern Froglet | Crinia signifera |
| Eastern Banjo Frog | Limnodynastes dumerilii |
| Ornate Burrowing Frog | Limnodynastes ornatus |
| Brown-striped Frog | Limnodynastes peronii |
| Spotted Grass Frog | Limnodynastes tasmaniensis |
| Haswell's Froglet | Paracrinia haswelli |
| Smooth Toadlet | Uperoleia laevigata |
| Tyler's Toadlet | Uperoleia tyleri |

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Reptiles

| Common Name | Scientific Name |
|------------------------------|---------------------------|
| Diamond Python | Morelia spilota spilota |
| Common Death Adder | Acanthophis antarcticus |
| Yellow-faced Whip Snake | Demansia psammophis |
| Common Tree Snake | Dendrelaphis punctulatus |
| Golden-crowned Snake | Cacophis squamulosus |
| Eastern Small-eyed Snake | Cryptophis nigrescens |
| Red-naped Snake | Furina diadema |
| Black-bellied Swamp Snake | Hemiaspis signata |
| Tiger Snake | Notechis scutatus |
| Red-bellied Black Snake | Pseudechis porphyriacus |
| Eastern Brown Snake | Pseudonaja textilis |
| Dwyer's Snake | Parasuta dwyeri |
| Bandy Bandy | Vermicella annulata |
| Blackish Blind Snake | Ramphotyphlops nigrescens |
| Wood Gecko | Diplodactylus vittatus |
| Lesueur's Velvet Gecko | Oedura lesueurii |
| Broad-tailed Gecko | Phyllurus platurus |
| Thick-tailed Gecko | Underwoodisaurus milii |
| Burton's Snake-lizard | Lialis burtonis |
| Common Scaly-foot | Pygopus lepidopodus |
| Jacky Lizard | Amphibolurus muricatus |
| Bearded Dragon | Pogona barbata |
| Punctate Worm-skink | Anomalopus swansoni |
| Eastern Blue-tongue | Tiliqua scincoides |
| Southern Rainbow-skink | Carlia tetradactyla |
| Cream-striped Shinning-skink | Cryptoblepharus virgatus |
| Robust Ctenotus | Ctenotus robustus |
| Copper-tailed Skink | Ctenotus taeniolatus |
| Mainland She-oak Skink | Cyclodomorphus michaeli |
| Pink-tongued Skink | Cyclodomorphus gerrardii |
| Cunningham's Skink | Egernia cunninghami |
| Black Rock Skink | Egernia saxatilis |
| White's Skink | Liopholis whitii |
| Eastern Water-skink | Eulamprus quoyii |
| Barred-sided Skink | Eulamprus tenuis |
| Dark-flecked Garden Sunskink | Lampropholis delicata |
| Pale-flecked Garden Sunskink | Lampropholis guichenoti |
| Weasel Skink | Saproscincus mustelinus |
| Red-throated Skink | Acritoscincus platynota |
| Three-toed Skink | Saiphos equalis |
| Lace Monitor | Varanus varius |
| Eastern Snake-necked Turtle | Chelodina longicollis |

Birds

| Common Name | Scientific Name | | |
|----------------------|----------------------|--|--|
| Brown Quail | Coturnix ypsilophora | | |
| Black Swan | Cygnus atratus | | |
| Australian Wood Duck | Chenonetta jubata | | |
| Mallard | Anas platyrhynchos | | |
| Pacific Black Duck | Anas superciliosa | | |
| Grey Teal | Anas gracilis | | |
| Chestnut Teal | Anas castanea | | |
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| Common Name | Scientific Name | |
|----------------------------------------------------|------------------------------------------------|--|
| Australasian Grebe | Tachybaptus novaehollandiae | |
| Great Crested Grebe | Podiceps cristatus | |
| Hoary-headed Grebe | Poliocephalus poliocephalus | |
| Little Pied Cormorant | Microcarbo melanoleucos | |
| Little Black Cormorant | Phalacrocorax sulcirostris | |
| | | |
| Great Cormorant | Phalacrocorax carbo | |
| Australian Pelican | Pelecanus conspicillatus | |
| White-faced Heron | Egretta novaehollandiae | |
| Little Egret | Egretta garzetta | |
| White-necked Heron | Ardea pacifica | |
| Great Egret | Ardea alba | |
| Cattle Egret | Ardea ibis | |
| ntermediate Egret | Ardea intermedia | |
| Australian White Ibis | Threskiornis molucca | |
| itraw-necked Ibis | Threskiornis spinicollis | |
| Royal Spoonbill | Platalea regia | |
| Black-shouldered Kite | Elanus axillaris | |
| | | |
| Whistling Kite | Haliastur sphenurus | |
| Wedge-tailed Eagle | Aquila audax | |
| White-bellied Sea-eagle | Haliaeetus leucogaster | |
| Swamp Harrier | Circus approximans | |
| Brown Goshawk | Accipiter fasciatus | |
| Collared Sparrowhawk | Accipiter cirrocephalus | |
| Brown Falcon | Falco berigora | |
| Australian Hobby | Falco longipennis | |
| Vankeen Kestrel | Falco cenchroides | |
| Buff-banded Rail | Gallirallus philippensis | |
| Purple Swamphen | Porphyrio porphyrio | |
| Dusky Moorhen | Gallinula tenebrosa | |
| Eurasian Coot | Fulica atra | |
| | | |
| Latham's Snipe | Gallinago hardwickii | |
| Black-winged Stilt | Himantopus himantopus | |
| Black-fronted Dotterel | Elseyornis melanops | |
| Masked Lapwing | Vanellus miles | |
| Silver Gull | Chroicocephalus novaehollandiae | |
| Rock Dove | Columba livia | |
| White-headed Pigeon | Columba leucomela | |
| Spotted Turtle-dove | Streptopelia chinensis | |
| Brown Cuckoo-dove | Macropygia amboinensis | |
| Emerald Dove | Chalcophaps indica | |
| Common Bronzewing | Phaps chalcoptera | |
| Crested Pigeon | Ocyphaps lophotes | |
| Bar-shouldered Dove | Geopelia humeralis | |
| | | |
| Wonga Pigeon | Leucosarcia picata | |
| opknot Pigeon | Lopholaimus antarcticus | |
| rellow-tailed Black-cockatoo | Calyptorhynchus funereus | |
| Galah | Eolophus roseicapilla | |
| ittle Corella | Cacatua sanguinea | |
| Sulphur-crested Cockatoo | Cacatua galerita | |
| Rainbow Lorikeet | Trichoglossus haematodus | |
| Scaly-breasted Lorikeet | Trichoglossus chlorolepidotus | |
| Australian King-parrot | Alisterus scapularis | |
| Crimson Rosella | Platycercus elegans | |
| Eastern Rosella | Platycercus eximius | |
| Fan-tailed Cuckoo | Cacomantis flabelliformis | |
| | | |
| Horsfield's Bronze-cuckoo Channel-billed Cuckoo | Chalcites basalis Scythrops novaehollandiae | |
| | | |

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| Common Name | Scientific Name |
|-----------------------------|-----------------------------------------|
| Asian Koel | Eudynamys scolopaceus |
| Southern Boobook | Ninox novaeseelandiae |
| Barn Owl | Tyto alba |
| Tawny Frogmouth | Podargus strigoides |
| White-throated Nightjar | Eurostopodus mystacalis |
| Australian Owlet-nightjar | Aegotheles cristatus |
| White-throated Needletail | Hirundapus caudacutus |
| aughing Kookaburra | Dacelo novaeguineae |
| Sacred Kingfisher | Todiramphus sanctus |
| Rainbow Bee-eater | Merops ornatus |
| Dollarbird | Eurystomus orientalis |
| Superb Lyrebird | Menura novaehollandiae |
| atin Bowerbird | Ptilonorhynchus violaceus |
| | [18] [18] [18] [18] [18] [18] [18] [18] |
| Superb Fairy-wren | Malurus cyaneus |
| /ariegated Fairy-wren | Malurus lamberti |
| Spotted Pardalote | Pardalotus punctatus |
| White-browed Scrubwren | Sericornis frontalis |
| arge-billed Scrubwren | Sericornis magnirostra |
| Brown Gerygone | Gerygone mouki |
| White-throated Gerygone | Gerygone albogularis |
| White-throated Treecreeper | Cormobates leucophaea |
| Brown Thornbill | Acanthiza pusilla |
| 'ellow-rumped Thornbill | Acanthiza chrysorrhoa |
| 'ellow Thornbill | Acanthiza nana |
| triated Thornbill | Acanthiza lineata |
| led Wattlebird | Anthochaera carunculata |
| ittle Wattlebird | Anthochaera chrysoptera |
| Noisy Friarbird | Philemon corniculatus |
| Bell Miner | Manorina melanophrys |
| Noisy Miner | Manorina melanocephala |
| ewin's Honeyeater | Meliphaga lewinii |
| rellow-faced Honeyeater | Lichenostomus chrysops |
| White-plumed Honeyeater | Lichenostomus penicillatus |
| Brown-headed Honeyeater | Melithreptus brevirostris |
| White-naped Honeyeater | Melithreptus Iunatus |
| New Holland Honeyeater | Phylidonyris novaehollandiae |
| Eastern Spinebill | Acanthorhynchus tenuirostris |
| carlet Honeyeater | Myzomela sanguinolenta |
| Jacky Winter | Microeca fascinans |
| Rose Robin | Petroica rosea |
| Eastern Yellow Robin | Eopsaltria australis |
| astern Whipbird | Psophodes olivaceus |
| | |
| Crested Shrike-tit | Falcunculus frontatus |
| Golden Whistler | Pachycephala pectoralis |
| Rufous Whistler | Pachycephala rufiventris |
| Grey Shrike-thrush | Colluricincla harmonica |
| llack-faced Monarch | Monarcha melanopsis |
| eaden Flycatcher | Myiagra rubecula |
| estless Flycatcher | Myiagra inquieta |
| Magpie-lark | Grallina cyanoleuca |
| Pufous Fantail | Rhipidura rufifrons |
| lew Zealand Fantail | Rhipidura fuliginosa |
| Villie Wagtail | Rhipidura leucophrys |
| pangled Drongo | Dicrurus bracteatus |
| slack-faced Cuckoo-shrike | Coracina novaehollandiae |
| White-bellied Cuckoo-shrike | Coracina papuensis |
| | |

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| Common Name | Scientific Name |
|-------------------------|--------------------------------|
| Dusky Woodswallow | Artamus cyanopterus |
| Grey Butcherbird | Cracticus torquatus |
| Australian Magpie | Cracticus tibicen |
| Pied Currawong | Strepera graculina |
| Australian Raven | Corvus coronoides |
| White-winged Chough | Corcorax melanorhamphos |
| Apostlebird | Struthidea cinerea |
| Eurasian Skylark | Alauda arvensis |
| Australasian Pipit | Anthus novaeseelandiae rogersi |
| House Sparrow | Passer domesticus |
| Red-browed Finch | Neochmia temporalis |
| Double-barred Finch | Taeniopygia bichenovii |
| Mistletoebird | Dicaeum hirundinaceum |
| Welcome Swallow | Hirundo neoxena |
| Tree Martin | Petrochelidon nigricans |
| Fairy Martin | Petrochelidon ariel |
| Cicadabird | Coracina tenuirostris |
| Red-whiskered Bulbul | Pycnonotus jocosus |
| Australian Reed-warbler | Acrocephalus australis |
| Little Grassbird | Megalurus gramineus |
| Golden-headed Cisticola | Cisticola exilis |
| Silvereye . | Zosterops lateralis |
| Eurasian Blackbird | Turdus merula |
| Common Starling | Sturnus vulgaris |
| Common Myna | Sturnus tristis |

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Appendix 3. Habitat requirements for locally-occurring threatened fauna species

Birds

| Common Name Scientific Name Schedule Listing | Preferred Habitat | Comments |
|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Australasian Bittern Botaurus poiciloptilus TSC Act, Sch. 2, Vul. | Inhabits wetlands that generally have permanent fresh water and dense vegetation of sedges, rushes and reeds. | Recorded in the local area but not observed by Insight Ecology or Abel Ecology. |
| Regent Honeyeater Xanthomyza phrygia TSC Act, Sch. 1, Endangered. | Occurs in temperate Eucalypt woodlands and open forests. Has a particular liking for Box and Ironbark Eucalypts as well as Swamp Mahogany and Spotted Gum. | No local records, no winter flowering trees. |
| Swift Parrot Lathamus discolor TSC Act, Sch. 2, Vul. EPBC Act, End. | Occurs in a variety of Eucalypt forests. Migrates from Tasmania to the mainland during the winter/autumn months to feed mostly on winter flowering Eucalypts | No local records, no winter flowering trees. |
| Powerful Owl Ninox strenua TSC Act, Sch. 2, Vul. | Pairs occupy permanent territories in mountain forests, gullies and forest margins, sparser hilly woodlands, coastal forests, woodlands and scrubs. | Recorded in the surrounding area but not observed by InSight Ecology or Abel Ecology. |

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Appendix 4. Company Profile

Abel Ecology has been in the flora and fauna consulting business since 1991, starting in the Sydney Region, and progressively more state wide in New South Wales since 1998, and now also in Victoria. During this time extensive expertise has been gained with regard to Master Planning, Environmental Impact assessments including flora and fauna, bushfire reports, Vegetation Management Plans, Management of threatened species, Review of Environmental Factors, Species Impact Statements and as Expert Witness in the Land and Environment Court. We have done consultancy work for industrial and commercial developments, golf courses, civil engineering projects, tourist developments as well as residential and rural projects. This process has also generated many connections with relevant government departments and city councils in NSW. Our team consists of four scientists and two administrative staff, plus casual assistants as required.

Licences

NPWS s132C Scientific licence number is SL100780 expires 30 April 2015 NPWS GIS data licence number is CON95034 DG NSW Dept of Primary Industries Animal Care and Ethics Committee Approval expires 8 December 2015

DG NSW Dept of Primary Industries Animal Research Authority expires 8 December 2014

The Consultancy Team

Dr Danny Wotherspoon

Grad Dip Bushfire Protection (University of Western Sydney 2012)
PhD, researching Cumberland Plain vegetation and fauna habitat, University of Western Sydney, 2008)
Planning for Bushfire Protection Certificate course (University of Technology, 2006)
Consulting Planners Bushfire Training Course (Planning Institute of Australia, 2003)
MA (Macquarie University, 1991)
Herpetological Techniques Certificate (Sydney Technical College, 1986)
Applied Herpetology Certificate (Sydney Technical College, 1980)
Dip Ed (University of New England, 1978)
BSC (University of New England - Triple Majors in Zoology, incl. Ecological Zoology, 1974)

Dr Daniel McDonald

PhD (The University of Sydney 2006) M. Agr (The University of Sydney 1996) B. Ag Sc. (The University of Sydney 1991)

Alan Midgley

PhD candidate (University of Western Sydney 2014)
B. Sc. (Hons) (University of Western Sydney 2010)
B Env. Man & Sc. (University of Western Sydney 2009)
Dip. Conservation & Land Man. (Ryde TAFE 2006)

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ATTACHMENT 4



Your reference: Our reference: LDA2005/116 (MOD2014/6)

DOC14/136665

Chris Young Team Leader Assessment City of Ryde Council Locked Bag 2069 NORTH RYDE NSW 1670

Dear Mr/Ms Young

I refer to your letter received by the Office of Environment and Heritage (OEH) on 21 July 2014 regarding a Flora and Fauna Assessment Report by Abel Ecology for the Proposed Sports Field Lighting at 73 Magdala Road, North Ryde.

Thank you for providing this report to OEH for comment. I can advise that OEH has reviewed the report and finds it satisfactory. OEH supports the recommendations made in this report, namely:

- Installation of shield lighting to reduce the impact of stray light on the surrounding areas;
- Ensure spill lighting from the floodlight lamps complies with the relevant Australian Standards;
- Ensure the use of a timer to allow floodlighting to be controlled effectively so that lights are not illuminated un-necessarily; and
- Plantings (e.g. Swamp Mahogany) as a narrow extension to the south of the 0.2ha planting adjacent to field 2.

Subject to Council adopting these recommendations OEH does not raise any further issues in regard to the proposed additional night time lighting for an additional four nights in winter.

If you have any queries regarding this matter please contact Rachel Lonie, Senior Regional Operations Officer, on 9995 6837.

Yours sincerely

S. Hannoan 01/03/14
SUSAN HARRISON

Senior Team Leader Planning Greater Sydney Region

Regional Operations Branch

RECEIVED City of Ryde Records Management Services

6 AUG 2014

Doc No: LDA2005/116/005/2

PO Box 644 Parramatta NSW 2124 Level 6, 10 Valentine Avenue Parramatta NSW 2150 Tel: (02) 9995 5000 Fax: (02) 9995 6900 ABN 30 841 387 271 www.environment.nsw.gov.au



ATTACHMENT 5

Magdala park

Installation : Field lighting

Project number : 287

Customer : Ryde Council

Processed by : GR

Date : 04.09.2012

Project description: 200 lux for match field 1 100 lux for training field 2 No baseball

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

Gary Roberts & Associates Pty Ltd

Magdala.rdf Page 1/26



ATTACHMENT 5

Object Installation Project number : Magdala park : Field lighting : 287 : 04.09.2012 Date

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Object Installation Project number : Magdala park: Field lighting: 287 : 04.09.2012 Date

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ATTACHMENT 5

Magdala park Installation Field lighting Project number : 287 : 04.09.2012 Date

Luminaire data

Philips, MVP507 MB/60 () 1.1

1.1.1 Data sheet

Manufacturer: Philips

MVP507 MB/60

Luminaire data

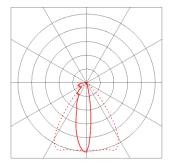
Luminaire efficiency : 79.1% Luminaire efficacy : 82.87 lm/W

Classification : A10 ↓98.1% ↑1.9% CIE Flux Codes 77 89 95 98 79

Control gear

2100 W

System power Length Width 475 mm 475 mm Height 1 mm



Equipped with

Quantity Designation

Colour

Luminous flux 220000 lm



ATTACHMENT 5

Magdala park Installation Field lighting Project number : 287 : 04.09.2012 Date

Luminaire data

1.2 Philips, MVP507 NB/60 ()

1.2.1 Data sheet

Manufacturer: Philips

MVP507 NB/60

Luminaire data

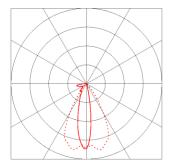
Luminaire efficiency : 78.9% Luminaire efficacy : 82.66 lm/W

Classification : A10 ↓98.3% ↑1.7% 78 89 96 98 79

CIE Flux Codes Control gear

2100 W

System power Length Width 475 mm 475 mm Height 1 mm



Equipped with

Quantity Designation

Colour

Luminous flux 220000 lm



ATTACHMENT 5

Magdala park Installation Field lighting Project number : 287 : 04.09.2012 Date

Luminaire data

Philips, MVP507 WB/60 () 1.3

1.3.1 Data sheet

Manufacturer: Philips

MVP507 WB/60

Luminaire data

Luminaire efficiency : 80.2% Luminaire efficacy : 84.02 lm/W

Classification : A10 ↓98.2% ↑1.8% 66 85 94 98 80

CIE Flux Codes Control gear

2100 W

System power Length Width 475 mm 475 mm Height 1 mm

Equipped with

Quantity Designation

Colour

Luminous flux 220000 lm



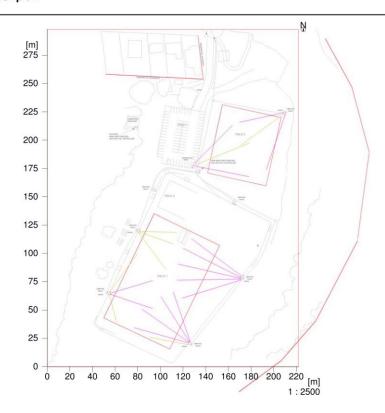
ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2 200 lux field 1 no baseball

2.1 Description, 200 lux field 1 no baseball

2.1.1 Floor plan





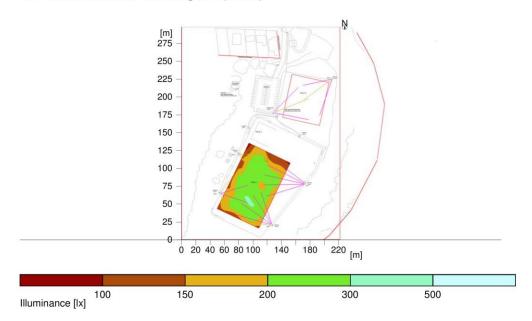
ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2 200 lux field 1 no baseball

2.2 Summary, 200 lux field 1 no baseball

2.2.1 Result overview, Measuring area (virtual) 3



General

Calculation algorithm used Height of evaluation surface

Height of evaluation surface photometric centre height. [m]: Maintenance factor

Total luminous flux of all lamps Total power Total power per area (66043.68 m²) Average indirect fraction

0.00 m 27.00 m 0.80

5060000 lm 48300 W 0.73 W/m²

Illuminance

 Average illuminance
 Eav
 206 lx

 Minimum illuminance
 Emin
 86 lx

 Maximum illuminance
 Emax
 309 lx

 Uniformity g1
 Emin/Em
 1:2.41 (0.41)

 Uniformity g2
 Emin/Emax
 1:3.61 (0.28)

Type No.\Make

Philips
8 Order No.
Luminaire name

Luminaire name : MVP507 MB/60

Equipment : 1 x MHN-LA2000W/400V/842 / 220000 lm

15 Order No. Luminaire name

Luminaire name : MVP507 NB/60

Equipment : 1 x MHN-LA2000W/400V/842 / 220000 lm

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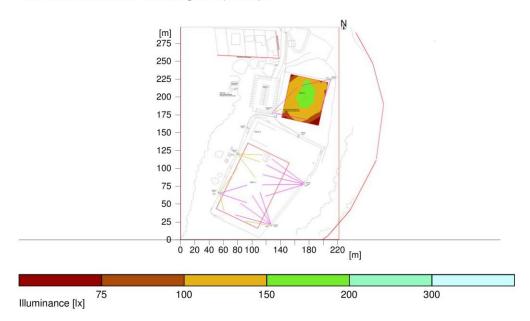


ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.2 Summary, 200 lux field 1 no baseball

2.2.2 Result overview, Measuring area (virtual) 5



General

Calculation algorithm used Height of evaluation surface

Height of evaluation surface photometric centre height. [m]: Maintenance factor

Total luminous flux of all lamps Total power Total power per area (66043.68 m²) Average indirect fraction

0.00 m 27.00 m 0.80

5060000 lm 48300 W 0.73 W/m²

Illuminance

 Average illuminance
 Eav
 128 lx

 Minimum illuminance
 Emin
 44 lx

 Maximum illuminance
 Emax
 181 lx

 Uniformity g1
 Emin/Em
 1:2.89 (0.35)

 Uniformity g2
 Emin/Emax
 1:4.09 (0.24)

Type No.\Make

1 8 Orde

Philips Order No. Luminaire name

e : MVP507 MB/60

Equipment : 1 x MHN-LA2000W/400V/842 / 220000 lm

2 15

Order No.

Luminaire name : MVP507 NB/60

Equipment : 1 x MHN-LA2000W/400V/842 / 220000 lm

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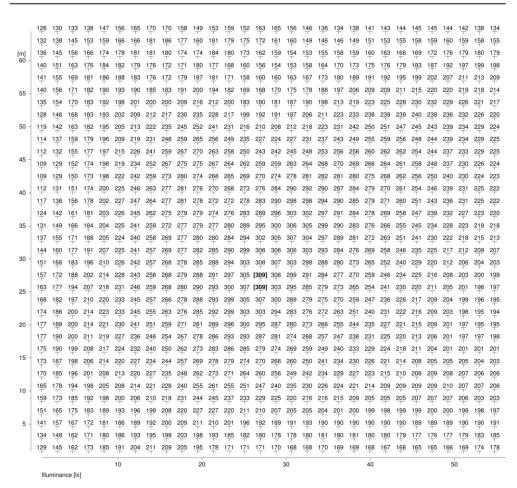
ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2 200 lux field 1 no baseball

2.3 Calculation results, 200 lux field 1 no baseball

2.3.1 Table, Measuring area (virtual) 3 (E)



Part1

Height of the reference plane : 0.00 m Average illuminance Eav 206 lx Minimum illuminance Emin : 86 lx Maximum illuminance Emax : 309 lx Uniformity g1 Emin/Eav : 1:2.41 (0.41) Uniformity g2 Emin/Emax : 1:3.61 (0.28)

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ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2 200 lux field 1 no baseball

2.3 Calculation results, 200 lux field 1 no baseball

2.3.1 Table, Measuring area (virtual) 3 (E)

131 128 124 122 121 118 116 116 122 126 130 135 144 136 138 155 151 147 144 140 131 126 122 127 143 157 152 146 148 133 123 118 111 106 102 95 175 170 164 160 153 141 135 130 130 134 143 151 157 152 150 141 130 123 119 117 115 116 112 108 177 168 158 149 144 144 146 145 149 152 153 156 161 155 149 142 135 132 130 129 203 193 182 173 166 160 162 167 169 169 164 161 164 168 172 171 166 158 149 145 145 142 $198 \quad 189 \quad 182 \quad 179 \quad 180 \quad 185 \quad 186 \quad 189 \quad 185 \quad 181 \quad 178 \quad 180 \quad 180 \quad 181 \quad 180 \quad 176 \quad 168 \quad 160 \quad 157 \quad 157 \quad 154 \quad 152 \quad 149 \quad 145 \quad 180 \quad 181 \quad 180 \quad 180$ $\underline{205} \ \ \underline{201} \ \ \underline{198} \ \ \underline{197} \ \ \underline{201} \ \ \underline{202} \ \ \underline{203} \ \ \underline{200} \ \ \underline{198} \ \ \underline{200} \ \ \underline{199} \ \ \underline{199} \ \ \underline{195} \ \ \underline{192} \ \ \underline{191} \ \ \underline{188} \ \ \underline{180} \ \ \underline{175} \ \ \underline{168}$ 216 213 213 213 215 218 221 220 215 215 214 216 214 211 211 212 208 196 189 181 178 178 221 220 222 224 229 232 236 235 232 231 231 230 226 224 227 229 224 213 204 196 186 183 182 180 173 $223 \quad 224 \quad 226 \quad 231 \quad 237 \quad 245 \quad 249 \quad 250 \quad 248 \quad 247 \quad 248 \quad 247 \quad 240 \quad 238 \quad 241 \quad 245 \quad 239 \quad 230 \quad 215 \quad 205$ 224 225 230 236 246 253 259 261 258 259 262 257 251 247 251 255 249 239 223 211 199 188 182 177 173 224 228 233 241 251 257 262 264 265 267 270 265 259 255 258 262 256 244 231 216 203 190 181 174 167 $2\underline{24} \quad 2\underline{29} \quad 2\underline{35} \quad 2\underline{45} \quad 2\underline{52} \quad 2\underline{58} \quad 2\underline{62} \quad 2\underline{63} \quad 2\underline{66} \quad 2\underline{71} \quad 2\underline{73} \quad 2\underline{69} \quad 2\underline{64} \quad 2\underline{60} \quad 2\underline{61} \quad 2\underline{64} \quad 2\underline{60} \quad 2\underline{47} \quad 2\underline{33} \quad 2\underline{18} \quad 2\underline{06}$ 225 228 233 242 248 253 258 261 264 271 272 268 263 260 262 263 260 247 233 218 206 193 223 226 231 237 242 247 252 257 262 268 269 266 262 259 260 259 255 242 229 214 201 188 174 162 151 220 222 227 232 237 242 248 254 258 263 263 261 257 254 254 252 247 235 219 205 190 178 217 217 221 226 231 236 244 248 253 257 256 254 251 248 246 242 236 224 207 193 178 165 212 213 215 220 225 231 239 244 248 249 247 245 243 240 236 231 224 211 195 181 167 154 143 132 120 206 208 210 214 218 224 232 238 241 242 240 238 236 231 226 220 212 200 183 171 157 145 134 124 113 202 203 205 209 213 218 226 231 235 235 233 231 228 222 217 210 202 190 174 162 150 138 199 200 204 209 215 221 227 230 229 227 224 221 215 211 204 195 183 168 156 145 134 196 196 198 201 207 213 218 224 227 226 222 218 214 210 205 199 189 178 164 153 142 131 121 112 102 196 198 201 206 212 216 221 224 222 218 213 209 205 201 195 186 174 160 150 140 130 120 111 101 $1\underline{97} \quad 200 \quad 201 \quad 204 \quad 208 \quad 212 \quad 214 \quad 218 \quad 221 \quad 220 \quad 214 \quad 207 \quad 204 \quad 200 \quad 1\underline{98} \quad 1\underline{93} \quad 1\underline{82} \quad 1\underline{70} \quad 157 \quad 148 \quad 140 \quad 130 \quad 1\underline{21} \quad 1\underline{10}$ 200 202 205 206 209 213 214 217 220 220 214 207 203 200 198 192 182 169 158 149 141 132 121 110 204 206 208 210 211 214 216 217 220 221 217 209 204 200 198 193 183 169 159 151 143 133 121 111 103 205 206 209 211 212 214 216 217 219 221 218 210 205 201 198 193 182 170 159 151 143 132 121 111 103 205 205 208 210 212 213 214 216 217 219 217 210 205 200 197 193 181 169 159 151 142 132 120 111 203 203 204 209 212 212 212 214 214 215 215 208 203 198 194 190 179 167 157 150 142 130 198 200 201 206 210 211 210 210 210 211 211 205 200 195 191 187 176 165 156 149 140 128 117 108 $195 \quad 198 \quad 201 \quad 207 \quad 209 \quad 207 \quad 206 \quad 206 \quad 206 \quad 206 \quad 201 \quad 196 \quad 191 \quad 187 \quad 182 \quad 172 \quad 162 \quad 153 \quad 147 \quad 136 \quad 125 \quad 115 \quad 105$ $\frac{179}{180} \ \ \frac{184}{187} \ \ \frac{187}{191} \ \ \frac{191}{194} \ \ \frac{195}{197} \ \ \frac{195}{194} \ \ \frac{194}{191} \ \ \frac{196}{186} \ \ \frac{182}{177} \ \ \frac{171}{171} \ \ \frac{163}{163} \ \ \frac{155}{147} \ \ \frac{138}{138} \ \ \frac{126}{126} \ \ \frac{117}{117} \ \ \frac{107}{107} \ \ \frac{97}{97} \ \ \frac{88}{120} \ \ \frac{117}{117} \ \$ 70

Part2

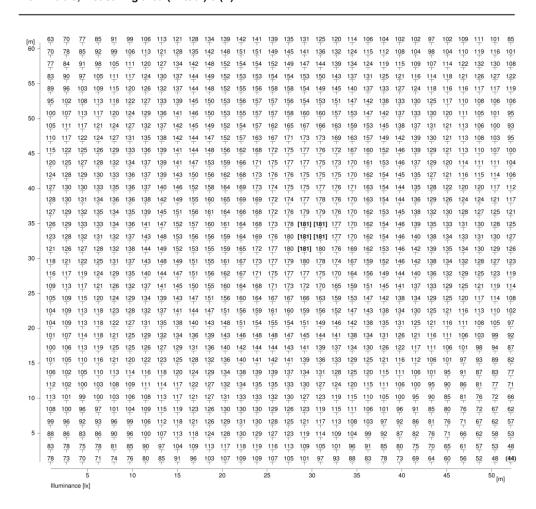


ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.2 Table, Measuring area (virtual) 5 (E)



Height of the reference plane

Average illuminance

Minimum illuminance

Maximum illuminance

Eav

Emin

44 lx

Maximum illuminance

Emax

181 lx

Uniformity g1

Emin/Eav

1: 2.89

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ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.3 Table, Measuring area (virtual) 6 (E)

| | | | | | 10 | | | | | 20 | | | | | 30 | | | | | 40 |) | | | | 5 | 50 |
|-------|----------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| (0.25 |) (0.25) | (0.25) | 0.26 | 0.26 | 0.27 | 0.28 | 0.29 | 0.29 | 0.29 | 0.3 | 0.32 | 0.33 | 0.32 | 0.32 | 0.32 | 0.33 | 0.34 | 0.35 | 0.39 | 0.4 | 0.41 | 0.43 | 0.47 | 0.48 | 0.5 | 0.5 |
| 0.33 | 0.33 | 0.34 | 0.35 | 0.36 | 0.36 | 0.37 | 0.38 | 0.39 | 0.41 | 0.43 | 0.44 | 0.45 | 0.46 | 0.47 | 0.48 | 0.48 | 0.51 | 0.52 | 0.53 | 0.55 | 0.55 | 0.58 | 0.63 | 0.65 | 0.69 | 0.7 |
| 0.42 | 0.43 | 0.44 | 0.45 | 0.47 | 0.47 | 0.49 | 0.5 | 0.51 | 0.53 | 0.54 | 0.56 | 0.58 | 0.59 | 0.61 | 0.63 | 0.65 | 0.67 | 0.69 | 0.71 | 0.74 | 0.76 | 0.79 | 0.82 | 0.85 | 0.88 | 0.9 |
| 0.52 | 0.53 | 0.55 | 0.56 | 0.57 | 0.59 | 0.61 | 0.62 | 0.63 | 0.65 | 0.67 | 0.68 | 0.71 | 0.73 | 0.75 | 0.77 | 8.0 | 0.82 | 0.85 | 88.0 | 0.91 | 0.94 | 0.98 | 1 | 1.04 | 1.08 | 1.1 |
| 0.62 | 0.64 | 0.65 | 0.67 | 0.69 | 0.7 | 0.72 | 0.74 | 0.75 | 0.77 | 0.79 | 0.82 | 0.84 | 0.86 | 0.89 | 0.91 | 0.94 | 0.97 | 1.01 | 1.04 | 1.07 | 1.11 | 1.15 | 1.19 | 1.24 | 1.28 | 1.3 |

Part1

 Average illuminance
 Eav
 : 1.16 lx

 Minimum illuminance
 Emin
 : 0.25 lx

 Maximum illuminance
 Emax
 : 5.76 lx

 Uniformity g1
 Emin/Eav
 : 1 : 4.72 (0.21)

 Uniformity g2
 Emin/Emax
 : 1 : 23.50 (0.04)

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ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.3 Table, Measuring area (virtual) 6 (E)

 1.39
 1.45
 1.51
 1.58
 1.66
 1.74
 1.83
 1.93
 2.93
 2.14
 2.25
 2.38
 2.51
 2.65
 2.8
 2.96
 3.12
 3.3

 1.19
 1.24
 1.3
 1.26
 1.43
 1.5
 1.59
 1.68
 1.78
 1.85
 1.98
 2.13
 2.27
 2.33
 2.48
 2.68
 2.92
 2.98

 0.96
 1.07
 1.13
 1.18
 1.26
 1.34
 1.42
 1.43
 1.6
 1.76
 1.93
 2.03
 2.22
 2.45
 2.69
 2.84
 3.13

 0.75
 0.79
 0.85
 0.9
 0.98
 1.07
 1.17
 1.18
 1.32
 1.5
 1.75
 2.03
 2.33
 2.53
 2.87
 3.08
 3.58
 4.11

 0.61
 0.67
 0.73
 0.8
 0.92
 1.02
 1.1
 1.27
 1.43
 1.65
 1.81
 2.24
 2.72
 2.24
 3.59
 4.25
 5.06
 5.76

 1.81
 1.82
 1.83
 1.93
 1.65
 1.81
 2.24
 2.72
 3.24
 3.59
 4.25
 5.06
 5.76

 1.83
 1.83
 1.83
 1.83
 1.83
 1.83
 1.83

Part2



ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.4 Table, Measuring area (virtual) 7 (E)

| [m] 18 ¬ | 1.64 | 1.51 | 1.4 | 1.29 | 1.19 | 1,1 | 1.02 | 0.94 | 0 <u>.8</u> 7 | 0.81 | 0.75 | 0.69 | 0.64 | 0.6 | 0.56 | 0.52 | 0.49 | 0.45 | 0.42 | 0.4 | 0 <u>.3</u> 7 | 0.35 | 0.33 | 0 <u>.3</u> 1 | 0.29 |
|-------------|-----------------|------|---------------|------|------|---------------|---------------|---------------|---------------|---------------|------|---------------|---------------|---------------|---------------|---------------|------|------|------|---------------|---------------|------|---------------|---------------|---------------|
| 14 - | 1.54 | 1.41 | 1.28 | 1.18 | 1.09 | 1 | 0.92 | 0.85 | 0 <u>.7</u> 8 | 0.72 | 0.66 | 0.61 | 0.57 | 0.53 | 0.49 | 0.45 | 0.42 | 0.39 | 0.37 | 0.34 | 0.32 | 0.3 | 0.28 | 0.26 | 0.25 |
| 10 | 1.44 | 1.29 | 1 <u>.1</u> 6 | 1.03 | 0.93 | 0.86 | 8.0 | 0.73 | 0.66 | 0.6 | 0.55 | 0.5 | 0.48 | 0.44 | 0.4 | 0.38 | 0.35 | 0.33 | 0.3 | 0.28 | 0.26 | 0.25 | 0.23 | 0.21 | 0.2 |
| 6 - | 1.34 | 1.26 | 1.13 | 0.97 | 0.84 | 0.72 | 0.63 | 0.64 | 0.54 | 0.48 | 0.43 | 0.38 | 0.34 | 0 <u>.3</u> 1 | 0 <u>.3</u> 3 | 0 <u>.3</u> 1 | 0.28 | 0.26 | 0.24 | 0.22 | 0.2 | 0.18 | 0.18 | 0.16 | 0.15 |
| 2 | [1 <u>.8</u> 7] | 1.53 | 1.18 | 1.22 | 1.05 | 0 <u>.8</u> 9 | 0 <u>.7</u> 6 | 0 <u>.6</u> 4 | 0.55 | 0 <u>.5</u> 5 | 0.48 | 0 <u>.4</u> 1 | 0 <u>.3</u> 6 | 0 <u>.3</u> 1 | 0.27 | 0 <u>.2</u> 3 | 0.25 | 0.22 | 0.19 | 0 <u>.1</u> 7 | 0.15 | 0.13 | 0 <u>.1</u> 2 | (0.1) | 0 <u>.1</u> 1 |
| | | | | 5 | | | 10 | | | 15 | | | 20 |) | | - | 25 | | | 30 | | | 35 | | _ |

 Average illuminance
 Eav
 : 0.61 lx

 Minimum illuminance
 Emin
 : 0.1 lx

 Maximum illuminance
 Emax
 : 1.87 lx

 Uniformity g1
 Emin/Eav
 : 1 : 5.92 (0.17)

 Uniformity g2
 Emin/Emax
 : 1 : 18.06 (0.06)



ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.5 Table, Measuring area (virtual) 9 (E)

| | | | | 5 | | | 10 | | | 15 | | | 20 | | | 25 | | | 30 | | | 35 | | | 40 | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|--------|------|-------|
| (0.4 | 9) (| 0.53 | 0.58 | 0.62 | 0.66 | 0.69 | 0.74 | 0.77 | 8.0 | 0.84 | 0.86 | 0.89 | 88.0 | 88.0 | 0.89 | 0.87 | 0.86 | 0.85 | 0.86 | 0.87 | 0.9 | 0.94 | 1 | 1.01 | 1.03 | 1.04 | 1.05 |
| 0.5 | 4 (| 0.56 | 0.59 | 0.63 | 0.66 | 0.7 | 0.74 | 0.78 | 0.79 | 0.83 | 0.86 | 0.88 | 0.89 | 0.92 | 0.92 | 0.92 | 0.91 | 0.92 | 0.95 | 0.99 | 1.03 | 1.07 | 1.09 | 1.12 | 1.14 | 1.14 | 1.15 |
| 0.6 | 6 (| 0.63 | 0.66 | 0.69 | 0.7 | 0.73 | 0.77 | 8.0 | 0.83 | 0.86 | 0.89 | 0.91 | 0.93 | 0.95 | 0.95 | 0.96 | 0.97 | 1 | 1.04 | 1.08 | 1.11 | 1.14 | 1.17 | 1.2 | 1.22 | 1.23 | [1.24 |
| 0.7 | 1 (| 0.73 | 0.76 | 0.78 | 8.0 | 0.83 | 0.85 | 0.88 | 0.91 | 0.93 | 0.95 | 0.97 | 0.99 | 1 | 1.01 | 1.02 | 1.04 | 1.06 | 1.09 | 1.12 | 1.15 | 1.17 | 1.19 | 1.21 | 1.22 | 1.22 | 1.22 |
| 0.83 | 3 (| 0.85 | 0.87 | 0.89 | 0.91 | 0.94 | 0.96 | 0.98 | 1 | 1.02 | 1.04 | 1.05 | 1.07 | 1.09 | 1,1 | 1.12 | 1.14 | 1.16 | 1.18 | 1.19 | 1.21 | 1.22 | 1.23 | [1.24] | [1.24] | 1.23 | 1.23 |

Part1

 Average illuminance
 Eav
 : 0.96 lx

 Minimum illuminance
 Emin
 : 0.49 lx

 Maximum illuminance
 Emax
 : 1.24 lx

 Uniformity g1
 Emin/Eav
 : 1 : 1.95 (0.51)

 Uniformity g2
 Emin/Emax
 : 1 : 2.51 (0.40)

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ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.5 Table, Measuring area (virtual) 9 (E)

Part2



ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.6 Table, Measuring area (virtual) 10 (E)

| [m] 18 - | 1.84 | 1.87 | 1.9 | 1.94 | 1 <u>.9</u> 7 | 2.01 | 2.04 | 2.07 | 2.11 | 2.15 | 2.2 | 2.23 | 2.27 | 2.31 | 2.35 | 2.38 | 2.4 | 2.43 | 2.45 | 2.47 | 2.49 | 2.5 | 2.52 | 2.53 | [2.55] |
|-------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|------|---------------|---------------|---------------|------|---------------|---------------|------|---------------|---------------|---------------|------|------|---------------|------|---------------|---------------|----------|
| 14 - | 1.58 | 1.61 | 1.64 | 1.68 | 1.71 | 1.75 | 1.78 | 1.82 | 1.85 | 1.89 | 1.93 | 1.97 | 2.01 | 2.04 | 2.08 | 2.12 | 2.15 | 2.18 | 2.19 | 2.21 | 2.23 | 2.25 | 2.28 | 2.3 | 2.34 |
| 10 - | 1.3 | 1.33 | 1 <u>.3</u> 6 | 1.4 | 1.43 | 1 <u>.4</u> 7 | 1 <u>.5</u> 1 | 1.55 | 1.59 | 1 <u>.6</u> 4 | 1.68 | 1.72 | 1 <u>.7</u> 6 | 1 <u>.8</u> 1 | 1.85 | 1.89 | 1 <u>.9</u> 4 | 1 <u>.9</u> 7 | 2.02 | 2.06 | 2.08 | 2.11 | 2 <u>.1</u> 3 | 2.18 | 2.22 |
| 6 - | 1.03 | 1.06 | 1,1 | 1 <u>.1</u> 3 | 1 <u>.1</u> 7 | 1.21 | 1.25 | 1.3 | 1 <u>.3</u> 6 | 1 <u>.4</u> 1 | 1 <u>.4</u> 6 | 1.51 | 1.55 | 1.6 | 1.63 | 1 <u>.6</u> 7 | 1.72 | 1 <u>.7</u> 9 | 1.83 | 1.88 | 1.92 | 1.94 | 1 <u>.9</u> 7 | 2.01 | 2.07 |
| 2 - | (0.78) | 0 <u>.8</u> 1 | 0 <u>.8</u> 5 | 0.88 | 0 <u>.9</u> 1 | 0 <u>.9</u> 4 | 0.99 | 1.06 | 1.11 | 1 <u>.1</u> 7 | 1.23 | 1.29 | 1.34 | 1 <u>.3</u> 8 | 1.42 | 1.44 | 1.48 | 1.52 | 1.56 | 1.59 | 1 <u>.6</u> 2 | 1.65 | 1 <u>.6</u> 6 | 1 <u>.6</u> 9 | 1.73 |
| | | | 5 | | | 10 | | 1 | 5 | | 20 | | | 25 | | 30 |) | | 35 | | | 40 | | 45 | 5 [m] |

 Average illuminance
 Eav
 : 1.76 lx

 Minimum illuminance
 Emin
 : 0.78 lx

 Maximum illuminance
 Emax
 : 2.55 lx

 Uniformity g1
 Emin/Eav
 : 1 : 2.25 (0.44)

 Uniformity g2
 Emin/Emax
 : 1 : 3.25 (0.31)



ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.7 Table, Measuring area (virtual) 11 (E)

| [m] 18 - | 1.44 | 1.46 | 1.49 | 1 <u>.5</u> 1 | 1.53 | 1.55 | 1.57 | 1.6 | 1.62 | 1.64 | 1.66 | 1.68 | 1.69 | 1 <u>.7</u> 1 | 1 <u>.7</u> 3 | 1.75 | 1 <u>.7</u> 7 | 1 <u>.7</u> 8 | 1.79 | 1 <u>.8</u> 1 | 1.82 | 1.84 | 1.85 | 1 <u>.8</u> 7 | [1.89] |
|-------------|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------|---------------|---------------|---------------|--------|
| 14 - | 1.21 | 1.23 | 1.25 | 1.27 | 1.3 | 1.32 | 1.34 | 1.36 | 1.38 | 1.39 | 1.41 | 1.43 | 1.45 | 1.46 | 1.48 | 1.49 | 1.51 | 1.53 | 1.54 | 1.55 | 1.56 | 1.57 | 1.59 | 1.6 | 1.62 |
| 10 - | 0.98 | 1.01 | 1.03 | 1.04 | 1.06 | 1.08 | 1.1 | 1.12 | 1.13 | 1.14 | 1.16 | 1 <u>.1</u> 7 | 1.19 | 1.21 | 1.22 | 1.23 | 1.25 | 1.26 | 1.28 | 1.29 | 1.29 | 1.3 | 1 <u>.3</u> 1 | 1.32 | 1.34 |
| 6 - | 8.0 | 0 <u>.8</u> 1 | 0 <u>.8</u> 3 | 0 <u>.8</u> 4 | 0 <u>.8</u> 6 | 0 <u>.8</u> 8 | 0.9 | 0 <u>.9</u> 1 | 0 <u>.9</u> 2 | 0 <u>.9</u> 2 | 0 <u>.9</u> 3 | 0 <u>.9</u> 4 | 0 <u>.9</u> 5 | 0 <u>.9</u> 6 | 0 <u>.9</u> 7 | 0 <u>.9</u> 8 | 0 <u>.9</u> 9 | 1 <u>.0</u> 1 | 1.02 | 1.02 | 1.02 | 1.03 | 1 <u>.0</u> 4 | 1 <u>.0</u> 5 | 1.06 |
| 2 - | (0 <u>.6</u> 7) | 0.7 | 0 <u>.7</u> 1 | 0.72 | 0 <u>.7</u> 4 | 0.75 | 0 <u>.7</u> 5 | 0.75 | 0 <u>.7</u> 5 | 0 <u>.7</u> 6 | 0 <u>.7</u> 7 | 0 <u>.7</u> 7 | 0 <u>.7</u> 8 | 0 <u>.7</u> 8 | 0.79 | 0 <u>.7</u> 9 | 0 <u>.7</u> 9 | 0.78 | 0 <u>.7</u> 8 | 0 <u>.7</u> 8 | 0.78 | 0 <u>.7</u> 8 | 0 <u>.7</u> 9 | 0 <u>.7</u> 9 | 8.0 |
| | | | 5 | | | 10 | | | 15 | | 2 | 0 | | 25 | | | 30 | | | 35 | | 4 | 0 [m] | | |
| | Illian | minano | [vl] or | | | | | | | | | | | | | | | | | | | | | | |

 Average illuminance
 Eav
 : 1.2 lx

 Minimum illuminance
 Emin
 : 0.67 lx

 Maximum illuminance
 Emax
 : 1.89 lx

 Uniformity g1
 Emin/Eav
 : 1 : 1.79 (0.56)

 Uniformity g2
 Emin/Emax
 : 1 : 2.80 (0.36)

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ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.8 Table, Measuring area (virtual) 12 (E)

| f1 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|------|-------|---------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| [m] 18 - | 0.9 | 0.91 | 0.92 | 0.93 | 0.94 | 0.95 | 0.96 | 0.97 | 0.98 | 0.99 | 1 | 1.01 | 1.03 | 1.04 | 1.05 | 1.06 | 1.07 | 1.09 | 1.1 | 1.12 | 1.13 | 1.14 | 1.16 | 1.18 | 1.19 | 1.21 | 1.22 |
| 14 - | 0.74 | 0.75 | 0.75 | 0.77 | 0.77 | 0.78 | 0.79 | 0.79 | 8.0 | 0.81 | 0.82 | 0.83 | 0.84 | 0.85 | 0.86 | 0.87 | 0.89 | 0.9 | 0.91 | 0.92 | 0.93 | 0.94 | 0.95 | 0.97 | 0.98 | 1 | 1.01 |
| 10 - | 0.58 | 0.58 | 0.59 | 0.59 | 0.6 | 0.6 | 0.61 | 0.62 | 0.63 | 0.63 | 0.64 | 0.65 | 0.66 | 0.67 | 0.67 | 0.68 | 0.69 | 0.7 | 0.71 | 0.72 | 0.73 | 0.74 | 0.76 | 0.77 | 0.78 | 8.0 | 0.81 |
| 6 - | 0.42 | 0.43 | 0.43 | 0.41 | 0.42 | 0.42 | 0.43 | 0.43 | 0.44 | 0.45 | 0.46 | 0.49 | 0.5 | 0.5 | 0.49 | 0.5 | 0.5 | 0.51 | 0.52 | 0.54 | 0.55 | 0.58 | 0.59 | 0.6 | 0.61 | 0.62 | 0.63 |
| 2 | 0.31 | 0.31 | 0.28 | (0.27) | 0.28 | 0.29 | 0.3 | 0.31 | 0.34 | 0.35 | 0.36 | 0.37 | 0.36 | 0.37 | 0.38 | 0.39 | 0.38 | 0.41 | 0.41 | 0.42 | 0.43 | 0.46 | 0.47 | 0.49 | 0.5 | 0.53 | 0.52 |
| | | | | | | 10 | | | | | | 20 | | | | | 3 | 0 | | | | | 40 | | | | |
| | Illu | minan | ce [lx] | | | | | | | | | | | | | | | | | | | | | | | | |

Part1

 Average illuminance
 Eav
 : 0.8 lx

 Minimum illuminance
 Emin
 : 0.27 lx

 Maximum illuminance
 Emax
 : 1.46 lx

 Uniformity g1
 Emin/Eav
 : 1 : 2.96 (0.34)

 Uniformity g2
 Emin/Emax
 : 1 : 5.41 (0.18)

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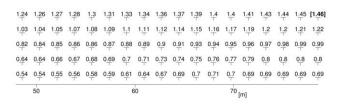


ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.8 Table, Measuring area (virtual) 12 (E)



Part2



ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.9 Table, Measuring area (virtual) 13 (E)

| [m] 18 ¬ | 1.02 | 1.02 | [1 <u>.0</u> 3] | [1.03] | [1 <u>.0</u> 3] | [1 <u>.0</u> 3] | [1.03] | [1.03] | [1 <u>.0</u> 3] | [1.03] | [1.03] | [1.03] | [1.03] | 1.02 | 1.02 | 1.01 | 1.01 | 1.01 | 1.01 | 1.01 | 1 | 1 | 0.99 | 0.99 | 0.98 | 0.98 | 0.97 |
|-------------|------|-------|-----------------|--------|-----------------|-----------------|--------|--------|-----------------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 14 - | 0.87 | 0.88 | 0.88 | 0.89 | 0.89 | 0.88 | 0.87 | 0.86 | 0.86 | 0.87 | 0.87 | 0.87 | 0.86 | 0.85 | 0.85 | 0.84 | 0.84 | 0.83 | 0.84 | 0.83 | 0.83 | 0.82 | 0.82 | 0.81 | 0.8 | 8.0 | 0.79 |
| 10 - | 0.72 | 0.71 | 0.72 | 0.73 | 0.73 | 0.72 | 0.71 | 0.7 | 0.69 | 0.68 | 0.68 | 0.7 | 0.69 | 0.69 | 0.68 | 0.67 | 0.66 | 0.65 | 0.64 | 0.64 | 0.65 | 0.64 | 0.64 | 0.63 | 0.63 | 0.62 | 0.61 |
| 6 - | 0.57 | 0.57 | 0.57 | 0.57 | 0.56 | 0.58 | 0.56 | 0.54 | 0.53 | 0.52 | 0.51 | 0.48 | 0.47 | 0.52 | 0.51 | 0.51 | 0.5 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 | 0.48 | 0.47 | 0.46 | 0.45 | 0.44 |
| 2 | 0.49 | 0.46 | 0.49 | 0.47 | 0.47 | 0.44 | 0.41 | 0.43 | 0.43 | 0.42 | 0.37 | 0.34 | 0.31 | 0.3 | 0.37 | 0.36 | 0.33 | 0.34 | 0.33 | 0.32 | 0.31 | 0.3 | 0.29 | 0.3 | 0.3 | 0.3 | 0.3 |
| | | | | | | 10 | | | | | 20 | | | | | 30 | | | | | 40 | | | | | 5 |) |
| | Illu | minan | ce [lx] | | | | | | | | | | | | | | | | | | | | | | | | |

Part1

 Average illuminance
 Eav
 : 0.66 lx

 Minimum illuminance
 Emin
 : 0.24 lx

 Maximum illuminance
 Emax
 : 1.03 lx

 Uniformity g1
 Emin/Eav
 : 1 : 2.75 (0.36)

 Uniformity g2
 Emin/Emax
 : 1 : 4.34 (0.23)

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ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.9 Table, Measuring area (virtual) 13 (E)

Part2



ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

2.3.10 Table, Measuring area (virtual) 14 (E)

| | | | 5 | | | 10 |) | | 15 | | | 20 | | | 25 | | | 30 | | | 35 | | | 40 | | | 45 |
|---------|------|------|------|------|------|------|------|--------|--------|--------|--------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| 2 | 0.98 | 0.98 | 0.97 | 0.95 | 0.89 | 0.87 | 0.85 | 0.82 | 0.82 | 0.83 | 0.86 | 0.86 | 0.9 | 88.0 | 0.86 | 0.84 | 0.82 | 0.78 | 0.76 | 0.72 | 0.66 | 0.62 | 0.57 | 0.58 | 0.58 | 0.59 | 0.5 |
| 6 - | 1.12 | 1.12 | 1,1 | 1.07 | 1.05 | 1.03 | 1.02 | 1.01 | 1.01 | 1 | 1.03 | 1.03 | 1.03 | 1.02 | 1 | 0.98 | 0.95 | 0.92 | 0.89 | 0.85 | 0.8 | 0.77 | 0.74 | 0.7 | 0.68 | 0.66 | 0.6 |
| 0 - | 1.2 | 1.2 | 1.2 | 1.19 | 1.18 | 1.16 | 1.15 | 1.16 | 1.15 | 1.15 | 1.15 | 1.14 | 1.14 | 1.13 | 1.12 | 1.1 | 1.08 | 1.06 | 1.02 | 0.99 | 0.96 | 0.91 | 0.87 | 0.85 | 0.83 | 0.81 | 0.7 |
| 4 - | 1.18 | 1.19 | 1.2 | 1.21 | 1.21 | 1.21 | 1.21 | 1.22 | 1.22 | 1.21 | 1.21 | 1.21 | 1.2 | 1.19 | 1.18 | 1.16 | 1.15 | 1.14 | 1.13 | 1.11 | 1.09 | 1.06 | 1.04 | 1.02 | 0.99 | 0.97 | 0.9 |
| 1] 8 | 1.21 | 1.22 | 1.23 | 1.25 | 1.26 | 1.26 | 1.26 | [1.27] | [1.27] | [1.27] | [1.27] | [1.27] | 1.26 | 1.26 | 1.25 | 1.24 | 1.24 | 1.23 | 1.23 | 1.22 | 1.21 | 1,2 | 1.18 | 1.17 | 1.15 | 1.13 | 1.1 |

Part1

 Average illuminance
 Eav
 : 0.97 lx

 Minimum illuminance
 Emin
 : 0.49 lx

 Maximum illuminance
 Emax
 : 1.27 lx

 Uniformity g1
 Emin/Eav
 : 1 : 1.99 (0.50)

 Uniformity g2
 Emin/Emax
 : 1 : 2.62 (0.38)

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ATTACHMENT 5

Object : Magdala park Installation : Field lighting Project number : 287 Date : 04.09.2012

2.3 Calculation results, 200 lux field 1 no baseball

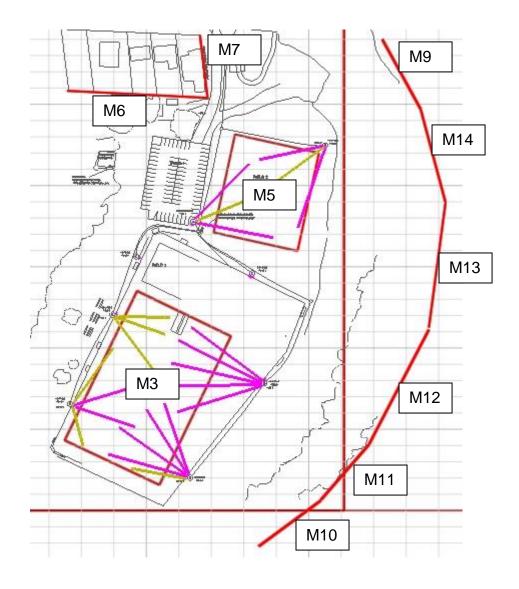
2.3.10 Table, Measuring area (virtual) 14 (E)

Part2



ATTACHMENT 6

Magdala measuring virtual areas:





ATTACHMENT 7





ATTACHMENT 8

Indicates submissions received (submission also received from Ryde Environmental Group).

